PUBLIC PACKET

OREGON BOARD OF DENTISTRY

BOARD MEETING
OCTOBER 23, 2026

Oregon
Tina Kotek, Governor

Board of Dentistry
1500 SW 1st Ave, Ste 770
Portland, OR 97201-5837
(971) 673-3200
www.oregon.gov/dentistry

NOTICE OF REGULAR MEETING

PLACE: **BOARD OFFICE & VIRTUAL VIA ZOOM**
DATE: **October 23, 2026**
TIME: **8:00 a.m. – 2:00 p.m.**

Call to Order – Sheena Kalia, D.D.S. – President **8:00 a.m.**

OPEN SESSION (Zoom option available)
https://us02web.zoom.us/j/87214968606?pwd=UX06yd4gUiuLPVukFQOGF7YsMzvaaX.1
Phone # 1-253 205 0468 Meeting ID: 872 1496 8606 Passcode: 313693

Confirm Quorum & Review Agenda

1. Approval of Minutes
   - August 21, 2026 Board Meeting Minutes

NEW BUSINESS

2. Association Reports
   - Oregon Dental Association
   - Oregon Dental Hygienists' Association
     - October 2026 ODHA Report
   - Oregon Dental Assistants Association

3. Committee and Liaison Reports
   - CRDTS Dental Hygiene Examination Review Committee Minutes
   - September 9, 2026 Licensing, Standards & Competency Committee Minutes
   - September 30, 2026 DAWSAC Minutes
   - OBD Committee Assignments August 2026 - April 2027

4 Executive Director's Report
   - OBD Budget Report
   - Customer Service Survey
   - CLEAR's 46th Annual Education Conference
   - 2026 Dental Hygiene & Dental Therapy License Renewal
   - FY 2026 Annual Performance Progress Report
   - Dental Testing and Regulatory Summit
   - Dental Assisting Survey
   - Dental Assistant Registry
   - Oregon Agency Expectations – Progress Report
   - 2027 Board Meeting Dates

5. Unfinished Business and Rules
   - Missouri Dental Hygienists' Association Sues Dental Board re: Allowing Dental Assistants to Scale

Notes:
(1) The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for persons with disabilities should be made at least 48 hours before the meeting to Haley Robinson at (971) 673-3200.
(2) The Board may from time to time throughout the meeting enter into Executive Session to discuss matters on the agenda for any of the reasons specified in ORS 192.660. Prior to entering into Executive Session, the Board President will announce the nature of and authority for holding the Executive Session. No final action will be taken in Executive Session.

- Staff Recommendations for Sedation Rule Changes
- Health Care Workforce Reporting Program Survey Fee
- Proposed Rule Changes re: Use of Lasers
- Flumazenil Shortage Notification and Resources
- Proposed Rule Changes re: Non-Invasive Repair Materials and Silver Nitrate

6. Correspondence
   - Dr. Miller Letter to the Board re: Medical Records Access
   - AAOMS - Training Matters: Why Competency Should Guide Office-Based Pediatric Anesthesia Policy
   - Dr. Jones Letter to the Board re: HB 4040

7. Other
   - AADB Proposed Bylaws Update
   - Responsible Integration of Artificial Intelligence in Orthodontic Clinical Practice
   - Lorna Breene Wellbeing First Champion 2026
   - DANB Recommendations for a Dental Assisting Professional Model
   - HB 2594 – Dental Lab Registration
   - American Academy of Facial Esthetics – Support for Registered Dental Hygienists to Administer Botox

8. Articles & Newsletters (No Action Necessary)
   - August 2026 CODA Post-Meeting Highlights
   - DANB Major Board Actions from 2026 Annual Meeting
   - DANB Scaling Assistant Survey
   - September AADB Newsletter
   - ADA and ADEX Collaboration to Advance Dental Hygiene Licensure
   - ADEX News & Updates
   - A National Analysis of Factors Associated with the Prevalence and Practice of Expanded Function Dental Assistants in the United States
   - DANB EFDA Research

EXECUTIVE SESSION **10:30 a.m.**

The Board will meet in Executive Session pursuant to ORS 192.660(2)(f)(L) and ORS 676.165, ORS 676.175(1) and ORS 679.320 to review records exempt from public disclosure, to review confidential materials and investigatory information, and to consult with counsel.

9. Review New Cases Placed on Consent Agenda
10. Review New Case Summary Reports
11. Review Completed Investigative Reports
12. Previous Cases Requiring Further Board Consideration
13. Compliance and Monitoring Report
14. Licensing and Examination Issues
15. Consult with Counsel

LUNCH **11:30 a.m.**

OPEN SESSION **12:00 p.m.**

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(Zoom option available)
https://us02web.zoom.us/j/87214968606?pwd=UX06yd4gUiuLPVukFQOGF7YsMzvaaX.1
Phone # 1-253 205 0468 Meeting ID: 872 1496 8606 Passcode: 313693

Enforcement Actions (vote on cases reviewed in Executive Session)
LICENSURE AND EXAMINATION

16. Ratification of Licenses Issued
17. License and Examination Issues
    - Request for reinstatement of an expired license – Teri Lynn Fernlund, R.D.H.
    - Response to Board request for information re: Request for Licensure Requirements Exception – Dr. Zaid Badr
    - Request for Licensure Requirements Exception – Dr. Dania Mustafa

The next regular Board Meeting is scheduled for December 11, 2026.

ADJOURN **2:00 p.m.**

Notes:
(1) A working lunch will be served for Board members at approximately 11:30 a.m.
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APPROVAL OF MINUTES

OREGON BOARD OF DENTISTRY
MINUTES
AUGUST 21, 2026

MEMBERS PRESENT:	Sheena Kalia, D.D.S., President Sharity Ludwig, R.D.H., E.P.P., Vice President (via Zoom) Reza Sharifi, D.M.D. Aarati Kalluri, D.D.S. Olesya Salathe, D.M.D. Jared Thompson, D.M.D. Aaron Tinkle, D.M.D. Kristen Simmons, R.D.H., E.P.P. Ginny Jorgensen Kieshawn Lewis
STAFF PRESENT:	Haley Robinson, Executive Director Angela Smorra, D.M.D., Dental Director/Chief Investigator Winthrop "Bernie" Carter, D.D.S., Dental Investigator Kathleen McNeal, Licensing Manager Gabriel Kubik, Investigator Dawn Dreasher, Office Specialist
ALSO PRESENT:	Joanna Tucker-Davis, Sr. Assistant Attorney General
VISITORS ALSO PRESENT:	Brett Hamilton, Director of Government and Regulatory Affairs (ODA); Mary Harrison, Vice President, Oregon Dental Assistants Association (ODAA)
VIA ZOOM*:	Amberlena Fairlee, D.M.D., President, Oregon Dental Association (ODA); Lisa Rowley, Advocacy & Membership Director, Oregon Dental Hygienists' Association (ODHA); Dan Ta; Alicia Riedman; Melody McGee; Kelly Mandella; Jerin Murray; Amanda Cameron; Ellen Murphy; Zaid Badr

*This list is not exhaustive, as it was not possible to verify all participants on the Zoom.

Call to Order: The meeting was called to order by the President at 8:19 a.m. President Kalia then read the Mission Statement as follows:

> The mission of the Oregon Board of Dentistry is to promote quality oral health care and protect all communities in the State of Oregon by equitably and ethically regulating dental professionals.

President Kalia welcomed everyone to the meeting and had the Board Members, Joanna Tucker-Davis, Haley Robinson, and OBD staff introduce themselves. President Kalia

announced that the Board had a quorum.

NEW BUSINESS

Approval of June 12, 2026 Minutes

Dr. Kalia moved and Dr. Sharifi seconded that the Board approve the minutes from the June 12, 2026, Board Meeting as presented. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

ASSOCIATION REPORTS

Oregon Dental Association (ODA)

Dr. Amberlena Fairlee introduced herself as President of the ODA and gave a brief update on behalf of the ODA. She said she hoped that everyone was having a restful summer and enjoying the last weeks. Dr. Fairlee acknowledged Dr. Tinkle and Dr. Thompson attending their first Board meeting. She stated she was confident that they would be great assets to the Board and the dental profession.

Dr. Fairlee characterized the ODA as a statewide professional association representing Oregon dentists and stated that the ODA remains committed to partnering with the Board, dental education programs, and other stakeholders to address workforce shortages and improve access to oral health care throughout Oregon.

Dr. Fairlee said the ODA reviewed the 2026-2029 Strategic Planning Process with great interest. Dr. Fairlee stated that the ODA appreciates that both Priority A, The Future of Dental Regulation, and Priority B, Emerging Dental Practice Challenges, emphasized workforce development and access-to-care challenges. Dr. Fairlee stated that the ODA looks forward to partnering with the Board as these priorities are advanced and action items are implemented.

Dr. Fairlee highlighted that the ODA Regional Event is October 2-3 at the Sunriver Resort. Dr. Fairlee explained that the new format combines continuing education opportunities with their first hybrid annual business meeting, making association governance more accessible to members throughout Oregon.

Oregon Dental Hygienists' Association (ODHA)

Ms. Rowley stated that the ODHA had nothing to report.

Oregon Dental Assistants Association (ODAA)

Ms. Harrison addressed the Board, saying that it is fun to receive notice that the meeting packet has arrived, acknowledging that the packet was full of dental assistant topics, including the real possibility of registration opportunities and survey responses. Ms. Harrison stated that the ODAA's position is that dental assistants should be responsible for registering themselves with the OBD, not employers. Ms. Harrison added that it is appropriate for dental assistants to be recognized as a real part of the dental team and thanked the Board for their efforts.

Ms. Harrison welcomed the new Board members.

Ms. Harrison announced that the ODAA received a contract from the ODA regarding the Oregon Dental Conference (ODC) and stated that she was hopeful that the ODAA's suggestions would be considered and accepted with respect to speakers. Ms. Harrison stated that the ODAA is looking forward to working with the ODA as stated at the ODC course earlier this year. Ms. Harrison invited everyone to check out the ODAA website and announced that the ODAA is planning a meeting in September.

Ms. Harrison said she looked forward to the clarification and discussion about possible changes or updates to the rules for dental assistants. Ms. Harrison expressed hope that the rules would become easier to understand and follow.

Ms. Harrison mentioned that the OBD 2026-2029 Strategic Plan had several areas that mentioned dental assistants and that the ODAA appreciated dental assistants being recognized in the Plan.

Ms. Harrison reminded everyone that fall is coming and it is back-to-school time. Ms. Harrison, a Pendleton native, reminded everyone about the Pendleton Roundup and the *Let 'Er Buck Room*.

EXECUTIVE DIRECTOR'S REPORT

OBD Budget Status Report

Ms. Robinson presented the budget report for the 2025 - 2027 Biennium. Ms. Robinson stated that this report, which is from July 1, 2025, through June 30, 2026, shows revenue of $2,188,780.24 and expenditures of $1,918,875.62. Ms. Robinson stated that the final reconciliation and numbers for the 2025 – 2027 Biennium will be available in October.

Customer Service Survey – FY 2026

Ms. Robinson presented the legislatively mandated survey results for FY 2026, which is July 1, 2025 – June 30, 2026, and reported that the results of the survey show that the OBD received positive ratings from the majority of those who submitted a survey.

Agency Head Financial Transactions FY 2026 Report (July 1, 2025 – June 30, 2026)

Ms. Robinson explained that Board Policy requires annually that the entire Board review agency head financial transactions for the last Fiscal Year and that acceptance of the report be recorded in the minutes. Ms. Robinson requested that the Board review it and, if there are no objections, approve the report, which follows the close of the recent fiscal year. Ms. Robinson offered to answer any questions regarding the report.

Dr. Kalia moved and Ms. Simmons seconded that the Board approve Agency Head Financial Transactions FY 2026 Report as presented. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Board Best Practices Self-Assessment & Score Card

Ms. Robinson explained that as a part of the legislatively approved Performance Measures, the Board needed to affirm or not, that the Best Practices have been completed for the fiscal year. Ms. Robinson explained that the Self-Assessment Score Card is utilized to memorialize this, so that it can be included as a part of the FY 2026 annual progress report. Ms. Robinson stated that she will provide the FY 2026 annual progress report at the October 23, 2026, Board Meeting.

Dr. Kalia moved and Dr. Kalluri seconded that the Board affirm that Best Practices have been completed for the Fiscal Year as presented. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Dental Testing & Regulatory Summit – Educators Conference

Ms. Robinson announced that this fall a summit will host the annual meetings of ADEX, the American Association of Dental Administrators (AADA) and the American Association of Dental Boards (AADB) for a collaborative event at the Gaylord National Resort & Convention Center in National Harbor, Maryland from Oct 14 – 18, 2026. Ms. Robinson announced that Dr. Salathe, Ms. Simmons, and she will be attending the event. Ms. Robinson stated that a report on the summit will be presented at the October 23rd Board meeting.

Newsletter

Ms. Robinson turned the Board's attention to the OBD Newsletter and said she will be posting it on the OBD website and will also distribute it to licensees by email. Ms. Robinson thanked President Kalia for her beautiful article and highlighted some of the other articles in the Newsletter. Ms. Robinson offered information and clarification about the Oregon Wellness Plan and asked licensees to promote that resource.

Dental Assisting Survey

Ms. Robinson reported that the dental assisting survey presented at the June 2026 Board meeting had been distributed to all licensees via email on June 26, 2026. Ms. Robinson said licensees were encouraged to share the survey with their dental assistants and invite them to participate. Ms. Robinson reported that preliminary Survey results showed 374 responses, 67 of which were dental assistants. The Board discussed the survey and asked Ms. Robinson to continue to publish the Survey and encourage associations to promote it. Ms. Robinson said she would email the survey to licensees again and post it on the OBD website.

Draft Dental Assistant Registry

Ms. Robinson reported that the OBD's current licensing system provider had developed a dental assistant registry for the Board's review. Ms. Robinson provided examples illustrating the proposed appearance and functionality of the registry. The Board discussed how to launch the registry and decided to send it to licensees via email and post it on the OBD website.

Dental Hygiene & Dental Therapy License Renewal

Ms. Robinson reported that the license renewal period started in mid-July and ends on September 30, 2026, and that it was progressing well. Ms. Robinson offered a heartfelt reminder that audits of Continuing Education are planned to be conducted after the renewal period closes, as was done for the dentists who renewed their licenses earlier in the year. Ms. Robinson stated that audits will commence in October on a select number of those who renewed their licenses. Ms. Robinson added that the Board has audited licensees for compliance with Continuing Education requirements since 1999.

UNFINISHED BUSINESS AND RULES

AAO Clarification Request

President Kalia turned the Board's attention to the email request from Dan Ta, Legal Counsel for the American Association of Orthodontists.

Dental Assisting Rule Cleanup

The Board discussed changes to dental assisting rules.

Ms. Jorgensen moved and Dr. Kalluri seconded that the Board refer Proposed Amendments to OAR 818-042-0050, 818-042-0080, 818-042-0110, and 818-042-0113 as amended to the Licensing, Standards and Competency Committee. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

818-042-0050
Taking of X-Rays — Exposing of Radiographic Images

(1) Taking of X-Rays and exposing radiographic images for a dental assistant consistsof the following activities:

(i) placing films/sensors,

(ii) adjusting equipment preparatory to exposing films/sensors, and

(iii) exposing the films and creating the images;

~~*(2) A licensee may authorize a dental assistant who has completed a course of instruction approved by the Oregon Board of Dentistry, and who has passed the written Dental Radiation Health and Safety Examination administered by the Dental Assisting National Board, or comparable exam administered by any other testing entity authorized by the Board, or other comparable requirements approved by the Oregon Board of Dentistry to place films/sensors, adjust equipment preparatory to exposing films/sensors, and expose the films and create the images under the indirect supervision of a dentist, dental therapist, dental hygienist, or dental assistant who holds an Oregon Radiologic Proficiency Certificate. The dental assistant must submit within six months, certification by an Oregon licensed dentist, dental therapist or dental hygienist that the assistant is proficient to take radiographic images.*~~

~~(1)~~ (2) A Licensee may authorize the following persons to ~~place films/sensors, adjust equipment preparatory to exposing films/sensors, and expose the films and create the images~~ perform the activities in subsection (1) under general supervision:

(a) A dental assistant certified by the Board in radiologic proficiency; or

(b) A radiologic technologist licensed by the Oregon Board of Medical Imaging and certified by the Oregon Board of Dentistry (OBD) who has completed ten (10) clock hours in a Board approved dental radiology course.

(3) To obtain a certificate in radiologic proficiency, a dental assistant must:

(a) Successfully complete a course of instruction approved by the Oregon Board of Dentistry, and pass the written Dental Radiation Health and Safety Examination administered by the Dental Assisting National Board, or comparable exam administered by any other testing entity authorized by the Board, or

(b) Obtain other comparable requirements approved by the Oregon Board of Dentistry; and

(c) After completion of the requirements in (2)(a) or (b), submit certification by an Oregon licensed dentist, dental therapist or dental hygienist that the assistant is proficient to take radiographic images.

(4) A dental assistant may perform the activities in subsection (1) under indirect supervision for the six months following completion of the requirements in (2)(a) or (b).

(5) A dental assistant may perform the activities in subsection (1) under direct supervision after completion of the requirements in subsection (2)(a) or (b) if a certificate in radiologic proficiency was not obtained within six months after completion of the requirements in subsection (2)(a) or (b).

(3) A dental therapist may not order a computerized tomography scan.

818-042-0080
Certification — Expanded Function Dental Assistant (EFDA)

The Board may certify a dental assistant as an expanded function assistant if the assistant submits a completed application, pays the fee and provides evidence of:

(1) ~~By credential in accordance with~~ Satisfaction of the credential requirements in OAR 818-042-0120, or

~~(2) If the assistant submits a completed application, pays the fee and provides evidence of;~~

(2) Certification of Radiologic Proficiency (OAR 818-042-0060) and satisfactory completion of a course of instruction in a program accredited by the Commission on Dental Accreditation; or

(3) Certification of Radiologic Proficiency (OAR 818-042-0060) and
~~(b) Certification of Radiologic Proficiency (OAR 818-042-0060); and passage of the Oregon Expanded Functions with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or prior passage of the Certified Dental Assistant examination or Infection Control Examination and passage of the Oregon Expanded Functions General Dental Assisting exam, or equivalent successor examinations, administered by DANB or any other testing entity authorized by the Board; and certification by an Oregon licensed dentist that the applicant has successfully removed supra-gingival excess cement from four (4) crowns and/or fixed partial dentures (bridges) with hand instruments; placed temporary restorative material in three (3) teeth; preliminarily fitted four (4) crowns to check contacts or to adjust occlusion outside the mouth; removed four (4) temporary crowns for final cementation and cleaned teeth for final cementation; fabricated four (4) temporary crowns and/or fixed partial dentures (bridges) and temporarily cemented the crowns and/or fixed partial dentures (bridges); polished the coronal surfaces of teeth with a brush or rubber cup as part of oral prophylaxis in six (6) patients; placed matrix bands on four (4) teeth prepared for Class II restorations. The dental assistant must submit within six months' certification by a licensed dentist that the dental assistant is proficient to perform all the expanded function duties in subsection (b). If no expanded function certificate is issued within the six months, the dental assistant is no longer able to continue to perform expanded function duties until EFDA certification is achieved.~~

(a) Successful passage of the following examination requirement:

(i) Oregon Expanded Functions with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or

(ii) Certified Dental Assistant examination or Infection Control Examination and passage of the Oregon Expanded Functions General Dental Assisting exam, or equivalent successor examinations, administered by DANB or any other testing entity authorized by the Board; and

(b) Certification by an Oregon licensed dentist that the applicant has successfully:

(i) removed supra-gingival excess cement from four (4) crowns and/or fixed partial dentures (bridges) with hand instruments;

(ii) placed temporary restorative material in three (3) teeth;

(iii) preliminarily fitted four (4) crowns to check contacts or to adjust occlusion outside the mouth;

(iv) removed four (4) temporary crowns for final cementation and cleaned teeth for final cementation;

(v) fabricated four (4) temporary crowns and/or fixed partial dentures (bridges) and temporarily cemented the crowns and/or fixed partial dentures (bridges);

(vi) polished the coronal surfaces of teeth with a brush or rubber cup as part of oral prophylaxis in six (6) patients; and

(vii) placed matrix bands on four (4) teeth prepared for Class II restorations.

(c) A dental assistant may perform the activities in (3)(b) under indirect supervision for six months after passage of a required examination in subsection (3)(a). If the expanded function certificate is not obtained within the six months, the dental assistant is no longer able to continue to perform expanded function duties under indirect supervision.

(d) A dental assistant may perform the activities in subsection (3)(b) under direct supervision after passage of a required examination in subsection (3)(a) if the expanded function certificate was not obtained within six months after completion of the requirements in subsection (3)(a).

818-042-0110
Certification — Expanded Function Orthodontic Dental Assistant (EFODA)

The Board may certify a dental assistant as an expanded function orthodontic assistant if the assistant submits a completed application, pays the fee and provides evidence of:

(1) ~~*By credential in accordance with*~~ Satisfaction of the credential requirements in OAR 818-042-0120, or

~~*(2) If the assistant submits a completed application, pays the fee and provides evidence of;*~~
(~~*a*~~2) Completion of a course of instruction in a program in dental assisting accredited by the American Dental Association Commission on Dental Accreditation; or

(~~*b*~~3) Completion of the following requirements:

(a) Successful passage of the following examination requirement:

(i) Oregon Orthodontic Expanded Functions with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or

(ii) Certified Dental Assistant, Certified Orthodontic Assistant or Infection Control Examination administered by DANB and passage of the Oregon Expanded Functions Orthodontic Assisting exam, or equivalent successor examinations, administered by DANB, or any other testing entity authorized by the Board; and

(b) Certification by an Oregon licensed dentist that the applicant has successfully:

(i) placed and ligated orthodontic wires on ten (10) patients and

(ii) removed bands/brackets and remaining adhesive using an ultrasonic, hand scaler or a slow speed hand piece from teeth on four (4) patients.

~~*The dental assistant must submit within six months' certification by a licensed dentist that the dental assistant is proficient to perform all the expanded function duties in subsection (b). If no expanded function orthodontic certificate is issued within the six months, the dental assistant is no longer able to continue to perform expanded orthodontic function duties until EFODA certification is achieved.*~~

(c) A dental assistant may perform the activities in (3)(b) under indirect supervision for six months after passage of a required examination in subsection (3)(a). If the expanded function orthodontic certificate is not obtained within the six months, the dental assistant is no longer able to continue to perform expanded function duties under indirect supervision.

(d) A dental assistant may perform the activities in subsection (3)(b) under direct supervision after passage of a required examination in subsection (3)(a) if the expanded function orthodontic certificate was not obtained within six months after completion of the requirements in subsection (3)(a).

818-042-0113
Certification — Expanded Function Preventive Dental Assistants (EFPDA)

The Board may certify a dental assistant as an expanded function preventive dental assistant if the assistant submits a completed application, pays the fee and provides evidence of:

(1) ~~*By credential in accordance with*~~ Satisfaction of the credential requirements in OAR 818-042-0120, or

~~*(2) If the assistant submits a completed application, pays the fee and provides evidence of;*~~
(~~a~~2) Certification of Radiologic Proficiency (OAR 818-042-0060) and satisfactory completion of a course of instruction in a program accredited by the Commission on Dental Accreditation of the American Dental Association; or

(3) Completion of the following requirements:

(a) Certification of Radiologic Proficiency (OAR 818-042-0060); and

(b) Passage of one of following examination:

(i) Oregon Expanded Functions with Infection Control examination; or

(ii) Coronal Polishing with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or

(iii) Infection Control Examination and passage of the Oregon Expanded Functions General Dental Assisting exam or Coronal Polishing exam, or equivalent successor examinations, administered by DANB, or any other testing entity authorized by the Board; and

(c) Certification by an Oregon licensed dentist that the applicant has successfully polished the coronal surfaces of teeth with a brush or rubber cup as part of oral prophylaxis to remove stains on six (6) patients.

(d) A dental assistant may perform the activities in (3)(c) under indirect supervision for six months after passage of a required examination in subsection (3)(b). If the expanded function preventive certificate is not obtained within the six months, the dental assistant is no longer able to continue to perform expanded function duties under indirect supervision.

(d) A dental assistant may perform the activities in subsection (3)(c) under direct supervision after passage of a required examination in subsection (3)(b) if the expanded function preventive certificate was not obtained within six months after completion of the requirements in subsection (3)(b).

~~*(d) The dental assistant must submit within six months' certification by a licensed dentist that the dental assistant is proficient to perform all the expanded function preventive duties in subsection (b). If no expanded function preventive certificate is issued within the six months, the dental assistant is no longer able to continue to perform expanded function preventive duties until EFPDA certification is achieved.*~~

OBD 2026-2029 Strategic Plan Final Review and Ratification

Ms. Coyne led the Board and staff in a strategic planning exercise. Ms. Coyne said she would interpret the results from the planning exercise and provide a list of items for the Board. Ms. Coyne described the Plan as a working agreement and encouraged Board members and staff to continue to check in with the Plan to see how actions are lining up with the Board's goals.

818-013-0005 – Participation in HPSP

The Board discussed why it is no longer participating in HPSP.

Dr. Kalia moved and Dr. Kalluri seconded that the Board refer Proposed Amendment to OAR 818-013-0005 as presented to the Licensing Standards Committee. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Discussion: Should the rule be modified to say the Board may participate in the Health Professionals' Services Program (HPSP) since the Board is not actively participating?

818-013-0005
Participation in Health Professionals' Services Program

(1) Effective July 1, 2010, the Board participates in the Health Professionals' Services Program (HPSP).

(a) The Board establishes procedures to process cases of licensees preparatory to transfer to HPSP.

(b) The procedures will be confidential, non-disciplinary, and voluntary.

(c) The Executive Director will have overall management responsibilities for the procedures. The Executive Director will designate Board staff to serve as Diversion Coordinator(s) who will manage and conduct investigations and report to the Board.

(d) The Diversion Coordinator(s) will investigate information related to addiction to, dependence upon, or abuse of alcohol, drugs, or mind altering substances or mental health disorders, by licensees and provide licensees with resources for evaluations, if appropriate.

(2) Only licensees of the Board who meet the referral criteria may be referred by the Board to the HPSP.

(a) The Board may refer a licensee to the HPSP in lieu of public discipline.

(b) In the event a licensee declines to submit to an evaluation or declines referral to HPSP, the Diversion Coordinator(s) will present the matter to the Board for decision and the Board's action may jeopardize the confidential nature of licensee's status as a candidate for, or enrollment in, HPSP.

818-026-0030 Minimal Sedation Rules Review

The Board discussed the ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students. Dr. Smorra offered to present draft amendment language at the October Board meeting.

Dr. Sharifi moved and Dr. Thompson seconded that the Board refer Proposed

Amendment to OAR 818-026-0030 as amended to the Licensing, Standards and Competency Committee. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

DRAFT

Chapter 818
Division 26
ANESTHESIA

818-026-0030
Requirements for Anesthesia Permits

(1) A permit holder who administers sedation shall assure that drugs, drug dosages, and/or techniques used to produce sedation shall carry a margin of safety wide enough to prevent unintended deeper levels of sedation.

(2) No licensee shall induce central nervous system sedation or general anesthesia without first having obtained a permit under these rules for the level of anesthesia being induced.

(3) A licensee may be granted a permit to administer sedation or general anesthesia with documentation of training/education and/or competency in the permit category for which the licensee is applying by any one the following:

(a) Initial training/education in the permit category for which the applicant is applying shall be completed no more than two years immediately prior to application for sedation or general anesthesia permit; or

(b) If greater than two years but less than five years since completion of initial training/education, an applicant must document completion of all continuing education that would have been required for that anesthesia/permit category during that five year period following initial training; or

(c) If greater than two years but less than five years since completion of initial training/education, immediately prior to application for sedation or general anesthesia permit, current competency or experience must be documented by completion of a comprehensive review course approved by the Board in the permit category to which the applicant is applying and must consist of at least one-half (50%) of the hours required by rule for Nitrous Oxide, Minimal Sedation, Moderate Sedation and General Anesthesia Permits. Deep Sedation and General Anesthesia Permits will require at least 120 hours of general anesthesia training.

(d) An applicant for sedation or general anesthesia permit whose completion of initial training/education is greater than five years immediately prior to application, may be

granted a sedation or general anesthesia permit by submitting documentation of the requested permit level from another state or jurisdiction where the applicant is also licensed to practice dentistry or dental hygiene, and provides documentation of the completion of at least 25 cases in the requested level of sedation or general anesthesia in the 12 months immediately preceding application; or

(e) Demonstration of current competency to the satisfaction of the Board that the applicant possesses adequate sedation or general anesthesia skill to safely deliver sedation or general anesthesia services to the public.

(4) A licensee holding a nitrous or minimal sedation permit, shall at all times maintain a current BLS for Healthcare Providers certificate or its equivalent.

(5) A licensee holding an anesthesia permit for moderate sedation, deep sedation or general anesthesia at all times maintains a current BLS for Healthcare Providers certificate or its equivalent, and a current Advanced Cardiac Life Support (ACLS) Certificate or Pediatric Advanced Life Support (PALS) Certificate, whichever is appropriate for the patient being sedated. If a licensee permit holder sedates only patients under the age of 12, only PALS is required. If a licensee permit holder sedates only patients age 12 and older, only ACLS is required. If a licensee permit holder sedates patients younger than 12 years of age as well as older than 12 years of age, both ACLS and PALS are required. For licensees with a moderate sedation permit only, successful completion of the American Dental Association's course "Recognition and Management of Complications during Minimal and Moderate Sedation" at least every two years may be substituted for ACLS, but not for PALS.

(6) Advanced Cardiac Life Support (ACLS) and or Pediatric Advanced Life Support (PALS) do not serve as a substitute for Healthcare Provider Basic Life Support (BLS).

(7) When a dentist utilizes a single oral agent to achieve anxiolysis only, no anesthesia permit is required. The dentist shall follow all rules and requirement listed under ORS minimal sedation 818-026-0050 except for obtaining or renewing the minimal sedation permit. The dentist will provide Initial training and continuing education certificates upon written request of the Board.

(8) The applicant for an anesthesia permit must pay the appropriate permit fee, submit a completed Board-approved application and consent to an office evaluation.

(9) Permits shall be issued to coincide with the applicant's licensing period.

Statutory/Other Authority: ORS 679 & 680
Statutes/Other Implemented: ORS 679.250
History:
OBD 2-2019, amend filed 10/29/2019, effective 01/01/2020
OBD 2-2018, amend filed 10/04/2018, effective 01/01/2019

OBD 2-2016, f. 11-2-16, cert. ef. 3-1-17
OBD 2-2012, f. 6-14-12, cert. ef. 7-1-12
OBD 1-2010, f. 6-22-10, cert. ef. 7-1-10
OBD 1-2008, f. 11-10-08, cert. ef. 12-1-08
OBD 3-2005, f. 10-26-05, cert. ef. 11-1-05
OBD 2-2005, f. 1-31-05, cert. ef. 2-1-05
OBD 1-2005, f. 1-28-05, cert. ef. 2-1-05
OBD 3-2003, f. 9-15-03, cert. ef. 10-1-03
OBD 2-1998, f. 7-13-98, cert. ef. 10-1-98
Please use this link to bookmark or link to this rule.

818-026-0050
Minimal Sedation Permit

Minimal sedation and nitrous oxide sedation.

(1) The Board shall issue a Minimal Sedation Permit to an applicant who:

(a) Is a licensed dentist in Oregon;

(b) Maintains a current BLS for Healthcare Providers certificate or its equivalent; and

(c) Completion of a comprehensive training program consisting of at least 16 hours of training and satisfies the requirements of the current ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students at the time training was commenced or postgraduate instruction was completed, or the equivalent of that required in graduate training programs, in sedation, recognition and management of complications and emergency care; or

(d) In lieu of these requirements, the Board may accept equivalent training or experience in minimal sedation anesthesia.

(2) The following facilities, equipment and drugs shall be on site and available for immediate use during the procedures and during recovery:

(a) An operating room large enough to adequately accommodate the patient on an operating table or in an operating chair and to allow an operating team of at least two individuals to freely move about the patient;

(b) An operating table or chair which permits the patient to be positioned so the operating team can maintain the patient's airway, quickly alter the patient's position in an emergency, and provide a firm platform for the administration of basic life support;

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(c) A lighting system which permits evaluation of the patient's skin and mucosal color and a backup lighting system of sufficient intensity to permit completion of any operation underway in the event of a general power failure;

(d) Suction equipment which permits aspiration of the oral and pharyngeal cavities and a backup suction device which will function in the event of a general power failure;

(e) An oxygen delivery system with adequate full facemask and appropriate connectors that is capable of delivering high flow oxygen to the patient under positive pressure, together with an adequate backup system;

(f) A nitrous oxide delivery system with a fail-safe mechanism that will insure appropriate continuous oxygen delivery and a scavenger system;

(g) Sphygmomanometer, stethoscope, pulse oximeter, and/or automatic blood pressure cuff; and

(h) Emergency drugs including, but not limited to: pharmacologic antagonists appropriate to the drugs used, vasopressors, corticosteroids, bronchodilators, antihistamines, antihypertensives and anticonvulsants.

(3) Before inducing minimal sedation, a dentist permit holder who induces minimal sedation shall:

(a) Evaluate the patient and document, using the American Society of Anesthesiologists (ASA) Patient Physical Status Classifications, that the patient is an appropriate candidate for minimal sedation;

(b) Give written preoperative and postoperative instructions to the patient or, when appropriate due to age or psychological status of the patient, the patient's guardian;

(c) Certify that the patient is an appropriate candidate for minimal sedation; and

(d) Obtain written informed consent from the patient or patient's guardian for the anesthesia. The obtaining of the informed consent shall be documented in the patient's record.

(4) No permit holder shall have more than one person under minimal sedation or nitrous oxide sedation at the same time.

(5) While the patient is being treated under minimal sedation, an anesthesia monitor shall be present in the room in addition to the treatment provider. The anesthesia monitor may be the dental assistant. After training, a dental assistant, when directed by a dentist permit

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holder, may administer oral sedative agents or anxiolysis agents calculated and dispensed by a dentist permit holder under the direct supervision of a dentist permit holder.

(6) A patient under minimal sedation shall be visually monitored at all times, including recovery phase. The record must include documentation of all medications administered with dosages, time intervals and route of administration. The dentist permit holder or anesthesia monitor shall monitor and record the patient's condition.

(7) Persons serving as anesthesia monitors for minimal sedation in a dental office shall maintain current certification in BLS for Healthcare Providers Basic Life Support (BLS), or its equivalent, shall be trained and competent in monitoring patient vital signs, in the use of monitoring and emergency equipment appropriate for the level of sedation utilized. ("competent" means displaying special skill or knowledge derived from training and experience.)

(8) The patient shall be monitored as follows:

(a) Color of mucosa, skin or blood must be evaluated continually. Patients must have continuous monitoring using pulse oximetry. The patient's response to verbal stimuli, blood pressure, heart rate, pulse oximetry and respiration shall be monitored and documented every fifteen minutes, if they can reasonably be obtained.

(b) A discharge entry shall be made by the dentist permit holder in the patient's record indicating the patient's condition upon discharge and the name of the responsible party to whom the patient was discharged.

(9) The dentist permit holder shall assess the patient's responsiveness using preoperative values as normal guidelines and discharge the patient only when the following criteria are met:

(a) Vital signs including blood pressure, pulse rate and respiratory rate are stable;

(b) The patient is alert and oriented to person, place and time as appropriate to age and preoperative psychological status;

(c) The patient can talk and respond coherently to verbal questioning;

(d) The patient can sit up unaided;

(e) The patient can ambulate with minimal assistance; and

(f) The patient does not have uncontrollable nausea or vomiting and has minimal dizziness.

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(g) A dentist permit holder shall not release a patient who has undergone minimal sedation except to the care of a responsible third party.

(10) The permit holder shall make a discharge entry in the patient's record indicating the patient's condition upon discharge.

(11) Permit renewal. In order to renew a Minimal Sedation Permit, the permit holder must provide documentation of a current BLS for Healthcare Providers certificate or its equivalent. In addition, Minimal Sedation Permit holders must also complete four (4) hours of continuing education in one or more of the following areas every two years: sedation, physical evaluation, medical emergencies, monitoring and the use of monitoring equipment, or pharmacology of drugs and agents used in sedation. Training taken to maintain current BLS for Healthcare Providers certificate, or its equivalent, may not be counted toward this requirement. Continuing education hours may be counted toward fulfilling the continuing education requirement set forth in OAR 818-021-0060.

Statutory/Other Authority: ORS 679
Statutes/Other Implemented: ORS 679.250(7) & 679.250(10)
History:
OBD 2-2024, amend filed 10/28/2024, effective 01/01/2025
OBD 1-2024, amend filed 03/08/2024, effective 05/01/2024
OBD 1-2021, amend filed 11/08/2021, effective 01/01/2022
OBD 2-2019, amend filed 10/29/2019, effective 01/01/2020
OBD 2-2018, amend filed 10/04/2018, effective 01/01/2019
OBD 2-2016, f. 11-2-16, cert. ef. 3-1-17
OBD 4-2015, f. 9-8-15, cert. ef. 1-1-16
OBD 1-2014, f. 7-2-14, cert. ef. 8-1-14
OBD 1-2010, f. 6-22-10, cert. ef. 7-1-10
OBD 2-2005, f. 1-31-05, cert. ef. 2-1-05
OBD 1-2005, f. 1-28-05, cert. ef. 2-1-05
OBD 3-2003, f. 9-15-03, cert. ef. 10-1-03
OBD 6-1999, f. 6-25-99, cert. ef. 7-1-99

Artificial Intelligence (AI) Policy

Dr. Kalia moved and Dr. Sharifi seconded that the Board approve the Draft Statement on the Use of AI as presented. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

818-012-0070
Patient Records

(1) Each licensee shall have prepared and maintained an accurate and legible record for each person receiving dental services, regardless of whether any fee is charged. The record shall contain the name of the licensee rendering the service and include:

(a) Name and address and, if a minor, name of guardian;

(b) Date description of examination and diagnosis;

(c) An entry that informed consent has been obtained and the date the informed consent was obtained. Documentation may be in the form of an acronym such as "PARQ" (Procedure, Alternatives, Risks and Questions) or its equivalent.

(d) Date and description of treatment or services rendered;

(e) Date, description and documentation of informing the patient of any recognized Treatment complications;

(f) Date and description of all radiographs, study models, and periodontal charting;

(g) Current health history; and

(h) Date, name of, quantity of, and strength of all drugs dispensed, administered, or prescribed.

(2) Each licensee shall have prepared and maintained an accurate record of all charges and payments for services including source of payments.

(3) Each licensee shall maintain patient records and radiographs for at least seven years from the date of last entry unless:

(a) The patient requests the records, radiographs, and models be transferred to another licensee who shall maintain the records and radiographs;

(b) The licensee gives the records, radiographs, or models to the patient; or

(c) The licensee transfers the licensee’s practice to another licensee who shall maintain the records and radiographs.

(4) When a dental implant is placed the following information must be given to the patient in writing and maintained in the patient record:

(a) Manufacture brand;

(b) Design name of implant;

(c) Diameter and length;

(d) Lot number;

(e) Reference number;

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(f) Expiration date;

(g) Product labeling containing the above information may be used in satisfying this requirement.

(5) When changing practice locations, closing a practice location or retiring, each licensee must retain patient records for the required amount of time or transfer the custody of patient records to another licensee licensed and practicing dentistry in Oregon. Transfer of patient records pursuant to this section of this rule must be reported to the Board in writing within 14 days of transfer, but not later than the effective date of the change in practice location, closure of the practice location or retirement. Failure to transfer the custody of patient records as required in this rule is unprofessional conduct.

(6) Upon the death or permanent disability of a licensee, the administrator, executor, personal representative, guardian, conservator or receiver of the former licensee must notify the Board in writing of the management arrangement for the custody and transfer of patient records. This individual must ensure the security of and access to patient records by the patient or other authorized party, and must report arrangements for permanent custody of patient records to the Board in writing within 90 days of the death of the licensee.

818-012-0010
Unacceptable Patient Care

in or permits the performance of unacceptable patient care if the licensee does or permits any person to:

(1) Provide treatment which exposes a patient to risk of harm when equivalent or better treatment with less risk to the patient is available.

(2) Fail to seek consultation whenever the welfare of a patient would be safeguarded or advanced by having recourse to those who have special skills, knowledge and experience; provided, however, that it is not a violation of this section to omit to seek consultation if other competent licensees in the same locality and in similar circumstances would not have sought such consultation.

(3) Fail to provide or arrange for emergency treatment for a patient currently receiving treatment.

(4) Fail to exercise supervision required by the Dental Practice Act over any person or permit any person to perform duties for which the person is not licensed or certified.

(5) Fail to ensure radiographic and other imaging are of diagnostic quality.

(6) Render services which the licensee is not licensed to provide.

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(7) Fail to comply with ORS 453.605 to 453.755 or rules adopted pursuant thereto relating to the use of x-ray machines.

(8) Fail to maintain patient records in accordance with OAR 818-012-0070.

(9) Fail to provide goods or services in a reasonable period of time which are due to a patient pursuant to a contract with the patient or a third party.

(10) Attempt to perform procedures which the licensee is not capable of performing due to physical or mental disability.

(11) Perform any procedure for which the patient or patient's guardian has not previously given informed consent provided, however, that in an emergency situation, if the patient is a minor whose guardian is unavailable or the patient is unable to respond, a licensee may render treatment in a reasonable manner according to community standards.

(12) Use the behavior management technique of Hand Over Mouth (HOM) without first obtaining informed consent for the use of the technique.

(13) Use the behavior management technique of Hand Over Mouth Airway Restriction (HOMAR) on any patient.

(14) Fail to determine and document a dental justification prior to ordering a Cone Beam CT series with field greater than 10x10 cm for patients under 20 years of age where pathology, anatomical variation or potential treatment complications would not be otherwise visible with a Full Mouth Series, Panoramic or Cephalometric radiographs.

(15) Fail to advise a patient of any recognized treatment complications.

(16) Fail to maintain proper storage or handling of medications, including injectables, according to federal regulations, guidelines, standards, and manufacturer recommendations.

(17) Fail to obtain and maintain a written informed consent prior to administering Botulinum Toxin Type A or dermal fillers.

Example Statement Regarding AI from Oregon Medical Board Adopted April 2, 2024:

Artificial/Augmented Intelligence (AI) is a tool, or set of tools, residing on a spectrum. AI may be as simple as a chatbot on a smartphone or as complex as a complex, algorithmic black box capable of suggesting treatment pathways for cancer. AI is developing rapidly in reach, capability, and quality, and medical providers and regulators must prepare for the ubiquity of AI, which is sure to envelop medical care with astonishing speed.

AI has tremendous promise. It will undoubtedly advance the standard of care, and clinicians who carefully embrace AI tools will ultimately detect pathologic subtlety, improve accuracy, and spend more quality time in face-to-face patient care than those who do not. AI can improve patient access and engagement by shifting administrative tasks away from the clinician while simultaneously increasing empathy shown to patients in spite of pervasive health care provider shortages.

Despite these technological advancements, the Oregon Medical Board will continue to hold licensees responsible for the care they provide to patients and expects licensees to use technology – including AI – responsibly and ethically. Regardless of who introduces AI into the practice, OMB licensees are expected to possess basic AI literacy in order to understand the technology and how to use it, explain its capabilities and limitations, assess the quality of AI outputs, and identify and guard against bias in AI algorithms. OMB licensees must guard against complacency and not compromise their own medical decision making by becoming overly reliant on AI.

The Oregon Medical Board recommends that clinicians become “tech-fluent" in relevant AI tools and incorporate them into their practice responsibly to keep pace with the increasing standard of care.

DRAFT Statement on the Use of AI

Artificial/Augmented Intelligence (AI) is rapidly evolving and becoming increasingly integrated into dentistry. AI tools range from administrative applications that assist with documentation and communication to advanced technologies that may support diagnosis, treatment planning, imaging analysis, and other aspects of patient care.

AI has the potential to improve efficiency, enhance clinical decision-making, reduce administrative burdens, and allow dental professionals to devote more time to patient care. As these technologies continue to develop, dental professionals should understand both their potential benefits and their limitations.

Regardless of how AI is introduced or used in a dental practice, the Oregon Board of Dentistry will continue to hold its licensees responsible for the care they provide. Licensees are expected to use AI and other technologies responsibly, ethically, and in a manner consistent with applicable laws and professional standards.

Dental professionals who use AI should have a basic understanding of the technology, including its capabilities and limitations, and should appropriately evaluate AI-generated information before relying on it in patient care. AI should support (not replace) a licensee’s independent clinical judgment and professional responsibility.

The OBD encourages licensees to remain informed about emerging AI technologies relevant to dentistry and to incorporate these tools thoughtfully, with patient safety, privacy, and quality of care remaining paramount.

CORRESPONDENCE

- Curodont Application by Dental Hygienists
- Rule Making Proposal – RDH Scope of Practice to Include Noninvasive Remineralization Products

Ms. Simmons moved and Dr. Kalia seconded that the Board direct OBD Staff to draft Proposed Language to amend OAR 818-035-0030. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

- Dr. Zaid Badr Request for Licensure Exception

The Board discussed Dr. Badr's request and decided to obtain more information from UNC about what areas of dentistry were covered in his residency to determine if the instruction was comprehensive enough to meet general dentistry requirements.

OTHER

Items were in the Board meeting packet for informational purposes.

- 2025 Oregon Wellness Program Report
- OBD Affirmative Action Plan 2027-2029

Dr. Kalia moved and Ms. Jorgensen seconded that the Board approve the 2027-2029 OBD Affirmative Action Plan as presented. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

- Annual Performance Progress Report FY 2026

Ms. Robinson explained that the Report will be finished after she publishes the results of the survey that the Board approved and will be presented at the October 23, 2026, Board meeting. Ms. Robinson explained that the Annual Performance Progress Report will be submitted to the legislature and be included in the 2027-2029 Agency Request Budget.

- Tribes – Open Comment Period
- Open Public Comment Period – Public comment is limited to matters on the public meeting agenda or otherwise relevant to matters that may come before the OBD. Comments will not be allowed that are longer than the time allotted by the President or are disruptive to the OBD's conduct of its business.

ARTICLES AND NEWS

- 4 Ways Dentists Can Make Dental Assistants Feel Valued
- State of U.S. Dental Economy Q1 2026 – Health Policy Institute
- State Dental Insurance Reforms – 2026 Legislative Sessions

EXECUTIVE SESSION: The Board entered into Executive Session pursuant to ORS 192.660(2)(f)(L); ORS 676.165; ORS 676.175(1); and ORS 679.320 to review confidential investigations, consider exempt records and to consult with legal counsel.

OPEN SESSION: The Board returned to Open Session at 12:41 p.m. President Kalia took roll call and confirmed the Board had a quorum.

***Note the Board Members' votes are identified by their initials.**

CONSENT AGENDA

2026-0209, 2026-0194, 2026-0206, 2026-0191, 2026-0203, 2027-0012, 2026-0197, 2027-0019, 2026-0199, 2027-0017, 2027-0009, 2027-0014, 2027-0011, 2027-0004, 2026-0207, 2027-0013, 2026-0190, 2026-0196, 2027-0016, 2026-0189, 2026-0198, 2027-0018, 2026-0200

Dr. Sharifi moved and Dr. Kalia seconded that the Board close the matters with a finding of No Violation or No Further Action. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

COMPLETED CASES

2026-0121, 2026-0159, 2026-0095, 2026-0067, 2026-0144, 2026-0109, 2026-0088, 2026-0108, 2026-0074, 2026-0086, 2025-0192, 2026-0147, 2026-0062, 2026-0208, 2026-0123

Dr. Sharifi moved and Dr. Kalia seconded that the Board close the matters with a finding of No Violation or No Further Action. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

SALWAN W. ADJAJ, D.M.D.; 2026-0152

Dr. Thompson moved and Dr. Sharifi seconded that the Board combine cases 2026-0152, 2020-0163, 2020-0155, and 2021-0017 and issue an amended Notice of Proposed Discipline incorporating a reprimand, a $10,000 civil penalty, licensure revocation, and deny Salwan W. Adjaj applications to the Oregon Board of Dentistry for licensure reinstatement. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

2026-0120

Dr. Salathe moved and Dr. Sharifi seconded that the Board close the matter with a Letter of Concern. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

2026-0078

Dr. Tinkle moved and Dr. Kalia seconded that the Board close the matter with a Letter of Concern. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

AMY L. DROUIN, D.M.D.; 2026-0125

Mr. Lewis moved and Ms. Jorgensen seconded that the Board issue a Notice of Proposed Disciplinary Action and offer the Licensee a Consent Order incorporating a reprimand,

four hours of Board approved continuing education in the area of infection control within 90 days, quarterly submission of spores testing results for a period of one year from the effective date of the order, and a $5,000 civil penalty to be paid within 60 days of the effective date of the order. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

STEFFEN N. LASSEN, D.D.S.; 2026-0052
Ms. Jorgensen moved and Dr. Kalluri seconded that the Board issue a Notice of Proposed Disciplinary Action and offer Licensee a Consent Order incorporating a reprimand and a $2,000 civil penalty, and Licensee shall successfully complete a one hour pain management course specific to Oregon provided by the Pain Management Commission of the Oregon Health Authority, and four additional hours of Board approved continuing education in the area of medications for managing acute dental pain and timeliness of when to refer a patient still in pain to a specialist. The motion passed with SK, SL, AK, OS, JT, AT, KS, GJ, and KL voting Aye. Dr. Sharifi recused himself.

GEOFFREY A. SKINNER, D.D.S.; 2025-0146
Dr. Kalluri moved and Ms. Simmons seconded that the Board issue a Notice of Proposed Disciplinary Action and offer Licensee a Consent Order incorporating a Reprimand, a $2,500 civil penalty payable within sixty days, and restrict the Licensee from extracting impacted wisdom teeth until further order of the Board. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

NATHAN M. TANNER, D.M.D.; 2026-0146
Ms. Simmons moved and Dr. Kalia seconded that the Board issue a Notice of Proposed Disciplinary Action and offer Licensee a Consent Order incorporating a reprimand. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

2026-0119
Dr. Thompson moved and Dr. Sharifi seconded that the Board close the matter with a Letter of Concern. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

2026-0142
Dr. Salathe moved and Dr. Kalia seconded that the Board close the matter with a Letter of Concern. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

KARRILYN SUZANNE CLAYPOOL, R.D.H., E.P.D.H.; 2026-0150
Dr. Thompson moved and Dr. Sharifi seconded that the Board issue a final default order. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

RATIFICATION OF LICENSES
Mr. Lewis moved and Dr. Kalia seconded that the Board ratify the licenses presented in Tab 16. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

LICENSE, PERMIT & CERTIFICATION

Ms. Jorgensen moved and Dr. Kalluri seconded that the Board approve the reinstatement of expired license for Jasmine Hodgert, R.D.H. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Dr. Kalluri moved and Dr. Kalia seconded that the Board approve the reinstatement of expired license for Julie C. McClaire, R.D.H. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Ms. Simmons moved and Dr. Kalia seconded that the Board approve the reinstatement of retired license for Holly K. Beck, R.D.H. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Dr. Thompson moved and Dr. Kalia seconded that the Board approve the Soft Reline Course for Andrew Martinez, EFDA. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Dr. Salathe moved and Ms. Jorgensen seconded that the Board approve the Soft Reline Course for Alyssa Kobylinsky, EFDA. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

Dr. Tinkle moved and Dr. Sharifi seconded that the Board approve the LAFC Course for Sam Boehm, R.D.H. The motion passed with SK, SL, RS, AK, OS, JT, AT, KS, GJ, and KL voting Aye.

ADJOURNMENT

President Kalia thanked everyone for their attendance and contribution and stated that the recommendations in the draft minutes from this meeting would be on the Board's October 23, 2026, meeting agenda and available publicly online.

The next Board Meeting was scheduled for October 23, 2026, at 8:00 a.m.

The meeting was adjourned at 12:55 p.m.

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Sheena Kalia, D.D.S., President

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ASSOCIATION REPORTS

Oregon Board of Dentistry Meeting
October 23, 2026

Oregon Dental Hygienists' Association

Dominique Wilson is the new program director for the dental hygiene education program at Concorde Career College. **Emily Gustafson-Plummer** is the new site coordinator for the dental hygiene education program at Oregon Institute of Technology Salem Campus. **Melody McGee** is the new program director for the dental hygiene education program at Pacific University. **Amy Coplen** is now the program director for the dental therapy education program at Pacific University. An updated list of the Oregon dental hygiene education programs is attached to this report. As a reminder, dentists who are looking for dental hygienists can send their job postings directly to the dental hygiene program directors who will then forward these job postings to all of their graduates.

The **Missouri Dental Hygienists' Association** (MDHA) has filed a lawsuit against the Missouri Dental Board to block a proposed administrative rule that would allow trained dental assistants called "Periodontal EFDAs" to perform supragingival scaling and comprehensive periodontal charting, arguing that the administrative rule exceeds the Dental Board's legal authority. Missouri law currently limits scaling and removal of hard and soft deposits from teeth and comprehensive periodontal charting to licensed dentists and licensed dental hygienists. The MDHA maintains that the Missouri Dental Board does not have statutory authority to permanently create this position through administrative rulemaking without legislative authorization. The plaintiffs ask the court to declare the administrative rule invalid and to issue preliminary and permanent injunctions barring the Dental Board from finalizing it or issuing permits under it.

The ODHA continues to support the proposed change to **OAR 818-035-0030** that if passed by the Board will allow dentists to delegate administration of Botulinum Toxin Type A to their dental hygienists.

The ODHA continues to support the proposed change to **OAR 818-042-0040** that if passed by the Board would clarify that Oregon law prohibits dental assistants from performing scaling and periodontal probing. **ORS 680.020** states that "It is unlawful for any person not otherwise authorized by law to practice dental hygiene or purport to be a dental hygienist without a valid license to practice dental hygiene issued by the Oregon Board of Dentistry." The proposed rule change would clarify that it is unlawful for dental assistants to practice dental hygiene in Oregon.

Oregon Dental Hygiene Education Programs
October 4, 2026

Concorde Career College Dental Hygiene Program 1425 NE Irving Street Portland, OR 97232 www.concorde.edu/dental-programs/dental-hygiene Program Director: Dominique Wilson dowilson@concorde.edu Class size = 32	**Oregon Institute of Technology** Salem Campus Dental Hygiene Program 4000 Lancaster Dr. NE Building 8-101 Salem, OR 97305 www.oit.edu/academics/degrees/dental-hygiene Site Coordinator: Emily Gustafson Plummer emily.gustafsonplumm@oit.edu Class size = 20
Lane Community College Dental Hygiene Program 4000 E. 30th Avenue Eugene, OR 97405 www.lanecc.edu/hp/dental/dental-hygiene Program Director: Michelle Cummins cummninsm@lanecc.edu Class size = 20	**Pacific University** Dental Hygiene Program 222 SE 8th Avenue, Suite 271 Hillsboro, OR 97123 www.pacificu.edu/dentalhygiene Program Director: Melody McGee melody.mcgee@pacificu.edu Class size = 32
Mount Hood Community College Dental Hygiene Program 26000 SE Stark Street Gresham, OR 97030 https://www.mhcc.edu/DentalHygiene/ Program Director: Jennifer Aubry jennifer.aubry@mhcc.edu Class size = 18	**Portland Community College** Dental Hygiene Program 1810 SW 5th Avenue, 3rd Floor Portland, OR 97201 www.pcc.edu/programs/dental-hygiene/ Program Director: Kimberly Pennington kimberly.pennington@pcc.edu Class size = 20
Oregon Institute of Technology Klamath Falls Campus Dental Hygiene Program 3201 Campus Drive Klamath Falls, OR 97601 www.oit.edu/academics/degrees/dental-hygiene Program Director: Krista Beaty Krista.beaty@oit.edu Class size = 20	**Rogue Community College** Dental Hygiene Program 7731 Pacific Avenue White City, OR 97503 www.roguecc.edu Program Director: Carmen Mons cmons@roguecc.edu Class size = 20

COMMITTEE REPORTS

CRDTS Dental Hygiene Examination Review Committee

August 27, 2026, 2-8pm, Embassy Suites Old Market, Omaha

I. Call to Order
II. Roll Call by State
    a. Present : AL – Sharp, AZ – Nenad, GA- Brothers, HI- Yamada, IA- M. Kelly, ID- Long, IL-Fasula, KS- Harding, MN- Stokke, MO- Fletcher-Adams, NE- Gaskill, NM- Althoff, ND- Marsh & Gustafson, OR- Simmons, SC- Barbare, SD- Luken, UT- Harris, WA- M. Johnston, WI- Bahr, WY- Hamilton
    b. Absent : TX- Jones
    c. Faculty- NE- Rennau, LA Consultant- WY- Sasse-Englert, RA Consultant- WA- Gordon, Staff- Mandella, Saldana- absent, Gomez, Gideon
    d. Guests- R. Ficken Vice-Pres, A. Johnston marketing
III. Introductions
    a. Committee members and guests
    b. Recognition of expired terms- Brothers-GA, Sharp-SC
IV. Adoption of the agenda, motion was made to adopt and seconded.
V. Approval of 2025 minutes, motion was made to adopt and seconded.
VI. Review of Bylaws and DHERC Charter : Provided, not read
VII. Reports
    a. Chair DHERC and Director of Dental Hygiene Examinations
        i. Year to Date Statistics
        ii. What we are charged to do as members of the DHERC
VIII. Old Business- RA added to new busines of RA subcommittee.
IX. New Business
    a. Discussion on using SIM Lab to host CRDTS exam. Tabled for now and will continue to investigate and start collecting data about what each schools' SIM lab is like.
    b. Subcommittees
        i. Hygiene 1- soft tissue
        ii. Hygiene 2- hard tissue
        iii. RA
        iv. LA
    c. Report back to group
    d. Report back to your state dental board
X. Adjournment
    a. The next DHERC is in San Antonio on the River Walk. The meeting will be on Thursday August 26th at 2:00 pm.

Reports from subcommittees:

Hygiene 1: Soft Tissue – removed the word distention in the discussion of unwarranted damage.

Recommended good pictures for calibration and discussion among examiners. Would like to see a picture and have examiners identify before the next slide with arrow pointing out the trauma. Discussions were held on the importance of photography and good pictures.

Suggested to form subcommittee to look at soft tissue trauma and the definition of errors. Consider minor errors would be -5 points each and major errors would be critical or failure of the exam.

Lisa and Kelly will ask steering for approval to have a committee create recommendations for changes in content, criteria and scoring of soft tissue trauma.

A vote was taken to offer same exam retakes at no charge after critical failures with the exception of unprofessional conduct. The vote passed.

Hygiene 2: Hard Tissue – worked on the wording for the candidate and the examiners manuals. Will only have critical errors that would require professional follow-up this next year. The pilot study of hard tissue grading was held at three different exams this year and it was determined that this is the best direction for us as the scratching of the tooth surface was too subjective at this point.

Suggested coordinators carefully review the typodonts before the exams for any manufacturer's defects on the teeth. This is done at the manufactures before shipment but it is always good to make sure no damage after shipping. Need to have good photos for the examiner calibrations – including examples of significant hard tissue trauma, minor trauma, and borderline trauma.

Discussion was held on the cost to retake after a critical failure on hard and soft tissue errors. The committee recommended same day retake with no additional charge if it was not failure due to unprofessional conduct. Committee also recommended that the retake policy be the same for hard tissue and soft tissue trauma errors.

See manual changes from thumb drive.

RA – made several recommendations including the following:

Soft tissue/shroud

- Under sub add the words scuff and abrasion to the wording on both the calibration ppt and candidate manual.

- Under def add punctures/slice.

New Bonding Agent Criteria (excess bonding agent)

- Sat – no excess +4 points
- Acc – less than 1 mm of excess bonding agent +3 points
- Sub – more than 1 mm of excess bonding agent – 1 point.

Calibration note: excess bonding is measured from the margin of the restoration

New penalty points

- rubber dam remnants remaining in the typodont- 1 point.
- Uncleanliness of model (scrap amalgam, bur, matrix, any foreign object)-1 point

Criteria for Anatomy/Contour for 2027 (posterior amalgam and composite)

- We suggest examples in calibration photos (side be side) of SAT, ACC, DEF
- No need to change wording of manual/criteria
- Discussion on making sure the candidates is happy with their occlusion as examiners do not make any changes to typodonts – they grade what they get.
- Want to see the TC take more photos and increase communication with the Shanee and to the candidates who fail. Also want to see 2 complete sets of examiner instruments in each trunk. Photos of errors

Photos of errors proposed

- New Policy: TC will monitor grading mid-point and take photos of all verified Defs or multiple Subs indicating a failure (two or more examiners graded) and send to Shanee or Katrina prior to end of grading/examination. *In all grading categories, including condition of simulated soft tissues, gingiva, shroud.
- Increase communication with Shanee/Katrina when we see possible candidate failures on our end.
- Photos will be included with critiques

LA – reviewed 3 current textbooks, looked at calibration and will plan to change some of the videos that have been sent to Janine. Created a Table with the Comparison of Local Anesthetic Drugs by all 3 current textbooks used. No changes made to the candidate manual or the examiner's calibration. Janine will review the last 6 videos submitted to her to see if they are better than the current ones being used in calibration. All changes must be made by November 1st of this year.

Draft

LICENSING, STANDARDS AND COMPETENCY COMMITTEE
Held as a Zoom Meeting

Minutes
September 9, 2026

MEMBERS PRESENT:	Sharity Ludwig, R.D.H., Chair Aarati Kalluri, D.D.S. Aaron Tinkle, D.M.D. Julie Spaniel, D.D.S., ODA Rep. Amy Coplen, R.D.H., D.T., ODHA Rep. Lynn Murray, ODAA Rep. Kristen Moses, R.D.H., D.T., DT Rep.
STAFF PRESENT:	Haley Robinson, Executive Director Angela Smorra, D.M.D., Dental Director/Chief Investigator Kathleen McNeal, Licensing Manager Dawn Dreasher, Office Specialist
VISITORS PRESENT:	Ginny Jorgensen, OBD Board Member; Brett Hamilton, Oregon Dental Association (ODA); Jenna Shanks; Mary Ellen Murphy; Mary Harrison (ODAA); Dr. Justin Jones; Jerin Murray; Jeannie Bopp

**Note - Some visitors may not be reflected in the minutes because their identity was unknown during the meeting.*

Call to Order: The meeting was called to order by Chair Sharity Ludwig at 6:02 p.m. Ms. Ludwig reiterated that the purpose of the meeting is for Committee members to discuss the agenda items that have been brought to the Committee and that the Committee discusses and possibly makes a motion to move each item to the full Board. Ms. Ludwig clarified that the meeting was not a forum for public comment and that there would be opportunity for public comment at a future Board meeting or public rulemaking hearing before anything is finalized. Ms. Ludwig stated that conversations will be limited to the committee and only recognized by the Chair.

Ms. Ludwig added that for each agenda item that's discussed, the Committee typically has four courses of action; (i) move the item to the full Board with a recommendation that the rule go to the OBD's Rules Oversight Committee; (ii) make a slight change to the language proposed in a rule and move that item to the full Board with a recommendation for the rule to

go to a Committee; (iii) move an item to the full Board with a recommendation that the rule go back to a particular Committee for further review and refinement; and (iv) do nothing.

MINUTES

Dr. Kalluri moved and Dr. Spaniel seconded that the minutes of the April 7, 2026, Licensing, Standards and Competency Committee meeting be approved as presented. The motion passed with SL, AK, AT, JS, LM, and KM voting Aye. Ms. Coplen abstained.

OAR 818-013-0005

Ms. Coplen moved and Dr. Kalluri seconded that the Committee approve the proposed rule changes in OAR 818-013-0005 as presented. The motion passed with SL, AK, AT, JS, AC, LM, and KM voting Aye.

OAR 818-013-0005
Participation in Health Professionals' Services Program

(1) Effective July 1, 2010, the Board **may** participate~~s~~ in the Health Professionals' Services Program (HPSP).

(a) The Board establishes procedures to process cases of licensees preparatory to transfer t o HPSP.

(b) The procedures will be confidential, non-disciplinary, and voluntary.

(c) The Executive Director will have overall management responsibilities for the procedures. The Executive Director will designate Board staff to serve as Diversion Coordinator(s) who will manage and conduct investigations and report to the Board.

(d) The Diversion Coordinator(s) will investigate information related to addiction to, dependence upon, or abuse of alcohol, drugs, or mind altering substances or mental health disorders, by licensees and provide licensees with resources for evaluations, if appropriate.

(2) Only licensees of the Board who meet the referral criteria may be referred by the Board to the HPSP.

(a) The Board may refer a licensee to the HPSP in lieu of public discipline.

(b) In the event a licensee declines to submit to an evaluation or declines referral to HPSP,

the Diversion Coordinator(s) will present the matter to the Board for decision and the Board's action may jeopardize the confidential nature of licensee's status as a candidate for, or enrollment in, HPSP.

Mental Health/Substance Abuse CE Proposal

The Committee discussed proposed changes to CE requirements to include mental health, substance abuse, and suicide related CE. The Committee took no action.

OAR 818-026-0030. 818-026-0050, 818-026-00XX

The Committee reviewed updated ADA Sedation and Anesthesia Use and Teaching Guidelines and discussed proposed amendments to OAR 818-026-0030, 818-026-0050, and 818-026-00XX.

Dr. Kalluri moved and Dr. Tinkle seconded that the Committee refer the proposed rule changes in OAR 818-026-0030, 818-026-0050, and 818-026-00XX as amended to the Board. The motion passed with SL, AK, AT, JS, AC, LM, and KM voting Aye.

818-026-0030
Requirements for Anesthesia Permits

(1) A permit holder who administers sedation shall assure that drugs, drug dosages, and/or techniques used to produce sedation shall carry a margin of safety wide enough to prevent unintended deeper levels of sedation.

(2) No licensee shall induce central nervous system sedation or general anesthesia without first having obtained a permit under these rules for the level of anesthesia being induced.

(3) A licensee may be granted a permit to administer sedation or general anesthesia with documentation of training/education and/or competency in the permit category for which the licensee is applying by any one the following:

(a) Initial training/education in the permit category for which the applicant is applying shall be completed no more than two years immediately prior to application for sedation or general anesthesia permit; or

(b) If greater than two years but less than five years since completion of initial training/education, an applicant must document completion of all continuing education that would have been required for that anesthesia/permit category during that five year period following initial training; or

(c) If greater than two years but less than five years since completion of initial training/education, immediately prior to application for sedation or general anesthesia permit, current competency or experience must be documented by completion of a comprehensive review course approved by the Board in the permit category to which the applicant is applying and must consist of at least one-half (50%) of the hours required by rule for Nitrous Oxide, Minimal Sedation, Moderate Sedation and General Anesthesia Permits. Deep Sedation and General Anesthesia Permits will require at least 120 hours of general anesthesia training.

(d) An applicant for sedation or general anesthesia permit whose completion of initial training/education is greater than five years immediately prior to application, may be granted a sedation or general anesthesia permit by submitting documentation of the requested permit level from another state or jurisdiction where the applicant is also licensed to practice dentistry or dental hygiene, and provides documentation of the completion of at least 25 cases in the requested level of sedation or general anesthesia in the 12 months immediately preceding application; or

(e) Demonstration of current competency to the satisfaction of the Board that the applicant possesses adequate sedation or general anesthesia skill to safely deliver sedation or general anesthesia services to the public.

(4) A licensee holding a nitrous or minimal sedation permit, shall at all times maintain a current BLS for Healthcare Providers certificate or its equivalent.

(5) A licensee holding an anesthesia permit for moderate sedation, deep sedation or general anesthesia at all times maintains a current BLS for Healthcare Providers certificate or its equivalent, and a current Advanced Cardiac Life Support (ACLS) Certificate or Pediatric Advanced Life Support (PALS) Certificate, whichever is appropriate for the patient being sedated. If a licensee permit holder sedates only patients under the age of 12, only PALS is required. If a licensee permit holder sedates only patients age 12 and older, only ACLS is required. If a licensee permit holder sedates patients younger than 12 years of age as well as older than 12 years of age, both ACLS and PALS are required. For licensees with a moderate sedation permit only, successful completion of the American Dental Association’s course “Recognition and Management of Complications during Minimal and Moderate Sedation” at least every two years may be substituted for ACLS, but not for PALS.

(6) Advanced Cardiac Life Support (ACLS) and or Pediatric Advanced Life Support (PALS) do not serve as a substitute for Healthcare Provider Basic Life Support (BLS).

(7) When a dentist utilizes a single **dose of an** oral agent to achieve anxiolysis only, no anesthesia permit is required. **The dentist shall follow all rules and requirements listed under OAR 818-026-00XX. The dentist will provide initial training and continuing education certificates upon written request of the Board.**

(8) The applicant for an anesthesia permit must pay the appropriate permit fee, submit a completed Board-approved application and consent to an office evaluation.

(9) Permits shall be issued to coincide with the applicant's licensing period.

818-026-0050
Minimal Sedation Permit

Minimal sedation and nitrous oxide sedation.

(1) The Board shall issue a Minimal Sedation Permit to an applicant who:

(a) Is a licensed dentist in Oregon;

(b) Maintains a current BLS for Healthcare Providers certificate or its equivalent; and

(c) Completion of a comprehensive training program consisting of at least 16 hours of training and satisfies the requirements of the current ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students at the time training was commenced or postgraduate instruction was completed, or the equivalent of that required in graduate training programs, in sedation, recognition and management of complications and emergency care; or

(d) In lieu of these requirements, the Board may accept equivalent training or experience in minimal sedation anesthesia.

(2) The following facilities, equipment and drugs shall be on site and available for immediate use during the procedures and during recovery**. A documented equipment check is required before each sedation case**:

(a) An operating room large enough to adequately accommodate the patient on an operating table or in an operating chair and to allow an operating team of at least two individuals to freely move about the patient;

(b) An operating table or chair which permits the patient to be positioned so the operating team can maintain the patient’s airway, quickly alter the patient’s position in an emergency, and provide a firm platform for the administration of basic life support;

(c) A lighting system which permits evaluation of the patient's skin and mucosal color and a backup lighting system of sufficient intensity to permit completion of any operation underway in the event of a general power failure;

(d) Suction equipment which permits aspiration of the oral and pharyngeal cavities and a backup suction device which will function in the event of a general power failure;

(e) An oxygen delivery system with adequate full **Bag Valve Mask (BVM)** facemask**, including appropriate mask sizes, oropharyngeal airways,** and appropriate connectors that is capable of delivering high flow oxygen to the patient under positive pressure, together with an adequate backup system;

(f) A nitrous oxide delivery system with a fail-safe mechanism that will insure appropriate continuous oxygen delivery and a scavenger system;

(g) Sphygmomanometer, stethoscope, pulse oximeter, and/or automatic blood pressure cuff; and

(h) Emergency drugs including, but not limited to: pharmacologic antagonists appropriate to the drugs used, vasopressors, corticosteroids, bronchodilators, antihistamines, antihypertensives and anticonvulsants.

(3) Before inducing minimal sedation, a dentist permit holder who induces minimal sedation shall:

(a) Evaluate the patient**,** ~~and~~ document, **and certify,** using the American Society of Anesthesiologists (ASA) Patient Physical Status Classifications, that the patient is an appropriate candidate for minimal sedation**. The patient's weight, height, Body Mass Index (BMI), blood pressure, pulse, and respiratory rate is required to be evaluated and documented as part of the pre-operative assessment**; **and**

(b) Give written preoperative and postoperative instructions to the patient or, when appropriate due to age or psychological status of the patient, the patient's guardian; **and**

~~(c) Certify that the patient is an appropriate candidate for minimal sedation; and~~

(~~d~~**c**) Obtain written informed consent from the patient or patient's guardian for the anesthesia. The obtaining of the informed consent shall be documented in the patient's record.

(4) No permit holder shall have more than one person under minimal sedation or nitrous oxide sedation at the same time.

(5) While the patient is being treated under minimal sedation, an anesthesia monitor shall be present in the room in addition to the treatment provider. The anesthesia monitor may be the dental assistant. After training, a dental assistant, when directed by a dentist permit holder, may administer oral sedative agents or anxiolysis agents calculated and dispensed by a dentist permit holder under the direct supervision of a dentist permit holder.

(6) A patient under minimal sedation shall be visually monitored at all times, including recovery phase. The record must include documentation of all medications administered with dosages, time intervals and route of administration. The dentist permit holder or anesthesia monitor shall monitor and record the patient's condition.

(7) Persons serving as anesthesia monitors for minimal sedation in a dental office shall maintain current certification in BLS for Healthcare Providers Basic Life Support (BLS), or its equivalent, shall be trained and competent in monitoring patient vital signs, in the use of monitoring and emergency equipment appropriate for the level of sedation utilized. ("competent" means displaying special skill or knowledge derived from training and experience.)

(8) The patient shall be monitored as follows:

(a) Color of mucosa, skin or blood must be evaluated continually. Patients must have continuous monitoring using pulse oximetry. The patient's response to verbal stimuli, blood pressure, heart rate, pulse oximetry and respiration shall be monitored and documented every fifteen minutes, if they can reasonably be obtained.

(b) A discharge entry shall be made by the dentist permit holder in the patient's record indicating the patient's condition upon discharge and the name of the responsible party to whom the patient was discharged.

(9) The dentist permit holder shall assess the patient's responsiveness using preoperative values as normal guidelines and discharge the patient only when the following criteria are met:

(a) Vital signs including blood pressure, pulse rate and respiratory rate are stable;

(b) The patient is alert and oriented to person, place and time as appropriate to age and preoperative psychological status;

(c) The patient can talk and respond coherently to verbal questioning;

(d) The patient can sit up unaided;

(e) The patient can ambulate with minimal assistance; and

(f) The patient does not have uncontrollable nausea or vomiting and has minimal dizziness.

(g) A dentist permit holder shall not release a patient who has undergone minimal sedation except to the care of a responsible third party.

~~(10) The permit holder shall make a discharge entry in the patient's record indicating the patient's condition upon discharge.~~

(1~~1~~**0**) Permit renewal. In order to renew a Minimal Sedation Permit, the permit holder must provide documentation of a current BLS for Healthcare Providers certificate or its equivalent. In addition, Minimal Sedation Permit holders must also complete four (4) hours of continuing education in one or more of the following areas every two years: sedation, physical evaluation, medical emergencies, monitoring and the use of monitoring equipment, or pharmacology of drugs and agents used in sedation. Training taken to maintain current BLS for Healthcare Providers certificate, or its equivalent, may not be counted toward this requirement. Continuing education hours may be counted toward fulfilling the continuing education requirement set forth in OAR 818-021-0060.

(11) A licensee that does not hold a Moderate, Deep Sedation or General Anesthesia Permit may not administer, for purpose of anxiolysis or sedation, Benzodiazepines or narcotics in children under 6 years of age.

(12) A licensee must ensure a written emergency response protocol is in place for all patients undergoing treatment with oral anxiolytic agents, Nitrous Oxide, Minimal Sedation, Moderate Sedation, Deep Sedation, or General Anesthesia.

(13) Emergency drills are required to be completed and documented every six (6) months.

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818-026-00XX
Oral Anxiolysis without a Minimal Sedation Permit

Under the American Dental Association (ADA) guidelines, what was formerly termed "anxiolysis" is officially classified as minimal sedation. A dentist may administer a single dose of an oral agent to achieve anxiolysis only without holding a Minimal Sedation permit if the dentist:

(1) Maintains a current BLS for Healthcare Providers certificate or its equivalent; and

(2) Maintains evidence of completion of a comprehensive training program consisting of at least 16 hours of training that satisfies the requirements of the current ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students at the time training was commenced or postgraduate instruction was completed; or 16 hours of training that is equivalent to that required in graduate training programs. This training shall cover pharmacology, patient evaluation, sedation, recognition and management of complications and emergency protocols. The dentist will provide initial training and continuing education certificates upon written request of the Board.

(3) The following facilities, equipment and drugs shall be on site and available for immediate use during the procedures and during recovery. A documented equipment check is required before each sedation case:

(a) An operating room large enough to adequately accommodate the patient on an operating table or in an operating chair and to allow an operating team of at least two individuals to freely move about the patient;

(b) An operating table or chair which permits the patient to be positioned so the operating team can maintain the patient's airway, quickly alter the patient's position in an emergency, and provide a firm platform for the administration of basic life support;

(c) A lighting system which permits evaluation of the patient's skin and mucosal color and a backup lighting system of sufficient intensity to permit completion of any operation underway in the event of a general power failure;

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(d) Suction equipment which permits aspiration of the oral and pharyngeal cavities and a backup suction device which will function in the event of a general power failure;

(e) An oxygen delivery system with adequate full Bag Valve Mask (BVM) facemask, including appropriate mask sizes, oropharyngeal airway and appropriate connectors that is capable of delivering high flow oxygen to the patient under positive pressure, together with an adequate backup system;

(f) Sphygmomanometer, stethoscope, pulse oximeter, and/or automatic blood pressure cuff; and

(g) Emergency drugs including, but not limited to: pharmacologic antagonists appropriate to the drugs used, vasopressors, corticosteroids, bronchodilators, antihistamines, antihypertensives and anticonvulsants.

(4) Before inducing minimal sedation with a single oral anxiolytic agent, a dentist permit holder who induces minimal sedation shall:

(a) Evaluate the patient, document, and certify, using the American Society of Anesthesiologists (ASA) Patient Physical Status Classifications, that the patient is an appropriate candidate for minimal sedation. The patient's weight, height, Body Mass Index (BMI), blood pressure, pulse, and respiratory rate is required to be evaluated and documented as part of the pre-operative assessment; and

(b) Give written preoperative and postoperative instructions to the patient or, when appropriate due to age or psychological status of the patient, the patient's guardian; and

(c) Obtain written informed consent from the patient or patient's guardian for the anesthesia. The obtaining of the informed consent shall be documented in the patient's record.

(5) No permit holder shall have more than one person under an oral anxiolytic agent, minimal sedation, or nitrous oxide sedation at the same time.

(6) While the patient is being treated under an oral anxiolytic agent an anesthesia monitor shall be present in the room in addition to the treatment provider. The anesthesia monitor may be the dental assistant. After training, a dental assistant, when directed by a dentist permit holder, may administer oral anxiolytic agents

calculated and dispensed by a dentist permit holder under the direct supervision of a dentist permit holder.

(7) A patient under an oral anxiolytic or minimal sedation shall be visually monitored at all times, including recovery phase. The record must include documentation of all medications administered with dosages, time intervals and route of administration. The dentist permit holder or anesthesia monitor shall monitor and record the patient's condition.

(8) Persons serving as anesthesia monitors for minimal sedation in a dental office shall maintain current certification in BLS for Healthcare Providers Basic Life Support (BLS), or its equivalent, shall be trained and competent in monitoring patient vital signs, in the use of monitoring and emergency equipment appropriate for the level of sedation utilized. ("competent" means displaying special skill or knowledge derived from training and experience.)

(9) The patient shall be monitored as follows:

(a) Color of mucosa, skin or blood must be evaluated continually. Patients must have continuous monitoring using pulse oximetry. The patient's response to verbal stimuli, blood pressure, heart rate, pulse oximetry and respiration shall be monitored and documented every fifteen minutes, if they can reasonably be obtained.

(b) A discharge entry shall be made by the dentist permit holder in the patient's record indicating the patient's condition upon discharge and the name of the responsible party to whom the patient was discharged.

(10) The dentist permit holder shall assess the patient's responsiveness using preoperative values as normal guidelines and discharge the patient only when the following criteria are met:

(a) Vital signs including blood pressure, pulse rate and respiratory rate are stable;

(b) The patient is alert and oriented to person, place and time as appropriate to age and preoperative psychological status;

(c) The patient can talk and respond coherently to verbal questioning;

(d) The patient can sit up unaided;

(e) The patient can ambulate with minimal assistance; and

(f) The patient does not have uncontrollable nausea or vomiting and has minimal dizziness.

(g) A dentist permit holder shall not release a patient who has undergone sedation with an oral anxiolytic agent or minimal sedation except to the care of a responsible third party.

(11) The permit holder shall make a discharge entry in the patient's record indicating the patient's condition upon discharge.

(12) When incremental dosing or supplemental dosing of the oral anxiolytic agent is required the patient must be treated by a dentist holding an appropriate minimal sedation permit, moderate sedation permit, deep sedation permit, or general anesthesia permit.

(13) A licensee that does not hold a Moderate, Deep Sedation or General Anesthesia Permit may not administer, for purpose of anxiolysis or sedation, Benzodiazepines or narcotics in children under 6 years of age.

(14) A licensee must ensure a written emergency response protocol is in place for all patients undergoing treatment with oral anxiolytic agents, Nitrous Oxide, Minimal Sedation, Moderate Sedation, Deep Sedation, or General Anesthesia.

(15) Emergency drills are required to be completed and documented every six (6) months.

OAR 818-035-0030

Dr. Spaniel moved and Dr. Kalluri seconded that the Committee refer the proposed rule changes in OAR 818-035-0030 as amended to the Board. The motion passed with SL, AK, AT, JS, AC, LM, and KM voting Aye.

OAR 818-035-0030
Additional Functions of Dental Hygienists

(1) In addition to functions set forth in ORS 679.010, a dental hygienist may perform the following functions under the general supervision of a licensed dentist:

(a) Make preliminary intra-oral and extra-oral examinations and record findings;

(b) Place periodontal dressings;

(c) Remove periodontal dressings or direct a dental assistant to remove periodontal dressings;
(d) Perform all functions delegable to dental assistants and expanded function dental assistants providing that the dental hygienist is appropriately trained;
(e) Administer and dispense antimicrobial solutions or other antimicrobial agents in the performance of dental hygiene functions.
(f) Prescribe, administer and dispense fluoride, fluoride varnish, antimicrobial solutions for mouth rinsing or other non-systemic antimicrobial agents.
(g) Use high-speed handpieces to polish restorations and to remove cement and adhesive material.
(h) Apply temporary soft relines after manufacturer required denture preparation to complete dentures for the purpose of tissue conditioning.
(i) Perform all aspects of teeth whitening procedures.
(2) A dental hygienist may perform the following functions at the locations and for the persons described in ORS 680.205(1) and (2) without the supervision of a dentist:
(a) Determine the need for and appropriateness of sealants or fluoride; and
(b) Apply sealants or fluoride.
(3) In addition to functions set forth in ORS 679.010, a dental hygienist may perform the following functions under the indirect supervision of a licensed dentist:
(a) Upon successful completion of a course in intravenous access or phlebotomy approved by the Board, a dental hygienist may initiate an intravenous (IV) infusion line for a patient being prepared for IV medications, sedation, or general anesthesia under the indirect supervision of a dentist holding the appropriate anesthesia permit.
(b) Upon successful completion of a course in intravenous access or phlebotomy approved by the Board, a dental hygienist may perform a phlebotomy blood draw under the indirect supervision of a dentist. Products obtained through a phlebotomy blood draw may only be used by the dentist, to treat a condition that is within the scope of the practice of dentistry.
(4) Perform extraoral adjustment of fixed and removable prosthesis or appliances.
(5) A dental hygienist may utilize Botulinum Toxin Type A to treat conditions that are within the oral and maxillofacial region under the indirect supervision of a licensed dentist when all conditions listed below are met:
(a) The supervising dentist has completed training in Botulinum Toxin Type A as set forth in OAR 818-012-0005(3);

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(b) Within the last twelve months, the supervising dentist has documented a diagnosis and treatment plan for the use of Botox to treat conditions that are within the oral and maxillofacial region;
(c) The dental hygienist holds a local anesthesia endorsement as set forth under OAR 818-035-0040(1);
(d) The dental hygienist has completed a minimum of 10 hours in a hands on clinical course(s) in Botulinum Toxin Type A, and the provider is approved by the Academy of General Dentistry Program Approval for Continuing Education (AGD PACE), or by the American Dental Association Continuing Education Recognition Program (ADA CERP), or by successfully completing training in Botulinum Toxin Type A as part of a CODA accredited program;
(e) The supervising dentist and dental hygienist maintain proper storage and handling of medications, including injectables, according to federal regulations, guidelines, standards, and manufacturer recommendations;
(f) The supervising dentist and dental hygienist obtain a signed, written informed consent form from the patient before giving the injection; and
(g) The supervising dentist or dental hygienist must have malpractice insurance that specifically covers Botulinum Toxin Type A procedures.

OAR 818-042-0050, 818-042-0080, 818-042-0110, 818-042-0113, and 818-042-0120

The Committee reviewed and discussed proposed amendments to dental assisting rules.

Ms. Coplen moved and Dr. Tinkle seconded that the Committee refer Proposed Amendments to OAR 818-042-0050, 818-042-0080, 818-042-0110, 818-042-0113, and 818-042-0120 as amended to the Board. The motion passed with SL, AK, AT, JS, AC, LM, and KM voting Aye.

818-042-0050
Taking of X-Rays — Exposing of Radiographic Images

(1) Taking of X-Rays and exposing radiographic images for a dental assistant consists of the following activities:

(i) placing films/sensors,

(ii) adjusting equipment preparatory to exposing films/sensors, and

(iii) exposing the films and creating the images;

~~*(2) A licensee may authorize a dental assistant who has completed a course of instruction approved by the Oregon Board of Dentistry, and who has passed the written Dental Radiation Health and Safety Examination administered by the Dental Assisting National Board, or comparable exam administered by any other testing entity authorized by the Board, or other comparable requirements approved by the Oregon Board of Dentistry to place films/sensors, adjust equipment preparatory to exposing films/sensors, and expose the films and create the images under the indirect supervision of a dentist, dental therapist, dental hygienist, or dental assistant who holds an Oregon Radiologic Proficiency Certificate. The dental assistant must submit within six months, certification by an Oregon licensed dentist, dental therapist or dental hygienist that the assistant is proficient to take radiographic images.*~~

~~*(1)*~~ **(2)** A Licensee may authorize the following persons to ~~*place films/sensors, adjust equipment preparatory to exposing films/sensors, and expose the films and create the images*~~ perform the activities in subsection (1) under general supervision:

(a) A dental assistant certified by the Board in radiologic proficiency; or

(b) A radiologic technologist licensed by the Oregon Board of Medical Imaging and certified by the Oregon Board of Dentistry (OBD) who has completed ten (10) clock hours in a Board approved dental radiology course.

(3) To obtain a certificate in radiologic proficiency, a dental assistant must:

(a) Successfully complete a course of instruction approved by the Oregon Board of Dentistry, and pass the written Dental Radiation Health and Safety Examination administered by the Dental Assisting National Board, or comparable exam administered by any other testing entity authorized by the Board, or

(b) Obtain other comparable requirements approved by the Oregon Board of Dentistry; and

(c) After completion of the requirements in (3)(a) or (b), submit certification by an Oregon licensed dentist, dental therapist or dental hygienist that the assistant is proficient to take radiographic images.

(4) A dental assistant may perform the activities in subsection (1) under indirect supervision for the 12 months following completion of the requirements in (2)(a) or (b).

(5) A dental assistant may perform the activities in subsection (1) under direct supervision after completion of the requirements in subsection (3)(a) or (b) if a

certificate in radiologic proficiency was not obtained within 12 months after completion of the requirements in subsection (2)(a) or (b).

(3) A dental therapist may not order a computerized tomography scan.

818-042-0080
Certification — Expanded Function Dental Assistant (EFDA)

The Board may certify a dental assistant as an expanded function assistant **if the assistant submits a completed application, pays the fee and provides evidence of:**

(1)~~*By credential in accordance with*~~ **Satisfaction of the credential requirements in** OAR 818-042-0120, or

~~*(2) If the assistant submits a completed application, pays the fee and provides evidence of;*~~

(2) Certification of Radiologic Proficiency (OAR 818-042-0060) and satisfactory completion of a course of instruction in a program accredited by the Commission on Dental Accreditation; or

(3) Certification of Radiologic Proficiency (OAR 818-042-0060) and

~~*(b) Certification of Radiologic Proficiency (OAR 818-042-0060); and passage of the Oregon Expanded Functions with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or prior passage of the Certified Dental Assistant examination or Infection Control Examination and passage of the Oregon Expanded Functions General Dental Assisting exam, or equivalent successor examinations, administered by DANB or any other testing entity authorized by the Board; and certification by an Oregon licensed dentist that the applicant has successfully removed supra-gingival excess cement from four (4) crowns and/or fixed partial dentures (bridges) with hand instruments; placed temporary restorative material in three (3) teeth; preliminarily fitted four (4) crowns to check contacts or to adjust occlusion outside the mouth; removed four (4) temporary crowns for final cementation and cleaned teeth for final cementation; fabricated four (4) temporary crowns and/or fixed partial dentures (bridges) and temporarily cemented the crowns and/or fixed partial dentures (bridges); polished the coronal surfaces of teeth with a brush or rubber cup as*~~

~~*part of oral prophylaxis in six (6) patients; placed matrix bands on four (4) teeth prepared for Class II restorations. The dental assistant must submit within six months' certification by a licensed dentist that the dental assistant is proficient to perform all the expanded function duties in subsection (b). If no expanded function certificate is issued within the six months, the dental assistant is no longer able to continue to perform expanded function duties until EFDA certification is achieved.*~~

(a) Successful passage of the following examination requirement:

(i) Oregon Expanded Functions with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or

(ii) Certified Dental Assistant examination or Infection Control Examination and passage of the Oregon Expanded Functions General Dental Assisting exam, or equivalent successor examinations, administered by DANB or any other testing entity authorized by the Board; and

(b) Certification by an Oregon licensed dentist that the applicant has successfully:

(i) removed supra-gingival excess cement from four (4) crowns and/or fixed partial dentures (bridges) with hand instruments;

(ii) placed temporary restorative material in three (3) teeth;

(iii) preliminarily fitted four (4) crowns to check contacts or to adjust occlusion outside the mouth;

(iv) removed four (4) temporary crowns for final cementation and cleaned teeth for final cementation;

(v) fabricated four (4) temporary crowns and/or fixed partial dentures (bridges) and temporarily cemented the crowns and/or fixed partial dentures (bridges);

(vi) polished the coronal surfaces of teeth with a brush or rubber cup as part of oral prophylaxis in six (6) patients; and

(vii) placed matrix bands on four (4) teeth prepared for Class II restorations.

(c) A dental assistant may perform the activities in (3)(b) under indirect supervision for 12 months after passage of a required examination in subsection (3)(a). If the expanded function certificate is not obtained within the 12 months, the dental assistant is no longer able to continue to perform expanded function duties under indirect supervision.

(d) A dental assistant may perform the activities in subsection (3)(b) under direct supervision after passage of a required examination in subsection (3)(a) if the expanded function certificate was not obtained within 12 months after completion of the requirements in subsection (3)(a).

818-042-0110

Certification — Expanded Function Orthodontic Dental Assistant (EFODA)

The Board may certify a dental assistant as an expanded function orthodontic assistant **if the assistant submits a completed application, pays the fee and provides evidence of:**

(1) ~~*By credential in accordance with*~~ **Satisfaction of the credential requirements in** OAR 818-042-0120, or

~~*(2) If the assistant submits a completed application, pays the fee and provides evidence of;*~~

(~~*a*~~**2**) Completion of a course of instruction in a program in dental assisting accredited by the American Dental Association Commission on Dental Accreditation; or

(~~*b*~~**3**) **Completion of the following requirements:**

(a) Successful passage of the following examination requirement:

(i) Oregon Orthodontic Expanded Functions with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or

(ii) Certified Dental Assistant, Certified Orthodontic Assistant or Infection Control Examination administered by DANB and passage of the Oregon Expanded

Functions Orthodontic Assisting exam, or equivalent successor examinations, administered by DANB, or any other testing entity authorized by the Board; and

(b) Certification by an Oregon licensed dentist that the applicant has successfully:

(i) placed and ligated orthodontic wires on ten (10) patients and

(ii) removed bands/brackets and remaining adhesive using an ultrasonic, hand scaler or a slow speed hand piece from teeth on four (4) patients.

~~*The dental assistant must submit within six months' certification by a licensed dentist that the dental assistant is proficient to perform all the expanded function duties in subsection (b). If no expanded function orthodontic certificate is issued within the six months, the dental assistant is no longer able to continue to perform expanded orthodontic function duties until EFODA certification is achieved.*~~

(c) A dental assistant may perform the activities in (3)(b) under indirect supervision for 12 months after passage of a required examination in subsection (3)(a). If the expanded function orthodontic certificate is not obtained within the 12 months, the dental assistant is no longer able to continue to perform expanded function duties under indirect supervision.

(d) A dental assistant may perform the activities in subsection (3)(b) under direct supervision after passage of a required examination in subsection (3)(a) if the expanded function orthodontic certificate was not obtained within 12 months after completion of the requirements in subsection (3)(a).

818-042-0113

Certification — Expanded Function Preventive Dental Assistants (EFPDA)

The Board may certify a dental assistant as an expanded function preventive dental assistant **if the assistant submits a completed application, pays the fee and provides evidence of:**

(1) ~~*By credential in accordance with*~~ **Satisfaction of the credential requirements in** OAR 818-042-0120, or

~~*(2) If the assistant submits a completed application, pays the fee and provides evidence of;*~~

(~~a~~2) Certification of Radiologic Proficiency (OAR 818-042-0060) and satisfactory completion of a course of instruction in a program accredited by the Commission on Dental Accreditation of the American Dental Association; or

(3) **Completion of the following requirements:**

(a) Certification of Radiologic Proficiency (OAR 818-042-0060); and

(b) Passage of one of following examination:

(i) Oregon Expanded Functions with Infection Control examination; or

(ii) Coronal Polishing with Infection Control examination, or equivalent successor examinations, administered by the Dental Assisting National Board, Inc. (DANB), or any other testing entity authorized by the Board, or

(iii) Infection Control Examination and passage of the Oregon Expanded Functions General Dental Assisting exam or Coronal Polishing exam, or equivalent successor examinations, administered by DANB, or any other testing entity authorized by the Board; and

(c) Certification by an Oregon licensed dentist that the applicant has successfully polished the coronal surfaces of teeth with a brush or rubber cup as part of oral prophylaxis to remove stains on six (6) patients.

(d) A dental assistant may perform the activities in (3)(c) under indirect supervision for 12 months after passage of a required examination in subsection (3)(b). If the expanded function preventive certificate is not obtained within the 12 months, the dental assistant is no longer able to continue to perform expanded function duties under indirect supervision.

(e) A dental assistant may perform the activities in subsection (3)(c) under direct supervision after passage of a required examination in subsection (3)(b) if the expanded function preventive certificate was not obtained within 12 months after completion of the requirements in subsection (3)(b).

~~*(d) The dental assistant must submit within six months' certification by a licensed dentist that the dental assistant is proficient to perform all the expanded function preventive duties in subsection (b). If no expanded function preventive certificate is issued within*~~

~~*the six months, the dental assistant is no longer able to continue to perform expanded function preventive duties until EFPDA certification is achieved.*~~

818-042-0120
Certification by Credential

(1) Dental Assistants who wish to be certified by the Board in Radiologic Proficiency or as Expanded Function Dental Assistants, Expanded Function Orthodontic Dental Assistants, or as Expanded Function Preventive Dental Assistants shall:

(a) Be certified by another state in the functions for which application is made. The training and certification requirements of the state in which the dental assistant is certified must be substantially similar to Oregon's requirements; or

(b) Have worked for at least 1,000 hours in the past two years in a dental office **located outside of Oregon** where such employment involved to a significant extent the functions for which certification is sought; and

(c) Shall be evaluated by a**n Oregon** licensed dentist, using a Board approved checklist, to assure that the assistant is competent in the expanded functions.

(2) Applicants applying for certification by credential in Radiologic Proficiency must obtain certification from the Oregon Health Authority, Center for Health Protection, Radiation Protection Services, of having successfully completed training equivalent to that required by OAR 333-106-0055 or approved by the Oregon Board of Dentistry.

HB 4040

BACKGROUND:

MARCH 3, 2026 - EMAIL FROM DR. JUSTIN JONES
At its April 24, 2026 Board meeting, the Board reviewed Dr. Jones's email expressing his concerns re: HB 4040 and asking the Board to support standards mirroring the existing OHSU proctor Standards.

The Board discussed Dr. Jones's email and issues related to supervision of out-of-state dental students.

Dr. Sharifi moved and Ms. Jorgensen seconded that the Board refer the issue of HB 4040 to the Licensing, Standards and Competency Committee. The motion passed with AK, SK, RS, TC, MA, OS, KS, SL, GJ, and KL voting Aye.

The Committee reviewed HB 4040 and discussed Dr. Jone's proposal. The Committee took no action.

Chair Ludwig thanked everyone for their attendance and contributions.

The meeting adjourned at 7:17 p.m.

DRAFT

DRAFT

OREGON BOARD OF DENTISTRY
DENTAL ASSISTANT WORKFORCE SHORTAGE ADVISORY COMMITTEE (DAWSAC)
Held as a Zoom Meeting

MINUTES
September 30, 2026

MEMBERS PRESENT:	Olesya Salathe, DMD, Co-Chair Amberena Fairlee, DMD – ODA Rep. Kari Hiatt – ODAA Rep. Lisa Rowley, RDH – ODHA (substitute for Lindsay Tuel, RDH) Alyssa Kobylinsky Jessica Andrews Amanda Cameron
OBD STAFF PRESENT:	Haley Robinson, Executive Director Kathleen McNeal, Licensing Manager
VISITORS PRESENT VIA TELECONFERENCE*:	Julie Spaniel, DDS; Mary Harrison, ODAA; Brett Hamilton, ODA

*This list is not exhaustive, as it was not possible to verify all participants at the teleconference.

Call to Order: The meeting was called to order by Chair Dr. Salathe at 5:03 p.m.

Self-Introductions of Committee Members
Chair Dr. Salathe welcomed everyone to the meeting and had the DAWSAC Members introduce themselves and share information about their current positions in the dental field.

Public Meeting Notice
Dr. Salathe announced that the Committee is subject to Public Meetings Law.

KEY TAKEAWAYS

- The Dental Assistant Workforce Shortage Advisory Committee (DAWSAC) held its third meeting of the year on September 30, 2026, chaired by Dr. Olesya Salathe, without a quorum (only 7 of 8 required members present).

- The committee reviewed state-by-state dental assistant registration requirements and discussed the feasibility of establishing a mandatory or voluntary dental assistant registry in Oregon.

- A voluntary Dental Assistant Registry is nearly ready to launch, pending testing; it will be voluntary unless legislative or rulemaking action is taken to make it mandatory.

- Key themes from the state comparison included infection control requirements, CE renewal cycles, tiered certification pathways, and scope of practice differences.

- The committee discussed the potential need for legislative action to mandate registration and CE requirements, noting that Oregon's long legislative session deadline (pre-session filing was September 11th) may limit immediate action.

- Survey results on dental assistant workforce retention were reviewed, highlighting pay, office culture, and training pathways as top concerns.

- The next DAWSAC meeting will be held in December (time changed to 5:30 PM), and meeting minutes will be carried forward due to lack of quorum.

DISCUSSED TOPICS

Attendance

- Meeting proceeded without quorum (6 members present); motions could not be formally passed.

- Minutes from the May 26, 2026 meeting were deferred to the next meeting due to lack of quorum.

Voluntary Dental Assistant Registry Launch

The committee discussed the current status of the voluntary Dental Assistant Registry, its scope, and the pathway to potentially making it mandatory.

- **Conclusion**

  - The registry will launch as voluntary in the near term.

  - OBD Staff will verify whether registered dental assistants will be publicly searchable online.

  - Incentivization strategies were proposed and noted for further consideration.

State-by-State Dental Assistant Registration Requirements Review (Attachment 4)

The committee reviewed research compiled on dental assistant registration requirements across multiple states, discussing key findings and how Oregon might compare.

- **Conclusion**
    - The committee agreed to organize state data into a comparative spreadsheet format, including columns for registration requirements, renewal cycles, fees, scope of practice, CE requirements, and allowed procedures.
    - Future research should focus on states with similar scopes of practice and/or regional neighbors.
    - Dr. Spaniel offered to provide detailed information on Vermont's tiered system for the December meeting.

Infection Control CE Requirement via Rulemaking

A focused discussion arose around whether infection control training could be required for dental assistants through rulemaking rather than legislation.

- **Conclusion**
    - Ms. Robinson will research whether infection control can be required via rulemaking and report back at the next DAWSAC meeting.
    - Ongoing CE renewal requirements would likely require legislative action.

Legislative Pathway and Timeline

The committee discussed whether and when to pursue legislative action to mandate dental assistant registration and CE requirements.

- **Conclusion**
    - Legislative action in the current long session is unlikely given the September 11th pre-session filing deadline.

- The committee will continue research and clarification through the December meeting, with a goal of presenting clearer recommendations to the Board.
- Ms. Robinson will obtain legislative session dates and deadlines for the committee.
- Members are encouraged to discuss the topic within their professional associations.

Dental Assisting Survey Results (Attachment 6)

The committee reviewed preliminary results from an ongoing workforce survey distributed to all licensees.

- **Conclusion**
  - Survey will continue to be distributed, with efforts to increase dental assistant participation.
  - Results will be presented at the October 23rd Board meeting.
  - Communication opportunities identified: DANB resources, digital impression permissions, and scope of practice clarity.

OPA Model and Broader National Trends

Dr. Salathe raised awareness of the Oral Preventive Assistant (OPA) model and other national developments in dental assistant scope of practice.

- **Conclusion**
  - The spreadsheet will include a column for OPA model activity or expanded scope programs by state.
  - Committee members are encouraged to stay informed on national trends.

Meeting Logistics and Next Steps

The committee addressed administrative matters, including quorum status, upcoming meetings, and meeting time preferences.

- **Conclusion**
    - Next DAWSAC meeting: December (date TBD), 5:30 PM.
    - October 23rd Board meeting will include DAWSAC discussion summary and OBD Staff action items.
    - February 26th, 2027 is the next Board meeting following the December DAWSAC meeting.

Adjournment: The meeting was adjourned at 6:03 p.m. The next DAWSAC meeting will be scheduled at a later date.

Oregon Board of Dentistry Committee and Liaison Assignments
August 2026 - April 2027
STANDING COMMITTEES

Dental Assistant Workforce Shortage Advisory Committee (DAWSAC)
Purpose: To review, discuss and make recommendations to the Board on addressing workforce shortages in accordance with HB 3223 (2023).
Committee:
Olesya Salathe, D.M.D., Co-Chair
Ginny Jorgensen, Co-Chair
Amberena Fairlee, D.M.D., ODA Rep.
Lindsay Tuel, R.D.H., ODHA Rep.
Kari Hiatt, ODAA Rep.
Kimberly Perlot R.D.H., D.T.- DT Rep.
Alyssa Kobylinsky
Lynn Murray
Alexandria Case
Jessica Andrews
Amanda Cameron
Carmen Mons
Cassie Gilbert
Megan Barron

Licensing, Standards and Competency
Purpose: To improve licensing programs and assure competency of licensees and applicants.
Committee:
Sharity Ludwig, R.D.H., Chair
Aaron Tinkle, D.M.D.
Aarati Kalluri, D.D.S.
Kieshawn Lewis
Julie Spaniel, D.D.S., ODA Rep.
Heidi Klobes, R.D.H., ODHA Rep.
Jill Lomax, ODAA Rep.
Kristen Moses, R.D.H., D.T., DT Rep.

Rules Oversight
Purpose: To review and refine OBD rules.
Committee:
Sheena Kalia, D.D.S., Chair
Olesya Salathe, D.M.D.
Kristen Simmons, R.D.H.
Ginny Jorgensen
Geoffrey R. Clive, D.D.S., ODA Rep.
Alicia Riedman, R.D.H., ODHA Rep.
Mary Harrison, ODAA Rep.
Raelene Cabrera, R.D.H., D.T., DT Rep

Dental Therapy Rules Oversight
Purpose: To draft, refine and update dental therapy rules.
Committee:
Kristen Simmons, R.D.H. Chair
Jared Thompson, D.M.D.
Ginny Jorgensen
Sarah Kowalski, R.D.H., OHA Rep.
Brandon Schwindt, D.M.D., ODA Rep.

Amy Coplen, R.D.H., D.T., ODHA Rep.
Alexandria Case, ODAA Rep.
Wilbur Ramirez-Rodriguez, R.D.H., D.T., DT Rep.
Raelene Cabrera, D.T., DT Rep.
Miranda Davis, D.D.S., DT Rep.

Communications
Purpose: To enhance communications to all constituencies.
Committee:
Kieshawn Lewis, Chair
Sharity Ludwig, R.D.H.
Aaron Tinkle, D.M.D.
Jared Thomson, D.M.D.
Alayna Schoblaske, D.M.D., ODA Rep.
Alicia Riedman, R.D.H., ODHA Rep.
Christina Becker, ODAA Rep.
Jason Mecum, D.T., DT Rep.

Dental Hygiene
Purpose: To review issues related to Dental Hygiene.
Committee:
Sharity Ludwig, R.D.H, Chair
Kristen Simmons, R.D.H.
Jared Thompson, D.M.D.
David J. Dowsett, D.M.D., ODA Rep.
Daniel Martinenez Tovar, R.D.H., ODHA Rep.
Lynn Murray, ODAA Rep.
Mark Kobylinsky, R.D.H., D.T., DT Rep.

Enforcement and Discipline
Purpose: To improve the discipline process.
Committee:
Olesya Salathe, D.M.D., Chair
Kristen Simmons, R.D.H.
Kieshawn Lewis
Jason Bajuscak, D.M.D., ODA Rep.
Jill Mason R.D.H., ODHA Rep.
Mary Harrison, ODAA Rep.
Yadira Martinez, R.D.H., D.T., DT Rep.

Anesthesia
Purpose: To review and make recommendations on the Board's rules regulating the administration of sedation in dental offices.
Committee:
Reza Sharifi, D.M.D., Chair
Sheena Kalia, D.D.S.
Julie Ann Smith, D.D.S., M.D.

Brandon Schwindt, D.M.D.
Mark Mutschler, D.D.S.
Normund Auzins, D.D.S
Ryan Allred, D.M.D.
Jay Wylam, D.M.D.
Michael Doherty, D.D.S.
Eric Downey, D.D.S
Jeffrey Kobernik, D.M.D.

LIAISONS

Haley Robinson, Executive Director, and current OBD Board Members choose assignments and interest in other entities as they arise.
American Assoc. of Dental Administrators (AADA)
American Assoc. of Dental Boards (AADB)
American Board of Dental Examiners (ADEX) (f/k/a CDCA WREB CITA)
CRDTS-SRTA

EXECUTIVE DIRECTOR'S REPORT

EXECUTIVE DIRECTOR'S REPORT
October 23, 2026

OBD Budget Report

Attached is the budget report for the 2025 – 2027 Biennium. This report, which is from July 1, 2025, through August 31, 2026, shows revenue of $2,535,516.44 and expenditures of $2,284,527.17. **Attachment #1**

Customer Service Survey

Attached are the legislatively mandated survey results from July 1, 2026 – October 12, 2026, which is the start of FY 2027. The results of the survey show that the OBD received positive ratings from the majority of those that chose to submit a survey. **Attachment #2**

CLEAR's 46th Annual Education Conference

Dr. Angela Smorra attended CLEAR's 46th Annual Educational Conference September 14–17. It was held in Portland, Oregon. The conference focused on topics such as enforcement, compliance, discipline, licensure and testing, mobility, equity, governance, digital transformation, workforce development, and public protection.

Dental Hygiene & Dental Therapy License Renewal

The license renewal period started in mid-July and ended September 30th.

- Preliminary Dental Therapy license renewal shows **13 renewed for 2026.**
- Preliminary Dental Hygiene license renewal shows **1982 renewed for 2026.**

Past Years RDH License Renewals:

- In 2025 1906
- In 2024 1918
- In 2023 1908
- In 2022 1884
- In 2021 1888
- In 2020 1948
- In 2019 1946
- In 2018 1954

FY 2026 Annual Performance Progress Report

Attached is the OBD's FY 2026 Annual Performance Progress Report which was submitted to DAS and the Legislative Fiscal Office as required each year. The OBD reports excellent results for the fiscal year. **Attachment #3**

Dental Testing and Regulatory Summit

The American Association of Dental Administrators (AADA), the American Association of Dental Boards (AADB), ADEX and educators' multi-day meeting was held in National Harbor, MD, October 14 – 18, 2026. Kristen Simmons, RDH, Olesya Salathe, DMD and Haley Robinson attended the educators conference and AADB Meeting. All information

and meeting agendas can be found at this web link 2026 Dental Testing & Regulatory Summit and Educators Conference

Dental Assisting Survey

The dental assisting survey presented at the June 2026 Board meeting was distributed to all licensees via email on June 26, 2026. Licensees were encouraged to share the survey with their dental assistants and invite them to participate. Survey results received since the August 2026 Board meeting to date are attached. **Attachment #4**

Dental Assistant Registry

The OBD's current licensing system provider developed a dental assistant registry. The registry link will be emailed to all licensees and stakeholders and posted on the website after this meeting.

Oregon Agency Expectations – Progress Report

In January 2023, Oregon Governor Tina Kotek outlined 11 expectations for state agency operations. This report updates progress made in meeting expectations. This report updates eight of the 11 measures. It details the actions agencies have taken to meet expectations and reports performance data. The OBD continues to meet all requirements and expectations. **Attachment #5**

2027 Board Meeting Dates

The Board approved the 2027 board meeting dates at its April 2027 board meeting. The August meeting will need to be moved from August 20, 2027 date. August 13, 2027 is the suggested new meeting date. **Attachment #6**

Oregon Board of Dentistry

Date run: 9/20/2026

For the Month of **AUGUST 2026** AY 2027 FY 2027

3400 BOARD OF DENTISTRY *REVENUE*

D10 Compt Srce Grp	D10 Compt Srce Grp Ttl	Current Month	Bien_To_Date	Financial Plan	Unobligated Balance
0205	OTHER BUSINESS LICENSES	195,222.00	2,341,065.00	4,174,320.00	1,833,255.00
0210	OTHER NONBUSINESS LICENSES AND FEES	0.00	12,850.00	14,000.00	1,150.00
0410	CHARGES FOR SERVICES	1,823.50	16,582.50	146,000.00	129,417.50
0505	FINES AND FORFEITS	2,000.00	95,958.23	240,000.00	144,041.77
0605	INTEREST AND INVESTMENTS	4,973.47	68,380.71	60,000.00	(8,380.71)
0975	OTHER REVENUE	60.00	680.00	9,000.00	8,320.00
Grand Total		**204,078.97**	**2,535,516.44**	**4,643,320.00**	**2,107,803.56**

3400 BOARD OF DENTISTRY *TRANSFER OUT*

D10 Compt Srce Grp	D10 Compt Srce Grp Ttl	Current Month	Bien_To_Date	Financial Plan	Unobligated Balance
2443	TRANSFER OUT TO OREGON HEALTH AUTHORITY	0.00	100,189.00	200,000.00	99,811.00
Grand Total		**0.00**	**100,189.00**	**200,000.00**	**99,811.00**

3400 BOARD OF DENTISTRY *PERSONAL SERVICES*

D10 Compt Srce Grp	D10 Compt Srce Grp Ttl	Current Month	Bien_To_Date	Financial Plan	Unobligated Balance
3110	CLASS/UNCLASS SALARY & PER DIEM	51,248.47	764,552.60	1,560,470.00	795,917.40
3115	BOARD MEMBER STIPENDS	3,382.00	29,370.00	0.00	(29,370.00)
3160	TEMPORARY APPOINTMENTS	0.00	0.00	4,778.00	4,778.00
3170	OVERTIME PAYMENTS	0.00	0.00	6,949.00	6,949.00
3180	SHIFT DIFFERENTIAL	0.00	24.00	0.00	(24.00)
3190	ALL OTHER DIFFERENTIAL	1,047.87	22,279.57	43,252.00	20,972.43
3210	ERB ASSESSMENT	15.00	234.00	504.00	270.00
3220	PUBLIC EMPLOYES' RETIREMENT SYSTEM	11,679.35	171,337.95	296,742.00	125,404.05
3221	PENSION BOND CONTRIBUTION	2,091.87	32,658.20	55,258.00	22,599.80
3230	SOCIAL SECURITY TAX	4,203.57	61,294.32	113,690.00	52,395.68
3241	PAID FAMILY MEDICAL LEAVE INSURANCE	219.77	3,199.55	5,572.00	2,372.45
3250	WORKERS' COMPENSATION ASSESSMENT	8.50	126.48	294.00	167.52
3260	MASS TRANSIT	313.76	4,720.87	10,321.00	5,600.13
3270	FLEXIBLE BENEFITS	10,945.64	156,230.77	307,874.00	151,643.23
Grand Total		**85,155.80**	**1,246,028.31**	**2,405,704.00**	**1,159,675.69**

3400 BOARD OF DENTISTRY *SERVICES AND SUPPLIES*

D10 Compt Srce Grp	D10 Compt Srce Grp Ttl	Current Month	Bien_To_Date	Financial Plan	Unobligated Balance
4100	INSTATE TRAVEL	265.24	7,034.68	57,512.00	50,477.32
4125	OUT-OF-STATE TRAVEL	0.00	0.00	8,564.00	8,564.00
4150	EMPLOYEE TRAINING	1,030.00	8,512.46	61,404.00	52,891.54
4175	OFFICE EXPENSES	1,317.49	24,844.31	103,313.00	78,468.69
4200	TELECOMM/TECH SVC AND SUPPLIES	332.47	11,869.86	28,227.00	16,357.14
4225	STATE GOVERNMENT SERVICE CHARGES	7,785.20	206,149.87	266,545.00	60,395.13
4250	DATA PROCESSING	3,244.66	126,226.96	170,267.00	44,040.04
4275	PUBLICITY & PUBLICATIONS	66.31	1,087.85	37,519.00	36,431.15
4300	PROFESSIONAL SERVICES	7,025.00	156,929.30	557,636.00	400,706.70
4315	IT PROFESSIONAL SERVICES	691.00	7,447.00	176,116.00	168,669.00

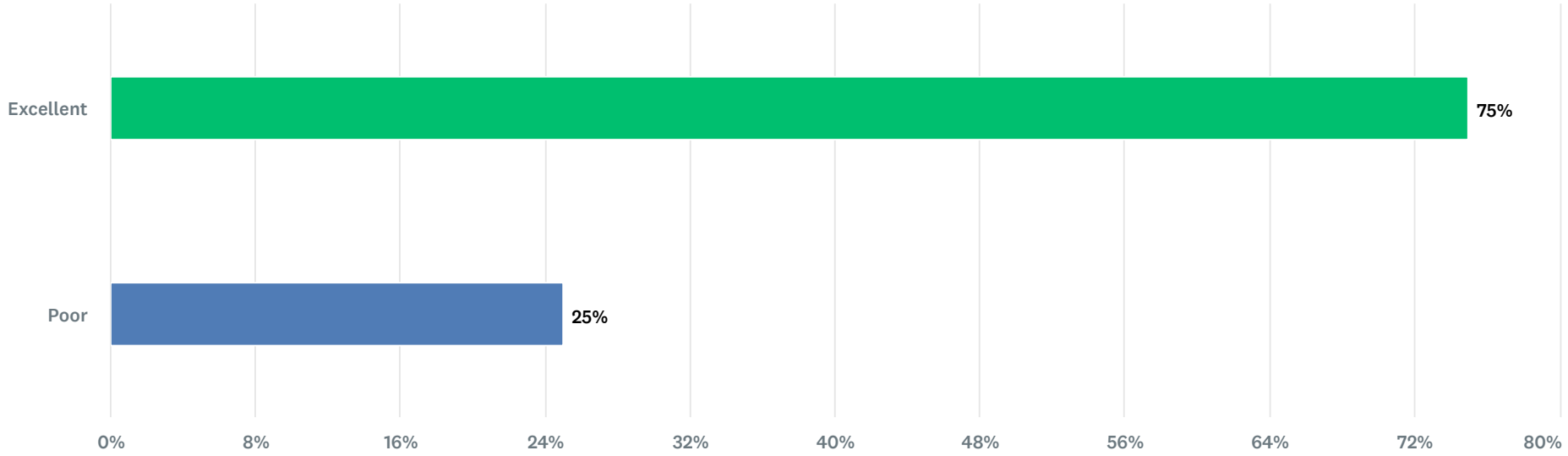
Attachment #1

D10 Compt Srce Grp	D10 Compt Srce Grp Ttl	Current Month	Bien_To_Date	Financial Plan	Unobligated Balance
4325	ATTORNEY GENERAL LEGAL FEES	1,900.80	104,463.35	459,308.00	354,844.65
4375	EMPLOYEE RECRUITMENT AND DEVELOPMENT	0.00	0.00	798.00	798.00
4400	DUES AND SUBSCRIPTIONS	0.00	1,200.00	11,807.00	10,607.00
4425	LEASE PAYMENTS & TAXES	6,917.50	93,394.11	215,252.00	121,857.89
4475	FACILITIES MAINTENANCE	929.00	11,975.00	661.00	(11,314.00)
4575	AGENCY PROGRAM RELATED SVCS & SUPP	2,283.00	27,649.37	148,652.00	121,002.63
4650	OTHER SERVICES AND SUPPLIES	4,797.63	147,488.50	96,385.00	(51,103.50)
4700	EXPENDABLE PROPERTY $250-$10000	0.00	0.00	6,609.00	6,609.00
4715	IT EXPENDABLE PROPERTY	0.00	2,037.24	26,593.00	24,555.76
Grand Total		**38,585.30**	**938,309.86**	**2,433,168.00**	**1,494,858.14**

				Current Month	Bien_To_Date	Rpt Mm Bal Ytd Avg
3400	**BOARD OF DENTISTRY**	Revenue	***REVENUE***	204,078.97	2,535,516.44	2,494,339.35
		Revenue Total		**204,078.97**	**2,535,516.44**	**2,494,339.35**
		Expenditures	***PERSONAL SERVICES***	85,155.80	1,246,028.31	1,286,180.42
			SERVICES AND SUPPLIES	38,585.30	938,309.86	1,300,522.08
			TRANSFER OUT	0.00	100,189.00	104,185.00
		Expenditures Total		**123,741.10**	**2,284,527.17**	**2,690,887.50**

Q1 4 responses

How would you rate the timeliness of services provided by the Oregon Board of Dentistry?

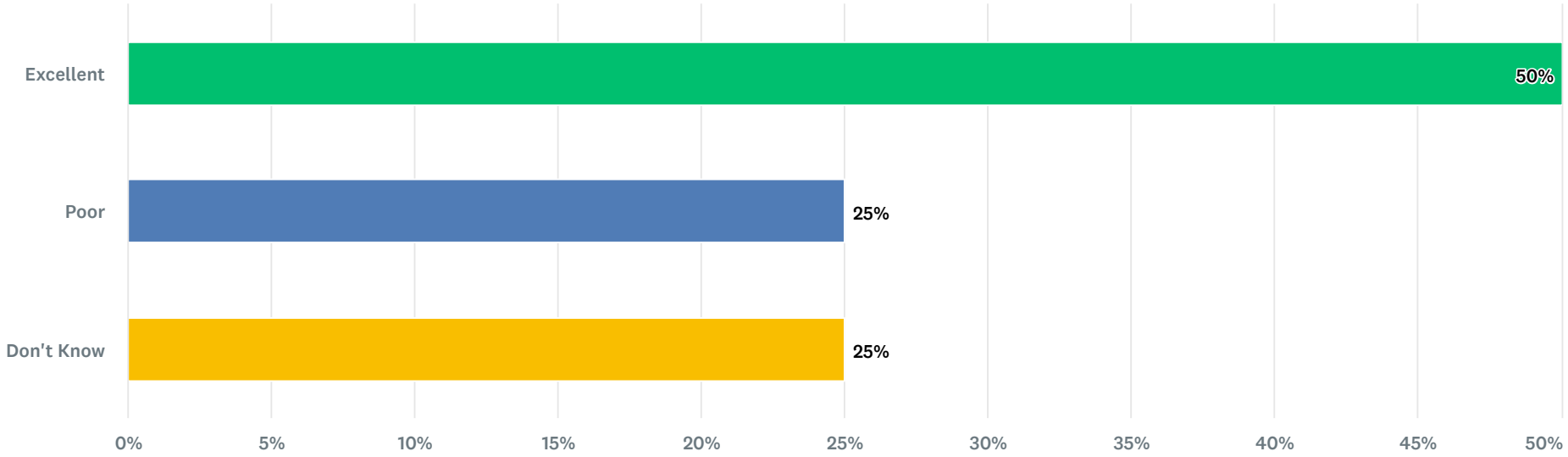


Answer Choices	Percentage	Responses
Excellent	75%	3
Poor	25%	1
Total		**4**

Attachment #2

Q2 4 responses

How do you rate the ability of the Oregon Board of Dentistry to provide services correctly the first time?

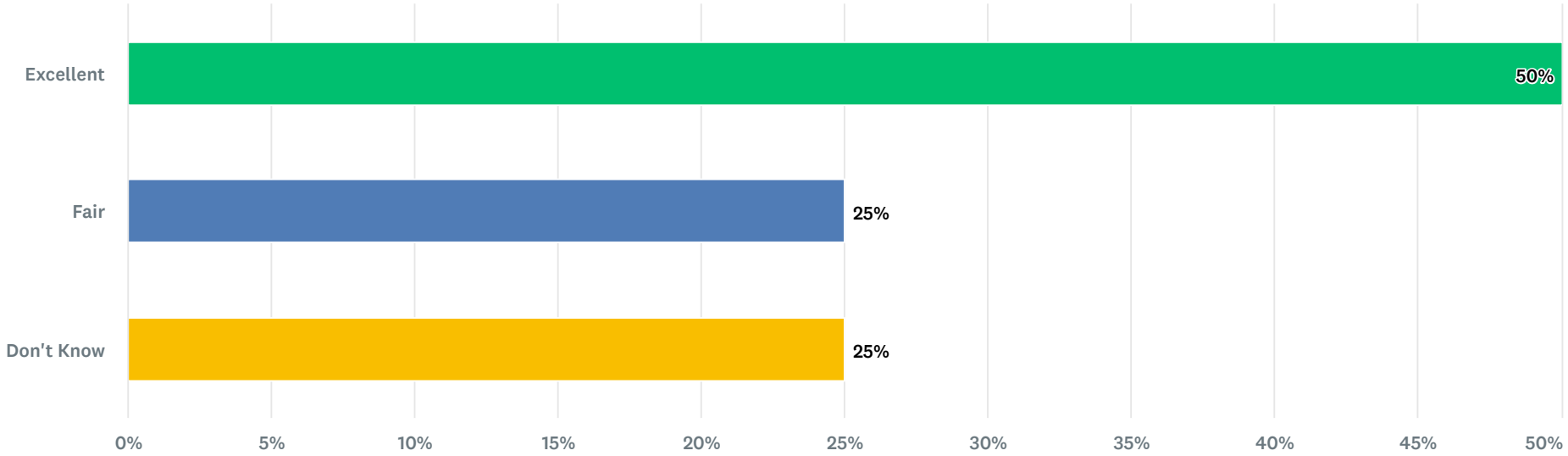


Answer Choices	Percentage	Responses
Excellent	50%	2
Poor	25%	1
Don't Know	25%	1
Total		**4**

Attachment #2

Q3 4 responses

How do you rate the helpfulness of the Oregon Board of Dentistry employees?

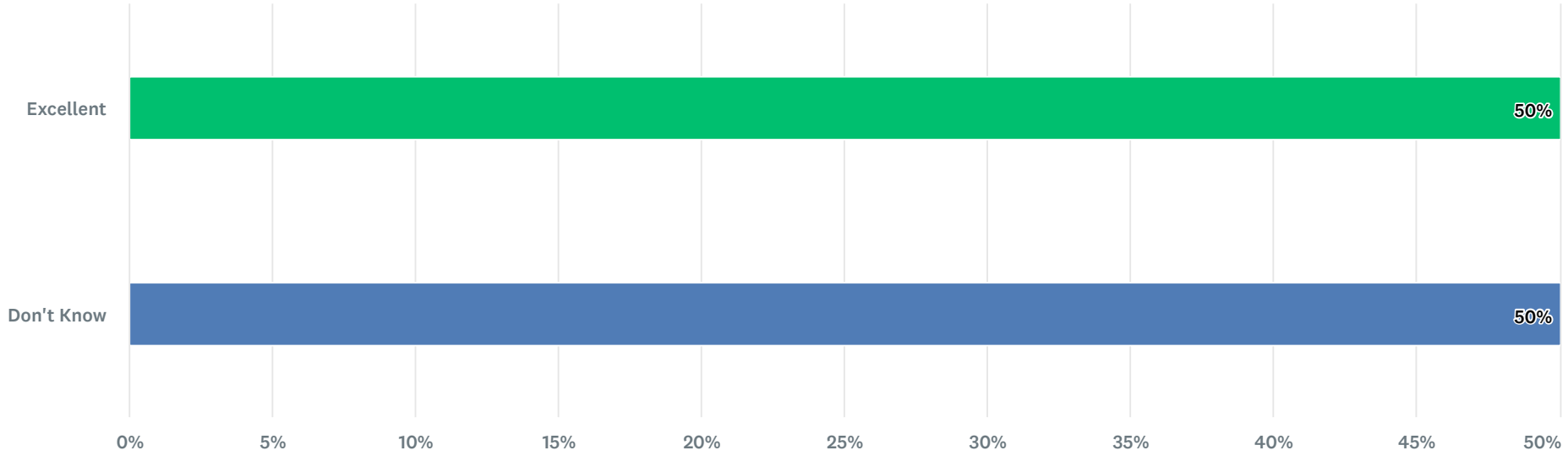


Answer Choices	Percentage	Responses
Excellent	50%	2
Fair	25%	1
Don't Know	25%	1
Total		**4**

Attachment #2

Q4 4 responses

How do you rate the knowledge and expertise of the Oregon Board of Dentistry employees?

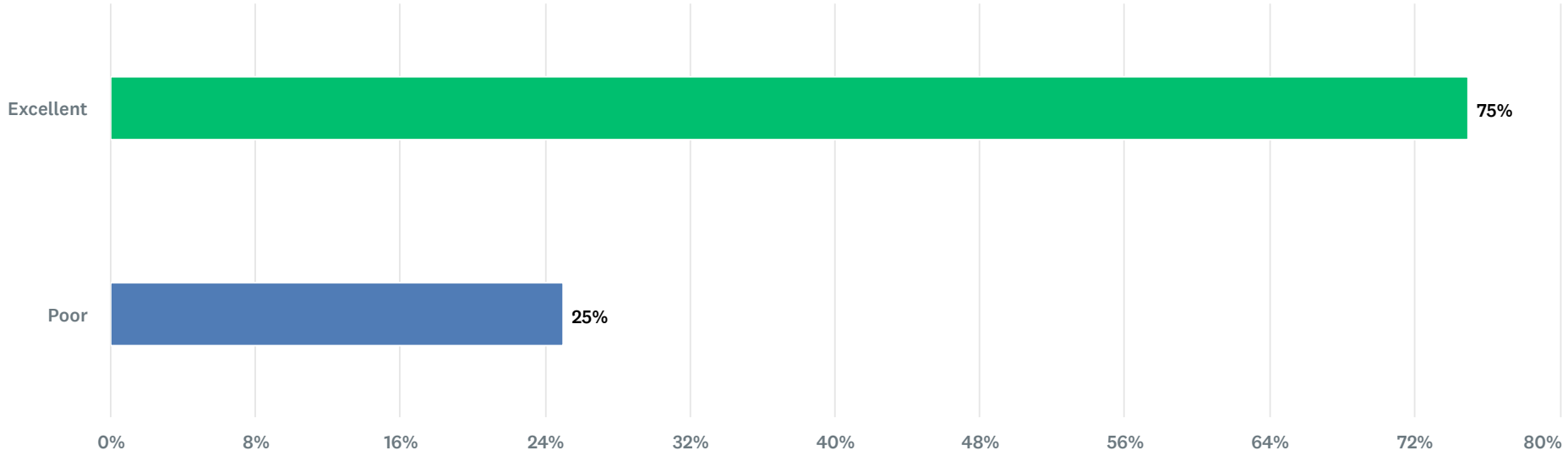


Answer Choices	Percentage	Responses
Excellent	50%	2
Don't Know	50%	2
Total		**4**

Attachment #2

Q5 4 responses

How do you rate the availability of information at the Oregon Board of Dentistry?

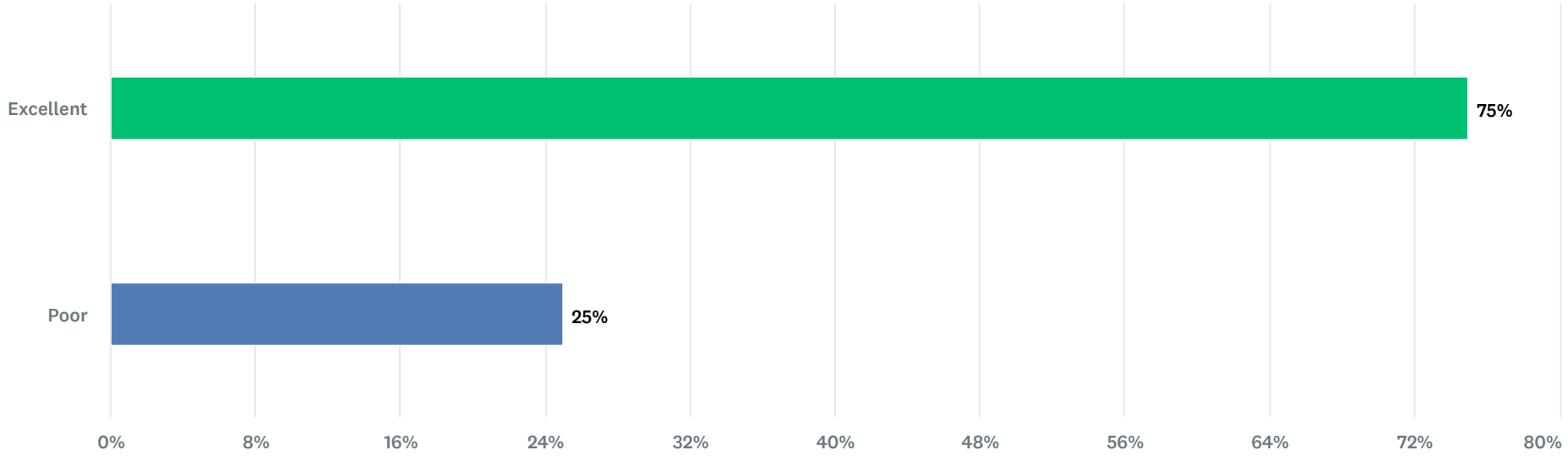


Answer Choices	Percentage	Responses
Excellent	75%	3
Poor	25%	1
Total		**4**

Attachment #2

Q6 4 responses

How do you rate the overall quality of service provided by the Oregon Board of Dentistry?



Answer Choices	Percentage	Responses
Excellent	75%	3
Poor	25%	1
Total		**4**

Attachment #2

Board of Dentistry

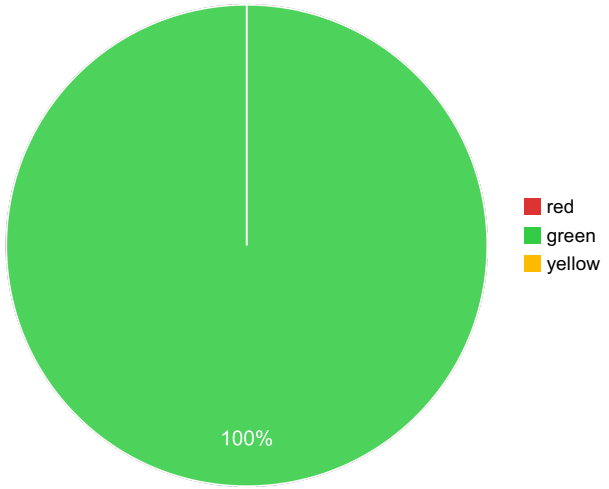
Annual Performance Progress Report

Reporting Year 2026

Published: 9/30/2026 1:20:00 PM

Attachment #3

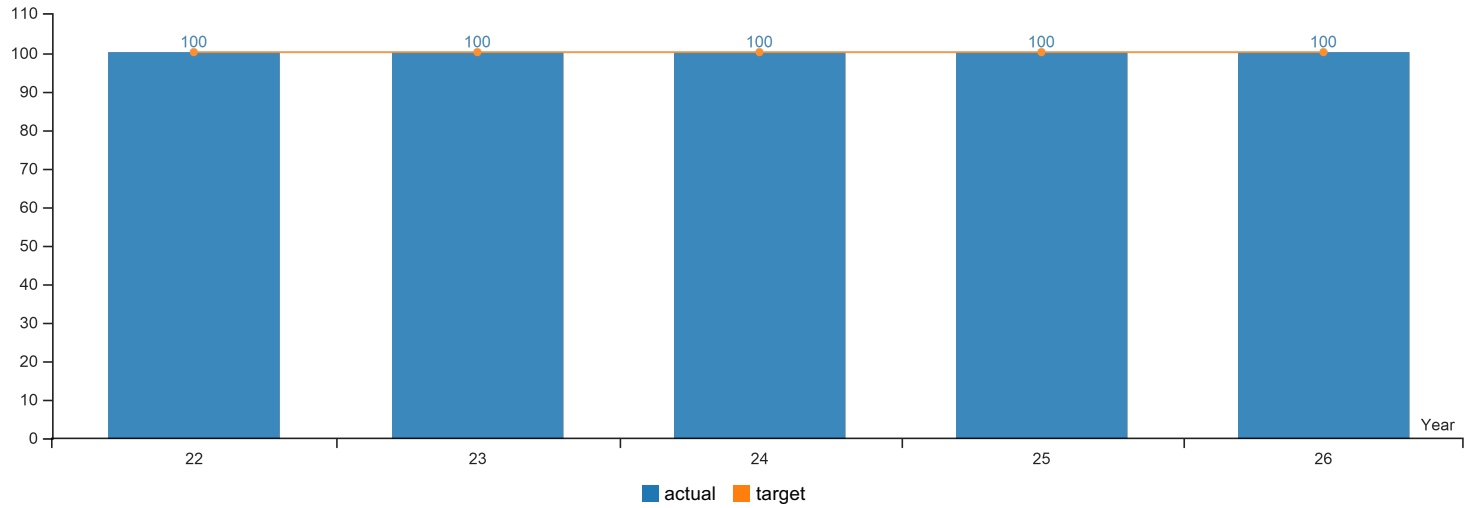
KPM #	Approved Key Performance Measures (KPMs)
1	Continuing Education Compliance - Percent of Licensees in compliance with continuing education requirements.
2	Time to Investigate Complaints - Average months from receipt of new complaints to completed investigation.
3	Days to Complete License Paperwork - Average number of working days from receipt of completed paperwork to issuance of license.
4	Customer Satisfaction with Agency Services - Percent of customers rating their satisfaction with the agency's customer service as "good" or "excellent": overall, timeliness, accuracy, helpfulness, expertise, availability of information.
5	Board Best Practices - Percent of total best practices met by the Board.



Performance Summary	Green	Yellow	Red
	= Target to -5%	= Target -5% to -15%	= Target > -15%
Summary Stats:	100%	0%	0%

KPM #1	Continuing Education Compliance - Percent of Licensees in compliance with continuing education requirements.
	Data Collection Period: Jul 01 - Jun 30

** Upward Trend = positive result*



Report Year	2022	2023	2024	2025	2026
Percent of Licensees in Compliance with Continuing Education Requirements					
Actual	100%	100%	100%	100%	100%
Target	100%	100%	100%	100%	100%

How Are We Doing

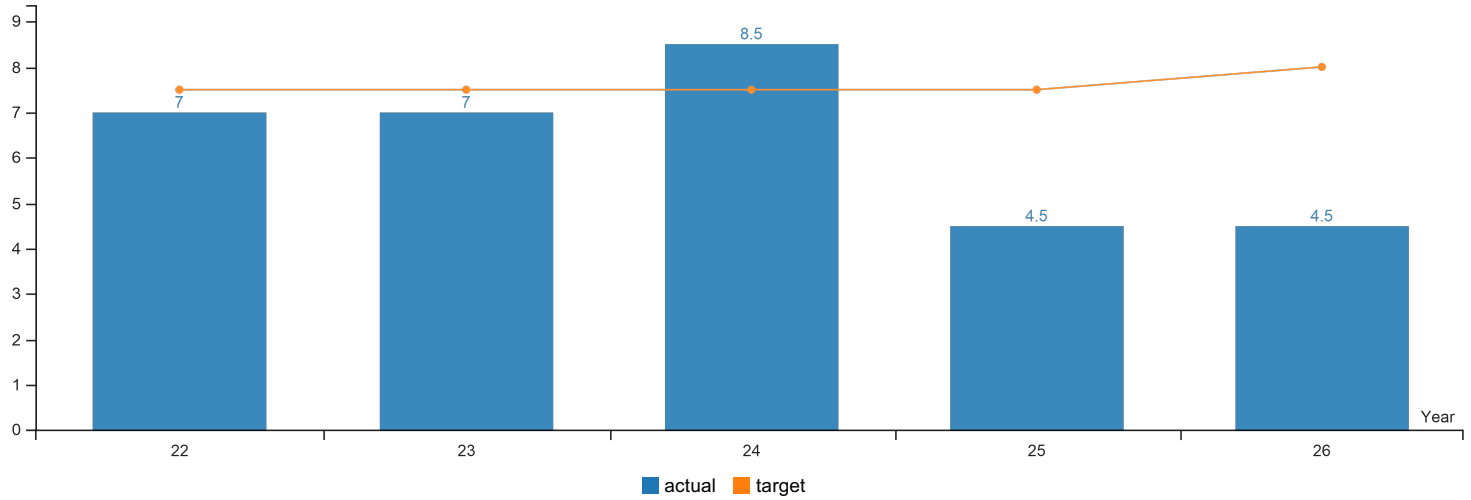
In FY 2026, the Board achieved this goal by ensuring licensees completed and complied with continuing education (CE) requirements. The Board believes that maintaining current knowledge of clinical practice, regulatory changes, and emerging issues is essential to protecting the public. Licensees are required to complete continuing education during each two-year licensure period. Compliance is monitored through license renewal attestations, reviewed during investigations when applicable, and verified through random audits each renewal cycle. Board staff follow up as needed to ensure all licensees satisfy the required continuing education standards.

Factors Affecting Results

Board staff work closely with licensees to communicate and clarify the requirements necessary to comply with Board statutes and administrative rules.

KPM #2	Time to Investigate Complaints - Average months from receipt of new complaints to completed investigation.
	Data Collection Period: Jul 01 - Jun 30

** Upward Trend = negative result*



Report Year	2022	2023	2024	2025	2026
Average time to Investigate Complaints					
Actual	7	7	8.50	4.50	4.50
Target	7.50	7.50	7.50	7.50	8

How Are We Doing

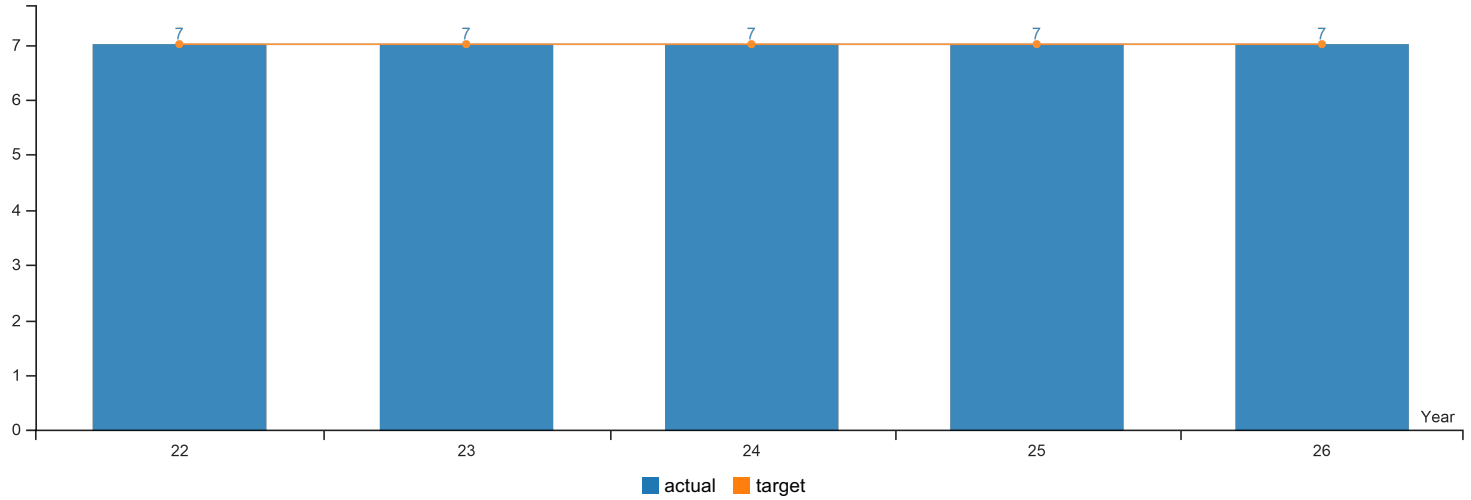
In FY 2026, Board investigators continued to process and close cases efficiently while maintaining the quality and thoroughness of investigations. Regularly scheduled Board meetings proceeded as planned despite ongoing operational challenges. Investigation timelines may vary based on factors such as case complexity, the number of treatment providers involved, the timeliness of responses, and the cooperation of all parties throughout the investigative process.

Factors Affecting Results

The total number of investigations opened in FY 2026 was 209 compared to 213 in FY 2025. The number of cases closed in FY 2026 was 215 compared to 225 in FY 2025. All new complaints are addressed and investigated in a timely manner.

KPM #3	Days to Complete License Paperwork - Average number of working days from receipt of completed paperwork to issuance of license.
	Data Collection Period: Jul 01 - Jun 30

** Upward Trend = positive result*



Report Year	2022	2023	2024	2025	2026
Average Number of Working Days to Issue license after Paperwork is Completed.					
Actual	7	7	7	7	7
Target	7	7	7	7	7

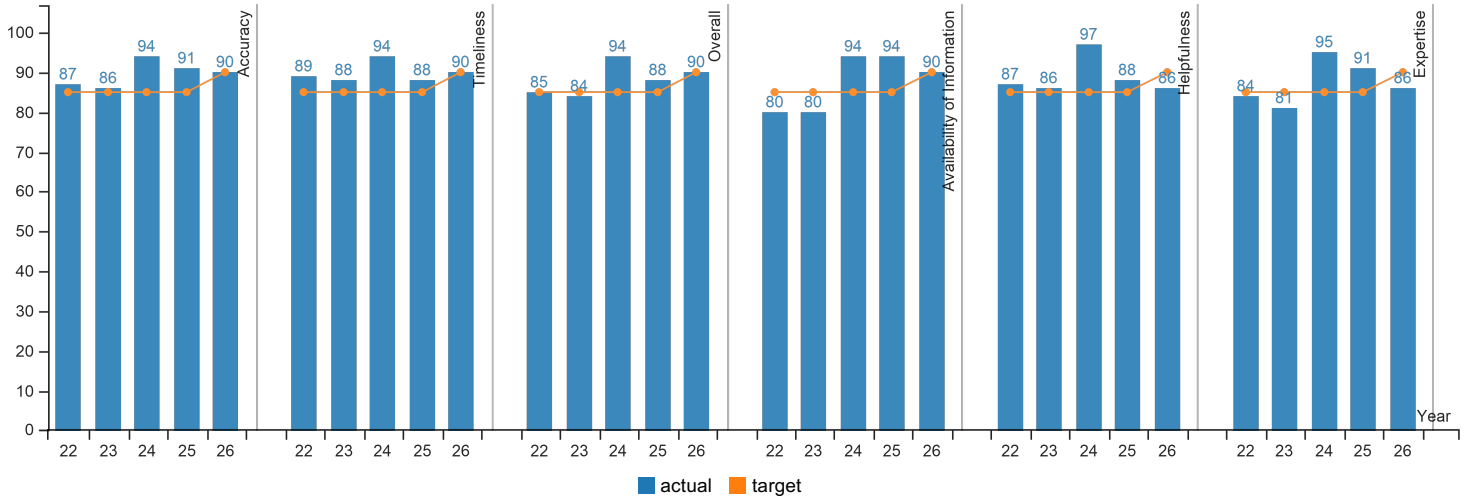
How Are We Doing

In FY 2026, the Board successfully achieved this goal. Although processing times were occasionally affected by external agencies, educational institutions, licensing boards in other states, and other third parties, Board staff processed and issued licenses with minimal delay once all required documentation was received through the online licensing portal.

Factors Affecting Results

The OBD is committed to processing license applications and renewals accurately, efficiently, and in a timely manner to ensure qualified applicants are licensed without unnecessary delay.

KPM #4	Customer Satisfaction with Agency Services - Percent of customers rating their satisfaction with the agency's customer service as "good" or "excellent": overall, timeliness, accuracy, helpfulness, expertise, availability of information.
	Data Collection Period: Jul 01 - Jun 30



Report Year	2022	2023	2024	2025	2026
Accuracy					
Actual	87%	86%	94%	91%	90%
Target	85%	85%	85%	85%	90%
Timeliness					
Actual	89%	88%	94%	88%	90%
Target	85%	85%	85%	85%	90%
Overall					
Actual	85%	84%	94%	88%	90%
Target	85%	85%	85%	85%	90%
Availability of Information					
Actual	80%	80%	94%	94%	90%
Target	85%	85%	85%	85%	90%
Helpfulness					
Actual	87%	86%	97%	88%	86%
Target	85%	85%	85%	85%	90%
Expertise					
Actual	84%	81%	95%	91%	86%
Target	85%	85%	85%	85%	90%

How Are We Doing

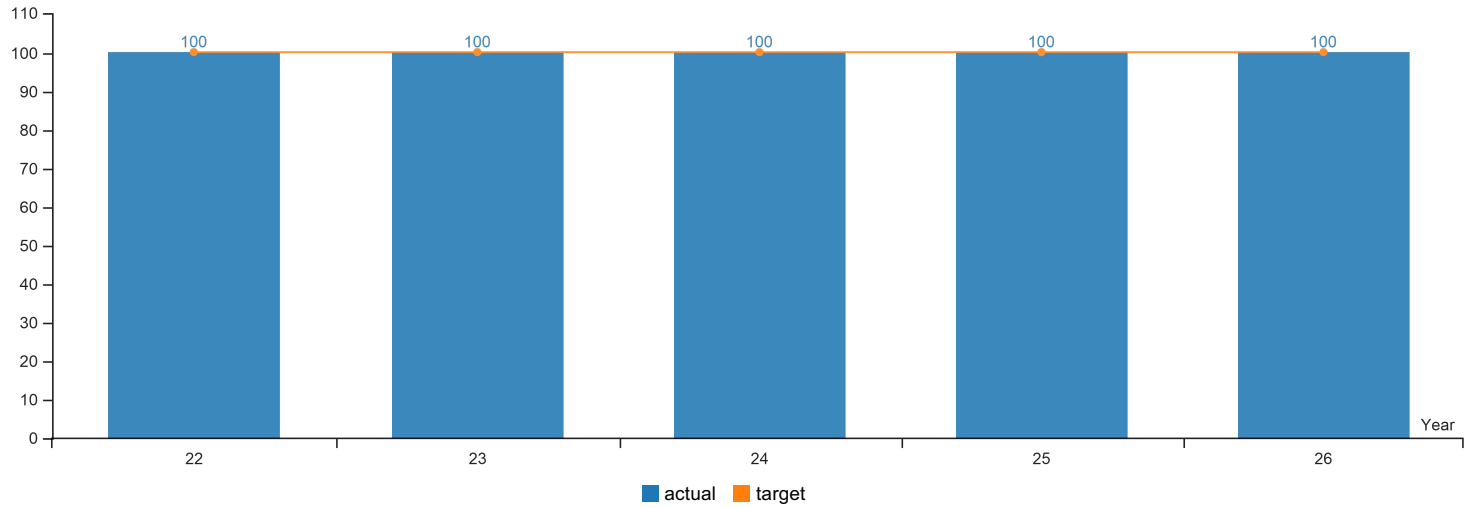
In FY 2026, the Board successfully achieved this goal. In accordance with the Oregon Legislature's directive, the Board conducted its annual Customer Service Survey to assess stakeholder satisfaction with the Board's services and its fulfillment of statutory responsibilities. Overall, the survey results were positive, demonstrating the Board's continued commitment to providing accurate, timely, and professional service.

Factors Affecting Results

Participation in the Customer Service Survey is voluntary, and the Board will continue to promote the survey and encourage stakeholder feedback. In addition to survey responses, the Board regularly receives direct feedback from licensees, applicants, and the public. This input provides valuable insight into how the Board's actions and services affect stakeholders and helps identify opportunities for continuous improvement.

KPM #5	Board Best Practices - Percent of total best practices met by the Board.
	Data Collection Period: Jul 01 - Jun 30

** Upward Trend = positive result*



Report Year	2022	2023	2024	2025	2026
Compliance with Best Practices Performance Measurement					
Actual	100%	100%	100%	100%	100%
Target	100%	100%	100%	100%	100%

How Are We Doing

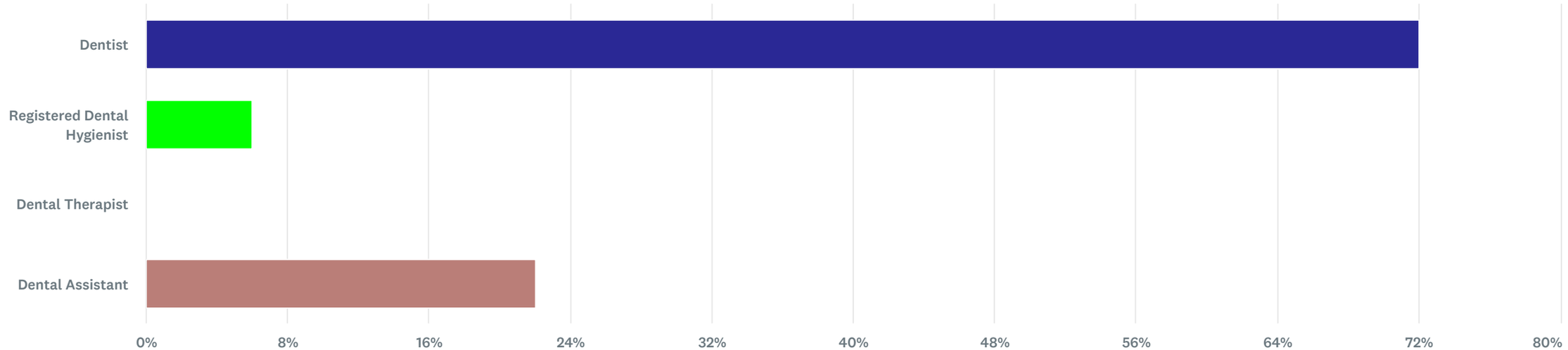
The Board annually reviews the 15 performance metrics outlined in the Board Best Practices framework during its August Board meeting. As part of its commitment to effective governance and accountability, the Board also conducts an annual performance evaluation of the Executive Director. The Executive Director has received an annual performance review each year since 2015. Through its ongoing review of the Best Practices Performance Measures for Governing Boards and Commissions, the Board continues to assess its effectiveness and identify opportunities to strengthen governance and organizational performance.

Factors Affecting Results

The Board Members are engaged and dedicated to their responsibilities, duties and obligations serving Oregon in their capacity. The Board approved the Board Best Practices' Assessment document at its August 21, 2026, Board Meeting.

Q1 50 responses

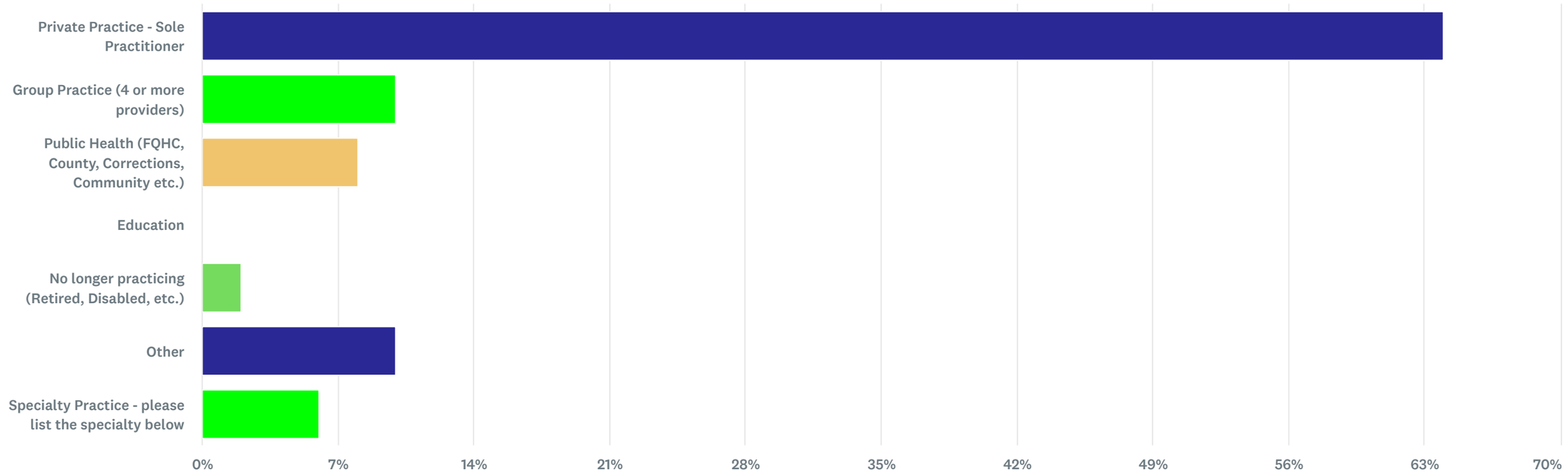
Are you a dentist, registered dental hygienist, dental therapist, or dental assistant?



Attachment #4

Q2 50 responses

What type of setting do you primarily practice/work in?



Answer Choices	Percentage	Responses
Private Practice - Sole Practitioner	64.00%	32
Group Practice (4 or more providers)	10.00%	5
Public Health (FQHC, County, Corrections, Community etc.)	8.00%	4
Total		**50**

Attachment #4

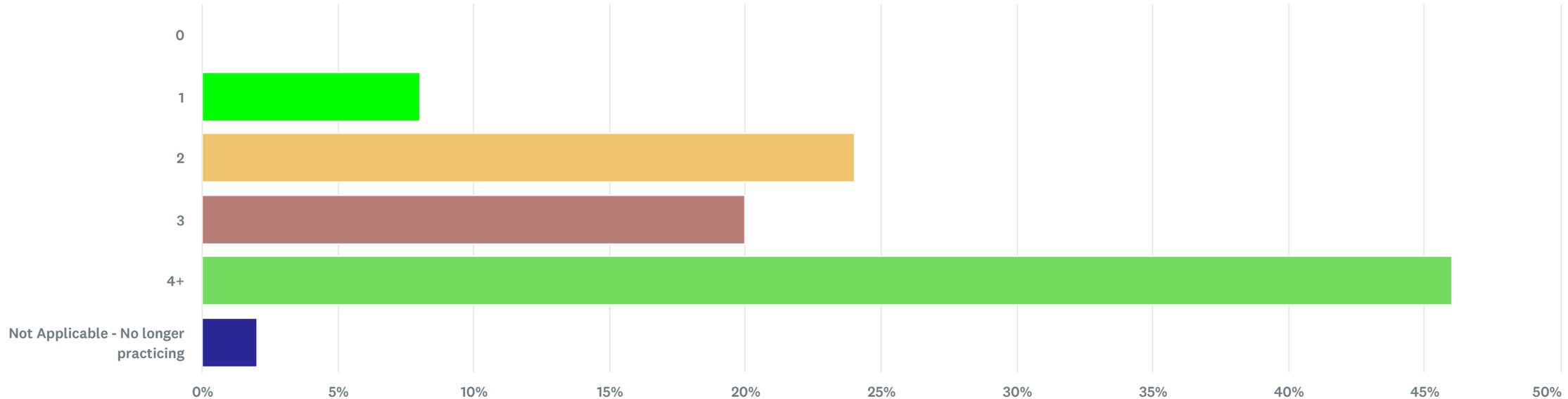
Education	0%	0
No longer practicing (Retired, Disabled, etc.)	2.00%	1
Other	10.00%	5
Specialty Practice - please list the specialty below	6.00%	3
Total		**50**

#	SPECIALTY PRACTICE - PLEASE LIST THE SPECIALTY BELOW	DATE
1	Endo	9/14/2026 3:33 PM
2	Pediatric	8/30/2026 8:08 AM
3	Endodontics	8/28/2026 7:06 PM

Attachment #4

Q3 50 responses

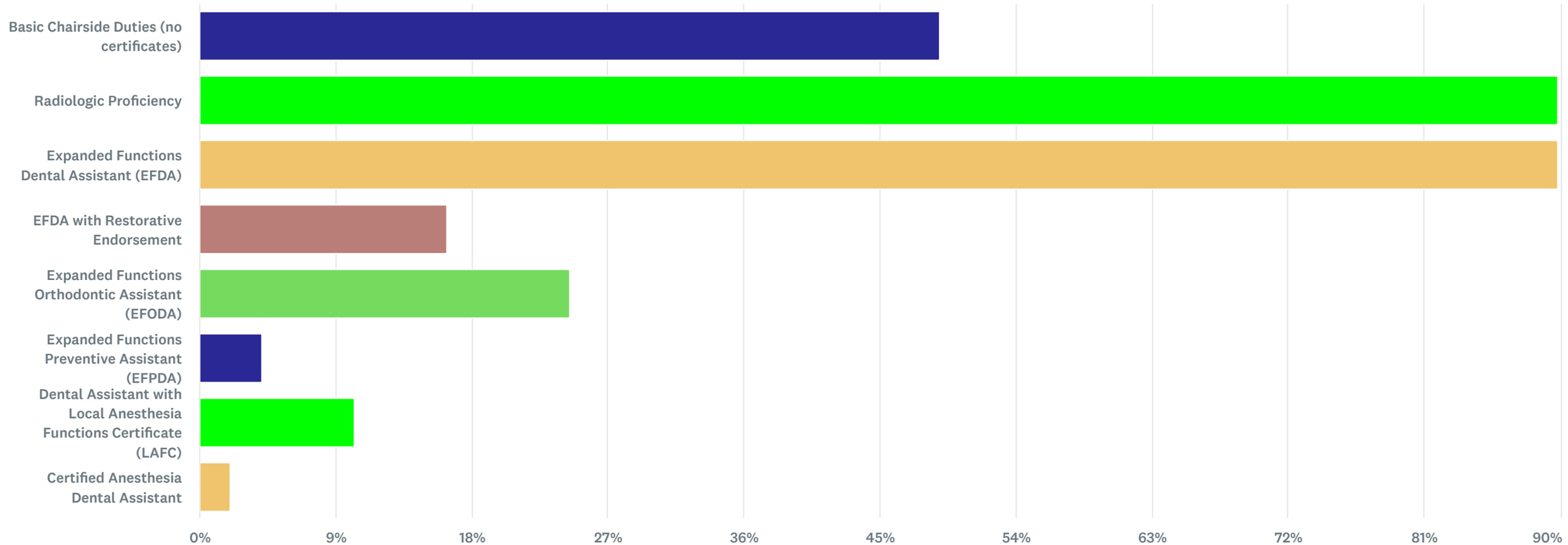
How many dental assistants do you employ or work at your primary location?



Attachment #4

Q4 49 responses

Which of the following Oregon certifications do you or dental assistant(s) in the office hold? (Check all that apply)



Answer Choices	Percentage	Responses
Basic Chairside Duties (no certificates)	48.98%	24
Radiologic Proficiency	89.80%	44
Total		**140**

Attachment #4

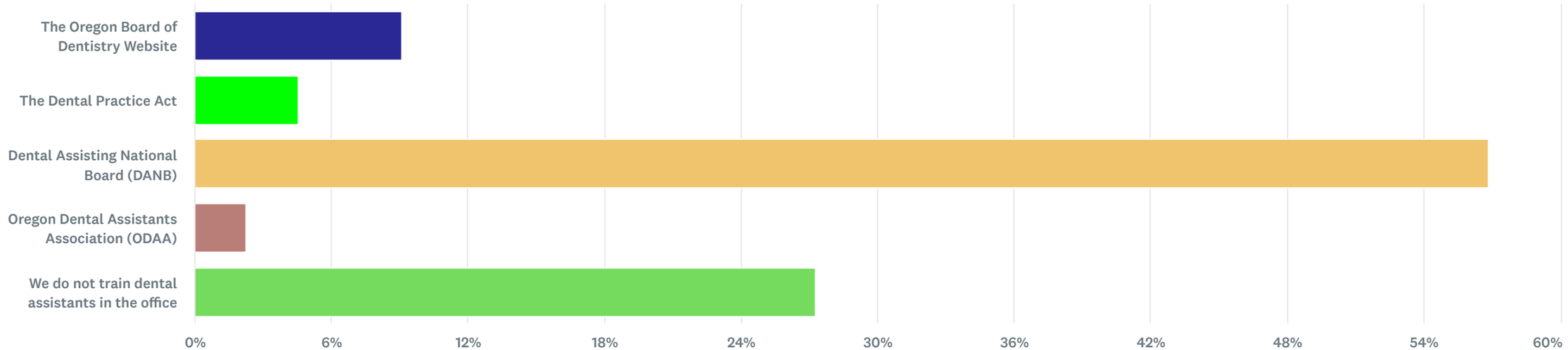
Expanded Functions Dental Assistant (EFDA)	89.80%	44
EFDA with Restorative Endorsement	16.33%	8
Expanded Functions Orthodontic Assistant (EFODA)	24.49%	12
Expanded Functions Preventive Assistant (EFPDA)	4.08%	2
Dental Assistant with Local Anesthesia Functions Certificate (LAFC)	10.20%	5
Certified Anesthesia Dental Assistant	2.04%	1
Total		**140**

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Attachment #4

Q5 44 responses

Within your practice, where do you look for training materials for dental assistants when doing on the job training?



Answer Choices	Percentage	Responses
The Oregon Board of Dentistry Website	9.09%	4
The Dental Practice Act	4.55%	2
Dental Assisting National Board (DANB)	56.82%	25
Oregon Dental Assistants Association (ODAA)	2.27%	1
We do not train dental assistants in the office	27.27%	12
Total		**44**

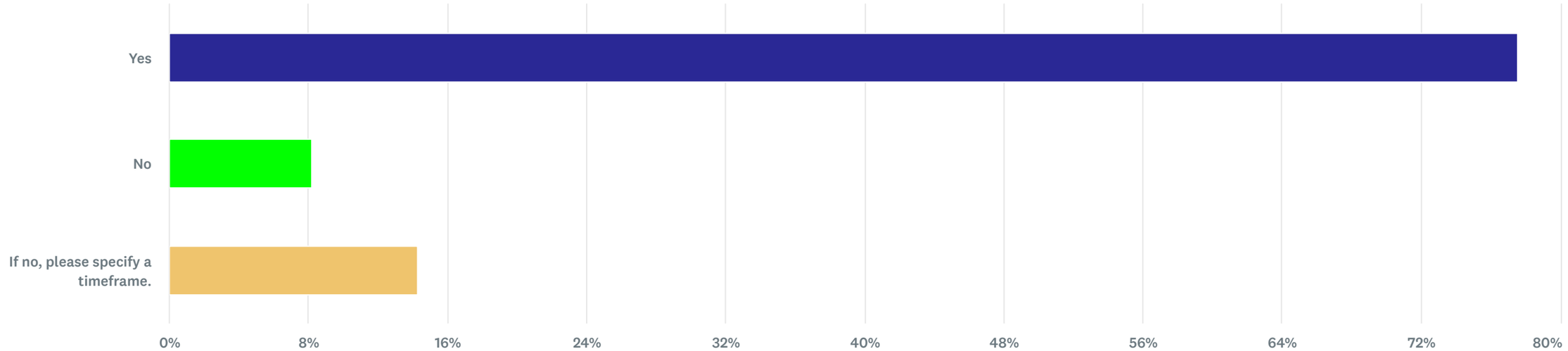
Attachment #4

#	OTHER (PLEASE SPECIFY)	DATE
1	Unsure	10/11/2026 3:36 AM
2	OBD website usually directs me to DANB	9/4/2026 4:24 PM
3	I am not sure where. Industry resources usually.	8/30/2026 5:07 PM
4	Spear and elsewhere	8/30/2026 2:14 PM
5	ADA	8/30/2026 1:50 PM
6	We train in our office from others experience	8/29/2026 9:17 AM
7	I didn't know Oregon Board had stuff, but will look	8/28/2026 7:06 PM
8	We do a lot of in office training with our own training program. We've created an extensive manual, utilize lots of checklists and do side by side shadow training	8/28/2026 6:11 PM
9	Not familiar with all resources as we have a DA trainer that takes this on	8/28/2026 6:04 PM
10	Self Train in the office	8/28/2026 5:34 PM
11	CE lectures over 45 years	8/28/2026 4:49 PM
12	see one, do one, teach one	8/15/2026 9:55 AM

Attachment #4

Q6 49 responses

When doing on the job training for the Radiologic Proficiency Certificate, EFDA, EFPDA, and EFODA, the dental assistant must submit within six months, certification by an Oregon licensed dentist, dental therapist or dental hygienist that the assistant is proficient.Do you think 6 months is enough time to complete the checkoff sheet?



Answer Choices	Percentage	Responses
Yes	77.55%	38
No	8.16%	4
If no, please specify a timeframe.	14.29%	7
Total		**49**

Attachment #4

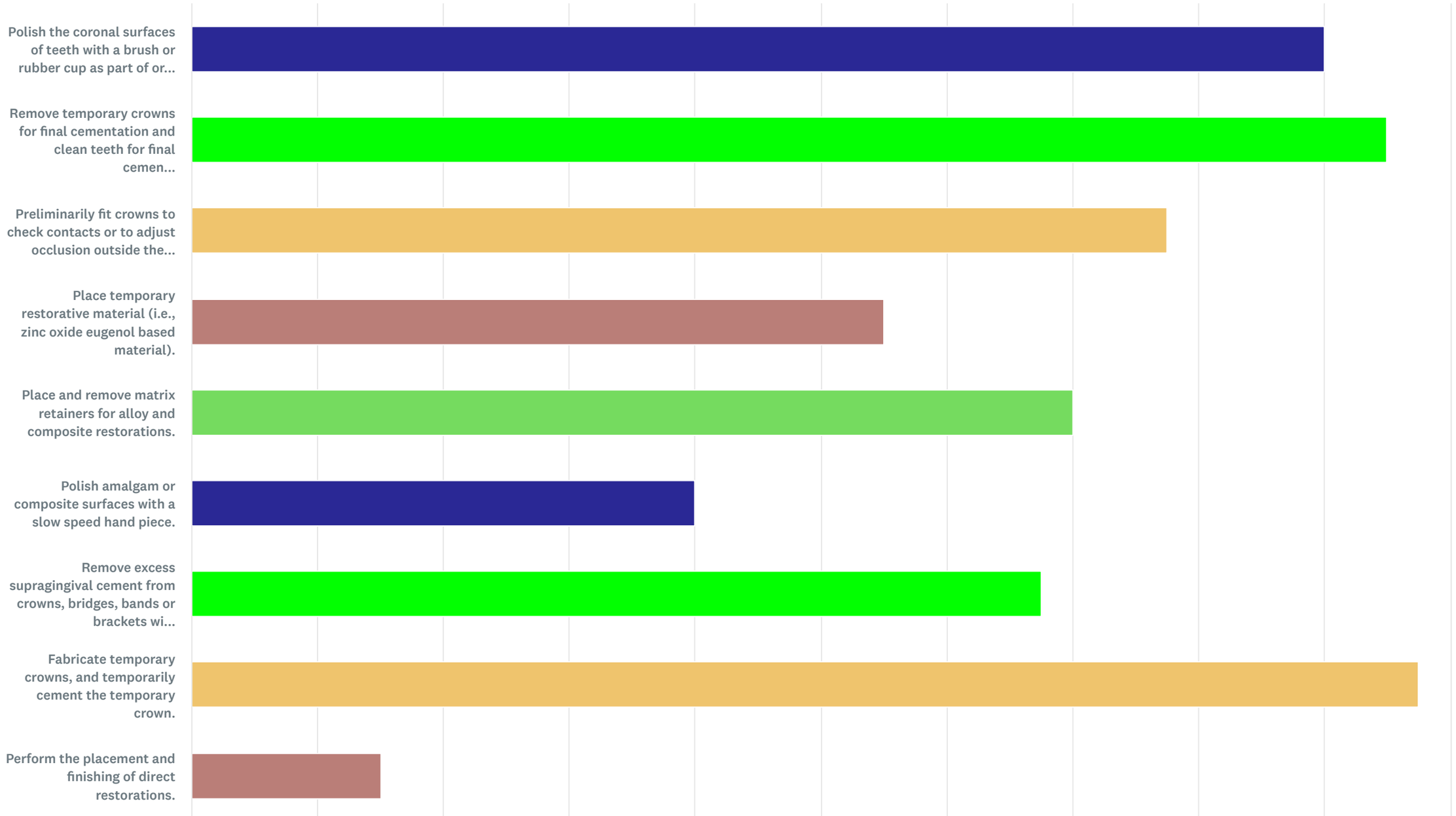
#	IF NO, PLEASE SPECIFY A TIMEFRAME.	DATE
1	10 months to 1 year	9/6/2026 11:25 AM
2	1 year	9/1/2026 9:29 PM
3	n/a no comment or thoughts on the timeline	8/31/2026 3:12 PM
4	I think there should be more thorough EFDA education.	8/30/2026 5:07 PM
5	One year	8/29/2026 7:28 AM
6	12 mos	8/28/2026 6:04 PM
7	it's person dependent.	8/15/2026 9:55 AM

Attachment #4

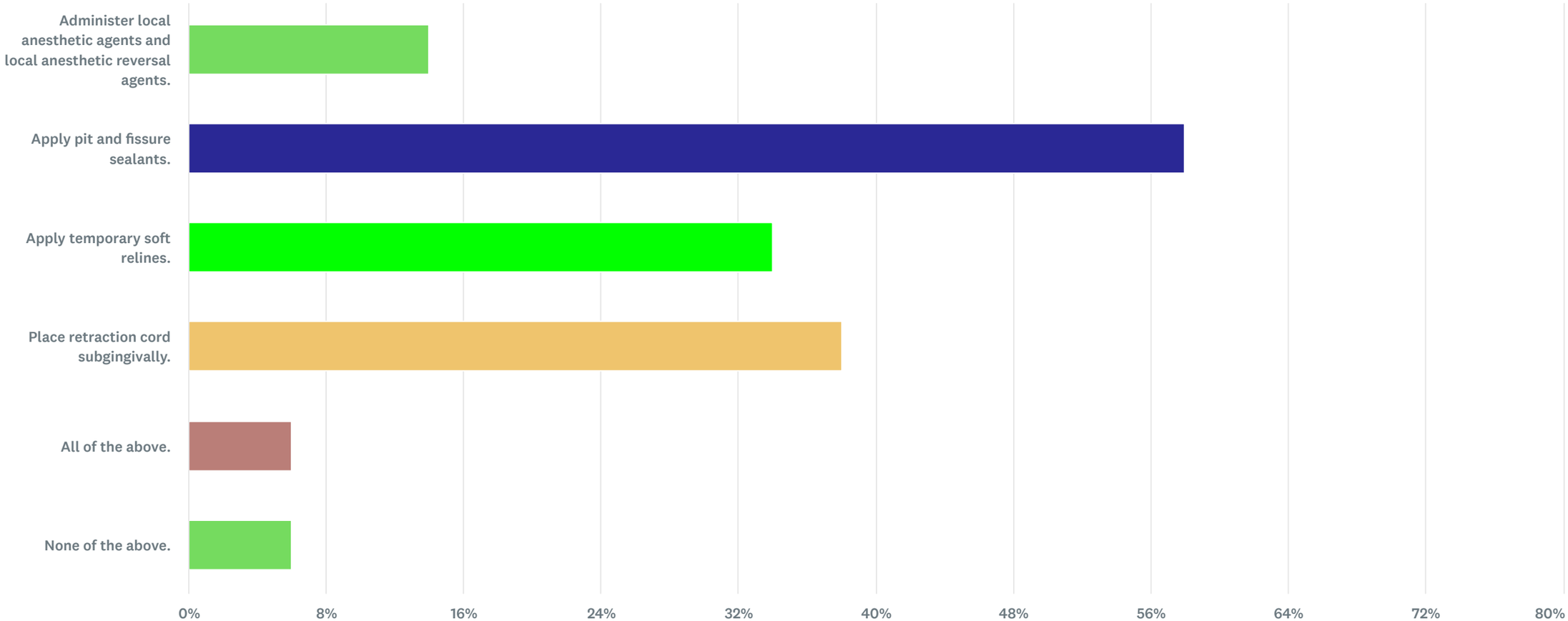
Q7 50 responses

Which EFDA duties do you perform, or you allow/supervise assistant(s) to perform once certified in Oregon? (Check all that apply)

Attachment #4



Attachment #4

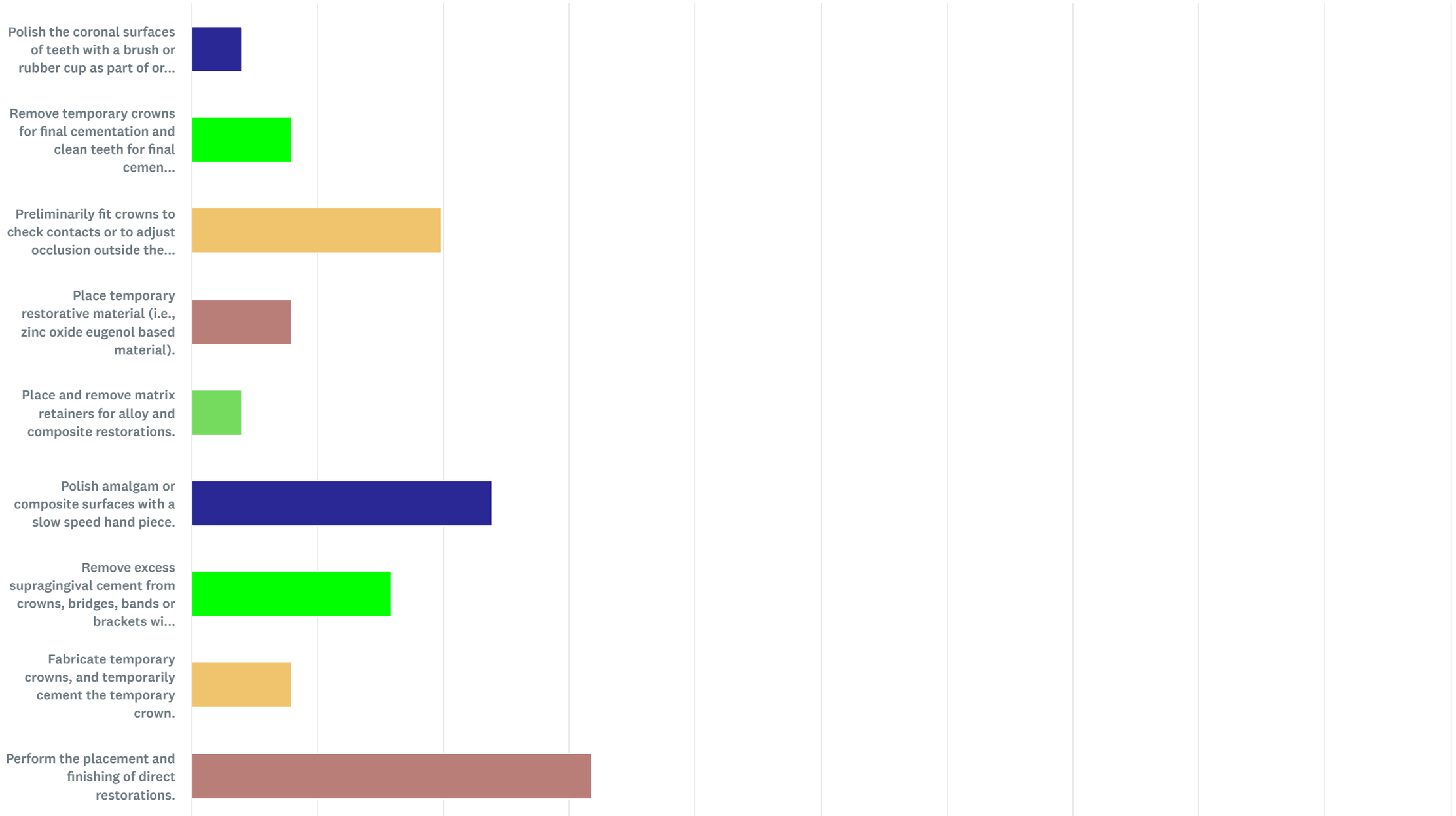


Attachment #4

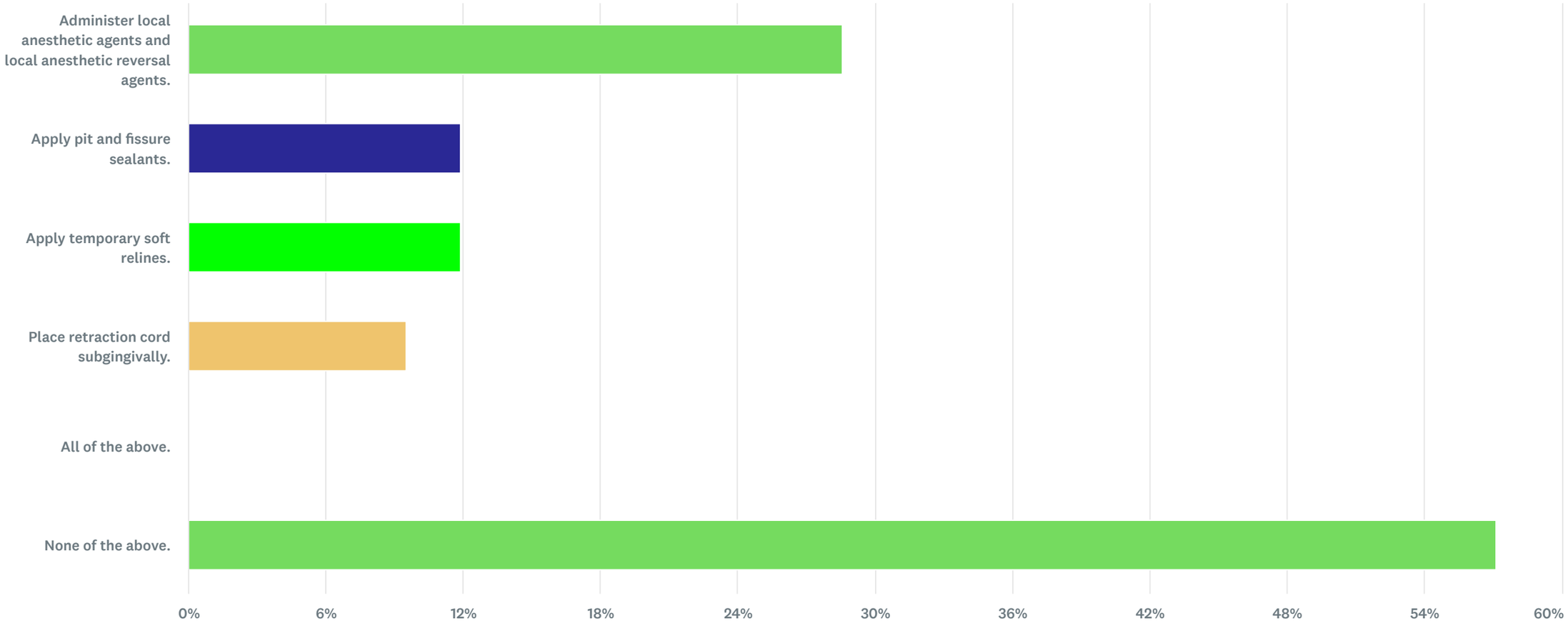
Q8 42 responses

Which EFDA duties (if any) would you remove? (Check all that apply)

Attachment #4



Attachment #4



Attachment #4

Q9 What duties would you like to see added to the expanded functions list?

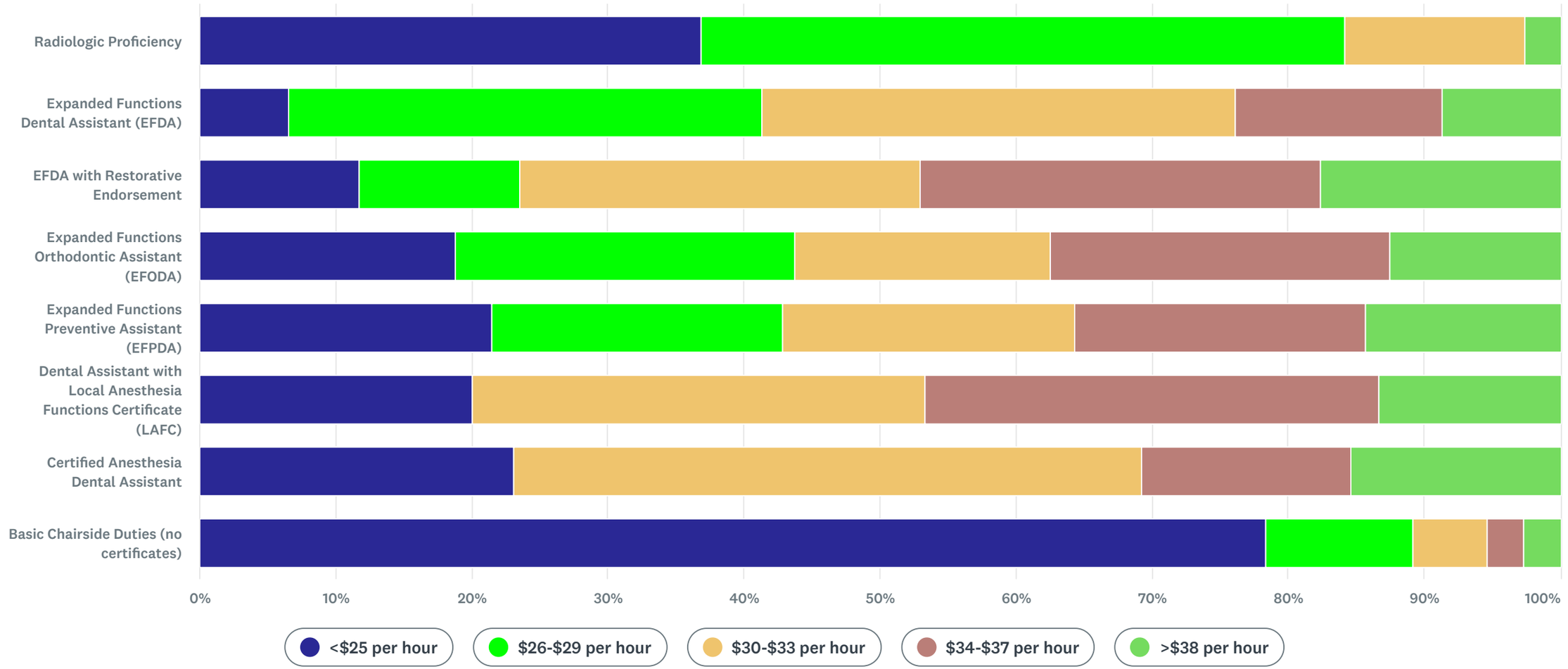
Answered: 11 Skipped: 39

#	RESPONSES	DATE
1	Additional preventive services, Expanded implant restorative support Allows trained assistants to perform more nonsurgical restorative workflow steps, and I would like to see expanded opportunities for EFDAs to participate in community-based oral health education and preventive services outside traditional dental offices.	10/11/2026 3:36 AM
2	none	9/6/2026 11:25 AM
3	Orthodontic wire removal and replacement	9/1/2026 9:29 PM
4	Final scan with Digital Scanner Remove and place implant abutments.	8/31/2026 3:12 PM
5	Applying injection Anesthetic and restorations	8/30/2026 5:24 PM
6	Removal of calculus and to perform periodontal probing	8/30/2026 1:50 PM
7	Scaling supragingival calculus	8/30/2026 8:08 AM
8	PBM (Photobiomodulation) with diode laser.	8/29/2026 8:04 PM
9	Scaling / prophies	8/28/2026 8:37 PM
10	Basic prophy (Supra gingival calc)	8/28/2026 5:43 PM
11	More clear direction on what assistants can do with regard to implants, such as removal of healing abutments? Placement and removal of AOX temps and finals?	8/28/2026 3:28 PM

Attachment #4

Q10 48 responses

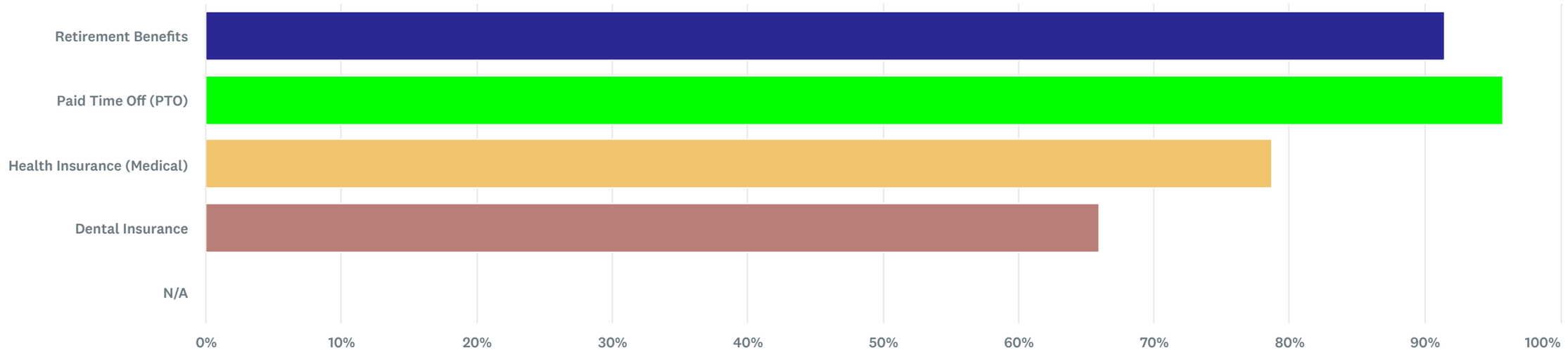
How much does your office pay each type of dental assistant?



Attachment #4

Q11 47 responses

Please select any other type(s) of compensation/benefits that your office provides. (Check all that apply)



Answer Choices	Percentage	Responses
Retirement Benefits	91.49%	43
Paid Time Off (PTO)	95.74%	45
Health Insurance (Medical)	78.72%	37
Dental Insurance	65.96%	31
N/A	0%	0
Total		**156**

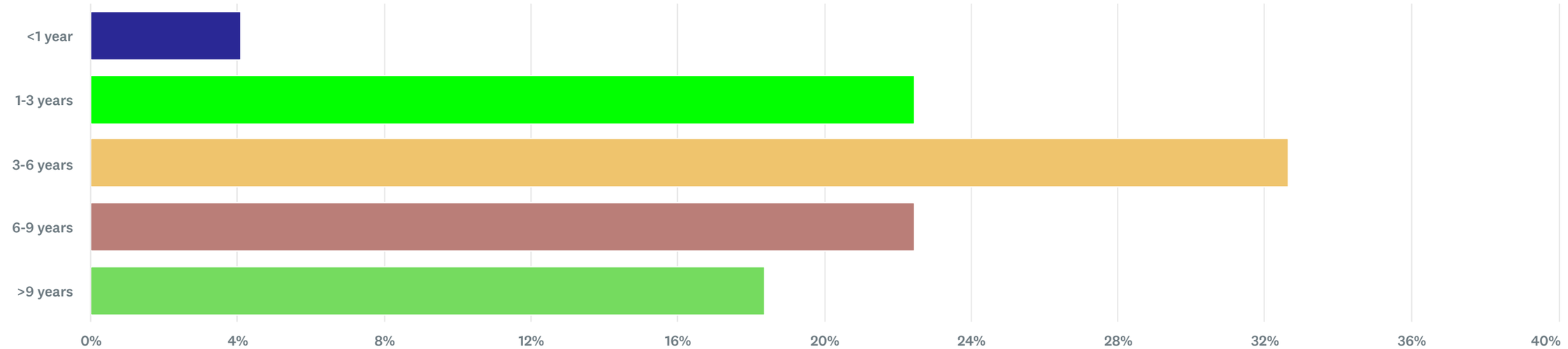
Attachment #4

#	OTHER (PLEASE SPECIFY)	DATE
1	Paid holidays	9/1/2026 9:29 PM
2	paid holidays	9/1/2026 8:47 AM
3	Uniforms, Retirement planning, CE	8/30/2026 1:50 PM
4	In house dental $$ each year	8/29/2026 1:10 PM
5	In office dental work	8/29/2026 8:28 AM
6	Cafeteria benefits	8/28/2026 4:49 PM
7	Dental Care	8/28/2026 3:53 PM

Attachment #4

Q12 49 responses

How long on average does a dental assistant stay employed in your office?



Attachment #4

Q13 In your experience, what affects the retention of dental assistants in the office?

Answered: 43 Skipped: 7

#	RESPONSES	DATE
1	Our organization	10/11/2026 3:36 AM
2	Benefits, retirement and flexibility.	10/8/2026 8:58 AM
3	Flexibility of time needed to be able to manage their personal needs and their family.	9/20/2026 10:02 AM
4	pay	9/16/2026 11:37 AM
5	HAVING A FAMILY	9/16/2026 11:35 AM
6	Not being able to work with the other assistants or the other assistants being lazy	9/14/2026 3:33 PM
7	Ability to get along with others.	9/6/2026 11:25 AM
8	Good leadership, and a healthy, respectful working environment amongst all staff members.	9/4/2026 4:24 PM
9	Culture and mainly pay	9/1/2026 9:29 PM
10	Pay. Positive work environment. Paid time off.	9/1/2026 11:53 AM
11	Having children, moving on to hygiene or dental school	9/1/2026 10:40 AM
12	pay and respect, good relationship with Dr	9/1/2026 8:47 AM
13	not in order pay, quality of experience (good doctor, get along well with co workers), hours of operation	8/31/2026 3:12 PM
14	Their happiness, if they like their co-workers, and if they feel valued,	8/30/2026 10:24 PM
15	We train pre dental students on the job and they eventually go to dental school. We have had two quit in the last two months because of the commute.	8/30/2026 9:14 PM
16	Pay, being over worked.	8/30/2026 6:02 PM
17	Leadership	8/30/2026 5:34 PM
18	So many duties with lack of pay raises.	8/30/2026 5:24 PM
19	Pay	8/30/2026 5:07 PM
20	Culture	8/30/2026 2:14 PM
21	Clear path for advancement	8/30/2026 1:50 PM

Attachment #4

22	Feeling valued and part of a team doing good work for the community	8/30/2026 10:12 AM
23	Compensation (pay/benefits) and work environment	8/30/2026 8:08 AM
24	Benefits and pay	8/30/2026 7:44 AM
25	1. Not wanting to work and complete all the office chores/tasks 2. Money. My dental assistant of 4 years who JUST got her radiology proficiency an was previously being paid $34/hr by the previous owner expected a pay raise when she paid $150 for the radiology certificate.	8/29/2026 1:10 PM
26	Team culture	8/29/2026 1:00 PM
27	The wages have been so high, dental assistants jump from office to office seeking higher wages	8/29/2026 9:17 AM
28	Office environment	8/29/2026 7:28 AM
29	temporary dental staffing agencies, I confidently know more and operate more than anyone in the state of Oregon and this is 100% the problem	8/28/2026 8:37 PM
30	Good work environment	8/28/2026 8:04 PM
31	Good dentists to work with. Pay rate is kept up with market place.	8/28/2026 7:06 PM
32	We have been hiring mostly pre-dental and pre-hygiene student as assistants the last few years	8/28/2026 6:11 PM
33	Salary	8/28/2026 6:04 PM
34	Positive work environment	8/28/2026 5:43 PM
35	compensation and good work environment	8/28/2026 5:34 PM
36	Attitude of Assistants	8/28/2026 5:07 PM
37	Joy	8/28/2026 4:49 PM
38	Committed assistant to provide excellent patient care. Great work ethic which is hard to find.	8/28/2026 4:41 PM
39	In every office I’ve worked it is always about being given too many responsibilities, they tend to end up doing all the work the dentist can get away with putting on them chairside along with sterile, laundry, ordering, cleaning etc.	8/28/2026 4:07 PM
40	Shortage of dental assistants causing over worked. Corporate dental paying more for DAs or offering more benefits. Not able to keep up with the demand.	8/28/2026 3:53 PM
41	Ability to pay them fairly which is directly impacted by the ability to get proper reimbursement from insurance. Please ODB, Fight insurance on behalf of dentists so they pay us more so we can pay our staff more!	8/28/2026 3:28 PM
42	Positive work environment	8/28/2026 3:21 PM
43	if they're treated with respect and kindness.	8/15/2026 9:55 AM

Attachment #4

Q14 If less than 3 years what do you believe is the reason(s) for dental assistants leaving your office?

Answered: 33 Skipped: 17

#	RESPONSES	DATE
1	N/A	10/11/2026 3:36 AM
2	Incompetence	9/20/2026 10:02 AM
3	work load distribution	9/16/2026 11:37 AM
4	NONE	9/16/2026 11:35 AM
5	Other assistants being lazy	9/14/2026 3:33 PM
6	Wanting more diverse procedures, I don't do extractions or endo	9/6/2026 11:25 AM
7	I released them due to poor performance and thier inability to be good team members. The other reason for someone quitting has been moving, or getting a job closer to home without a long commute.	9/4/2026 4:24 PM
8	Pregnancy, birth of a child, and child care is too expensive to continue working to cover	9/1/2026 9:29 PM
9	Can't make it - hire slowly, fire quickly...	9/1/2026 10:40 AM
10	compatibility, wages	9/1/2026 8:47 AM
11	those that have left 1) moved 2) had kids	8/31/2026 3:12 PM
12	They are being pushed to do more than they want…poor work ethics, lack of maturity, inter office friendships.	8/30/2026 10:24 PM
13	Overworking assistants	8/30/2026 6:02 PM
14	Leadership	8/30/2026 5:34 PM
15	Moving out of area	8/30/2026 1:50 PM
16	Life change (having a baby, moving) Higher paying position Better hours	8/30/2026 8:08 AM
17	better pay elsewhere location (we are rural)	8/30/2026 7:44 AM
18	I had 1 dental assistant that was employed for less than 1 year and she left because she wanted a pay increase at 4 months of employment. I let her know that pay raises occur on the anniversary if they are earned and the business can support it. She left to go somewhere that would pay her $4 more/hour.	8/29/2026 1:10 PM
19	Other opportunities outside of dentistry	8/29/2026 1:00 PM
20	Not committed to the field. Was a fun job, but nothing more.	8/29/2026 9:17 AM

Attachment #4

21	temp agencies	8/28/2026 8:37 PM
22	Further their training	8/28/2026 7:06 PM
23	Mostly to go to school	8/28/2026 6:11 PM
24	Higher paying job	8/28/2026 6:04 PM
25	Personal reasons	8/28/2026 5:43 PM
26	Other offices paying more.	8/28/2026 5:34 PM
27	Health insurance	8/28/2026 5:07 PM
28	Personal troubles	8/28/2026 4:49 PM
29	N/A	8/28/2026 4:41 PM
30	Burnout	8/28/2026 4:07 PM
31	Assistants not being adequately trained or given realistic expectations the complexity and challenging duties DAs are expected to manage.	8/28/2026 3:53 PM
32	Commute length	8/28/2026 3:21 PM
33	spoken to and treated down to.	8/15/2026 9:55 AM

Attachment #4

Q15 What are your ideas to increase the number of dental assistants in the workforce?

Answered: 38 Skipped: 12

#	RESPONSES	DATE
1	Love and support	10/11/2026 3:36 AM
2	Need more cost effective training programs, or increase the class sizes of the existing schools	9/20/2026 10:02 AM
3	pay increases and respect. We are the back bone of the office	9/16/2026 11:37 AM
4	NONE	9/16/2026 11:35 AM
5	Have consist trainings required for all assistants and dentists	9/14/2026 3:33 PM
6	I think we need to focus on quality for private practice and quantity for corporate dentistry	9/6/2026 11:25 AM
7	Make certification for radiologic proficiency easier. When I worked in public health, passing the radiology exam was the largest barrier to training new assistants. A sit down computer test that is outdated does not adequately show proficiency in today's world. Those efforts and dollars should be put towards offering training programs. If a test or a display of proficiency must be shown offer in person training, much similar to how the red cross offers CPR courses in person. I would happily compensate my employees for a weekend class to demonstrate proficiency in radiographs. If we really want to address this issue in Oregon then we need to focus on reducing the beuracracy associated with it.	9/4/2026 4:24 PM
8	Subsidize the training programs and exams, make it more straightforward to pass the exams, keep costs of doing dental business more reasonable so that dentists can pay their assistants a reasonable wage or have Oregon subsidize childcare. Dentists are hardly making enough money in Oregon to pay their loans, etc so something drastic will need to change	9/1/2026 9:29 PM
9	Allow them to do more/get more training and certificates to keep them engaged in their position and have the potential to earn more money.	9/1/2026 11:53 AM
10	Promoting in the high schools	9/1/2026 10:40 AM
11	increase dental insurance reimbursement so we can pay them more. paying a dental assistant as much as hygienist 5 years ago is not good for business	9/1/2026 8:47 AM
12	Subsidize the cost of tuition for a training program and perhaps make the programs more thorough, make the programs 2 years so that RDAs feel more like professionals. I think more people would be attracted to programs that provided a real future rather than a stepping stone to other jobs. I also think making training programs longer and more academic would attract more candidates and candidates who might actually be more suited to chairside duties. We are asking RDAs to be a part of literally a surgical procedure each time we provide a service. They are no different than nurses who help a physician but a nurse needs minimum an associate degree before nursing school.	8/30/2026 10:24 PM
13	Exposure early on like in high school and making it easy for people to find training/licensing instructions online.	8/30/2026 9:14 PM
14	Standardized testing nationwide. Same exams, same certification requirements. And same training requirements	8/30/2026 6:02 PM
15	Better leadership	8/30/2026 5:34 PM

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16	Standardized thorough education allowing for more duties delegated by dentists and therefore increasing pay. Being recognized for the part assistants play in providing to pts.	8/30/2026 5:07 PM
17	Provide high-quality education… The current education is quite some standard from the feedback I've heard. Advertise to the community at large, the benefits and high degree of pay	8/30/2026 2:14 PM
18	1. Determine how many dental assistants are currently working. 2. Determine what the distribution of dental assistants are by region. 3. With that data target marketing efforts in those locations. 4. Develop didactic online programs for all expanded function duties and have clinical check-off done by a sponsoring dentist who has under gone training on the standards.	8/30/2026 1:50 PM
19	More effective OJT opportunities and better wages	8/30/2026 10:12 AM
20	Promoting it as a portable, decent paying career Condensing training programs to a shorter timeframe with lower cost	8/30/2026 8:08 AM
21	scholarshps active recruitment in high schools	8/30/2026 7:44 AM
22	More training programs	8/29/2026 8:04 PM
23	Decrease the cost of education to let people afford the program and not being living in debt. Private practice dental offices like mine cannot afford to pay brand new grads what they want to be paid. We just hired a new grad that we are training to our standard and she's making $28/hour and when she gets her EFDA, we will bump her pay to $30/hr. Not many people are willing to work for the pay increase.	8/29/2026 1:10 PM
24	Advertise in high schools or community colleges	8/29/2026 1:00 PM
25	Open better training schools. The quick "fly by night" training schools are expensive and the assistants come out with little to no hands on training. The dental office then has to provide all the training only to have the assistant leave in a few years. Frustrating	8/29/2026 9:17 AM
26	Promote beginning in Middle school, as well as High school	8/29/2026 7:28 AM
27	we train our own, get rid of hygienists. Assistant can do restorative and local anesthetic which is above scaling and the board knows this.	8/28/2026 8:37 PM
28	Offer easier access to training and certification	8/28/2026 8:04 PM
29	More programs available for them to take courses in.	8/28/2026 7:06 PM
30	Increase the number of clinical hours that pre-dental students need to apply to dental or hygiene school	8/28/2026 6:11 PM
31	Lower the barriers and costs for testing/eliminate some tests and certificates and have the training be in office under the dentist' direction.	8/28/2026 6:04 PM
32	Allow them to take a class for basic prophylaxis and be able to be paid more	8/28/2026 5:43 PM
33	More schools, or allowing more students per year in schools	8/28/2026 5:07 PM
34	Decrease the number of rules. Dentistry is full of sludge. Where Sludge Commonly Clogs the Board of DentistryFrom a regulatory and economic perspective, sludge typically manifests in four major friction points:Licensing Path Constraints: Rigid credentialing steps and narrow educational pathways. A notable example is Oregon's slow rollout of dental therapists, where tight statutory compromises and pilot project limits heavily constricted the licensing pipeline despite statewide dental shortages.Compliance and Reporting Loads: Demanding renewal administrative tasks, such as tracking and reporting 40 mandatory hours of continuing education (CE) biennially.Platform and Portal Friction: The transition to newer digital infrastructure. The board's legacy transitions and modern online portal rollouts often introduce temporary technical bottlenecks, account lockouts, or data-matching friction that stall practice authorizations.Investigation and Audit Backlogs: Complex, highly structured multi-step processes for handling complaints and anesthesia or sedation permits. Because the board handles everything through independent specialized investigators, administrative friction can extend the time it takes to clear a practitioner's record.The Policy &	8/28/2026 4:49 PM

Attachment #4

	Economic ImpactWhen a regulatory board is choked by sludge, it restricts the labor supply, artificially inflates operational overhead for local clinics, and ultimately reduces patient access to care. It represents a classic policy challenge: how to maintain strict health oversight without letting the bureaucratic machinery slow down the workforce. People trust the dentist they know nothing about the state board. MOST Dentist are not happy with the state board.	
35	Insist all students attend undergraduate schools with a full day (8-3:30) of education. They need to comprehend a minimum of of the 11th grade level. Remember you asked:-)	8/28/2026 4:41 PM
36	Better dental insurance reimbursement so dentists/offices aren't so strapped. Easier access to education. If dentists didn't rely on the EFDA and restorative assistants to do so much of their own duties maybe the assistants wouldn't get so burnt out	8/28/2026 4:07 PM
37	Increase Dental insurance reimbursement. Dentist cannot provide quality care and receive poor insurance reimbursement to cover the salary require for a qualified DA. Until then, DAs will not be enticed to join the workforce and dentist will not be able afford those DAs with skills. Dental insurance reimbursement has not kept up with inflation over the past 15 years. the final result is seeing more patients over working assistants and reducing quality of care.	8/28/2026 3:53 PM
38	word of mouth after having a good work experience.	8/15/2026 9:55 AM

Attachment #4

DAS DEPARTMENT OF ADMINISTRATIVE SERVICES

oregon.gov/das

Oregon Agency Expectations: Three-Year Progress Report

Prepared September 2026 by
the Department of Administrative Services

Attachment #5

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Executive Summary

Oregon's state government has undergone significant improvement since Governor Tina Kotek established expectations for state agencies in June 2023. What was once a landscape of inconsistent goals and uneven practices is becoming a coordinated enterprise with clearer priorities, stronger accountability, and a renewed focus on serving the public. Baseline data from 2023 showed that agencies lacked shared standards for planning, hiring, technology modernization, leadership feedback, emergency readiness, and diversity, equity, inclusion, and belonging.

Today, those gaps have narrowed. Agencies responded by aligning their work with the Governor's statewide priorities. This included reviewing and drafting new strategic plans informed by users, addressing unresolved audits, diving into employee engagement, introducing new customer service initiatives, and strengthening how the state operates.

This progress is now measurable. Standardized data collection and clear performance expectations have given agencies shared structures for planning and accountability. As a result, Oregon's government is becoming more accountable, more coordinated, and more responsive.

Understanding the Governor's Agency Expectations

In 2023, Governor Kotek established 11 statewide agency expectations to create consistency across state government and clarify the standards all agencies are responsible for meeting. These expectations define how agencies manage performance, improve service, support employees, modernize systems, plan for the future, and ensure accountability. The list below provides an overview of the expectations that guide the work described throughout this report.

11 Expectations

1. Performance reviews for agency directors
2. Performance feedback for employees
3. Measuring employee satisfaction
4. Strategic planning and performance measurement
5. Information technology management and modernization
6. Workforce succession planning
7. Advancing diversity, equity, and inclusion
8. Agency emergency preparedness
9. Hiring practices and recruitment accountability
10. Audit accountability
11. Developing new employees and managers

Report Scope and Coverage

The *Oregon Agency Expectations: Three-Year Progress Report* documents detail government progress and demonstrates the real impacts of Governor Kotek's agency expectations from 2023 to today. While the report does not cover every expectation in depth, it provides a clear picture of the momentum underway. Data in this report are derived from the agencies themselves. Each quarter, agencies are evaluated on their progress in meeting the Governor's 11 expectations, and the Department of Administrative Services (DAS) publishes the Quarterly Progress Reports online. Progress is notable and lays a strong foundation for further improvements as agencies continue implementing statewide expectations and building a high-performing government for all.

Aligning Statewide Priorities Through Strategic Planning

Prior to 2023, fewer than half of state agencies required to maintain a strategic plan had completed one within the previous three years. Even among the 32 agencies that reported having a plan, the methods used to develop goals and objectives, engage partners, and make decisions were inconsistent and often unclear to the public.

To establish consistency, transparency, and a shared statewide direction, Governor Kotek directed agencies to develop strategic plans with meaningful engagement from agency leadership, employees, community partners, Tribes, underrepresented communities, and boards and commissions. This created a more unified approach to how agencies define goals, measure progress, and align their work with statewide priorities.

Putting Plans into Action

Statewide strategic planning has strengthened alignment across all agencies with, improved clarity on how and why agencies set goals, and increased accountability around progress. Agencies are now more focused on closing key gaps, advancing high-priority projects, and using standardized performance measures to track outcomes. This approach has also expanded opportunities for collaboration and community input, offering the public greater visibility into traditionally siloed processes such as goal setting, operational planning, and budgeting.

By 2026, all but one of the required agencies had completed strategic plans aligned with the Governor's agency's expectations. These plans now include shared components such as decision-making processes, budget prioritization, workforce planning, and customer service strategies, reflecting input from employees, oversight boards, community partners, and underrepresented communities.



DAS executive building

The Department of Administrative Services, responsible for implementing statewide policy and financial decisions, demonstrates the impact of this coordinated approach. In its 2024–27 strategic plan, DAS identified four agencywide priorities based on Governor Kotek's agency expectations: customer service; diversity, equity, inclusion, and belonging; employee success and wellbeing; and operational excellence and innovation. In 2026, DAS advanced these priorities by developing eight action items to sharpen focus and strengthen accountability.

Using this strategic foundation, DAS took on one of the state's most urgent modernization needs, Oregon's procurement system. Through the Procurement Transformation Project launched in 2025, DAS is bringing consistency, transparency, and customer-focused service to procurement across state government. A key outcome is the Oregon Small Business Enterprise Preference Program, established by House Bill 2337 in 2025, introduced at the request of Governor Kotek. This program requires agencies under DAS procurement authority to apply a preference for certified Oregon small businesses, expanding opportunity, keeping public dollars local, and strengthening Oregon's economy. The shift responds directly to the state's 2023 Disparity Study, which identified gaps in contracting access for minority-, woman-, and service-disabled veteran-owned businesses.

DAS is also reducing long-term costs by making better use of state office space, a key strategic action. Through clearer policies, stronger data analysis, and close coordination with agencies, DAS has accelerated statewide consolidation and space optimization. Key moves, such as co-locating agencies in state-owned buildings and reducing reliance on private leases, have helped shrink Oregon's office footprint by roughly 782,000 square feet since 2021, an 8% reduction. These changes generated about $12.9 million in annual savings. DAS continues its effort to reduce the state's footprint and publishes updates every quarter.

Further demonstrating the value of strategic planning, is the Department of Revenue (DOR). Identifying customer service as a priority, DOR modernized its business registration system, which had been delaying new and existing businesses for up to 30 days. After redesigning the workflow, processing times dropped to two days, customer calls decreased by 40%, and approved applications increased by 10%. These improvements make it easier for Oregon businesses to open, expand, and operate, which strengthens the state's business climate and demonstrates how strategic planning drives tangible results.

Strategic planning can also help solve critical workforce challenges. During development of its 2024–27 strategic plan, the Department of Consumer and Business Services (DCBS) identified a significant gap: employees aspiring to leadership roles lacked clear, structured support. In response, the agency committed, within the plan itself, to creating a mentorship program to expand leadership pathways and strengthen engagement. Launched in July 2026, the program uses an online platform to connect nearly 100 volunteer mentors and mentees across divisions, creating equitable opportunities for cross-functional learning and leadership development. Early feedback has been strong, and insights from the first year will guide refinements and inform DCBS' 2027-30 strategic plan, in which employee experience and leadership development are expected to remain core priorities.

Improving Customer Service Across State Government

Oregonians increasingly expect fast, reliable services, yet in 2023, many high-volume transactions still required in-person visits, paperwork, or lengthy processing. Agencies responded by modernizing outdated tools, simplifying processes, and removing steps that created delays for customers and unnecessary strain on frontline staff. These changes reflect the Governor's expectations to improve customer service, increase efficiency, and make everyday life better for Oregonians.



DMV self-service express kiosk

Oregon's Driver and Motor Vehicle Services Division (DMV) has been focusing on reducing customer wait times and holding down administrative costs by increasing self-service options. In addition to dozens of online transaction options, the DMV added self-service Express Kiosks to grocery stores across the state, providing another self-serve option. The DMV kiosks let customers renew vehicle registrations any time, including evenings and weekends, reducing barriers for many Oregonians. Using the kiosks, vehicle registration can be completed in less than five minutes, compared to a 23-minute average wait in congested field offices.

With nearly 30,000 renewals processed since the kiosks were launched, this project shows how digital tools can strengthen customer service by improving equity, access, and convenience.

Building on this commitment to customer service, ODOT modernized the Over Dimension Permit System (ORION) for heavy trucks, replacing a 30-year-old mainframe system. Permit processing times dropped from days to minutes, carriers gained 24-hour access, auto-issuance of permits increased from zero to 45%, and call volumes also decreased by 45%. ODOT also eliminated 100,000 pages of paper annually, saving roughly $90,000 each year, while reducing the environmental impact. These improvements enhance freight mobility, support statewide economic activity, and strengthen highway safety. By shifting staff from administrative processing to safety oversight, ORION improves system reliability and delivers substantial taxpayer savings.

The Oregon Department of Energy (ODOE) demonstrates its commitment to customer service through the Community Navigator Program. Created to help communities, especially rural, Tribal, and historically underserved communities, access to state and federal energy funding, technical assistance, planning support, and other energy-related opportunities, the program connects local needs directly with agency resources. Between 2023 and 2025, the Community Navigator Program participated in meetings or events in all 36 Oregon counties, met with all Nine Federally Recognized Tribes of Oregon, and supported approximately 25% of the applications submitted during the fourth round of the Community Renewable Energy Grant Program. This work reflects ODOE's broader effort to expand access, strengthen relationships, and ensure communities across Oregon can engage effectively with state energy programs.

Getting a real voice on the other end of the line is increasingly rare, which makes the customer service improvements by the Oregon State Board of Nursing (OSBN) even more remarkable. From 2020 to 2023, the COVID-19 pandemic-related staffing shortages meant OSBN could not take phone calls, leaving customers without a direct way to contact staff. In January 2024, OSBN launched a new contact center, marking a significant change in its approach to accessibility. In its first year, staff answered 13,484 calls, and after extending operating hours in 2025, call volume rose to 15,639. Improving relationships between the agency and its customers was one of three customer service initiatives put into practice following the implementation of the agency's expectations.

OSBN also rebuilt its nurse license processing system. In 2023, it recorded turnaround times of three months. A year later, processing times fell to seven to 10 days, and by 2025, licenses were being issued within just one to three days. These improvements show OSBN's commitment to meeting the Governor's expectations by streamlining processes and delivering timely, reliable customer experiences, helping maintain a stable nursing workforce that supports Oregon's standards for patient care.

The Employment Relations Board (ERB) created a fully searchable database of more than 50 years of case law, nearly 5,000 orders, making legal information more accessible and user-friendly for the public. Their 2026 customer satisfaction survey shows the impact, despite handling the largest caseload in a decade, the agency scored 95% or higher in every performance category, including accuracy, helpfulness, expertise, and access to information.

For the first time ever, the Oregon Parks and Recreation Department (OPRD) digitized their day use and annual parking permits. A digital option allows day-use visitors to scan a QR code in the park they're visiting and pay on the spot without waiting in line for a machine or having to buy a pass before they leave home. The program also lets customers assign two license plates to the permit, so frequent visitors don't have to remember to physically move their permit between cars. As of August 2026, 75% of customers who bought an annual parking permit selected the digital option.

Accountability Through Audit Oversight

Agencies have long reported on external audit recommendations through the budget process. However, prior to Governor Kotek's directive on agency expectations, Oregon did not have a unified statewide approach to track or report internal and external audit recommendations. As a result, agencies lacked a consistent way to communicate risk or demonstrate progress, making it difficult to see where improvements were needed or where meaningful resolutions occurred. The new expectation created a structure that allowed agencies to track, report, and resolve recommendations in ways that had not been feasible before.

Oregon now has a coordinated audit reporting process. Required agencies now report twice per year, giving the Governor's Office and the public visibility into audit findings and whether recommendations are being implemented. In the March 2026 Oregon Expectations Report, agencies reported 127 audit reports containing information on 787 recommendations.

The Oregon Health Authority (OHA) saw some of the most significant improvements. OHA receives significant audit attention from the Secretary of State Audits Division and its own internal audit function. Yet, as of the March 2026 report, OHA had only one overdue recommendation.

In 2023, the agency conducted an internal audit of the Independent and Qualified Agency (IQA) contract. Auditors found OHA was not properly managing the contract and made 31 recommendations for improvement. As of the March 2026 report, 29 of 31 recommendations had been implemented, and the agency was on track to complete the remaining two recommendations on time. The IQA contract is a key part of the Medicaid Home and Community-Based Services Program (HCBS), which supports adults with chronic mental illness by providing services and supports designed to help individuals live as independently as possible in community settings instead of in nursing homes, hospitals, or other institutions. The implemented recommendations included improving controls to prevent duplicate payments, creating a process to monitor billing and ensure correct payment rates, and making sure providers know when they need to submit an invoice instead of a Medicaid claim.

Building on progress seen across other agencies, the Department of Environmental Quality (DEQ) has made significant gains through its strengthened internal audit practices. These efforts have reduced errors, lowered risks, and boosted integrity and trust in several key programs, such as clean fuels and stormwater. Outcomes include tightening rules for cash handling, purchasing, and clean fuels credit management.

Similarly, the Oregon Department of Emergency Management (OEM) reported significant progress in grants management, policy and procedure, monitoring, documentation, and reporting. As of their last report in March 2026, there were no overdue recommendations. The Oregon Department of Fish and Wildlife (ODFW) implemented improvements to their public records request processes, improving responsiveness and tracking, and the Oregon Liquor Control Commission (OLCC) completed an annual audit of their Distilled Spirits Program. OLCC implemented all but one of the cybersecurity recommendations from the recent audit, and contract monitoring and performance measure recommendations from additional audits.

A consistently followed audit system ensures that when problems are identified, whether in financial controls, operational gaps, or system vulnerabilities, agencies have a clear path to address them. Implementing these fixes often require years of sustained effort, coordination, and investment, especially when agencies must rebuild processes or update outdated systems. This long-term commitment, supported by a statewide system that reinforces accountability, strengthens trust in programs and leads to better outcomes for Oregonians.

Mobilizing the State's Technology Infrastructure

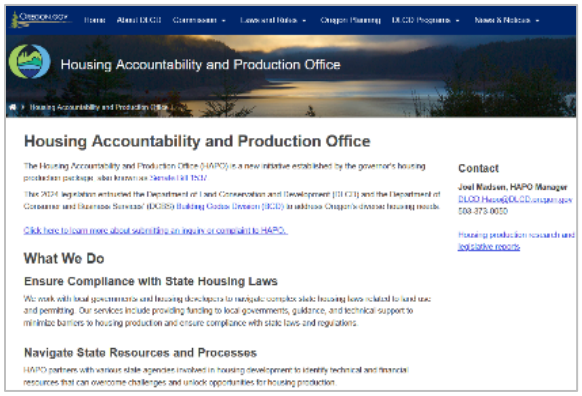
In 2023, agencies were not required to maintain information technology (IT) strategic plans, resulting in outdated systems, unclear upgrade timelines, and limited alignment with broader organizational goals. As part of the Governor's expectations for agencies, those with 50 or more full-time employees were required to develop and maintain an information technology strategic plan that supported their organizational objectives. These plans were also expected to describe how each agency aligned with Enterprise Information Services (EIS) Strategic Framework and how modernization initiatives would reinforce the agency's mission and priorities.

By 2026, every required agency collaborated with EIS to develop IT strategic plans that fully integrate with their broader strategic direction. Smaller agencies, though not mandated, also worked with EIS to identify modernization needs and align their systems with statewide technology priorities. This collaborative planning has led to the retirement of legacy systems, strengthened cybersecurity, and the delivery of more accessible and reliable digital services. To date, collectively, these improvements reduce operational risk, improve system stability, and enhance public access to state services.

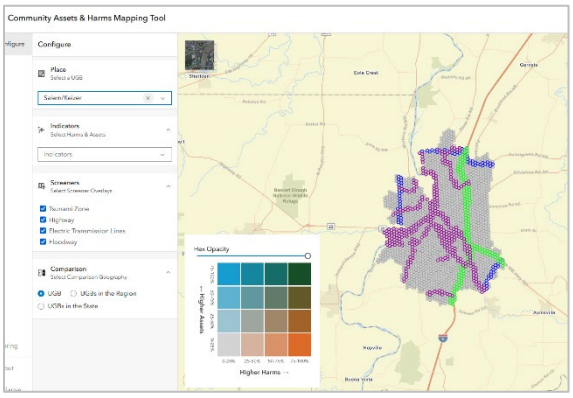
The Department of Revenue offers a clear example of this progress. Marked by late federal tax guidance, high customer demand, and the processing requirements of Oregon's kicker, the agency's IT strategic plan enabled teams to rapidly update systems and maintain smooth filing season operations. Their commitment to modernization also helped the agency to advance internal system improvements. When the property tax system modernization experienced obstacles, Revenue developed a replacement system in-house, the Electronic Valuation Information System (ELVIS). ELVIS eliminated paper-based processes, increased automation, and provided real-time access for taxpayers and local governments. Building the system internally reduced costs and prevented the creation of yet another standalone platform.

The Department of Land Conservation and Development (DLCD) also demonstrated the connection between IT modernization and statewide priorities. The agency's IT and Data Management and Production Services teams deliver tools that directly support Governor Kotek's housing production goals. These include the housing outcomes tracker, the

Housing and Accountability Production Office (HAPO) resource hub and the Community Assets and Harms Mapping Tool used by local planners. With a statewide housing production target of 36,000 units per year, these digital tools help track progress, support local planning, and ensure that data is accessible and actionable.



HAPO resource hub



Community Assets and Harms Mapping Tool

The Oregon Department of Forestry (ODF) has similarly benefited from the requirement for a dedicated IT strategic plan. By separating technology planning from broader natural resource-based planning processes, ODF has been able to focus leadership discussions on critical IT needs, modernization timelines, and system improvements. This clarity has strengthened the agency's ability to manage and deliver technology projects essential to its mission.

The Oregon State Fire Marshal (OSFM) advanced major modernization efforts after aligning its IT planning with EIS and agency priorities. OSFM completed its required IT strategic plan and used it to guide improvements to fireworks permitting, grants management systems, public outreach tools, and other core business processes. The agency also increased system redundancy and strengthened operational sustainability. In addition, OSFM made important advances in data governance and analytics. These modern capabilities support both operational efficiency and public safety.

The Oregon Employment Department (OED) is finalizing an IT enhancement that will allow third-party administrators to submit multiple amended payroll reports simultaneously. When launched, the agency expects this improvement to reduce reporting errors, minimize staff workload, and streamline processes for employers interacting with the agency.

Together, these efforts illustrate a statewide shift. Agencies are now operating with strategic, modernized, and integrated technology systems that better support public service, improve operational resilience, and align with a shared vision for a more responsive government.

Accelerating Hiring and Strengthening Workforce Stability

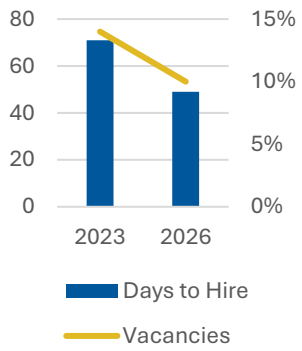
Oregon is making meaningful progress in modernizing its hiring practices, helping agencies bring in talent more quickly, reducing service disruptions, and building a stronger, more stable workforce. Faster hiring also strengthens Oregon's ability to compete for qualified applicants.

In 2023, agencies took an average of 71 days to fill positions, and the statewide vacancy rate exceeded 14%. That same year, Governor Kotek directed agencies to monitor hiring timelines and maintain an average time-to-fill under 50 days. The metric starts when a recruitment opens and ends when a job offer is made, serving both as a stretch goal and an early warning indicator when agencies need support. By the second quarter of 2026, agencies met the Governor's goal for the first time, reducing the average hiring timeline to 49 days.

DAS tracks vacancy rates and reports them quarterly to the Governor's Office. Vacancy rates also improved significantly, dropping to 10%. These results demonstrate that Oregon's hiring reforms are working and that agencies are moving faster than ever to bring top talent into public service.

Several agencies show particularly notable improvements. In 2023, DOR reported an average hiring time of 90 days. Today, DOR fills positions in about 30 days, a remarkable improvement. The Oregon Department of Forestry reduced time to fill by nearly 20 days over two years. Smaller agencies, such as the Oregon Board of Accountancy (BOA), benefited from stronger partnerships with DAS Human Resources, gaining access to streamlined recruitment processes they could not achieve alone.

Nationally, the public safety sector experienced significant turnover during the pandemic years, making recruitment and retention particularly challenging. Despite these trends, the Oregon Department of Corrections (ODOC) made consistent forward progress in recruitment and retention. Its current recruitable vacancy rate is approximately 6%, and ODOC fills positions in approximately 48 days on average. Together, these results demonstrate sustained progress in accountability, workforce management, and overall operational performance.



2026 Progress

49 days
Average time to hire
(improving from 71 days in 2023)

10%
Average vacancy rate
(improving from 14% in 2023)

Enhancing Leadership Accountability and Employee Engagement

Oregon has made significant progress in improving employee engagement, strengthening leadership accountability, and providing timely and necessary feedback across state government.

Director 360 Reviews

In a survey of agency directors, in 2023, 29 of 77 directors reported receiving a performance review. By 2026, all directors on the job for a year or more completed evaluations known as Director 360s.

Director 360s are based on statewide values and leadership competencies, establish consistent leadership standards, and reinforce oversight of the performance of agencies. An agency Director 360 evaluation is conducted every two years and gathers anonymous feedback from key groups such as direct reports, peers, board members, and other interested parties. Director 360 results are aggregated and shared with DAS and the Governor's Office to support leadership development and consistent performance standards.

Employee Quarterly Performance Check-ins

Employees now receive quarterly performance check-ins with their supervisors. Governor Kotek made this a priority for agencies and set a quarterly performance target of 90% completion or higher. As of June 2026, statewide compliance now exceeds 95%, a 10% increase from 2023. These check-ins support development, clarify expectations, and improve communication between employees and supervisors

The Oregon Department of Human Services (ODHS) programs, such as Aging and People with Disabilities, Self-Sufficiency Programs, and Child Welfare Program, maintained quarterly check-in completion rates between 94% and 98%, helping stabilize staff in critical health and housing-related programs.

Quarterly performance check-ins, combined with Director 360s, have led to clearer expectations and stronger support for all state employees, better alignment between agency goals and daily work, and improvements in employee development and retention.

Employee Engagement

Prior to 2023, measuring employee engagement was not required, standard, or reliable. Only 22 agencies reported using employee satisfaction surveys and just 20 had conducted one within the prior year. Agencies have now completed three annual Gallup employee engagement surveys in 2023, 2024 and 2025. The 2026 survey will be completed by the end of 2026.

Between March 2025 and January 2026, all agencies subject to the Governor's expectations participated in the Gallup engagement survey. The statewide engagement conditions have improved steadily since 2023. The number of engaged employees increased by 6% to a total of 42%, well outpacing the national average of 31%. Survey participation by employees increased by 10% between 2023 and 2026. Finally, the statewide "engagement mean" rose from 3.76 out of 5 in 2023, to 3.86 in 2026. While 0.1 may seem insignificant, according to Gallup, a 0.1 jump typically means a substantial portion of employees changed how they felt about core workplace elements, like clarity of expectations, recognition, or opportunities to grow.

In large organizations, raising an aggregate score by 0.1 can represent hundreds of individual mindset shifts, which is extremely meaningful. Higher engagement leads to better performance, stronger customer service, and lower turnover. Even small gains can create noticeable improvements in productivity and workplace morale.

Individual agency improvements demonstrate the impact. DCBS increased its survey response rate from 50% to 79% and raised its overall engagement score from 3.99 to 4.17, a dramatic increase. DCBS also improved its employee feedback percentage-rank from the bottom 30% to the top 30% over a three-year period. ODHS reduced turnover from approximately 11% to 8%, including declines among employees of color and first-year staff. Gallup finds agencies with higher employee engagement have lower turnover rates.

Across state government, these combined efforts are building a more consistent, accountable, and supportive performance culture. Clear expectations, regular feedback, and validated engagement measurement help employees stay aligned, feel valued, and grow. As engagement rises and performance standards strengthen, agencies become more effective and resilient. Ultimately, employees are better equipped to serve Oregonians, due to having a stable, responsive, and engaged workforce.

Developing New Employees and Managers

Before Governor Kotek's agency expectations were implemented in 2023, onboarding practices across state government were inconsistent. A bright spot in the baseline data was that 65 of 77 agency directors reported their agencies already required orientation for new employees. However, a notable deficiency was that fewer than two-thirds required any training for new managers, revealing a significant gap in preparing new supervisors for their roles.

To address these inconsistencies, the DAS Chief Human Resources Office issued implementation guidance on June 1, 2023, notified human resources directors, and began assigning required training through Workday. This included new employee orientation, customer service training, foundational manager training, performance feedback training, and benefits education. The benefits instruction is especially notable, as it was developed through the state government's labor-management partnership with SEIU 503 and AFSCME Council 75, demonstrating alignment and collaboration with labor teams on behalf of employees.

By June 2026, participation rates increased substantially.

Topics	June 2026 Rates	Rates at First Measurement
New employees completed orientation within 60 days	98%	73%
New employees completed customer service training	99%	95%
New managers completed foundational manager training	86%	80%
New employees completed the Uplift Your Benefits workshop	95%	93%
New managers completed performance feedback training	83%	89%

Agencies have expanded on these requirements in ways that reflect their unique operational needs. ODOT launched Leading ODOT on Purpose, or LOOP as it's known, a development and communication program that combines bi-monthly manager meetings with smaller labs for skill practice, peer support, and real-time problem solving. DEQ created a leadership-facing Power BI dashboard to track expectation compliance. Data shows the agency recorded a 14% increase, between 2023 and 2026, in Uplift Your Benefits workshop attendance and reached full compliance in new employee orientation.

DOR now achieves full orientation participation, offers monthly cross-functional learning sessions, and provides enhanced manager development modules focused on communication, trust, psychological safety, and equity.

DCBS introduced a nine-month CORE leadership program that is strengthening emotional intelligence and communication. OHA launched an agency-wide Mentorship Program aligned with diversity, equity, and inclusion, and affirmative action expectations. In 2026, OHA's Mentorship Program cohort launched with 164 participants, and 99% of the respondents to the midpoints survey rated the program as either good or fantastic. ODHS developed leadership competency guides and career-pathway sessions to help employees understand advancement opportunities.

Together, these efforts reflect a statewide shift toward consistent, meaningful onboarding and early leadership development, ensuring employees and managers begin their roles with the preparation needed to deliver strong service to Oregonians.

Consistent and meaningful onboarding programs



Cross-functional learning sessions



Leadership and mentorship programs



Practice labs



Data tracking



Preparing Oregon's Workforce for the Future Through Succession Planning

Governor Kotek required all agencies to have an agency succession plan in place. In 2023, only 15 agencies met this expectation, and many lacked long-term workforce strategies, retirement-risk data, or continuity plans. By 2026, every required agency now maintains a current succession plan, strengthening statewide readiness for workforce transitions and continuity of critical services.

Agencies developed these plans by working with DAS Workforce Development to integrate workforce data, analyze retirement trends, and identify emerging gaps in specialized, scientific, regulatory, and IT roles. With some agencies facing retirement eligibility as high as 28% within five years, this forward-looking approach ensures that highly critical positions remain supported and operational impacts are minimized.

Agency examples illustrate how this requirement has matured into a strategic and tailored practice. DLCD has embedded succession planning into its culture, completing intentional plans for 16 employees over three years and building redundancy within a workforce of about 100.

The Oregon State Fire Marshal (OSFM) now completes annual succession plans, improving organizational resilience, reducing disruption from retirements or vacancies, and successfully recruiting for historically hard-to-fill positions.

The Psychiatric Security Review Board (PSRB) adopted a policy that documents duties, shared processes, and position-specific responsibilities, supporting cross-training, sharing institutional knowledge, and ensuring continuity of operations.

And, Business Oregon used its succession plan to proactively prepare for the retirement of a key senior business systems analyst, allowing for position overlap, direct knowledge transfer, and uninterrupted progress on a high-impact project.

Together, these efforts demonstrate how agencies are fulfilling the governor's expectations and building a more resilient, future-ready workforce. By aligning workforce data with targeted development strategies, agencies are reducing operational risk, strengthening continuity, and ensuring Oregon can sustain services during times of transition for the people who rely on them.

“By aligning workforce data with targeted development strategies, agencies are reducing operation risk, strengthening continuity, and ensuring Oregon can sustain services during times of transition for the people who rely on them.”

Advancing Diversity, Equity, Inclusion, and Belonging

In 2023, only 40 agencies had diversity, equity, and inclusion (DEI) plans. During the first DEI and Affirmative Action planning cycle, fewer than half of all agencies, boards, and commissions submitted plans. Today, all 70 agencies now have active DEI and Affirmative Action plans with an on-time submission rate of nearly 100%.

Agencies are removing barriers, improving access to services, strengthening inclusion, and increasing representation, so state operations better reflect diversity, equity, inclusion, and belonging.

Several agencies offer strong examples of this progress. BOA expanded equitable pathways into the accounting profession. Through agency-led legislation, the board created a new route to certified public account (CPA) licensure that allows candidates to substitute an additional year of supervised experience for a fifth year of college without changing professional standards. The change responds to research showing that the additional education requirement reduced the overall CPA pipeline by 13% and had nearly twice that impact on its racial diversity. The Board also established a $1 million need-based accounting scholarship program, awarding 84 students with scholarships of $3,000 or $5,000 in its first round in March 2026.



OSP patrol car

Oregon State Police (OSP) has strengthened how equity and inclusion are incorporated into workforce development, recruitment, and retention. All sworn law enforcement personnel have completed at least three hours of DEI training, and OSP is expanding access to ongoing training for professional staff. Its DEI and Inclusion Team has helped shape hiring practices, including diverse interview panels, interview preparation and coaching, mock interviews, and mentorship. These efforts supported a historic recruiting class of 59 people, 58 of whom remained through the pre-academy program. As part of onboarding, all sworn and non-sworn employees also read a letter of commitment from the OSP Superintendent affirming the agency's commitment to equity and inclusion.

The Construction Contractors Board (CCB) expanded access for Spanish-speaking contractors and consumers. The agency now delivers multiple licensing and continuing education courses in Spanish, helping raise the Spanish exam pass rate from historic levels of about 30% to 56% as of June 2026.

The Oregon Water Resources Department (OWRD) has advanced equity through its grant programs, providing more than $2.3 million since 2024 to low and moderate income domestic well users with water supply issues. The department also broadened public outreach for the Integrated Water Resources Strategy, engaging more than 2,000 people across nine languages and reaching communities traditionally left out of water-related discussions.

ODHS continues to strengthen workforce representation. From 2023 to 2025, the percentage of employees identifying as people of color increased from 31% to 34%, surpassing Oregon's population benchmark. New hire diversity rose to 43%, and promotions for employees identifying as people of color increased as well, from 36% to 38%.

Digital accessibility ensures that websites and online tools work for everyone, including people with disabilities and people who use assistive technology. It's essential because many Oregonians rely on digital services to access health information and benefits. While state agencies reviewed and remediated their websites and digital files, Oregon Health Authority stands out because of the volume of information the agency manages online. Between June 2025 and March 2026, the agency's certified testers and native screen readers manually reviewed 25 public-facing websites and hundreds of pages across flagship applications, including the ONE System, State Based Marketplace, and PEBB and OEBB member portals. As of June 2026, OHA held a 99% web accessibility score, surpassing the state's goal of 90%. OHA also took accessibility beyond minimum requirements by improving how its digital tools are designed, tested, and updated, so more people can use them with ease.

OPRD has strengthened how equity informs budget and program decisions. Using findings from the 2025-2029 Statewide Comprehensive Outdoor Recreation Plan, the agency identified communities that remain underrepresented in outdoor recreation and examined how rising user fees and limited entry-level employment opportunities could deepen existing barriers. OPRD used this analysis to inform proposed investments in recreation access, heritage services, and asset modernization.



OPRD campsite

Annual progress reports, agency check-ins, and continued collaboration with agency leaders, the Governor's Office, and Office of Cultural Change (OCC) will help ensure agencies continue to advance statewide diversity, equity, inclusion, and belonging priorities.

Strengthening Government Resilience Through Emergency Preparedness

Emergency preparedness across Oregon's state government has advanced significantly in recent years. In 2023, 42 out of 88 executive branch agencies were credited with having Continuity of Operations Plans (COOPs). That number hardly tells the whole story. Many of the 42 submitted plans lacked sufficient detail.

The Oregon Department of Emergency Management's role, per Oregon Revised Statute 401, is to provide support and resources for development of, training for, and exercising plans, as well as providing feedback on existing plans for continuous improvement. However, OEM did not have staff positions dedicated to statewide continuity. To accomplish this work, OEM temporarily realigned two Emergency Coordination Center positions to establish and support a statewide continuity program.

Establishing an Enterprise Baseline (2024–25)

The program's initial focus in 2023 was on training, technical assistance, and comprehensive COOP reviews. Agencies were assessed by quantitative compliance: whether required components existed in any form. This approach encouraged full participation and produced measurable progress.

In 2024, 82% of required agencies submitted COOPs by the September 30 deadline; and 78% achieved completeness scores of 80% or higher.

In 2025, approximately 96% of required agencies submitted plans by the due date, a 14% improvement over the year prior, and all submitted plans achieved completeness scores of 80% or higher, a 22% increase.

Increasing Rigor Through Qualitative Improvement (2025–26)

As statewide participation strengthened, OEM has begun shifting toward qualitative reviews that emphasize clarity, completeness, and operational usefulness. With more

rigorous standards, scores will naturally adjust, reflecting improved expectations rather than decreased performance.

This shift is already producing meaningful improvements across agencies. Examples include but are not limited to:

- The Oregon Department of Agriculture (ODA) and the Oregon Department of Environmental Quality (DEQ) continue to show strong engagement in continuity planning and consistent refinement of both plan structure and content and served as the base for the state agency sample plan that OEM created as a "best practice" resource.
- The ODHS expanded its Mission Essential Functions from 33 to more than 100, providing clearer visibility into the services that must continue during a crisis.
- The Department of Education (ODE) improved plan completeness from 76% to 90% between 2024 and 2025, and its continuity planner has become a reliable contributor to continuity educational resources.
- The Board of Licensed Social Workers (BLSW) and Psychiatric Security Review Board (PSRB) each increased their plan completeness by 43% and 51%, respectively, after requesting technical assistance from OEM and incorporating missing required elements.

OEM has supported statewide advancement through extensive training, exercises, tools, and technical assistance. These shared activities have strengthened guidance, expanded the continuity community of practice, and increased consistency across statewide continuity capabilities.

The statewide continuity program has transformed Oregon's approach to continuity planning. Agencies are producing more complete and more operationally useful plans, strengthening governance structures, and clarifying essential functions. Training, exercising, and technical assistance have elevated expectations and increased capability across agencies, boards, and commissions.

Oregon's state government is becoming better positioned to sustain essential services during disruptions, and further improvement will require continued attention to the most persistent challenges, limited capacity, uneven continuity knowledge, and staff turnover across agencies.

Conclusion

Since 2023, Oregon's state government has made meaningful progress toward consistent accountability, modernized systems, stronger workforce support, and more reliable public service. The statewide expectations set by Governor Kotek created a clear direction and unified standards, and agencies across the enterprise have responded by building the structures needed for long-term improvement.

The examples in this report show how these changes are taking hold: services are faster and easier to access, technology systems are more user friendly, hiring is quicker, emergency preparedness is stronger, and equity is increasingly embedded in everyday operations. These improvements are not abstract; they are already shaping the experiences of Oregonians who rely on dependable state services.

This report captures a government in motion. Agencies are closing gaps identified in the 2023 baseline report, adopting consistent systems, and demonstrating what aligned expectations can achieve. Though, the work is not finished. Continued focus, steady implementation, and commitment to growth will be essential as agencies refine these systems, meet upcoming milestones, and take on new priorities. Oregon is building a more modern, resilient, and responsive government, one prepared not only to serve Oregonians today, but for Oregonians tomorrow.

Appendices

These appendices provide a high-level summary of the underlying data used to develop the *Oregon Agency Expectations: Three-Year Progress Report*. For readers seeking more detail on metrics, sources, and analysis behind the report's findings, the quarterly reports are available on the Oregon Agency Expectations website.

1. Performance Reviews for Agency Directors

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Accountancy, Board of	No	Yes
Administrative Services, Department of	No	Yes
Advocacy Commissions Office, Oregon	Yes	—
Agriculture, Department of	No	Yes
Aviation, Oregon Department of	No	Yes
Blind, Oregon Commission for the	Yes	Yes
Business Oregon	No	Yes
Chiropractic Examiners, State Board of	Yes	Yes
Construction Contractors Board	Yes	Yes
Consumer and Business Services, Department of	Yes	—
Corrections, Department of	No	Yes
Criminal Justice Commission	No	Yes
Dentistry, Oregon Board of	Yes	Yes
Early Learning and Care, Department of	No	Yes
Education, Oregon Department of	No	Yes
Emergency Management, Oregon Department of	No	Yes
Employment Department, Oregon	Yes	—
Employment Relations Board	No	Yes
Energy, Oregon Department of	No	Yes
Environmental Quality, Department of	No	Yes
Fish and Wildlife, Oregon Department of	Yes	Yes
Forestry, Oregon Department of	Yes	—
Geology and Mineral Industries, Department of	Yes	Yes
Government Ethics Commission, Oregon	Yes	Yes
Health Authority, Oregon	No	Yes
Higher Education Coordinating Commission	No	Yes
Housing and Community Services, Oregon	No	Yes
Human Services, Oregon Department of	No	Yes
Land Conservation and Development, Department of	No	Yes
Land Use Board of Appeals	No	Yes

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Library of Oregon, State	No	Yes
Liquor and Cannabis Commission, Oregon	No	Yes
Long Term Care Ombudsman, Office of the	No	Yes
Lottery, Oregon State	No	Yes
Marine Board, Oregon State	Yes	Yes
Massage Therapists, Oregon Board of	—	Yes
Medical Board, Oregon	Yes	Yes
Medical Imaging, Oregon Board of	No	Yes
Mental Health Regulatory Agency	No	Yes
Military Department, Oregon	No	Yes
Mortuary and Cemetery Board, Oregon	Yes	Yes
Naturopathic Medicine, Oregon Board of	Yes	Yes
Nursing, Oregon State Board of	No	Yes
Occupational Therapy Licensing Board	Yes	Yes
Optometry, Oregon Board of	Yes	Yes
Parks and Recreation Department, Oregon	Yes	Yes
Parole, Board of	Yes	Yes
Pharmacy, Oregon Board of	Yes	—
Physical Therapy, Oregon Board of	Yes	Yes
Psychiatric Security Review Board	Yes	Yes
Public Defense Commission, Oregon	—	Yes
Public Employees Retirement System	Yes	Yes
Public Safety Standards and Training, Department of	No	Yes
Public Utility Commission	No	—
Racing Commission, Oregon	No	Yes
Real Estate Agency	No	Yes
Revenue, Department of	No	Yes
Social Workers, Board of Licensed	No	Yes
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	No	Yes
State Fire Marshal, Oregon	No	Yes
State Lands, Oregon Department of	No	—
State Police, Oregon	No	Yes
Tax Practitioners, Oregon Board of	No	Yes
Teacher Standards and Practices Commission	—	—
Transportation, Oregon Department of	No	Yes
Veterans' Affairs, Oregon Department of	No	Yes
Veterinary Medical Examining Board, Oregon	—	Yes
Water Resources Department, Oregon	No	Yes
Watershed Enhancement Board, Oregon	No	Yes
Youth Authority, Oregon	No	Yes

2. Performance Feedback for Employees

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Accountancy, Board of	75%	100%
Administrative Services, Department of	100%	100%
Advocacy Commissions Office, Oregon	20%	—
Agriculture, Department of	90%	100%
Aviation, Oregon Department of	17%	100%
Blind, Oregon Commission for the	98%	100%
Business Oregon	100%	95%
Chiropractic Examiners, State Board of	100%	100%
Construction Contractors Board	40%	100%
Consumer and Business Services, Department of	99%	97%
Corrections, Department of	51%	98%
Criminal Justice Commission	100%	100%
Dentistry, Oregon Board of	100%	—
Early Learning and Care, Department of	—	100%
Education, Oregon Department of	94%	96%
Emergency Management, Oregon Department of	96%	100%
Employment Department, Oregon	99%	98%
Employment Relations Board	100%	100%
Energy, Oregon Department of	100%	100%
Environmental Quality, Department of	90%	96%
Fish and Wildlife, Oregon Department of	100%	99%
Forestry, Oregon Department of	81%	92%
Geology and Mineral Industries, Department of	100%	100%
Government Ethics Commission, Oregon	100%	100%
Health Authority, Oregon	64%	88%
Higher Education Coordinating Commission	92%	89%
Housing and Community Services, Oregon	88%	95%
Human Services, Oregon Department of	92%	94%
Land Conservation and Development, Department of	87%	100%
Land Use Board of Appeals	100%	100%
Library of Oregon, State	100%	98%
Liquor and Cannabis Commission, Oregon	95%	95%
Long Term Care Ombudsman, Office of the	96%	100%
Lottery, Oregon State	—	100%
Marine Board, Oregon State	100%	100%
Massage Therapists, Oregon Board of	0%	60%
Medical Board, Oregon	100%	80%
Medical Imaging, Oregon Board of	100%	100%

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Mental Health Regulatory Agency	100%	100%
Military Department, Oregon	100%	100%
Mortuary and Cemetery Board, Oregon	100%	100%
Naturopathic Medicine, Oregon Board of	0%	—
Nursing, Oregon State Board of	83%	97%
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	0%	—
Parks and Recreation Department, Oregon	99%	98%
Parole, Board of	100%	83%
Pharmacy, Oregon Board of	95%	100%
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	100%	100%
Public Defense Commission, Oregon	—	100%
Public Employees Retirement System	100%	100%
Public Safety Standards and Training, Department of	89%	100%
Public Utility Commission	100%	99%
Racing Commission, Oregon	—	100%
Real Estate Agency	100%	100%
Revenue, Department of	100%	100%
Social Workers, Board of Licensed	0%	—
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	100%
State Fire Marshal, Oregon	—	90%
State Lands, Oregon Department of	85%	100%
State Police, Oregon	97%	98%
Tax Practitioners, Oregon Board of	100%	100%
Teacher Standards and Practices Commission	96%	100%
Transportation, Oregon Department of	98%	92%
Veterans' Affairs, Oregon Department of	94%	98%
Veterinary Medical Examining Board, Oregon	—	100%
Water Resources Department, Oregon	100%	92%
Watershed Enhancement Board, Oregon	100%	81%
Youth Authority, Oregon	99%	96%

3. Measuring Employee Satisfaction

Agency	Period Ending 5/1/2023	Period Ending 3/31/2026
Accountancy, Board of	—	Yes
Administrative Services, Department of	No	Yes
Advocacy Commissions Office, Oregon	No	—
Agriculture, Department of	Yes	Yes
Aviation, Oregon Department of	—	Yes
Blind, Oregon Commission for the	Yes	Yes
Business Oregon	Yes	Yes
Chiropractic Examiners, State Board of	—	Yes
Construction Contractors Board	—	Yes
Consumer and Business Services, Department of	No	Yes
Corrections, Department of	Yes	Yes
Criminal Justice Commission	—	Yes
Dentistry, Oregon Board of	No	Yes
Early Learning and Care, Department of	Yes	Yes
Education, Oregon Department of	No	Yes
Emergency Management, Oregon Department of	No	Yes
Employment Department, Oregon	No	Yes
Employment Relations Board	—	Yes
Energy, Oregon Department of	No	Yes
Environmental Quality, Department of	No	Yes
Fish and Wildlife, Oregon Department of	Yes	Yes
Forestry, Oregon Department of	No	Yes
Geology and Mineral Industries, Department of	No	—
Government Ethics Commission, Oregon	—	Yes
Health Authority, Oregon	No	Yes
Higher Education Coordinating Commission	Yes	Yes
Housing and Community Services, Oregon	Yes	Yes
Human Services, Oregon Department of	No	Yes
Land Conservation and Development, Department of	—	Yes
Land Use Board of Appeals	No	Yes
Library of Oregon, State	Yes	Yes
Liquor and Cannabis Commission, Oregon	No	Yes
Long Term Care Ombudsman, Office of the	—	Yes
Lottery, Oregon State	Yes	Yes
Marine Board, Oregon State	—	Yes
Massage Therapists, Oregon Board of	—	Yes
Medical Board, Oregon	No	Yes
Medical Imaging, Oregon Board of	Yes	Yes

Agency	Period Ending 5/1/2023	Period Ending 3/31/2026
Mental Health Regulatory Agency	No	Yes
Military Department, Oregon	Yes	Yes
Mortuary and Cemetery Board, Oregon	—	Yes
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	—	Yes
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	No	Yes
Parole, Board of	—	Yes
Pharmacy, Oregon Board of	No	Yes
Physical Therapy, Oregon Board of	—	Yes
Psychiatric Security Review Board	—	—
Public Defense Commission, Oregon	—	Yes
Public Employees Retirement System	Yes	Yes
Public Safety Standards and Training, Department of	Yes	Yes
Public Utility Commission	No	Yes
Racing Commission, Oregon	—	Yes
Real Estate Agency	—	Yes
Revenue, Department of	Yes	Yes
Social Workers, Board of Licensed	—	Yes
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	No	Yes
State Lands, Oregon Department of	Yes	Yes
State Police, Oregon	No	Yes
Tax Practitioners, Oregon Board of	No	—
Teacher Standards and Practices Commission	—	Yes
Transportation, Oregon Department of	Yes	Yes
Veterans' Affairs, Oregon Department of	No	Yes
Veterinary Medical Examining Board, Oregon	—	Yes
Water Resources Department, Oregon	No	Yes
Watershed Enhancement Board, Oregon	No	Yes
Youth Authority, Oregon	Yes	Yes

4. Strategic Planning and Performance Measurement

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Accountancy, Board of	No	Yes
Administrative Services, Department of	No	Yes
Advocacy Commissions Office, Oregon	No	Yes
Agriculture, Department of	No	Yes
Aviation, Oregon Department of	Yes	Yes
Blind, Oregon Commission for the	Yes	Yes
Business Oregon	No	Yes
Chiropractic Examiners, State Board of	No	Yes
Construction Contractors Board	Yes	Yes
Consumer and Business Services, Department of	No	Yes
Corrections, Department of	Yes	Yes
Criminal Justice Commission	No	Yes
Dentistry, Oregon Board of	Yes	Yes
Early Learning and Care, Department of	No	Yes
Education, Oregon Department of	Yes	Yes
Emergency Management, Oregon Department of	No	Yes
Employment Department, Oregon	No	Yes
Employment Relations Board	No	Yes
Energy, Oregon Department of	Yes	Yes
Environmental Quality, Department of	No	Yes
Fish and Wildlife, Oregon Department of	No	Yes
Forestry, Oregon Department of	No	Yes
Geology and Mineral Industries, Department of	No	Yes
Government Ethics Commission, Oregon	No	Yes
Health Authority, Oregon	No	Yes
Higher Education Coordinating Commission	Yes	Yes
Housing and Community Services, Oregon	No	Yes
Human Services, Oregon Department of	No	Yes
Land Conservation and Development, Department of	No	Yes
Land Use Board of Appeals	No	Yes
Library of Oregon, State	Yes	Yes
Liquor and Cannabis Commission, Oregon	No	Yes
Long Term Care Ombudsman, Office of the	No	Yes
Lottery, Oregon State	No	Yes
Marine Board, Oregon State	Yes	Yes
Massage Therapists, Oregon Board of	—	Yes
Medical Board, Oregon	Yes	Yes

Attachment #5

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Medical Imaging, Oregon Board of	Yes	Yes
Mental Health Regulatory Agency	Yes	Yes
Military Department, Oregon	Yes	Yes
Mortuary and Cemetery Board, Oregon	No	Yes
Naturopathic Medicine, Oregon Board of	No	Yes
Nursing, Oregon State Board of	No	Yes
Occupational Therapy Licensing Board	Yes	Yes
Optometry, Oregon Board of	No	Yes
Parks and Recreation Department, Oregon	No	Yes
Parole, Board of	Yes	No
Pharmacy, Oregon Board of	Yes	Yes
Physical Therapy, Oregon Board of	Yes	Yes
Psychiatric Security Review Board	No	Yes
Public Defense Commission, Oregon	—	Yes
Public Employees Retirement System	Yes	Yes
Public Safety Standards and Training, Department of	No	Yes
Public Utility Commission	Yes	Yes
Racing Commission, Oregon	No	Yes
Real Estate Agency	Yes	Yes
Revenue, Department of	Yes	Yes
Social Workers, Board of Licensed	No	Yes
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	Yes	Yes
State Fire Marshal, Oregon	No	Yes
State Lands, Oregon Department of	Yes	Yes
State Police, Oregon	Yes	Yes
Tax Practitioners, Oregon Board of	No	Yes
Teacher Standards and Practices Commission	—	Yes
Transportation, Oregon Department of	Yes	Yes
Veterans' Affairs, Oregon Department of	Yes	Yes
Veterinary Medical Examining Board, Oregon	—	Yes
Water Resources Department, Oregon	No	Yes
Watershed Enhancement Board, Oregon	No	Yes
Youth Authority, Oregon	Yes	Yes

5. Information Technology Management and Modernization

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Accountancy, Board of	—	No
Administrative Services, Department of	Yes	Yes
Advocacy Commissions Office, Oregon	—	Yes
Agriculture, Department of	Yes	Yes
Aviation, Oregon Department of	—	Yes
Blind, Oregon Commission for the	Yes	Yes
Business Oregon	Yes	Yes
Chiropractic Examiners, State Board of	—	Yes
Construction Contractors Board	Yes	Yes
Consumer and Business Services, Department of	Yes	Yes
Corrections, Department of	Yes	Yes
Criminal Justice Commission	—	Not Required
Dentistry, Oregon Board of	—	Yes
Early Learning and Care, Department of	No	Yes
Education, Oregon Department of	Yes	Yes
Emergency Management, Oregon Department of	Yes	Yes
Employment Department, Oregon	Yes	Yes
Employment Relations Board	—	Yes
Energy, Oregon Department of	Yes	Yes
Environmental Quality, Department of	Yes	Yes
Fish and Wildlife, Oregon Department of	Yes	Yes
Forestry, Oregon Department of	Yes	Yes
Geology and Mineral Industries, Department of	—	Yes
Government Ethics Commission, Oregon	—	Yes
Health Authority, Oregon	Yes	Yes
Higher Education Coordinating Commission	Yes	Yes
Housing and Community Services, Oregon	Yes	Yes
Human Services, Oregon Department of	Yes	Yes
Land Conservation and Development, Department of	Yes	Yes
Land Use Board of Appeals	—	Yes
Library of Oregon, State	—	Yes
Liquor and Cannabis Commission, Oregon	Yes	Yes
Long Term Care Ombudsman, Office of the	—	Yes
Lottery, Oregon State	Yes	Yes
Marine Board, Oregon State	Yes	Yes
Massage Therapists, Oregon Board of	—	No

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Medical Board, Oregon	—	Yes
Medical Imaging, Oregon Board of	—	Yes
Mental Health Regulatory Agency	—	Yes
Military Department, Oregon	Yes	Yes
Mortuary and Cemetery Board, Oregon	—	No
Naturopathic Medicine, Oregon Board of	—	Yes
Nursing, Oregon State Board of	Yes	Yes
Occupational Therapy Licensing Board	—	Yes
Optometry, Oregon Board of	—	No
Parks and Recreation Department, Oregon	Yes	Yes
Parole, Board of	Yes	Yes
Pharmacy, Oregon Board of	—	No
Physical Therapy, Oregon Board of	—	Yes
Psychiatric Security Review Board	—	Yes
Public Defense Commission, Oregon	—	Yes
Public Employees Retirement System	Yes	Yes
Public Safety Standards and Training, Department of	Yes	Yes
Public Utility Commission	Yes	Yes
Racing Commission, Oregon	Yes	Yes
Real Estate Agency	No	Yes
Revenue, Department of	Yes	Yes
Social Workers, Board of Licensed	—	No
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	No
State Fire Marshal, Oregon	Yes	Yes
State Lands, Oregon Department of	Yes	Yes
State Police, Oregon	Yes	Yes
Tax Practitioners, Oregon Board of	—	Yes
Teacher Standards and Practices Commission	—	Yes
Transportation, Oregon Department of	Yes	Yes
Veterans' Affairs, Oregon Department of	Yes	Yes
Veterinary Medical Examining Board, Oregon	—	No
Water Resources Department, Oregon	Yes	Yes
Watershed Enhancement Board, Oregon	Yes	Yes
Youth Authority, Oregon	Yes	Yes

6. Workforce Succession Planning

Agency	Period Ending 5/1/2023	Period Ending 3/31/2026
Accountancy, Board of	No	Incomplete
Administrative Services, Department of	No	Yes
Advocacy Commissions Office, Oregon	No	No
Agriculture, Department of	No	Yes
Aviation, Oregon Department of	No	Incomplete
Blind, Oregon Commission for the	No	Yes
Business Oregon	No	Yes
Chiropractic Examiners, State Board of	No	Incomplete
Construction Contractors Board	No	Yes
Consumer and Business Services, Department of	Yes	Yes
Corrections, Department of	No	Incomplete
Criminal Justice Commission	No	Yes
Dentistry, Oregon Board of	No	Yes
Early Learning and Care, Department of	No	Yes
Education, Oregon Department of	No	Yes
Emergency Management, Oregon Department of	No	Yes
Employment Department, Oregon	Yes	Yes
Employment Relations Board	No	Yes
Energy, Oregon Department of	No	Yes
Environmental Quality, Department of	No	Yes
Fish and Wildlife, Oregon Department of	No	Yes
Forestry, Oregon Department of	No	Yes
Geology and Mineral Industries, Department of	Yes	Yes
Government Ethics Commission, Oregon	No	Yes
Health Authority, Oregon	No	Yes
Higher Education Coordinating Commission	No	Yes
Housing and Community Services, Oregon	No	Yes
Human Services, Oregon Department of	No	Yes
Land Conservation and Development, Department of	No	Yes
Land Use Board of Appeals	No	Yes
Library of Oregon, State	No	Yes
Liquor and Cannabis Commission, Oregon	No	Yes
Long Term Care Ombudsman, Office of the	No	Yes
Lottery, Oregon State	No	Yes
Marine Board, Oregon State	Yes	Yes
Massage Therapists, Oregon Board of	—	Yes
Medical Board, Oregon	No	Yes
Medical Imaging, Oregon Board of	Yes	Yes

Agency	Period Ending 5/1/2023	Period Ending 3/31/2026
Mental Health Regulatory Agency	No	Yes
Military Department, Oregon	No	Yes
Mortuary and Cemetery Board, Oregon	No	Incomplete
Naturopathic Medicine, Oregon Board of	No	Yes
Nursing, Oregon State Board of	No	Yes
Occupational Therapy Licensing Board	No	Yes
Optometry, Oregon Board of	No	Yes
Parks and Recreation Department, Oregon	No	Incomplete
Parole, Board of	Yes	Yes
Pharmacy, Oregon Board of	No	Yes
Physical Therapy, Oregon Board of	Yes	Yes
Psychiatric Security Review Board	No	Yes
Public Defense Commission, Oregon	—	Yes
Public Employees Retirement System	Yes	Yes
Public Safety Standards and Training, Department of	No	Yes
Public Utility Commission	Yes	Yes
Racing Commission, Oregon	No	Yes
Real Estate Agency	No	Yes
Revenue, Department of	No	Yes
Social Workers, Board of Licensed	No	Yes
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	No	Incomplete
State Fire Marshal, Oregon	No	Yes
State Lands, Oregon Department of	No	Yes
State Police, Oregon	No	Yes
Tax Practitioners, Oregon Board of	No	Incomplete
Teacher Standards and Practices Commission	—	Incomplete
Transportation, Oregon Department of	No	Yes
Veterans' Affairs, Oregon Department of	No	Yes
Veterinary Medical Examining Board, Oregon	—	Yes
Water Resources Department, Oregon	No	Yes
Watershed Enhancement Board, Oregon	No	Yes
Youth Authority, Oregon	No	Yes

7. Advancing Diversity, Equity, and Inclusion

Agency	Period Ending 6/1/2023	Period Ending 6/30/2026
Accountancy, Board of	Yes	Yes
Administrative Services, Department of	No	Yes
Advocacy Commissions Office, Oregon	No	Yes
Agriculture, Department of	Yes	Yes
Aviation, Oregon Department of	No	Yes
Blind, Oregon Commission for the	Yes	Yes
Business Oregon	No	Yes
Chiropractic Examiners, State Board of	Yes	Yes
Construction Contractors Board	No	Yes
Consumer and Business Services, Department of	Yes	Yes
Corrections, Department of	No	Yes
Criminal Justice Commission	Yes	Yes
Dentistry, Oregon Board of	Yes	Yes
Early Learning and Care, Department of	No	Yes
Education, Oregon Department of	Yes	Yes
Emergency Management, Oregon Department of	No	Yes
Employment Department, Oregon	Yes	Yes
Employment Relations Board	No	Yes
Energy, Oregon Department of	No	Yes
Environmental Quality, Department of	No	Yes
Fish and Wildlife, Oregon Department of	No	Yes
Forestry, Oregon Department of	No	Yes
Geology and Mineral Industries, Department of	Yes	Yes
Government Ethics Commission, Oregon	No	Yes
Health Authority, Oregon	Yes	Yes
Higher Education Coordinating Commission	Yes	Yes
Housing and Community Services, Oregon	No	Yes
Human Services, Oregon Department of	Yes	Yes
Land Conservation and Development, Department of	Yes	Yes
Land Use Board of Appeals	No	Yes
Library of Oregon, State	No	Yes
Liquor and Cannabis Commission, Oregon	No	Yes
Long Term Care Ombudsman, Office of the	Yes	Yes
Lottery, Oregon State	No	Yes
Marine Board, Oregon State	Yes	Yes
Massage Therapists, Oregon Board of	—	Yes
Medical Board, Oregon	No	Yes
Medical Imaging, Oregon Board of	Yes	Yes

Agency	Period Ending 6/1/2023	Period Ending 6/30/2026
Mental Health Regulatory Agency	No	Yes
Military Department, Oregon	Yes	Yes
Mortuary and Cemetery Board, Oregon	No	Yes
Naturopathic Medicine, Oregon Board of	Yes	Yes
Nursing, Oregon State Board of	Yes	Yes
Occupational Therapy Licensing Board	Yes	Yes
Optometry, Oregon Board of	Yes	Yes
Parks and Recreation Department, Oregon	No	Yes
Parole, Board of	Yes	Yes
Pharmacy, Oregon Board of	Yes	Yes
Physical Therapy, Oregon Board of	Yes	Yes
Psychiatric Security Review Board	No	Yes
Public Defense Commission, Oregon	—	Yes
Public Employees Retirement System	No	Yes
Public Safety Standards and Training, Department of	No	Yes
Public Utility Commission	No	Yes
Racing Commission, Oregon	Yes	Yes
Real Estate Agency	Yes	Yes
Revenue, Department of	Yes	Yes
Social Workers, Board of Licensed	No	Yes
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	No	Yes
State Fire Marshal, Oregon	No	Yes
State Lands, Oregon Department of	No	Yes
State Police, Oregon	Yes	Yes
Tax Practitioners, Oregon Board of	Yes	Yes
Teacher Standards and Practices Commission	—	Yes
Transportation, Oregon Department of	Yes	Yes
Veterans' Affairs, Oregon Department of	No	Yes
Veterinary Medical Examining Board, Oregon	—	Yes
Water Resources Department, Oregon	No	Yes
Watershed Enhancement Board, Oregon	No	Yes
Youth Authority, Oregon	Yes	Yes

8. Agency Emergency Preparedness

Agency	Period Ending 5/1/2023	Period Ending 12/31/2025
Accountancy, Board of	No	Yes
Administrative Services, Department of	No	Yes
Advocacy Commissions Office, Oregon	No	Yes
Agriculture, Department of	Yes	Yes
Aviation, Oregon Department of	Yes	Yes
Blind, Oregon Commission for the	Yes	Yes
Business Oregon	Yes	Yes
Chiropractic Examiners, State Board of	Yes	Yes
Construction Contractors Board	No	Yes
Consumer and Business Services, Department of	Yes	Yes
Corrections, Department of	Yes	Yes
Criminal Justice Commission	Yes	Yes
Dentistry, Oregon Board of	Yes	Yes
Early Learning and Care, Department of	No	Yes
Education, Oregon Department of	Yes	Yes
Emergency Management, Oregon Department of	No	Yes
Employment Department, Oregon	Yes	Yes
Employment Relations Board	No	Yes
Energy, Oregon Department of	No	Yes
Environmental Quality, Department of	No	Yes
Fish and Wildlife, Oregon Department of	No	Yes
Forestry, Oregon Department of	Yes	Yes
Geology and Mineral Industries, Department of	Yes	Yes
Government Ethics Commission, Oregon	No	Yes
Health Authority, Oregon	No	Yes
Higher Education Coordinating Commission	Yes	Yes
Housing and Community Services, Oregon	Yes	Yes
Human Services, Oregon Department of	Yes	Yes
Land Conservation and Development, Department of	No	Yes
Land Use Board of Appeals	No	Yes
Library of Oregon, State	No	Yes
Liquor and Cannabis Commission, Oregon	No	Yes
Long Term Care Ombudsman, Office of the	Yes	Yes
Lottery, Oregon State	Yes	Yes
Marine Board, Oregon State	Yes	Yes
Massage Therapists, Oregon Board of	—	Yes
Medical Board, Oregon	Yes	Yes

Agency	Period Ending 5/1/2023	Period Ending 12/31/2025
Medical Imaging, Oregon Board of	Yes	Yes
Mental Health Regulatory Agency	No	Yes
Military Department, Oregon	No	Yes
Mortuary and Cemetery Board, Oregon	No	Yes
Naturopathic Medicine, Oregon Board of	Yes	Yes
Nursing, Oregon State Board of	No	Yes
Occupational Therapy Licensing Board	No	Yes
Optometry, Oregon Board of	Yes	Yes
Parks and Recreation Department, Oregon	Yes	Yes
Parole, Board of	Yes	Yes
Pharmacy, Oregon Board of	No	Yes
Physical Therapy, Oregon Board of	Yes	Yes
Psychiatric Security Review Board	Yes	Yes
Public Defense Commission, Oregon	—	—
Public Employees Retirement System	Yes	Yes
Public Safety Standards and Training, Department of	Yes	Yes
Public Utility Commission	Yes	Yes
Racing Commission, Oregon	No	Yes
Real Estate Agency	No	Yes
Revenue, Department of	No	Yes
Social Workers, Board of Licensed	No	Yes
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	No	Yes
State Fire Marshal, Oregon	Yes	Yes
State Lands, Oregon Department of	No	Yes
State Police, Oregon	Yes	Yes
Tax Practitioners, Oregon Board of	Yes	Yes
Teacher Standards and Practices Commission	—	Yes
Transportation, Oregon Department of	No	Yes
Veterans' Affairs, Oregon Department of	Yes	Yes
Veterinary Medical Examining Board, Oregon	—	Yes
Water Resources Department, Oregon	No	Yes
Watershed Enhancement Board, Oregon	Yes	Yes
Youth Authority, Oregon	Yes	Yes

9. Hiring Practices and Recruitment Accountability

Days to Fill Vacant Positions

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Accountancy, Board of	—	—
Administrative Services, Department of	52	38
Advocacy Commissions Office, Oregon	—	—
Agriculture, Department of	66	46
Aviation, Oregon Department of	—	—
Blind, Oregon Commission for the	61	—
Business Oregon	54	38
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	42	54
Consumer and Business Services, Department of	56	39
Corrections, Department of	50	41
Criminal Justice Commission	120	46
Dentistry, Oregon Board of	—	—
Early Learning and Care, Department of	—	42
Education, Oregon Department of	81	52
Emergency Management, Oregon Department of	73	48
Employment Department, Oregon	68	52
Employment Relations Board	—	—
Energy, Oregon Department of	57	38
Environmental Quality, Department of	63	75
Fish and Wildlife, Oregon Department of	86	54
Forestry, Oregon Department of	61	42
Geology and Mineral Industries, Department of	90	—
Government Ethics Commission, Oregon	64	—
Health Authority, Oregon	89	56
Higher Education Coordinating Commission	84	47
Housing and Community Services, Oregon	60	57
Human Services, Oregon Department of	72	57
Land Conservation and Development, Department of	56	41
Land Use Board of Appeals	—	—
Library of Oregon, State	62	30
Liquor and Cannabis Commission, Oregon	81	26
Long Term Care Ombudsman, Office of the	57	—
Lottery, Oregon State	—	61
Marine Board, Oregon State	52	36

Agency	Period Ending 5/1/2023	Period Ending 6/30/2026
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	70	44
Medical Imaging, Oregon Board of	—	—
Mental Health Regulatory Agency	42	76
Military Department, Oregon	59	37
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	67	39
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	57	37
Parole, Board of	52	—
Pharmacy, Oregon Board of	—	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	55	—
Public Defense Commission, Oregon	—	26
Public Employees Retirement System	65	54
Public Safety Standards and Training, Department of	156	42
Public Utility Commission	48	41
Racing Commission, Oregon	103	—
Real Estate Agency	60	—
Revenue, Department of	51	30
Social Workers, Board of Licensed	—	97
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	—	28
State Lands, Oregon Department of	61	41
State Police, Oregon	85	60
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	60	—
Transportation, Oregon Department of	78	55
Veterans' Affairs, Oregon Department of	52	81
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	61	40
Watershed Enhancement Board, Oregon	—	28
Youth Authority, Oregon	84	70

Vacancy Rates

Agency	Period Ending 6/30/2023	Period Ending 6/30/2026
Accountancy, Board of	50.0%	14.30%
Administrative Services, Department of	12.3%	7.10%
Advocacy Commissions Office, Oregon	—	50%
Agriculture, Department of	27.6%	15.80%
Aviation, Oregon Department of	—	6.70%
Blind, Oregon Commission for the	7.6%	7.60%
Business Oregon	—	5.50%
Chiropractic Examiners, State Board of	0.0%	—
Construction Contractors Board	13.8%	6.80%
Consumer and Business Services, Department of	6.1%	6.40%
Corrections, Department of	12.6%	7.60%
Criminal Justice Commission	—	12.10%
Dentistry, Oregon Board of	—	14.30%
Early Learning and Care, Department of	—	4.60%
Education, Oregon Department of	—	9.80%
Emergency Management, Oregon Department of	—	5.00%
Employment Department, Oregon	22.8%	13.80%
Employment Relations Board	0.0%	—
Energy, Oregon Department of	7.0%	10.90%
Environmental Quality, Department of	14.2%	8.80%
Fish and Wildlife, Oregon Department of	26.9%	10.10%
Forestry, Oregon Department of	17.4%	13.50%
Geology and Mineral Industries, Department of	2.9%	—
Government Ethics Commission, Oregon	—	6.70%
Health Authority, Oregon	16.5%	12.10%
Higher Education Coordinating Commission	—	14.10%
Housing and Community Services, Oregon	24.5%	8.10%
Human Services, Oregon Department of	13.5%	7.00%
Land Conservation and Development, Department of	—	9.40%
Land Use Board of Appeals	—	—
Library of Oregon, State	9.8%	—
Liquor and Cannabis Commission, Oregon	10.8%	17.00%
Long Term Care Ombudsman, Office of the	—	4.90%
Lottery, Oregon State	—	13.50%
Marine Board, Oregon State	2.5%	2.40%
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	12.5%	4.70%
Medical Imaging, Oregon Board of	0.0%	—
Mental Health Regulatory Agency	—	—

Agency	Period Ending 6/30/2023	Period Ending 6/30/2026
Military Department, Oregon	25.7%	22.10%
Mortuary and Cemetery Board, Oregon	0.0%	—
Naturopathic Medicine, Oregon Board of	0.0%	—
Nursing, Oregon State Board of	11.1%	7.00%
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	14.1%	8.60%
Parole, Board of	12.0%	3.60%
Pharmacy, Oregon Board of	—	13.60%
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	8.3%	—
Public Defense Commission, Oregon	—	9.30%
Public Employees Retirement System	9.8%	3.80%
Public Safety Standards and Training, Department of	10.6%	4.50%
Public Utility Commission	13.0%	14.50%
Racing Commission, Oregon	7.1%	30.80%
Real Estate Agency	6.9%	9.40%
Revenue, Department of	12.8%	5.10%
Social Workers, Board of Licensed	16.7%	12.50%
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	0.0%	—
State Fire Marshal, Oregon	—	5.00%
State Lands, Oregon Department of	5.8%	5.90%
State Police, Oregon	14.0%	8.80%
Tax Practitioners, Oregon Board of	0.0%	—
Teacher Standards and Practices Commission	16.7%	27.80%
Transportation, Oregon Department of	12.7%	14.70%
Veterans' Affairs, Oregon Department of	20.6%	11.80%
Veterinary Medical Examining Board, Oregon	25.0%	—
Water Resources Department, Oregon	14.6%	9.30%
Watershed Enhancement Board, Oregon	5.4%	5.70%
Youth Authority, Oregon	13.8%	11.70%

10. Audit Accountability

Agency	Period Ending 6/1/2024	Period Ending 6/30/2026
Accountancy, Board of	—	—
Administrative Services, Department of	100%	43%
Advocacy Commissions Office, Oregon	—	—
Agriculture, Department of	—	—
Aviation, Oregon Department of	—	—
Blind, Oregon Commission for the	—	—
Business Oregon	—	100%
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	—	—
Consumer and Business Services, Department of	100%	100%
Corrections, Department of	22%	25%
Criminal Justice Commission	—	—
Dentistry, Oregon Board of	—	—
Early Learning and Care, Department of	—	100%
Education, Oregon Department of	100%	—
Emergency Management, Oregon Department of	0%	—
Employment Department, Oregon	100%	100%
Employment Relations Board	—	—
Energy, Oregon Department of	—	—
Environmental Quality, Department of	100%	100%
Fish and Wildlife, Oregon Department of	100%	67%
Forestry, Oregon Department of	—	67%
Geology and Mineral Industries, Department of	—	—
Government Ethics Commission, Oregon	—	—
Health Authority, Oregon	68%	97%
Higher Education Coordinating Commission	—	100%
Housing and Community Services, Oregon	100%	—
Human Services, Oregon Department of	94%	100%
Land Conservation and Development, Department of	—	—
Land Use Board of Appeals	—	—
Library of Oregon, State	—	—
Liquor and Cannabis Commission, Oregon	71%	88%
Long Term Care Ombudsman, Office of the	—	—
Lottery, Oregon State	100%	100%
Marine Board, Oregon State	—	—
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	100%	100%
Medical Imaging, Oregon Board of	—	—

Attachment #5

Agency	Period Ending 6/1/2024	Period Ending 6/30/2026
Mental Health Regulatory Agency	—	—
Military Department, Oregon	—	—
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	—	—
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	—	9%
Parole, Board of	—	—
Pharmacy, Oregon Board of	—	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	—	—
Public Defense Commission, Oregon	100%	100%
Public Employees Retirement System	50%	71%
Public Safety Standards and Training, Department of	—	—
Public Utility Commission	—	—
Racing Commission, Oregon	100%	—
Real Estate Agency	—	—
Revenue, Department of	100%	100%
Social Workers, Board of Licensed	—	—
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	—	—
State Lands, Oregon Department of	—	—
State Police, Oregon	—	54%
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	—	—
Transportation, Oregon Department of	83%	100%
Veterans' Affairs, Oregon Department of	—	—
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	—	—
Watershed Enhancement Board, Oregon	—	100%
Youth Authority, Oregon	—	83%

11. Developing New Employees and Managers

New Employee Orientation Training

Agency	Period Ending 9/30/2024	Period Ending 6/30/2026
Accountancy, Board of	—	—
Administrative Services, Department of	56%	100%
Advocacy Commissions Office, Oregon	100%	—
Agriculture, Department of	100%	100%
Aviation, Oregon Department of	100%	—
Blind, Oregon Commission for the	67%	—
Business Oregon	100%	100%
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	0%	100%
Consumer and Business Services, Department of	75%	100%
Corrections, Department of	87%	100%
Criminal Justice Commission	—	—
Dentistry, Oregon Board of	—	—
Early Learning and Care, Department of	100%	100%
Education, Oregon Department of	95%	100%
Emergency Management, Oregon Department of	0%	100%
Employment Department, Oregon	99%	100%
Employment Relations Board	—	—
Energy, Oregon Department of	86%	100%
Environmental Quality, Department of	96%	100%
Fish and Wildlife, Oregon Department of	96%	100%
Forestry, Oregon Department of	92%	100%
Geology and Mineral Industries, Department of	100%	—
Government Ethics Commission, Oregon	—	—
Health Authority, Oregon	50%	96%
Higher Education Coordinating Commission	100%	90%
Housing and Community Services, Oregon	83%	100%
Human Services, Oregon Department of	64%	98%
Land Conservation and Development, Department of	—	—
Land Use Board of Appeals	—	—
Library of Oregon, State	100%	100%
Liquor and Cannabis Commission, Oregon	86%	100%
Long Term Care Ombudsman, Office of the	60%	—
Lottery, Oregon State	100%	—
Marine Board, Oregon State	—	—
Massage Therapists, Oregon Board of	—	—

Agency	Period Ending 3/30/2023	Period Ending 6/30/2026
Medical Board, Oregon	—	100%
Medical Imaging, Oregon Board of	—	—
Mental Health Regulatory Agency	—	100%
Military Department, Oregon	86%	100%
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	—	—
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	100%	100%
Parole, Board of	—	100%
Pharmacy, Oregon Board of	100%	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	—	—
Public Defense Commission, Oregon	0%	100%
Public Employees Retirement System	100%	100%
Public Safety Standards and Training, Department of	0%	100%
Public Utility Commission	50%	100%
Racing Commission, Oregon	—	—
Real Estate Agency	100%	—
Revenue, Department of	100%	100%
Social Workers, Board of Licensed	100%	50%
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	70%	100%
State Lands, Oregon Department of	100%	100%
State Police, Oregon	95%	100%
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	0%	—
Transportation, Oregon Department of	88%	95%
Veterans' Affairs, Oregon Department of	77%	100%
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	100%	100%
Watershed Enhancement Board, Oregon	100%	0%
Youth Authority, Oregon	43%	93%

Customer Service Training

Agency	Period Ending 9/30/2023	Period Ending 6/30/2026
Accountancy, Board of	100%	—
Administrative Services, Department of	100%	100%
Advocacy Commissions Office, Oregon	—	—
Agriculture, Department of	100%	100%
Aviation, Oregon Department of	—	—
Blind, Oregon Commission for the	100%	—
Business Oregon	100%	100%
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	100%	100%
Consumer and Business Services, Department of	100%	100%
Corrections, Department of	93%	100%
Criminal Justice Commission	100%	100%
Dentistry, Oregon Board of	0%	—
Early Learning and Care, Department of	100%	100%
Education, Oregon Department of	96%	100%
Emergency Management, Oregon Department of	75%	100%
Employment Department, Oregon	97%	100%
Employment Relations Board	—	—
Energy, Oregon Department of	100%	100%
Environmental Quality, Department of	95%	100%
Fish and Wildlife, Oregon Department of	100%	100%
Forestry, Oregon Department of	100%	100%
Geology and Mineral Industries, Department of	100%	—
Government Ethics Commission, Oregon	—	—
Health Authority, Oregon	93%	99%
Higher Education Coordinating Commission	100%	100%
Housing and Community Services, Oregon	100%	100%
Human Services, Oregon Department of	94%	100%
Land Conservation and Development, Department of	100%	100%
Land Use Board of Appeals	100%	—
Library of Oregon, State	100%	100%
Liquor and Cannabis Commission, Oregon	100%	100%
Long Term Care Ombudsman, Office of the	100%	—
Lottery, Oregon State	—	—
Marine Board, Oregon State	—	100%
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	100%	100%
Medical Imaging, Oregon Board of	—	—

Agency	Period Ending 9/30/2023	Period Ending 6/30/2026
Mental Health Regulatory Agency	—	—
Military Department, Oregon	100%	100%
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	100%	—
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	100%	100%
Parole, Board of	100%	100%
Pharmacy, Oregon Board of	—	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	100%	—
Public Defense Commission, Oregon	—	—
Public Employees Retirement System	100%	100%
Public Safety Standards and Training, Department of	95%	100%
Public Utility Commission	100%	100%
Racing Commission, Oregon	—	—
Real Estate Agency	100%	—
Revenue, Department of	95%	100%
Social Workers, Board of Licensed	—	—
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	100%	—
State Lands, Oregon Department of	—	100%
State Police, Oregon	100%	100%
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	100%	—
Transportation, Oregon Department of	98%	100%
Veterans' Affairs, Oregon Department of	100%	—
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	100%	100%
Watershed Enhancement Board, Oregon	—	—
Youth Authority, Oregon	85%	95%

Foundational Manager Training

Agency	Period Ending 9/30/2024	Period Ending 6/30/2026
Accountancy, Board of	—	—
Administrative Services, Department of	50%	90%
Advocacy Commissions Office, Oregon	—	—
Agriculture, Department of	100%	100%
Aviation, Oregon Department of	—	—
Blind, Oregon Commission for the	—	100%
Business Oregon	67%	100%
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	—	100%
Consumer and Business Services, Department of	100%	100%
Corrections, Department of	88%	74%
Criminal Justice Commission	—	—
Dentistry, Oregon Board of	—	—
Early Learning and Care, Department of	100%	100%
Education, Oregon Department of	100%	100%
Emergency Management, Oregon Department of	100%	100%
Employment Department, Oregon	100%	100%
Employment Relations Board	—	—
Energy, Oregon Department of	100%	—
Environmental Quality, Department of	100%	86%
Fish and Wildlife, Oregon Department of	80%	100%
Forestry, Oregon Department of	20%	75%
Geology and Mineral Industries, Department of	—	—
Government Ethics Commission, Oregon	—	—
Health Authority, Oregon	80%	79%
Higher Education Coordinating Commission	—	100%
Housing and Community Services, Oregon	25%	100%
Human Services, Oregon Department of	48%	86%
Land Conservation and Development, Department of	100%	—
Land Use Board of Appeals	—	—
Library of Oregon, State	—	—
Liquor and Cannabis Commission, Oregon	—	80%
Long Term Care Ombudsman, Office of the	—	—
Lottery, Oregon State	—	—
Marine Board, Oregon State	—	—
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	—	—
Medical Imaging, Oregon Board of	—	—

Agency	Period Ending 6/30/2024	Period Ending 6/30/2026
Mental Health Regulatory Agency	—	—
Military Department, Oregon	100%	100%
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	100%	100%
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	25%	100%
Parole, Board of	—	—
Pharmacy, Oregon Board of	—	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	—	—
Public Defense Commission, Oregon	—	100%
Public Employees Retirement System	100%	100%
Public Safety Standards and Training, Department of	—	100%
Public Utility Commission	0%	100%
Racing Commission, Oregon	—	—
Real Estate Agency	—	—
Revenue, Department of	100%	100%
Social Workers, Board of Licensed	—	—
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	—	50%
State Lands, Oregon Department of	—	—
State Police, Oregon	100%	100%
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	—	—
Transportation, Oregon Department of	80%	89%
Veterans' Affairs, Oregon Department of	—	—
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	100%	100%
Watershed Enhancement Board, Oregon	—	—
Youth Authority, Oregon	100%	57%

Performance Feedback Training

Agency	Period Ending 9/30/2023	Period Ending 6/30/2026
Accountancy, Board of	—	—
Administrative Services, Department of	100%	60%
Advocacy Commissions Office, Oregon	—	—
Agriculture, Department of	100%	100%
Aviation, Oregon Department of	—	—
Blind, Oregon Commission for the	—	—
Business Oregon	100%	100%
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	—	—
Consumer and Business Services, Department of	100%	100%
Corrections, Department of	88%	80%
Criminal Justice Commission	—	—
Dentistry, Oregon Board of	—	—
Early Learning and Care, Department of	100%	—
Education, Oregon Department of	80%	0%
Emergency Management, Oregon Department of	100%	—
Employment Department, Oregon	88%	100%
Employment Relations Board	—	—
Energy, Oregon Department of	—	—
Environmental Quality, Department of	80%	100%
Fish and Wildlife, Oregon Department of	83%	100%
Forestry, Oregon Department of	83%	100%
Geology and Mineral Industries, Department of	—	—
Government Ethics Commission, Oregon	—	—
Health Authority, Oregon	75%	80%
Higher Education Coordinating Commission	—	100%
Housing and Community Services, Oregon	100%	100%
Human Services, Oregon Department of	84%	83%
Land Conservation and Development, Department of	—	100%
Land Use Board of Appeals	—	—
Library of Oregon, State	—	—
Liquor and Cannabis Commission, Oregon	100%	100%
Long Term Care Ombudsman, Office of the	—	—
Lottery, Oregon State	—	—
Marine Board, Oregon State	—	—
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	—	—
Medical Imaging, Oregon Board of	—	—

Agency	Period Ending 9/30/2023	Period Ending 6/30/2026
Mental Health Regulatory Agency	—	—
Military Department, Oregon	100%	—
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	100%	—
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	100%	—
Parole, Board of	—	—
Pharmacy, Oregon Board of	—	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	—	—
Public Defense Commission, Oregon	—	—
Public Employees Retirement System	100%	100%
Public Safety Standards and Training, Department of	100%	—
Public Utility Commission	—	—
Racing Commission, Oregon	—	—
Real Estate Agency	0%	—
Revenue, Department of	100%	100%
Social Workers, Board of Licensed	100%	—
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	—	—
State Lands, Oregon Department of	—	—
State Police, Oregon	100%	100%
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	—	—
Transportation, Oregon Department of	100%	57%
Veterans' Affairs, Oregon Department of	—	—
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	—	—
Watershed Enhancement Board, Oregon	—	—
Youth Authority, Oregon	71%	100%

Uplift Your Benefits Workshop Training

Agency	Period Ending 6/30/2023	Period Ending 6/30/2026
Accountancy, Board of	—	—
Administrative Services, Department of	80%	100%
Advocacy Commissions Office, Oregon	—	—
Agriculture, Department of	0%	100%
Aviation, Oregon Department of	—	—
Blind, Oregon Commission for the	—	—
Business Oregon	100%	88%
Chiropractic Examiners, State Board of	—	—
Construction Contractors Board	—	100%
Consumer and Business Services, Department of	80%	100%
Corrections, Department of	38%	96%
Criminal Justice Commission	0%	0%
Dentistry, Oregon Board of	—	—
Early Learning and Care, Department of	—	100%
Education, Oregon Department of	100%	100%
Emergency Management, Oregon Department of	100%	75%
Employment Department, Oregon	90%	100%
Employment Relations Board	—	—
Energy, Oregon Department of	100%	100%
Environmental Quality, Department of	86%	100%
Fish and Wildlife, Oregon Department of	50%	100%
Forestry, Oregon Department of	71%	100%
Geology and Mineral Industries, Department of	100%	—
Government Ethics Commission, Oregon	—	—
Health Authority, Oregon	93%	95%
Higher Education Coordinating Commission	100%	100%
Housing and Community Services, Oregon	90%	100%
Human Services, Oregon Department of	78%	92%
Land Conservation and Development, Department of	—	100%
Land Use Board of Appeals	—	—
Library of Oregon, State	100%	100%
Liquor and Cannabis Commission, Oregon	100%	100%
Long Term Care Ombudsman, Office of the	—	—
Lottery, Oregon State	—	—
Marine Board, Oregon State	—	100%
Massage Therapists, Oregon Board of	—	—
Medical Board, Oregon	100%	100%
Medical Imaging, Oregon Board of	—	—

Agency	Period Ending 6/30/2023	Period Ending 6/30/2026
Mental Health Regulatory Agency	—	—
Military Department, Oregon	83%	100%
Mortuary and Cemetery Board, Oregon	—	—
Naturopathic Medicine, Oregon Board of	—	—
Nursing, Oregon State Board of	0%	—
Occupational Therapy Licensing Board	—	—
Optometry, Oregon Board of	—	—
Parks and Recreation Department, Oregon	100%	100%
Parole, Board of	—	100%
Pharmacy, Oregon Board of	0%	—
Physical Therapy, Oregon Board of	—	—
Psychiatric Security Review Board	—	—
Public Defense Commission, Oregon	—	—
Public Employees Retirement System	100%	100%
Public Safety Standards and Training, Department of	50%	100%
Public Utility Commission	100%	100%
Racing Commission, Oregon	—	—
Real Estate Agency	—	—
Revenue, Department of	100%	100%
Social Workers, Board of Licensed	0%	—
Speech-Language Pathology & Audiology, Oregon Board of Examiners for	—	—
State Fire Marshal, Oregon	—	100%
State Lands, Oregon Department of	100%	100%
State Police, Oregon	24%	100%
Tax Practitioners, Oregon Board of	—	—
Teacher Standards and Practices Commission	—	—
Transportation, Oregon Department of	83%	95%
Veterans' Affairs, Oregon Department of	100%	—
Veterinary Medical Examining Board, Oregon	—	—
Water Resources Department, Oregon	75%	100%
Watershed Enhancement Board, Oregon	—	—
Youth Authority, Oregon	76%	92%

OREGON BOARD OF DENTISTRY
2027
BOARD MEETING DATES

Friday, February 26, 2027
Friday, April 23, 2027
Friday, June 11, 2027
Friday, August 13, 2027
Friday, October 22, 2027
Friday, December 10, 2027

DRAFT

UNFINISHED BUSINESS & RULES

FOR IMMEDIATE RELEASE
September 30, 2026

Media Contact:
Diann Bomkamp, RDH, BSDH, CDHC, FADHA
Legislative Chair, Missouri Dental Hygienists' Association
314-484-6121 | dbomkamp@sbcglobal.net

Missouri Dental Hygienists' Association Sues Dental Board to Stop Rule Letting Assistants Perform Hygiene Procedures

Lawsuit says the proposed rule revives a pilot program the legislature let expire

JEFFERSON CITY, Mo. – The Missouri Dental Hygienists' Association (MDHA) filed suit yesterday in Cole County Circuit Court, asking the court to block a rule proposed by the Missouri Dental Board that would let dental assistants perform supragingival scaling and comprehensive periodontal charting, because Missouri law reserves those procedures to licensed dentists and dental hygienists.

The proposed rule, published in the Missouri Register on September 15, 2026, would create a new "periodontal" expanded-function permit for dental assistants. MDHA is joined in the suit by Lori Crawford, a former MDHA president who has been a licensed dental hygienist in Missouri since 1986.

"To protect patients, the legislature decided who can perform these procedures, and it wrote that into statute. The Board ran a pilot, the legislature let it expire, and now the Board is trying to make it permanent anyway. That's not a decision the Board gets to make on its own," said Diann Bomkamp, Legislative Chair of MDHA.

What the law says

Under Missouri law, the definition of the practice of dental hygiene includes supragingival scaling (removing hard and soft deposits from teeth above the gumline) and comprehensive periodontal charting (clinically examining teeth and surrounding tissues). Missouri law also bars the Board from adopting any rule that allows dental assistants to perform acts that conflict with dental hygiene practice, except for polishing teeth, placing sealants, and applying fluoride. The lawsuit argues the Board cannot expand delegable functions beyond the three statutory exceptions by rule to include supragingival scaling and comprehensive charting.

The expired pilot program

In 2022, the General Assembly authorized the Board to temporarily waive the laws governing the dental field to implement pilot projects to test new ways to reach underserved patients. Accordingly, the Board temporarily waived the delegation limits so a small group of dental

assistants could perform supragingival scaling and periodontal charting in a pilot that ran from January 2024 to October 2025. The authorizing statute expired on August 28, 2026, and the legislature did not renew it.

According to the petition, the pilot's own results do not support making it permanent. The final report from December 2025 acknowledged the pilot did not show a significant increase in clinic capacity or improved access for patients with more serious periodontal disease.

The lawsuit also challenges a provision that would convert former pilot participants into permanent permit holders and allow the Board to begin issuing permits before the rule takes effect, as both are unsupported by the Board's statutory authority.

Finally, unlike the pilot, the proposed rule would not require that patients be told an assistant, rather than a dentist or dental hygienist, is performing their care, or that they consent to it. "I've been a dental hygienist for almost 40 years, and I'm also a patient. Every patient should know who is treating them and have a say in it. The pilot required that. This rule drops it," said Crawford.

What MDHA is asking the court to do

MDHA asks the court to declare the proposed rule invalid and to issue preliminary and permanent injunctions preventing the Board from finalizing the rule or issuing permits under it.

Public comment open through October 15

The Board is accepting public comments on the proposed rule through October 15, 2026. MDHA encourages dental hygienists, dentists, and patients to submit comments. Comments may be submitted via email to dental@pr.mo.gov, via facsimile at (573) 751-8216, or via mail to Missouri Dental Board, PO Box 1367, Jefferson City, MO 65102.

About MDHA

The Missouri Dental Hygienists' Association is a statewide nonprofit representing licensed dental hygienists in Missouri and a constituent of the American Dental Hygienists' Association.

MDHA is represented by Blitz, Bardgett & Deutsch, L.C.

###

I have been reviewing the DPA, and other references regarding Pediatric Dentistry sedations. There is minimal language, better minimal for compliance than too detailed, existing in the DPA. I came across some conflicting language which may currently exist and I would suggest be changed.

1. My belief is for parenteral moderate sedation permit holders, this should be changed to **at least** q 5 minutes, obviously since a lot of vital sign changes, with patient physical status changes, can occur in a 15 minute interval. For deep sedation permit holders,

OAR 818-026-0065(8)(a) reads vital signs should be **at least** (meaning it could be more frequent than 5 minutes) q 5 minutes. The OBD issuance of deep sedation permits does not exist any longer, and current Licensees with those permits have been "grandfathered in" and can maintain that language for their permits. To be consistent both rules language should be the same for frequency of vital signs monitoring.

2. For OAR 818-026-0060(1)(b) states the parenteral moderate sedation permit holder is required to maintain a current Advanced Cardiac Life Support (ACLS; I believe the accurate updated name for this training is Advanced Cardiovascular Life Support – official name per American Heart Association, also needs correct language change in the DPA) certificate and/or a Pediatric Advanced Life Support (PALS) certificate, whichever is appropriate for the patient being sedated. OAR 818-026-0060(7) anesthesia monitor (dental assistant) is required to hold a current BLS Healthcare Providers certificate or its equivalent. OAR 818-026-0060(8)(b) states during recovery phase, the anesthesia monitor is an individual **trained to monitor patients recovering from moderate sedation**. (Remember, that the patient can move to a deeper level of sedation during recovery.) A BLS certificate holder is not only not qualified to monitor the moderate sedation recovery but could need to monitor a deep sedation level of recovery. My interpretation of what this means is that the anesthesia monitor should also have a current certificate, or its equivalent, for ACLS, not only BLS. The rule needs to be edited to reflect this requirement for anesthesia monitors.

The same considerations need to be reviewed and changes as appropriate for OAR 818-026-0065.

Thanks,

Bernie

Updated fee rule from Health Care Workforce Reporting Program from $4 to $8:

409-026-0130

Fees

(1) The Authority shall establish a per-license fee to cover the cost of collecting and reporting health care workforce information. The fee shall be calculated by adding the costs necessary to compile, maintain, and analyze the health care workforce information and dividing that cost by the approximate number of individuals licensed in Oregon.
(2) Each health care licensing board shall submit, in a format agreed to by the Authority and each Board, the total number of individuals renewed in accordance with the schedule set forth in OAR 409-026-0120 for use in determination of fee calculation for the previous license period.
(3) The fee may not exceed $8.00 per individual licensed for two years and $4.00 per individual licensed for one year for individuals renewing on or after January 1, 2026. If the per-license fee calculation results in a figure above $8.00, the Authority shall review the process for calculating the fee with a stakeholder group with representation from each health care workforce regulatory board.
(4) The health care workforce information fees collected by health care workforce regulatory boards shall be paid to the Authority on a schedule agreed to by the Authority and each health care workforce regulatory board.
(5) Late payments are subject to recovery in accordance with the laws of the State of Oregon.

818-001-0087
Fees

(1) The Board adopts the following fees:

(a) Biennial License Fees:

(A) Dental —$490;

(B) Dental — retired — $0;

(C) Dental Faculty — $435;

(D) Volunteer Dentist — $0;

(E) Dental Hygiene —$279;

(F) Dental Hygiene — retired — $0;

(G) Volunteer Dental Hygienist — $0;

(H) Dental Therapy - $279;

(I) Dental Therapy - retired - $0;

(J) Health Care Workforce Reporting Program Survey Fee - $8

(b) Biennial Permits, Endorsements or Certificates:

(A) Nitrous Oxide Permit — $40;

(B) Minimal Sedation Permit — $75;

(C) Moderate Sedation Permit — $200;

(D) Deep Sedation Permit — $400;

(E) General Anesthesia Permit — $400;

(F) Radiology — $75;

(G) Expanded Function Dental Assistant — $50;

(H) Expanded Function Orthodontic Assistant — $50;

(I) Instructor Permits — $40;

(J) Dental Hygiene Restorative Functions Endorsement — $50;

(K) Restorative Functions Dental Assistant — $50;

(L) Anesthesia Dental Assistant — $50;

(M) Dental Hygiene, Expanded Practice Permit — $75;

(N) Non-Resident Dental Background Check - $100.00;

(c) Applications for Licensure:

(A) Dental — General and Specialty — $445;

(B) Dental Faculty — $405;

(C) Dental Hygiene — $210;

(D) Dental Therapy - $210;

(E) Licensure Without Further Examination — Dental — $890.

(F) Licensure Without Further Examination — Dental Hygiene and Dental Therapy — $820

(d) Examinations:

(e) Jurisprudence — $0;

(f) Duplicate Wall Certificates — $50.

(2) Fees must be paid at the time of application and are not refundable.

(3) The Board shall not refund moneys under $5.01 received in excess of amounts due or to which the Board has no legal interest unless the person who made the payment or the person's legal representative requests a refund in writing within one year of payment to the Board.

818-001-0002
Definitions

As used in OAR chapter 818:
(1) "Board" means the Oregon Board of Dentistry, the members of the Board, its employees, its agents, and its consultants.
(2) "Dental Practice Act" means ORS Chapter 679 and 680.010 to 680.170 and the rules adopted pursuant thereto.
(3) "Dentist" means a person licensed pursuant to ORS Chapter 679 to practice dentistry.
(4) "Dental Hygienist" means a person licensed pursuant to ORS 680.010 to 680.210 to practice dental hygiene.
(5) “Dental Therapist” means a person licensed to practice dental therapy under ORS 679.603.
(6) “Dental Therapy” means the provision of preventative dental care, restorative dental treatment and other educational, clinical and therapeutic patient services as part of a dental care team, including the services described under ORS 679.621.
(7) "Direct Supervision" means supervision requiring that a dentist diagnose the condition to be treated, that a dentist authorize the procedure to be performed, and that a dentist remain in the dental treatment room while the procedures are performed.
(8) "General Supervision" means supervision requiring that a dentist authorize the procedures, but not requiring that a dentist be present when the authorized procedures are performed. The authorized procedures may also be performed at a place other than the usual place of practice of the dentist.
(9) "Indirect Supervision" means supervision requiring that a dentist authorize the procedures and that a dentist be on the premises while the procedures are performed.
(10) "Informed Consent" means the consent obtained following a thorough and easily understood explanation to the patient, or patient's guardian, of the proposed procedures, any available alternative procedures and any risks associated with the procedures. Following the explanation, the licensee shall ask the patient, or the patient's guardian, if there are any questions. The licensee shall provide thorough and easily understood answers to all questions asked.
(11) "Licensee" means a dentist, hygienist or dental therapist.
(12) “Volunteer Licensee” is a dentist, hygienist or dental therapist licensed according to rule to provide dental health care without receiving or expecting to receive compensation.
(13) "Limited Access Patient" means a patient who, due to age, infirmity, or handicap is unable to receive regular dental hygiene treatment in a dental office.
(14) "Specialty." The specialty definitions are added to more clearly define the scope of the practice as it pertains to the specialty areas of dentistry.
(a) “Dental Anesthesiology” is the specialty of dentistry that deals with the management

of pain through the use of advanced local and general anesthesia techniques.
(b) "Dental Public Health" is the science and art of preventing and controlling dental diseases and promoting dental health through organized community efforts. It is that form of dental practice which serves the community as a patient rather than the individual. It is concerned with the dental health education of the public, with applied dental research, and with the administration of group dental care programs as well as the prevention and control of dental diseases on a community basis.
(c) "Endodontics" is the specialty of dentistry which is concerned with the morphology, physiology and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic and clinical sciences including biology of the normal pulp, the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp and associated periradicular conditions.
(d) "Oral and Maxillofacial Pathology" is the specialty of dentistry and discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that investigates the causes, processes, and effects of these diseases. The practice of oral pathology includes research and diagnosis of diseases using clinical, radiographic, microscopic, biochemical, or other examinations.
(e) “Oral and Maxillofacial Radiology” is the specialty of dentistry and discipline of radiology concerned with the production and interpretation of images and data produced by all modalities of radiant energy that are used for the diagnosis and management of diseases, disorders and conditions of the oral and maxillofacial region.
(f) "Oral and Maxillofacial Surgery" is the specialty of dentistry which includes the diagnosis, surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and esthetic aspects of the hard and soft tissues of the oral and maxillofacial region.
(g) "Oral Medicine" is the specialty of dentistry responsible for the oral health care of medically complex patients and for the diagnosis and management of medically-related diseases, disorders and conditions affecting the oral and maxillofacial region.
(h) "Orofacial Pain" Orofacial Pain is the specialty of dentistry that encompasses the diagnosis, management and treatment of pain disorders of the jaw, mouth, face, head and neck. The specialty of Orofacial Pain is dedicated to the evidenced-based understanding of the underlying pathophysiology, etiology, prevention, and treatment of these disorders and improving access to interdisciplinary patient care.
(i) "Orthodontics and Dentofacial Orthopedics" is the specialty of dentistry concerned with the supervision, guidance and correction of the growing or mature dentofacial structures, including those conditions that require movement of teeth or correction of malrelationships and malformations of their related structures and the adjustment of relationships between and among teeth and facial bones by the application of forces and/or the stimulation and redirection of functional forces within the craniofacial

complex. Major responsibilities of orthodontic practice include the diagnosis, prevention, interception and treatment of all forms of malocclusion of the teeth and associated alterations in their surrounding structures; the design, application and control of functional and corrective appliances; and the guidance of the dentition and its supporting structures to attain and maintain optimum occlusal relations in physiologic and esthetic harmony among facial and cranial structures.
(j) "Pediatric Dentistry" is an age defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.
(k) "Periodontics" is the specialty of dentistry which encompasses the prevention, diagnosis and treatment of diseases of the supporting and surrounding tissues of the teeth or their substitutes and the maintenance of the health, function and esthetics of these structures and tissues.
(l) "Prosthodontics" is the specialty of dentistry pertaining to the restoration and maintenance of oral functions, comfort, appearance and health of the patient by the restoration of natural teeth and/or the replacement of missing teeth and contiguous oral and maxillofacial tissues with artificial substitutes.
(15) “Full-time” as used in ORS 679.025 and 680.020 is defined by the Board as any student who is enrolled in an institution accredited by the Commission on Dental Accreditation of the American Dental Association or its successor agency in a course of study for dentistry, dental hygiene or dental therapy.
(16) For purposes of ORS 679.020(4)(h) the term “dentist of record” means a dentist that either authorized treatment for, supervised treatment of or provided treatment for the patient in clinical settings of the institution described in 679.020(3).
(17) “Dental Study Group” as used in ORS 679.050, OAR 818-021-0060 and OAR 818-021-0070 is defined as a group of licensees who come together for clinical and non-clinical educational study for the purpose of maintaining or increasing their competence. This is not meant to be a replacement for residency requirements.
(18) “Physical Harm” as used in OAR 818-001-0083(2) is defined as any physical injury that caused, partial or total physical disability, incapacity or disfigurement. In no event shall physical harm include mental pain, anguish, or suffering, or fear of injury.
(19) “Teledentistry” is defined as the use of information technology and telecommunications to facilitate the providing of dental primary care, consultation, education, and public awareness in the same manner as telehealth and telemedicine.
(20) “BLS for Healthcare Providers or its Equivalent” the BLS certification standard is the American Heart Association’s BLS Healthcare Providers Course or its equivalent, as determined by the Board.This initial BLS course must be a hands-on course; online BLS courses
will not be approved by the Board for initial BLS certification. After the initial BLS certification, the Board will accept a Board-approved BLS for Healthcare Providers or its

equivalent Online Renewal course for license renewal. A BLS certification card with an expiration date must be received from the BLS provider as documentation of BLS certification. The Board considers the BLS expiration date to be the last day of the month that the BLS instructor indicates that the certification expires.
(21) "Study Model" means a replica of a patient's teeth and surrounding structures, typically made from either a physical impression or a scanned impression of the patient's mouth. It is used primarily for diagnostic and treatment planning purposes, allowing the dentist to study the patient's teeth and jaw alignment and plan procedures such as orthodontic treatment, restorative dentistry or prosthetic treatment. A study model is distinguished from a "working model," which is fabricated in a similar fashion as a study model and may be a more precise and accurate replica of the patient's teeth and jaw (where applicable). A working model would be used for the fabrication of dental appliances, including without limitation orthodontic aligners, retainers, crowns and bridges or removable dentures.

(22) “Therapeutic laser use” means the use of laser energy for the treatment of a patient, including photobiomodulation therapy, periodontal therapy, bacterial reduction, coagulation, incision, excision, ablation, vaporization, curettage, or alteration of hard or soft tissue.

(23) “Photobiomodulation therapy” or “PBM” means the non-thermal application of non-ionizing light energy intended to produce a therapeutic biological response without cutting, ablating, or vaporizing tissue.

818-012-0005
Scope of Practice

(1) No dentist may perform any of the procedures listed below:
(a) Rhinoplasty;
(b) Blepharoplasty;
(c) Rhytidectomy;
(d) Submental liposuction;
(e) Laser resurfacing;
(f) Browlift, either open or endoscopic technique;
(g) Platysmal muscle plication;
(h) Otoplasty;
(i) Dermabrasion;
(j) Hair transplantation, not as an isolated procedure for male pattern baldness; and
(k) Harvesting bone extra orally for dental procedures, including oral and maxillofacial procedures.
(2) Unless the dentist:
(a) Has successfully completed a residency in Oral and Maxillofacial Surgery accredited by the American Dental Association, Commission on Dental Accreditation (CODA), or
(b) Holds privileges either:
(A) Issued by a credentialing committee of a hospital accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) to perform these procedures in a hospital setting; or
(B) Issued by a credentialing committee for an ambulatory surgical center licensed by the State of Oregon and accredited by either the JCAHO or the Accreditation Association for Ambulatory Health Care (AAAHC).
(3) A dentist may utilize Botulinum Toxin Type A to treat conditions that are within the oral and maxillofacial region after completing a minimum of 10 hours in a hands on clinical course(s), in Botulinum Toxin Type A, and the provider is approved by the Academy of General Dentistry Program Approval for Continuing Education (AGD PACE) or by the American Dental Association Continuing Education Recognition Program (ADA CERP). Alternatively, a dentist may meet the requirements of subsection (3) by successfully completing training in Botulinum Toxin Type A as part of a CODA accredited program.
(4) A dentist may utilize dermal fillers to treat conditions that are within the oral and maxillofacial region after completing a minimum of 10 hours in a hands on clinical course(s), in dermal fillers, and the provider is approved by the Academy of General Dentistry Program Approval for Continuing Education (AGD PACE) or by the American Dental Association Continuing Education Recognition Program (ADA CERP). Alternatively, a dentist may meet the requirements of subsection (4) by successfully completing training in dermal fillers as part of a CODA accredited program.
(5) A dentist may place dental implants to replace natural teeth after completing a minimum of 56 hours of hands on clinical dental implant course(s), which includes treatment planning, appropriate case selection, potential complications and the surgical placement of the implants under direct supervision, and the provider is a Commission on Dental Accreditation (CODA) accredited postdoctoral dental education program, or a

provider that has been approved by the Academy of General Dentistry Program Approval for Continuing Education (AGD PACE) or by the American Dental Association Continuing Education Recognition Program (ADA CERP).
(6) A dentist placing dental implants must complete at least seven (7) hours of continuing education related to the placement and or restoration of dental implants every licensure renewal period. (Effective January 1, 2024).
(7) A dentist may perform therapeutic laser procedures on hard or soft tissue, including PBM, after completing a minimum of 8 hours of training that covers laser physics, safety, and appropriate use, to include a hands on component, prior to utilizing the laser. This does apply to a non-adjustable laser or light-based device used solely for diagnosis or curing dental materials.

818-012-0070
Patient Records

(1) Each licensee shall have prepared and maintained an accurate and legible record for each person receiving dental services, regardless of whether any fee is charged. The record shall contain the name of the licensee rendering the service and include:
(a) Name and address and, if a minor, name of guardian;
(b) Date description of examination and diagnosis;
(c) An entry that informed consent has been obtained and the date the informed consent was obtained. Documentation may be in the form of an acronym such as "PARQ" (Procedure, Alternatives, Risks and Questions) or its equivalent.
(d) Date and description of treatment or services rendered;
(e) Date, description and documentation of informing the patient of any recognized treatment
complications;
(f) Date and description of all radiographs, study models, and periodontal charting;
(g) Current health history; and
(h) Date, name of, quantity of, and strength of all drugs dispensed, administered, or prescribed.
(2) Each licensee shall have prepared and maintained an accurate record of all charges and payments for services including source of payments.
(3) Each licensee shall maintain patient records and radiographs for at least seven years from the date of last entry unless:
(a) The patient requests the records, radiographs, and models be transferred to another licensee who shall maintain the records and radiographs;
(b) The licensee gives the records, radiographs, or models to the patient; or
(c) The licensee transfers the licensee's practice to another licensee who shall maintain the records and radiographs.
(4) When a dental implant is placed the following information must be given to the patient in writing and maintained in the patient record:
(a) Manufacture brand;
(b) Design name of implant;
(c) Diameter and length;
(d) Lot number;
(e) Reference number;
(f) Expiration date;
(g) Product labeling containing the above information may be used in satisfying this requirement.
(5) When a laser is used for treatment, including PBM, the patient record must include the following:
(a) Type of laser and wavelength;
(b) Treatment site(s) and procedure performed;
(c) Operating mode, including continuous wave or pulsed operation;
(d) Power setting and, when applicable, pulse duration and frequency;
(e) Size and type of fiber, tip, or aperture;
(f) For PBM, the treatment duration and treatment objective; and

(g) Any adverse event or clinically significant patient response.

(~~5~~**6**) When changing practice locations, closing a practice location or retiring, each licensee must retain patient records for the required amount of time or transfer the custody of patient records to another licensee licensed and practicing dentistry in Oregon. Transfer of patient records pursuant to this section of this rule must be reported to the Board in writing within 14 days of transfer, but not later than the effective date of the change in practice location, closure of the practice location or retirement. Failure to transfer the custody of patient records as required in this rule is unprofessional conduct.

(~~6~~**7**) Upon the death or permanent disability of a licensee, the administrator, executor, personal representative, guardian, conservator or receiver of the former licensee must notify the Board in writing of the management arrangement for the custody and transfer of patient records. This individual must ensure the security of and access to patient records by the patient or other authorized party, and must report arrangements for permanent custody of patient records to the Board in writing within 90 days of the death of the licensee.

818-035-0030
Additional Functions of Dental Hygienists

(1) In addition to functions set forth in ORS 679.010, a dental hygienist may perform the following functions under the general supervision of a licensed dentist:
(a) Make preliminary intra-oral and extra-oral examinations and record findings;
(b) Place periodontal dressings;
(c) Remove periodontal dressings or direct a dental assistant to remove periodontal dressings;
(d) Perform all functions delegable to dental assistants and expanded function dental assistants providing that the dental hygienist is appropriately trained;
(e) Administer and dispense antimicrobial solutions or other antimicrobial agents in the performance of dental hygiene functions.
(f) Prescribe, administer and dispense fluoride, fluoride varnish, antimicrobial solutions for mouth rinsing or other non-systemic antimicrobial agents.
(g) Use high-speed handpieces to polish restorations and to remove cement and adhesive material.
(h) Apply temporary soft relines after manufacturer required denture preparation to complete dentures for the purpose of tissue conditioning.
(i) Perform all aspects of teeth whitening procedures.
(2) A dental hygienist may perform the following functions at the locations and for the persons described in ORS 680.205(1) and (2) without the supervision of a dentist:
(a) Determine the need for and appropriateness of sealants or fluoride; and
(b) Apply sealants or fluoride.
(3) In addition to functions set forth in ORS 679.010, a dental hygienist may perform the following functions under the indirect supervision of a licensed dentist:
(a) Upon successful completion of a course in intravenous access or phlebotomy approved by the Board, a dental hygienist may initiate an intravenous (IV) infusion line for a patient being prepared for IV medications, sedation, or general anesthesia under the indirect supervision of a dentist holding the appropriate anesthesia permit.
(b) Upon successful completion of a course in intravenous access or phlebotomy approved by the Board, a dental hygienist may perform a phlebotomy blood draw under the indirect supervision of a dentist. Products obtained through a phlebotomy blood draw may only be used by the dentist, to treat a condition that is within the scope of the practice of dentistry.
(4) Perform extraoral adjustment of fixed and removable prosthesis or appliances.
(5) Under the indirect or direct supervision of a dentist, and only as an adjunct to a procedure within the dental hygiene scope of practice, a dental hygienist may perform therapeutic laser procedures on soft tissue, including PBM, after completing a minimum of 8 hours of training that covers laser physics, safety, and appropriate use, to include a hands on component, prior to utilizing the laser. This does apply to a non-adjustable laser or light-based device used solely for diagnosis or curing dental materials.
(a) Before a dental hygienist performs PBM, the supervising dentist must diagnose the condition, authorize the treatment, and establish or approve the treatment protocol.

(b) Therapeutic laser use does not authorize a dental hygienist to diagnose or treat a condition or perform a procedure that is otherwise outside the dental hygiene scope of practice.
(c) A dental hygienist may not use a laser on dental hard tissue or bone.

818-038-0025
Prohibited Acts

A dental therapist may not:
(1) Place or Restore Dental Implants or any other soft tissue surgery except as described in 818-038-0020.
(2) Prescribe any drugs, unless permitted by ORS 679.010.
(3) Use the behavior management techniques of Hand Over Mouth (HOM) or Hand Over Mouth Airway Restriction (HOMAR) on any patient.
(4) Perform any dental therapy procedure unless it is documented in the collaborative agreement and rendered under appropriate Oregon Licensed Dentist supervision.
(5) Operate a hard or soft tissue Laser.
(6) Treat a patient under moderate, deep or general anesthesia.
(7) Order a computerized tomography scan.
(8) Perform therapeutic laser procedures on hard or soft tissue, including PBM.

818-042-0040
Prohibited Acts

No licensee may authorize any dental assistant to perform the following acts:
(1) Diagnose or plan treatment.
(2) Cut hard or soft tissue.
(3) Any Expanded Function duty (OAR 818-042-0070 and OAR 818-042-0090) or Expanded Orthodontic Function duty (OAR 818-042-0100) or Restorative Functions (OAR 818-042-0095 or Expanded Preventive Duty (OAR 818-042-0113 and OAR 818-042-0114) or Expanded Function Anesthesia (OAR 818-042-0115) without holding the appropriate certification.
(4) Correct or attempt to correct the malposition or malocclusion of teeth except as provided by OAR 818-042-0100.
(5) Adjust or attempt to adjust any orthodontic wire, fixed or removable appliance or other structure while it is in the patient's mouth.
(6) Administer any drug except as allowed under the indirect supervision of a Licensee, such as fluoride, topical anesthetic, desensitizing agents, topical tooth whitening agents, over the counter medications per package instructions or drugs administered pursuant to OAR 818-026-0050(5), OAR 818-026-0060(12), OAR 818-026-0065(12), OAR 818-026-0070(12) and as provided in OAR 818-042-0070, OAR 818-042-0090 and OAR 818-042-0115.
(7) Prescribe any drug.
(8) Place periodontal packs.
(9) Start nitrous oxide.
(10) Remove stains or deposits except as provided in OAR 818-042-0070.
(11) Use ultrasonic equipment intra-orally except as provided in OAR 818-042-0100.
(12) Use a high-speed handpiece or any device that is operated by a high-speed handpiece intra-orally except as provided in OAR 818-042-0095, and only for the purpose of adjusting occlusion, contouring, and polishing restorations on the tooth or teeth that are being restored.
(13) Use lasers, except laser-curing lights.
(14) Use air abrasion or air polishing.
(15) Remove teeth or parts of tooth structure.
(16) Cement or bond any fixed prosthesis or orthodontic appliance including bands, brackets, retainers, tooth moving devices, or orthopedic appliances except as provided in OAR 818-042-0100.
(17) Condense and carve permanent restorative material except as provided in OAR 818-042-0095.
(18) Place any type of retraction material subgingivally except as provided in OAR 818-042-0090.
(19) Apply denture relines except as provided in OAR 818-042-0090(2).
(20) Expose radiographs without holding a current Certificate of Radiologic Proficiency issued by the Board (OAR 818-042-0050 and OAR 818-042-0060) except while taking a course of instruction approved by the Oregon Health Authority, Oregon Public Health Division, Office of Environmental Public Health, Radiation Protection Services, or the Oregon Board of Dentistry.

(21) Use the behavior management techniques known as Hand Over Mouth (HOM) or Hand Over Mouth Airway Restriction (HOMAR) on any patient.
(22) Perform periodontal assessment.
(23) Place or remove healing caps or healing abutments, except under indirect supervision.
(24) Place implant impression copings, except under indirect supervision.
(25) Perform therapeutic laser procedures on hard or soft tissue, including PBM.
(26~~5~~) Any act in violation of Board statute or rules.

Dental Hygiene Laser Use and Requirements by State

by Angie Wallace, RDH; Laura Braswell, DDS; Suzanne Newkirk, RDH; John Sulewski, MA

Legend, Abbreviations, and Definitions
SPA – State Practice Act. **BOD** – Board of Directors or Board of Examiners
YES – A regulation does exist pertaining to laser use by dental hygienists
NO – A regulation does exist indicating that lasers CANNOT be used by dental hygienists
Silent – There is no mention in the existing state regulation on dental laser use by dental hygienists
LAPT – Laser-Assisted Periodontal Therapy, used to the depths of the periodontal pocket after scaling and root planning procedure to decontaminate
LBR – Laser Bacterial Reduction, uses lower settings than LAPT, used only ½ to 1 mm into the periodontal pocket to reduce inflammation and as a preventative procedure

Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
Alabama	Yes, per SPA		Yes, direct	No	No	No	Preliminary diagnostic purposes only	Requires the dentist's final examination and diagnosis
Alaska	SPA silent							Laser treatment not prohibited in hygiene scope of practice No operative or surgical procedures on hard or soft tissues
Arizona	Yes, per SPA	Yes, must complete a laser course of study with didactic instruction, written exam, and hands-on clinical instruction	Yes, general	Yes, per SPA	Yes, per SPA	Yes, per SPA		Laser use may be considered an "emerging scientific technology" The technology must be scientifically based and supported by studies in peer-reviewed dental journals Supervising dentist must have training on using the technology equal to or greater than the training required for the hygienist
Arkansas	Yes, per SPA	Yes, per SPA	Yes, general	Yes, per SPA	Yes, per SPA	Yes, per SPA		Hygienist and supervising dentist must submit to Board proof of successful completion of an approved education course on the use of the type of laser to be used prior to its usage for any patient treatment

Note: This information is provided as a courtesy by the Academy of Laser Dentistry's Education and Regulatory Affairs Committees, based on State regulations and communications. State regulations are subject to change. It is the clinicians' responsibility to keep up-to-date with and properly interpret their State regulations and to determine whether they are permitted to use lasers within the scope of practice act of their State regulations. Clinicians may contact their State Board directly for more information. Please send updates and substantiating documentation to Support@laserdentistry.org. The Academy of Laser Dentistry is not responsible for the accuracy of the data contained in this report. **Copyright 2025 Academy of Laser Dentistry.**

Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
California	Yes, per SPA	Yes, per SPA	Yes, per SPA	Yes, per SPA	Yes, per SPA	Yes, per SPA		A registered dental hygienist may use any material or device approved for use in the performance of a service or procedure within his or her scope of practice under the appropriate level of supervision, if he or she has the appropriate education and training
Colorado	Yes, per SPA	Yes, per SPA	Yes, indirect or direct	Yes, per SPA	Yes, per SPA	Yes, per SPA		Laser use by a dental hygienist must be within scope of practice and can only be performed on soft tissue under the indirect or direct supervision of a dentist Hygienist and supervising dentist must complete laser training course (minimum 8 hours) and live, interactive, hands-on training that addresses operation of the specific laser(s) used in the practice
Connecticut	SPA silent							
Delaware	SPA silent							
Washington DC	SPA silent							
Florida	Yes, per SPA, as assessment device		Yes, per SPA				Assessment device	Functions of the assessment devices are not specified in SPA
Georgia	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA		Yes, per SPA		A dental hygienist, under direct supervision of a Georgia licensed dentist, may use a dental diode laser limited to the use of bacterial reduction/disinfection of the gingival sulcus at settings that preclude hard and soft tissue removal except for incidental gingival curettage Dental hygienist must successfully complete interactive didactic and clinical training which includes laser safety, infection control, patient management and the operation of the specific laser(s) used in the dental practice. Training must consist of not less than 8 hours of instruction

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Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
Guam	SPA silent							
Hawaii	SPA silent							
Idaho	SPA silent							
Illinois	No, per SPA							
Indiana	Yes, per SPA		Yes, direct or prescriptive	Yes, per SPA	Yes, per SPA			A dental hygienist may use a laser, except to cut, ablate, or cauterize hard or soft tissue
Iowa	Yes, per SPA			SPA silent	SPA silent			Per BOD position statement, laser use must be within the hygiene scope of practice Hygienist cannot use a laser to cut tissue Must attend recognized laser course
Kansas	SPA silent							
Kentucky	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA	Yes, per SPA	Yes, per SPA		A dental hygienist applying to laser debridement must submit documentation proving successful completion of a Board-approved course in performing laser debridement
Louisiana	No, per SPA							
Maine	SPA silent							
Maryland	SPA silent							
Massachusetts	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA	Yes, per SPA		Diagnostic	A dental hygienist may use diagnostic and periodontic non-cutting lasers Delegation to dental auxiliaries may only occur when both the supervising dentist and registered dental hygienist obtain proper training on the use of dental laser devices, and use the devices within their licensed scope of practice, training and experience Cites Academy of Laser Dentistry and Curriculum Guidelines and Standards for Dental Laser Education

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Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
Michigan	Yes, per SPA	Yes, per Position Statement	Yes, direct			Yes, per SPA		Delegated individual is required to have the appropriate education, training or experience to properly use lasers Dentist must develop written procedures and protocols to guide the delegated individual's laser use
Minnesota	SPA silent							
Mississippi	No, per BOD determination except for KaVo DIAGNOdent		Yes, direct	No, per BOD deter-mination	No, per BOD deter-mination	No, per BOD deter-mination	Use of KaVo DIAGNOdent	A dental hygienist may use the KaVo DIAGNOdent under direct supervision A dental hygienist is not allowed to use a laser to perform gingival curettage, perform sulcular debridement of periodontal pockets, remove facial hair, or use soft tissue lasers to assist in the treatment of periodontal diseases and other soft tissue disorders
Missouri	SPA silent							
Montana	SPA silent							
Nebraska	SPA silent							
Nevada	Yes, per SPA	Yes, per SPA	Yes, supervision by a dentist	Yes, per SPA	Yes, per SPA	Yes, per SPA	Bleaching teeth and dental diagnostic purposes	Each licensee who uses or wishes to use laser radiation in his or her practice of dentistry or dental hygiene must include with the application of renewal of his or her license a statement certifying that each laser used has been cleared by U.S. FDA for use in dentistry Dental hygienists and supervising dentist must complete a course in laser proficiency that is at least 6 hours in length and that is based on the Curriculum Guidelines and Standards for Dental Laser Education Cites and adopts Curriculum Guidelines for Dental Laser Education adopted by the Academy of Laser Dentistry
New Hampshire	SPA silent							

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Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
New Jersey	No, per SPA							A dental hygienist cannot use lasers, including a laser capable of altering, cutting, curing or damaging hard or soft tissue
New Mexico	Yes, per SPA	Yes, per SPA	Yes, indirect	Yes, per SPA	Yes, per SPA	Yes, per SPA		A dental hygienist may use laser devices approved by the U.S. FDA under the indirect supervision of a New Mexico licensed dentist Minimum 6 hours training with hands-on clinical simulation, certificate to be posted in office
New York	SPA silent							
North Carolina	No, per SPA, except for laser fluorescence detectors		Yes, under supervision and control of a dentists	No, per SPA	No, per SPA	No, per SPA	Laser fluorescence detectors only	A dental hygienist may use laser fluorescence detectors in preparation for the dentist's examination and diagnosis of cavities
North Dakota	Yes, per SPA	Yes, per SPA	Yes, general	Yes, per SPA	Yes, per SPA	Yes, per SPA		Any services provided by a licensee, regardless of the device used, must be within the scope of practice for each licensee Whenever a new treatment modality is brought forward, it is the Board's policy that the dentist must have equal or greater proficiency and training in the technology Licensees utilizing the new technology must maintain documentation of the satisfactory completion of the formal continuing education or training
Northern Mariana Islands	Yes, per SPA		Yes, supervision of a dentist			Yes, per SPA		
Ohio	Yes, per SPA		Yes, supervision of a dentist				Caries diagnostic lasers only	A dental hygienist may perform caries diagnostic procedures under the supervision of a licensed dentist

Note: This information is provided as a courtesy by the Academy of Laser Dentistry's Education and Regulatory Affairs Committees, based on State regulations and communications. State regulations are subject to change. It is the clinicians' responsibility to keep up-to-date with and properly interpret their State regulations and to determine whether they are permitted to use lasers within the scope of practice act of their State regulations. Clinicians may contact their State Board directly for more information. Please send updates and substantiating documentation to Support@laserdentistry.org. The Academy of Laser Dentistry is not responsible for the accuracy of the data contained in this report. **Copyright 2025 Academy of Laser Dentistry.**

Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
Oklahoma	Yes, per SPA	Yes, per SPA	Yes, direct/ indirect	Yes, per SPA	Yes, per SPA			A dental hygienist may apply for an Advanced Procedure permit for the therapeutic use of lasers under the direct/indirect supervision of a dentist. Laser use is limited to soft tissue decontamination, sulcular bacterial reduction, tissue disinfection No intentional cutting of hard or soft tissue Hygienist must complete an 8-hour, live, in-person, hands-on laser course, complete an application, and use the laser within the scope of practice
Oregon	SPA silent							
Pennsylvania	SPA silent							
Puerto Rico	SPA silent							
Rhode Island	SPA silent							
South Carolina	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA	Yes, per SPA		No laser bleaching of teeth, per Board Policy	Dental hygienist laser use is limited to pocket disinfection at settings that preclude hard and soft tissue removal, except for incidental gingival curettage Hygienist and supervising dentist must complete laser training course (minimum 12 hours) and interactive training that addresses operation of the specific laser(s) used in the practice
South Dakota	SPA silent							
Tennessee	Yes, per SPA and Board Policy Statement	Yes, per Board Policy Statement	Yes, direct and/or indirect	Yes, per Board Policy Statement	Yes, per Board Policy Statement	Yes, per SPA		A dental hygienist may use lasers for examination and/or periodontal treatment (including debridement and bacterial reduction) A dental hygienist must successfully complete a laser course which should include didactic and hands-on training

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Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
Texas	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA	Yes, per SPA			Hygienist may use lasers under the direct supervision of a dentist. No irreversible procedures. No intentional cutting of soft or hard tissue Hygienist and supervising dentist must complete a Board-recognized laser training course (minimum 12 hours; 3 hours must include clinical simulation of procedures to be performed by the hygienist using the laser) and interactive training that addresses operation of the specific laser(s) used in the practice
Utah	Yes, per SPA		Yes, general	Yes, per SPA	Yes, per SPA		Bleaching, per SPA	Allows hygienists to use lasers for bleaching and periodontal debridement
Vermont	SPA silent							Proposed use of periodontal lasers for pocket debridement
Virgin Islands	SPA silent							
Virginia	Yes, per SPA		Yes, indirect	Yes, per SPA	Yes, per SPA	Yes, per SPA		Limited to nonsurgical lasers
Washington	SPA silent							
West Virginia	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA	Yes, per SPA		Photo-biomodulation, treatment of herpetic lesions and aphthous ulcers, per SPA Curing resin restorations and diagnostic aid, per BOD Position Statement	Laser use permitted under the direct supervision of a licensed dentist Hygienist must complete a Board-approved laser training course (minimum 5.5 hours didactic), written examination, and 2.5 hours of hands-on training to assess clinical competency
Wisconsin	SPA silent							

Note: This information is provided as a courtesy by the Academy of Laser Dentistry's Education and Regulatory Affairs Committees, based on State regulations and communications. State regulations are subject to change. It is the clinicians' responsibility to keep up-to-date with and properly interpret their State regulations and to determine whether they are permitted to use lasers within the scope of practice act of their State regulations. Clinicians may contact their State Board directly for more information. Please send updates and substantiating documentation to Support@laserdentistry.org. The Academy of Laser Dentistry is not responsible for the accuracy of the data contained in this report. **Copyright 2025 Academy of Laser Dentistry.**

Jurisdiction	Laser Use Allowed?	Laser Education Required?	Supervision Required?	Laser Bacterial Reduction (LBR)?	Laser-Assisted Periodontal Therapy (LAPT)?	Laser Curettage?	Other Laser Procedures?	Remarks
Wyoming	Yes, per SPA	Yes, per SPA	Yes, direct	Yes, per SPA	Yes, per SPA		Treatment of herpetic lesions and aphthous ulcers, per SPA	Hygienist must complete a Board-approved laser training program (minimum 12 hours) and live, interactive, hands-on training that addresses operation of the specific laser(s) used in the practice Cites the Academy of Laser Dentistry

Note: This information is provided as a courtesy by the Academy of Laser Dentistry's Education and Regulatory Affairs Committees, based on State regulations and communications. State regulations are subject to change. It is the clinicians' responsibility to keep up-to-date with and properly interpret their State regulations and to determine whether they are permitted to use lasers within the scope of practice act of their State regulations. Clinicians may contact their State Board directly for more information. Please send updates and substantiating documentation to Support@laserdentistry.org. The Academy of Laser Dentistry is not responsible for the accuracy of the data contained in this report. **Copyright 2025 Academy of Laser Dentistry.**

Dental Hygiene Laser Use and Requirements by State: Appendix of State Dental Boards and Regulations

This appendix is intended to accompany the Academy of Laser Dentistry's summary table "Dental Hygiene Laser Use and Requirements by State" from December 2024. It contains detailed information on dental hygienist use of lasers for each U.S. state, commonwealth, and territory, arranged alphabetically. Included for each jurisdiction are the following:

- Contact information, including (where applicable), agency name, physical address, mailing address, telephone and fax numbers, e-mail address, URL.
- Scope of practice, supervision, and summary statements as a quick resource.
- URLs and excerpts from statutes, regulations, rules, administrative codes, practice acts, frequently asked questions, advisory opinions, board meeting minutes, position statements, policies, proposed administrative rules, and other documents, along with effective dates (when specified). Selected passages related to lasers are highlighted for ease of reference.

All URLs were accessed December 2024 unless specified otherwise.

Position Statements on Laser Use

Academy of Laser Dentistry (ALD)
"The Academy of Laser Dentistry (ALD) supports the use of lasers in dentistry when used by a properly trained and licensed dental professional where the procedure is safe, effective, consistent with his/her education and experience, and within the scope of his/her license." The full Statement on the Use of Lasers by Licensed Dental Professionals (January 27, 2003, updated December 6, 2024), is published in Journal of Laser Dentistry 2012;20(2):74, and is available at https://web.archive.org/web/20170915143000/http:/www.laserdentistry.org/uploads/files/members/jld/JLD_20_2/JLD_20_2_2.pdf.

American Dental Hygienists' Association (ADHA)
"The American Dental Hygienists' Association supports dental hygienists' use of lasers within the dental hygiene scope of practice." (2017). Refer to American Dental Hygienists' Association ADHA Policy Manual, Adopted June 2024, Revised October 2024, p. 20, available at https://www.adha.org/wp-content/uploads/2024/11/ADHA-Policy-Manual_Oct2024.pdf

Note: This information is provided as a courtesy by the Academy of Laser Dentistry's Education and Regulatory Affairs Committees, based on State regulations and communications. State regulations are subject to change. It is the clinicians' responsibility to keep up-to-date with and properly interpret their State regulations and to determine whether they are permitted to use lasers within the scope of practice act of their State regulations. Clinicians may contact their State Board directly for more information. Please send updates and substantiating documentation to Support@laserdentistry.org. The Academy of Laser Dentistry is not responsible for the accuracy of the data contained in this report. **Copyright 2025 Academy of Laser Dentistry.**

Alabama

Board of Dental Examiners of Alabama
2229 Rocky Ridge Road
Birmingham, AL 35216
(205) 985-7267
Fax (205) 823-9006
URL: Board of Dental Examiners of Alabama (dentalboard.org)

Scope of Practice: **270-X-3- .10(2)(x),** Chapter 270-X-3 Dental Hygienists (state.al.us)
Supervision: Direct
Summary: Dental hygienists may use laser and/or narrow band (light) imaging technology for preliminary diagnostic purposes only with the dentist's final examination and diagnosis.

Chapter 270-X-3 Dental Hygienists (state.al.us)
Board of Dental Examiners of Alabama
Administrative Code
Chapter 270-X-3
Dental Hygienists
Revised 6/14/24

270-X-3-.10 Duties Of Allied Dental Personnel.
Allied dental personnel are dental hygienists, dental assistants and dental laboratory technicians. Subject to the prohibition that no intra-oral procedure can be performed unless under the direct supervision of a duly licensed dentist as defined by Board rule, the following allied dental personnel may perform the following:

(2) Dental Assistants and Dental Hygienists:

(x) Use laser and/or narrow band (light) imaging technology for preliminary diagnostic purposes only with the dentist's final examination and diagnosis.

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Alaska

Board of Dental Examiners of Alaska
Mailing Address:
PO Box 110806
Juneau, AK 99811-0806

Physical Address:
333 Willoughby Ave, 9th Floor
State Office Building
Juneau, AK 99801-1770

(907) 465-2550
Fax (907 465-2974
E-mail: BoardofDentalExaminers@Alaska.Gov
URL:
https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/BoardofDentalExaminers.aspx

Scope of Practice: **Sec. 08.32.110(a)(1)(F),**
https://www.commerce.alaska.gov/web/portals/5/pub/DentalStatutes.pdf
Supervision: General
Summary: A person licensed to practice the profession of dental hygiene in the state may, under the general supervision of a licensed dentist, perform other dental operations and services delegated by a licensed dentist if the dental operations and services are not prohibited by (c) of this section. Subsection (c) does not prohibit lasers.

https://www.commerce.alaska.gov/web/portals/5/pub/DentalStatutes.pdf
Statutes and Regulations
Dentists and Dental Hygienists
April 2024

Chapter 32.
Dental Hygienists and Assistants
Article 2.
Regulation of Dental Hygienists

Sec. 08.32.110. Scope of practice of dental hygienists. (a) The role of the dental hygienist is to assist members of the dental profession in providing oral health care to the public. A person licensed to practice the profession of dental hygiene in the state may,

(1) under the general supervision of a licensed dentist,

(A) perform preliminary charting and triage to formulate a dental hygiene assessment and dental hygiene treatment plan;

(B) remove calcareous deposits, accretions, and stains from the exposed surfaces of the teeth beginning at the epithelial attachment by scaling and polishing techniques;

(C) remove marginal overhangs;

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(D) use local periodontal therapeutic agents;

(E) perform nonsurgical periodontal therapy;

(F) perform other dental operations and services delegated by a licensed dentist if the dental operations and services are not prohibited by (c) of this section;

(G) if certified by the board, administer local anesthetic agents; and

(2) if certified by the board and under the direct or indirect supervision of a licensed dentist, administer and monitor nitrous oxide-oxygen conscious sedation.

(b) The board shall specify by regulation those additional functions that may be performed by a licensed dental hygienist only upon successful completion of a formal course of instruction approved by the board. The board shall adopt regulations specifying the education requirements, evaluation procedures, and degree of supervision required for each function.

(c) This section does not authorize delegation of

(1) dental diagnosis, comprehensive treatment planning, and writing

(A) prescriptions for drugs;

(B) authorizations for restorative, prosthetic, or orthodontic appliances;

(2) operative or surgical procedures on hard or soft tissues; or

(3) other procedures that require the professional competence and skill of a dentist.

ARTICLE 7.
PROFESSIONAL PRACTICES.

12 AAC 28.710. USE OF LASER DEVICES. Repealed 11/15/2005.

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Arizona

Arizona State Board of Dental Examiners
1740 W Adams, Suite 2470
Phoenix, AZ 85007
(602) 242-1492
Fax (602) 242-1445
E-mail: info@dentalboard.az.gov
URL: https://dentalboard.az.gov

Scope of Practice: **R4-11-601(D),** https://apps.azsos.gov/public_services/Title_04/4-11.pdf
Supervision: General
Summary: To qualify to use emerging scientific technology as authorized by A.R.S. § 32-1281(D)(2), a dental hygienist shall successfully complete a course of study that meets the following criteria:

1. Is a course offered by a recognized dental school as defined in A.R.S. § 32-1201(17), a recognized dental hygiene school as defined in A.R.S. § 32-1201(16), or sponsored by a national or state dental or dental hygiene association or government agency;
2. Includes didactic instruction with a written examination;
3. Includes hands-on clinical instruction; and
4. Is technology that is scientifically based and supported by studies published in peer reviewed dental journals.

https://apps.azsos.gov/public_services/Title_04/4-11.pdf

Arizona Administrative Code
Title 4. Professions and Occupations
Chapter 11. State Board of Dental Examiners
December 31, 2023

Article 1. Definitions
R4-11-101. Definitions

The following definitions, and definitions in A.R.S. § 32-1201, apply to this Chapter:

"Emerging scientific technology" means any technology used in the treatment of oral disease that is not currently generally accepted or taught in a recognized dental, dental therapy, or dental hygiene school and use of the technology poses material risks.

Article 6. Dental Hygienists
R4-11-601. Duties and Qualifications

A. A dental hygienist may apply preventative and therapeutic agents under the general supervision of a licensed dentist.
B. A dental hygienist may perform a procedure not specifically authorized by A.R.S. § 32-1281 when all of the following conditions are satisfied:

1. The procedure is recommended or prescribed by the supervising dentist;
2. The hygienist has received instruction, training, or education to perform the procedure in a safe manner; and
3. The procedure is performed under the general supervision of a licensed dentist.

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C. A dental hygienist shall not perform an irreversible procedure.
D. To qualify to use emerging scientific technology as authorized by A.R.S. § 32-1281(C)(2), a dental hygienist shall successfully complete a course of study that meets the following criteria:

1. Is a course offered by a recognized dental school as defined in A.R.S. § 32-1201, a recognized dental hygiene school as defined in A.R.S. § 32-1201, or sponsored by a national or state dental or dental hygiene association or government agency;
2. Includes didactic instruction with a written examination;
3. Includes hands-on clinical instruction; and
4. Is technology that is scientifically based and supported by studies published in peer reviewed dental journals.

https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/32/01281.htm

Arizona Revised Statutes
Title 32 Professions and Occupations
Chapter 11 Dentistry
Article 4 Licensing and Regulation of Dental Hygienists
32-1281. Practicing as a dental hygienist; supervision requirements; definitions

C. The board by rule shall prescribe the circumstances under which a licensed dental hygienist may:

1. Apply preventive and therapeutic agents to the hard and soft tissues.
2. Use emerging scientific technology and prescribe the necessary training, experience and supervision to operate newly developed scientific technology. A dentist who supervises a dental hygienist whose duties include the use of emerging scientific technology must have training on using the emerging technology that is equal to or greater than the training the dental hygienist is required to obtain.
3. Perform other procedures not specifically authorized by this section.

D. Except as provided in subsections E, F and I of this section, a dental hygienist shall practice under the general supervision of a dentist who is licensed pursuant to this chapter.

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Arkansas

Dental Examiners, Arkansas State Board
101 East Capitol Ave.
Suite 111
Little Rock, AR 72201
(501) 682-2085
E-mail: asbde@arkansas.gov
URL: https://healthy.arkansas.gov/boards-commissions/boards/dental-examiners-arkansas-state-board/

Scope of Practice: **Article XI(A)(2)(b)**, https://healthy.arkansas.gov/wp-content/uploads/Dental_Practice_Act.pdf
Supervision: General
Summary: A licensed dental hygienist may be delegated: Oral prophylaxis, scaling, root planing and curettage. If a laser instrument is used, the dental hygienist and their supervising dentist must submit to the Board proof of successful completion of an approved educational course on the use of that type of laser prior to its usage for any patient treatment.

https://healthy.arkansas.gov/wp-content/uploads/Dental_Practice_Act.pdf

Arkansas State Board of Dental Examiners
Dental Practice Act
January 2023
Rules & Regulations
Article XI: Dental Hygienists Functions

Definitions pertaining to Dental Hygiene Functions:
INDIRECT SUPERVISION: The dentist authorizes the procedures and remains in the treatment facility while the procedures are being performed.
OPERATIVE SUPERVISION: The dentist authorizes the procedures, remains in the operatory while the procedures are being performed, and evaluates the results prior to leaving the operatory.
GENERAL SUPERVISION: The dentist authorizes the procedures but is not required to be present in the treatment facility while the procedures are being performed by the dental hygienist.
A. EXCLUSIVE FUNCTIONS TO BE PERFORMED BY A DENTAL HYGIENIST WHEN DELEGATED BY A DENTIST

1. Effective and safe delivery of certain services to the public is dependent upon making judgments and utilizing skills that require synthesis and application of knowledge acquired in accredited dental hygiene education programs and cannot be delegated to any dental staff member other than a licensed, registered dental hygienist.

2. The following functions may only be delegated to a licensed dental hygienist:

a. Oral examination. Elements of these examinations include charting of carious lesions and other abnormalities, periodontal charting and assessment of periodontal conditions, treatment planning for dental hygiene services and oral cancer screening. The

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dental hygienist may dictate the examination findings to a dental assistant who may then record the data on the patient's dental record.

b. Oral prophylaxis, scaling, root planning and curettage. If a laser instrument is used, the dental hygienist and their supervising dentist must submit to the Board proof of successful completion of an approved educational course on the use of that type of laser prior to its usage for any patient treatment.

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California

Dental Board of California
2005 Evergreen Street, Suite 1550
Sacramento, CA 95815
(877) 729-7789 (Toll Free)
(916) 263-2300 (Direct)
Fax (916) 263-2140
E-mail: DentalBoard@dca.ca.gov
URL: https://www.dbc.ca.gov

Scope of Practice: **§1914**,
https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=BPC&sectionNum=1914.
Supervision: General or direct depending on service or procedure
Summary: A registered dental hygienist may use any material or device approved for use in the performance of a service or procedure within his or her scope of practice under the appropriate level of supervision, if he or she has the appropriate education and training required to use the material or device.

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=BPC&sectionNum=1914.

Business and Professions Code - BPC
DIVISION 2. HEALING ARTS [500 - 4999.129] *(Division 2 enacted by Stats. 1937, Ch. 399.)*
CHAPTER 4. Dentistry [1600 - 1976] *(Chapter 4 added by Stats. 1937, Ch. 415.)*
ARTICLE 9. Dental Hygienists [1900 - 1966.6] *(Article 9 added by Stats. 2008, Ch. 31, Sec. 47.)*

1902. For purposes of this article, the following definitions apply:

(a) "Dental hygiene board" means the Dental Hygiene Board of California.

(b) "Dental board" means the Dental Board of California.

(c) "Direct supervision" means the supervision of dental procedures based on instructions given by a licensed dentist who is required to be physically present in the treatment facility during the performance of those procedures.

(d) "General supervision" means the supervision of dental procedures based on instructions given by a licensed dentist who is not required to be physically present in the treatment facility during the performance of those procedures.

(e) "Oral prophylaxis" means preventive and therapeutic dental procedures that include bacterial debridements with complete removal, supra and subgingivally, of calculus, soft deposits, plaque, and stains, and the smoothing of tooth surfaces. The objective of this treatment is to create an environment in which the patient can maintain healthy hard and soft tissues. *(Amended by Stats. 2019, Ch. 456, Sec. 2. (SB 786) Effective January 1, 2020.)*

1910. A registered dental hygienist is authorized to perform the following procedures under general supervision:

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(a) Preventive and therapeutic interventions, including oral prophylaxis, scaling, and root planing.

(b) Application of topical, therapeutic, and subgingival agents used for the control of caries and periodontal disease.

(c) The taking of impressions for bleaching trays and application and activation of agents with nonlaser, light-curing devices.

(d) The taking of impressions for bleaching trays and placements of in-office, tooth-whitening devices.

(Added by Stats. 2008, Ch. 31, Sec. 47. Effective January 1, 2009. Operative July 1, 2009, by Sec. 55 of Ch. 31.)

1914. A registered dental hygienist may use any material or device approved for use in the performance of a service or procedure within his or her scope of practice under the appropriate level of supervision, if he or she has the appropriate education and training required to use the material or device.

(Added by Stats. 2008, Ch. 31, Sec. 47. Effective January 1, 2009. Operative July 1, 2009, by Sec. 55 of Ch. 31.)

https://www.law.cornell.edu/regulations/california/16-CCR-1107

California Code of Regulations
Title 16 - Professional and Vocational Regulations
Division 11 - Dental Hygiene Board of California
Article 3 - Educational Programs
§ 1107 - RDH Course in Periodontal Soft Tissue Curettage, Local Anesthesia, and Nitrous Oxide-Oxygen Analgesia (Sln)
8-4-2014

(a) Approval of Course. The Board shall approve only those educational courses of instruction in local anesthetic, nitrous oxide-oxygen analgesia and periodontal soft tissue curettage that continuously meet all course requirements. Continuation of approval will be contingent upon compliance with these requirements.

(9) Specific Curriculum Content.

(C) Periodontal soft tissue curettage curriculum must include at least six (6) hours of instruction, including at least three (3) hours of didactic and preclinical instruction and at least three (3) hours of clinical instruction. Education may include use of a laser approved for soft tissue curettage. This includes at least three (3) clinical experiences on patients, of which only one may be on another student and one of which will be used to determine clinical competency in the course. The competency evaluation for this procedure must be achieved at a minimum of 75%.

Cal. Code Regs. Tit. 16, § 1107
1. New section filed 8-4-2014; operative 8-4-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 32).

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Colorado

Colorado Dental Board
1560 Broadway, Suite 1350
Denver, CO 80202
303-894-7800
E-mail: dora_dpo_licensing@state.co.us
URL: https://dpo.colorado.gov/Dental

Scope of Practice: **Rule 1.22**,
https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=11199&fileName=3%20CCR%20709-1
Supervision: Indirect or direct
Summary: Laser use by a dental hygienist can only be performed under the indirect or direct supervision of a dentist and must be within the dental hygiene scope of practice. A licensee who is a laser user must first successfully complete training that covers a minimum of eight hours of laser physics, safety, and appropriate use, to include a hands on component, prior to utilizing the laser. A licensee must also complete live and interactive training that addresses operation of the specific laser(s) utilized in the practice.

https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=11199&fileName=3%20CCR%20709-1

Colorado Department of Regulatory Agencies
Colorado Dental Board
Dentists, Dental Therapists & Dental Hygienists Rules and Regulations
3 CCR 709-1
December 30, 2022

1.22 Use of Lasers

This Rule is promulgated pursuant to sections 12-20-204, 12-220-105(3), 12-220-106(1)(a), and 12-220- 106(1)(a)(I), C.R.S.

A. The requirements in this Rule do not apply to use of non-adjustable laser units for purposes of diagnosis and curing.

B. A dentist may use a laser capable of the removal of hard and soft tissue in the treatment of a dental patient.

C. Laser use by a dental therapist or a dental hygienist can only be performed on soft tissue under the indirect or direct supervision of a dentist and must be within the dental therapy or the dental hygiene scope of practice.

D. A licensee who is a laser user or supervises a laser user must first successfully complete training that covers a minimum of eight hours of laser physics, safety, and appropriate use, to include a hands on component, prior to utilizing the laser.

1. Training must be obtained through a course provided or recognized by any of the following organizations (or a successor organization):

a. A Commission on Dental Accreditation (CODA) approved institution;

b. The American Dental Association (ADA) Continuing Education Recognition Program (CERP);

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c. The Academy of General Dentistry (AGD) Program Approval for Continuing Education (PACE); or

d. The American Medical Association (AMA).

2. A licensee utilizing a laser, other than what is described in section (A) of this Rule, must maintain evidence of training as required in section (D)(1) of this Rule. Upon request of the Board, the licensee must submit evidence of such training.

3. A licensee must also complete live and interactive training that addresses operation of the specific laser(s) utilized in the practice.

E. All lasers must be used in accordance with accepted safety guidelines.

F. When utilizing a laser pursuant to this Rule, at a minimum, the following must be documented in the patient's record:

1. Type of laser, including wavelength;
2. Settings used (pulse or continuous wave, power setting);
3. Size of fiber, tip, or aperture of tip; and
4. Procedure performed with details to include hard and/or soft tissue removal.

(Adopted January 22, 2015, Effective March 30, 2015; Amended April 30, 2015, Effective June 30, 2015; Amended April 28, 2016, Effective June 30, 2016; Amended May 3, 2018, Effective July 3, 2018; Amended November 5, 2020; Effective December 30, 2020; Amended November 3, 2022; Effective December 30, 2022

https://leg.colorado.gov/sites/default/files/images/olls/crs2024-title-12.pdf

Colorado Revised Statutes 2024
Title 12
Professions and Occupations
Part I
General Provisions
Article 220: Dentists, Dental Hygienists & Dental Therapists
January 1, 2023

12-220-101. Short title. The short title of this article 220 is the "Dental Practice Act".

Source: L. 2020: Entire article amended with relocations, (HB 20-1056), ch. 64, p. 219, § 1, effective September 14.
Editor's note: This section is similar to former § 12-220-101 as it existed prior to 2020.

12-220-106. Powers and duties of board - rules - limitation on authority. (1) The board shall exercise, in accordance with this article 220, the following powers and duties:

(a) Make, publish, declare, and periodically review reasonable rules pursuant to section 12-20-204, including rules regarding:

(I) The use of lasers for dental, dental therapy, and dental hygiene purposes within defined scopes of practice, subject to appropriate education and training, and with appropriate supervision, as applicable;

Source: L. 2020: Entire article amended with relocations, (HB 20-1056), ch. 64, p. 223, § 1, effective September 14. **L. 2022:** (1)(a)(I) and (1)(f) amended, (SB 22-219), ch. 381, p. 2713, § 8, effective January 1, 2023.

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Editor's note: This section is similar to former § 12-220-106 as it existed prior to 2020.
Cross references: For the legislative declaration in SB 22-219, see section 1 of chapter 381, Session Laws of Colorado 2022.

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Connecticut

Connecticut State Dental Commission
410 Capitol Avenue, MS #13PHO
P.O. Box 340308
Hartford, CT 06134-0308
860-509-7603
Fax 860-707-1984
E-mail: oplc.dph@ct.gov
URL: Connecticut State Dental Commission

Scope of Practice: Silent
Summary: The practice act and regulations do not mention use of lasers. Section 20-126l(e)(2) prohibits dental hygienist from cutting or removing any hard or soft tissue.

Chapter 379a - Dental Hygienists (ct.gov)
General Statutes of Connecticut
Title 20
Professional and Occupational Licensing, Certification, Title Protection and Registration.
Examining Boards
Chapter 379a Dental Hygienists
Sec. 20-126l. Definitions. Scope of practice. Limitations. Continuing education. Exceptions.
January 1, 2019

Sec. 20-126*l*. Definitions. Scope of practice. Limitations. Continuing education. Exceptions.
(e) A licensed dental hygienist shall not perform the following dental services: (1) Diagnosis for dental procedures or dental treatment; (2) the cutting or removal of any hard or soft tissue or suturing;

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Delaware

State of Delaware
Division of Professional Regulation
Board of Dentistry and Dental Hygiene
Cannon Building, Suite 203
861 Silver Lake Blvd.
Dover, DE 19904
(302) 744-4500
Fax (302) 739-2711
E-mail: customerservice.dpr@delaware.gov
URL: https://dpr.delaware.gov/boards/dental/

Scope of Practice: Silent
Supervision: General
Summary: The practice act and regulations do not mention use of lasers. Rule 2.5 places the full responsibility for the work done by dental hygienists directly upon the dentist.

1100.fm (delaware.gov)
State of Delaware
Title 24 Regulated Professions and Occupations
Delaware Administrative Code
Department of State
Division of Professional Regulation
1100 Board of Dentistry and Dental Hygiene

2.0 Auxiliary Personnel

2.5 Responsibilities - In summary, the Dental Board places full responsibility for the work done by auxiliary personnel directly upon the dentist. Violations of the regulations will be subject to penalties as spelled out in 24 Del.C. §1131(5).

5.0 Supervision

5.1 Conditions Applicable to General Supervision - A licensed dental hygienist, by virtue of having passed a licensure examination and being duly licensed by the State, is capable of performing those services allowed by law under supervision, the following conditions shall exist:

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District of Columbia

DC Health
Board of Dentistry
2201 Shannon Place SE
Washington, DC 20020
(202) 442-5955
Fax (202) 442-4795
E-mail: doh@dc.gov
URL: https://dchealth.dc.gov/node/146102

Scope of Practice: Silent
Summary: The municipal regulations do not mention use of lasers.

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Florida

Florida Department of Health
Board of Dentistry
4052 Bald Cypress Way, Bin C-O4
Tallahassee, FL 32399-3258
(850) 245-4474
Fax 850-921-5389
E-mail: MQALicensureServices@flhealth.gov
URL: https://floridasdentistry.gov

Scope of Practice: **Rule 64B5-16.001(1),** https://floridasdentistry.gov/Forms/laws-and-rules-dentistry.pdf
Supervision: Direct, Indirect, or General
Summary: Dental hygienists may use lasers as an assessment device. Lasers are otherwise not permitted for remediable tasks.

https://floridasdentistry.gov/Forms/laws-and-rules-dentistry.pdf

Florida Department of State
Department of Health
Board of Dentistry
Rule 64B5 Florida Administrative Code
Chapter 64B5-16
Remediable Tasks Delegable to Dental Hygienists and Dental Assistants
November 28, 2022

64B5-16.001 Definitions of Remediable Tasks and Supervision Levels.

(1) Remediable tasks, also referred to as expanded functions of dental hygienists and dental assistants, which are enumerated in Rules 64B5-16.006, 64B5-16.0061, 64B5-16.005, 64B5-16.0051, F.A.C., are those intra-oral tasks which do not create unalterable changes in the oral cavity or contiguous structures, are reversible and do not expose a patient to increased risks. The use of a laser or laser device of any type is not a remediable task, unless utilized as an assessment device.

(2) A dentist may delegate a remediable task to dental hygienists, and dental assistants so long as delegation of the task poses no increased risk to the patient and the requirements of training and supervision set out in Chapter 64B5-16, F.A.C., are met.

(3) Remediable tasks are those specified in Section 466.024, F.S., and those designated as such by the Board. The Board hereby designates the tasks listed in Chapter 64B5-16, F.A.C., as remediable tasks.

(4) Direct supervision requires that a licensed dentist examine the patient, diagnose a condition to be treated, authorize the procedure to be performed, be on the premises while the procedure is performed, and approve the work performed prior to the patient's departure from the premises.

(5) Indirect supervision requires that a licensed dentist examine the patient, diagnose a condition to be treated, authorize the procedure to be performed, and be on the premises while the procedure is performed.

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(6) General supervision requires that a licensed dentist authorizes the procedures to be performed but need not be present when the authorized procedures are being performed. The authorized procedures may also be performed at a place other than the dentist's usual place of practice.

(7) Any authorization for remediable tasks to be performed under general supervision is valid for a maximum of 24 months; after which, no further treatment under general supervision can be performed without another clinical exam by a Florida licensed dentist.

(8) Without supervision dental hygienists may perform the remediable tasks specified in Sections 466.023(3), 466.0235, and 466.024(2), F.S., as long as all provisions of the respective statute are met.

(9) Any tasks delegable to dental assistants will be delegable to dental hygienists under the same supervision level, unless otherwise stated in the rules.

Rulemaking Authority 466.004(4), 466.024(1), (7) FS. Law Implemented 466.023, 466.0235, 466.024, 466.003(11), (12) FS. History–New 4-30-80, Amended 8-20-80, 1-28-81, 3-4-81, 10-8-85, Formerly 21G-16.01, Amended 6-30-86, 12-31-86, 7-5-87, 2-21-88, 1-18-89, Formerly 21G-16.001, Amended 3-30-94, Formerly 61F5-16.001, Amended 4-6-97, Formerly 59Q-16.001, Amended 1-6-99, 10-29-00, 2-5-09, 3-29-17, 12-9-18, 6-4-19, 3-25-20, 11-28-22.

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Georgia

Georgia Board of Dentistry
2 Martin Luther King Jr. Drive SE
East Tower, 11th Floor
Atlanta, GA 30334
(404) 651-8000
Contact form: https://gbd.georgia.gov/contact-us
URL: https://gbd.georgia.gov

Scope of Practice: **Rule 150-5-.03(11)**, https://rules.sos.ga.gov/gac/150-5-.03
and **Rule 150-5-.08**, https://rules.sos.ga.gov/gac/150-5-.08
Supervision: Direct
Summary: Nothing in these rules shall be construed as authorizing dental hygienists to utilize other techniques in the course of the performance of their duties, otherwise authorized by these rules. Only dentists licensed by the Georgia Board of Dentistry shall be authorized to perform procedures involving laser technology which alters tissue, creates thermal effect, or is intended to cut, coagulate, photocoagulate, vaporize, or ablate essentially any soft or hard tissues of the body.
A dental hygienist, under the direct supervision of a Georgia licensed dentist may use a dental diode laser limited to the use of bacterial reduction/disinfection of the gingival sulcus at settings that preclude hard and soft tissue removal except for incidental gingival curettage…Prior to utilizing a dental diode laser, the dental hygienist must successfully complete interactive didactic and clinical training which includes laser safety, infection control, patient management and the operation of the specific laser(s) utilized in the dental practice. Training must consist of not less than 8 hours of instruction.

https://rules.sos.ga.gov/gac/150-5-.03
Rules and Regulations of the State of Georgia
Department 150. Rules of Georgia Board of Dentistry
Chapter 150-5 Dental Hygiene
1/3/22

Rule 150-5-.03 Supervision of Dental Hygienists
(11) Nothing in these rules shall be construed as authorizing dental hygienists to utilize other techniques in the course of the performance of their duties, otherwise authorized by these rules. Only dentists licensed by the Georgia Board of Dentistry shall be authorized to perform procedures involving laser technology which alters tissue, creates thermal effect, or is intended to cut, coagulate, photocoagulate, vaporize, or ablate essentially any soft or hard tissues of the body.
Cite as Ga. Comp. R. & Regs. R. 150-5-.03
Authority: O.C.G.A. §§ 43-11-1, 43-11-7, 43-11-9, 43-11-17, 43-11-74.
History. Original Rule entitled "Supervision of Dental Hygienists" adopted. F. and eff. June 30, 1965.
Amended: F. Dec. 14, 2021; eff. Jan. 3, 2022.

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https://rules.sos.ga.gov/gac/150-5-.08
Rules and Regulations of the State of Georgia
Department 150. Rules of Georgia Board of Dentistry
Chapter 150-5 Dental Hygiene
12/24/24

Rule 150-5-.08 Use of a Dental Diode Laser by a Dental Hygienist

(1) A dental hygienist, under the direct supervision of a Georgia licensed dentist may use a dental diode laser limited to the use of bacterial reduction/disinfection of the gingival sulcus at settings that preclude hard and soft tissue removal except for incidental gingival curettage, provided:

(a) Prior to utilizing a dental diode laser, the dental hygienist must successfully complete interactive didactic and clinical training which includes laser safety, infection control, patient management and the operation of the specific laser(s) utilized in the dental practice. Training must consist of not less than 8 hours of instruction, and must be obtained through a course provided or recognized by any of the following organizations, a successor organization thereof, or approved by the Board:

1. The Commission on Dental Accreditation of the American Dental Association;
2. The American Dental Association Continuing Education Recognition Program; or
3. The Academy of General Dentistry Program Approval for Continuing Education.

(b) A dental hygienist utilizing a dental diode laser shall maintain evidence of required training which shall be prominently displayed at the location where the dental hygienist is authorized to utilize a dental diode laser.

(c) A dental hygienist utilizing a dental diode laser shall complete two (2) hours of continuing education every two (2) years in the use of dental diode lasers in the practice of dental hygiene.

(d) All lasers shall be used in accordance with accepted safety guidelines.

(2) When utilizing a dental diode laser pursuant to this Section, a dental hygienist shall document the following information in the patient's record:

(a) the type of laser utilized, including the wavelength of the laser;

(b) the settings used, such as pulse or continuous wave, and the power setting;

(c) local anesthesia used, if any; and

(d) the procedure attempted/performed, including details as to whether hard or soft tissue was removed.

Cite as Ga. Comp. R. & Regs. R. 150-5-.08
Authority: O.C.G.A §§ 43-11-1, 43-11-7, 43-11-9, 43-11-73.1, 43-11-74.
History. Original Rule entitled “Use of a Dental Diode Laser by a Dental Hygienist.” F. Dec. 4, 2024; eff. Dec. 24, 2024.

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Guam

Guam Board of Examiners for Dentistry
194 Hernan Cortez Avenue
Terlaje Professional Building
Suite 213
Hagatna, Guam 96910
(671) 735-7408
E-mail: Nicole.romero@dphss.guam.gov
URL: https://guamhplo.org/gbed

Scope of Practice: Silent
Summary: The administrative rules and regulations do not mention use of lasers. §8104 specifies the dentist is primarily responsible for all procedures which the dentist delegate to dental hygienists.

https://guamhplo.org/sites/default/files/25gar_ch8_-_dental.pdf
25 Guam Administrative Rules and Regulations
25 GAR – Professional & Vocational Regulations
Chapter 8
Guam Board of Dental Examiner
September 25, 1998

§8104. Dental Hygienist.
(f) Delegated Duties.
(1) A dentist may **not** delegate irreversible tasks to dental hygienists.
(2) Not withstanding any other provision of rule, or regulation, the dentist is primarily responsible for all procedures which the dentist delegates to dental hygienists.
(3) A dental hygienist may practice under the indirect supervision of a Guam licensed dentist.

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Hawaii

Department of Commerce and Consumer Affairs
Professional & Vocational Licensing Division
Board of Dentistry
HRH King Kalakaua Building
335 Merchant Street, Rm. 301
Honolulu, HI 96813

Mailing Address:
DCCA-PVL
P.O. Box 3469
Honolulu, HI 96801
(808) 586-3000
E-mail: pvl@dcca.hawaii.gov
URL: http://cca.hawaii.gov/pvl/boards/dentist

Scope of Practice: Silent
Supervision: Direct or general
Summary: The practice act and regulations do not mention use of lasers. **§447-3** states a dental hygienist may provide any other procedures delegated by a dentist in accordance with the rules of the board of dentistry.

https://cca.hawaii.gov/pvl/files/2013/08/HRS_447-DentalHygienists0717.pdf
Hawaii Professional & Vocational Licensing Division
Hawaii Revised Statutes
Chapter 447
Dental Hygienists
July 2017

§447-3 Employment of and practice by dental hygienists. (a) Any licensed dentist, legally incorporated eleemosynary dental dispensary or infirmary, private school, welfare center, hospital, nursing home, adult day care center or assisted living facility, mental institution, nonprofit health clinic, or the State or any county, may employ licensed dental hygienists.

(b) Clinical dental hygiene may be practiced by a licensed dental hygienist. The practice of clinical dental hygiene is defined as the removal of hard and soft deposits and stains from the portion of the crown and root surfaces to the depth of the gingival sulcus, polishing natural and restored surfaces of teeth, the application of preventive chemical agents to the coronal surfaces of teeth, which chemical agents have been approved by the board of dentistry, and the use of mouth washes approved by the board, but shall not include the performing of any repair work or the preparation thereof, or any other operation on the teeth or tissues of the mouth; provided that nothing in this subsection shall prohibit a dental hygienist from using or applying topically any chemical agent which has been approved in writing by the department of health for any of the purposes set forth in part V of chapter 321, and other procedures delegated by a dentist in accordance with the rules of the board of dentistry.

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(c) A licensed dental hygienist may operate in the office of any licensed dentist, or legally incorporated eleemosynary dental dispensary or infirmary, private school, welfare center, hospital, nursing home, adult day care center or assisted living facility, mental institution, nonprofit health clinic, or in any building owned or occupied by the State or any county, but only under the aforesaid employment and under the direct or general supervision of a licensed dentist as provided in section 447-1(f). No dental hygienist may establish or operate any separate care facility which exclusively renders dental hygiene services.

(d) Notwithstanding section 447-1(f), a licensed dental hygienist may operate under the supervision of any licensed dentist providing dental services in a public health setting. General supervision is permitted in a public health setting.; provided that the supervising licensed dentist is available for consultation; provided further that a licensed dental hygienist shall not perform any irreversible procedure or administer any intra-oral block anesthesia under general supervision. In a public health setting, the supervising licensed dentist shall be responsible for all delegated acts and procedures performed by a licensed dental hygienist. Notwithstanding section 447-1(f), a licensed dental hygienist under the general supervision of a licensed dentist employed in a public health setting may perform dental education, dental screenings, teeth cleanings, intra-oral or extra-oral photographs, x-rays if indicated, and fluoride applications on individuals who are not yet patients of record, have not yet been examined by a licensed dentist, or do not have a treatment plan. Other permissible duties shall be pre-screened and authorized by a supervising licensed dentist, subject to the dentist's determination that the equipment and facilities are appropriate and satisfactory to carry out the recommended treatment plan. A licensed dental hygienist shall refer individuals not currently under the care of a dentist and who are seen in a public health setting to a dental facility for further dental care. No direct reimbursements shall be provided to licensed dental hygienists.

As used in this subsection, "public health setting" includes but is not limited to dental services in a legally incorporated eleemosynary dental dispensary or infirmary, private or public school, welfare center, community center, public housing, hospital, nursing home, adult day care center or assisted living facility, mental institution, nonprofit health clinic or facility, or the State or any county.

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Idaho

Board of Dentistry
PO Box 83720
Boise, ID 83720-0021
(208) 334-2369
Fax (208) 334-3247
E-mail: SBD-info@dopl.idaho.gov
URL: www.isbd.idaho.gov

Scope of Practice: Silent
Summary: The statute and rules do not mention use of lasers. Rule **24.31.01** indicates dental hygienists are authorized under the supervision of a licensed dentist to perform dental hygiene services for which they are educated and trained unless prohibited by these rules.

https://legislature.idaho.gov/wp-content/uploads/statutesrules/idstat/Title54/T54CH9.pdf
Idaho Statute
Title 54
Professions, Vocations, and Businesses
Chapter 9
Dentists
July 1, 2024

54-902. Definition – Practice of Dental Hygiene. The practice of dental hygiene is the doing by one (1) person for a direct or indirect consideration of one (1) or more of the following with respect to the teeth or dental health of another person, namely, cleaning, polishing, removing stains or concretions; performing nonsurgical periodontal therapy; administering prescribed anesthetics or medicaments; applying preventive agents; performing nonsurgical, clinical and laboratory oral diagnostic tests for interpretation by a dentist; preparation of preliminary records of oral conditions; and such other dental services as specified by the dentist unless prohibited by the board in its adopted rules.

https://adminrules.idaho.gov/rules/current/24/243101.pdf
IDAPA 24 – Division of Occupational and Professional Licenses
Idaho State Board of Dentistry
24.31.01 – Rules of the Idaho Board of Dentistry
July 1, 2024

200.PRACTICE STANDARDS.
01. Dental Hygienists – Practice. Dental hygienists are authorized under the supervision of a licensed dentist to perform dental hygiene services for which they are educated and trained unless prohibited by these rules. (7-1-24)

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Illinois

Illinois Department of Financial and Professional Regulation
Board of Dentistry
Chicago Office:
555 West Monroe Street
5th Floor
Chicago, IL 60601
(888) 473-4858

Springfield Office:
320 West Washington Street
3rd Floor
Springfield, IL 62786
(888) 473-4858
Contact form: https://idfpr.illinois.gov/profs/email/prfgrp09.html
URL: https://idfpr.illinois.gov/profs/dentist.html

Scope of Practice: **§1220.240,**
https://www.ilga.gov/commission/jcar/admincode/068/068012200B02400R.html
Summary: Dental hygienists are prohibited from using lasers to remove tissue.

https://ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1296&ChapterID=24
Illinois Compiled Statutes
Regulation
Chapter 225 Professions, Occupations, and Business Operations
Health
225 ILCS 25/ Illinois Dental Practice Act
August 24, 2009

(225 ILCS 25/7.5)
Sec. 7.5. Emerging scientific technology and applications. In the interest of public safety, the Board may review emerging scientific technology and applications and, when appropriate, recommend that the Department adopt rules to govern the appropriate use and require the appropriate training needed for this technology by dental hygienists and assistants acting under the supervision of a dentist. "Emerging scientific technology" may include without limitation laser treatments and other treatments and potential treatments that, if used incorrectly, could have an adverse effect on patient health and safety.
(Source: P.A. 96-617, eff. 8-24-09.)

https://www.ilga.gov/commission/jcar/admincode/068/068012200B02400R.html
Administrative Code
Title 68: Professions and Occupations
Chapter VII: Department of Financial and Professional Regulation
Subchapter b: Professions and Occupations
Part 1220 Illinois Dental Practice Act

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Section 1220.240 Prescribed Duties of Professional Hygienists

d) Dental hygienists shall not perform those procedures that constitute the practice of dentistry as described in the Act. Hygienists may not perform procedures that require the professional judgment and skill of a dentist. Such prohibited procedures include, but shall not be limited to, the following:

7) Use of a laser to remove tissue.

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Indiana

Indiana Professional Licensing Agency
Dentistry Board
Indiana Government Center South, Room W072
402 West Washington Street
Indianapolis, IN 46204
(317) 232-2960
E-mail: pla8@pla.IN.gov
URL: https://www.in.gov/pla/professions/dentistry-home/

Scope of Practice: **IC 25-13-1-10**, https://iga.in.gov/laws/2020/ic/titles/25#25-13-1-10
Supervision: Direct or prescriptive supervision
Summary: A dental hygienist may use a laser, except to cut, ablate, or cauterize hard or soft tissue to provide treatment to a patient.

https://iga.in.gov/laws/2020/ic/titles/25#25-13-1-10
Indiana Code
Title 25. Professions and Occupations
Article 13. Dental Hygienists
Chapter 1. Regulation of Dental Hygienists by State Board of Dentistry
Section 10. Locations for practice of dental hygiene; supervision requirements; laser treatments; rules
2020

IC 25-13-1-10 (c) A dental hygienist may use a laser, except to cut, ablate, or cauterize hard or soft tissue to provide treatment to a patient.

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Iowa

Iowa Department of Inspections, Appeals, & Licensing
Dental Board
6200 Park Ave.
Suite 100
Des Moines, IA 50321
(515) 281-5157
URL: https://dial.iowa.gov/boards-0/dental-board

Scope of Practice: **Iowa Board of Dental Examiners Position Statement – Use of Lasers,** April 17, 2003, https://dial.iowa.gov/media/7803/download?inline=
Supervision: General, direct, or public health supervision
Summary: The board recommends that all licensees need to be fully instructed in a recognized course prior to utilizing a laser. In addition, any services provided by a licensee, regardless of the device used, must be within the scope of practice for each licensee. Dental hygienists, for example, cannot utilize a laser or other device to cut tissue.

https://dial.iowa.gov/media/7803/download?inline=
Iowa Board of Dental Examiners
Position Statement – Use of Lasers
April 17, 2003

The board recommends that all licensees need to be fully instructed in a recognized course prior to utilizing a laser. In addition, any services provided by a licensee, regardless of the device used, must be within the scope of practice for each licensee. Dental hygienists, for example, cannot utilize a laser or other device to cut tissue. Furthermore, all licensees should ensure the services they provide are within the standard of care.

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Kansas

Kansas Dental Board
900 SW Jackson
Room 455-S
Topeka, KS 66612
(785) 296-6400
E-mail: dental.info@ks.gov
URL: https://www.dental.ks.gov/

Scope of Practice: Silent
Supervision: Direct or general
Summary: The practice act and regulations do not mention use of lasers. **§65-1456** includes preventive and therapeutic procedures within the dental hygiene scope of practice.

https://www.dental.ks.gov/home/showpublisheddocument/710/638319619128600000

Kansas Dental Board Statutes
Chapter 65. – Public Health
Article 14.—Regulation of Dentists and Dental Hygienists
Revised January 2020

65-1456. Dental hygienists; suspension or revocation of licenses, when; notice and hearing; practice of dental hygiene defined; rules and regulations; supervision defined; where performance of practice authorized, issuance of permits therefor; authorized activities, requirements.

(b) The practice of dental hygiene shall include those educational, preventive, and therapeutic procedures which result in the removal of extraneous deposits, stains and debris from the teeth and the rendering of smooth surfaces of the teeth to the depths of the gingival sulci. Included among those educational, preventive and therapeutic procedures are the instruction of the patient as to daily personal care, protecting the teeth from dental caries, the scaling and polishing of the crown surfaces and the planing of the root surfaces, in addition to the curettage of those soft tissues lining the free gingiva to the depth of the gingival sulcus and such additional educational, preventive and therapeutic procedures as the board may establish by rules and regulations.

(d) Except as otherwise provided in this section, the practice of dental hygiene shall be performed under the direct or general supervision of a licensed dentist at the office of such licensed dentist. The board shall designate by rules and regulations the procedures which may be performed by a dental hygienist under direct supervision and the procedures which may be performed under general supervision of a licensed dentist. As used in this section: (1) "Direct supervision" means that the dentist is in the dental office, personally diagnoses the condition to be treated, personally authorizes the procedure and before dismissal of the patient evaluates the performance; and (2) "general supervision" means a Kansas licensed dentist may delegate verbally or by written authorization the performance of a service, task or procedure to a licensed dental hygienist under the supervision and responsibility of the dentist, if the dental hygienist is licensed to perform the function, and the supervising dentist examines the patient at the time the dental hygiene procedure is performed, or during the 12 calendar months preceding the

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performance of the procedure, except that the licensed hygienist shall not be permitted to diagnose a dental disease or ailment, prescribe any treatment or a regimen thereof, prescribe, order or dispense medication or perform any procedure which is irreversible or which involves the intentional cutting of the soft or hard tissue by any means. A dentist is not required to be on the premises at the time a hygienist performs a function delegated under part (2) of this subsection.

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Kentucky

Kentucky Board of Dentistry
312 Whittington Parkway
Suite 101
Louisville, KY 40222
(502) 429-7280
Fax (502) 429-7282
E-mail: https://dentistry.ky.gov/Pages/contact.aspx
URL: https://dentistry.ky.gov

Scope of Practice: **KAR 8:562 Section 14**,
https://apps.legislature.ky.gov/law/kar/titles/201/008/563/
Supervision: Direct
Summary: A dental hygienist may perform laser debridement after submitting documentation proving successful completion of a board-approved course in performing laser debridement.

https://apps.legislature.ky.gov/law/kar/titles/201/008/563/
Boards and Commissions
Board of Dentistry
Title 201, Chapter 008, Regulation 563
201 KAR 8:563 Licensure of dental hygienists.
Section 14. Requirements for Laser Debridement Registration.
7/4/23

(1) An individual licensed as a dental hygienist in Kentucky and not subject to disciplinary action who desires to perform laser debridement shall:
(a) Submit a signed and completed Application for Dental Hygiene Special Registrations;
(b) Pay the fee required by 201 KAR 8:520; and
(c) Submit documentation proving successful completion of a board-approved course in performing laser debridement.
(2) An individual authorized to practice pursuant to this provision shall receive a license from the board indicating registration to perform laser debridement.
(3) A licensed dental hygienist shall not perform laser debridement if the licensee does not:
(a) Hold a board-issued registration to perform laser debridement; or
(b) Work under the direct supervision of a dentist.

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Louisiana

Louisiana State Board of Dentistry
Mailing Address:
P.O. Box 5256
Baton Rouge, LA 70821-5256

Physical Address:
18212 East Petroleum Drive
Suite 2-B
Baton Rouge, LA 70809
(225) 219-7330
URL: http://www.lsbd.org

Scope of Practice: **§701(B)(2) & §1301**, http://www.lsbd.org/applications/46v33.pdf
Summary: A dentist may not delegate to a dental hygienist a surgical or cutting procedure on hard or soft tissue including with a laser. A laser capable of the removal of hard or soft tissue may be employed in the treatment of a dental patient only by a licensed dentist.

http://www.lsbd.org/applications/46v33.pdf
Louisiana Administrative Code
Title 46
Professional and Occupational Standards
Part XXXIII. Dental Health Profession
Chapter 7. Dental Hygienists
February 2021

§701. Authorized Duties
A. Dental hygienists are expressly authorized to perform the procedure referred to as an oral prophylaxis, which is defined as the removal of plaque, calculus and stains from the exposed and unexposed surfaces of the teeth by scaling and polishing as a preventive measure for the control of local irritational factors.
B. A person licensed to practice dentistry in the state of Louisiana may delegate to any dental hygienist any chairside dental act which said dentist deems reasonable, using sound professional judgment. Such act must be performed properly and safely on the patient. Furthermore, the act must be under the direct on-premises supervision of the treating dentist. A dentist may not delegate to a dental hygienist:
1. comprehensive examination or diagnosis and treatment planning;
2. a surgical or cutting procedure on hard or soft tissue including laser and micro abrasion reduction of tooth material;

Louisiana Administrative Code
Title 46
Professional and Occupational Standards
Part XXXIII. Dental Health Profession
Chapter 13. Dental Laser and Air Abrasion Utilization

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§1301. Requirements
A. A laser capable of the removal of hard or soft tissue may be employed in the treatment of a dental patient only by a licensed dentist.

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Maine

Department of Professional & Financial Regulation
Maine Board of Dental Practice
Mailing address:
143 State House Station
Augusta, ME 04333-0143

Delivery address/physical location:
Department of Professional & Financial Regulation
Board of Dental Practice
76 Northern Avenue
Gardiner, ME 04345

(207) 287-3333
TTY users call Maine relay 711
Fax (207) 287-8140
E-mail: dental.board@maine.gov
URL: https://www.maine.gov/dental

Scope of Practice: Silent
Supervision: Direct
Summary: The practice act and regulations do not mention use of lasers. **§18374** allows dental hygienists to perform all procedures necessary for complete prophylaxis, including scaling and root planning and periodontal maintenance.

https://legislature.maine.gov/legis/statutes/32/title32ch143.pdf
Maine Revised Statutes
Title 32: Professions and Occupations
Chapter 143: Dental Professions
Subchapter 4: Scope of Practices; Supervision; Practice
October 1, 2024

§18374. Dental hygienist
1. Scope of practice; direct supervision. A dental hygienist and faculty dental hygienist may perform the following under the direct supervision of a dentist:

2. Scope of practice. A dental hygienist and faculty dental hygienist may perform all of the activities that may be delegated to an unlicensed person pursuant to section 18371, subsection 3. A dental hygienist and faculty dental hygienist may also perform the following procedures:

S. Perform all procedures necessary for a complete prophylaxis, including but not limited to scaling and root planing and periodontal maintenance;

§18375. Independent practice dental hygienist
1. Scope of practice. An independent practice dental hygienist may perform the following duties:

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E. Perform all procedures necessary for a complete prophylaxis, including but not limited to scaling and root planing and periodontal maintenance;

§18376. Public health dental hygienist

1. Scope of practice. A public health dental hygienist may perform the following procedures in a public health setting:

P. Perform all procedures necessary for a complete prophylaxis, including but not limited to scaling and root planing and periodontal maintenance;

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Maryland

Maryland Department of Health
Board of Dental Examiners
Spring Grove Hospital Center
Benjamin Rush Bldg.
55 Wade Avenue
Catonsville, MD 21228
(410) 402-8500
Fax (410) 402-8505
E-mail: mdh.mddentalboard@maryland.gov
URL: https://health.maryland.gov/dental/

Scope of Practice: Silent
Summary: The practice act and regulations do not mention use of lasers. The Board of Dental Examiners' *Dental Auxiliaries Permissible Procedures Chart* does not include laser bleaching within the scope of dental hygiene.

https://health.maryland.gov/dental/Documents/Licensing%20Documents/DENTAL%20AUXILLARIES%20PROCEDURES%20CHART%203-17-20-V7.pdf#search=permissible%20procedures%20chart

Maryland State Board of Dental Examiners
Dental Auxiliaries Permissible Procedures Chart – March 17, 2020

Procedure	RDH
Bleaching – Internal or Laser	NO
Oral Cancer – Tissue/cell removal – biopsy procedures Scalpel / dental laser	NO

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Massachusetts

Massachusetts Board of Registration in Dentistry
250 Washington Street
Boston, MA 02108
(800) 414-0168
(617) 973-0971
Fax (617) 973-0980
E-mail: dentistry.admin@state.ma.us
URL: https://www.mass.gov/orgs/board-of-registration-in-dentistry

Scope of Practice: **234 CMR 5.11**, https://www.mass.gov/regulations/234-CMR-500-requirements-for-the-practice-of-dentistry-dental-hygiene-and-dental-assisting?_gl=1*jw758c*_ga*MTYyODgzMzI5MS4xNzM1Mzk5MDk3*_ga_MCLPEGW7WM*MTczNTM5OTM4Ni4xLjAuMTczNTM5OTM4Ni4wLjAuMA
Supervision: Direct
Summary: Dental hygienists may use diagnostic and periodontic non-cutting lasers.

https://www.mass.gov/regulations/234-CMR-500-requirements-for-the-practice-of-dentistry-dental-hygiene-and-dental-assisting?_gl=1*jw758c*_ga*MTYyODgzMzI5MS4xNzM1Mzk5MDk3*_ga_MCLPEGW7WM*MTczNTM5OTM4Ni4xLjAuMTczNTM5OTM4Ni4wLjAuMA..#downloads

234 CMR: Board of Registration in Dentistry
Regulation 234 CMR 5.00
Requirements for the practice of dentistry, dental hygiene, and dental assisting
May 7, 2015

5.11: Delegable Procedures
Registered Dental Hygienists (RDH), Public Health Dental Hygienist (PHDH)
General Supervision (G), Written Collaborative Agreement (WCA), Direct Supervision (D), Immediate Supervision (I), Delegation Not Allowed (N/A)

	Delegated Duty	RDH	PHDH
(48)	Use diagnostic and periodontic non-cutting lasers	RDH D	PHDS N/A
(52)	Apply bleaching agents and activate with non-laser non-curing device	RDH G	PHDH WCA

https://www.mass.gov/doc/use-of-lasers-in-dentistry-0/download

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
Division of Health Professions Licensure
Board of Registration in Dentistry
Policy on the Use of Lasers in Dentistry
April 3, 2013

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Delegation to dental auxiliaries may only occur when both the supervising dentist and registered dental hygienist obtain proper training on the use of dental laser devices, and use the devices within their licensed scope of practice, training and experience. Guidance for the profession for safe dental laser use is provided by American National Standards Institute Standard Z136.1 Safe Use of Lasers and Z136.3 Safe Use of Lasers in Health Care Facilities. Specific training is also available from manufacturers, and via independent providers of continuing education, including professional organizations and academic institutions. Continuing education programs/presenters should address and disclose possible conflicts of interest. At the present time, the ADA's Commission on Dental Accreditation does not include laser education in its accreditation standards for dental education programs. However, proposed educational standards are available (e.g., Academy of Laser Dentistry's Curriculum Guidelines and Standards for Dental Laser Education).

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Michigan

Michigan Licensing and Regulatory Affairs
Bureau of Professional Licensing
Ottawa Building
611 W. Ottawa
P.O. Box 30004
Lansing, MI 48909
(517) 241-7500
(517) 241-0199
Fax (517) 241-9416
E-mail: BPL-BoardSupport@michigan.gov
URL: https://www.michigan.gov/lara/bureau-list/bpl/health/hp-lic-health-prof/dental

Scope of Practice: **R 338.11411 (4)**,
https://ars.apps.lara.state.mi.us/AdminCode/DownloadAdminCodeFile?FileName=R%20338.11101%20to%20R%20338.11821.pdf
and **Position Statement** on Use of Laser Equipment by Health Professionals,
https://www.michigan.gov/lara/bureau-list/cscl/corps/corporations/intro/use-of-laser-equipment-by-health-professionals
Supervision: Direct
Summary: A dental hygienist may perform soft tissue curettage with or without a dental laser. A physician/dentist may delegate the use of laser equipment to a licensed or unlicensed individual if the delegated individual works under the physician/dentist's supervision. The position statement includes minimum requirements for supervision.

https://ars.apps.lara.state.mi.us/AdminCode/DownloadAdminCodeFile?FileName=R%20338.11101%20to%20R%20338.11821.pdf

Michigan Administrative Code
Department of Licensing and Regulatory Affairs
Director's Office
Dentistry – General Rules
2/23/24

R 338.11411 Delegated and assigned dental procedures for allied dental personnel
(4) Table 1 - Delegated and Assigned Dental Procedures for Allied Dental Personnel

	RDH	Procedure
(ss)	D	Performing soft tissue curettage with or without a dental laser.

(5) As used in subrule (4) of this rule:
(b) "D" means direct supervision, as that term is defined in R 338.11401.
History: 2021 AACS; 2023 MR 19, Eff. Oct. 2, 2023.

Part 4A. Delegation, Supervision, Assignment of UDAs, RDAs, and RDHs
R 338.11401 Definitions.

Rule 1401. As used in this part:

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(c) "Direct supervision" means that a dentist complies with all of the following:

(i) Designates a patient of record upon whom the procedures are to be performed and describes the procedures to be performed.

(ii) Examines the patient before prescribing the procedures to be performed and upon completion of the procedures.

(iii) Is physically present in the office when the procedures are being performed.

https://www.michigan.gov/lara/bureau-list/cscl/corps/corporations/intro/use-of-laser-equipment-by-health-professionals

Use of Laser Equipment by Health Professionals
Position Statement of the Michigan Department of Licensing and Regulatory Affairs
12/5/05

A physician/dentist may delegate the use of laser equipment to a licensed or unlicensed individual if the delegated individual works under the physician/dentist's supervision. In this context, supervision, as defined by the Public Health Code, requires at least all of the following:

- Acknowledgment by the physician/dentist that the delegated individual has the appropriate education, training or experience to properly use lasers.
- Continuous availability of direct communication in person, or by radio, telephone or other telecommunication, between the physician/dentist and the delegated individual.
- Regularly scheduled availability of the physician/dentist to consult, educate, and review the records and practice of the delegated individual in laser use.
- Development by the physician/dentist of written procedures and protocols to guide the delegated individual's laser use.

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Minnesota

Minnesota Board of Dentistry
335 Randolph Ave
Suite 250
St. Paul, MN 55102
(612) 617-2250
Toll Free (888) 240-4762
Fax (651) 797-1373
MN Relay Service for Hearing Impaired: (800) 627-3529
E-mail: dental.board@state.mn.us
URL: https://mn.gov/boards/dentistry/current-licensee/requirements

Scope of Practice: Silent
Summary: The administrative rules do not mention use of lasers.

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Mississippi

Mississippi State Board of Dental Examiners
715 S. Pear Orchard Road
Suite 200 (Plaza I)
Ridgeland, MS 39157
(601) 944-9622
Fax (601) 944-9624
E-mail: dental@dentalboard.ms.gov
URL: https://www.dentalboard.ms.gov

Scope of Practice: **Dental Auxiliaries Frequently Asked Questions**, https://www.dentalboard.ms.gov/frequently-asked-questions/dental-auxiliaries-frequently-asked-questions
Supervision: Direct when using the KaVo DIAGNOdent.
Summary: Board Regulation does not mention use of lasers. According to Mississippi State Board of Dental Examiners' Dental Auxiliaries Frequently Asked Questions, dental hygienists may use the KaVo DIAGNOdent under direct supervision. Dental hygienists are not allowed to use a laser to perform gingival curettage, perform sulcular debridement of periodontal pockets, remove facial hair, or to use soft tissue lasers to assist in the treatment of periodontal diseases and other soft tissue disorders.

https://www.dentalboard.ms.gov/frequently-asked-questions/dental-auxiliaries-frequently-asked-questions

Mississippi State Board of Dental Examiners
Dental Auxiliaries Frequently Asked Questions

Are dental hygienists allowed to perform gingival curettage with Biolase?
No. Licensed Mississippi dental hygienists are not allowed to perform gingival curettage with Biolase; however, licensed Mississippi dentists may use Biolase for gingival curettage. Refer to Miss. Code Ann. §73-9-3 and Board Regulation 13.

Are dental auxiliaries allowed to use the Kavo Diagnodent?
Yes. Licensed Mississippi dental hygienists and dental assistants may use the Kavo Diagnodent under the direct supervision of a licensed Mississippi dentist. Refer to Board Regulation 13.

Are dental auxiliaries allowed to perform sulcular debridement of periodontal pockets using a Diode dental laser? Also, are dental hygienists allowed to utilize lasers for bacteria reduction and/or reduction of pocket depths?
No. At its 02/24/2006 meeting, the Board determined that licensed Mississippi dental hygienists and dental assistants are not allowed to perform sulcular debridement of periodontal pockets using a Diode dental laser. Furthermore, at its 03/12/2010 meeting, the Board considered a request as to whether licensed Mississippi dental hygienists are allowed to use lasers for bacteria reduction and/or reduction of pocket depths. The Board noted this question had been addressed by its 02/24/2006 determination, wherein the Board opined that licensed Mississippi dental

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hygienists and dental assistants ARE NOT allowed to perform sulcular debridement of periodontal pockets using a Diode dental laser. Refer to Board Regulation 13.

Are dental auxiliaries allowed to remove facial hair with lasers in a dental office?
No. At its 06/16/2006 meeting, the Board determined that licensed Mississippi dental hygienists and dental assistants are not allowed to remove facial hair with lasers in a dental office. Refer to Board Regulation 13.

Are licensed Mississippi dental hygienists allowed to use soft tissue lasers to assist in the treatment of periodontal diseases and other soft tissue disorders?
No. At its 04/06/2007 meeting, the Board determined that licensed Mississippi dental hygienists are not allowed to use soft tissue lasers to assist in the treatment of periodontal diseases and other soft tissue disorders under the direct supervision of licensed Mississippi dentists. Refer to Board Regulation 13

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Missouri

Missouri Dental Board
3605 Missouri Boulevard
P.O. Box 1367
Jefferson City, MO 65102-1367
(573) 751-0040
Fax (573) 751-8216
TTY (800) 735-2966
Voice Relay (800) 735-2466
E-mail: dental@pr.mo.gov
URL: https://pr.mo.gov/dental.asp

Scope of Practice: Silent
Summary: The rules and statutes do not mention use of lasers.

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Montana

Montana Board of Dentistry
Mailing Address:
Board of Dentistry
PO Box 200513
Helena, MT 59620-0513

Physical Address:
Board of Dentistry
301 S. Park Avenue
4th Floor
Helena, MT 59620
(406) 444-6880
E-mail: dlibsdhelp@mt.gov
URL: http://boards.bsd.dli.mt.gov/den

Scope of Practice: Silent
Summary: The administrative rules do not mention use of lasers.

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Nebraska

Nebraska Department of Health and Human Services
Dentistry
Mailing Address:
Nebraska Department of Health & Human Services
P.O. Box 95026
Lincoln, NE 68509-5026

Physical Address:
301 Centennial Mall South
Lincoln, NE 68509
(402) 471-3121
TDD (800) 833-7352
URL: http://dhhs.ne.gov/licensure/Pages/Dentistry.aspx

Scope of Practice: Silent
Summary: Statutes and regulations do not mention use of lasers.

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Nevada

Nevada State Board of Dental Examiners
2651 N Green Valley Pkwy
Suite 104
Henderson, NV 89014
(702) 486-7044
(800) 337-3926
Fax (702) 486-7046
E-mail: nsbde@dental.nv.gov
URL: http://dental.nv.gov

Scope of Practice: **NAC 631.030, NAC 631.033, NAC 631.035, NAC 631.210**, https://www.leg.state.nv.us/nac/nac-631.html
and **Advisory Opinion AO-15-0619**, https://dental.nv.gov/uploadedFiles/dentalnvgov/content/Licensure/Resources/AO-15-0619%20-%20regarding%20clarification%20on%20the%20tpes%20of%20lasers%20to%20be%20utilized%20pursuant%20to%20NAC%20631.033%20and%20NAC%20631.035.pdf
Supervision: Supervision by a dentist
Summary: A dentist licensed in Nevada may authorize a dental hygienist in his or her employ and under his or her supervision to use a laser that has been cleared by the Food and Drug Administration to perform intrasulcular periodontal procedures or tooth whitening procedures if:
(1) The use of such a laser for those purposes is within the scope of the education, experience and training of the dental hygienist;
(2) Before operating the laser, the dental hygienist has provided proof to the supervising dentist that the dental hygienist has successfully completed a course in laser proficiency that:
(I) Is at least 6 hours in length; and
(II) Is based on the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by reference pursuant to NAC 631.035; and
(3) The supervising dentist has successfully completed a course in laser proficiency that:
(I) Is at least 6 hours in length; and
(II) Is based on the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by reference pursuant to NAC 631.035.

Through a June 19, 2015 Advisory Opinion 15-0619, the Board issued and opinion that lasers used for diagnostic purposes are exempt from NAC 631.033 and NAC 631.035 but are required to be cleared by the Food and Drug Administration.

https://www.leg.state.nv.us/nac/nac-631.html
Nevada Revised Administrative Code
Chapter 631 – Dentistry and Dental Hygiene
August 2019
September 23, 2019

NAC 631.030 Provision of certain information and documentation by applicant for licensure; provision of certain additional information for licensure by endorsement;

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requirements for use of laser radiation in practice. (NRS 622.530**,** 631.190**,** 631.220**,** 631.230**,** 631.255**,** 631.272**,** 631.274**,** 631.290**)**

3. An applicant for licensure who wishes to use laser radiation in his or her practice of dentistry or dental hygiene must provide to the Board:

(a) A statement certifying that each laser that will be used by the licensee in the practice of dentistry or dental hygiene has been cleared by the Food and Drug Administration for use in dentistry; and

(b) Proof that he or she has successfully completed a course in laser proficiency that:

(1) Is at least 6 hours in length; and

(2) Is based on the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by reference pursuant to NAC 631.035.

[Bd. of Dental Exam'rs, § III, eff. 7-21-82] — (NAC A 10-21-83; 12-15-87; 4-3-89; 9-6-96; R169-01, 4-5-2002; R139-05, 12-29-2005; R159-08, 4-23-2009; R143-17, 5-16-2018)

NAC 631.033 Use of laser radiation in practice: Documentation required with application for renewal of license. (NRS 631.190**,** 631.330**)** Each licensee who uses or wishes to use laser radiation in his or her practice of dentistry or dental hygiene must include with the application for renewal of his or her license:

1. A statement certifying that each laser used by the licensee in his or her practice of dentistry or dental hygiene has been cleared by the Food and Drug Administration for use in dentistry; and

2. Proof that he or she has successfully completed a course in laser proficiency that:

(a) Is at least 6 hours in length; and

(b) Is based on the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by reference pursuant to NAC 631.035.

(Added to NAC by Bd. of Dental Exam'rs by R139-05, eff. 12-29-2005)

NAC 631.035 Use of laser radiation in practice: Adoption by reference of *Curriculum Guidelines and Standards for Dental Laser Education*. (NRS 631.190**)**

1. The Board hereby adopts by reference the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by the Academy of Laser Dentistry. The *Curriculum Guidelines and Standards for Dental Laser Education* is available, free of charge, from the Academy of Laser Dentistry:

(a) By mail, at P.O. Box 8667, Coral Springs, Florida 33075;

(b) By telephone, at (954) 346-3776; or

(c) At the Internet address **http://www.laserdentistry.org/prof/edu_curriculumguidelines.cfm**.

2. The Board will periodically review the *Curriculum Guidelines and Standards for Dental Laser Education* and determine within 30 days after the review whether any change made to those guidelines and standards is appropriate for application in this State. If the Board does not disapprove a change to an adopted guideline or standard within 30 days after the review, the change is deemed to be approved by the Board.

(Added to NAC by Bd. of Dental Exam'rs by R139-05, eff. 12-29-2005)

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NAC 631.210 Dental hygienists: Authorization to perform certain services; referral of patient to authorizing dentist for certain purposes. (NRS 631.190, 631.310, 631.313, 631.317**)**

3. A dentist who is licensed in this State may authorize a dental hygienist in his or her employ and under his or her supervision to:

(e) Apply and activate agents for bleaching teeth with a light source.

(f) Use a laser that has been cleared by the Food and Drug Administration to perform intrasulcular periodontal procedures or tooth whitening procedures if:

(1) The use of such a laser for those purposes is within the scope of the education, experience and training of the dental hygienist;

(2) Before operating the laser, the dental hygienist has provided proof to the supervising dentist that the dental hygienist has successfully completed a course in laser proficiency that:

(I) Is at least 6 hours in length; and

(II) Is based on the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by reference pursuant to NAC 631.035; and

(3) The supervising dentist has successfully completed a course in laser proficiency that:

(I) Is at least 6 hours in length; and

(II) Is based on the *Curriculum Guidelines and Standards for Dental Laser Education*, adopted by reference pursuant to NAC 631.035.

[Bd. of Dental Exam'rs, § XXIII, eff. 7-21-82] — (NAC A 7-30-84; 4-3-89; 3-11-96; R154-97, 1-14-98; R217-99, 4-3-2000; R231-03, 5-25-2004; R139-05, 12-29-2005; R066-11, 2-15-2012; R119-15, 6-28-2016)

https://www.leg.state.nv.us/NRS/NRS-631.html

Nevada Revised Statute
Chapter 631
Dentistry, Dental Hygiene, Dental Therapy and Expanded Function Dental Assistance Licenses
6/29/24

NRS 631.215 Persons deemed to be practicing dentistry; regulations regarding clinical practice of dentistry.

1. Any person shall be deemed to be practicing dentistry who:

(k) Uses X-ray radiation or laser radiation for dental treatment or dental diagnostic purposes, unless the person is authorized by the regulations of the Board to engage in such activities without being a licensed dentist;

2. Nothing in this section:

(b) Prevents a dental hygienist or dental therapist from administering local anesthesia for pain management during treatment or using X-ray radiation or laser radiation for dental treatment or dental diagnostic purposes, upon authorization of a licensed dentist.

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https://dental.nv.gov/uploadedFiles/dentalnvgov/content/Licensure/Resources/AO-15-0619%20-%20regarding%20clarification%20on%20the%20tpes%20of%20lasers%20to%20be%20utilized%20pursuant%20to%20NAC%20631.033%20and%20NAC%20631.035.pdf

Nevada State Board of Dental Examiners
Advisory Opinion AO-15-0619
June 19, 2015

The motion was passed unanimously that the Board issue an opinion that lasers used for diagnostic purposes are exempt from NAC 631.033 and NAC 631.035 but are required to be cleared by the Food and Drug Administration.

https://dental.nv.gov/Licensure/Resources/BOARD_APPROVED_CERTIFICATION_PROGRAMS/COURSES/

Nevada State Board of Dental Examiners
Board Approved Certification Programs/Courses
Laser Certification Board Approved Programs/Courses

Board Approved Lasers Proficiency Courses (Dentists and Dental Hygienists): Please note: Online courses are **NOT** recognized for meeting laser proficiency requirement. Please verify with provider of **specific** laser course approved by the Nevada State Dental Board. Not all courses offered by a provider are recognized.
Note: Although the Board has approved the following laser courses for satisfying laser proficiency requirements, a course may contain additional instruction for laser services not permissible in Nevada. Prior to conducting use of the laser, Licensees are advised to refer to their regulations to verify intended laser service is within their scope of practice permissible in the State of Nevada. Note – Dental Hygienists: The supervising dentist must have also successfully completed a proficiency laser course recognized by the NSBDE:

- **21st Century Dentistry –** Laser Certification Training/Laser Practice Refinement (NSBDE Approval Course #14-041) – Instructor: Janet Press, RDH
- **Advanced Dental Institute** (formerly Advanced Dental CE) **–** Laser Education Curriculum (NSBDE Approval Course #17-024) - Instructor: Dr. Brad LaBrecque
- **Advanced Dental Hygiene –** Diode Laser Training & Certification (NSBDE Course #19-017) – Instructor(s): Joy Raskie, RDH; Linda A Hirce, RDH; Heather Gill, RDH, Janessa Bock, RDH
- **Advanced Integration and Mentoring** – Utilization of the 970nm Diode Laser & Laser Safety In Dentistry (NSBDE Approval Course #11-060) – Instructor(s):Dr. Scott Benjamin; Jan LeBeau, RDH
- **Advanced Laser Training** – Ultimate Laser Certification (LIVE) (NSBDE Approval Course #11-054) – Instructor: Dr. Chris Owens
- **Christopher J Walinksi, DDS** – Diode Laser Dental Training Course (NSBDE Approval Course #14-043) – Instructor: Dr. Chris Walinski
- **Dedicated Dental Hygiene** – Introduction to Laser (NSBDE Approval Course #19-016) – Instructor: Kristin Pristavec-Hunter, RDH, Jennifer Long, RDH, Maira Velasco RDH
- **Dental Laser Coaching** - A Comprehensive Dental Laser Technology Overview with Clinical Keys to Optimize Laser Utilization Safely and Effectively (NSBDE Approval

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Course #21-011) – Instructors: Nick R Clausen, MBA (instruction of didactic section only) and William P Leavitt, DDS (instruction of didactic and hands-on component)

- **Implant Direct International –** Laser Surgery: A Quantum Leap Forward (NSBDE Approval Course #14-003) – Instructors: Dr. Blair Losee & Mary Smith, RDH
- **Institute for Advanced Laser Dentistry –** Laser Education Curriculum (NSBDE Approval Course #11-053) – Instructors: Dr. Delwin McCarthy/Patrick McCormick
- **Institute for Advanced Laser Dentistry** – IALD Standard Proficiency Course for Hygienists, Dentists, and Dental Office Staff on the PerioLase MVP (NSBDE Approval Course #19-015) – Instructor: Dr. Christopher Owens ***Only for Dentists/Hygienists*
- **Michael Koceja, DDS -** Incorporating the Diode Laser Into Your Practice (NSBDE Approval Course #14-021) – Instructor: Dr. Michael Koceja
- **Nevada Dental Association** - (approved 3/22/2012) Biolase University: EZLase Training Program – Instructor: Dr. William Chen
- **Nevada Dental Hygienists Association** – Laser Certification Course (NSBDE Approval Course #11-055) – Instructor: Dr. Michael Koceja
- **Northern Nevada Dental Society -** Laser Dentistry: Standard Course for Laser Proficiency & Certification (NSBDE Approval Course #14-040) – Instructor: Dr. William Leavitt
- **PDS University -** Lasers For Dentistry (NSBDE Approval Course #19-012) – Instructors: Charles Rodgers, DDS; Barbara Krueger; Jenelle J Paulo, RDH; Joy Rathnam, RDH; Jennifer Tumlinson, RDH, Summer M Lamoureaux RDH
- **Productive Laser Hygiene Services, Inc –** Standard Laser Proficiency (NSBDE Approval Course #17-025) - Instructor: Cindy Basile, RDH
- **UNLV-SODM -** (approved 8/12/2011) An Introduction to All Tissue Laser Assisted Dentistry with Erbium YAG Laser – Instructor: Dr. William Leavitt

Laser courses offered by instructors currently certified by the Academy of Laser Dentistry (ALD) to instruct a laser course for proficiency may also be accepted. You can visit the ALD's website to access their current list of laser instructors.

****In addition to the above listed providers, laser courses offered by instructors currently certified by the Academy of Laser Dentistry to teach laser instruction may also be accepted. You can visit their website to access their current list of laser instructors.****

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New Hampshire

New Hampshire Office of Professional Licensure and Certification
Board of Dental Examiners
7 Eagle Square
Concord, NH 03301
(603) 271-2152
E-mail: OPLCLicensing11@oplc.nh.gov
URL: https://www.oplc.nh.gov/board-dental-examiners

Scope of Practice: Silent
Summary: The statutes and rules do not mention use of lasers.

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New Jersey

New Jersey Division of Consumer Affairs
New Jersey State Board of Dentistry
P.O. Box 45005
Newark, NJ 07101
(973) 504-6405
E-mail: Dentistry@dca.njoag.gov
URL: https://www.njconsumeraffairs.gov/den/

Scope of Practice: Prohibitive language **§13:30-1A.3 & 13:30-1A.4**,
https://www.njconsumeraffairs.gov/regulations/Chapter-30-New-Jersey-Board-of-Dentistry.pdf
Summary: The administrative code includes several prohibitive clauses:

- For caries detection instruments: "Such instruments shall not include lasers that are capable of altering, cutting, burning, or damaging hard or soft tissue"
- For curing light: "Such curing light shall not include a laser capable of altering, cutting, burning, or damaging hard or soft tissue"
- For placement and removal of retraction cords and medicated pellets: "This shall not include the use of lasers for tissue retraction"

https://www.njconsumeraffairs.gov/regulations/Chapter-30-New-Jersey-Board-of-Dentistry.pdf

New Jersey Administrative Code
Title 13
Law and Public Safety
Chapter 30
New Jersey Board of Dentistry
9/3/24

13:30-1A.3 Scope of Practice of Licensed Dental Hygienist Under Direct Supervision

a) A licensed dental hygienist practicing under the direct supervision of a licensed dentist may:

1) Perform a complete prophylaxis including the removal of all hard and soft deposits from all surfaces of human natural and restored teeth to the epithelial attachments and the polishing of natural and restored teeth;

2) Perform root planing;

3) Provide prophylactic and preventive measures such as the application of fluorides and pit and fissure sealants and other recognized topical agents for the prevention of oral disease or discomfort;

20) Assess whether there is carious activity by the use of detecting agents and carious detection instruments. Such instruments shall not include lasers that are capable of altering, cutting, burning, or damaging hard or soft tissue;

22) Use a curing light for any dental procedure. Such curing light shall not include a laser capable of altering, cutting, burning, or damaging hard or soft tissue or electrosurgery for tissue retraction;

31) Place and remove retraction cords and medicated pellets. This shall not include electrosurgery or the use of lasers for tissue retraction;

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13:30-1A.4 Scope of Practice of Licensed Dental Hygienist Under General Supervision

a) Dental office or dental clinic. A licensed dental hygienist practicing under the general supervision of a licensed dentist in a dental office or a dental clinic may:

1) Perform a complete prophylaxis including the removal of all hard and soft deposits from all surfaces of human natural and restored teeth to the epithelial attachments and the polishing of natural and restored teeth;

2) Perform root planing;

3) Provide prophylactic and preventive measures such as the application of fluorides and pit and fissure sealants and other recognized topical agents for the prevention of oral disease or discomfort;

20) Assess whether there is carious activity by the use of detecting agents and carious detection instruments. Such instruments shall not include lasers that are capable of altering, cutting, burning, or damaging hard or soft tissue;

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New Mexico

New Mexico Regulation and Licensing Department
New Mexico Board of Dental Health Care
Toney Anaya Building
2550 Cerrillos Road, Second Floor
Santa Fe, NM 87505
(505) 476-4622
Fax (505) 476-4545
E-mail: Dental.Board@rld.nm.gov
Help Desk: rld.dentalhelpdesk@rld.nm.gov
URL: https://www.rld.nm.gov/boards-and-commissions/individual-boards-and-commissions/dental-health-care/

Mailing Address:
New Mexico Board of Dental Health Care
PO Box 25101
Santa Fe, NM 87504

Scope of Practice: **§16.5.29.12**, https://www.srca.nm.gov/wp-content/uploads/attachments/16.005.0029.pdf
Supervision: Indirect
Summary: Dental hygienists may use lasers for therapeutic use including soft tissue curettage, sulcular debridement, and tissue disinfection in periodontal therapy. Requirements include using lasers approved by the FDA, successfully complete an educational program that is a minimum of 6 hours with hands-on clinical simulation training, and post certificate of successful course completion in dental facility.

https://www.srca.nm.gov/wp-content/uploads/attachments/16.005.0029.pdf
State of New Mexico
Board of Dental Health Care Practice
Rules and Regulations
Title 16 Occupational and Professional Licensing
Chapter 5 Dentistry (Dentists, Dental Hygienists, etc.)
Part 29 Dental Hygienists, Practice
1/4/14

16.5.29.7 Definitions:
C. "Laser" means light amplification by stimulated emission of radiation used for the therapeutic treatment of the head and neck or oral cavity.

16.5.29.12 Therapeutic Use of Lasers: The board does not issue permits for the use of lasers by hygienists in soft tissue curettage, sulcular debridement and tissue disinfection in periodontal therapy. Due to the rising utilization of lasers by dental hygienists, the committee and board sets forth the following requirements:

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A. a New Mexico licensed dental hygienist may use laser devices that are approved by the U.S. food and drug administration under the indirect supervision of a New Mexico licensed dentist;
B. the hygienist must successfully complete an educational progaram [*sic*] on laser use that is a minimum of 6 hours and includes hand-on clinical simulation training; the course shall comply with current gudelines [*sic*] as outlined in 16.5.1.15 NMAC for continuing education;
C. a certificate of sucessful [*sic*] course completion from the dental laser training entity shall be posted in a conspicious [*sic*] location within the dental facility;
D. all promotion or advertising of dental laser treatment shall comply with current requirements as outlined in Subsection B of 16.5.30.10.NMAC, identifying the "supervising dentist" as responsible for the provision of or the supervision of the laser procedure;
E. dental laser treatment shall not be designated to a dental assistant.
[16.5.29.12 NMAC - N, 01/04/14]

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New York

New York State Education Department
Office of the Professions
Dentists
(518) 474-3817, press 1, then ext. 550
Fax (518) 473-0567
E-mail: dentbd@nysed.gov
URL: https://www.op.nysed.gov/dentists

Scope of Practice: Silent
Summary: The laws and regulations do not mention use of lasers.

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North Carolina

North Carolina State Board of Dental Examiners
2000 Perimeter Park Dr.
Suite 160
Morrisville, NC 27560
(919) 678-8223
Fax (919) 678-8472
Email: info@ncdentalboard.org
URL: http://www.ncdentalboard.org

Scope of Practice: **21 NCAC 16G .0101**, http://reports.oah.state.nc.us/ncac/title%2021%20-%20occupational%20licensing%20boards%20and%20commissions/chapter%2016%20-%20dental%20examiners/subchapter%20g/21%20ncac%2016g%20.0101.pdf
and **21 NCAC 16G .0103**, http://reports.oah.state.nc.us/ncac/title%2021%20-%20occupational%20licensing%20boards%20and%20commissions/chapter%2016%20-%20dental%20examiners/subchapter%20g/21%20ncac%2016g%20.0103.pdf
Supervision: Control and supervision of a dentist
Summary: Dental hygienists may use laser fluorescence detectors in preparation for the dentist's examination and diagnosis of cavities
Dental hygienists are prohibited from performing surgical or cutting procedures on hard or soft tissues, including laser procedures

http://reports.oah.state.nc.us/ncac/title%2021%20-%20occupational%20licensing%20boards%20and%20commissions/chapter%2016%20-%20dental%20examiners/subchapter%20g/21%20ncac%2016g%20.0101.pdf

North Carolina Administrative Code
Title 21 – Occupational Licensing Boards and Commissions
Chapter 16 – Dental Examiners
Subchapter 16G – Dental Hygienists
Section .0100 - Functions That May Be Delegated
April 1, 2018

NCAC 16G .0101 Functions That May Be Delegated
A dental hygienist may be delegated functions to be performed under the control and supervision of a dentist who shall be responsible for any and all consequences or results arising from performance of such acts and functions. In addition to the functions set out in G.S. 90-221(a) and 21 NCAC 16H .0203, functions that may be delegated to a dental hygienist provided that the dentist first examined the patient and prescribed the procedure include:

(9) using laser fluorescence detectors in preparation for the dentist's examination and diagnosis of cavities;

History Note: Authority G.S. 90-41; 90-221; 90-223(b); 90-233; Eff. September 3, 1976; Readopted Eff. September 26, 1977; Amended Eff. April 1, 2017; August 1, 2016; April 1, 2015; August 1, 2008; August 1, 2000; May 1, 1989; October 1, 1985; March 1, 1985; Pursuant to G.S.

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150B-21.3A, rule is necessary without substantive public interest Eff. January 9, 2018; Amended Eff. April 1, 2018.

http://reports.oah.state.nc.us/ncac/title%2021%20-%20occupational%20licensing%20boards%20and%20commissions/chapter%2016%20-%20dental%20examiners/subchapter%20g/21%20ncac%2016g%20.0103.pdf

North Carolina Administrative Code
Title 21 – Occupational Licensing Boards and Commissions
Chapter 16 – Dental Examiners
Subchapter 16G – Dental Hygienists
Section .0100 - Functions That May Be Delegated
July 1, 2022

21 NCAC 16G .0103 Procedures Prohibited
Those procedures that require the professional education and skill of a dentist and shall not be delegated to a dental hygienist include:
(2) performing surgical or cutting procedures on hard or soft tissues, including laser, air abrasion, or micro-abrasion procedures;

History Note: Authority G.S. 90-221(a); 90-223(b); Eff. September 3, 1976; Readopted Eff. September 26, 1977; Amended Eff. August 1, 2016; August 1, 2008; August 1, 2000; May 1, 1989; March 1, 1985; Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. January 9, 2018; Amended Eff. July 1, 2022; September 1, 2020; April 1, 2018.

https://www.ncdentalboard.org/PDF/October%202019%20Minutes.pdf

Minutes
NC State Board of Dental Examiners
Board Meeting
Morrisville, North Carolina
October 10-11, 2019

VIII. New Business
E. Light Therapy [Item #6] Ms. Goode
The Board received an inquiry asking if a dental assistant is permitted to perform low-level light therapy with a laser extra-orally to the TMJ. The Board requested that staff obtain more information about the procedure before responding.

F. Laser technology [Item #7] Ms. Goode
The Board received an inquiry asking if a dental hygienist may utilize a laser for bacterial decontamination. Following a discussion, it was determined that under the current rules, laser use is not permitted by dental hygienists in North Carolina.

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North Dakota

North Dakota Board of Dental Examiners
PO Box 7246
Bismarck, ND 58507
(701) 258-8600
E-mail: info@nddentalboard.org
URL: https://www.nddentalboard.org

Scope of Practice: **Board Position**, https://www.nddentalboard.org/laws-and-rules/index.asp#laser
Supervision: General
Summary: It is the position of the Board that any services provided by a licensee, regardless of the device used, must be within the scope of practice for each licensee. Whenever a new treatment modality is brought forward, it is the Board's policy that the dentist must have equal or greater proficiency and training in the technology. Neither the particular technology utilized nor amendments to scope of practice alter the fact that all licensees are responsible for their individual actions with the dentist ultimately responsible for all care provided in each dental office.

https://www.nddentalboard.org/practitioners/hygienist/index.asp#Lasers
North Dakota Board of Dental Examiners
Practitioners
Hygienist
Hygienist Overview
Laser Technology

Lasers
The use of lasers continues to be a popular treatment modality in dentistry. It is the position of the Board that any services provided by a licensee, regardless of the device used, must be within the scope of practice for each licensee. Whenever a new treatment modality is brought forward, it is the Board's policy that the dentist must have equal or greater proficiency and training in the technology. Neither the particular technology utilized nor amendments to scope of practice alter the fact that all licensees are responsible for their individual actions with the dentist ultimately responsible for all care provided in each dental office. Contact the Board office if you have questions about the regulations governing the practice of dental hygiene in North Dakota. A permit is not required.

https://www.nddentalboard.org/laws-and-rules/index.asp#laser
North Dakota Board of Dental Examiners
Laws and Rules
Substantiated Policies

Laser Technology
It is the position of the Board that any services provided by a licensee, regardless of the devise used, must be within the scope of practice for each licensee. Whenever a new treatment modality

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is brought forward, it is the Board's policy that the dentist must have equal or greater proficiency and training in the technology. Licensees utilizing the new technology must maintain documentation of the satisfactory completion of the formal continuing education or training. The particular technology utilized does not alter the fact that the dentist is ultimately responsible.

https://ndlegis.gov/information/acdata/pdf/20-04-01.pdf

North Dakota Administrative Code
Article 20-04
Dental Hygienists
October 1, 2024

Chapter 20-04-01-01. Duties

6. A dental hygienist may perform the following services under the general supervision of a dentist:

a. Complete prophylaxis to include removal of accumulated matter, deposits, accretions, or stains from the natural and restored surfaces of exposed teeth. The dental hygienist also may perform root planing and soft tissue curettage upon direct order of the dentist.

North Dakota Administrative Code
Article 20-04
Dental Hygienists
July 1, 2022

20-04-01-02. Prohibited services.

A dental hygienist may not perform the following services:

1. Diagnosis and treatment planning.
2. Surgery on hard or soft tissue.

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Northern Mariana Islands

Commonwealth of the Northern Mariana Islands
CNMI Board of Professional Licensing / Health Care Professions Licensing Board
Physical Address:
Board of Professional Licensing
Health Care Professions Licensing Board
Building #1242, Pohnpei Court
Capitol Hill, Saipan, MP 96950

Mailing Address:
Board of Professional Licensing/
Health Care Professions Licensing Board
P.O. Box 502078
Saipan, MP 96950

(670) 644-4808/4809
Fax: (670) 664-4814
E-mail: info@cnmilicensing.gov.mp
URL: https://www.cnmilicensing.gov.mp/health-care-professions-licensing-board/

Scope of Practice: **§ 185-10-2635**, https://www.cnmilicensing.gov.mp/wp-content/uploads/2022/04/Part-2600-Dentists-Dental-Assistants-Dental-Hygienists-and-Dental-Therapists.pdf
Supervision: Supervision of a dentist
Summary: Dental hygienists may perform root planing and scaling and periodontal soft tissue curettage with the use of soft tissue lasers

https://www.cnmilicensing.gov.mp/wp-content/uploads/2022/04/Part-2600-Dentists-Dental-Assistants-Dental-Hygienists-and-Dental-Therapists.pdf

Title 185: Commonwealth Health Care Professions
Licensing Board
Subchapter 185-10
Commonwealth Health Care Professions
Licensing Board Regulations
Part 2600 Dentists, Dental Assistants, Dental Hygienists and Dental Therapists
October 28, 2020

§ 185-10-2635 Dental Assistant – Scope of Practice
(a) A CNMI-licensed dental hygienist may:
(1) Educate, demonstrate, and instruct the public on achieving better oral and systemic health;
(2) Examine visually and by the use of instruments, such as an explorer and a periodontal probe or other means, the teeth and the tissues surrounding the teeth;
(3) Examine visually and by palpation the head and neck region for any lesions or abnormalities;

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(4) Remove calcareous deposits, accretions, and stains from the surfaces of the teeth with the use of hand instruments or ultrasonic instrumentation;

(5) Perform root planing and scaling and periodontal soft tissue curettage with the use of hand instruments, ultrasonic instruments, or soft tissue lasers;

(b) A CNMI-licensed dental hygienist may not:

(1) Deliver dental hygiene services independent of a CNMI-licensed dentist, except for educational and preventative oral health services provided by dental hygienists employed by the Commonwealth Healthcare Corporation which are rendered pursuant to the Public Health's Oral Health Program for children, within the scope of these regulations;

(2) Diagnose, treatment-plan, or write prescriptions for medications, except under the direct order and supervision of a CNMI-licensed dentist;

(3) Cut or incise hard or soft tissues; and

(4) Perform other procedures that require the professional competence and skill of a dentist.

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Ohio

Ohio State Dental Board
77 S High Street
17th Floor
Columbus, OH 43215-6135
(614) 466-2580
Fax (614) 752-8995
Contact form: https://dental.ohio.gov/help-center/contact-us
E-mail: dental.board@den.ohi.gov
URL: https://dental.ohio.gov

Scope of Practice: **4715-11-06**, https://codes.ohio.gov/assets/laws/administrative-code/authenticated/4715/0/11/4715-11-06_20160912.pdf
Summary: Dental hygienists are not allowed to use lasers except for caries susceptibility testing devices.

https://codes.ohio.gov/assets/laws/administrative-code/authenticated/4715/0/3/4715-3-01_20240401.pdf
Ohio Administrative Code
Chapter 4715-3
Rule 4715-3-01 Definitions
April 1, 2024

Definition of terms are listed by category.
(Q) Tasks and/or procedures categories
(4) "Surgery" means any procedure that involves cutting or otherwise infiltrating hard or soft human tissue, including but not limited to gingivae, bone and tooth structure, by mechanical means, including, laser surgery, therapeutic ionizing radiation, and therapeutic ultrasound.

https://codes.ohio.gov/assets/laws/administrative-code/authenticated/4715/0/9/4715-9-01_20160912.pdf
Ohio Administrative Code
Chapter 4715
Dental Hygienists
Rule 4715-9-01 Permissible practices of a dental hygienist.
September 12, 2016

Rule 4715-9-01 | Permissible practices of a dental hygienist.
(B) The dental hygienist may perform the following tasks and/or procedures which may be delegated only to a licensed dental hygienist under the supervision of a licensed dentist:
(1) Removal of calcareous deposits or accretions from the crowns and roots of teeth.
(2) Periodontal scaling, root planning, and soft tissue curettage.
(3) Sulcular placement of prescribed materials.
(4) Bleaching of teeth (excluding procedures that utilize light amplification by stimulated emission of radiation (LASER) technologies).

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https://codes.ohio.gov/assets/laws/administrative-code/authenticated/4715/0/11/4715-11-06_20160912.pdf

Ohio Administrative Code
Chapter 4715-11 Qualified Personnel
Rule 4715-11-06 Non.-delegable dental tasks and/or procedures
September 12, 2016

The following dental tasks and/or procedures shall not be delegated by any licensed dentists:

(K) Procedures utilizing light amplification by stimulated emission of radiation (LASER) technologies (excluding caries susceptibility testing devices).

https://codes.ohio.gov/ohio-administrative-code/chapter-4715-22

Ohio Administrative Code
Chapter 4715-22 Volunteer's Certificate
Rule 4715-22-01 Volunteer's certificate issued to retired dentist or dental hygienist to provide free services to indigent and uninsured persons; immunity.
November 25, 2019

(A) Terms

(4) As used in this rule, "operation" means any procedure that involves cutting or otherwise infiltrating human tissue by mechanical means, including surgery, laser surgery, ionizing radiation, therapeutic ultrasound, or the removal of intraocular foreign bodies. "Operation" does not include the administration of medication by injection, unless the injection is administered in conjunction with a procedure infiltrating human tissue by mechanical means other than the administration of medicine by injection. "Operation" does not include routine dental restorative procedures, the scaling of teeth, or extractions of teeth that are not impacted.

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Oklahoma

Oklahoma State Board of Dentistry
2920 N Lincoln Blvd.
Suite B
Oklahoma City, OK 73105
(405) 522-4844
Fax (405) 522-4614
URL: https://www.ok.gov/dentistry/

Scope of Practice: **195:15-1-6.1,**
https://oklahoma.gov/content/dam/ok/en/dentistry/documents/statutes-rules/9.11.23%20-%20TitleNumber195.pdf,
and **Section 328.21,** https://oklahoma.gov/content/dam/ok/en/dentistry/documents/statutes-rules/Oklahoma%20Statutes%2011-1-2024.pdf
Supervision: Direct/Indirect
Summary: Dental hygienists may apply for an Advanced Procedure permit for the therapeutic use of lasers under the direct/indirect supervision of a dentist. A hygienist with an advanced procedure permit to use a laser may be used, but limited to soft tissue decontamination, sulcular bacterial reduction, tissue disinfection. A laser may not be used for the intentional cutting of hard or soft tissue.

https://oklahoma.gov/content/dam/ok/en/dentistry/documents/statutes-rules/9.11.23%20-%20TitleNumber195.pdf

Title 195. Board of Dentistry
Chapter 15. Duties for Dental Assistants and the Rules Regulating the Practice of Dental Hygiene
9-11-23

195:15-1-6.1. Advanced procedures for dental hygienists
(a) It is the determination of the Board that certain procedures may be performed by a dental hygienist who has satisfactorily completed a course of study regarding the performance of such procedures. Pursuant to59 O.S., Section 328.34, the Board hereby establishes six (6) advanced procedures for dental hygienists with, requirements, and course guidelines as follows:
(b) Each training program for an advanced procedure for hygienists must meet the same requirements as listed in 195:15-1-4(a) through (g).
(c) An application by a dental hygienist for authorization to perform an advanced procedure shall be made on a form prescribed by the Board.
(d) Advanced procedures permitted for dental hygienists who graduate from accredited dental hygiene programs in Oklahoma which provide Board approved instruction, will automatically be authorized after licensure.

(4) **Therapeutic use of lasers.**

(A) A hygienist may apply for an Advanced Procedure permit for the therapeutic use of lasers under the direct/indirect supervision of a dentist.

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(B) Definition: A hygienist with an advanced procedure permit to use a laser may be used, but limited to soft tissue decontamination, sulcular bacterial reduction, tissue disinfection.

(C) Requirements:

(i) The hygienist must successfully complete an educational program as approved by the Board on laser use that is a minimum of 8 hours and includes both didactic and live, in-person clinical simulation training;

(ii) A certificate of successful course completion from the dental laser training entity shall be submitted to the Board of Dentistry.

(I) A hygienist may use the laser within the scope of hygiene practice;

(II) A laser may not be used for the intentional cutting of hard or soft tissue;

(III) All lasers must be used in accordance with accepted safety guidelines and approved by the United States Federal Drug Administration for use in dentistry.

(IV) When utilizing a laser pursuant to this Rule, at a minimum, the type of laser, settings used and details of procedures performed, must be documented in the patient's record.

https://oklahoma.gov/content/dam/ok/en/dentistry/documents/statutes-rules/Oklahoma%20Statutes%2011-1-2024.pdf

Oklahoma Statutes
Title 59 Professions and Occupations
Chapter 7 Dentistry
November 1, 2024

Section 328.21 - Registration and Display of Licenses and Certificates

I. 1. There shall be seven types of advanced procedures available for dental hygienists upon completion of a Commission on Dental Accreditation (CODA) approved program, course, or certification program that has been approved by the Board:

d. therapeutic use of lasers,

2. A dental hygienist holding an advanced procedure permit or credential in any other state for two (2) years shall be eligible for the advanced procedure permit by credentials; provided, that application for the advanced procedure permit by credentials for administration of local anesthesia shall additionally require proof of passage of such advanced procedure in a CDCA-WREB-CITA exam.

3. For all advanced procedures other than administration of local anesthesia, a dental hygienist may apply by filling out an application with required documentation of training as required by state law and rules of the Board. A dental hygienist licensed by the Board prior to January 30, 2024, shall be eligible for the advanced procedure of therapeutic use of lasers upon submission of an affidavit attesting to two (2) years of practice using lasers.

Section 328.34 - Dental Hygienists - Scope of Practice

B. 3. Except as provided in subsections C and D of this section, the procedures specified in paragraph 1 of this subsection may be performed by a dental hygienist only on a patient of record

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and only under the supervision of a dentist. The advanced procedures of administration of nitrous oxide, administration of local anesthesia, neuromodulator administration, therapeutic use of lasers, and phlebotomy and venipuncture shall be performed only under the direct or indirect supervision of a dentist. The level of supervision, whether direct, indirect, or general, for the advanced procedure of elder care and public health pursuant to Section 7 of this act shall be at the discretion of the supervisory dentist. Authorization for general supervision shall be limited to a maximum of thirteen (13) months following an examination by the supervisory dentist of a patient of record.

E. The Board is authorized to prescribe, by rule, the educational requirements for advanced procedures that may be performed by a dental hygienist upon receipt of the advanced procedures designated on his or her license. The advanced procedures shall include the administration of local anesthesia, the administration of nitrous oxide analgesia, neuromodulator administration, therapeutic use of lasers, phlebotomy and venipuncture, and elder care and public health pursuant to Section 7 of this act.

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Oregon

Oregon Board of Dentistry
1500 SW 1st Avenue
Suite 770
Portland, OR 97201
(971) 673-3200
Fax (971) 673-3202
E-mail: Information@obd.oregon.gov
URL: https://www.oregon.gov/dentistry/Pages/index.aspx

Scope of Practice: Silent
Summary: The administrative rules do not mention use of lasers.

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Pennsylvania

Pennsylvania State Board of Dentistry
Mailing Address:
P.O. Box 2649
Harrisburg, PA 17105-2649

Physical Address:
2525 N 7th Street
Harrisburg, PA 17110
(833) DOS-BPOA
(833) 367-2762
e-Mail: St-DENTISTRY@pa.gov
URL: https://www.pa.gov/agencies/dos/department-and-offices/bpoa/boards-commissions/dentistry.html

Scope of Practice: Silent
Summary: The laws and regulations do not mention use of lasers by dental hygienists.

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Puerto Rico

Profesionales y Sistema de Salud
Junta Examinadora Dental
Professionals and the Health System
Dental Examination Board
Departmento de Salud PR
Centro Médico Norte
Calle Periferial Interior
Bo. Monacillos Río Piedras, PR
(787) 765-2929
E-mail: contactus@salud.pr.gov
URL: https://www.salud.pr.gov/

Scope of Practice: Silent
Summary: The laws and regulations do not mention use of lasers.

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Rhode Island

State of Rhode Island
Department of Health
Board of Dentistry
Rhode Island Board of Examiners in Dentistry
3 Capitol Hill
Room 104
Providence, RI 02908-5097
(401) 222-2828
(401) 222-5960
Fax (401) 222-1272
URL: https://health.ri.gov/licenses/detail.php?id=251

Scope of Practice: Silent
Summary: The laws and regulations do not mention use of lasers.

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South Carolina

South Carolina Board of Dentistry
110 Centerview Dr
Columbia, SC 29210
(803) 896-4599
Fax (803) 896-4719
E-mail: Contact.Dentistry@llr.sc.gov
URL: https://llr.sc.gov/bod/

Scope of Practice: **§39-9**, https://www.scstatehouse.gov/coderegs/Chapter%2039.pdf
and Board Policy, https://llr.sc.gov/bod/PDF/Policy/LaserPolicy.pdf
Supervision: Direct
Summary: A dental hygienist may only use a laser under the direct supervision of a dentist, and the hygienist's use of the laser must be limited to pocket disinfection at settings that preclude hard and soft tissue removal, except for incidental gingival curettage. Dental hygienists are not authorized to use lasers in performing bleaching of teeth procedures.

Prior to utilizing a laser, a dental hygienist must first successfully complete training that covers, at a minimum, laser physics, safety, and appropriate use of the laser. A licensee must also complete an interactive training that addresses operation of the specific laser(s) utilized in the practice. The initial training must include a minimum of 12 hours of instruction.

https://www.scstatehouse.gov/coderegs/Chapter%2039.pdf
South Carolina Code of Regulations
Chapter 39
Department of Labor, Licensing and Regulation – State Board of Dentistry
May 28, 2021

39–9. Use of Lasers in a Dental Setting.
A. The requirements contained herein do not apply to the use of non-adjustable laser units used for the purposes of diagnosis and curing.
B. Only a dentist may employ a laser capable of the removal of hard and/or soft tissue in the treatment of a dental patient.
C. A dental hygienist may only use a laser under the direct supervision of a dentist, and the hygienist's use of the laser must be limited to pocket disinfection at settings that preclude hard and soft tissue removal, except for incidental gingival curettage.
D. Use of a laser:
(1) Prior to utilizing a laser, a licensee must first successfully complete training that covers, at a minimum, laser physics, safety, and appropriate use of the laser. A licensee must also complete an interactive training that addresses operation of the specific laser(s) utilized in the practice. The initial training must include a minimum of 12 hours of instruction and must be obtained through a course provided or recognized by any of the following organizations (or a successor organization):
(a) The Commission on Dental Accreditation (CODA);

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(b) The American Dental Association (ADA) Continuing Education Recognition Program (CERP);

(c) The Academy of General Dentistry (AGD) Program Approval for Continuing Education (PACE); or

(d) The American Medical Association (AMA).

A dental licensee who has more than three (3) years of experience using lasers is exempt from the training requirements set forth in Reg. 39–9 provided that the three (3) years of experience is obtained prior to January 1, 2021.

(2) A licensee utilizing a laser, other than what is described in Section A, must maintain evidence of training as required herein and submit such evidence to the Board upon request.

(3) All lasers must be used in accordance with accepted safety guidelines

E. When utilizing a laser pursuant to this Section, the licensee must document the following information, at a minimum, in the patient's record:

(1) the type of laser utilized, to include the wavelength of the laser;

(2) the settings used, such as pulse or continuous wave, and the power setting;

(3) local anesthesia used, if any; and

(4) the procedure attempted/performed, including details as to whether hard or soft tissue was removed.

HISTORY: Added by SCSR 45–5 Doc. No. 4985, eff May 28, 2021

https://llr.sc.gov/bod/PDF/Policy/LaserPolicy.pdf

South Carolina Board of Dentistry
Policy
Laser
June 24, 2001

Pursuant to S.C. Code Ann. Section 40-15-80 and Regs. 39-12; 39-13 and 39-14

Dental Hygienists and Dental Assistants are not authorized to use lasers in performing bleaching of teeth procedures; they may, however, perform the isolation and clean-up procedures.

Approved by the Board: June 24, 2001

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South Dakota

South Dakota State Board of Dentistry
PO Box 1079
1351 North Harrison Avenue
Pierre, SD 57501-1079
(605) 224-1282
Fax (888) 435-3032
E-mail: https://www.sdboardofdentistry.org/contact/
URL: https://www.sdboardofdentistry.org

Scope of Practice: Silent
Summary: The statutes and administrative rules do not mention use of lasers.

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Tennessee

Tennessee Department of Health
Board of Dentistry
665 Mainstream Drive
Nashville, TN 37243
615-532-5073 local or 1-800-778-4123 nationwide
E-mail: dental.health@tn.gov
URL: https://www.tn.gov/content/tn/health/health-program-areas/health-professional-boards/dentistry-board.html

Scope of Practice: §0460-03-.09, https://publications.tnsosfiles.com/rules/0460/0460-03.20210718.pdf
and **Board Policy Statement**,
https://www.tn.gov/content/dam/tn/health/documents/DEN_Policy-Lasers.pdf
Supervision: Supervision of a dentist
Summary: Dental hygienists may use lasers for examination and/or for periodontal treatment. Additionally, dental hygienists may use lasers for debridement and bacterial reduction after completion of a didactic and hands-on training course.

https://publications.tnsosfiles.com/rules/0460/0460-03.20210718.pdf
Rules of the Tennessee Board of Dentistry
Chapter 0460-03
Rules Governing the Practice of Dental Hygienists
January 20, 2011

0460-03-.09 Scope of Practice. Licensed Dental Hygienists may only practice under direct and/or general supervision in the employment of a licensed dentist consistent with the provisions of T.C.A. Title 63, Chapter 5.
(1) Delegable or Assignable Procedures - In addition to those duties of the licensed dental hygienist which are commonly recognizable by the dental profession for safe performance, pursuant to T.C.A. § 63-5-108 a licensed dental hygienist may perform the following duties which are assigned or delegated to the licensed dental hygienist by the employer dentist:

(a) The removal of all hard and soft deposits and stains from the human teeth to the depth of the gingival sulcus, polishing natural and restored surfaces of teeth, performing clinical examination of teeth and surrounding tissues for diagnosis by the dentist, and performing other such procedures as may be delegated by the dentist consistent with the provisions of T.C.A. Chapter 5, Title 63.

(b) Prophylaxis.

(ww) The use of lasers for examination and/or for periodontal treatment under the supervision of a Tennessee licensed dentist.

(7) Prohibited Procedures - In addition to the duties defined as the practice of dentistry by T.C.A. § 63-5-108, licensed dental hygienists are not permitted to perform the following:

(a) Comprehensive examination, diagnosis and treatment planning;

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(b) Surgical or cutting procedures on hard or soft tissue, including laser, air abrasion or micro-abrasion procedures, except curettage or root planing;

Authority: *T.C.A. §§ 4-5-202, 4-5-204, 63-5-105, 63-5-107, 63-5-108, 63-5-115, 63-5-116, and 63-5-124.* ***Administrative History:*** *Original rule filed December 11, 1991; effective January 25, 1992. Amendment filed May 15, 1996; effective September 27, 1996. Amendment filed September 17, 2003; effective December 1, 2003. Amendments filed August 3, 2005; effective October 17, 2005. Amendments filed October 12, 2007; effective December 26, 2007. Amendment filed September 25, 2008; effective December 9, 2008. Amendments filed October 22, 2010; effective January 20, 2011.*

https://www.tn.gov/content/dam/tn/health/documents/DEN_Policy-Lasers.pdf

Tennessee Board of Dentistry
Policy Statement on Use of Lasers for Debridement and Bacterial Reduction by Dental Hygienists
June 20, 2014

The position of the Tennessee Board of Dentistry is that the use of lasers for debridement and bacterial reduction by licensed dental hygienists is permitted after successful completion of a course which should include didactic and hands-on training.

Adopted by the Board of Dentistry on September 9, 2011.

Amended by the Board of Dentistry on June 20, 2014.

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Texas

Texas State Board of Dental Examiners
1801 Congress Ave., Suite 8.600
Austin, TX 78701
(737) 363-2320
(512) 463-6400
Fax (512) 649-1658
E-mail: licensinghelp@tsbde.texas.gov
URL: http://tsbde.texas.gov

Scope of Practice: **§115.2**,
https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=22&pt=5&ch=115&rl=2
Supervision: Direct
Summary: Dental hygienists may use lasers as long as the procedure is not irreversible or involves intentional cutting of soft or hard tissue. Prior to using lasers, dental hygienists must complete at least 12 hours of in-person continuing education in laser utilization specific to the procedures to be performed by the dental hygienist using the laser. Three of the twelve required hours must include clinical simulation laser training similar to the procedures to be performed by the dental hygienist. The continuing education must be provided by an educational course provider recognized by the Board. A dentist who supervises a dental hygienist in the use of lasers must have laser education and training sufficient to adequately supervise the dental hygienist.

https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=22&pt=5&ch=115&rl=2

Texas Administrative Code
Title 22 Examining Boards
Part 5 State Board of Dental Examiners
Chapter 115 Extension of Duties of Auxiliary Personnel – Dental Hygiene
March 16, 2023

Rule §115.2 Permitted Duties
(a) In addition to the duties that a dentist may delegate pursuant to the Dental Practice Act and Board Rules, a Texas-licensed dental hygienist (hygienist) may perform the following services and procedures in the dental office of his/her supervising Texas-licensed dentist (dentist) or dentists who are legally engaged in the practice of dentistry in this state or under the supervision of a supervising dentist in an alternate setting:

(1) remove accumulated matter, tartar, deposits, accretions, or stains, other than mottled enamel stains, from the natural and restored surface of exposed human teeth and restorations in the human mouth;

(2) smooth roughened root surfaces;

(3) polish exposed human teeth, restorations in the human mouth, or roughened root surfaces;

(4) topically apply drugs to the surface tissues of the human mouth or the exposed surface of human teeth;

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(5) make dental x-rays;
(6) apply pit and fissure sealants; and
(7) monitor patients receiving nitrous oxide/oxygen inhalation conscious sedation only after obtaining approval from the board, and only under the direct supervision of a Texas licensed dentist. The board will issue a nitrous oxide monitoring endorsement after a hygienist provides proof of successful completion of a board approved course, that includes examination, on the monitoring of the administration of nitrous oxide.
(b) Dental hygienists may use lasers in the practice of dental hygiene under the direct supervision of a dentist, so long as they do not perform any procedure that is irreversible or involves the intentional cutting of soft or hard tissue.

(1) Prior to using a laser for non-diagnostic purposes, dental hygienists must complete no less than twelve hours of in-person continuing education in laser utilization specific to the procedures to be performed by the dental hygienist using the laser. Three of the twelve required hours must include clinical simulation laser training similar to the procedures to be performed by the dental hygienist. The continuing education must be provided by an educational course provider recognized by the Board. Dental hygienists must maintain documentation of the satisfactory completion of the required continuing education courses.

(2) Use of lasers by dental hygienists must be in accordance with the minimum standard of care and limited to the dental hygienist's scope of practice.

(3) A dentist who supervises a dental hygienist in the use of lasers must have laser education and training sufficient to adequately supervise the dental hygienist, including but not limited to meeting the continuing education requirements required of dental hygienists in subsection (b)(1) of this section. Pursuant to §258.003 of the Dental Practice Act, the delegating dentist is responsible for all dental acts delegated to the dental hygienist, including the use of lasers.

(4) The dental hygienist must comply with the Dental Practice Act and Board Rules in the use of lasers. The dental hygienist may be subject to disciplinary action for any act that violates the Dental Practice Act or Board Rules.

Source Note: The provisions of this §115.2 adopted to be effective January 1, 1976; amended to be effective April 18, 1979, 4 TexReg 1209; amended to be effective October 10, 1979, 4 TexReg 3502; amended to be effective October 11, 1979, 4 TexReg 3502; amended to be effective June 12, 1980, 5 TexReg 2187; amended to be effective April 19, 1984, 9 TexReg 1947; amended to be effective September 1, 1986, 11 TexReg 3349; amended to be effective February 1, 1988, 12 TexReg 4473; amended to be effective January 5, 1990, 14 TexReg 6756; amended to be effective February 21, 1990, 15 TexReg 707; amended to be effective July 17, 1990, 15 TexReg 3804; amended to be effective February 20, 1992, 17 TexReg 1095; amended to be effective March 18, 1997, 22 TexReg 2495; amended to be effective July 10, 2001, 26 TexReg 5004; amended to be effective February 25, 2007, 32 TexReg 627; amended to be effective June 23, 2015, 40 TexReg 3818; amended to be effective March 16, 2023, 48 TexReg 1449

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Utah

Utah Department of Commerce
Division of Professional Licensing
Dentistry
(801) 530-6628
Toll-Free in Utah: (866) 275-3675
E-mail: b9@utah.gov
URL: https://dopl.utah.gov/dental/index.html

Scope of Practice: **R156-69-102**, https://adminrules.utah.gov/public/rule/R156-69/Current%20Rules
Supervision: General
Summary: Dental hygienists may perform laser bleaching and laser periodontal debridement.

https://adminrules.utah.gov/public/rule/R156-69/Current%20Rules
R156. Commerce, Professional Licensing.
R156-69. Dentist and Dental Hygienist Practice Act Rule.
December 11, 2023

R156-69-102. Definitions.
Terms used in this rule are defined in Title 58, Chapter 1, Division of Professional Licensing Act, and Title 58, Chapter 69, Dentist and Dental Hygienist Practice Act. In addition:
(40) "Practice of dental hygiene" under Subsection 58-69-102(7)(a)(ix) includes performing:
(a) laser bleaching; and
(b) laser periodontal debridement.

https://le.utah.gov/xcode/Title58/Chapter69/58-69-S102.html
Utah Code
Title 58. Occupations and Professions
Chapter 69. Dentist and Dental Hygienist Practice Act
Part 1. General Provisions
May 12, 2020

58-69-102. Definitions.
(7) "Practice of dental hygiene" means, regarding humans:
(a) under the general supervision of a dentist, or under a written agreement with a dentist licensed under this chapter, as provided in Section 58-69-801, to:
(i) perform preliminary clinical examination of human teeth and gums;
(ii) make preliminary instrumental examination of patients' teeth;
(iii) expose dental radiographs;
(iv) assess dental hygiene status and collaborate with the supervising dentist regarding a dental hygiene treatment plan for a patient;
(v) remove deposits, accumulations, calculus, and concretions from the surfaces of human teeth;
(vi) remove toxins and debris from subgingival surfaces;

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(vii) provide dental hygiene care in accordance with a dentist's treatment plan for a patient;

(viii) take impressions of teeth or jaws except for impressions or registrations to supply artificial teeth as substitutes for natural teeth; or

(ix) engage in other practices of dental hygiene as defined by division rule;

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Vermont

Vermont Secretary of State
Office of Professional Regulation
Dental Examiners
89 Main Street
Montpelier, VT 05602
(802) 828-1505
E-mail: https://sos.vermont.gov/opr/about-opr/contact-us/
URL: https://sos.vermont.gov/dental-examiners/

Scope of Practice: Silent; **Proposed Rule 6-4**,
https://outside.vermont.gov/dept/sos/office_professional_regulation/professions/dental_examiner/dental_examiner_proposed_administrative_rules.pdf
Supervision: Determined by practice agreement
Summary: The statutes and administrative rules do not mention use of lasers. Rules are pending that specifically mention use of periodontal lasers for pocket debridement within the dental hygiene scope of practice.

https://outside.vermont.gov/dept/sos/office_professional_regulation/professions/dental_examiner/dental_examiner_proposed_administrative_rules.pdf

Draft
Dental Examiners Proposed Administrative Rules
Part 6: Dental Hygienists
Draft Updated September 18, 2024

6-4 Scope of Practice. The scope of practice of a dental hygienist is established by agreement with the supervising dentist or dental therapist and may include oral prophylaxis; oral debridement; periodontal descriptions and charting, including periodontal probing and placement of supra- and subgingival chemotherapeutic agents; exposure of radiographs; application of sealants; application of silver diamine fluoride; oral health screening and pre-diagnostic examination; use of periodontal lasers for purposes of pocket debridement; acquisition of impressions or images; temporary replacement of crowns; and such other dental practices as are generally accepted as appropriate for delegation based on the training, education, and experience of the hygienist.

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Virgin Islands

Office of Professional Licensure and Health Planning
Virgin Islands Board of Dental Examiners
PO Box 222995
Christiansted, VI 00822-2995
(340) 718-1311
E-mail: boardofdentalexaminers@doh.vi.gov
URL: https://doh.vi.gov/board-of-dental-examiners/

Scope of Practice: Silent
Summary: The statutes do not mention use of lasers.

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Virginia

Virginia Department of Health Professions
Virginia Board of Dentistry
Perimeter Center
9960 Maryland Drive
Suite 300
Henrico, VA 23233-1463
(804) 367-4538
Fax: (804) 698-4266
E-mail: denbd@dhp.virginia.gov
URL: https://www.dhp.virginia.gov/Boards/Dentistry

Scope of Practice: **18VAC60-25-40**,
https://www.dhp.virginia.gov/media/dhpweb/docs/dentistry/leg/DentalHygiene.pdf
Supervision: Indirect
Summary: Dental hygienists may use nonsurgical lasers for scaling, root planning, or gingival curettage of natural and restored teeth.

https://www.dhp.virginia.gov/media/dhpweb/docs/dentistry/leg/DentalHygiene.pdf

Commonwealth of Virginia
Regulations Governing the Practice of Dental Hygiene
Virginia Board of Dentistry
Title of Regulations: 18 VAC 60-25-10 et seq.
Effective Date: October 24, 2024

Part I. General Provisions
18VAC60-25-10. Definitions
B. The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Nonsurgical laser" means a laser that is not capable of cutting or removing hard tissue, soft tissue, or tooth structure.

Part II. Practice of Dental Hygiene
18VAC60-25-40. Scope of Practice
B. The following duties shall only be delegated to dental hygienists under direction and may only be performed under indirect supervision:

1. Scaling, root planing, or gingival curettage of natural and restored teeth using hand instruments, slow-speed rotary instruments, ultrasonic devices, and nonsurgical lasers with any sedation or anesthesia administered.

C. The following duties shall only be delegated to dental hygienists and may be performed under indirect supervision or may be delegated by written order in accordance with § 54.1-2722 D of the Code of Virginia to be performed under general supervision:

1. Scaling, root planing, or gingival curettage of natural and restored teeth using hand instruments, slow-speed rotary instruments, ultrasonic devices, and nonsurgical lasers with or without topical oral anesthetics.

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Washington

Washington State Department of Health
Dental Quality Assurance Commission
PO Box 47852
Olympia, WA 98504-7852
(360) 236-4700
URL:
https://www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/Dentist

Scope of Practice: Silent
Summary: The administrative code does not mention use of lasers.

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West Virginia

West Virginia Board of Dentistry
1319 Robert C. Byrd Drive
PO Box 1447
Crab Orchard, WV 25827
(877) 914-8266
Fax: (304) 253-9454
E-mail: wvbde@suddenlinkmail.com
URL: http://www.wvdentalboard.org

Scope of Practice: **Position Statement Use of Lasers**,
https://wvbodv7prod.glsuite.us/GLSuiteWeb/Clients/WVBOD/StaticFiles/pdf/laserstatementamended72022.pdf
and **Course Guidelines**,
https://wvbodv7prod.glsuite.us/GLSuiteWeb/Clients/WVBOD/StaticFiles/pdf/Laser%20Guidelines%2072023.pdf
and **§5-13-5,**
https://wvbodv7prod.glsuite.us/GLSuiteWeb/Clients/WVBOD/StaticFiles/pdf/Laws/5CSR13.pdf
Supervision: Direct
Summary: The Board regards the use of any laser which can cut tissue to be practicing dentistry, and therefore limits its use to dentists and hygienists who hold a certificate to perform non-surgical periodontal therapy. This includes the so-called "low power" lasers used for periodontal treatments, such as pocket debridement, scaling, polishing, planing, and the removal of calculus deposits. The Board will allow the use of lasers that are used as an alternative to a traditional curing light to be used by a dental hygienist or dental assistant for the sole purpose of curing resin restorations. In addition, the Board will also allow the use of the laser as a diagnostic aid by a dental hygienist or dental assistant for interpretation by the dentist.

Expanded duties of dental hygienists include use of a laser, provided the wavelength is limited to no higher than 1064 nanometers, for laser bacterial reduction, laser assisted periodontal therapy, other non-surgical periodontal therapeutic treatments, photobiomodulation (adjunctive low level laser therapy) and treatment of herpetic lesions and aphthous ulcers after successful completion of a board-approved course and under the direct supervision of a licensed dentist.

Course Guidelines for non-surgical laser therapy for hygienists include Board approval prior to the date of the scheduled course, 5.5 hours of didactic instruction, successful completion of a written examination, and clinical competency as assessed by demonstrating proficiencies in approved procedures in 2.5 hours of hands-on training.

https://wvbodv7prod.glsuite.us/GLSuiteWeb/Clients/WVBOD/StaticFiles/pdf/laserstatementamended72022.pdf

West Virginia Board of Dentistry
Guidelines, Position Statement, & Resolutions
Position Statements
Use of Lasers

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**WEST VIRGINIA BOARD OF DENTAL EXAMINERS
POSITION STATEMENT CONCERNING THE USE OF LASERS
Promulgated March 13, 2004
Amended December 4, 2004
Amended July 21, 2022**

The West Virginia Board of Dental Examiners has received inquiries regarding the use of lasers in the practice of dentistry. Most of these inquires concern who may use a laser. The Board, in determining their position concerning this subject, has been in contact with dentists who are currently using lasers in their practice. The Board has also reviewed other state dental boards' positions on this subject.

The Board is aware of many varieties of dental lasers. Lasers can be used to replace or supplement traditional dental instruments, such as handpieces, scalpels, curing lights, and the explorer.

The Board regards the use of any laser which can cut tissue to be practicing dentistry, and therefore limits its use to dentists and hygienists who hold a certificate to perform non-surgical periodontal laser therapy as described in the Board's rules referenced below. This includes the so-called "low power" lasers used for periodontal treatments, such as pocket debridement, scaling, polishing, planing, and the removal of calculus deposits.

The Board will allow the use of lasers that are used as an alternative to a traditional curing light to be used by a dental hygienist or dental assistant for the sole purpose of curing resin restorations. In addition, the Board will also allow the use of the laser as a diagnostic aid by a dental hygienist or dental assistant for interpretation by the dentist.

The Board will keep abreast of changes in the use of lasers in dentistry and may choose to modify or amend this statement at any time.

Referenced Board Rules 5CSR13 – Expanded Duties
5.1.14. Use of a laser, provided the wavelength is limited to no higher than 1064 nanometers, for laser bacterial reduction, laser assisted periodontal therapy, other non-surgical periodontal therapeutic treatments, photobiomodulation (adjunctive low level laser therapy) and treatment of herpetic lesions and aphthous ulcers after successful completion of a board-approved course and under the direct supervision of a licensed dentist.

5.1.14.a. A hygienist shall apply for a certificate from the Board to provide non-surgical periodontal treatment with the use of a laser using a form prescribed by the Board. The application fee shall be equal to the local anesthesia application fee as set forth in the Board's rule, Fees Established by the Board, 5CSR3.

https://wvbodv7prod.glsuite.us/GLSuiteWeb/Clients/WVBOD/StaticFiles/pdf/Laser%20Guidelines%2012025.pdf
(URL accessed March 2025)
West Virginia Board of Dentistry

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Guidelines, Position Statement, & Resolutions
Course Guidelines
Non-Surgical Laser Therapy for Hygienists
Amended January 23, 2025

Non-Surgical Laser Therapy for Hygienists

Course outline, objectives, evaluation mechanism and curriculum vitae of the faculty member must be submitted to the Board and receive approval prior to the date of the scheduled course.

The program of education shall include a minimum of five and 1/2 (5.5) hours of didactic instruction and successful completion of a written examination by a score of at least 75%. Following successful completion of didactic instruction and exam, clinical competence will be assessed through (non-virtual) hands-on training

Objectives for the didactic instruction must include:

1. Review of patient's medical history to determine any contraindications
2. Review of infection control, standard precautions, and transfer of diseases
3. Periodontal tissues, dental anatomy, and nomenclature
4. Rationale for performing Non-surgical Periodontal Laser therapy
5. Beneficial and adverse effects of Non-surgical Periodontal Laser Therapy
6. Soft Tissue vs Hard Tissue Lasers
7. Laser Physics
8. Laser Safety for patients and staff
9. Patient Management
10. Proper Technique for approved use of Non-surgical Periodontal Laser Therapy including laser bacterial reduction, laser assisted periodontal therapy, photobiomodulation, and treatment of herpetic lesions/aphthous ulcers
11. Proper Coding Protocol
12. Procedures to follow in case of medical emergencies
13. Dental ethics, jurisprudence and legal understanding of procedures allowed by each dental team member.

Clinical competency will be assessed by demonstrating proficiency in approved procedures in 2.5 hours of hands-on training.

Out of State Hygienists with Non-Surgical Laser Therapy Certifications - If the applicant was permitted or certified in non-surgical laser therapy in a different state, other than West Virginia, further coursework is not required. In lieu of a course, verification of the applicant's non-surgical laser therapy certificate or permit in the other state is required.

The licensed dentist assigning expanded duties to a dental hygienist is solely responsible for evaluating the dental hygienist to determine that he or she is competent to handle assigned duties. No licensed dentist shall assign additional duties to a dental hygienist until he or she is assured that the dental hygienist is fully competent and completely qualified to perform the assigned expanded duty or duties for Non-surgical Periodontal Laser Therapy.

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After satisfying the Board's requirements, certification will be given, and a dental hygienist may provide Non-surgical Periodontal Laser Therapy under the direct supervision of a dentist after delegated to do so.

Amended 1.23.2025

https://wvbodv7prod.glsuite.us/GLSuiteWeb/Clients/WVBOD/StaticFiles/pdf/Laws/5CSR13.pdf

Laws and Rules
Series 13
5CSR13
TITLE 5
LEGISLATIVE RULE
WEST VIRGINIA BOARD OF DENTISTRY
SERIES 13
EXPANDED DUTIES OF DENTAL HYGIENISTS AND DENTAL ASSISTANTS
July 1, 2022

§5-13-5. Expanded duties of Dental Hygienists.
5.1. Expanded duties of dental hygienists. In addition to and including those duties set forth in subsection 4.1 of this rule, the following duties and/or intraoral tasks may be assigned by a licensed dentist to a dental hygienist in the licensed dentist's employment:

5.1.14. Use of a laser, provided the wavelength is limited to no higher than 1064 nanometers, for laser bacterial reduction, laser assisted periodontal therapy, other non-surgical periodontal therapeutic treatments, photobiomodulation (adjunctive low level laser therapy) and treatment of herpetic lesions and aphthous ulcers after successful completion of a board-approved course and under the direct supervision of a licensed dentist.

5.1.14.a. A hygienist shall apply for a certificate from the Board to provide non-surgical periodontal treatment with the use of a laser using a form prescribed by the Board. The application fee shall be equal to the local anesthesia application fee as set forth in the Board's rule, Fees Established by the Board, SCSR3.

§5-13-6. General Supervision of Dental Hygienists.
6.3 A person shall not do any of the following:
6.3.4. Use dental lasers under general supervision.

§5-13-7. Public Health Practice of Dental Hygienists.
7 .1. A dental hygienist may engage in public health practice rendering all services provided in subsection 6.1.7.b. of this rule allowed under general supervision and as provided in this section:
7.1.11. A person shall not do any of the following:
7.1.11.d. Use dental lasers under public health practice permit.

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Wisconsin

State of Wisconsin
Department of Safety and Professional Services
Dentistry Examining Board
4822 Madison Yards Way
Madison, WI 53705
(608) 266-2112
(877) 617-1565

Dentistry Examining Board
DSPS
PO Box 8366
Madison, WI 53708-8366
(608) 266-2112
E-mail: dsps@wi.gov
URL: https://dsps.wi.gov/pages/BoardsCouncils/Dentistry

Scope of Practice: Silent
Summary: The statutes and administrative code do not mention use of lasers.

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Wyoming

Wyoming Board of Dental Examiners
2001 Capitol Ave
Room 127
Cheyenne, WY 82002
(307) 777-7387
Fax (307) 777-3508
TTY: (800) 877-9965
E-mail: dentalboard@wyo.gov
URL: https://dental.wyo.gov

Scope of Practice: **Administrative Rules Chapter 7, Sections 5 and 6**, https://rules.wyo.gov/Search.aspx?Agency=034
Supervision: Direct
Summary: Dental hygienists with an expanded duties permit may use soft tissue lasers to provide tissue therapy within the dental hygienist's scope of practice (herpetic lesions, aphthous ulcers, perio debridement).
The dental hygienist applicant for soft tissue laser shall complete and provide proof of training that covers a minimum of twelve (12) hours of laser physics, safety, and appropriate use, to include a hands-on component, didactic testing component and laser (hands on) assessment component, prior to applying for a permit. The course must also require the applicant to have completed a live and interactive training that addressed operations of the specific laser(s) utilized in the practice.

https://rules.wyo.gov/Search.aspx?Agency=034
Wyoming Administrative Rules
Board of Dental Examiners
Chapter 7: Dental Auxiliaries
May 29, 2024

Section 5. Supervision of Procedures Performed by the Dental Hygienist.
(b) Direct Supervision. The following procedures require direct supervision:
(i) Prepare, place, and remove periodontal packs;
(ii) Remove overhanging margins
(iii) Treat diagnosed dry sockets;
(iv) Treat diagnosed pericoronitis;
(v) Perform whitening procedures; and
(vi) Perform expanded dental duties.

Section 6. Expanded Duties Permits.
(a) Permit. To obtain an expanded duties permit, a dental hygienist shall meet educational standards, or pass an examination approved by the Board, or both. Applicant shall submit a completed application for each duty.
(b) Training Course Approval.

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(i) Training programs shall be approved in advance in writing by the Board. All expanded duty courses must contain an examination or competency assessment. Due to the varied programs, individual courses shall require individual approval after course content is reviewed by the Board.

(ii) Applicant shall provide evidence of satisfactory completion of each expanded duties course.

(iii) An applicant for soft tissue laser shall complete and provide proof of training that covers a minimum of twelve (12) hours of laser physics, safety, and appropriate use, to include a hands-on component, didactic testing component and laser (hands on) assessment component, prior to applying for a permit. The training shall meet the following requirements:

(A) The course shall be provided or recognized by any of the following organizations (or successor organization):

(I) CODA accredited institution:

(II) ADA Continuing Education Recognition Program (CERP);

(III) The Academy of General Dentistry (AGD) Program Approval for Continuing Education (PACE); or

(IV) The Academy of Laser Dentistry.

(B) The course must have a hands-on component and may not be online only.

(C) The course must also require the applicant to have completed a live and interactive training that addressed operations of the specific laser(s) utilized in the practice.

(iv) An in-person evaluation for an expanded duties permit may be required by the Board to ascertain the applicant's knowledge of the expanded duties that the applicant wishes to be permitted to perform.

(c) Expanded Duties. The following may be performed by a dental hygienist with an appropriate expanded duties permit

(i) Administer local anesthetics via injection;

(ii) Administer and monitor nitrous oxide/oxygen; or

(iii) Use soft tissue lasers to provide tissue therapy within the dental hygienists scope of practice.

(A) All lasers must be used in accordance with accepted safety guidelines.

(B) When utilizing a laser, the dental hygienist shall document the following, at a minimum:

(I) Type of Laser, including wavelength;

(II) Settings used (pulse or continuous wavelength, power setting); and

(III) Procedure performed with details including size and location (Herpetic lesions, Aphthous Ulcers, Perio debridement).

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9/21/2026

Flumazenil Injection

Products Affected - Description

- Flumazenil injection, Baxter, 0.1 mg/mL, 10 mL vial, 10 count, NDC 36000-0149-10
- Flumazenil injection, Baxter, 0.1 mg/mL, 5 mL vial, 10 count, NDC 36000-0148-10
- Flumazenil injection, Fresenius Kabi, 0.1 mg/mL, 10 mL vial, 1 count, NDC 63323-0424-10
- Flumazenil injection, Fresenius Kabi, 0.1 mg/mL, 5 mL vial, 10 count, NDC 63323-0424-05
- Flumazenil injection, Hikma, 0.1 mg/mL, 10 mL vial, 10 count, NDC 00143-9783-10

Reason for the Shortage

- Baxter has flumazenil injection on shortage due to manufacturing delays from 3rd party supplier.
- Fresenius Kabi did not provide a reason for the shortage.
- Hikma did not provide a reason for the shortage.

Available Products

- Flumazenil injection, Hikma, 0.1 mg/mL, 5 mL vial, 10 count, NDC 00143-9784-10

Estimated Resupply Dates

- Baxter has flumazenil 0.1 mg/mL 5 mL and 10 mL vials on back order and the company cannot estimate a release date.
- Fresenius Kabi has flumazenil 0.1 mg/mL 5 mL and 10 mL vials on back order and the company estimates a release date of mid-October 2026 for the 5 mL vials and early-October 2026 for the 10 mL vials.

- Hikma has flumazenil 0.1 mg/mL 10 mL vials on back order and the company estimates a release date of mid- to late-October 2026.

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Updated

Updated September 21, 2026 by Michelle Wheeler, PharmD, Drug Information Specialist. Created May 13, 2026 by Michelle Wheeler, PharmD, Drug Information Specialist. © 2026, Drug Information Service, University of Utah, Salt Lake City, UT.

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ASHP guidelines on managing drug product shortages

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Erin R. Fox, Pharm.D., BCPS, FASHP, Senior Director of Drug Information and Support Services, University of Utah Health, and Adjunct Associate Professor, University of Utah College of Pharmacy, Salt Lake City, UT.

Milena M. McLaughlin, Pharm.D., M.Sc., BCPS-AQ ID, AAHIVP, Associate Professor, Department of Pharmacy Practice, Midwestern University, Chicago College of Pharmacy, Downers Grove, IL and HIV/ID Clinical Pharmacist, Department of Pharmacy, Northwestern Memorial Hospital, Chicago, IL.

Address correspondence to Bruce Hawkins (bhawkins@ashp.org).

Keywords: ASHP guidelines, drug product shortage, medically necessary product, medication errors, patient care team, strategic planning

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Purpose

Drug product shortages can adversely affect drug therapy, compromise or delay medical procedures, result in medication errors, and cause patient harm.[1-38] In addition to these potential problems, healthcare professionals are also increasingly concerned about the tremendous resources required to address shortages, estimated at $209 million in 2013 for the purchase of more-expensive substitutes alone, which excludes other significant costs (e.g., drugs purchased "off contract," therapeutic alternatives, added labor).[39,40] Drug product shortages adversely affect healthcare organization finances by increasing the cost of delivering patient care, largely through the personnel costs required to manage the multiple pharmacy automation systems and electronic medical record changes that must be adjusted in the face of a drug shortage.[40] In addition, shortages create high levels of frustration and stress for everyone involved, including purchasing agents, pharmacists, pharmacy technicians, nurses, physicians, and patients.[15,41,42] Pharmacy leaders need to educate all members of the healthcare team as well as organizational leadership about the complex and challenging nature of the drug shortage problem as well as what is being done to manage shortages.

Managing drug product shortages is particularly complex for practitioners in hospitals and other acute care settings because these facilities routinely treat patients with acute or emergent conditions, use a significant number of medically necessary or single-source products, and use high-cost new drugs and technologies. These healthcare providers are challenged during drug product shortages to ensure the provision of seamless, safe, and therapeutically equivalent drug therapy, preferably at comparable costs. The pharmacy department must take a leadership role in efforts to develop and implement appropriate strategies and processes for informing practitioners of shortages and ensuring the safe and effective use of therapeutic alternatives. Strategic planning is required for managing drug product shortages, just as it is for disasters such as major weather events or mass casualty incidents.[43] The purpose of these guidelines is to provide a framework for healthcare teams in patient care settings that can be used to develop policies and procedures that minimize the effects of drug shortages on quality of care. These guidelines are focused on minimizing the impact on patient care because it is impossible for healthcare organizations to prevent drug shortages from happening. Although drug shortages are a symptom of broader problems in the U.S. drug product marketplace, these issues are beyond the scope of this document.[44-47]

Patient safety

Drug shortages are a cause of significant patient safety concerns. Medication errors are more likely to occur (1) when a pharmacy alters how a product is ordered, prepared, or dispensed or (2) when prescribing practices change to less-familiar alternative agents, especially agents that are less efficacious, have a worse adverse-effect profile, or require an unusual or difficult dosing regimen. Best practices for managing drug shortages must first consider the potential impact on patient safety. Data documenting patient harm due to drug shortages are limited to case reports and survey data. The Institute for Safe Medication Practices (ISMP) is the leading source of aggregate data.[13,15,16] A medication-error reporting and review system is an essential component of a medication safety system. Errors and near misses should be reported internally and externally, and analyzed.[48,49]

Factors that contribute to drug product shortages

For the purpose of these guidelines, a drug product shortage is defined as a supply issue that affects how the pharmacy prepares or dispenses a drug product or influences patient care when prescribers must use an alternative agent. Shortages can be the result of1or a combination of factors throughout the supply chain. The supply chain includes producers of raw materials, manufacturers, regulators, wholesalers/distributors, prime vendors, group purchasing organizations, healthcare organizations, and the patient. Factors that contribute

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to drug product shortages include the unique market for drug products, manufacturing and quality problems, production delays and lack of manufacturing capacity, manufacturer business decisions, shortages of active pharmaceutical ingredients (APIs) or raw materials, restricted distribution and allocation of drug products, and inventory practices.

Unique market for drug products. Drug products are a unique commodity because they do not follow the fundamental economic laws of supply and demand. A first-line agent remains a first-line agent, regardless of price. Unlike other markets, consumers (i.e., patients) have little or no control over prescription product selection in healthcare organizations. In addition, because there is no required disclosure of information regarding manufacturers or manufacturing sites, purchasers of drug products are unable to make educated purchasing decisions based on the quality of a supplier. Purchasers of drug products are unable to make selections based on the quality of a supplier because there is no required transparency regarding the manufacturer or manufacturing site of a drug product.[50]

Manufacturing and quality problems. The majority of drug shortages are caused by a production delay due to a failure of quality management at the final product's manufacturing site.[51] For example, the most recent data available show that 46.6–55.1% of sterile injectable anti-infective and cardiovascular drug shortages from 2012 through 2014 were from manufacturing plants that received a warning letter from the Food and Drug Administration (FDA) for failure to comply with manufacturing standards.[44] Quality is not rewarded in the drug product marketplace, because manufacturing is not transparent. The current pass-fail system of FDA approval provides no opportunity for purchasers to favor companies with higher manufacturing standards over companies with lower standards.[51] Although FDA has plans to require manufacturers to provide quality metrics, such as batch failure rates or the number of complaints, neither FDA nor purchasers of drug products have any method to review even these simple metrics.[52] FDA has focused its responsibility for quality on the Office of Pharmaceutical Quality, whose mission is to ensure that quality medications are available for the American public.[53]

Production delays and lack of capacity. Manufacturing capacity issues or delays were the cause of 30% of drug product shortages from 2011 through 2013.[54] Many production delays actually stem from quality problems that delay production for a single manufacturer, and other manufacturers do not have the capacity to make up for the difference. Generic drug products are particularly susceptible to shortages because, unlike branded products, redundancy is typically not built into the production process. Generic products are typically manufactured on lines that prepare multiple products. An additional manufacturing line is generally not available as a contingency for generic products.[55] These types of shortages frequently occur with generic injectable agents, as tight profit margins and the complexities of production limit the number of manufacturers and lead to high market shares; in many cases, a single manufacturer may have over 50% of the market share for specific therapeutic categories.[51] A small number of manufacturers (fewer than 7) comprise the vast majority of all injectable drug products,[51] and more than one third of injectable drug products are produced by just 1 or 2 manufacturers.[51,55]

Manufacturer business decisions. Manufacturers' business decisions are based on a variety of factors, including availability of generic products, market size, patent expiration, drug approval status, regulatory compliance requirements, and anticipated clinical demand. Frequently, the decision to manufacture a new product forces production tradeoffs because many generic manufacturers function at full capacity.[51,56]

Shortages of APIs or raw materials. Shortages of APIs or raw materials are rare but can result in drug product shortages.[51,55] An API shortage can be particularly disruptive if there is only 1 supplier; however, manufacturers' sources of API are considered proprietary and are rarely publicly disclosed.

Restricted distribution and allocation of drug products. Most healthcare organizations obtain the majority of their drug products through wholesale distributors. Restricted distribution methods that bypass the normal supply chain can also contribute to shortages. Manufacturers may limit the availability of and access to specific drug products to selected pharmacies, clinicians, and patients complying with manufacturer agreements based on market approval requirements and/or postmarketing surveillance. A manufacturer can also place restrictions on the availability of product by requiring healthcare organizations to order directly from the manufacturer or through a specialty distributor to receive an allocation.

Inventory practices. Inventory reductions permitted by advanced communication and transportation efficiencies within the supply chain may amplify the effects of a shortage on healthcare organizations. Most manufacturers, distribution centers, and healthcare organizations use just-in-time inventory management to reduce the cost of inventory on hand, increase inventory turns, minimize expenses, and optimize cash flow. This strategy is recognized as sound business management but allows unexpected shortages at any stage in the supply chain to significantly impact purchasers and patients. Some manufacturers and distributors use inventory management strategies that minimize end-of-quarter or end-of-year product inventories or limit shipment based on yearly quotas.[57] Poor ordering practices, stockpiling before

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announced price increases, hoarding caused by rumors of an impending shortage, and unexpected delivery delays may also affect inventory levels in individual healthcare organizations. Hospitals in rural areas face additional inventory challenges caused by distant distribution centers and the inability to easily borrow an item from a nearby hospital. Drug product shortages may also occur when hospitals in an area disproportionately use the same wholesaler. Some shortages are wholesaler dependent, as shortages of drugs can occur when contracts with suppliers are delayed.

Planning for drug product shortages

The pharmacy department can lead effective drug shortage management by ensuring that its organization has the necessary infrastructure and a well-defined management strategy in place before a shortage occurs. To effectively respond to drug product shortages, several essential elements of infrastructure must be in place before a shortage occurs: a drug shortage team, a resource allocation committee, and established processes for approving alternative therapies and addressing ethical considerations.

Drug product shortage team. The first step is to identify an interdisciplinary team of key staff who can make decisions and access information. The drug product shortage team needs to understand the organization's processes for change and how to expedite results. At a minimum, the drug product shortage team should be able to identify persons responsible for the following activities: data gathering and monitoring; purchasing alternatives; changing storage, preparation, and dispensing procedures; deciding to conserve or ration; implementing technology changes; and communications. The drug shortage team should develop a list of ad hoc stakeholders to consult for specific shortages. A specific point person should be designated to lead drug shortage efforts, but no single person can manage all drug shortage planning and response activities alone.

Resource allocation committee. Although consideration of the ethical implications of drug shortages may be discussed within the organization's existing committee structure (e.g., the ethics committee), a resource allocation committee should be formed to directly oversee the allocation of scarce resources such as drug products. The resource allocation committee should include, at a minimum, representatives from the departments of pharmacy, nursing, social work, and medicine; a patient representative; and a representative from the organization's ethics committee.[58] When a drug shortage affects a specific therapeutic area, other departments or disciplines may need to be represented, and a clinician with expertise in that area should provide representation on the committee. Committee members should be identified in advance and be available to assume membership on the committee when the need arises.[58,59] All members of the committee should disclose any bias or potential conflicts of interest in advance if possible.[60]

The committee should carefully determine appropriate patient characteristics and clinical evidence for prioritization and rationing of medications.[58,59,61,62] Because drug shortages will evolve, ethics protocols should allow for feedback and amendment.[62] Standardizing the ethics framework in advance avoids the need for bedside decisions and allows clinicians to contemplate complexities and appropriate rationales before difficult choices need to be made.[60,62,63] Protocols should also address how to manage the distress clinicians can experience when making such difficult decisions.[60]

Interruption of clinical trials is another potential consequence of drug shortages that has potential ethical implications. Organizations must ensure that study sponsors and principal investigators are aware of drug shortages that may affect clinical trials. Healthcare organizations should appropriately allocate remaining medications, halt trial enrollment, or continue patients on the standard-of-care treatment only as necessary until the drug shortage has resolved.[58]

Process for approving alternative therapies. A formal process for identifying and approving therapeutic alternatives for the healthcare organization should be established. The healthcare organization's decision-making process about alternative agents should involve timely collaboration among representatives of medicine, nursing, pharmacy, and other affected disciplines, and those decisions should be approved by the appropriate medical committees as promptly as possible. Organizations should follow the same steps and processes used in changing any drug product in their system to ensure that key steps in managing automation and technology are not missed.

Process for addressing ethical considerations. As drug shortages have become more common, healthcare organizations and providers have become more adept at identifying and utilizing therapeutic alternatives. Nevertheless, situations arise in which it is difficult to simply substitute an alternative agent, if available at all.[58] Drug shortages have become a barrier to clinicians providing the most appropriate and evidence-based care to patients and may create mistrust between patients and providers.[64,65] The appropriate management of drug shortages requires carefully balancing what is good for an individual and what is good for a group of individuals or society.[60,61]

As the number of drug shortages has grown, several ethical frameworks for appropriately rationing these resources have been proposed.[58,60,66] One method that reflects the fundamental healthcare principles of justice, beneficence, and nonmaleficence is an adaptation of Daniels and Sabin's[67] "accountabil-

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ity for reasonableness," amended by several authors to address drug shortages.[58,60,61] Because there isn't 1 ethical framework to provide complete guidance for all drug shortage dilemmas, the framework should be adapted by organizations to address their particular circumstances.[63] The main principles of this method are as follows:

- *Transparency:* details of the process are made public and available for scrutiny.
- *Relevance:* a neutral observer would be able to apply the process to a broad range of differing situations.
- *Appeals and revision:* those who feel wronged by the process have a way to appeal and have the original decision reversed if appropriate.
- *Enforcement:* the process is mandatory, and its results are required to be applied.
- *Fairness:* the process is to be applied to all, regardless of the type of patient or prominence of clinician treating that particular patient.[58,60,66]

Just as the therapeutic management of drug shortages requires healthcare organizations to prospectively institute guidelines or restrictions, ethical procedures and protocols should be developed and put into place before the need for them arises.[65] Variations in these protocols may be necessary for different classes and uses of drugs; the rationing of antiinfectives and oncological agents, for example, is quite different.[59-61,66]

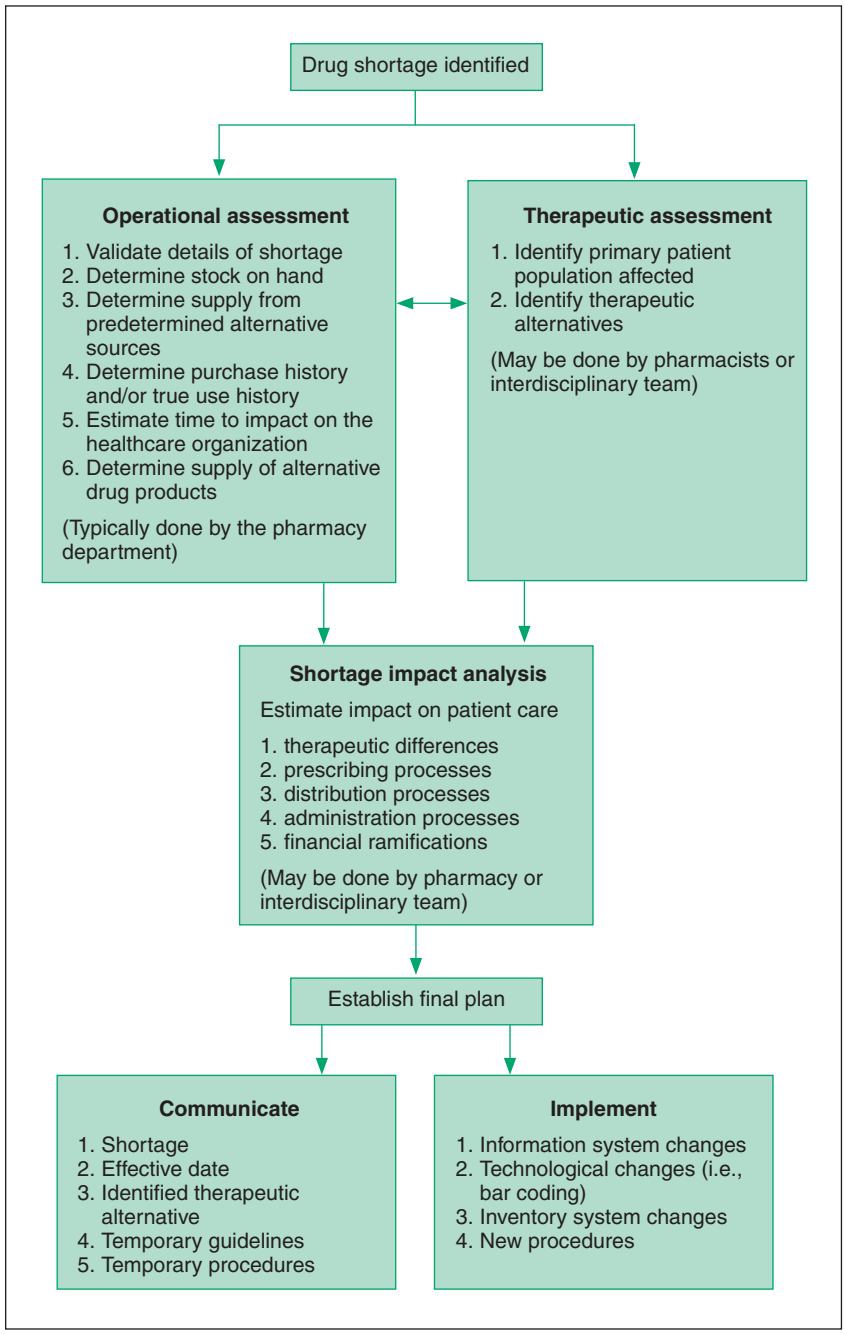
Responding to drug product shortages

The identification of a shortage initiates a cascade of events surrounding drug procurement and therapeutic decision-making (Figure 1). When a shortage is identified, the drug product shortage team should conduct an operational and therapeutic assessment to evaluate its potential impact. A shortage impact analysis based on the 2 assessments and an evaluation of procedural and financial implications should be used to assess the potential impact on patient care. The drug shortages team should use that impact analysis to develop a final action plan for approval and implementation. An institution's success in responding to shortages is typically dependent on how well the system can change drug products in their system under nonshortage conditions.

Operational assessment

The operational assessment should be performed by the point person or that person's designee, working with others as necessary. The assess-

Figure 1. Process for decision-making in the management of drug product shortages.



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ment validates the details of the shortage, estimates the supply of the drug product in shortage available on hand and from alternative sources, evaluates past usage, and estimates the supply of alternative therapies.

Details and duration of shortage. The pharmacy team can contact product manufacturers, distributors, FDA, the Centers for Disease Control and Prevention (CDC), and other sources to determine the cause of the shortage and its expected timing and duration. This information may already be available on the ASHP Drug Shortage Resource Center website (www.ashp.org/Drug-Shortages) or the FDA Drug Shortages website (www.fda.gov/Drugs/DrugSafety/DrugShortages). If it is not, visitors to the sites should report the shortage online. Predictions of when the product will be available help the healthcare organization develop its short- and long-term strategies. Because the status of a shortage can change quickly, follow-up communications with manufacturers may be required to obtain updates on previous estimates of product availability.

Inventory on hand. Once a shortage is identified, pharmacy staff should assess the inventory on hand and estimate the time period it will cover. Available inventory includes all supplies of the drug product within the healthcare organization, including the pharmacies, inpatient units, ambulatory care clinics, automated medication storage and distribution devices, floor stock, code carts, and prepared trays. The pharmacy should estimate how long the healthcare organization can endure a shortage based on available quantities and historical usage, converting inventory counts of alternative drug products into common measurement units (e.g., common dose, days of therapy) to augment estimates of use.

Therapeutic assessment

The therapeutic assessment can be performed by the point person, that person's designee, or other members of the drug shortage team as necessary. The assessment identifies the primary patient populations affected and identifies therapeutic alternatives.

Patient prioritization. When a limited supply of a drug remains available and alternatives for specific patient groups are undesirable, a healthcare organization may prioritize use of the drug for specific patient groups. National organizations (e.g., CDC or an organization of healthcare specialists) may provide guidance on patient prioritization. Medication-use evaluation data on prescribing and utilization trends, if available for the drug in question, may be useful in developing prioritization criteria to guide appropriate drug use. Additional criteria, such as therapeutic use (curative versus palliative), may also be helpful in guiding appropriate use of the drug. Such criteria are particularly helpful in dealing with long-term shortages. To restrict product use for select patients or services in the healthcare organization, criteria should be developed by an interprofessional team. An ethical framework for allocating particularly scarce or lifesaving products is essential as is evidence-based decision making with regard to alternatives.[58,63]

Therapeutic alternatives. Therapeutic alternatives should be inventoried and availability assessed to ensure adequate supplies to meet new demand. In many cases, supplies of the best alternative agent may be affected by the response to the shortage. If therapeutic alternatives are not on the formulary or not currently stocked in the system, there should be a process to expedite adding the new product to all systems (e.g., the electronic health record [EHR], smart pump libraries, automated dispensing cabinets [ADCs]). If a compounded medication is an appropriate alternative, organizations must decide whether resources are available to compound inhouse or if the best solution is to purchase the compounded medication from an FDA-registered outsourcing facility.

Shortage impact analysis

A shortage impact analysis evaluates all factors relevant to the shortage (e.g., duration, current and available inventory, medical necessity, affected patient populations, alternative therapies) to determine the shortage's potential impact on patient care and costs. Such analyses should include a threat analysis for severe shortages to determine whether surgeries or other treatments must be canceled. Healthcare organizations should develop a mitigation strategy for patients whose treatments are no longer available. This strategy may include sending patients to another facility that has the drug in stock or developing a process to postpone elective surgeries. Shortages affect safe medication practices throughout the medication distribution and administration process within a healthcare organization. When considering alternative dosage forms or therapies, pharmacists must consider changes in look-alike/sound-alike procedures, barcoding, distribution paths, and the impact on automation, contract compliance, and final product preparation.[68] Healthcare organizations should evaluate the time required to implement any changes into electronic systems. The extent to which a healthcare organization will be affected by a given shortage depends on the severity of the shortage's impacts; the organization's scope, level of services, and service population; and the organization's agility in switching drug products given the constraints of information system changes (e.g., EHR, smart pump libraries, ADCs).

Financial ramifications. Drug shortages result in increased costs due to a variety of causes: the higher cost of off-contract purchases of drug products or more-expensive alternative agents and the increased personnel costs to develop plans, relocate or compound drug products, and make changes to the EHR and other information systems. Healthcare organizations should make every effort to track all drug and

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personnel costs related to shortages as well as lost revenue from canceled treatments or surgeries. An accounting of these costs is helpful when explaining budget variance or proposing plans for additional staff or funds.

Final action plan

The healthcare organization should develop a final action plan prior to sending a comprehensive communication about the shortage. The final action plan can be used to double-check all elements of the management plan. The plan should state whether a conservation approach will be used to conserve remaining supplies or smaller future allocations or if the shortage will require use of an alternative agent. Examples of management and conservation strategies include par adjustments, centralization of inventory (e.g., removing from ADCs and floor stock), repackaging into smaller dosage units, extending beyond-use dating (when approved by FDA and manufacturer or verified through *United States Pharmacopeia* chapter 797-compliant process), i.v.-to-p.o. conversion, discontinuing nonessential therapy, limiting use of product to uses supported by evidence, and using a different strength or size of product. In some cases, a combination of these actions will be necessary for optimal clinical efficacy. For shortages that require canceled surgeries or treatments, the rationing plan for remaining supplies should be included. The organization should coordinate a specific time for making changes in information systems (e.g., EHR, smart pump libraries, ADCs, and other databases) and ensure that sufficient staff are available to re-enter orders, move stock between ADCs, or take other follow-up actions. Finally, it is essential that everyone understand their roles and the timing required for effective implementation as well as the dynamic nature of drug shortages that may require revisions to the plan.

Communication

Clear communication with all affected clinicians about the status of a shortage is vital. Administrators should also be included in communications, particularly if the shortage may result in canceled surgeries or treatments or significantly increase costs. Multiple communication methods are better than a single strategy. The EHR can also play a communication role to provide prescribers information at the time of medication order. The shortage management team should understand each member's role and share information quickly, efficiently, and in a timely manner. Information should be shared prospectively about both anticipated and confirmed shortages to allow appropriate preparation. Communication within the pharmacy department should include all staff members, including pharmacy technicians. Pharmacists who specialize in a specific clinical area (e.g., intensive care, transplantation) can be especially helpful in relaying information about shortages to their healthcare colleagues during rounds. All pharmacy shifts should receive the same message, and the communication methods should be adapted to the organization's culture, using multiple methods whenever possible (standing meetings, texts, emails, intranet, blogs). Communications to affected prescribers and other healthcare providers should include those in training (e.g., students and residents). Some healthcare organizations may designate a specific department to manage communications; others may find that a collaborative strategy involving various organizational departments and committees works best.

Disclosure to patients. Healthcare organizations should establish policies and protocols regarding the disclosure of drug shortage information to patients and the extent of such disclosures.[59,65] Patients or family members should be counseled when a drug product shortage will delay or compromise care, especially when patients have been stabilized on the drug product and alternatives may be less effective.[58,63,69,70] Disclosure may vary depending on the type of clinical situation. In an emergent situation, decisions about disclosure need to balance transparency and other critical factors involved in providing care. In the case of an elective procedure, it must be decided how patients will be provided an understanding of the potential risks from less efficacious drugs or those with more adverse effects.[65] When the patient's need for a drug will recur, communications should address, before drug initiation, the possibility that the full course of treatment may not be available. Concerns that the full course of the regimen may not be available may warrant consideration of alternatives.

Communication with media. Media outlets may be interested in reporting on severe shortages; working with the media can highlight the impact that drug shortages have on patient care. Organizations and individuals should work with their public affairs officers before speaking to the media and should keep in mind that updates may be necessary, especially when a shortage resolves. For all communications, it is important to balance timeliness and completeness and to be transparent about how decisions to ration are made and whether there is a method for appeals or exceptions.

Inventory system changes

Stockpiling restraint. Inventory management is a challenge in the face of a shortage. Stockpiling (hoarding) and speculative purchasing in advance of an anticipated shortage can exacerbate the shortage, disrupt efficient distribution, and divert supplies away from healthcare organizations with patients in need.[71] Healthcare organizations should refrain from stockpiling drugs anticipated to go into shortage as well as alternatives. Stockpiling causes 2 distinct problems: (1) stockpiling can cause artificial shortages when healthcare organizations drain the supply chain and demand exceeds manufacturing

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capacity, and (2) stockpiled inventory is costly and may not be absorbed by normal usage if shortages do not occur as anticipated.

Speculative purchasing in response to a potential shortage has drawbacks as well, depending on the likely cause of the shortage and where it might occur in the supply chain. Problems may arise that appear to pose a shortage threat but never reach end users, because the supply chain, from raw material to finished product, may contain several months' supply; that long lead time allows corrections that avert the shortage. Finally, during shortages, manufacturers and distributors often allocate product on the basis of past usage, so an initial stockpile order generally has no impact on increasing an allocation.

Purchasing from outside pharmacies and inhouse compounding. Healthcare organizations must establish clear guidelines for dealing with situations in which a product is available only from a compounding source or nontraditional source or when a critical drug is not available at all. Each healthcare organization must determine its philosophies on purchasing drugs from the gray market or compounding pharmacies and on inhouse compounding. These decisions should be made before the pressure and emotion of a specific shortage occur. Each option and its potential effect on patient risk should be evaluated. Nontraditional drug product sources (e.g., secondary wholesalers) have extremely limited supplies, and the quality of these products may be questionable, as the provenance of the medication may be unknown. Pedigree requirements of the Drug Supply Chain Security Act may alleviate these concerns as they are implemented.[72] Products from compounding pharmacies may also present risks to patients (e.g., inefficacy, adulteration, lack of sterility); tragically, several deaths have been associated with improperly sterilized compounded products. Healthcare organizations may choose to compound products if they can meet the necessary guidelines; however, obtaining raw materials may be difficult in some cases.

Conclusion

Drug product supply issues are a frequent problem affecting healthcare organizations. Organizations can mitigate the effects of shortages by establishing an infrastructure for dealing with shortages before they occur. Although it is impractical to prepare for every potential shortage, proper planning can reduce adverse effects on patient care and healthcare organization costs and prevent problems from escalating into crises. The keys to success will undoubtedly be found in the effectiveness of information gathering; teamwork to assess options; ability to rapidly make changes in information systems; and communication with providers, patients, and administrators.

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Additional information

Developed through the ASHP Council on Pharmacy Management and approved by the ASHP Board of Directors on June 19, 2018. These guidelines supersede the ASHP Guidelines on Managing Drug Product Shortages dated January 15, 2009.

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KONNECT DENTAL KARE SERVICES

Dear Members of the Oregon Board of Dentistry,

My name is Brenna Chavarin, DHA, MSAH, EPDH. I am an Oregon Expanded Practice Dental Hygienist and the Executive Director of Konnect Dental Kare Services, a nonprofit organization providing preventive oral health services to underserved populations in rural and frontier communities throughout Klamath County.

At the recommendation of Dr. Angela Smorra, I am writing to request clarification from the Board regarding the ability of Expanded Practice Dental Hygienists (EPDHs) to utilize certain topical antimicrobial agents within the EPDH scope of practice, specifically 25% silver nitrate topical solution and 10% povidone-iodine.

EPDHs are currently permitted to apply silver diamine fluoride (SDF) preventively as an antimicrobial and fluoride application intended to reduce caries risk. This prompted me to seek clarification regarding whether other topical antimicrobial products may also fall within an EPDH's scope of practice.

An additional reason I am seeking clarification is the growing resistance we are encountering from some parents and community members regarding fluoride-containing products. In our school-based and community programs, our goal is to make preventive oral health services accessible to as many individuals as possible. When a patient or parent declines fluoride, I would like our EPDHs to have evidence-based, legally permissible alternatives that may still provide an antimicrobial or preventive benefit rather than having no additional preventive intervention available.

Specifically, I am requesting clarification regarding:

25% Silver Nitrate Topical Solution – Silver nitrate has a long history of topical use in dentistry and has antimicrobial properties. Our intended use would be topical application to tooth surfaces as a preventive antimicrobial intervention intended to reduce caries risk, particularly as an alternative option for patients or parents who decline fluoride-containing products. We would follow the manufacturer's instructions for use, appropriate isolation and application procedures, and all applicable safety precautions. We recognize that silver nitrate can cause temporary or permanent staining of contacted tissues or surfaces and can cause irritation or injury with unintended tissue or eye exposure. Appropriate informed consent, personal protective equipment, isolation, storage, and handling procedures would be incorporated into our protocol.

10% Povidone-Iodine – Povidone-iodine is a broad-spectrum topical antiseptic with antimicrobial activity. Our intended use would be to paint povidone-iodine directly onto tooth surfaces as a preventive antimicrobial intervention intended to reduce oral bacterial burden and caries risk, particularly as an alternative option for patients or parents who decline fluoride-containing products. We would follow the manufacturer's instructions for use, appropriate

application procedures, and all applicable safety precautions. Patients would be screened for applicable contraindications and precautions, and appropriate measures would be taken to minimize ingestion and unintended exposure.

My question is specifically whether either of these products may be administered or applied by an EPDH practicing without dentist supervision under their Expanded Practice Permit, including when fluoride products are declined.

I understand that OAR 818-035-0030(1)(e)–(f) addresses a dental hygienist's ability to administer and dispense antimicrobial agents and non-systemic antimicrobial agents under general supervision, including silver nitrate. I am specifically seeking clarification as to whether an EPDH may perform these applications without dentist supervision when practicing under an Expanded Practice Permit.

I would greatly appreciate the Board's formal clarification regarding whether either or both agents fall within the EPDH scope of practice and, if permitted, whether there are any limitations, required protocols, training, or documentation requirements associated with their use.

Our intent is to remain fully within the EPDH scope of practice while identifying additional evidence-based preventive options for individuals who might otherwise decline certain preventive services.

Thank you for your consideration and guidance.

Sincerely,

Brenna Chavarin, DHA, MSAH, EPDH
Executive Director
Konnect Dental Kare Services

Proposed Scope-of-Practice Change for Oregon Dental Hygienists

Authorization to Apply Noninvasive Enamel Remineralization and Repair Materials

Submitted to the Oregon Board of Dentistry

Purpose of the Proposal

I respectfully request that the Oregon Board of Dentistry amend or clarify Oregon's dental hygiene scope-of-practice rules to permit all licensed Oregon dental hygienists—not only those holding a Restorative Functions Endorsement—to apply noninvasive therapeutic materials intended to remineralize or repair enamel.

This authority would be limited to procedures that do not involve the cutting, drilling, preparation, excavation, or irreversible removal of natural tooth structure.

Proposed Scope

A licensed dental hygienist should be permitted, under the appropriate level of supervision and pursuant to a dentist's diagnosis and treatment plan, to apply a professionally indicated material that is designed to:

- Promote the remineralization of demineralized enamel;
- Arrest, stabilize, or repair an incipient or noncavitated enamel lesion;
- Strengthen enamel against further demineralization;
- Occlude dentinal tubules or subsurface lesions through a noninvasive procedure;
- Protect enamel following the identification of an early carious lesion; or
- Provide another Board-approved noninvasive therapeutic benefit to enamel.

The proposed authority would not permit a dental hygienist without a Restorative Functions Endorsement to:

- Remove, cut, drill, prepare, or excavate natural tooth structure;
- Treat a cavitated lesion that requires mechanical tooth preparation;
- Place or finish a traditional direct restoration;
- Independently diagnose dental caries;
- Independently develop a restorative treatment plan; or
- Perform any procedure that otherwise requires a restorative, expanded-practice, or other specialized endorsement.

Suggested Regulatory Language

The following language could be added to OAR 818-035-0030, “Additional Functions of Dental Hygienists,” or another section identified by the Board:

Noninvasive enamel remineralization and repair materials

A licensed dental hygienist may, under the general supervision of a licensed dentist and pursuant to a dentist’s diagnosis and treatment plan, apply professionally administered materials intended to remineralize, arrest, stabilize, strengthen, or noninvasively repair enamel.

The dental hygienist must complete manufacturer-recommended or Board-approved training before applying the material.

A procedure performed under this section may not include the cutting, drilling, excavation, preparation, or irreversible removal of natural tooth structure.

Nothing in this section authorizes a dental hygienist to diagnose dental caries, prepare a tooth for a restoration, or place or finish a direct restoration unless the dental hygienist holds any endorsement otherwise required by law.

Rationale

1. These procedures are preventive and therapeutic, rather than conventionally restorative

Traditional restorative treatment generally requires the removal or preparation of tooth structure followed by the placement and finishing of a restorative material.

Noninvasive remineralization therapies are fundamentally different. They are applied topically or through another non-surgical technique and are intended to strengthen or repair enamel without the use of a handpiece, bur, excavator, or other instrument that removes natural tooth structure.

The defining boundary should therefore be the nature of the procedure—not whether the manufacturer describes the product as “repairing” enamel.

2. The proposal is consistent with the existing dental hygiene scope

Oregon dental hygienists are already authorized to provide preventive and therapeutic services, including the administration of fluoride and fluoride varnish. Expanding the rule to include additional noninvasive remineralization materials would be a logical extension of the hygienist’s existing role in caries prevention, risk reduction, patient education, and disease management.

The proposed change would not grant dental hygienists independent diagnostic authority. The dentist would remain responsible for diagnosis, treatment planning, and determining whether a lesion is appropriate for noninvasive treatment.

3. Earlier intervention may preserve healthy tooth structure

When early enamel lesions are identified before cavitation, noninvasive treatment may allow the dental team to intervene before conventional surgical-restorative treatment becomes necessary.

Authorizing trained dental hygienists to provide this care supports a minimally invasive philosophy in which clinicians preserve healthy tooth structure whenever clinically appropriate.

This proposal would establish a clear boundary: hygienists without restorative authorization could apply qualifying materials but could not remove or mechanically prepare tooth structure.

4. The change would improve access to timely care

Dental hygienists frequently identify demineralization and early enamel lesions during preventive visits. Under a dentist's diagnosis and treatment plan, allowing the hygienist to apply the prescribed material during the same appointment could reduce delays and eliminate the need for a separate restorative-chair appointment solely for a noninvasive application.

This is particularly important for patients who experience transportation barriers, limited appointment availability, financial constraints, dental anxiety, or difficulty returning for additional visits.

5. The change would preserve restorative capacity

Dentists' restorative schedules should be prioritized for procedures that require their specialized surgical and restorative expertise, including:

- Removal of infected or irreversibly damaged tooth structure;
- Preparation of cavitated lesions;
- Placement of complex restorations;
- Endodontic and surgical treatment;

Allowing dental hygienists to deliver dentist-prescribed, noninvasive enamel therapies would help reserve valuable restorative-chair time for patients who require operative care.

6. Appropriate safeguards can be maintained

The requested scope expansion can be implemented with clear safeguards:

- A dentist must diagnose the condition and authorize the treatment;
- The lesion must be appropriate for noninvasive management;
- The hygienist must follow the manufacturer's instructions;

- The hygienist must complete applicable product training;
- Informed consent must be obtained and documented;
- The product, tooth number, treated surface, indication, and clinical findings must be documented;
- The patient must receive appropriate follow-up and monitoring; and
- The hygienist may not remove or prepare natural tooth structure.

Requested Board Action

I respectfully request that the Oregon Board of Dentistry:

1. Review whether the current Dental Practice Act and administrative rules adequately distinguish noninvasive enamel remineralization from restorative treatment;
2. Confirm that applying a material without cutting, drilling, excavating, or preparing tooth structure does not constitute the placement of a direct restoration;
3. Amend OAR 818-035-0030, or another applicable rule, to expressly authorize licensed dental hygienists to apply dentist-prescribed noninvasive enamel remineralization and repair materials;
4. Establish reasonable education, documentation, supervision, and informed-consent requirements; and
5. Use technology-neutral language so the rule applies to current and future evidence-based remineralization materials rather than being limited to a specific brand or product.

Conclusion

Oregon dental hygienists are educated and licensed preventive oral healthcare professionals whose core responsibilities include disease prevention, patient education, fluoride therapy, risk reduction, and the preservation of oral health.

Permitting trained dental hygienists to apply dentist-prescribed, noninvasive enamel remineralization materials would enhance access to early intervention while maintaining clear professional boundaries. It would support the preservation of natural tooth structure, improve clinical efficiency, and allow dentists to dedicate more restorative-chair time to patients requiring operative treatment.

Most importantly, the proposed change would allow Oregon dental teams to provide timely, minimally invasive care while preserving the dentist’s responsibility for diagnosis and treatment planning.

Thank you for your consideration of this proposed scope-of-practice clarification.

818-035-0030
Additional Functions of Dental Hygienists

(1) In addition to functions set forth in ORS 679.010, a dental hygienist may perform the following functions under the general supervision of a licensed dentist:

(a) Make preliminary intra-oral and extra-oral examinations and record findings;

(b) Place periodontal dressings;

(c) Remove periodontal dressings or direct a dental assistant to remove periodontal dressings;

(d) Perform all functions delegable to dental assistants and expanded function dental assistants providing that the dental hygienist is appropriately trained;

(e) Administer and dispense antimicrobial solutions, other antimicrobial agents, or **antiseptic agents** in the performance of dental hygiene functions.

(f) Prescribe, administer and dispense fluoride, fluoride varnish, antimicrobial solutions for mouth rinsing or other non-systemic antimicrobial agents.

(g) Apply noninvasive enamel remineralization and repair materials that do not require cutting, drilling, or excavation of tooth structure .

(h~~g~~) Use high-speed handpieces to polish restorations and to remove cement and adhesive material.

(i~~h~~) Apply temporary soft relines after manufacturer required denture preparation to complete dentures for the purpose of tissue conditioning.

(j~~i~~) Perform all aspects of teeth whitening procedures.

(2) A dental hygienist may perform the following functions at the locations and for the persons described in ORS 680.205(1) and (2) without the supervision of a dentist:

(a) Determine the need for and appropriateness of sealants or fluoride; and

(b) Apply sealants or fluoride.

(g) Apply noninvasive enamel remineralization and repair materials that do not require cutting, drilling, or excavation of tooth structure .

(3) In addition to functions set forth in ORS 679.010, a dental hygienist may perform the following functions under the indirect supervision of a licensed dentist:

(a) Upon successful completion of a course in intravenous access or phlebotomy approved by the Board, a dental hygienist may initiate an intravenous (IV) infusion line for a patient being prepared

for IV medications, sedation, or general anesthesia under the indirect supervision of a dentist holding the appropriate anesthesia permit.

(b) Upon successful completion of a course in intravenous access or phlebotomy approved by the Board, a dental hygienist may perform a phlebotomy blood draw under the indirect supervision of a dentist. Products obtained through a phlebotomy blood draw may only be used by the dentist, to treat a condition that is within the scope of the practice of dentistry.

(4) Perform extraoral adjustment of fixed and removable prosthesis or appliances.

CORRESPONDENCE

DR. JAMES A. MILLER
SMILE ARTISTRY

To: Oregon Board of Dentistry
From: James A. Miller, DMD, MAGD, DABOI, FAAID
Re: Drug-Induced Osteonecrosis of the Jaw: An Increasingly Prevalent Medical/Dental Patient Treatment Complication

The advent and increasingly prevalent use of bisphosphonates and other medications is leading to an increasing incidence of osteonecrosis of the jaw in patients being treated by dentists. Drugs such as bisphosphonates, Prolia® (denosumab), and other medications used to treat cancers, osteopenia, and osteoporosis are now prescribed to a growing number of patients.

These medications can significantly affect a patient's ability to grow and heal bone. A simple and routine dental extraction may initiate a serious case of osteonecrosis of the jaw with long-term complications.

Presently, dentists in Oregon rely primarily on patients to provide accurate medical histories, including medications they have been prescribed and current or past medical treatments. Unfortunately, patients frequently do not remember or fully understand which aspects of their medical history are clinically relevant to dental care.

In the past several months, I have seen three cases of drug-induced and radiation-induced osteonecrosis following dental extractions, two of which involved treatment performed several years earlier by another treating dentist. Every case is unique; however, I cannot help but wonder whether these cases may have had different outcomes if the treating dentists had access to complete medical records and medication histories before treatment.

I respectfully recommend that the Oregon Board of Dentistry engage with the appropriate agencies and governing bodies to explore a pathway that would allow licensed Oregon dentists, with appropriate patient authorization, to access their patients' MyChart medical records. This would provide timely and accurate access to medical histories, diagnoses, current and past treatments, and prescription medications.

www.drjamesamiller.com

518 S.E. Oak St., Suite 100
Hillsboro, OR 97123

Tel 503.640.9310
Fax 503.648.3794
office@drjamesamiller.com

DR. JAMES A. MILLER
SMILE ARTISTRY

Key considerations include:

• Dental surgical procedures—including extractions, bone grafting, implant placement, and other procedures involving exposed bone—place these patients at increased risk.

• Dentists rely heavily on patient-reported medical histories and medication lists. Patients frequently forget medications or do not recognize which medical conditions are relevant to dental treatment.

Why this matters:

• Dentists perform surgery.
• Dentists diagnose disease.
• Dentists routinely treat pain and infection, often through surgical intervention.
• Dentists prescribe medications.
• Dentists are members of the healthcare team, yet often have less access to critical medical information than other healthcare providers involved in a patient's care.

This issue is not about convenience. It is about patient safety. Providing dentists, with appropriate patient consent, access to MyChart medical records has the potential to prevent avoidable complications, improve interdisciplinary communication, and ultimately lead to safer care for Oregon patients.

Respectfully,

James A. Miller, DMD, MAGD, DABOI, FAAID

www.drjamesamiller.com

518 S.E. Oak St., Suite 100
Hillsboro, OR 97123

Tel 503.640.9310
Fax 503.648.3794
office@drjamesamiller.com

***Sent on behalf of AAOMS President, Dr Bob Clark*.**

Dear Dental Board Colleagues,

I am pleased to share an important new article, now available online in the Journal of Oral and Maxillofacial Surgery (JOMS), that provides compelling evidence supporting the safety and effectiveness of the oral and maxillofacial surgery anesthesia model.

I am sharing this publication with you because its findings are particularly timely. As organized dentistry continues to evaluate anesthesia and sedation policies, standards and guidelines, it is essential that these discussions be informed by objective evidence, actual clinical outcomes and the education and training of those who provide this care.

The OMS anesthesia model has been successfully utilized for decades and is supported by extensive specialty-specific education and training, comprehensive patient evaluation, appropriate monitoring, emergency preparedness and an ongoing commitment to patient safety. This newly published paper provides important data that further validates the safety of this model.

The significance of these findings extends beyond oral and maxillofacial surgery. Decisions regarding anesthesia policy should be grounded in evidence and should appropriately recognize differences in specialty training, competency, clinical experience and demonstrated patient outcomes. Policies affecting established models of care should not be based on assumptions or applied uniformly without consideration of the evidence supporting those models.

For that reason, I encourage you to review the article and share it with the appropriate leaders, committees and policymakers within your organizations. We believe these findings should be part of any future discussion regarding dental anesthesia standards, guidelines or policies that could affect the OMS anesthesia model.

The article is now available online, and I have attached a copy for your convenience.

AAOMS remains committed to constructive collaboration throughout organized dentistry and to ensuring that decisions affecting anesthesia care are driven first and foremost by facts, evidence and patient safety.

Thank you for your continued partnership and for your consideration of this important study.

Sincerely,

Bob Clark, DMD
President
American Association of Oral and Maxillofacial Surgeons

SPECIAL CONTRIBUTION

Training Matters: Why Competency Should Guide Office-Based Pediatric Anesthesia Policy

Robert S. Clark, DMD, [*] *Charles A. Crago, DMD, MD,* [†] *Debra M. Sacco, DMD, MD,* [‡] *J. David Morrison, DMD,* [§] *Jeffrey H. Wallen, DDS,* [‖] *Steven R. Nelson, DDS, MS,* [¶] *Pushkar Mehra, DMD, MS, BDS,* [#] *Martin E. Eichner, DDS,* [**] *Daniel J. Gesek, Jr, DMD,* [††] *Gregory M. Ness, DDS,* [‡‡] *Julia R. Plevnia, DDS,* [§§] *W. Frederick Stephens, DDS,* [‖‖] *J. David Johnson, Jr, DDS,* [¶¶] *and Paul J. Schwartz, DMD* [##]

Background: Pediatric office-based deep sedation and general anesthesia policy should prioritize patient safety and preserve access to care. Debate has focused on whether universal staffing requirements—imposing a separate anesthesia provider—should supersede differences in practitioner education, training, and demonstrated competency.

Findings: Oral and maxillofacial surgery residency provides extensive hospital-based anesthesia education, longitudinal experience with deep sedation and general anesthesia in a surgeon-directed anesthesia team model, airway management, and emergency care. Oral and maxillofacial surgery practice is reinforced by a specialty-wide safety infrastructure incorporating office evaluation, anesthesia-assistant education, simulation, emergency preparedness, adverse-event reporting, and continuing education. Available utilization and adverse-event data demonstrate that including a separate anesthesia provider does not improve pediatric anesthesia safety.

Conclusions and relevance: Pediatric dental anesthesia policy should recognize differences in specialty-specific training and professional competency rather than impose uniform staffing models. A competency-based approach supports patient safety and preserves access to care, while appropriately accommodating the demonstrated safety of the surgeon-directed anesthesia team model practiced by oral and maxillofacial surgeons.

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Address correspondence and reprint requests to Dr Johnson: 135 Danbury Drive, Oak Ridge, TN 37830; e-mail: jdjj1@aol.com

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Key Points

Question Should American Dental Association's pediatric office anesthesia staffing policy reflect practitioner competency or require a separate anesthesia provider?

Findings Observational evidence fails to demonstrate greater safety with separate anesthesia providers. Oral and maxillofacial surgeons receive extensive anesthesia training and demonstrated competency using the surgeon-directed anesthesia team model.

Meaning American Dental Association staffing policy should account for practitioner competency, safety systems, patient factors, and access to care, allowing oral and maxillofacial surgeons to continue their current anesthesia practices without a separate anesthesia provider.

Few issues command greater consensus within health care than the obligation to protect children receiving anesthesia. Oral and maxillofacial surgeons, pediatric dentists, dentist anesthesiologists, physician anesthesiologists, pediatricians, nurses, regulators, and policymakers all share a common objective: ensuring that every child has access to safe, high-quality anesthesia care. The debate surrounding office-based pediatric deep sedation and general anesthesia is therefore not a disagreement about whether patient safety should be the highest priority. Rather, it is a disagreement about what factors most influence safe anesthesia delivery and how those factors should be reflected in professional guidelines and regulatory policy. Pediatric anesthesia policy should recognize differences in professional competency rather than impose uniform staffing models. A competency-based approach supports patient safety and preserves access to care while appropriately accommodating the surgeon-directed oral and maxillofacial surgery (OMS) anesthesia team model.

Current Debate

The most recent catalyst for this discussion is the American Dental Association's (ADA's) development of the Guidelines for the Use of Sedation and General Anesthesia by Dentists for Pediatric Patients. These guidelines were initiated following the 2025 ADA Dental Anesthesia Provider Summit[1] and subsequent direction from the ADA House of Delegates to develop pediatric-specific guidance for dentists. This effort represented an important milestone, reflecting organized dentistry's desire to develop guidance under its own governance rather than relying on guidelines developed by outside organizations. As the American Association of Oral and Maxillofacial Surgeons (AAOMS) noted in its comments to the ADA Council on Dental Education and Licensure, the ADA recognized that continued incorporation of external guidelines could bind the association to future revisions over which it exercised neither authorship nor governance.

Although the proposed guidelines address numerous aspects of pediatric anesthesia, discussion has centered largely on personnel requirements for deep sedation and general anesthesia. Organizations including the American Academy of Pediatrics and American Academy of Pediatric Dentistry have advocated for models requiring a separate anesthesia provider dedicated solely to anesthetic management during pediatric deep sedation or general anesthesia. In the absence of data, representatives of these organizations have expressed concern that the surgeon-directed OMS anesthesia care team model does not provide an adequate margin of safety for pediatric patients.

AAOMS leaders reached a different conclusion. For decades, oral and maxillofacial surgeons have safely delivered office-based anesthesia through a surgeon-directed team model founded on competency derived from extensive residency-based anesthesia education, trained anesthesia assistants, rigorous office evaluation, continual emergency preparedness, continuing educational opportunities, and ongoing quality improvement.

AAOMS does not oppose the use of a separate anesthesia provider when appropriate for the education and experience of the practitioner or the needs of the individual patient. However, AAOMS maintains that practitioners who complete comprehensive anesthesia education and demonstrate competency through formal residency training and lifelong continuing education, should not be subject to identical personnel requirements as practitioners whose educational pathways were designed to achieve different competencies. The OMS anesthesia team model practiced in compliance with such stringent requirements aligns with the AAOMS mission to ensure patients' access to safe and effective care.

Competency Determines Safe Staffing

Across health care, identical procedures are frequently performed under different personnel models depending upon the education, residency training, and demonstrated competency of the licensed professional providing care. This principle is so well-established that it often goes unnoticed. Yet, it forms the foundation of modern credentialing, hospital privileging, specialty certification, and health care regulation.

Emergency physicians routinely administer procedural sedation while directing interdisciplinary emergency department teams. Trauma surgeons simultaneously manage operative care and complex resuscitation. Interventional cardiologists, interventional radiologists, and gastroenterologists perform procedures requiring varying levels of sedation, depending upon institutional credentialing and patient factors. The determining factor is not the procedure alone; it is the competency of the practitioner performing it.

The question before organized dentistry, therefore, is not whether deep sedation and general anesthesia are complex—they unquestionably are. The question is whether every practitioner who performs those services receives equivalent anesthesia education. The answer is no. Consequently, it should not be surprising that different educational pathways appropriately support different anesthesia delivery models.

OMS Education and the Safety Infrastructure

Within dentistry, OMS occupies a unique position with respect to anesthesia education. Accreditation standards established by the Commission on Dental Accreditation (CODA) require OMS residency programs to provide 4 to 6 years of hospital-based surgical education, including a dedicated anesthesia and medicine rotation of at least 32 weeks, with a minimum of 20 consecutive weeks assigned to an anesthesiology service under the direct supervision of physician anesthesiologists.[2] During this period, OMS residents function, not as students, but as integral members of the anesthesia service. OMS residents participate in preoperative evaluation, anesthetic planning, airway management, induction and emergence, physiologic monitoring, postoperative recovery, and management of anesthetic complications involving pediatric and adult patients.

Training as a member of the medical anesthesia service forms the basis for ongoing OMS resident anesthesia training. Importantly, this dedicated anesthesia rotation represents only one component of OMS anesthesia education. Throughout the remainder of residency, anesthesia continues to be integrated into daily surgical practice. Residents repeatedly administer deep sedation and general anesthesia while managing ambulatory surgical patients, facial trauma, medically complex patients, emergency cases, and patients requiring advanced airway management. This longitudinal educational experience reinforces technical proficiency while cultivating clinical judgment regarding patient selection, procedural risk, anesthetic planning, and recognition of evolving physiologic compromise.

The educational objective is therefore broader than learning to administer anesthetic medications. OMS residency prepares surgeons to integrate surgical decision-making, anesthetic management, airway control, and emergency response into a coordinated model of patient care. The surgeon-directed anesthesia team is not a substitute for anesthesia education; rather, it is the product of that education.

This educational pathway differs substantially from those of other dental specialties, whose residency programs emphasize different professional competencies.

Pediatric dentistry residency programs, for example, focus on comprehensive oral health care for infants, children, adolescents, and patients with special health care needs.

Their curricula emphasize behavior guidance, restorative care, growth and development, interceptive treatment, and management of medically complex pediatric patients.

Although moderate sedation is addressed within pediatric dentistry education, training in deep sedation and general anesthesia should not be characterized as a core component of the specialty's educational mission. Even training in moderate sedation is often limited. The available evidence underscores this distinction. A 2024 CODA survey[3] found that nearly one-half of pediatric dentistry residency programs reported no clinical experience with intravenous moderate sedation, much less with deep sedation or general anesthesia. Moreover, current CODA standards require experience with 50 sedation cases beyond nitrous oxide, but do not specify the level of sedation or require comprehensive competency in office-based deep sedation or general anesthesia.[4] Thus, completion of a pediatric dentistry residency should not be equated with comprehensive training or demonstrated competency in the independent provision of deep sedation or general anesthesia. Nor should such training be construed as establishing the expertise necessary to dictate clinical anesthesia guidelines or policy governing procedures in which the individual lacks formal training, clinical experience, and demonstrated competency.

These differences should not be viewed as evidence that one specialty is inherently superior to another. Rather, they illustrate a fundamental principle of graduate professional education: specialties are designed to achieve different competencies. Just as pediatric dentists possess expertise in child development and behavior management that extends beyond the education of most oral and maxillofacial surgeons, oral and maxillofacial surgeons complete educational pathways intentionally designed to develop competency in hospital-based and office-based deep sedation and general anesthesia integrated with surgical care.

Differences in educational preparation appropriately support differences in clinical practice (Table 1).

Table 1. EDUCATIONAL PREPARATION FOR DEEP SEDATION AND GENERAL ANESTHESIA ACROSS DENTAL TRAINING PATHWAYS

Educational Element	Oral and Maxillofacial Surgery[2]	Pediatric Dentistry[4]	General Dentistry
Predoctoral dental education	✓	✓	✓
CODA-accredited residency required for specialty practice	4-6 years	2-3 years	Not applicable
Dedicated hospital anesthesia rotation	≥32 weeks (≥20 consecutive weeks)	No	No
Functions as anesthesia resident	Yes	No	No
Longitudinal administration of deep sedation/general anesthesia throughout residency	Yes	No	No
Extensive airway management training	Yes	Limited	Limited
Hospital operating room anesthesia experience	Extensive	Limited	None
Trauma and emergency airway management	Extensive	Limited	None
Primary educational objective	Integrated surgery and anesthesia	Comprehensive pediatric oral health care	Comprehensive general dental care

Abbreviation: CODA, Commission on Dental Accreditation. Adapted from CODA accreditation standards.

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Oral and Maxillofacial Surgeons Go Beyond Education Alone

While OMS residency training fully establishes the foundations to administer deep sedation and general anesthesia for pediatric patients utilizing the OMS team-based model, it represents only the beginning of the OMS approach to patient safety (Table 2).

Best clinical practice emerges from systems that reinforce appropriate decision-making, standardize best practices, identify latent hazards, promote continual learning, and prepare teams to respond effectively when unexpected events occur. High-reliability organizations—including commercial aviation, nuclear power, and increasingly health care—have demonstrated that sustained safety depends upon the interaction of education, standardized processes, teamwork, simulation, measurement, and continuous quality improvement.

Over the past several decades, AAOMS has systematically developed such a framework for office-based anesthesia.

Unlike many professional organizations whose primary educational activities focus on continuing education alone, AAOMS has created an integrated patient safety infrastructure encompassing residency education, office accreditation, team training, emergency preparedness, adverse-event analysis, and continuous performance improvement. These initiatives were not developed independently. Rather, they function as complementary components of a comprehensive safety system intended to strengthen every phase of office anesthesia care.

Among the most distinctive elements of this infrastructure is the AAOMS Office Anesthesia Evaluation Program,[5] a peer-review process through which qualified oral and maxillofacial surgeons evaluate office anesthesia practices against nationally recognized standards. The program extends beyond regulatory compliance by emphasizing continual quality improvement, emergency preparedness, equipment readiness, documentation, patient monitoring, and adherence to evidence-based anesthesia practices. Through periodic evaluation and peer-to-peer education, the Office Anesthesia Evaluation program reinforces a culture of accountability and lifelong learning that extends well beyond residency training, so much so that it has been adopted for use by several state dental boards for their own office evaluation processes.

Patient safety similarly depends upon the competency of every member of the anesthesia team. Recognizing this principle, AAOMS established the Dental Anesthesia Assistant National Certification

Table 2. COMPONENTS OF THE AAOMS OFFICE ANESTHESIA SAFETY INFRASTRUCTURE

Safety Initiative	Primary Purpose
CODA-accredited OMS residency education	Comprehensive anesthesia competency
Office Anesthesia Evaluation (OAE) Program	Peer review and office quality assessment
Parameters of care	Specialty-wide clinical standards
DAANCE	Evaluation of standardized anesthesia assistant education using psychometrically valid examination
National Simulation Program	Crisis resource management and emergency preparedness
Quarterly mock emergency drills	Team performance and rehearsal of rare events
DAIRS	Adverse-event reporting and continuous quality improvement
Continuing education	Maintenance of competency
Capnography advocacy	Enhanced physiologic monitoring
PALS certification	Pediatric emergency preparedness

Abbreviations: AAOMS, American Association of Oral and Maxillofacial Surgeons; CODA, Commission on Dental Accreditation; DAANCE, Dental Anesthesia Assistant National Certification Examination; DAIRS, Dental Anesthesia Incident Reporting System; OMS, oral and maxillofacial surgery; PALS, pediatric advanced life support.

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Examination[6] to provide a competency standard for anesthesia assistants participating in office-based anesthesia care. The examination assesses assistants on the skill gained through formal and practical experience, testing on principles including patient monitoring, anesthetic pharmacology, airway management, recognition of physiologic deterioration, emergency response, and effective communication within the anesthesia team. Although anesthesia assistants do not replace the judgment or responsibility of the operating surgeon, this standardization credential further strengthens the collective ability of the team to anticipate, recognize, and respond to evolving clinical situations.

AAOMS has also emphasized continual emergency preparedness through simulation-based education and regular mock emergency drills.[7] Simulation allows entire office teams to rehearse crisis management, refine communication, clarify team roles, and improve performance under conditions that closely approximate real clinical emergencies. These educational strategies mirror those increasingly adopted throughout medicine as components of high-reliability patient safety programs.

Further, AAOMS has embraced continuous quality improvement through systematic evaluation of anesthesia outcomes. The Dental Anesthesia Incident Reporting System[8] encourages reporting and analysis of adverse events and near misses to identify opportunities for improvement before rare complications become recurring problems. This approach reflects a fundamental principle of contemporary patient safety: organizations learn not only from catastrophic outcomes but also from near misses, process failures, and opportunities to strengthen systems before patient harm occurs.

Additional initiatives—including advocacy for routine capnography during moderate, deep sedation and general anesthesia; regularly updated parameters of care; the anesthesia assistants review course, anesthesia update, hands-on emergency drills, and other continuing education opportunities developed and offered by AAOMS; pediatric advanced life support certification; office emergency protocols; and quarterly mock emergency drills—further reinforce a culture in which patient safety is viewed not as a static achievement but as a process of continual improvement.

Collectively, these initiatives distinguish the OMS model from a simplistic characterization of "one surgeon and 2 assistants." Rather, the surgeon-directed anesthesia team model represents the visible component of a much larger patient safety system built over decades through investment in education, peer review, team training, simulation, quality improvement, and continual reassessment of clinical practice. The resulting framework reflects a central principle of modern health care: sustained excellence in patient safety depends not upon any single individual or staffing configuration but upon resilient systems that support consistently safe care.

What Does Evidence Show?

Randomized comparisons of pediatric dental anesthesia staffing models are not ethically feasible. Available evidence therefore consists primarily of claims data, state reviews, adverse event analyses, and quality-improvement reporting, each with important limitations (Table 3). One of the most important observations is that oral and maxillofacial surgeons provide the majority of office-based deep sedation and general anesthesia in dentistry. According to FAIR Health claims data, oral and maxillofacial surgeons performed

Table 3. SUMMARY OF AVAILABLE EVIDENCE RELEVANT TO THE OMS OFFICE-BASED ANESTHESIA MODEL

Evidence Source	Principal Findings
FAIR Health claims data[9]	OMSs perform the majority of dental deep sedation/general anesthesia procedures, and specifically pediatric cases, in the United States.
California Dental Board Pediatric Anesthesia Study[10]	Serious adverse events and deaths occurred across multiple provider types; available summaries identify one OMS-associated pediatric deep sedation/general anesthesia death during the review period.
Texas Blue Ribbon Panel[11]	Pediatric anesthesia-related deaths/permanent injuries involved multiple provider models; none involved OMSs during the study period.
Publicly reported pediatric anesthesia cases (Table 4)	Serious adverse events have occurred with and without separate anesthesia providers.

Abbreviation: OMS, oral and maxillofacial surgery.

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approximately 77 percent of privately insured dental intravenous moderate sedation and deep sedation/general anesthesia procedures from 2018 to 2025.[9] Among children ages 1 to 12, oral and maxillofacial surgeons provided approximately 64 percent of privately insured deep sedation/general anesthesia services; Medicaid data show a similar majority role.

These utilization data are important because they provide essential context for interpreting adverse events. A specialty performing the majority of pediatric office-based anesthesia may be expected to account for a proportionate number of serious complications if all delivery models carried equivalent risk. Instead, available data suggest the opposite, with a greater number of pediatric deaths associated with practitioners who are not oral and maxillofacial surgeons. More broadly, the data suggest that serious adverse events have occurred across multiple provider types and anesthesia delivery models, including models utilizing separate anesthesia providers. Separate non-OMS anesthesia providers are associated with a disproportionately higher number of deaths in spite of the fact that oral and maxillofacial surgeons provide the majority of anesthesia care, per the available data.

The California Dental Board's pediatric anesthesia study[10] reviewed pediatric anesthesia-related adverse events over a 10-year period. Subsequent analyses identified multiple sedation-related deaths and permanent injuries involving various dental providers. One deep sedation/general anesthesia-related death involved an oral and maxillofacial surgeon, whereas several serious adverse events and deaths occurred in non-OMS practices utilizing separate anesthesia providers. Likewise, the Texas State Board of Dental Examiners' Blue Ribbon Panel[11] identified 4 pediatric sedation-related deaths or permanent injuries between 2017 and 2021; none involved an oral and maxillofacial surgeon, while 2 occurred during care provided by pediatric dentists utilizing separate physician anesthesia providers.

AAOMS reviewed publicly reported pediatric dental anesthesia deaths of children aged 0 to 12, from 2002 through 2026 (Table 4). Although media reports are an imperfect source of scientific evidence and should be interpreted cautiously, they demonstrated that serious adverse events have occurred across multiple provider types and that several involved independently licensed anesthesia providers rather than surgeon-directed OMS teams.

Table 4 documents 41 anesthesia-related deaths reported in dental offices distributed among 15 states. When the dental provider type was known (n = 36), there were 2 (5.6%) deaths in OMS provider settings, but there were 34 (94.4%) deaths in non-OMS provider settings. When the anesthesia provider was known (n = 38), 17 (44.7%) deaths occurred in non-OMS settings in the presence of a separate anesthesia provider. These data demonstrate a separate anesthesia provider does not ensure enhanced safety. Requiring an additional anesthesia provider in OMS settings will increase costs and decrease access with no measurable increase in safety.

None of these data suggest that any anesthesia delivery model is risk free. Every pediatric anesthesia-related death represents a profound tragedy for the patient, family, and health care professionals involved. The appropriate conclusion is therefore not that one specialty has achieved perfection, but rather that the available evidence does not demonstrate that the presence of a separate anesthesia provider prevents serious adverse events.

More strikingly, while the availability of a separate anesthesia provider may be one strategy to address serious adverse events for lesser trained professionals, the data do not suggest such correlation for the oral and maxillofacial surgeon highly trained in anesthesia delivery. In fact, the rarity of OMS-related anesthesia incidents in comparison to incidents related to other practitioners suggests that training—not number of providers—might offer the strongest correlation to

Table 4. PUBLICLY REPORTED DEATHS OF CHILDREN AGED 0-12 YEARS, 2002-2026

Year	State	Age	Provider Type	Separate Anesth. Provider
2002	AZ	4	General dentist	No
2005	CA	4	General dentist	Yes – MD/DO
2006	TX	2	General dentist	No
2006	IL	5	Pediatric dentist	No
2006	FL	10	General dentist	Yes – DDS/DMD - General
2007	VA	8	General dentist	No
2009	TX	1	Unknown	Yes – MD/DO
2009	FL	9	General dentist	No
2010	OK	4	Pediatric dentist	Yes - CRNA
2010	FL	5	Pediatric dentist	No
2010	GA	5	General dentist	No
2010	VA	6	Pediatric dentist	Unknown
2011	CA	3	Unknown – non-OMS	No
2011	CA	9	Unknown	No
2011	CA	4	Unknown	Yes – MD/DO
2012	NJ	3	General dentist	No
2012	TX	10	Pediatric dentist	No
2013	HI	3	General dentist	No
2013	TX	4	General dentist	No
2013	CA	11	General dentist	Yes – MD/DO
2015	CA	6	OMS	No
2015	CA	3	Pediatric dentist	No
2015	CA	3	Unknown	No
2016	CA	3	General dentist	Yes – DDS/DMD - DA
2016	TX	4	General dentist	No
2016	TX	1	General dentist	Yes – MD/DO
2017	AZ	2	General dentist	Yes – DDS/DMD - DA
2017	CA	3	General dentist	Yes – MD/DO
2017	WA	4	Pediatric dentist	Yes – MD/DO
2017	Unknown	4	Pediatric dentist	Unknown
2017	AZ	4	General dentist	No
2019	CA	4	General dentist	No
2021	KS	3	Pediatric dentist	Yes - CRNA
2021	WI	7	General dentist	No
2022	SC	3	Pediatric dentist	Yes – MD/DO and CRNA
2024	OR	4	Pediatric dentist	Yes – MD/DO
2025	NC	2	Pediatric dentist	Yes – MD/DO and CRNA
2025	CA	9	General dentist	Yes – DDS/DMD - DA
2025	OK	Unknown	Pediatric dentist	Yes – MD/DO
2026	TX	4	Pediatric dentist	No
2026	VA	12	OMS	Unknown

Note: Data limitation: The information presented in Table 4 was compiled from publicly available sources. Because media reports and other public sources vary in the level of detail provided, certain data elements could not be identified or independently verified. These fields are designated as "Unknown." This designation reflects a limitation of the available source material and should not be interpreted as a finding that the information does not exist.

Abbreviation: OMS, oral and maxillofacial surgery.

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preventing serious incidents. This is underscored further when considering the percentage of services performed by each practitioner. Complications also appear to arise from other factors, including patient selection, airway management, emergency preparedness, communication, underlying medical conditions, and noncompliance with existing regulation.

Patient Safety and Access Are Complementary

Discussions regarding pediatric office anesthesia frequently frame patient safety and access to care as competing priorities. In reality, they are closely intertwined. Delayed treatment of painful dental disease

may result in repeated emergency department visits, progressive infection, nutritional compromise, repeated antibiotic exposure, avoidable hospitalizations, and diminished quality of life. Policies that unnecessarily restrict access to appropriately trained providers therefore carry their own patient safety implications.

This consideration is particularly relevant for children requiring extensive dental treatment, patients with special health care needs, and families living in rural or underserved communities. Access to hospital operating rooms and ambulatory surgical facilities remains constrained in many regions of the United States, and shortages of physician anesthesiologists and other anesthesia professionals continue to challenge timely access to care. Oral and maxillofacial surgeons play an important role in addressing these needs through office-based anesthesia delivered within appropriately equipped facilities by teams specifically trained for that purpose. Frequently, brief surgical interventions under moderate or deep sedation/general anesthesia in the OMS office prevent progression of illness, the need for more extensive surgical and medical management, and serious complications.

AAOMS does not oppose the use of separate anesthesia providers. Rather, AAOMS supports matching anesthesia delivery models to practitioner education, clinical competency, patient characteristics, and procedural complexity. This competency-based approach allows multiple safe models of care to coexist while preserving access for patients who might otherwise experience significant delays in treatment.

Patient safety and access should not be viewed as competing objectives. When office-based anesthesia is delivered by appropriately trained oral and maxillofacial surgeons operating within a comprehensive safety system, available evidence suggests strongly that these goals are advanced simultaneously.

Ensuring Safe Anesthesia Care for Children

Every organization participating in the current discussion shares the same aspiration: ensuring that children receive the safest possible anesthesia care. The differences lie not in that objective but in how best to achieve it.

Throughout health care, staffing models have not been determined by the procedure alone. Instead, staffing models have long reflected differences in education, residency training, competency, and demonstrated performance. OMS represents one example of this broader principle. The oral and maxillofacial surgeon-directed anesthesia model is founded upon extensive hospital-based anesthesia education, reinforced by a comprehensive specialty-wide safety infrastructure, and supported by decades of office-based clinical experience and continuous quality improvement. While no anesthesia delivery model is without risk, the available evidence does not support a universal personnel requirement that disregards meaningful differences in professional education and competency.

As organized dentistry continues to refine pediatric anesthesia policy, future decisions should remain grounded in evidence rather than assumptions, encourage transparent reporting and collaborative research, and recognize the diversity of educational pathways within the profession. AAOMS welcomes continued collaboration with all organizations committed to advancing patient safety. Through rigorous science, open dialogue, and continuous quality improvement, the profession can continue to strengthen both the safety and accessibility of office-based anesthesia for the children and families it serves.

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Dear Ms. Robinson,

Thank you for taking Item 7 at last night's Licensing, Standards and Competency Committee meeting, and for your note yesterday that the proposed amendment to OAR 818-021-0050 can be presented at the October 23, 2026 Board meeting. Please include that draft in the October 23 packet as you offered. I can resend the document if you need it in a particular format.

I respectfully disagree with the Committee's decision to take no action. ORS 679.025(2)(c), as amended by HB 4040, still requires that out-of-state dental student rotations "meet minimum requirements prescribed by the rules of the board." Section 13 of HB 4040 authorizes the Board to exercise those functions before the January 1, 2027 operative date. Enactment of the statute did not finish that work; it assigned it to the Board.

HB 4040 does not require the supervising faculty member to be a licensed dentist, or to hold an Oregon license. It requires only "a faculty member of a dental education program accredited by CODA." "Faculty" has never meant licensed dentist by itself — even the prior OHSU-faculty standard included non-dentist appointees. CODA accredits the school. It does not license the individual for Oregon and it does not sit as this Board's disciplinary body. If the person providing indirect supervision does not hold an Oregon dental license, the Board has no license to restrict or revoke after a patient complaint.

The Board has never adopted rules that screen preceptors. OAR 818-021-0050 is a single sentence. It implements only ORS 679.025(2)(b) and 680.020(2)(b) (Oregon-program students). It does not implement (2)(c). For out-of-state students, the old statute used OHSU faculty as the screen; the school ran the appointment process. HB 4040 keeps the word "faculty," removes OHSU, and still tells this Board to prescribe minimum requirements. That is the gap the enclosed draft is meant to fill: a Board-approved supervisor with an active Oregon license, documented consent and supervision records, and a bar on using students as substitute staff — by amending the existing student rule rather than creating a new number.

I will plan to attend on October 23 and am available if members have questions.

Thank you,

Justin Jones, DDS

Licensed Oregon dentist

Approved OHSU dental student proctor

Roseburg, Oregon

PROPOSED AMENDMENT

OAR 818-021-0050

Community Health Experience for Dental and Dental Hygiene Students

Submitted to:
Haley Robinson, Executive Director
Licensing, Standards and Competency Committee
Oregon Board of Dentistry

Why this is an amendment, not a new rule

The Board already has a student off-campus rule. OAR 818-021-0050 currently reads, in full:

Dental hygiene students or full-time students of dentistry may participate in clinical studies off the premises of the school the student is attending if the clinical studies are part of the approved curriculum.

That sentence implements ORS 679.025(2)(b) and 680.020(2)(b) — Oregon-program students working off campus. It does not implement the new out-of-state dental exemption in ORS 679.025(2)(c), as amended by HB 4040 (2026). The statute now requires that those rotations meet minimum requirements prescribed by the rules of the board. No current rule supplies those minimums.

Definitions already in OAR 818-001-0002 should be used as-is and not redefined here, including Indirect Supervision, Informed Consent, and Full-time.

For comparison: out-of-state dental hygiene students under ORS 680.020(2)(c) still must be supervised by faculty of OHSU or another Oregon accredited hygiene program. HB 4040 did not loosen the hygiene statute. Rules can give dentistry comparable patient-protection content without undoing the statute.

Requested committee action

That the Committee recommend the Board direct staff to amend OAR 818-021-0050 (or, if staff prefers, adopt a companion rule in Division 21) to implement ORS 679.025(2)(c), using the standards below as the starting framework, and that draft language be returned in time to complete rule-making before the January 1, 2027 operative date.

Proposed amended rule text

818-021-0050
Community Health Experience for Dental and Dental Hygiene Students

(1) Oregon-program students. Dental hygiene students or full-time students of dentistry may participate in clinical studies off the premises of the school the student is attending if the clinical studies are part of the approved curriculum.

(2) Out-of-state dental students. A bona fide full-time student of dentistry enrolled in a dental education program located outside of Oregon that is accredited by the Commission on Dental Accreditation of the American Dental Association, or its successor organization, may engage in community-based or clinical studies as an elective or required rotation in a clinical setting located in Oregon only if the requirements of sections (3) through (8) of this rule are met. This section implements ORS 679.025(2)(c).

(3) Supervising dentist approval.

(a) A dentist who wishes to supervise an out-of-state dental student under this rule shall submit an application to the Board on a form prescribed by the Board and receive Board approval before the rotation begins.

(b) The application shall include:

(A) Proof of an active Oregon dental license in good standing;

(B) A description of the proposed rotation, including written learning objectives, anticipated procedures, location, duration, and the supervision plan;

(C) Evidence of professional liability insurance covering the supervising dentist and any students under that dentist's supervision;

(D) A criminal background check satisfactory to the Board; and

(E) Any other information the Board deems necessary.

(c) The Board may deny, revoke, condition, or suspend approval if the dentist fails to meet this rule or has a history of discipline, patient harm, or other conduct that calls into question the dentist's ability to provide adequate supervision.

(4) Student and sponsoring-school documentation. Before a rotation begins, the sponsoring dental school shall provide the Board and the supervising dentist with:

(a) Written verification that the student is a bona fide full-time enrollee in good academic standing in a CODA-accredited program;

(b) A criminal background check for the student satisfactory to the Board;

(c) Proof of professional liability insurance covering the student during the rotation; and

(d) A signed acknowledgment from the student of the permitted scope of practice, the supervision requirements of this rule, and the prohibition in section (6).

(5) Supervision and clinical standards.

(a) All procedures performed by an out-of-state dental student shall be performed under the indirect supervision of a Board-approved supervising dentist, as "indirect supervision" is defined in OAR 818-001-0002.

(b) The supervising dentist shall maintain contemporaneous written logs documenting:

(A) The date, time, and duration of each clinical session;

(B) The identity of the student and the supervising dentist;

(C) The procedures performed; and

(D) Confirmation that the supervising dentist was on the premises and immediately available.

(c) Informed consent, as defined in OAR 818-001-0002, shall be obtained and documented before any procedure in which a student participates. The consent shall state that a dental student will be involved in the patient's care.

(d) The ratio of out-of-state dental students to a supervising dentist shall not exceed two students to one supervising dentist at any time, unless the Board establishes a different ratio by procedure type.

(e) A student may perform only procedures that are within the student's educational program and that the supervising dentist has determined are appropriate for the student's level of training.

(6) Prohibited conduct. An out-of-state dental student may not:

(a) Be used to fill regular staffing needs, perform routine production dentistry, or substitute for a licensed dentist, dental hygienist, dental therapist, or dental assistant;

(b) Perform any procedure without the knowledge and approval of the supervising dentist; or

(c) Engage in activity that is primarily for the economic benefit of a practice rather than for the student's education.

(7) Record-keeping and reporting.

(a) The supervising dentist shall retain supervision logs, patient consents, and related records for a minimum of seven years and shall make them available to the Board upon request.

(b) The sponsoring dental school shall submit an annual summary to the Board describing the number of students who participated in Oregon rotations, the sites used, and any adverse events or complaints.

(c) Any adverse event, complaint, or disciplinary action involving a student or supervising dentist shall be reported to the Board within ten business days.

(8) Compliance. Failure by a supervising dentist, practice, or sponsoring school to comply with this rule may result in denial or revocation of approval to supervise students, discipline of the dentist's license, and any other remedy the Board deems appropriate.

Statutory/Other Authority: ORS 679.250, ORS 679.025, ORS 680.020
Statutes/Other Implemented: ORS 679.025(2)(b), ORS 679.025(2)(c) as amended by Or Laws 2026 (HB 4040) section 12, ORS 680.020(2)(b)

Respectfully submitted,

Justin Jones, DDS
Licensed Oregon dentist
Approved OHSU dental student proctor
Roseburg, Oregon

OTHER ISSUES

BYLAWS OF THE
AMERICAN ASSOCIATION OF DENTAL BOARDS

PREAMBLE

We, the members of the American Association of Dental Boards, in conformity with the Charter granted September 10th, 1883, at Washington, D.C., and renewed in 1944, and in order to encourage the highest standards of dental education, and to promote a higher and more uniform standard of qualifications for dental practitioners and uniformity of methods in the conduct, operation and workings of the dental examining boards, and uniformity in the legislation in the several states, do ordain and establish these Bylaws, for the government of the American Association of Dental Boards.

Section 1 – Name

The name of this organization the American Association of Dental Boards, Henceforth, the American Association of Dental Boards shall be 'trademark' named FEDERATION OF STATE DENTAL BOARDS, hereinafter referred to as "the Federation" or "this Federation."

Section 2 - Incorporation and Office Location

The AADB is incorporated as a non-profit organization in Washington, D.C. The registered office of this Association shall be known as the Central Office and shall be located in such city as shall be determined by the Board of Directors. Branch offices of this Association may be established in such localities and at such times as are deemed necessary by the Board of Directors.

Section 3 - Definition of Terms

In these Bylaws, terms within the dental professional regulatory community are defined as follows:

"Agency": a licensing jurisdiction: a state, a territory, or the District of Columbia of the United States of America which is given jurisdiction over the regulation of business activities within its borders including the authority for licensing, registering and regulating the professional conduct of dentists, dental hygienists**,** and other dental personnel. The term "agency" is also meant to include any entity outside of the United States of America which has similar authority for licensure and regulation and which may contract with the AADB for consultation services or for other purposes.

"Affiliate": Association or Organization Supporting or Promoting AADB and its Mission, as an example, (and not limited to) – Testing agencies, Licensing agencies, State Dental Associations, State Hygiene associations, dental specialties recognized by NCDSCB (National Commission Recognition Dental Specialties and Certifying Boards), etc. Not eligible for 'Affiliate' membership are 'sole for profit' organizations, management organizations, and organizations not involved with licensing, regulation, nor certifications (see Individual Membership 5.5).

"Dental Board": any collective body of dentists and others, such as public members or other dental personnel, which serves as the licensing and regulatory authority for dental personnel within a licensing jurisdiction. These collective bodies of dentists and others are variously referred to as boards of dentistry, boards of dental hygiene, boards of dental examiners, or by other designations by licensing jurisdictions**,** and the term "dental board" encompasses these various designations.

"Member-Governed Organization": an organization in which the members have the ultimate authority over the

operation of the organization. A member-governed organization is one that holds regular annual meetings of its members, has its activities governed by the membership through an elected Board of Directors, and has delegated certain powers to its Board of Directors.

"Dental Board Member": a dentist, a dental hygienist**,** or public member who has been appointed or elected to serve on a licensure or regulatory body empowered to regulate the dental profession within a licensing jurisdiction.

Section 4 - Objectives

The AADB supports America's State Dental Boards in their duty to protect the public through licensing, disciplining, and regulating Dentists, Hygienists, and other auxiliary personnel in Dentistry. To further these goals, AADB shall:

A. Promote and provide a forum for training, communications, and collaboration among all Dental Boards and Dental Board Members, Dental Board Administrators, Staffs, Dental Board Attorneys, and Dental Board Investigators.

B. Promote continuing education, re-education, and remediation of dentists, hygienists, and the auxiliary groups who have as their purpose, optimum oral health and welfare of the public.

C. Assist Dental Boards and Agencies in continually improving methods of testing and evaluating candidates for licensure, and re-licensure ensuring the quality of oral health care standards will be constantly and uniformly raised through services such as the Accredited Continuing Education (ACE) program.

D. Encourage further study in research, dental school accreditation, specialty recognition accreditation, and discussion of the needs and problems of dental education and licensure.

E. Provide information on regulatory best practices, innovative ideas, and other resources to Dental Boards and Legislators in amending, revising, and enforcing the dental practice acts of each state in the interest of the public welfare.

F. Strengthen Dental Boards by providing advocacy, education to other organizations, and governmental entities seeking information regarding key and critical issues in Dentistry.

G. Initiate and develop programs and projects to enhance the efficiency and effectiveness of Dental Boards in organizing, monitoring, and discipline management of licensening, regulations, and certifications.

H. Act as an INDEPENDENT national advocacy group to promote issues for the greater good and benefit of dental boards and greater public protection. (2025)

Section 5 – Membership

Section 5.1: The AADB shall be a Member-Governed organization in accordance with Section 29-401.50 of the District of Columbia Official Code.

Section 5.2: Application for membership shall be submitted to AADB for consideration and approval by a majority vote of the Board of Directors.

Member categories are:

1. Current Dental Board Members.
2. Past Dental Board Members.

3. Life Members.
4. Current and Past State Dental Board Executive Director or Administrator members.
5. Current and Past State Dental Board Investigators or Supervisory Staff members.
6. Current and Past Attorneys Representing State Dental Board members.
7. Affiliate - Individual members or participating agencies, associations, and organizations that support or provide service to the American Association of Dental Boards.
8. Affiliate - Individual Life Members.
9. Juristictional Dental Board as a Member

Section 5.3: Any individual member (listed above 5.2) may be appointed to serve on a committee within the AADB. Current individual Dental Board Members, Past Dental Board Members, Life Members, Dental Board Administrator Members, Dental Board Attorney Members, and Dental Board Investigator Members may participate in AADB business meetings, general assembly votes, and hold office as a Board of Director.

Section 5.4: 1. A Member or Life Member is a person who serves or has served on or is an administrator or board attorney of an Agency and chooses to participate in and pays dues to this Association. They may vote and hold office. 2. A Member may become a Life Member of this Association if the person fulfills one of the following:

A. The person has served as President of this Association.

B. The person has maintained membership in this Association as a Member for at least ten consecutive years immediately before applying for Life Membership and has reached the age of 70.

C. The person has maintained membership in this Association as a Member for at least six consecutive years and has paid a fee that the Board of Directors shall have the authority to set consistent with the fiscal health of the Association.

Section 5.5: An Affiliate Member is a person or organization who fulfills one of the following:

A. The person is an examiner on behalf of dental boards such as a proctor, monitor, consultant examiner**,** or auxiliary, is an examiner for a specialty board recognized by the National Commission on Recognition of Dental Specialties and Certifying Boards or other comparable organizations, or is employed as an administrator by an Affiliate Agency and who does not qualify for membership in this Association as a Member.

B. The person is employed as an administrator or psychometrician by an Agency, a regional organization comprised of two or more Agencies**,** or an allied dental organization or testing agency.

C. The person is an educator serving as a full or part-time faculty member of a school or program accredited by the Commission on Dental Accreditation and who does not qualify for membership in this Association as a Member.

D. The person is recognized as an honorary member of this Association by a vote of the membership for having performed meritorious service to this Association or to dentistry. The Board of Directors may nominate a person to this membership for any felicitous reason.

E. The person is recognized as a disabled/retired member of this Association and who has maintained membership in the Association as a Member for at least ten consecutive years and has retired due to physical disability.

F. Organizations/agencies involved with licensing, testing, certifying, and the mission of AADB that do not qualify as a member (See Section 3).

An Affiliate Member may become an Affiliate Life Member of this Association if the person fulfills one of the following:

A. The person has maintained membership in this Association in some combination of membership categories for at least ten (10) consecutive years and has reached the age of 70.

B. The person has maintained some combination of membership categories for at least six consecutive years and has paid a fee that the Board of Directors shall have the authority to set consistent with the fiscal health of the Association.

Section 5.6: Membership Applications and Membership Changes Applications for all classes of membership in this Association shall be submitted to the Membership Committee. Questions regarding membership guidelines should be submitted to Membership Committee. Following approval by the Board of Directors and in accordance with the adopted policies of this Association, the report of Membership shall be presented to the General Assembly.

Section 5.7: Removal

A. The Board of Directors, by majority vote of the members present and voting, may remove from membership any Member, Agency, or other member delinquent in payment of dues by more than 60 days after being notified at their last known address either by email, text or regular mail. If a Member, Agency**,** or other member is delinquent in the payment of dues by more than 90 days, those Members, Agency, or Affiliate Members for whom the dues were not remitted will cease to be members of this Association.

B. The General Assembly, by affirmative vote of two-thirds of the Members and Life Members present and voting, after appropriate notice and hearing, may suspend or expel any member for cause, including but not limited to the following:

1. Violation of any provision of the AADB Professional Conduct Policy.
2. Suspension, revocation, or other termination of a license.
3. Any act or conduct which may cause disrespect for or lack of public confidence in the dental profession or dental board.
4. Any member who no longer serves on or is an administrator or board attorney of an Agency and is in a position consulting or defending clients against a board.
5. Violation of any provision of these Bylaws or any rule, regulation, or order adopted pursuant to these Bylaws.

C. Notification: An individual who has been suspended for a period or removed "for cause" as stated in Section 5.7, B, be notified that a statement setting forth the grounds for removal or suspension shall have been mailed by registered or certified mail to such member at his last recorded address at least fifteen (15) calendar days before final action is taken thereon, and which shall be accompanied by a notice of the time and place of the meeting at which such vote shall take place. The individual shall be given an opportunity to present a defense at the time and place mentioned in such notice. Notwithstanding the provisions set forth in this Section, a member shall be terminated, after reasonable notice, for non-payment of dues.

D. Removal of a Board of Director from Office: Violations as noted on 5.7(B) for Proposed removal of a member with cause, shall require a 2/3 vote of all present Board of Directors (See Section 10.2).

Section 5.8: Agency Participation. Agency participation will be governed by the following rules:

A. Dental Boards who participate in the AADB:

1. Are the founding Dental Boards of AADB or
2. Have made an application to the AADB and have been approved by the Board of Directors by a two-thirds vote. Members of the AADB, as defined in the Bylaws, shall be drawn from the Agencies.

B. Any Affiliate Agency to participate in the AADB shall have made an application to the AADB and have been approved by the Board of Directors by a two-thirds vote.

C. An Agency or Affiliate Agency to be in good standing shall remain current with their dues to this Association.

D. The AADB Code of Professional Conduct requires members and those directly affiliated with AADB to act with integrity, due care, competence, fully disclose any conflicts, maintain confidentiality, pursue excellence, objectivity, encourage diversity and courtesy. This Code establishes a framework for professional Behavior.

Section 6 - Membership Privileges

Section 6.1: Members and Life Members shall enjoy all rights and privileges of this Association.

Section 6.2: Affiliate Members and Affiliate Life Members shall enjoy all rights and privileges of this Association, including participation on committees, but excluding the ability to vote with the general assembly, attend AADB business meetings, and hold office as a Director.

Section 7 – Governance

Section 7.1: The AADB shall be a Member Governed organization in accordance with Section 29-401.50 of the District of Columbia Official Code.

Section 7.2: General Assembly: The Legislative body of the AADB shall be the General Assembly composed of the Members and Life Members with voting privileges that are present at any Annual Meeting or other business meeting.

Section 7.3: Board of Directors: The administrative body of this Association shall be the Board of Directors, referred to as "the Board," as provided in Section 9 of the Bylaws. The Board of Directors shall be composed of President, Vice President, Secretary/Treasurer, Dental Hygienist Member, Administrator Member**,** Public Member, Immediate Past President, and (2) additional Directors-at-Large.

Section 8 - General Assembly

Section 8.1: Composition. The General Assembly of this association shall be composed of Members and Life Members with voting privileges present at any Annual or other business meeting of the Association for which they are properly registered.

Section 8.2: Powers. The General Assembly shall:

A. Possess the legislative powers of this Association.

B. Determine the policies which govern this Association.

C. Have the power to enact, amend and repeal the Bylaws of this Association.

D. Elect Honorary Members of this Association.

E. Approve all memorials and resolutions in the name of this Association.

F. Elect the Board of Directors and AADB representatives on the various councils and commissions.

Section 8.4: Duties. The General Assembly shall:

A. Elect the officers of the Association.

B. Elect Association representatives to serve on the ADA Council on Dental Education and Licensure, the Commission on Dental Accreditation, on the Appeals Board of the ADA Commission on Dental Accreditation, and on the ADA Joint Commission on National Dental Examinations.

C. Receive reports from the Board of Directors on the status of the association including but not limited to; membership, programs and finances, and other reports or studies requested by the General Assembly.

Section 9 - Board of Directors

Section 9.1: Composition. The Board of Directors:

A. The voting membership of the Board of Directors shall consist of a Nine (9) member Board: the President, Vice President, Secretary/Treasurer, Dental Hygienist Member, Administrator Member, Public Member, Immediate Past President, and (2) additional Directors-at-Large.

B. The ~~Chief Executive Officer~~ Executive Director serves on the Board of Directors as a non-voting member with a voice and without a vote. By a motion and majority vote, the Chief Executive Office may be excluded from an Executive session of the Board of Directors.

C. Quorum and voting. A quorum of the Board of Directors shall consist of five of the Board members. Proxy voting is not permitted.

1. Regular meetings of the Board of Directors shall be held with notice of the date, time, place, or purpose of the meeting; provided, that at the beginning of each one-year period, the Board of Directors may provide a single notice of all regularly scheduled meetings for that year, or for a lesser period, without having to give notice of each meeting individually.

2. Special meetings of the Board of Directors shall be preceded by at least 2 calendar days notice of the date, time, and place of the meeting. The notice need not describe the purpose of the special meeting.

3. The President, or three (3) voting members of the Board of Directors then in office, may call and give notice of a meeting of the Board of Directors.

4. Oral notice of meetings of the Board of Directors is acceptable notice.

5. The President will only vote at the Board of Directors meetings if there is a need to break a tie.

Section 9.2: Powers. The Board of Directors shall:

A. Be the administrative body of the Association, vested with full power to conduct all business of the Association, subject to the Bylaws.

B. Have the power to establish rules and regulations consistent with these Bylaws, to govern its organization, procedures, and conduct.

C. Have the power to establish ad interim policies when the General Assembly is not in session and when such policies are essential to the management of the Association.

D. Have the power, through a majority vote and with notification to the President or ~~Chief Executive Officer,~~ Executive Director to call special meetings of the Board of Directors and General Assembly at the annual meeting.

Section 9.3: Duties. The Board of Directors shall:

A. Provide for the maintenance and supervision of the AADB Office and all property or offices owned or operated by the Association.

B. Appoint qualified persons to the office of ~~Chief Executive Officer~~, Executive Director determine the extent of their duties, regulate the operation of their office, determine compensation, and have full control of all other matters pertaining to the office.

C. Conduct, annually, an evaluation of the ~~Chief Executive Officer~~, Executive Director utilizing an acceptable procedure based upon job specifications established for the position. A committee appointed by the President and confirmed by the Board of Directors shall complete the evaluation of the central office as outlined in the AADB Operations Manual. The Board of Directors shall meet with the ~~Chief Executive Officer~~ Executive Director to discuss the evaluation.

D. Determine the time and place for the convening of the Annual Meeting and any other meetings of the General Assembly.

E. Determine meeting registration fees for members and non-members of the Association. The Board of Directors may, at its discretion, waive meeting registration fees for invited guests.

F. Approve the program for meetings of the General Assembly.

G. Review applications for membership and approval and report actions to the General Assembly.

H. Render reports of its actions to the Association at each Annual Meeting.

I. Adopt a final budget and report to the General Assembly.

J. Convene prior to the Annual Meeting of the General Assembly and, as needed, between Annual Meetings. Meetings of the Board of Directors shall be at times and places designated by the President. Such meetings shall be open to members of the Association, and, with the consent of the Board of Directors, any member may be heard on matters under consideration.

K. Review reports of representatives and committees before such reports are presented to the General Assembly. The Board of Directors may, at its discretion, comment on any report that it reviews.

L. Call special meetings of the Association at its discretion or upon receipt of a petition from ten or more Member Agencies. A notice containing the purpose for a special meeting, plus location and time, shall be mailed to all members at least thirty (30) calendar days prior to said meeting.

M. Nominate, to the General Assembly, candidates for Honorary Membership.

N. Designate, if able, a member of the Association as the "AADB Citizen of the Year" from nominees recommended by the Award Selection Committee.

O. Appoint a Membership Committee to retain current members and recruit new members. It shall develop written material to be sent to all prospective members as well as form letters for responding to frequently asked questions. It shall also maintain contact with each state board's and regional testing agency's appointed AADB liaison person.

P. Have the ability to remove any representative to another dental group if they conclude with just cause, that the representative is either unwilling or unable to fulfill the duties and responsibilities expected of that position.

Q. Set fees, consistent with the fiscal health of the Association, for membership under Section 5.2.

R. Convene a reference committee, as deemed necessary, at meetings of the General Assembly.

Section 10 - Emergency Authority

Section 10.1: In the event of an Emergency (as defined below) the Board of Directors shall have the authority to:

A. Modify lines of authority or succession to accommodate the death or incapacity of any Officer, Board member, employee, or agent.

B. Relocate the Central Office and support facilities, or designate an alternative Central Office or support facilities, or authorize an Officer to do so.

C. Take such other action as it deems necessary and prudent to continue the operations of the AADB and protect its assets.

Section 10.2: An “Emergency” shall include, but not be limited to, an Act of God, fire, earthquake, flood, hurricane, explosion, the action of the elements, war, act of terrorism, riot, mob violence, sabotage, inability to procure or a general shortage of labor, equipment, facilities, materials or supplies in the open market, failure of transportation, strike, lockout, action of labor unions, a taking by eminent domain, requisition, laws, orders of government, national health emergency, or any other unanticipated cause, whether similar or dissimilar to the foregoing, not within the reasonable control of the AADB and which materially interferes with the operations of the AADB. This authority shall include the power to remove any Director, by a 2/3 vote of all the remaining Directors, whom the Board deems, in its sole discretion, to be harmful to the good name, reputation, standing, or operations of the AADB.

Section 10.3: In the event that the Board of Directors exercises any powers pursuant to this Section, it shall give notice to the membership as soon as reasonably practicable of such exercise.

Section 11 – Elected Officers

Section 11.1: Elected Officers. The elected officers of this Association shall be nine (9) in number; the President, Vice President, Secretary/Treasurer, Dental Hygienist Member, Public Member, Administrator Member, Immediate Past-President, two (2) Members-at-large each of whom shall be elected as provided in these Bylaws.

Section 11.2: Eligibility. Only Members and Life Members shall be eligible to serve as elected officers.

Section 11.3: Appointed Officers. The appointed officer of this Association shall be the ~~Chief Executive Officer~~ Executive Director who shall be appointed by the Board of Directors as provided in Section 9.3, B of the Bylaws.

Section 11.4: Nominations. AADB Officer positions, except Immediate Past President, President, and Vice President are 'open' to any Members in good standing. Anyone interested in being a candidate on the AADB Board of Directors shall submit a letter of intent, the position sought, and a CV to Nominating Committee six (6) weeks prior to the Annual Meeting.

Nominations for Secretary/Treasurer, Dental Hygiene Member, and Public Member shall be directed to the Nominating Committee. Nominations for the Administrator Member shall come from the American Association of Dental Administrators. The Nominating Committee will provide candidate information to General Assembly prior to Annual Meeting. Additional nominations from the floor shall be accepted for all positions except the Immediate Past President, President and Vice President. During the Annual Meeting, nominations from the floor are "open", that is any member, in good standing, may present for available Officer positions. He/she//other is required to have a nominee and two (2) seconds and submit a CV to the Nominating Committee prior to first AADB business meeting. In addition, a CV must be presented to General Assembly through each of the Caucus Chairs prior to the election. A nominee from the floor for the position of Administrator member, shall be required to be both a member of the American Association of Dental Administrators and the American Association of Dental Boards. Elections shall be held in adherence with the American Association of Dental Boards Operating Manual of the Nominating Committee. Contested elections will allow opposing candidates 3-minute speeches to the assembly and each candidate shall be available in person to geographical caucuses.

Section 11.5: Elections. The elected officers shall be elected by the General Assembly at the Annual Meeting. If there is more than one nomination for any office, the election shall be by secret ballot. The candidate receiving the majority of the votes shall be declared the elected officer. When more than two candidates have been nominated, a candidate receiving a majority of the ballots cast shall be elected. In the event no candidate receives a majority on the first ballot, the candidate with the fewest votes shall be removed from the ballot and the remaining candidates shall be balloted upon again. This process shall be repeated until one (1) candidate receives a majority of the votes cast.

Section 11.6: Tenure of Office. The elected officers shall serve for a term of ~~one (1) year~~ two (2) years or until their successors are elected and installed. Administrative member, Hygiene member and Public member shall serve a one (1) year term with two (2) eligible renewals.

Section 11.7: Officer Installation. All elected officers shall be installed at the close of the Annual Meeting of the General Assembly whereby their term begins at the conclusion of the Annual Meeting.

Section 11.8: Vacancy. A. If a vacancy occurs in the unexpired term of an officer, the exception being the Administrator Member, between Annual Meetings; the President shall request the Nominating Committee to identify three candidates. The President, with the approval of the Board of Directors, shall select one of the three candidates to fill vacancy on the Board of Directors. If the office of the President becomes vacant, the Vice President will serve out the remaining term of the President and their intended term B.

If vacancy occurs in the unexpired term of the Administrator Member between Annual Meetings, the President shall appoint, after consultation with the President of the American Association of Dental Administrators and with the consent of the Board of Directors, an administrator to serve the unexpired term of the Administrator Member. If a Board of Director is unable to fulfill his or her term and that position is vacated, all remaining members of the Board of Directors will elevate to the next Officer position, and the newly appointed officer will serve as Secretary/Treasurer.

Section 11.9: Distribution. The Association is divided into four Geographic Caucuses as defined below: Each of these Caucuses shall elect a chairperson to represent and preside over the Caucus. Each Caucus shall elect from its membership a representative to be a committee member on the Nominating Committee. The Caucus chair is not prohibited from being elected concurrently to serve on the Nominating Committee.

East	West	North	South
Connecticut	Alaska	Illinois	Alabama
Delaware	Arizona	Indiana	Arkansas
District of Columbia	California	Iowa	Florida
Maine	Colorado	Michigan	Georgia
Maryland	Hawaii	Minnesota	Kentucky
Massachusetts	Idaho	Missouri	Louisiana
New Hampshire	Montana	Nebraska	Mississippi
New Jersey	Nevada	North Dakota	North Carolina
New York	New Mexico	Ohio	Puerto Rico
Pennsylvania	Oregon	South Dakota	South Carolina
Rhode Island	Utah	Wisconsin	Tennessee
Vermont	Washington		Virginia
West Virginia	Wyoming		Virgin Islands
	Kansas		
	Oklahoma		
	Texas		

Section 11.10 Duties.

A. **President.** The President shall:

1. Be the primary contact for day-to-day activities and issues of AADB and communicate to the Board of Directors.

2. Be the voice of the AADB or designate a representative in all public forums.

3. Preside at all meetings of the General Assembly and the Board of Directors preserving order and decorum and enforcing rules of the Association.

4. Have watchful supervision over the Association.

5. Serve as a non-voting member of all committees and vote during Board of Directors meeting only in case of deciding vote (tie) (See 11.10.10).

6. Call special meetings of the General Assembly as provided for in these Bylaws.

7. Call meetings of the Board of Directors as needed or upon the request of the majority of members.

8. Appoint all committees, subject to recommendations and approval of the Board of Directors.

9. Deliver an address to the General Assembly at the Annual Meeting.

10. Cast the deciding vote in case of a tie in either the General Assembly or Board of Directors.

11. Serve, or designate a qualified member to serve, as the official representative of the Association in contact with governmental, civic, business, and professional organizations with the approval of the Board of Directors.

12. Enter into contracts in the name of the Association, upon authorization by the Board of Directors. At least one other officer must also sign any contract. Perform such other duties as custom and parliamentary procedure require. All fiscal contracts should be signed by President, Secretary/Treasurer, and ~~Chief Executive Officer~~ Executive Director.

13. Appoint, with the consent of the Board of Directors, a replacement representative to another group to fulfill the remainder of that term, from which a representative has been removed.

14. Appoint a Parliamentarian.

15. Serve as Program Chair for Annual and Mid-Year Meetings.

B. **Vice President.** The Vice President shall:

1. Assist the President at the President's request.

2. Assist the President with the Mid-Year and Annual Meeting Planning.

3. Serve on the Board of Directors and as a non-voting member of all committees.

4. Advance to the office of President should that office become vacant between Annual Meetings.

5. Be installed as President at the next Annual Meeting.

6. Serve as Program Vice Chair for the Mid-Year and Annual Meetings.

7. Preside over meetings in the absence of the President.

C. **Secretary/Treasurer:** The Secretary/Treasurer shall be responsible for all the funds, property, and other assets of the Corporation and for an accounting of these and shall, in general, perform all duties that are consistent with the office of Secretary/Treasurer of a not-for-profit corporation:

1. Shall be responsible for the funds of the Association.

2. Shall keep or cause to be kept an accurate record of all Association receipts and disbursements.

3. Shall assist in the direction of all financial affairs.

4. Shall present financial reports to the Board of Directors as requested.

5. Shall present an annual written report to the General Assembly members at the annual meeting.

6. Shall serve as a non-voting member of the Finance Committees.

7. Shall maintain with CEO the minutes of all meetings of the Association and the Board of Directors.

8. Shall be responsible with CEO for notification of officers of Board of Directors meetings and Members of the General Assembly meetings.

9. Shall preserve correspondence, reports, records, Bylaws, and the Policy and Procedure Manual of the Association in a permanent file.

10. Monitor tax filings in a timely manner.

11. Monitor audits of the organization incorporating best business practices.

12. Be installed as Vice President at the next Annual Meeting.

D. **Dental Hygienist Member.** The Dental Hygienist Member shall:

1. Be a dental hygienist.

2. Serve as a member of the Program Committee.

3. Serve as a member of the Membership Committee.

4. Serve as a member of the Bylaws Committee.

E. **Administrator Member**

Number and Title. One (1) administrator shall be elected as the Administrator Member to serve as a member of the Board of Directors.

Eligibility. Only a person who is a dues-paying member of both the American Association of Dental Administrators and a dues-paying Member of the American Association of Dental Boards shall be eligible to serve as the Administrator Member.

Duties. The Administrator Member shall:

1. Serve as a member of the Program Committee.

2. Serve as a member of the Membership Committee.

3. Serve as a member of the Sponsor Committee.

4. Serve as Chair of the Administrators' Committee.

F. **Public Member**

Number and Title. One (1) public member of an Agency shall be elected as the Public Member to serve as a member of the Board of Directors.

Eligibility. Only a dues-paying public member of the American Association of Dental Boards shall be eligible to serve as the Public Member.

Duties. The Public Member shall:

1. Serve as a member of the Membership Committee.

2. Serve as a member of the Sponsor Committee

G. **Immediate Past-President.** Provide smooth transition of office, provide institutional and historical perspectives, support President's and Boards' agenda, and mentorship to new Board members.

H. **Members-at-large (2).** Provide energy, perspective, and support to AADB, the President, and the Board of Directors.

Section 12 - Appointed Officer

Section 12.1: Number and Title. The appointed officer of this Association shall be the ~~Chief Executive Officer~~ Executive Director.

Section 12.2: Appointment or Removal. The ~~Chief Executive Officer~~ Executive Director shall be appointed by the Board of Directors. The CEO may be removed with a vote of 2/3 of the Board of Directors present at the meeting.

Section 12.3: ~~Chief Executive Officer~~ Executive Director. ~~Chief Executive Officer~~ Executive Director shall:

A. Serve as ~~Chief Executive Officer~~ Executive Director of the Central Office and any branch offices and as Assistant Secretary.

B. Attend meetings of the General Assembly and the Board of Directors.

C. Keep and publish minutes of meetings of the General Assembly and the Board of Directors with coordination and review of the Secretary/Treasurer.

D. Be custodian of all records, books, papers, and funds belonging to the Association.

E. Conduct correspondence on behalf of the Association including sending notifications of meetings, notifying officers of their election, and notifying committee members of their appointments and duties.

F. Keep a record of all members and guests present at each meeting of the General Assembly.

G. Charge, upon the books of the Association, the dues of all categories of dues-paying members.

H. Demand and receive all funds due the Association including bequests and donations.

I. Act as custodian for all monies, securities, and deeds belonging to this Association and hold, invest, distribute, or convey such funds or instruments, in the name of the Association, at the direction of the Board of Directors or the General Assembly. All disbursements shall be made by check signed by the ~~Chief Executive Officer~~ Executive Director or the President.

J. Submit all financial records to the Board of Directors or its auditor at the request of the Board of Directors.

    1. Upon request up-to-date fiscal reports at each Board of Directors meeting.

    2. Submit corporate tax filing in a timely matter and report directly to Secretary/Treasurer.

    3. Submit quarterly accounting report to the Board of Directors.

    4. Conduct a timely external audit of AADB finances incorporating best business practices.

K. Render a written report of the Association's financial position thirty (30) calendar days before the Annual Meeting.

L. Maintain an up-to-date copy of the Bylaws.

M. Provide general publicity for meetings of the General Assembly and other important activities of the Association.

N. Coordinate and support activities of all committees of the Association.

O. Report activities of the Central Office during meetings of the Board of Directors.

P. Employ such persons as are necessary for the orderly operation of the Central Office subject to restrictions in the budget approved by the Board of Directors.

Q. Draft an annual budget for review by the Finance Committee and approval by the Board of Directors that will be reported to the General Assembly.

R. Circulate notice of any meeting of the Board of Directors called by the President or requested by any three (3) members of the Board of Directors. Notice shall be circulated at least thirty (30) calendar days in advance of a face-to-face meeting and 48 hours in advance of an electronic meeting, or as by rules stated in the Boards of Directors operational manual.

S. Present to the Board of Directors an Annual Report of the status of the Association, outlining accomplishments and making recommendations for the advancement of objectives of the Association.

T. Perform such other duties as prescribed by the Board of Directors.

Section 13 - Standing Committees

Section 13.1: Names. Standing Committees of this Association shall be the Program Committee, the Bylaws Committee, the Nominating Committee, Finance Committee, the Award Selection Committee, the Membership Committee, the Sponsor Committee, and the Administrators' Committee.

Section 13.2: Duties.

A. The Program Committee shall be responsible for the program and other arrangements for the Annual Meeting and other meetings of the Association. For each meeting, the Program Committee shall appoint a Registration Committee and may appoint a Local Arrangements Committee to offer assistance. The Local Arrangements Committee shall report to the Program Committee. The Registration Committee shall help the Program Committee by overseeing the registration of attendees at the AADB Annual and Mid-Year Meetings.

B. The Bylaws Committee shall continually review and recommend changes to the Bylaws in order to keep them current with the Association’s program. The Constitution and Bylaws Committee shall also review changes proposed by others for appropriateness of wording. The Bylaws Committee shall seek input from membership on any changes.

C. The Nominating Committee shall present recommendations for the slate of nominees for Association offices at the first session of the Annual Meeting. Nominations may be added from the floor in accordance with these Bylaws.

D. The Finance Committee shall review the accounting/financial functions and internal controls of the Association in order to protect and enhance the financial situation. The Committee will make recommendations regarding the Association’s financial policies; financial statements and investment methodology to the Board of Directors. The Committee shall evaluate the budget prepared by the ~~Chief~~

~~Executive Officer~~ Executive Director and submit a recommended annual budget to the Board of Directors in advance of the Mid-Year Meeting.

E. The Award Selection Committee shall make recommendations to the Board of Directors of the Association to be considered for the "AADB Citizen of the Year" Award to be presented each year at the Annual Meeting. Additionally, when appropriate or necessary, the Award Selection Committee shall make recommendations for the "Meritorious" Award for AADB Nonmembers (approved 2025). The criteria for determining who shall be nominated to receive ~~this award~~ these awards will be outlined in a Committee Manual.

F. The Sponsor Committee shall be responsible for securing AADB corporate sponsors and promoting them to the AADB membership.

G. The Membership Committee shall promote membership in the AADB and recommend member services to the Board of Directors.

H. The Administrators' Committee shall make recommendations to the Program Committee for the Annual Meeting, and other meetings of the Association, and make recommendations to the Board of Directors on administrative needs.

Section 13.3. Reporting. Each standing committee shall report to the General Assembly at the Annual Meeting. The Constitution and Bylaws Committee and the Program Committee shall submit written reports to the ~~Chief Executive Officer~~ Executive Director at least forty-five (45) calendar days before the Annual Meeting. The Nominating Committee may report orally.

Matters that require action by the General Assembly shall be presented in reports, in resolution form.

Section 13.4. Composition and Appointments.

A. Standing Committees, except as otherwise provided for in these Bylaws, shall be composed of not less than three, Members, Life Members or Affiliate Members or individuals of an Affiliate organization of this Association. Affiliate Members may serve on a Standing Committee without vote.

B. The Nominating Committee shall be composed of six Members. Each Caucus shall elect from its caucus one member to serve on the Nominating Committee. The committee will include one member rotated from among the Dental Hygienists, Administrators and Public Members, for a one year term, appointed by the Board of Directors. The chair shall be an AADB past-president appointed by the Board of Directors.

C. Terms of Committee members of a standing committee shall end with the close of the Annual Meeting. Committee Members, however, may be reappointed up to a maximum of five years to the same standing committee.

D. Committee Members of standing committees shall be appointed by the President with the approval of the Board of Directors and subject to the following restrictions:

1. At least one member of the Bylaws Committee and the Program Committee shall be a carryover from the previous year.

2. At least one new member shall be appointed to each standing committee each year.

Section 13.5. Vacancy. In the event of a vacancy in the membership of any standing committee, the President shall appoint a qualified person to fill the vacancy for the remainder of the unexpired term.

Section 13.6. Quorum. The majority of the members of a standing committee shall constitute a quorum for the transaction of business.

Section 13.7. Expenses. A standing committee shall not incur expenses without authorization of the Board of Directors.

Section 14 - Special Committees and Ad Hoc Committees

Section 14.1. Identification and Duties. A special committee may be created at any time by the General Assembly or the Board of Directors. The body that creates a special committee shall be responsible for describing the duties of that special committee.

Section 14.2. Reporting. A special committee shall report annually to either the General Assembly or the Board of Directors. If created by the General Assembly, the special committee shall report to the General Assembly. If created by the Board of Directors, the special committee may report to either the General Assembly or the Board of Directors. If the special committee reports only to the General Assembly, the report shall be provided to the Board of Directors for comment prior to presentation to the General Assembly.

Section 14.3. Composition and Appointments.
Ad hoc committees extend the duration of tasked 'charge' or when task is determined not doable; therefore, ad hoc committees are not necessarily limited by any date.

Special committees shall be composed of not fewer than three committee members.

A. A special committee, unless renewed by either the General Assembly or the Board of Directors, shall terminate its activities at the close of the Annual Meeting.

B. If a special committee is mandated by the General Assembly, the General Assembly may, at its discretion, select its membership. If the General Assembly does not select Committee members for a special committee it mandates, or if the special committee is created by the Board of Directors, the President, with the approval of the Board of Directors, shall appoint its members.

Section 14.4. Quorum. The majority of members of a special committee shall constitute a quorum for the transaction of business.

Section 14.5. Expenses. A special committee shall not incur expenses without authorization of the Board of Directors.

Section 15 - Representatives to Other Dental Groups

Section 15.1. Identification. The Association shall appoint representatives to the ADA Council on Dental Education and Licensure, Commission on Dental Accreditation, the Appeals Board of the ADA Commission on Dental Accreditation and the ADA Joint Commission on National Dental Examinations. The number of representatives to be appointed and their terms shall correspond to definitions in the ADA Bylaws.

Section 15.2. Appointment Procedures. When a vacancy is available on either the ADA Council on Dental Education and Licensure, Commission on Dental Accreditation, the Appeals Board of the ADA Commission on Dental Accreditation, or the ADA Joint Commission on National Dental Examinations, nominations from the General Assembly shall be accepted. All nominees, however, must be current State/Territory Board Members, past State/Territory Board Members, or Life-Members of this Association. The General Assembly shall elect the

representatives of the Association.

Section 15.3. Duties and Reporting. Representatives to any other groups shall be expected to maintain good attendance and service at their designated meetings, and they shall attend a minimum of one AADB meeting each year, and attend a minimum of one Annual AADB meeting every two years. Representatives to the ADA Council on Dental Education and Licensure, Commission on Dental Accreditation and the ADA Joint Commission on National Dental Examinations shall report as a committee to the General Assembly during the Annual Meeting. The representative on the ADA Appeals Board of the Commission on Dental Accreditation may report, within prescribed limits of confidentiality, but is not required to do so. Representatives to other groups shall report orally or by written report to the Board of Directors annually, or may report to the General Assembly as requested. Each representative to ADA Council or Commission shall report, in writing, or if requested by the Board, a yearly report in addition to the Annual report to the General Assembly.

Section 15.4. Other Appointments. Nothing in this section shall be interpreted to prohibit the President, with the approval of the Board of Directors, from making appointments to appropriate organizations other than those specified, as may, from time to time, be required.

Section 16 – Dues

Section 16.1. Dues: The annual dues shall be recommended by the Board of Directors and approved by the General Assembly.

Section 16.2 Loss of Membership. Any Member, Agency, Affiliate Member or Affiliate Agency whose dues remain unpaid for one year shall be dropped from membership after review by the Board and notification by the ~~Chief Executive Officer~~ Executive Director

Section 16.3. Reinstatement. Any Member, Agency, Affiliate Member or Affiliate Agency who has been dropped for non-payment of dues for at least two dues years shall be eligible for reinstatement to membership upon payment of current dues.

Section 16.4. Resignation. Any Member, Agency, Affiliate Member or Affiliate Agency in good standing, and who are not arrears in dues, may honorably resign from the Association. Upon application for reinstatement to membership, any Member, Agency, Affiliate Member or Affiliate Agency may be reinstated upon payment of the current year's dues.

Section 16.5. Honorary Members. Life Members, Affiliate Life Members, and Affiliate Members recognized as Honorary or Disabled/Retired Members of this Association shall not be subject to the payment of dues.

Section 17 - Meetings and Quorum of Assembly

Section 17.1. Meetings. The Association shall hold an Annual Meeting and such other meetings as may be designated by the Board of Directors. Special meetings may be held as provided in Section 9, Section 9.3, Sub-Section (L) of the Bylaws.
The Association shall:

A. record all minutes and maintain all records, documents and property of the AADB, including a roster of members;

B. shall publish for the Members the minutes of the Annual Meeting and a list of those selected to serve on the Board of Directors and all appointments;

C. shall inspect the Membership List, Association must prepare a list of members entitled to notice of meeting including (i) address of each member and (ii) number of votes each member is entitled to cast at meeting. Available for inspection by members two calendar days after notice of meeting given until meeting. A member must be allowed a copy upon written demand showing "proper and relevant purposes". The Association may charge for the copies.

Section 17.2. Quorum. A Quorum of five (5) percent of the membership of the Association shall constitute a quorum for the transaction of business at any meeting of the Association

Section 17.3. Meeting by Electronic Means. The Annual Meeting may also be held, in whole or part, via the Internet or other communication technology. Any meeting of the General Assembly, the Board of Directors, or any Committee, held via the Internet or other communication technology, shall, at a minimum, permit Members to hear or read the proceedings substantially concurrently with their occurrence, vote on matters submitted to Members, pose questions, and make comments.

Section 18 - Order of Business

Section 18.1. Annual Meeting. The President shall submit an agenda to the General Assembly, which may include but is not limited to reports from the president, Board of Directors, ~~Chief Executive Officer~~ Executive Director, committees and task forces, election and installation of officers.

Section 18.2. Special Meetings. The business at a Special Meeting of this Association shall be confined to the specific objectives for which the meeting is called and of which the general membership is notified as provided in these Bylaws.

Section 18.3. Altering Order. The order of business at any meeting may be altered or suspended by a three-fourths (3/4) majority vote of voting members present.

Section 19 - Rules of Order

Section 19.1. Resolutions. Proposed policy statements or actions shall be presented to the General Assembly in the form of resolutions. A written copy of any proposed resolution shall be furnished to the ~~Chief Executive Officer~~ Executive Director and Board of Directors for inclusion in the minutes. If possible, resolutions should be referred to the Board of Directors for comment prior to their presentation to the General Assembly for action. If a resolution is brought up under new business, it will need a 2/3 vote of the General Assembly to be added to the agenda.

Section 19.2. Floor Privilege. No member shall speak longer than 5 minutes upon any subject until all present have had an opportunity to express themselves, and no member shall speak more than twice on the same subject except by permission of the General Assembly.

Section 19.3. Additional Rules. The rules contained in the current edition of the American Institute of Parliamentarians Standard Code of Parliamentary Procedures shall govern the deliberations of this Association in all cases in which they are applicable and not in conflict with the Bylaws.

Section 20 - Fiscal Year

The fiscal year of this Association shall be from July 1 to June 30 inclusive.

Section 21 - Indemnification

The Association shall indemnify and hold harmless each officer and each member of a committee, now or hereafter serving the Association, from and against any and all claims and liabilities to which the person may be or become subject, by reason of now or hereafter, being, or having heretofore been, an officer and/or a member of a committee of the Association, and/or by reason of alleged acts or omissions as an officer and/or a member of a committee as aforesaid, and shall reimburse each officer and/or committee member of the Association for all legal and other expenses reasonably incurred in connection with defending such claims or liabilities provided, however, that no officer or committee member shall be indemnified or reimbursed for any expense arising out of the officer's or committee member's own negligence or willful misconduct. The foregoing rights of officers and members of committees shall not be exclusive of other rights to which they may be entitled lawfully.

Section 22- Seal

This Association shall have a seal for the purpose of authenticating official documents of the Association. The seal may be broken, changed, or renewed at the pleasure of the Association.

Section 23 – Amendments

Section 23.1. The Bylaws may be amended by a two-thirds vote of the voting Members present at an Annual or Mid-Year Meeting, provided copies of the proposed amendment shall have been presented in writing to the voting members of the Association at least thirty (30) calendar days prior to the meeting.

Section 23.2. An amendment to the Bylaws affecting a change in dues shall not be enacted upon at the Annual or Mid-Year Meeting at which introduced, except by unanimous consent unless the amendment has been circulated to the membership thirty (30) calendar days prior to the Annual or Mid-Year Meeting.

Section 24 – Dissolution

If this Association shall be dissolved at any time, no part of its funds or property shall be distributed to, or among its members, but, after payment of all indebtedness of the Association, its surplus funds and properties shall be used for dental education and dental research in such manner as the then governing body of the Association may determine.

AADB shall provide a notice to the Attorney General of the District of Columbia that it intends to dissolve prior to delivering articles of dissolution to the District. Property held in trust or otherwise dedicated to a charitable purpose may not be diverted from its purpose in a sale of assets unless the corporation obtains an appropriate court order to the extent required by and pursuant to the laws of the District on cy-près or otherwise dealing with the non-diversion of charitable assets.

Last approved by the General Assembly on October 20, 2023

RESPONSIBLE INTEGRATION OF ARTIFICIAL INTELLIGENCE IN ORTHODONTIC CLINICAL PRACTICE

A Position Paper of the American Association of Orthodontists

Current as of November 10, 2025

Foreword

The AAO extends gratitude to its Task Force on Artificial Intelligence (AI) in Orthodontics whose efforts were expertly led by Dr. Heather Stone Hopkins. The Task Force was comprised of Dr. Heather Stone Hopkins, Dr. Jonas Bianchi, Dr. Lucia Cevidanes, Dr. Jae Park, Dr. Anthony Puntillo, Dr. Mario Tai, Ryan Goy, Frank Hemm, and Zelko Relic, and overseen by the AAO Committee on Technology Chair, Dr. Lisa Alvetro. We would like to acknowledge the assistance of Dawn M. Bielawski, PhD with editing. The following paper sets out the scientific evidence upon which the AAO bases its position for the safe, responsible, and clinically appropriate integration of artificial intelligence in orthodontic care.

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IV. **Core Principle 2: Regulatory Alignment and Risk-Based Oversight:** All AI tools used in clinical orthodontics must operate within a defined context of use (COU) and risk classification framework established by global authorities and regulatory bodies such as the FDA, IMDRF, WHO, and ISO. Governance within orthodontic organizations ensures compliance with these external requirements, while the Human-in-Command (HIC) ensures that each tool's use aligns with its approved COU, level of patient risk, and jurisdictional scope of practice. Together, global regulation, organizational governance, and clinical oversight ensure that AI systems are selected, validated, and used under proper professional and regulatory supervision…….....13

V. **Core Principle 3: Trustworthiness and Transparency Across the Lifecycle:** AI governance requires that developers and vendors design, validate, and maintain systems that are reliable, explainable, and transparent throughout the entire lifecycle—from initial development to postmarket monitoring. Clinicians must have visibility into how the model was trained and when changes occur to ensure safe and effective use…….....15

VI. **Core Principle 4: Patient Autonomy:** Orthodontists should disclose when AI tools meaningfully contribute to patient care and ensure that patients are informed if their de-identified data are used to improve or retrain algorithms. Communication should be clear, concise, and patient-friendly, emphasizing the supportive, not substitutive, role of AI in clinical decision-making…….....23

VII. **Core Principle 5: Education and Clinical AI Competency:** As licensed healthcare professionals, orthodontists carry both an ethical obligation to patients and legal accountability for the technologies they integrate into care. The profession must ensure that every orthodontist possesses the knowledge and judgment to evaluate, implement, and provide Human-in-Command (HIC) oversight at the point of care when using AI clinical tools.....25

VIII. **Core Principle 6: Operational Integration and Data Privacy:** AI must integrate smoothly into existing systems and workflows. Interoperability, data security, and compliance with applicable laws are essential. System-level governance defines the frameworks, contracts, and policies that ensure secure, interoperable integration of AI into orthodontic and dental care environments. The Human-in-Command (HIC) enforces these standards in daily practice, verifying that data privacy, encryption, and ethical use are maintained during all AI-supported interactions.....29

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I. Objectives

This paper, authored by the AAO Task Force on Artificial Intelligence (AI) in Orthodontics, provides professional guidance for the responsible development, implementation, and oversight of AI technologies in orthodontic clinical care. While not regulatory in nature, it establishes a framework to support ethical adoption, patient safety, and professional accountability in the integration of AI systems.

This position paper has the following objectives:

1. Preserve professional authority
Ensure that the orthodontist remains the well-informed, educated final decision maker in patient care.

2. Promote transparency in AI development
Emphasize the essential role of developers and vendors in designing, validating, and monitoring AI technologies with transparency, data integrity, and ongoing lifecycle accountability to ensure their trustworthiness in clinical care.

3. Protect patient safety
Establish clear, risk-based recommendations for the responsible clinical integration of AI tools.

4. Establish a principles-based framework
Define an AI governance framework for orthodontics that identifies the orthodontist as the Human-in-Command (HIC) at the point of care and aligns clinical, educational, and regulatory responsibilities across the profession.

These objectives are operationalized through six core principles that collectively guide the responsible integration of AI in clinical orthodontics:

1. AI Governance and the Human-in-Command (HIC)
2. Regulatory Alignment and Risk-Based Oversight
3. Trustworthiness and Transparency Across the Lifecycle
4. Patient Autonomy
5. Education and Clinical AI Competency
6. Operational Integration and Data Privacy

II. Introduction

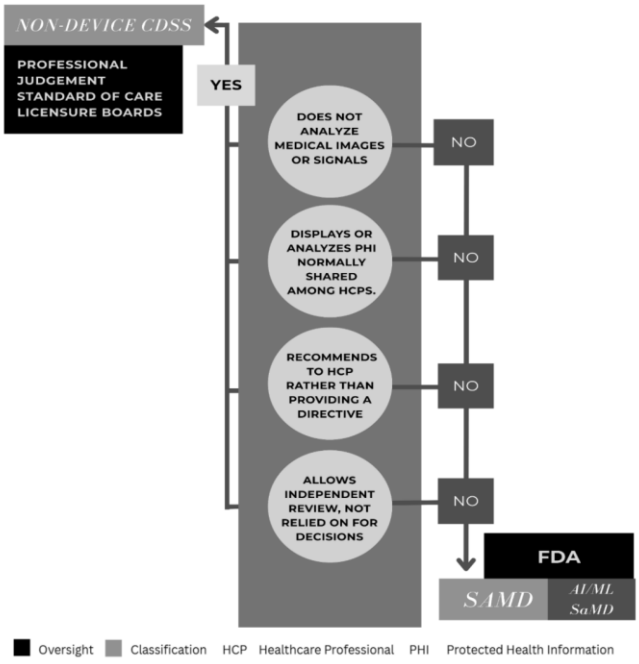
Artificial intelligence (AI) has been integral to the digital transformation of orthodontics, supporting diagnostic and treatment-planning applications across multiple dental specialties.[1,2] Fixed-logic systems, such as *if–then* rules, decision trees, and clinical scoring algorithms, have long assisted clinical decision-making in orthodontics.[3] These rule-based systems produce consistent outputs from identical inputs and do not learn or adapt over time. Historically, oversight for such tools has been determined by their context of use (COU) and the level of risk they pose to patient safety rather than by the type of AI employed.[4-6] The AAO Task Force on AI in Orthodontics was formed not because AI is new to orthodontics, but because adaptive AI systems introduce a fundamental shift in clinical risk. The ability of these technologies to evolve introduces new challenges in validation, reliability, and safety and redistributes responsibility for patient care across the development, deployment, and clinical use lifecycle.[7,8] With the rise of generative and other adaptive systems, the potential for AI to influence clinical decision-making is increasingly evident.[9-11]

Rather than focusing on the underlying architecture or type of AI system, the guidance in this position paper is grounded in COU, level of clinical risk, and the necessity of professional judgment by a licensed orthodontist.[4-6,12-14]

As illustrated in Figure 1, regulatory classification depends on the software's function, which is determined by the four exemption criteria established under the 21st Century Cures Act.[12] Utilizing these criteria, systems that support clinician judgment are classified as Clinical Decision Support Software (CDSS), while those that direct or drive clinical action without independent review fall under FDA oversight as Software as a Medical Device (SaMD).[5,15]

The dynamic nature of adaptive systems necessitates clear governance structures that define where oversight resides and how accountability is distributed.[13,16] When a supportive AI tool is classified as CDSS, oversight of its COU falls to the licensed orthodontist, who is held to the professional standard of care and accountable to state licensure boards. Because CDSS functions within the scope of professional judgment rather than federal device regulation, orthodontists must be equipped to evaluate, interpret, and implement these tools responsibly in practice.[5,7,12,13,17,18]

Figure 1 – *Decision pathway for determining whether clinical decision support software (CDSS) qualifies as a non-device under the 21st Century Cures Act.*



Conversely, when an AI system directly informs or drives treatment decisions, it is classified as SaMD or the subcategory AI/ML SaMD and regulated by the FDA, which maintains oversight across all stages of the product lifecycle, including design, development, and post-deployment use. This places responsibility on developers to design AI systems with patient safety, clinical relevance, and long-term performance in mind.[8,19] This includes ensuring transparency in how the tool operates, establishing mechanisms for human oversight, and maintaining accountability for performance over time.[20-22]

The central issue addressed by this paper is not the presence of AI in orthodontics, but the manner in which its use reshapes the orthodontist's role in clinical decision-making. Oversight is determined not by the technical architecture of the AI system, but by the function it performs and the degree of influence it exerts in patient care.

To support this goal, the American Association of Orthodontists (AAO) has developed six core principles to guide the responsible development and use of AI technologies in clinical orthodontics. A profession-defined framework is essential to ensure that AI tools are designed, deployed, and monitored in ways that uphold the specialty's standards of care, protect patient safety, and preserve the orthodontist's role as the primary decision maker in treatment.

What is Artificial Intelligence (AI)?

The FDA defines AI as *"a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments"*.[19]

The International Organization for Standardization (ISO) defines an AI system as a *"system that is capable of perceiving its environment and taking actions to maximize its chances of achieving its goals"*.[23]

Regulatory status is not determined by how AI is defined or by its technical architecture. Classification and oversight depend on the software's intended use and the ability of a licensed professional to independently review the basis for its output, so oversight follows COU and patient risk rather than model type.[4-6,12]

Together, these definitions characterize AI as a system that can process inputs, detect patterns, and generate outputs to achieve specific goals. In clinical settings, AI technologies may be used to support data analysis, enhance diagnostic accuracy, and generate recommendations based on complex information inputs.[9,10,13]

Clinical Decision Support Software (CDSS)

CDSS refers to software designed to assist healthcare professionals in clinical decision-making by analyzing or displaying medical information and providing recommendations that inform, but do not replace, professional judgment.[3,5]

Under the 21st Century Cures Act, Section 520(o)(1)(E) of the Federal Food, Drug, and Cosmetic Act (FD&C Act), certain types of CDSS are excluded from the definition of a medical device. This exemption depends on the tool's intended use, its level of clinical risk, and whether the healthcare professional retains the ability to independently assess the basis for any recommendations.[5,12] This classification is determined by how the software is used, not by whether it incorporates AI or another type of technology.[5]

Even when not subject to FDA regulation, CDSS tools remain part of clinical care and must be used in accordance with the standard of care, professional licensure, and applicable state oversight.[6,7,13,24]

Software as a Medical Device (SaMD)

The International Medical Device Regulators Forum (IMDRF) defines Software as a Medical Device (SaMD) as "software intended to be used for one or more medical purposes that perform these purposes without being part of a hardware medical device.".[4] Under the FD&C Act, SaMD is classified as a medical device and is subject to regulatory requirements based on its intended use and level of patient risk.[15] These requirements may include premarket review, quality system regulations, and postmarket surveillance to ensure safety, effectiveness, and ongoing compliance.[5,22]

AI/ML SaMD

AI or machine learning (ML) capabilities are increasingly being integrated into SaMD. When software that meets the definition of SaMD incorporates AI or ML functions, it is referred to as AI/ML SaMD. These tools remain regulated as medical devices under the Federal FD&C Act, consistent with their intended medical purpose.[5]

ML refers to the capacity of systems to learn from problem-specific training data to automate analytical model building and solve associated tasks.[25] AI/ML SaMD differs from traditional, rule-based SaMD because it uses ML algorithms to analyze complex datasets and generate predictive, data-driven outputs that inform clinical decision-making.[4,5]

Some AI/ML systems incorporate adaptive or continuous learning capabilities, meaning they can update performance or outputs as new data are collected through real-world use. This adaptive behavior introduces additional regulatory considerations, including the need for mechanisms that ensure the system remains safe, effective, and transparent as it evolves.[13,22]

To address these challenges, the FDA applies a Total Product Lifecycle (TPLC) approach that includes premarket assessment, postmarket performance monitoring, and the use of Predetermined Change Control Plans (PCCPs) to manage algorithm updates in a predictable and controlled manner.[19,22] These oversight mechanisms ensure that modifications do not compromise clinical performance, introduce new risks, or reduce transparency.

The level of regulatory scrutiny applied to AI/ML-based SaMD depends on the product's intended use, associated patient risk, transparency, and the degree to which its performance may change after deployment.[13,22]

Examples in Orthodontics

CDSS in Orthodontics

A common example of CDSS in orthodontics is digital cephalometric analysis software that calculates standard angular and linear measurements (e.g., SNA, SNB, ANB) based on user-identified landmarks. This type of software does not independently detect anatomical features, interpret findings, or make clinical recommendations. It performs standardized calculations using static logic and user-provided inputs.[26]

SaMD in Orthodontics

An example of SaMD in orthodontics is digital bonding software that enables the simulation of bracket placement and generates a treatment-specific appliance, such as a custom transfer tray. The orthodontist may adjust bracket positions during the planning phase, but once finalized, the software autonomously designs the tray used for clinical delivery. Because the software's output directly determines how the brackets will be positioned and delivered to the patient, and because it is relied upon to perform a medical function within the treatment workflow, it qualifies as SaMD under the definition established by the IMDRF.[4] The system is regulated by the FDA as a Class II medical device and is subject to premarket review, performance validation, and postmarket controls.[5]

This type of software does not meet the exemption criteria under Section 520(o)(1)(E) of the FD&C Act, as the clinician cannot independently review the underlying logic or data that generate the final output.[5,15] Its classification is determined by its intended use, associated clinical risk, and the extent to which its outputs are used in treatment without further human interpretation or modification.[4,5]

AI/ML SaMD in Orthodontics

An example of AI/ML-based SaMD in orthodontics is an FDA-authorized dental image analyzer used for remote treatment monitoring. These systems analyze intraoral photographs captured by patients or clinicians through imaging applications and connected hardware. ML algorithms autonomously detect and quantify clinical features such as aligner fit, attachment loss, soft-tissue conditions, occlusal relationships, and alignment progress.

This type of software qualifies as AI/ML SaMD under the FD&C Act because it performs a medical function independently of hardware and uses AI to interpret patient images. Clinicians rely on its outputs to guide treatment decisions without independently recalculating or reproducing the underlying analysis, which disqualifies it from the Clinical Decision Support Software (CDSS) exemption in Section 520(o)(1)(E).[15,19]

It specifically qualifies as AI/ML SaMD because it performs its medical function using ML algorithms trained on clinical data to identify and analyze features relevant to orthodontic treatment. Unlike traditional rule-based SaMD, which relies on fixed, preprogrammed logic, AI/ML SaMD employs statistical models that learn from data to generate analytical or predictive outputs, such as detecting tooth movement, attachment loss, or soft-tissue changes. The distinction lies in the software's computational method and its reliance on learned patterns rather than deterministic rules, which introduces additional regulatory considerations for continuous validation, transparency, and lifecycle oversight.[5,13,22,24]

To manage adaptive risk, the FDA applies a TPLC regulatory framework that includes Predetermined Change Control Plans (PCCPs) and continuous postmarket performance monitoring to ensure that algorithmic updates remain safe and effective.[16,22] These tools are regulated as Class II dental image analyzers (Product Code SBC, 21 CFR 872.1770) and are subject to general and special controls, including validation, labeling, and ongoing performance testing.[16,22]

Current and emerging AI applications across diagnostics, treatment planning, appliance design, and remote monitoring are summarized in Tables A1-A4 in the Appendix, which organize key capabilities, functions, benefits, limitations, and supporting evidence for each category.

III. Core Principle 1: AI Governance and the Human-in-Command (HIC)

In clinical practice, AI systems must function as supportive tools that enhance, but never replace, the expertise of a licensed professional. Regardless of type or regulatory classification, all AI technologies that support or influence diagnosis, treatment planning, or patient care must operate within an AI governance framework that preserves professional accountability and patient safety.

AI Governance

AI governance encompasses the system-level responsibilities of identifying, evaluating, and approving appropriate technologies; validating their intended use; integrating them into organizational workflows; and monitoring their performance across the practice or entity.[4,13,16] Governance establishes the structures, policies, and accountability mechanisms that ensure AI systems are safe, effective, and aligned with patient care standards.

It establishes who is responsible for decisions about how AI systems are developed, approved, and used, and ensures that these technologies operate safely, transparently, and in alignment with professional, legal, and societal values. In private practice, governance is carried out directly by the owner orthodontist. In small group practices, governance functions may be shared among partners. In large group practices and dental service organizations (DSOs), governance functions such as procurement, contracting, and enterprise-level policy occur at the corporate level.[7]

Human-in-Command Oversight

The Human-in-Command (HIC) concept, adapted from global AI governance literature*, is defined here as the licensed professional of record.[13,24,27] The HIC exercises comprehensive oversight at the point of care, extending beyond clinical decision-making or output validation. This role encompasses the authorization, supervision, and accountable use of AI technologies in clinical practice. The HIC determines when, how, and by whom approved AI systems are applied within clinical workflows and ensures that every use of AI occurs within the boundaries of licensure and the professional standard of care.[18,28]

HIC oversight begins with assessing whether the selected AI tools meet a quantifiable clinical need and verifying that they have been validated for their intended purpose. Delegation of AI-related tasks must account for the level of patient risk associated with each AI function, as defined by regulatory bodies such as the FDA and must respect the duties legally permitted for staff under state dental practice acts.[6,13,22,27] Oversight must be implemented and monitored at the practice level by the HIC to ensure compliance with regulatory guidance, protect patient safety, and uphold the standard of care.[13,16,24,27,29]

**The concept of Human-in-Command (HIC) originates in technology governance and appears in international health policy literature. In this paper, it is applied specifically to orthodontics, where the HIC is defined as the licensed orthodontist of record, consistent with American Dental Association (ADA) policy and global expectations that accountability rests with qualified clinicians.*

Relationship Between Governance and Oversight

The separation between organizational governance and clinician oversight is essential. Governance establishes what AI systems are approved for use and defines the conditions under which they may be deployed.[7] Oversight ensures that, in every clinical encounter, the licensed orthodontist retains authority over how those systems are applied to patient care.[24] By clearly distinguishing these roles, the framework preserves accountability, prevents inappropriate delegation of clinical authority, and maintains patient protection.[27]

Risks of Absent AI Governance and HIC Oversight

Without structured AI governance and HIC oversight, orthodontic practices face operational, legal, and ethical vulnerabilities. Without clear, enforceable oversight by a licensed orthodontist in the role of HIC, AI tools may be used in ways that violate scope-of-practice laws, compromise patient safety, and erode trust in the profession. The absence of well-defined AI governance allows clinical decision-making to drift outside the bounds of licensure and regulation, exposing patients, providers, and the profession to avoidable harm.[7,13,16,24] The key risks include:

1. Use Beyond Validated Context of Use
Without a licensed clinician overseeing how AI tools are selected, integrated, and supervised, systems may be deployed outside their validated context. This increases the likelihood of diagnostic inaccuracies, unsupervised treatment planning, or prescription errors based on unverified or non-clinically validated outputs.[30]

2. Inappropriate or Unaccountable Delegation
Orthodontists are always responsible for the delegation of duties to staff. Without proper oversight, AI may enable tasks that extend beyond legally permitted duties under state dental practice acts. This can lead to unauthorized delegation of diagnostic or treatment-related decisions, bypassing the orthodontist's required judgment.[16,27]

3. Absence of Lifecycle Monitoring and Feedback Loops
When governance structures are not in place, AI systems may be deployed without mechanisms for continuous monitoring, validation, and detection of model drift. This disconnect between intended use and real-world performance violates both FDA and IMDRF expectations for post-deployment surveillance and safe lifecycle management.[20,22]

4. Breakdown of Legal and Ethical Accountability Between Clinicians and Developers
When responsibility for tool selection, validation, and use is not clearly defined, accountability becomes fragmented, and liability may fall inconsistently between clinicians and developers. While the orthodontist, as the licensed professional, ultimately holds legal responsibility for patient care, the growing influence of AI systems on clinical outcomes means that inadequate governance can shift additional, often unrecognized, liability to the provider.[7,31-33]

5. Breakdown of Legal and Ethical Accountability Between Clinicians and Organizations
In larger practices or corporate governance models, AI systems are often selected, validated, or deployed at the enterprise level without the orthodontist's direct involvement. Even so, the licensed clinician remains legally responsible for how those systems are used in patient care.

Without clearly defined governance structures and HIC oversight, orthodontists may unknowingly assume greater liability than intended, bearing responsibility for clinical outcomes influenced by decisions made at the organizational or corporate level. Clear alignment between enterprise governance, HIC oversight, and clinical application is essential to ensure patient safety and protect both clinicians and organizations from unmanaged risk.[7,16,27]

6. Erosion of Public Trust
Patients expect orthodontists to be the final decision-makers in their care. If AI tools are used without clear oversight, or if decisions appear automated or unaccountable, trust in both the technology and the clinician is diminished.

7. Undermining Licensure-Based Practice
Licensure defines who is legally authorized to diagnose, plan, and deliver orthodontic care. If AI tools direct patient care without orthodontist oversight as the HIC, it undermines licensure and risks normalizing "provider-less" decision-making, eroding one of the profession's core safeguards for patient safety.

8. Increased Patient-Safety Risks
Patient safety is the ultimate casualty when AI governance and HIC oversight are absent or poorly defined. Without governance to validate systems, monitor performance, and set boundaries for use, and without HIC oversight to ensure appropriate application in patient care, the safeguards that anchor clinical safety collapse.

Errors in diagnosis, treatment planning, or appliance design may go undetected when clinicians rely on AI tools that have not been properly vetted or are applied outside their validated context. When governance and HIC roles are unclear, the feedback loop between system performance and clinical outcomes breaks down, removing the critical human judgment needed to protect patients from algorithmic errors, bias, and inappropriate recommendations.[7,13,16]

Call to Action

To protect patient safety, ensure ethical care, and preserve trust in AI-integrated orthodontic practice, licensed orthodontists must retain final authority over all clinical decisions involving AI technologies. This authority should be exercised through an AI governance framework in which the HIC role is filled by the licensed professional at the point of care. The HIC is accountable for the AI tools used in patient care and for how those tools are applied to support or direct clinical decisions within the bounds of licensure and the standard of care.

Without clearly defined governance structures and professional accountability, AI systems may be used outside their intended purpose or without adequate clinical oversight. Such gaps can lead to inappropriate delegation of clinical authority, erosion of accountability, and potential harm to patients.[7,34,35]

Leading global frameworks affirm that qualified professionals must remain accountable for the deployment and oversight of AI in healthcare. While terminology may vary, the shared principle is consistent: the use of AI in clinical care must remain under the authority and direction of a licensed professional.[13,24,28,36]

The AAO calls on developers, industry vendors, and regulatory bodies to:

1. Establish Well-Defined AI Governance Frameworks
Every orthodontic practice or organization implementing AI in a clinical setting must maintain a clearly defined governance framework that outlines the selection of AI tools, their validation for clinical use, and the conditions under which they may be deployed. Governance frameworks must define the role each AI system will play in clinical workflows, ensure transparency in how decisions are made, and preserve clinician autonomy in determining when and how AI tools are used in patient care, particularly when their outputs influence patient-care decisions.

2. Require Human-in-Command (HIC) Oversight at the Point of Care
All AI tools used in orthodontic patient care must operate under the oversight of a licensed orthodontist serving as the HIC. The HIC is accountable for how AI tools are used to support or direct patient-care decisions and must ensure that their application aligns with licensure requirements, regulatory expectations, and the standard of care. Oversight must be active, documented, and proportionate to patient risk, ensuring that clinical authority, ethical responsibility, and liability remain with the licensed professional at every point of care.

3. Establish Clear Delegation Frameworks Based on Risk and Context of Use
The AI governance framework should clearly define how delegation is structured based on state dental practice acts and allowable duties for staff. Oversight requirements must be proportionate to the AI tool's intended clinical function, risk to the patient, and regulatory classification. HIC oversight at the point of care determines appropriate delegation based on the tool's authorized COU and the level of risk associated with it.

For lower-risk tools, tasks may be delegated to trained staff, provided they fall within the scope of duties permitted under applicable regulations and remain under the orthodontist's supervision. Regardless of delegation, the licensed orthodontist retains responsibility for ensuring each tool is used in accordance with its authorized COU and the standard of care. This risk-based approach aligns with oversight principles outlined by the FDA, IMDRF, WHO (World Health Organization), and NIST (National Institute of Standards and Technology).[6,13,16,24]

4. Prohibit Direct-to-Consumer AI That Bypasses Licensure
State dental laws should explicitly prohibit the use of AI technologies to diagnose, prescribe, or manage orthodontic treatment outside the supervision of a licensed provider. Direct-to-consumer (DTC) AI models that deliver clinical recommendations or treatment decisions without orthodontist oversight violate scope-of-practice laws and undermine patient protection. These systems bypass established safeguards of licensure, professional accountability, and HIC oversight, presenting significant risks to patient safety and public trust in the profession.

5. Align AI Use With State-Level Delegation Rules
AI systems should be regulated using the same principles that govern delegation to human auxiliaries. Just as clinical tasks may only be assigned to staff based on training, competency, and licensure, AI clinical tools must not be used to perform or influence decisions that exceed the legal authority of the licensed provider. Orthodontists must remain responsible for how AI-supported tasks are assigned, validated, and supervised within clinical workflows.[27,28]

IV. Core Principle 2: Regulatory Alignment and Risk-Based Oversight

AI tools used in orthodontic care must align with the highest regulatory standards based on COU, clinical risk, and lifecycle oversight. Global regulatory bodies, including the FDA, IMDRF, WHO, and ISO, have endorsed a risk-tiered regulatory approach for AI/ML SaMD. These frameworks require oversight to be proportionate to the system's intended use and potential for harm, rather than applying uniform regulation across all tools.[13,20,22,24]

Adherence to Global AI/ML SaMD Guidance and Standards

Building on the governance framework established in Core Principle 1, Core Principle 2 defines how regulatory alignment and risk-based oversight ensure accountability across the AI lifecycle. AI technologies intended for patient care must conform to global frameworks that govern how systems are designed, validated, classified, and monitored.

AI developers and industry vendors are responsible for meeting regulatory and quality-management standards, maintaining transparency, and marketing AI tools only within the boundaries of their approved COU.[20,22,24] Following the AI governance framework laid out in Core Principle 1, the HIC is responsible for oversight at the point of care, verifying that any AI tool used in practice has been developed in accordance with applicable standards and is used within its authorized scope.

U.S. FDA

The FDA applies its TPLC framework to AI/ML SaMD, outlining expectations for premarket validation, postmarket surveillance, and the use of Predetermined Change Control Plans (PCCPs) to manage adaptive algorithm changes.[5,19,22,37]

International Medical Device Regulators Forum (IMDRF)

IMDRF guidance defines SaMD and establishes the risk-based oversight principles adopted by global regulators to classify and govern such software, including AI-enabled tools.[8,24,38]

ISO 13485

This international standard specifies quality management system requirements for the design, development, and production of medical devices, including software-based tools.[20]

Risks from Inappropriate Oversight for AI Tools

1. Overregulation That Discourages Innovation
Subjecting low-risk assistive AI tools, such as those used for administrative, educational, or visualization purposes, to the same regulatory requirements as higher-risk medical devices can inflate development costs and delay clinical access.[22,24,39] Evidence suggests that disproportionate regulation may discourage innovation, particularly among startups and academic developers, without corresponding gains in patient safety.[1,13] Proportional, risk-based oversight is therefore essential to safeguard both patient protection and technological progress.

2. Clinical Harm from Off-Label Use and Misclassification
Marketing or deploying AI tools outside their authorized COU can introduce significant clinical risk.[15] When systems are promoted or utilized for functions they were not cleared to perform, particularly diagnostic or treatment planning tasks, they bypass required validation and quality management processes mandated under U.S. and international device regulations.[5,22,39] This increases the likelihood of automation bias, misdiagnosis, and irreversible treatment errors.[40] Off label deployment also deprives the clinician of cleared labeling and performance evidence needed to assess whether an AI output is accurate or appropriate, thereby undermining professional judgment and exposing patients to harm.[41]

Together, these risks underscore the need for a unified regulatory approach that protects patients while enabling responsible innovation.[13,22,24,39] Oversight must remain clinically grounded, proportionally enforced, and anchored in professional accountability. The following Call to Action outlines the steps necessary to ensure that AI/ML based SaMD in orthodontics are governed by both human expertise and regulatory rigor.

Call to Action

To ensure that AI technologies used in orthodontic care are safe, clinically appropriate, and ethically deployed, regulators, developers, and clinicians must share responsibility for aligning tool development and use with the highest global standards.

The AAO calls on developers, industry vendors, and regulatory bodies to:

1. Define and Validate Context of Use at the Point of Development
All AI tools intended for use in patient care must include a clearly defined and validated COU. This definition must inform the tool's regulatory classification, risk assessment, and lifecycle monitoring requirements.

2. Comply with Risk-Based Regulatory Frameworks Across the Full Product Lifecycle
Developers must adhere to regulatory standards such as the FDA's TPLC framework, IMDRF SaMD guidance, and ISO 13485, which collectively define premarket validation, postmarket surveillance, change-control mechanisms, and, where applicable, Predetermined Change Control Plans (PCCPs) for adaptive systems.[20,22,24]

3. Market Tools Only Within Their Authorized Use
AI technologies must not be promoted or deployed for functions outside their approved regulatory scope. Off-label marketing increases risk to patients, undermines clinician trust, and may trigger legal or regulatory consequences.

4. Support Regulatory Harmonization and Transparency
To foster both innovation and public trust, regulators should work toward consistent international standards that define expectations for classification, explainability, performance monitoring, and ethical deployment.

5. Enable Proportionate Oversight to Promote Responsible Innovation
Low-risk AI tools that do not inform clinical judgment should not be subjected to full regulatory requirements. Regulators should continue to support scalable oversight models that reduce barriers to innovation while maintaining safety.

By ensuring that AI tools are accurately classified, transparently developed, and deployed only within their approved context, the orthodontic profession can accelerate access to responsible innovation while protecting patient safety and professional accountability.

Together, Core Principles 1 and 2 reinforce the dual obligation of clinicians and developers: to maintain human authority in clinical care and to align tool development with global regulatory expectations.

V. Core Principle 3: Trustworthiness and Transparency Across the Lifecycle

AI tools must be reliable, explainable, and consistent from development through deployment and postmarket use.[6,22,28] For clinicians to use these tools safely, they must have visibility into how models are trained, validated, updated, and monitored over time.[19,24,40,42]

Trust is not earned by performance claims alone. It requires transparency across the full product lifecycle, clear documentation of training data sources, validation procedures, update history, and mechanisms for ongoing risk monitoring. Clinicians are not responsible for auditing algorithms or inspecting code, but they must be able to verify that any AI tool adopted into practice is supported by trustworthy development practices and vendor accountability.[5,22,24,43]

This expectation is reinforced in the American Dental Association's (ADA's) Standards Committee on Dental Informatics (SCDI) White Paper No. 1106[27], the American Medical Association's (AMA's) *Principles for Augmented Intelligence in Health Care*[36], ISO/IEC (International Organization for Standardization/International Electrotechnical Commission)[28], and guidance from the WHO[29] and the U.S. Department of Health and Human Services[44]. These frameworks emphasize that trust in clinical AI must be built on evidence, transparency, explainability, and postmarket accountability, not assumptions or proprietary opacity.

To operationalize trust and transparency, AI tools must be developed, validated, and maintained in accordance with five foundational pillars. These pillars establish the developer's obligations across the product lifecycle and define the verification responsibilities of the licensed orthodontist serving as the HIC at the point of care.

Five Pillars of Trustworthiness in AI Development

1. Dataset quality and bias mitigation

2. Rigorous clinical validation

3. Explainability and auditability

4. Continuous monitoring and risk management

5. Transparency and vendor accountability

A summary of these pillars and of trustworthy AI development, outlining the corresponding responsibilities of developers and the verification requirements for orthodontists acting as the HIC can be found in Table 1.

Table 1. Five pillars of trustworthy AI/ML SaMD development and corresponding roles of developers and orthodontists (HIC)[a]

Pillar	Focus	Developer Responsibilities	Orthodontist (HIC) Verification
1. Dataset Quality and Bias Mitigation	Use of reliable and representative data	● Build models with diverse, well-documented datasets. ● Test for and reduce demographic or data bias.	● Review vendor reports showing dataset sources, diversity, and bias testing.

Pillar	Focus	Developer Responsibilities	Orthodontist (HIC) Verification
		• Keep clear records of how data were collected and prepared.	• Confirm the data reflect the tool's intended clinical use.
2. Rigorous Clinical Validation	Proof of safety and performance	• Validate tools using real clinical data and risk-based testing. • Report key metrics such as accuracy, sensitivity, and specificity. • Recheck performance regularly after release.	• Confirm the tool has been independently validated and cleared for its intended use. • Review performance metrics and regulatory classification.
3. Explainability and Auditability	Understanding and tracing AI outputs	• Design tools that show how results are generated (e.g., heatmaps, confidence scores). • Keep logs linking each output to its model version and dataset.	• Ensure outputs are interpretable and confidence levels are visible. • Retain the ability to review and override AI-generated results.
4. Continuous Monitoring and Risk Management	Ensuring safety over time	• Monitor model performance and update when data or standards change. • Document updates, known issues, and retraining results. • Alert users to any performance changes or risks.	• Check that monitoring systems and update logs are available. • Confirm version histories and alerts are communicated clearly by the vendor.
5. Transparency and Vendor Accountability	Openness and responsibility	• Provide clear labeling, documentation, and contact pathways.	• Require access to documentation before adopting the tool.

Pillar	Focus	Developer Responsibilities	Orthodontist (HIC) Verification
		• Disclose training methods, limitations, and known risks. • Respond to clinician reports and maintain traceable records.	• Keep records of vendor communications, updates, and issue reports.

[a] *Sources: ISO[22], NIST[6], WHO[28], IMDRF[24], FDA[5,29]*

Risks to Patient Care and Clinical Adoption if Trustworthiness Is Not Upheld

AI tools used in orthodontics, independent of their regulatory classification, must meet foundational standards for trustworthiness.[6,22,28,29] When these safeguards are absent, tools may produce unreliable, biased, or opaque outputs that compromise clinical decision-making and expose patients and providers to harm.[24,40,43] The following risks illustrate what can occur when AI systems are adopted without sufficient transparency, validation, and ongoing oversight[5,8,13,22]

1. Patient Harm from Inaccurate or Unvalidated AI Outputs
Poorly validated models, or those trained on low-quality or non-representative data, can produce inaccurate outputs, including false positives and false negatives, that directly lead to misdiagnosis or unsafe treatment decisions. In orthodontics, this may result in overlooked pathology, mistimed interventions, or inappropriate treatment recommendations, compromising patient safety.[6,13,22,45]

2. Health Inequities from Inequitable or Biased AI Tools
When AI tools are not intentionally designed and tested for fairness, they often generalize poorly to underrepresented populations.[6,45] This can lead to unequal diagnostic accuracy, inappropriate treatment recommendations, and the amplification of existing health disparities.[13,43] Rather than closing care gaps, biased AI may widen them, producing outcomes that contradict professional and ethical obligations to fairness, equity, and inclusion.[13,46]

3. Poor Generalizability in Real-World Clinical Settings
AI models developed and tested in controlled research environments may perform inconsistently when deployed in real-world orthodontic practice.[22,45] Without demonstrated generalizability across patient populations, imaging conditions, and clinical workflows, these systems may yield unreliable or non-reproducible outputs, reducing clinical effectiveness and increasing the potential for patient harm.[6,13]

4. Reduced Access to AI Tools for Marginalized Populations
When bias is not proactively identified and addressed during development, AI tools may underperform for marginalized or underserved groups.[22,45] As a result, these systems often cannot be safely deployed for those populations, effectively excluding them from access to AI-enabled diagnostics and treatment planning technologies.[13,29,43] This lack of equitable design and validation perpetuates existing disparities in care, even as AI adoption expands.[39]

5. Clinical Risk from Unexplainable or Opaque AI Outputs
When AI models do not provide interpretable reasoning behind their outputs, orthodontists cannot meaningfully evaluate or challenge recommendations.[47,48] This lack of explainability undermines clinical oversight, making it difficult to detect errors, assess appropriateness, or justify treatment decisions.[6,13] Opaque models therefore pose direct risks to patients, since unsafe or inappropriate outputs may go undetected, leading to errors in diagnosis, treatment planning, or care delivery.[22,43]

6. Patient Harm from Unmonitored Performance Drift
Adaptive AI models are not static. Over time, they may degrade or behave unpredictably in response to changes in input data, clinical practices, or environmental conditions.[6,10] Without continuous monitoring, validation, and drift detection, these performance shifts can go unnoticed and result in silent failures that erode clinical confidence and place patients at risk.[19,24]

7. Accumulation of Hidden Bias Over Time
Dynamic or continuously learning AI systems may acquire new biases after deployment if not proactively managed.[6,45] Without routine fairness audits and demographic performance evaluations, these models can gradually develop patterns that disadvantage certain groups.[24,43] This slow drift in fairness may go undetected, compounding inequities in care and undermining patient trust over time.[13]

8. Reinforcement of Outdated or Biased Clinical Norms
When AI models are trained on historical data that reflect outdated or biased clinical practices, such as overtreatment trends, racial disparities, or gender bias, they risk amplifying past harms rather than correcting them.[45,49] Without intentional bias mitigation and dataset review, AI can codify and perpetuate these inequities under the appearance of "evidence-based care."[6,13]

9. Undermining the Orthodontist's Role as Human-in-Command
The orthodontist's authority as the HIC relies on a baseline level of transparency and trustworthiness within AI tools.[24,28] Without clear insight into how systems generate and update their outputs, orthodontists cannot effectively validate recommendations, exercise oversight, or fulfill their professional responsibility for patient care.[13,21,22]

10. Undisclosed Algorithm or Dataset Changes
When vendors modify algorithms or retrain models under a PCCP, those changes may be reported to regulators but not communicated to clinicians.[19,22] Without clear and timely disclosure to end users, orthodontists may unknowingly rely on systems that no longer behave as originally validated or expected.[6,24] This loss of transparency compromises the orthodontist's ability to maintain oversight, verify appropriateness of use, and protect patient safety.[6,19,22]

11. Breakdown in Trust and Innovation Adoption
Untrustworthy AI systems do not just fail individually; they erode confidence in the broader use of AI within orthodontics and medicine.[6,13] A single unethical or unsafe deployment can stall adoption, dissuade clinicians from integrating AI into practice, and set back innovation across the field.[13,46]

12. Legal and Ethical Exposure
Using unvalidated, biased, or opaque AI systems violates established ethical principles and exposes orthodontists, vendors, and institutions to significant legal risk, particularly when patient harm occurs and oversight of a licensed professional is insufficient.[13,22,50,51]

Call to Action

The AAO calls on developers to[†]:

1. Innovate Responsibly

a. To protect patients and ensure equitable care, developers must commit to building transparent, validated, and accountable AI tools from the start. The orthodontic community depends on vendors to uphold trustworthiness through ethical design, documentation, and continuous collaboration with clinicians.

2. Use Quality, Diverse, Clinically Verified Data

a. Train and validate models using authentic, high-fidelity clinical data - synthetic or low-quality datasets should only be used if equivalence is validated.[20,22]

b. Ensure broad demographic representation across age, ethnicity, gender, and geography to prevent performance disparities.[13,43,45]

c. Maintain dataset documentation that includes source provenance, labeling protocols, preprocessing steps, and version history to ensure auditability.[6,28]

d. Conduct regular bias audits and fairness testing throughout the AI lifecycle, reporting demographic performance differences and mitigation steps.[6,13,43,45]

3.Validate According to Risk Tier

a. Follow risk-based validation standards consistent with FDA and global guidance for SaMD, ensuring that the level of evidence is proportional to clinical risk.[4,22,24,29,51]

b. Use graded validation strategies proportional to risk, such as multi-site or randomized studies for high-risk AI models, and require independent external validation datasets that reflect the intended population.[6,22,24,29]

c. Publish key performance metrics (e.g., accuracy, sensitivity, specificity, F1-score) and detailed validation methodologies to enable peer and clinician evaluation.[6,22,24]

d. Include postmarket validation and re-verification schedules with continuous monitoring and drift detection to confirm ongoing safety and accuracy over time.[6,19,24]

4. Enable Full Explainability and Transparency

a. Integrate explainable AI features such as heatmaps, overlays, feature attribution, and confidence scores, so that clinicians can understand model reasoning and uncertainty.[6,47,48]

b. Provide clear, accessible documentation of intended use, known limitations, and interpretability safeguards to support safe clinical use and informed oversight.[22,28,29]

c. Ensure clinicians can meaningfully review, interpret, and override AI-generated outputs at the point of care, preserving HIC responsibility.[13,22.47,52]

d. Include traceability that links each output to model version, dataset lineage, and update history to enable audit and accountability across the lifecycle.[6,22,24,28]

5. Implement Continuous Monitoring and Update Protocols

a. Employ real-time drift detection, error tracking, and performance alerts accessible to both vendors and clinicians to maintain transparency and safety.[6,19,24]

b. Establish and follow clearly defined Algorithm Change Protocols (ACPs) and PCCPs to govern updates in adaptive AI models, documenting all retraining and validation processes.[22,24]

c. Provide postmarket performance dashboards to regulators and clinicians that report drift, retraining events, and update outcomes in an accessible and auditable format.[6,19,28]

d. Collaborate with orthodontists and professional organizations to integrate clinician feedback into model updates, ensuring real-world alignment, accountability, and shared oversight.[6,28,29]

6. Disclose Limitations and Maintain Documentation

a. Publicly release Post-Validation Reports (PVRs) summarizing data sources, validation results, and risk-mitigation strategies to promote transparency and accountability.[22,24,28]

b. Clearly disclose known limitations and failure conditions, identifying scenarios where the system may underperform or require manual oversight.[13,22]

c. Notify clinicians of any algorithm or dataset change that could affect model performance, not only those reported to regulators, to maintain real-world safety and trust.[6,19,22,29]

d. Maintain traceability logs, structured labeling, and accessible documentation in compliance with ISO/IEC 42001:2023 and related governance standards.[6,24,28]

e. Communicate proactively and clearly with clinicians, ensuring orthodontists have the information needed to uphold HIC oversight and patient safety.[13,21]

[†]*For a detailed outline of these developer responsibilities, including standardized reporting templates and communication requirements, see the AAO's forthcoming supplemental guidance on AI Transparency, Fairness, and Vendor Accountability.*

The AAO calls on regulatory bodies to:

Protect the Public Trust

1. Regulators should ensure that all AI/ML SaMD tools used in clinical orthodontics are appropriately classified, registered, validated, and regulated under medical device standards consistent with FDA guidance and the IMDRF SaMD framework, with clear boundaries from CDSS exemptions.[4,22,24,52]

2. Regulators should expect developers to maintain regulator-reviewable documentation of dataset sources, demographic composition, labeling, and preprocessing, and to conduct fairness audits with stratified performance analysis during both premarket and postmarket phases.[6,28,29,39]

3. Regulators should require explainability and practical transparency for high-risk applications. Models are expected to provide interpretable outputs, such as confidence scores or visual saliency maps, sufficient for clinician oversight, consistent with the FDA AI/ML Action Plan and Good Machine Learning Practice principles.[5,6,13,22,37]

4. Regulators should support continuous oversight and real-world surveillance by promoting TPLC models that include real-time performance monitoring, drift detection, error reporting, and re-verification after updates.[6,19,22,24]

5. Regulators should establish clear accountability mechanisms for vendors whose tools underperform due to undisclosed updates, performance drift, bias, or inadequate validation. PCCPs and ACPs should include provisions for communicating clinically relevant updates and release notes to clinicians.[19,22,50,51,53]

6. Regulators should enforce risk-tiered clinical validation expectations by setting performance requirements appropriate to the device's clinical risk classification, requiring independent external validation representative of the intended population, and preventing deployment absent sufficient evidence.[6,20,22,24,29]

7. Regulators should require lifecycle transparency and traceability by ensuring that clinician- and regulator-accessible documentation includes data sources, intended use, training methods, version history, update protocols, retraining triggers, and monitoring practices. Public summaries should be encouraged where feasible without breaching privacy or intellectual-property protections.[6,22,24,28,29]

The AAO calls on orthodontists to:

Govern with Oversight

As licensed healthcare professionals, orthodontists should remain the final decision-makers in all AI-assisted care. The licensed professional is expected to protect patient safety, uphold clinical integrity, and ensure the ethical implementation of AI/ML SaMD systems.[13,21,22,24]

1. Orthodontists should request documentation on dataset diversity, authenticity, and clinical validation before implementing any AI tool.[22,29] Confirm that models were trained on representative, real-world orthodontic data encompassing varied ages, ethnicities, and geographies.[22,43,45] Avoid tools built on low-fidelity or unverified data sources.[6,45]

2. Orthodontists should adopt only AI tools that demonstrate performance appropriate to their clinical-risk classification and provide evidence of independent, external validation before clinical use.[22,24,29] Thresholds reported in the literature for high-risk diagnostic applications often exceed 90% for accuracy or similar metrics, but these figures are illustrative, not prescriptive. Regulators evaluate adequacy of performance evidence relative to risk classification, intended use, and validation context.[22,24,29,41,54]

3. Orthodontists should require sufficient explainability for every AI-generated recommendation to ensure safe and informed clinical use.[13,22] Use only systems that provide interpretable outputs, such as confidence scores, visual saliency maps, or feature attribution tools, and confirm that these explanations are accessible and understandable to the clinician.[6,48] Orthodontists should be able to interpret, question, and override results as the HIC, maintaining final accountability for clinical decisions.[24,47,52]

4. Orthodontists should review AI-assisted decisions periodically to detect performance drift or unsafe outputs and remain informed about software updates or retraining events that could affect clinical behavior.[22,24] Any deviations or unexpected outcomes should be documented, and concerns reported to vendors or regulators to support continuous postmarket surveillance and system improvement.[6,19]

5. Orthodontists should request PVRs, update histories, and documentation of known system limitations to verify that AI tools remain transparent, validated, and regulatory-compliant.[22,29] Clinicians should decline or discontinue use of tools that lack adequate transparency, fail to demonstrate safety or regulatory compliance, or do not provide sufficient evidence of validation.[22,28] Providing structured feedback to vendors when performance or risk diverges from clinical expectations supports accountability and continuous improvement across the AI lifecycle.[24,29]

6. Orthodontists should participate in continuing education (CE) that focuses on the ethical use, explainability, and regulatory oversight of AI/ML SaMD to ensure competent and responsible implementation in clinical practice.[1,6,13,41] All team members should understand system functions, limitations, and escalation protocols to maintain safe, informed integration of AI technologies into patient care.[21,41]

VI. Core Principle 4: Patient Autonomy

Respect for patient autonomy requires full transparency about both the use of AI in clinical care and the use of patient data in AI development, validation, or retraining.[13,39,45,55] Patients have the right to know when AI tools are involved in their diagnosis or treatment and when their data, whether identifiable or de-identified, contribute to AI system improvement.[13,22,39,56] Clinicians and developers should ensure that data governance and auditability standards are in place to document dataset provenance, composition, and secondary use consistent with ethical and technical best practices.[28]

AI algorithms rely on large volumes of clinical data to learn, predict, and assist in decision-making. In orthodontics, these datasets are often privately owned and not subject to external review, raising concerns about data provenance, diversity, and consent for secondary use.[45,55] The unregulated collection and reuse of patient data for model training can erode public trust, amplify bias, and compromise data integrity.[13,56,57]

Orthodontists should disclose when AI tools meaningfully contribute to patient care and ensure that patients are informed if their de-identified data are used to improve or retrain algorithms.[13,30,39] Communication should be clear, concise, and patient-friendly, emphasizing the supportive, not substitutive, role of AI in clinical decision-making.[13,58]

Risks to Patient Care from Lack of Disclosure and Transparency

Failure to establish clear disclosure and transparency standards for the use of AI and patient data in orthodontic care may result in:

1. Erosion of patient trust and diminished public confidence in orthodontic providers and emerging technologies when AI use or data handling is not openly disclosed[13,41,58]

2. Legal and ethical exposure for clinicians if patients are unaware that AI contributed to their care or that their data were used for algorithm development or retraining.[22,39,53]

3. Compromised clinical accountability and oversight when AI-generated recommendations are applied without sufficient human verification or without disclosing their use to patients.[24,29,30]

4. Propagation of bias and inequity, as undisclosed algorithmic limitations and non-representative datasets may produce variable accuracy across patient populations, exacerbating healthcare disparities.[43,45,55,57]

5. Loss of patient autonomy and recourse, as lack of transparency limits patient understanding, informed participation, or the ability to question or refuse AI-supported recommendations.[13,39,58]

Call to Action

The AAO urges state dental boards and legislatures to take immediate action by recommending that:

1. Clinicians document in patient records when AI or AI-enabled tools meaningfully contribute to diagnosis, treatment planning, or care delivery, and when patient data, whether identifiable or de-identified, are used to support AI system development, validation, or retraining.

2. Communication standards should be established to ensure patients receive clear, patient-friendly explanations of how AI supports their care and how their data may be used, including the technology's capabilities and limitations, and the orthodontist's ongoing oversight.

3. State-level policies and guidance align with national and international AI governance frameworks to safeguard patient rights, ensure data privacy, and uphold ethical standards for transparency and accountability.

4. Education and professional training initiatives should be supported to equip dental professionals with the knowledge and skills to use AI responsibly, communicate transparently with patients, and uphold robust data governance and cybersecurity practices.

VII. Core Principle 5: Education and Clinical AI Competency

As licensed healthcare professionals, orthodontists carry both an ethical obligation to patients and legal accountability for the technologies they integrate into care. Education in AI must therefore extend beyond basic literacy to encompass the knowledge and judgment required to evaluate, implement, and manage these tools responsibly. Orthodontists serve as the HIC at the point of care, exercising comprehensive oversight that includes selecting appropriate AI systems, verifying their clinical validity, ensuring their use aligns with licensure, and maintaining accountability for every AI-supported decision. Through structured education and deliberate competency development, orthodontists can ensure that AI strengthens professional judgment rather than replaces it.

Understanding how AI tools are developed, how their training data are sourced and validated, and how these models evolve through continuous learning is essential to protecting patient safety and professional integrity. Because AI systems are dynamic and may change over time, orthodontists must verify that each tool remains clinically validated, used within its intended context, and subject to ongoing human oversight.

Continuous, standardized education across all stages of training and professional practice is critical to fulfilling this responsibility. By advancing AI literacy throughout the profession, orthodontists can safeguard patient welfare, uphold clinical accountability, and lead in the responsible and ethical integration of emerging technologies.

AI Education Framework: Three-Tier Competency Model

1. Foundational AI Literacy

Orthodontists working directly or indirectly with AI tools should develop a basic understanding of AI principles, including ML fundamentals, data bias awareness, and AI's role in orthodontics. To ensure responsible implementation, continuous human oversight, clinical agency, and ongoing validation are essential.[1] There is a strong need to provide CE for clinicians, along with recommendations for orthodontic programs to incorporate AI literacy into their curricula. AI tools are increasingly being integrated into dental and orthodontic training programs, enriching professional development through simulations, diagnostic tools, and virtual patient models. These technologies enhance diagnostic and treatment planning capabilities while equipping clinicians with modern tools to improve care, efficiency, and precision.[45,59] It is imperative that the end user understands the limitations of an AI system as well as who bears the responsibility in patient care.[60]

A core curriculum should outline essential knowledge that dental professionals must possess regarding AI. This curriculum must emphasize basic definitions, ML types, the role of training-validation-testing splits, and the concept of dynamic versus static AI systems. It should also underscore the importance of understanding AI explainability, reference tests, and the black box nature of most models—skills vital for building foundational AI literacy among clinicians.[2] While AI applications show significant promise, manual supervision is still required to mitigate errors and variability. Continuous education for orthodontists is crucial, as it equips them with the ability to critically assess AI outputs, understand the underlying algorithms, and recognize their limitations. This ongoing education reinforces the importance of human expertise in validating AI-driven decisions and encourages the responsible use of these technologies in clinical practice.

Preclinical & Residency Programs

AI competencies should be integrated across undergraduate and postgraduate levels through a domain-based structure: understanding AI foundations, identifying dental-specific use cases, evaluating AI technologies, and addressing ethical or governance issues. This structure encourages the development of case-based learning, AI simulations, and outcome-based instruction, aligning well with the needs of orthodontic training programs aiming to blend AI into clinical learning environments..[55]

Integrate AI literacy, diagnostic simulations, and case-based virtual learning modules into orthodontic education to prepare future clinicians with foundational and applied AI competencies. Examples are as follows:

a. Simulation of Clinical Environments - AI-driven simulations can be used for training on orthodontic procedures and patient management.

b. Virtual Patients and Case-Based Learning - Implementation of virtual patients with AI-driven decision-making to simulate real-life cases .[61] Generative AI tools can be used to enhance automated feedback systems, providing immediate, personalized feedback on residents' clinical performance and treatment planning while fostering critical thinking and decision-making; and

c. Personalized Learning Paths AI-Powered Diagnostic Tools - Integration of AI in teaching students to interpret diagnostic data and its metrics.[62]

2. AI Training for Clinical Readiness

Orthodontists should receive hands-on training using AI-powered tools for cephalometric analysis, treatment simulations, appliance design, etc. Training should include interpreting confidence scores, identifying uncertainty, assessing bias, and understanding AI-generated outcomes.[27,41] Integrating AI into dental education and training presents both opportunities and responsibilities. As Kim et al.[63] emphasize, AI tools should augment clinical decision-making, not replace it. One key challenge is addressing inherent biases within AI algorithms, which may exacerbate health disparities if left unchecked.

Ethical AI education must help clinicians understand AI’s limitations, critically assess its outputs, and navigate concerns such as data privacy, security, and regulatory compliance. A stepwise integration approach is recommended, allowing orthodontists to build competency and confidence progressively as they adopt AI technologies into clinical practice.

Furthermore, it is essential to have hands-on experience with the typical architecture of AI tools, including backend algorithms, cloud-based inference systems, and model modularity. The curriculum also teaches learners how to evaluate AI systems using performance metrics such as accuracy, sensitivity, specificity, and Dice scores, enabling orthodontists to effectively assess AI outputs. These structured training elements equip clinicians to critically interpret diagnostic models and recognize how biases or low generalizability can impact treatment quality.[55]

3. Continuous Learning

Current and future applications of AI in orthodontics necessitate that licensed professionals continuously update their knowledge and skills. Ongoing education ensures that orthodontists can make informed, ethical decisions when selecting, validating, and supervising AI tools for clinical use. Continuous learning should highlight both the opportunities AI presents to improve accuracy, efficiency, and personalization of care, and the ethical challenges it introduces related to bias, accountability, and data governance.

The curriculum for AI education in orthodontics must be adaptable and evolve continuously, keeping pace with AI advancements and changing regulations. As part of their ongoing professional development, orthodontists should stay current on emerging concepts such as algorithmic explainability, risk-based regulation, and interdisciplinary oversight. This will enable them to responsibly adapt their clinical use of AI tools as these technologies progress.[55]

Risks to Patient Care from Lack of AI Training

Untrained clinicians may misunderstand AI's performance metrics, apply models beyond their intended use, or assume unjustified confidence in AI-generated outcomes. Challenges related to AI use, such as lack of generalizability, dataset bias, and over-reliance on opaque black box systems, can all compromise patient safety if clinicians are not adequately trained to supervise AI outputs critically.[55] The following are risks to patient care related to lack of clinicians' AI training:

1. Misinterpretation of AI Outputs Leading to Treatment Errors
Orthodontists without proper training may misinterpret AI-generated recommendations, increasing the risk of diagnostic errors and poor treatment planning.[10,13,18,41]

2. Over-Reliance on AI Without Critical Evaluation
There is a risk that residents and clinicians may become overly reliant on AI and neglect to develop critical thinking and problem-solving skills.[64] First, unquestioning acceptance of AI-generated outputs can lead to misdiagnosis or delayed diagnosis if errors or algorithmic biases go undetected. Second, complex or atypical cases often fall outside the scope of AI training datasets. Patients with rare conditions or unique variations may require adaptive reasoning and clinicians who have not developed strong problem-solving skills may struggle to manage such cases. Third, over-reliance on AI risks an erosion of clinical judgment and patient-centered care. Effective orthodontic treatment extends beyond technical outputs; it requires weighing psychosocial, ethical, and contextual factors. A clinician dependent on AI may undervalue these dimensions, reducing patient trust and satisfaction. Finally, a lack of critical evaluation skills may prevent clinicians from recognizing biases in AI systems. If training data are not representative of diverse patient populations, AI outputs may disproportionately misguide treatment in underserved groups, leading to inequities in care delivery.

3. Ethical and Regulatory Non-Compliance
Lack of training on AI ethics, transparency, and evolving regulations can lead to violations of scope-of-practice laws or device misuse, resulting in legal liability and disciplinary action.[50,51,53] Patients may be exposed to unvalidated or improperly supervised AI tools, increasing the likelihood of harm from inappropriate treatment recommendations or device failures. Regulatory non-compliance can also undermine patient safety safeguards built into healthcare oversight systems, leaving patients vulnerable to unsafe technologies.

4. Erosion of Clinical Authority
If clinicians are not equipped to oversee AI tools, there is a risk that critical decision-making shifts from providers to software, thereby undermining the orthodontist's central role in patient care.[30,53,65] When AI assumes an unchecked role in decision-making, patients may receive care that is technically consistent with algorithmic outputs but misaligned with their individual needs, values, or preferences.

5. Delayed Adoption and Innovation Fatigue
Without targeted training and support, clinicians may feel overwhelmed or skeptical of AI, slowing adoption and widening gaps between clinical practice and innovation.[18,30,64,66] Delayed adoption of validated AI tools can slow access to innovations that improve diagnostic accuracy, efficiency, and personalization of care. Conversely, clinician burnout from poorly supported implementation may reduce the quality of patient interactions and overall care delivery. Patients are therefore indirectly affected when clinicians lack the training and resources to adopt AI responsibly.

Call to Action: Implementing AI Training in Orthodontic Education

To prevent avoidable patient harm and professional liability, the orthodontic profession must act now to close the AI training gap.

The AAO calls for the following from orthodontists, vendors, and institutions:

1. Integrate AI coursework into preclinical and residency programs
To ensure that future orthodontists are equipped to interpret, supervise, and responsibly use AI in clinical care, AI coursework should be integrated into both preclinical and residency-level education. This integration must go beyond general exposure and include basic structured instruction in core concepts such as ML fundamentals, training-validation-testing models, performance metrics, and AI explainability.

Clinical modules should introduce practical applications of AI, including its supporting role in diagnostic simulations, cephalometric analysis, treatment planning, and appliance design. The curriculum should also emphasize ethical use, regulatory awareness, and the clinician's ultimate accountability when employing AI-assisted tools.[54,55,67]

2. Establish AAO-led continuing education courses
To ensure consistent, safe, and ethical integration of AI in orthodontic practice, we call on the AAO to develop continuing education (CE) courses. These courses should offer CE that prioritizes clinical oversight, ethical application, and regulatory compliance. CE courses should clearly define the orthodontist's role as the supervising authority over AI-assisted diagnostics and treatment planning particularly for tools categorized as SaMD and tools implemented in electronic health systems.

The CE should include training on critical topics such as interpreting AI performance metrics (e.g., sensitivity, specificity, Dice scores), managing uncertainty and bias in AI outputs, understanding FDA and IMDRF classifications of AI tools, and applying principles of human oversight and autonomy as outlined in international guidelines. This approach will not only standardize clinician readiness but will also support legal and ethical accountability.[55,68]

3. Stimulate vendor-sponsored training programs
Vendors who develop and distribute AI tools for orthodontic applications must play an active role in clinician education. We recommend requiring that all AI systems introduced into patient care be accompanied by structured, vendor-sponsored training.

This training should clearly explain the tool's intended use, functional scope, data limitations, and necessary safeguards for safe implementation. It should also include practical demonstrations of how the system processes information, interprets clinical inputs, and generates outputs. By formalizing vendor responsibility in the education pipeline, we strengthen accountability, reduce misuse, and promote a culture of shared responsibility between developers and clinicians for patient outcomes.[69]

4. Promote Faculty Development in AI Education
To successfully integrate AI into dental education, faculty members must be provided with sufficient AI training. This is essential due to current studies indicating that a considerable number of dental educators possess limited AI literacy.

This lack of knowledge can obstruct the effective adoption of AI technologies in dental education. Therefore, comprehensive training programs that concentrate on AI applications in dentistry should be provided to faculty members by the school administrators. This will allow them to confidently incorporate AI technologies into their curricula, ultimately improving the standard of dental education.

VIII. Core Principle 6: Operational Integration and Data Privacy

Operational integration and data privacy are foundational to the responsible use of AI in orthodontics. Without secure, interoperable systems that protect patient information and function reliably within clinical workflows, even the most advanced AI tool cannot deliver safe or effective care. Fragmented data infrastructures, inconsistent interoperability standards, and variable vendor accountability create tangible risks to safety, efficiency, and public trust.[6,7,22,28,29] As AI tools become increasingly embedded in diagnostic and treatment processes, their reliability and safety depend not only on algorithmic performance but also on the integrity of the data infrastructure, interoperability of connected systems, and clearly defined professional accountability for their use.[6,14,22,28,29]

Risks to Patient Care from Interoperability and Data Standardization Challenges

Seamless integration of AI tools into practice management software, imaging platforms, and electronic health records presents ongoing challenges that can jeopardize efficiency, accuracy, and patient safety if not properly addressed.

1. Lack of Data Standardization and Interoperability

Without consistent data standards, AI systems in orthodontics risk misreading or corrupting patient information as data move between platforms.[6,28] Even minor mismatches in file formats or communication protocols can cause loss of critical health data or introduce diagnostic and treatment errors that compromise patient safety.[21,70]

2. Limited AI Adoption Due to Interoperability Barriers

Failure to establish consistent interoperability standards across AI systems and clinical platforms can hinder adoption, reducing efficiency and delaying access to advanced diagnostic and treatment technologies.[6,21,22,28]

3. Inequitable Access Due to Inadequate Interoperability

When interoperability standards are fragmented or inconsistently adopted, smaller or resource-limited orthodontic practices face disproportionate barriers to implementing AI technologies. These disparities slow adoption, limit access to advanced diagnostic and treatment tools, and risk widening gaps in care quality across patient populations.[14,29]

Data Privacy and Ethical AI Use

The responsible integration of AI clinical tools into orthodontic practice requires a consistent focus on safety, interoperability, and patient data protection across all stages of use.[6,14,22,28,29]

AI systems that manage patient data must comply with privacy and security regulations, maintaining encryption, access control, and secure storage to prevent unauthorized access or misuse.[6,20,22] Ethical governance of these systems ensures that AI-supported recommendations preserve patient autonomy, transparency, and clinician oversight, reinforcing the orthodontist's responsibility for protecting patient trust and information integrity.[13,14,29]

AI systems that handle patient data must comply with privacy and security regulations to prevent unauthorized access, misuse, or data breaches. Compliance with the U.S. Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health (HITECH) Act, together codified at 42 U.S.C. Chapter 6A, Subchapter XXVIII, and related provisions of Chapter 156, as well as with international and technical standards such as ISO/IEC 42001 and 27001, ensures that patient information is protected through secure design, encryption, and controlled access.[6,20,28,29,71,72]

Risks When Data Privacy Is Not Upheld in AI-Enabled Orthodontics

1*. Patient Data Breaches and Unauthorized Access*

Weak encryption, inadequate access controls, or insecure data sharing expose sensitive health records to cyberattacks, theft, and misuse, violating HIPAA and eroding patient trust.[6,20,71,72]

2. *Corruption or Loss of Clinical Data*

Poor governance or inconsistent data standards can cause information loss or corruption during storage or transfer, resulting in diagnostic errors, disrupted treatment continuity, and compromised patient safety.[6,22,28]

3. *Unauthorized Secondary Use or Re-identification of Patient Data*

Inadequate de-identification and lack of transparency allow vendors or AI developers to repurpose clinical data for algorithm training or commercial use without consent, breaching ethical and legal standards.[5,13,14]

4. *Regulatory Non-Compliance and Legal Liability*

Failure to meet HIPAA, HITECH, or ISO standards exposes orthodontists and vendors to regulatory fines, breach-notification obligations, and potential litigation for patient harm or data misuse.[28,29,71,72]

Call to Action: Strengthening Operational Integration and Data Privacy in Orthodontic AI

1. *Adopt and enforce standardized data-exchange protocols* such as HL7 FHIR (Health Level 7 Fast Healthcare Interoperability Resources) and DICOM (Digital Imaging and Communications in Medicine) across orthodontic systems to prevent data loss and diagnostic error.[6,28]

2. *Mandate compliance with HIPAA, the HITECH Act, and ISO/IEC security frameworks* to ensure robust encryption, access control, and breach-response capabilities.[6,20,71,72]

3. *Require vendor transparency and data-use governance,* including disclosure of how patient information is collected, stored, and used for algorithm development.[5,13,14]

4. *Provide equitable support for practice modernization,* offering technical guidance or funding mechanisms to help smaller practices meet interoperability and security standards.[14,29]

5. *Institutionalize continuous education on AI data ethics and cybersecurity,* ensuring clinicians and staff remain competent stewards of digital health information.[13,14,28]

Call to Action: Framework for Evaluating and Implementing AI Tools in Orthodontics[‡]

As AI continues to shape orthodontic diagnostics, treatment planning, and workflow design, orthodontists must adopt a structured, evidence-based approach to evaluation and implementation. A three-phase model consisting of Evaluate, Implement, and Monitor provides a foundation for the responsible integration of AI clinical tools in orthodontics.

Evaluate

Orthodontists should identify specific clinical needs, verify that AI tools are validated on diverse, high-quality datasets, and confirm that each system complies with applicable regulatory and technical standards, including FDA, IMDRF, ISO, HIPAA, and HITECH requirements. Careful assessment of workflow compatibility and vendor transparency ensures that AI adoption enhances precision, safety, and efficiency rather than introducing new risks.

Implement

Pilot AI tools on a limited number of clinical cases before full deployment, ensuring performance aligns with clinician benchmarks and established quality measures. Staff must be trained to validate AI outputs, recognize system limitations, and maintain transparency with patients regarding the role of AI in their care. Integration should align with state licensure requirements and uphold the orthodontist's HIC responsibility.

Monitor and Educate Continuously

Clinicians must conduct regular audits to monitor accuracy, bias, and real-world reliability, while maintaining ongoing education in AI ethics, cybersecurity, and data governance. Collaboration with vendors and professional organizations ensures continuous improvement and regulatory compliance.

[‡]*A detailed version of this framework, including step-by-step guidance, case examples, and performance benchmarks, is available as a supplemental guide: Framework for Evaluating and Implementing AI/ML SaMD in Orthodontics.*

IX. Conclusion

The framework and Core Principles outlined in this document provide a roadmap for the safe, equitable, and effective adoption of AI in clinical orthodontics. They emphasize that orthodontists remain accountable for technology selection, validation, and oversight; that developers share responsibility for the ethical design, transparency, and secure deployment of AI tools; that data integrity and patient privacy must never be compromised; and that continuous education is essential to sustain clinical readiness in a rapidly evolving digital landscape.

As AI systems become increasingly integrated into diagnostic and treatment workflows, they hold the potential to usher in a new era of precision orthodontics, where diagnostic accuracy, treatment planning, and patient monitoring are tailored to individual characteristics, mirroring the progress achieved in precision medicine. To realize this promise, the orthodontic profession must lead in defining the standards for responsible AI use. This leadership requires collaboration among clinicians, educators, vendors, and regulators to uphold transparency, protect patients, and preserve public trust.

The American Association of Orthodontists envisions a future in which AI integration strengthens both the science and the art of orthodontics, advancing innovation while preserving humanity in care. By prioritizing patient safety, ethical governance, and clinician oversight, orthodontists can ensure that AI becomes not a replacement for expertise but a reflection of it, a tool that amplifies the profession's enduring commitment to excellence and the well-being of every patient.

X. Appendix

Table A1: Diagnostics

AI Capability	AI Functionality	Benefits	Limitations	Referenced Studies
Cephalometric Analysis	Automates landmark detection with high accuracy	Reduces variability, increases efficiency	Requires validation against diverse datasets	Schwendicke et al.[1]; Lin et al.[18]; Nordblom et al.[41]; Kim et al.[73]; Mohammad-Rahimi et al.[74]; Strunga et al. [75]
CBCT Segmentation	Automates craniofacial structure segmentation	Enhances detection of skeletal discrepancies	Accuracy depends on imaging quality	Wang[76]; Scarfe et al[77]; Gillot et al.[78]
TMJ Diagnostics	Analyzes imaging, clinical, and biomarkers for early TMJ OA detection	Allows early intervention and prevention	Limited by dataset diversity	Bianchi et al.[79]
Orthognathic Surgery Planning	Integrates cephalometric data for precise treatment planning predictions	Improves surgical outcomes and planning	May require extensive model validation	De Oliveira et al.[80]

Table A2: Treatment Planning

AI Capability	AI Functionality	Benefits	Limitations	Referenced Studies
Simulating Treatment Outcomes	Generates visual treatment progress simulations	Enhances patient education and engagement	Does not account for biological variability	Kazimierczak et al.[81]
Models that Simulate Predictive Treatment Outcome Models	Uses deep learning to forecast patient-specific tooth movement	May potentially improve precision in treatment adjustments	Subject to deviations due to bone remodeling	Volovic et al.[82]; Wang et al.[83]

AI Capability	AI Functionality	Benefits	Limitations	Referenced Studies
Optimizing Aligner Therapy	Enhances sequencing and attachment placement based on ML analysis	Improves treatment planning predictability and efficiency	Depends on real-time compliance tracking	Khanagar et al.[17]; Castroflorio et al.[84]
Simulation of Predicting Tooth Movement	AI models analyze biomechanical patterns and real-world cases to refine tooth movement simulations predictions	Enhances virtual tooth movement simulation accuracy and force application strategies	Requires real-time monitoring to validate simulation's predictions	Wang et al.[83]; Hasegawa et al.[85]; Barone et al.[86]; Hansa et al.[87,88]
Simulating Surgical Outcomes	AI simulates/predicts post-operative facial changes in orthognathic surgery and palatal expansions	Improves treatment planning accuracy, anatomical identification, and patient visualization	Requires large datasets and extensive clinical validation	Kato et al.[89]; Ma et al.[90]; Almarhoumi[91]

Table A3: Appliance Design

AI Capability	AI Functionality	Benefits	Limitations	Referenced Studies
Custom Brackets and Aligners	AI-driven CAD/CAM optimizes appliance fit and force application	Improves treatment efficiency and personalization	Requires accurate digital impressions	Tsolakis et al.[92]; Farook et al.[93]
Custom Appliance Fabrication	AI automates tooth segmentation, collision detection, and treatment adaptation for 3D modeling	Enhances aligner and bracket customization, optimizing tooth movement efficiency	Dependent on high-quality scans and material precision	Bichu et al.[92]; Tsolakis et al.[93]; Farook et al.[94]

AI Capability	AI Functionality	Benefits	Limitations	Referenced Studies
AI-Optimized 3D Printing	Reduces production errors and optimizes material use in appliance fabrication	Ensures precision, reproducibility, and faster appliance delivery	Requires robust quality control and material validation	Tsolakis et al.[92]
Virtual Testing of Appliances	Simulates appliance behavior pre-fabrication	Reduces chairside adjustments and remakes	Needs validation with real-world cases	Hasegawa, et al.[85]; Hansa et al.[88]
Integration of CAD/CAM and 3D Printing	Automates AI-driven appliance design and fabrication workflows	Reduces manual modifications, improves efficiency, and expedites fabrication	May require additional clinical validation for widespread adoption	Tsolakis et al.[92]; Impellizzeri, et al.[95]; Hou, et al.[96]

Table A4: Remote Monitoring

AI Capability	AI Functionality	Benefits	Limitations	Referenced Studies
Remote Monitoring Systems	Analyzes intraoral images for treatment compliance	Reduces in-office visits, enhances oversight	May not replace direct clinical evaluation	Hansa et al.[87,88]
Real-Time Alerts for Deviations	AI-generated alerts for treatment inconsistencies	Allows early intervention, prevents delays	Relies on patient adherence to monitoring	Strunga et al.[75]
Improving Compliance	ML-based tracking and reminders for aligner wear	Enhances adherence and patient engagement	May require integration with patient apps	Caruso et al.[97]

XI. Abbreviations, Acronyms and Glossary

Abbreviation or Acronym	Term
3D	three-dimensional
ACP	algorithm change protocol
ADA	American Dental Association
AI	artificial intelligence
AMA	American Medical Association
AAO	American Association of Orthodontists
CAD/CAM	computer-aided design/computer aided manufacturing
CBCT	cone beam computed tomography
CDSS	Clinical Decision Support Software
CE	continuing education
COU	context of use
DICOM	Digital Imaging and Communications in Medicine
DTC	direct-to-consumer
FD&C Act	Food, Drug, and Cosmetic Act
HIC	Human-in-Command
HIPAA	Health Insurance Portability and Accountability Act
HL7 FHIR	Health Level 7 Fast Healthcare Interoperability Resources
IEC	International Electrotechnical Commission In context of ISO/IEC
IMDRF	International Medical Device Regulators Forum
ISO	International Organization for Standardization
ML	machine learning
NIST	National Institute of Standards and Technology
PCCP	Predetermined Change Control Plan
PVRs	post-validation reports
SaMD	Software as a Medical Device
SCDI	Standard Committee on Dental Informatics (with ADA)
TMJ OA	temporomandibular joint osteoarthritis
TPLC	Total Product Lifecycle
U.S.	United States
WHO	World Health Organization

Glossary

Term	Definition
AI literacy	A basic understanding of AI principles, including machine learning fundamentals and data bias awareness.
Artificial Intelligence (AI)	The FDA defines AI as "a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments." The International Organization for

	Standardization (ISO) defines an AI system as a "system that is capable of perceiving its environment and taking actions to maximize its chances of achieving its goals" (ISO 2023 6).
Artificial intelligence/machine learning Software as a Medical Device (AI/ML SaMD)	When software that meets the definition of SaMD also incorporates AI or ML, it is classified by the FDA as AI/ML-based SaMD. Due to its dynamic nature, AI/ML SaMD requires a Total Product Lifecycle (TPLC) regulatory approach
Assistive AI	Per the FDA, this refers to AI-enabled products designed to support human decision-making by providing suggestions, data, or analysis to help clinicians make more informed choices. The orthodontist remains the final decision-maker.
Clinical Decision Support Software (CDSS)	This type of software is intended to assist healthcare professionals in making clinical decisions. Digital cephalometric analysis software is an example of this in orthodontics.
Context of use (COU)	Defines the specific role, scope, and environment in which the system is intended to be used. Must be explicitly specified to ensure appropriate regulatory evaluation and oversight. The COU directly informs risk classification and determines the appropriate level of oversight needed to ensure safe, accountable use.
Digital bonding software	This software enables the simulation of bracket placement and generates a treatment-specific appliance. This is an example of Software as a Medical Device (SaMD) because the software's output directly determines how the brackets will be positioned and delivered to the patient, and because it is relied upon to perform a medical function within the treatment workflow.
Digital cephalometric analysis software	This software calculates standard angular and linear measurements (e.g., SNA, SNB, ANB) using user-identified landmarks and is an example of Clinical Decision Support Software (CDSS).
Human-in-Command (HIC)	The concept of Human-in-Command (HIC) originates in technology governance and appears in international health policy literature. In this paper, it is applied specifically to orthodontics, where the HIC is defined as the licensed orthodontist of record, consistent with American Dental Association (ADA) policy and global expectations that accountability rests with qualified clinicians. A licensed clinician retains *ultimate authority* over how AI systems are used in clinical care—including control over deployment, interpretation, and decision-making. HIC reinforces clinician accountability across all risk tiers.
Post-Validation Reports (PVRs)	Summaries of performance testing results, known limitations, and validation outcomes.
Predetermined Change Control Plan (PCCP)	A structured framework that allows for anticipated, controlled updates to AI/ML software functions post-deployment.

Software as a Medical Device (SaMD)	The International Medical Device Regulators Forum (IMDRF) defines SaMD as "software intended to be used for one or more medical purposes that perform these purposes without being part of a hardware medical device" (IMDRF, 2013). Under the Federal Food, Drug, and Cosmetic Act (FD&C Act), SaMD is classified as a medical device and is subject to regulatory requirements based on its intended use and level of patient risk.
Total Product Lifecycle (TPLC)	Expanded regulatory requirements to ensure AI/ML SaMD is safe during the design, development, and deployment stages, needed due to the software's potential to adapt and change over time. This approach emphasizes both premarket validation and postmarket surveillance to prevent unsafe or biased AI tools from impacting clinical care.

XII. **References**

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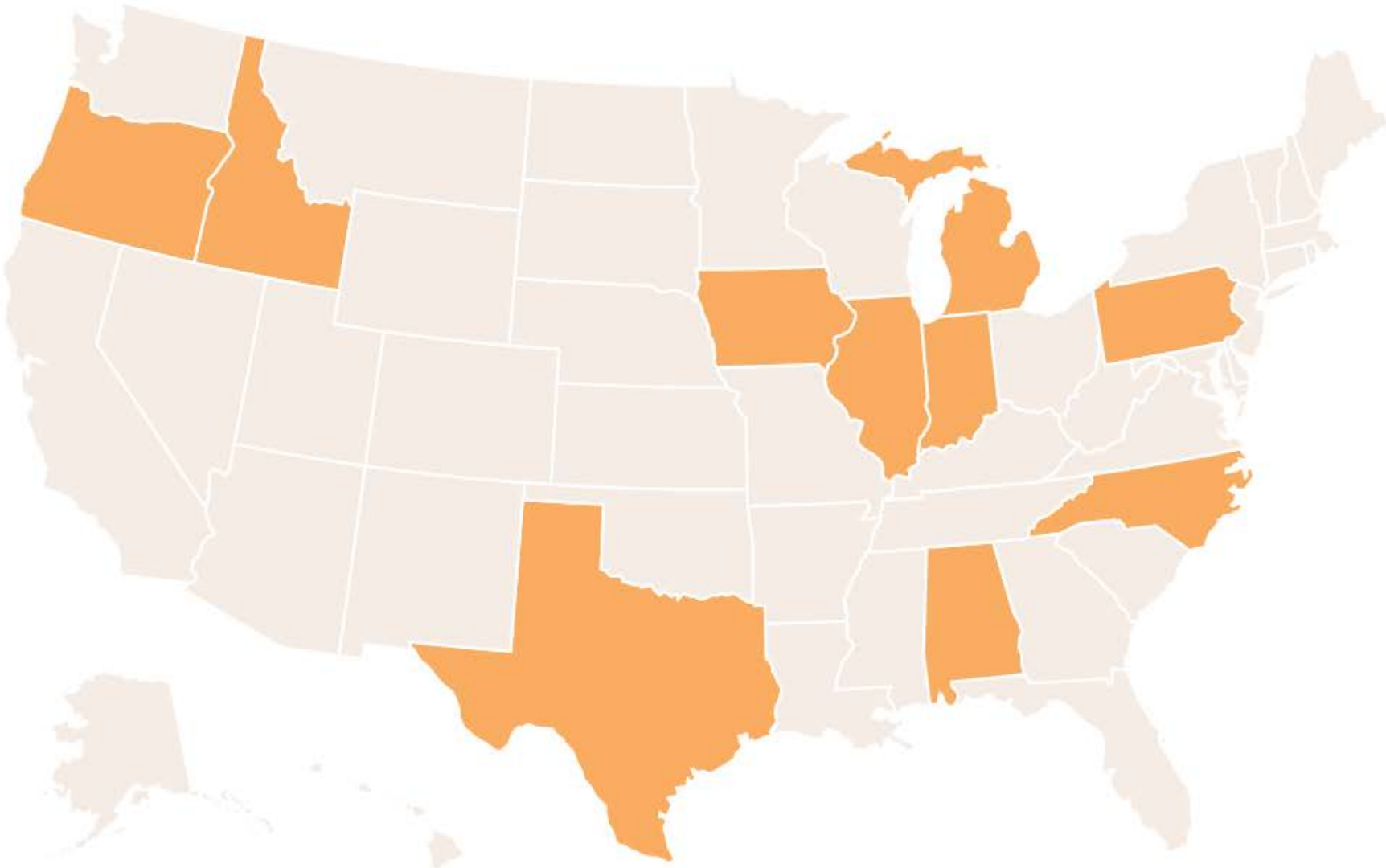
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Recommendations for a Dental Assisting Professional Model



Dental Assisting
Professional Model

Recommendations for a Dental Assisting Professional Model

JULY 18, 2025

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A Path Forward for the Dental Assisting Profession

Dentistry is experiencing significant challenges related to the workforce, including an insufficient number of qualified dental assistants. The workforce shortage impacts practice capacity, efficiency, productivity, patient access, and quality of care.

The dental assisting workforce shortage was already a problem before the start of the COVID-19 pandemic, but the pandemic both exacerbated the shortage and delayed progress on solutions. In a 2022 stakeholder forum that included executives and strategists from more than 20 organizations, participants consistently returned to the observation that the lack of uniformity in the dental assisting profession across states was an important factor impeding meaningful progress in alleviating the shortage. Increasing uniformity and establishing standards was a key theme underlying the most important initiatives identified by forum participants.

A shared understanding of what dental assistants do and how they can advance will greatly improve dentistry's ability to recruit and retain qualified personnel, as well as to develop pipelines for the future workforce. Without a shared understanding, dentistry will continue to see:

- Challenges in attracting and educating dental assisting candidates
- Loss of qualified dental assisting personnel from the field
- Reduced capacity of the oral healthcare infrastructure and diminished access to care
- Unclear understanding of minimum requirements for patient safety
- Duplication of effort in developing mid- and long-term solutions to address the workforce shortage
- Inefficiency, frustration, and confusion

Whether intended or not, state legislation and regulation of the dental assisting profession shape the careers of dental assistants because they determine the frameworks within which dental assistants may advance. Significant differences in these frameworks have prevented the formation of a shared national understanding of the dental assisting profession. Bringing uniformity to dental assistants' scope of practice and exam, education, and credential requirements can help lay out a consistent path for the profession that offers a long-term career journey. Providing a clear road map for that journey will assist with both recruitment and retention of assistants. And those who move between states or work in multiple states over the course of their careers will be able to continue to work without significant pause.

There is overwhelming support in dentistry for uniform national standards. A 2023 survey of dental assistants, dentists and employers, and educators showed 83% supported this idea.

The Dental Assisting Professional Model Workgroup was established to address the wide variation in how states regulate dental assisting, with a focus on recommending a model that could be used as the basis for state-to-state uniformity. The Workgroup developed a model that offers multiple pathways into the profession and a framework for professional advancement, supporting the recruitment and retention of dental assistants.

About the Dental Assisting Professional Model Workgroup

The Dental Assisting Professional Model Workgroup consists of 20 members, including dental assistants, dentists, educators, dental hygienists, and regulators. The Workgroup, formed in early 2024, sought to help address the shortage by creating a national model that:

- Elevates the dental assisting profession and attracts more candidates to the field
- Provides a road map for career growth that can support recruitment and retention of dental assistants over the long term
- Improves professional mobility of dental assistants from state to state
- Increases practice efficiency and enhances access to care
- Provides states with a straightforward framework for regulation that reflects the needs of dentistry

Nominating organizations included:

- American Association of Dental Administrators
- American Association of Dental Boards
- American Dental Assistants Association
- American Dental Association
- American Dental Education Association
- American Dental Hygienists' Association
- Association of Dental Support Organizations
- Dental Assisting National Board
- Hispanic Dental Association
- National Network for Oral Health Access

Six additional members were invited to participate for their expertise and perspective gained in specific roles and to broaden geographic diversity.

Two co-chairs provided leadership to the Workgroup:

- Dolores Cottrell, D.D.S., Executive Secretary, New York State Board for Dentistry (New York)
- Helen Sublette, B.S., CDA, COA, CDIPC, FADAA, Owner, Coastal Dental Professionals Consulting (North Carolina)

Workgroup meetings were led by third-party facilitators, with the Dental Assisting National Board (DANB) staff leading workgroup coordination and contributing subject matter expertise. A full list of Workgroup members, including credentials, affiliation, and nominating organization, can be found in Appendix A.

The framework outlined in this document is the product of 12 months' work by the Dental Assisting Professional Model Workgroup, reflecting the Workgroup's consensus and incorporating the Workgroup's response to feedback from external stakeholders received during the stakeholder comment period.

Guiding Principles & Approach

The Workgroup prioritized a national model that supports:

- **Public protection**, including patient safety and occupational safety
- **Uniformity**, with an effort to build upon existing commonalities among states' scopes of practice and requirements
- **Road map for advancement**, which sets a clear path for dental assistants to grow
- **Implementation feasibility**, for a model embraced nationwide



To support these priorities, the Workgroup's deliberations were informed by the following sources of data:

- Survey research revealing broad stakeholder perspectives
- Clinical data, derived from a job task analysis survey, about frequency of tasks performed by dental assistants
- Data about commonalities among states related to dental assisting regulation
- Subject matter expertise provided by Workgroup members themselves

In the spirit of the guiding principles, the recommendations that follow are for national minimum standards. Each dental assistant level offers multiple pathways that are as equivalent as possible, ensuring they do not create further barriers for states, employers, or dental assistants. The levels consist of both on-the-job and formal education options that offer third-party validation.

The Workgroup's approach has been informed by the following factors:

- Dental assisting education that is accredited by the Commission on Dental Accreditation (CODA) provides excellent preparation for dental assistants, but programs collectively do not have the capacity to supply all the dental assistants that are needed, and their capacity is declining; the collective annual enrollment of CODA-accredited dental assistant programs has decreased by almost half in the last decade
- There are other sources of high-quality education for dental assistants, including some community college programs and public career and technical education (CTE) programs, and some for-profit education sources might also provide quality instruction; uniform objective criteria are needed for states to evaluate offerings from all of these sources
- In many states, hiring individuals with no dental assisting experience and training them on the job is the predominant mode of entry into the dental assisting profession; however, this trend is associated with poor retention, inconsistencies in training, high turnover, and frequent vacancies that diminish the capacity of dental offices to see patients

The Workgroup's recommendations seek to balance the need to train some dental assistants on the job with the need to protect the public. The recommendations also seek to provide adequate training and education at each level to provide a foundation for advancement to the next level and enhance the ability of employers to recruit and retain dental assistants; elevating dental assisting as a rewarding career will also help dental assisting education programs recruit students.

The Recommended Model

Model Snapshot

The Workgroup's recommendations for a professional model for dental assisting is summarized in brief in the following graphic. Additional details for each element of the model are contained in the sections that follow.

Dental Assisting Professional Model Snapshot

Entry Level Dental Assistant	**Level 1 Functions** Essential chairside and basic intraoral functions	Complete infection control and safety orientation prior to or on first day of work as a DA Earn CPR/BLS within 3 months Within 12 months: Complete on-the-job training + pass a standardized national exam **or** Complete a board-approved course or program that includes a final exam
	Infection Control	Complete on-the-job training + pass a standardized national exam **or** Complete a board-approved course or program that includes a final exam
	Radiography	Complete on-the-job training + pass a standardized national exam **or** Complete a board-approved course + pass a standardized national exam **or** Pass a course through or graduate from a CODA-accredited program
Intermediate Level Dental Assistant	**Level 2 Functions** Intermediate intraoral and preventive functions	Meet Level 1 requirements, complete a board-approved course, and pass a national standardized exam **or** Graduate from a CODA-accredited program*
	Nitrous Oxide Monitoring	Complete Level 1 Hold BLS certification Complete a board-approved course that includes a final exam **or** Graduate from a CODA-accredited program*
Restorative Expanded Functions Dental Assistant	**Level 3 Functions** Advanced intraoral, expanded and restorative functions	Meet Level 2 requirements, hold national dental assistant certification, complete a board-approved program, and pass a national standardized exam **or** Graduate from a CODA-accredited program* that included instruction in the functions

**A note about completion of CODA-accredited dental assisting programs:* A dental assistant who has completed a dental assisting program accredited by CODA will have met educational requirements for both Level 1 and Level 2.

If a CODA-accredited dental assisting program included the required instruction in restorative functions, a dental assistant completing such a program will also have met educational requirements for Level 3.

Level 1: Entry Level

Overview

Level 1 dental assistants have foundational dental knowledge and perform essential chairside and basic intraoral functions.

Supervision

Tasks are performed under the dentist's personal and direct supervision, until the dental assistant has met established requirements. Then, the dental assistant may work under indirect supervision.

Personal Supervision: The dentist is personally operating on a patient and authorizes the dental assistant to aid in treatment by concurrently performing supportive procedures.

Direct Supervision: The dentist is on the premises while work is performed by dental assistants; the dentist directs dental assistants' activities and verifies that functions have been performed correctly.

Indirect Supervision: The dentist is in the office, authorizes the procedures, and remains in the office while the procedures are being performed.

Description

Level 1 dental assistants support the dentist, the dental team, and the dental office's clinical operations. Their primary role is to assist dentists as they perform dental procedures on patients, under the dentist's personal supervision, and to execute supportive tasks before, during and after such procedures. Level 1 dental assistants also perform duties under the direct supervision of dentists.

Delegable Tasks

- Administrative, non-clinical tasks
- Clinical extraoral tasks
- Fundamental patient appointment support tasks
- Tasks that support diagnosis of the patient's condition
- Tasks that are reversible and pose a minimal risk of patient pain, injury or long-term ill effects
- Tasks that address or assist in addressing dental and medical emergencies

Examples of Level 1 tasks are:

- Maintain field of operation during dental procedures by retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.
- Provide patient preventive education and oral hygiene instruction
- Take and record vital signs
- Apply topical anesthetic
- Apply topical fluoride
- Make impressions for study models and fabrication of such appliances as allowed under state regulations, including digital impressions
- Place and remove dental dam
- Remove temporary crowns and cements

Other tasks appropriate for Level 1 are listed in Appendix B.

Note on radiography and infection control: Radiography and infection control tasks, such as sterilizing instruments, are fundamental to the job of dental assistants and are performed by dental assistants at all levels. However, incorrect performance of these tasks carries the risk of irreversible harm to patients and personnel; therefore, special consideration has been given to addressing patient and occupational safety concerns related to these functions. Accordingly, apart from a first-day orientation required to begin working as a Level 1 dental assistant, these functions will be addressed separately.

Entry-Level Orientation

Prior to beginning work in a dental setting, a dental assistant should be provided with an infection control and safety orientation that covers essential topics, including the following:

- Fundamentals of Infection Prevention and Control: Personnel role in preventing infections; standard and transmission-based precautions; CDC resources
- Patient Protection and Occupational Safety: Hand hygiene; PPE; respiratory illness precautions; sharps safety and percutaneous injury response; work practice and engineering controls; safe injection practices; hepatitis B immunization
- Sterilization and Disinfection: Sterilization of a variety of patient care items; instrument sterilization process; sterilizer monitoring; disinfecting environmental surfaces; waste disposal; dental unit water quality monitoring/management
- Basic Radiation Safety: Occupational safety for those working in a setting where x-rays are used

The first-day safety orientation is an important element in the model that allows a dental office to bring dental assistants on board quickly while ensuring they have received critical information to perform assigned duties safely while working under personal or direct supervision.

Training Period

A dental assistant may work in a dental office while receiving training in Level 1 functions for up to 12 months prior to meeting the pathway requirements.

Allowing 12 months for completion of requirements provides employers with time to determine if a new dental assistant is likely to succeed and continue in their role and to deploy training resources appropriately.

CPR/BLS

A dental assistant must hold current CPR/BLS certification within three months of beginning work in a dental office and keep CPR/BLS certification current during employment. CPR/BLS certification must meet either American Heart Association or American Red Cross guidelines.

Pathways

	Training/Education	Assessment
Pathway 1	**On-the-job training** Receive in-office training that follows a standardized content outline or training manual *(See required training/course content outline below.)*	Standardized nationally recognized exam approved by the dental board
Pathway 2	**Course or program** Complete a course or dental assisting program that is either approved by the state dental board or CODA accredited	End-of-course exam

These pathways provide flexibility when dental offices must hire individuals with no prior experience to work as dental assistants, in that they give the employer time and multiple options for providing structured training and education to dental assistants.

In each pathway, one element of the pathway — either the education or the exam — is verified against a set of objective criteria, which supports uniformity and consistency of quality. At the same time, structured and standardized training provides the foundation for advancement to higher levels, which fosters long-term retention and promotes increased productivity for dental offices.

Required training or course content
The training or course should cover:

Foundational Knowledge

- Principles of four-handed dentistry
- Treatment documentation and charting
- Universal tooth numbering system
- Tooth names, anatomy and morphology
- Oral anatomical landmarks
- Dental terminology
- Management of hazardous waste (transport, disposal, documentation)
- Patient privacy laws (HIPAA)
- Recognition of and response to dental and medical emergencies
- Any occupational safety training required under state or federal law, including but not limited to training in hazard communication and respiratory protection

Essential Chairside Functions

- Review and update patient medical history, including identifying contraindications for treatment
- Perform preliminary patient examination
- Prepare patients and operatory for treatment
- Assisting in explaining and obtaining patient consent for procedure
- Discuss risks, benefits and alternative treatments with patient
- Set up instrument trays
- Set up anesthetic syringe
- Prepare and deliver dental materials for procedure
- Maintain field of operation during dental procedures by retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.
- Observe patient during procedure
- Provide patient preventive education and oral hygiene instruction
- Take and record vital signs

Basic Intraoral Functions

- Apply topical anesthetic
- Apply topical fluoride
- Remove temporary crowns and cements
- Take impressions for study models and fabrication of appliances, including digital impressions
- Place and remove dental dam

Board approval criteria
For board approval, the course must address the required content shown above and meet one of these criteria:

- Offered by a provider that is either PACE- or ADA CERP-approved
- Offered by a provider accredited by an agency recognized by the U.S. Department of Education
- A public high school or adult CTE program approved by the state department of education

(PACE or Program Approval for Continuing Education is a continuing education provider approval program operated by the Academy for General Dentistry. ADA CERP or Continuing Education Recognition Program is a continuing education provider recognition program operated by the American Dental Association.)

Increasing approved education channels expands avenues into the profession, which increases the number of educated dental assistants for the workforce. At the same time, ensuring that such education is verified against an objective set of criteria in accordance with agreed standards supports both uniformity and advancement to higher levels of responsibility, fostering long-term retention.

Infection Control

Description

The dental assistant performs infection prevention and control tasks, including processing instruments and devices, preventing cross-contamination, and following OSHA protocols.

Training Period

After orientation, a dental assistant may work in a dental office for a training period of up to 90 days before completing infection control requirements. During the training period, the dental assistant should receive instruction and training in infection control and should be monitored by a team member who has demonstrated knowledge of infection control through licensure, registration, or assessment and who maintains infection control knowledge through continuing education.

The first-day orientation for entry-level dental assistants allows employers flexibility to begin training dental assistants right away and to provide the necessary infection control training to ensure public protection and provider safety over a longer, 90-day training period. The Workgroup's first priority was public and provider safety, but Workgroup members remained cognizant of and concerned about introducing requirements that would make it more difficult to hire and onboard dental assistants. The combination of these two elements — the first-day safety orientation and the 90-day infection control training period — accounts for both the operational need to allow newly hired dental assistants to begin working immediately and the employer's obligation to ensure all staff have the knowledge they need to protect themselves and patients from infection.

Pathways

	Training/Education	Assessment
Pathway 1	**On-the-job training** Receive in-office training that follows a standardized content outline or training manual *(See required training/course content outline below.)*	Standardized nationally recognized exam approved by the dental board
Pathway 2	**Course or program** Complete an infection control course or dental assisting program that is either approved by the state dental board or CODA accredited	End-of-course exam

These pathways for infection control preparation reflect the principles noted earlier: There are multiple options for a dental assistant to meet requirements, providing flexibility for onboarding of candidates; and, one element in each pathway — either the education or the exam — is verified against a set of objective criteria, supporting uniformity and consistency of quality.

Required training or course content
The training or course should cover:

- CDC's Guidelines for Infection Control in Dental Health-Care Settings
- CDC's Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care
    - Transmission and prevention of infectious diseases
    - Overview of laws and guidelines applicable to oral healthcare settings
    - Personnel health elements of an infection control program
    - Preventing transmission of bloodborne pathogens
    - Hand hygiene
    - Personal protective equipment (PPE)
    - Respiratory hygiene/cough etiquette
    - Contact dermatitis and latex hypersensitivity
    - Sharps Safety and the Needlestick Prevention Act
    - Safe injection practices
    - Sterilization and disinfection of patient-care items and devices
    - Environmental infection control
    - Dental unit waterlines, biofilm and water quality
- OSHA Bloodborne Pathogens Standards
    - Exposure control
    - Methods of compliance
    - Special practices
    - Hepatitis B vaccination and post-exposure evaluation and follow-up
    - Communication of hazards to employees
    - Recordkeeping

Board approval criteria
For board approval, the course must address the required content shown above and meet one of these criteria:

- Offered by a provider that is either PACE- or CERP-approved
- Offered by a provider accredited by an agency recognized by the U.S. Department of Education
- A public high school or adult CTE program approved by the state department of education

Radiography

Description

The dental assistant performs dental radiography tasks, including seating and positioning the patient, positioning the x-ray equipment, and taking images.

Pathways

A dental assistant must meet radiography training and assessment requirements before exposing radiographs.

	Training/Education	Assessment
Pathway 1	**On-the-job training** Receive in-office training from a dentist, registered dental hygienist, dental therapist, or a dental assistant who has completed the state's radiography requirements *(See required training/course content outline below.)*	Standardized nationally recognized exam approved by the dental board
Pathway 2	**Board-approved course** Complete a course or CTE program approved by the state dental board or other state agency regulating use of x-rays	Standardized nationally recognized exam approved by the dental board
Pathway 3	**CODA-accredited course or program** Complete a dental radiography course or graduate from a CODA-accredited program	End-of-course exam

As with every element of the model, dental assistants have multiple options to qualify in radiography, and those options provide flexibility in hiring and training along with assurance of quality and support for uniformity.

Training and course content criteria

The training or course should cover:

Radiography Technique

- Review health and dental history for indications/contraindications for exposure to radiation
- How to seat patient based on technique
- Purpose of dental images
- Techniques to acquire dental images
- Identify anatomical variations that require a technique modification to acquire images
- Identify and correct technique errors to obtain a diagnostic image
- Identify what should appear in a diagnostic dental image
- Identify orientation landmarks in a dental image
- Identify dental materials in dental images
- Identify, understand purpose of and how to handle radiographic equipment
- Legal requirements

Radiation Protection

- Factors affecting x-ray production
- Protocols to ensure minimum radiation dose
- Monitor for x-ray unit malfunctions
- Potential negative health effects of radiation
- Operator safety
- Patient safety
- Addressing patient concerns regarding risks associated with exposure to radiation
- State regulatory requirements for radiation exposure

Board approval criteria

For board approval, the course must address the required content shown above and meet one of these criteria:

- Offered by a provider that is either PACE- or CERP-approved
- Offered by a provider accredited by an agency recognized by the U.S. Department of Education
- A public high school or adult CTE program approved by the state department of education

Level 2: Intermediate Intraoral Functions

Overview

Level 2 dental assistants perform intermediate intraoral and preventive functions.

Supervision

Tasks are performed under the dentist's direct and indirect supervision.

Description

Level 2 dental assistants perform intraoral functions of intermediate complexity that carry a higher level of risk for injury or pain for the patient than those included in Level 1. These functions are reversible intraoral functions delegated by the dentist under direct or indirect supervision. Safe and effective performance of these functions requires knowledge of oral anatomy, hand skills, and mastery of specific operational techniques beyond those required for Level 1.

The purpose of delegating Level 2 functions to dental assistants is to improve efficiency of the dental office and allow dental hygienists and dentists to spend more time on procedures requiring the professional skill and judgment commensurate with their education and training.

Delegable Tasks

- Intermediate tasks that are reversible
- May carry an increased risk of pain or injury for the patient
- Can be delegated to a dental assistant while a dentist is on the premises but may be working in another operatory

Examples of Level 2 tasks are:

- Coronal polishing
- Place sealants

- Place and remove retraction materials
- Fabricate and place temporary crowns
- Cement temporary crowns
- Place and remove matrix band and wedge
- Remove periodontal dressings
- Place post-extraction dressings
- Remove sutures

Other tasks appropriate for Level 2 are listed in Appendix B.

Pathways

	Education	Assessment
Pathway 1	**Board-approved course** Meet Level 1 requirements. Then, complete a course approved by the state dental board that addresses Level 2 functions	Standardized nationally recognized exam approved by the dental board
Pathway 2	**CODA-accredited program** Graduate from a CODA-accredited program that covers Level 2 functions	End-of-course exam

Pathway 1 for Level 2 allows any person who has met Level 1 requirements, including those who received in-office training, to grow their career and advance to Level 2 by receiving additional training in Level 2 functions. Advancement opportunities are a key element in mitigating workforce shortages: they support retention of qualified and experienced personnel over the long term, which will reduce the recurrent vacancies that hinder dental office productivity, and they make the profession more attractive to those considering entering the profession at the first level, which supports recruitment of new candidates.

Pathway 2 for Level 2 takes advantage of the high-quality education provided by CODA-accredited dental assisting programs by allowing graduates of those programs to enter the field as Level 2 dental assistants and to begin contributing to the dental office productivity and efficiency immediately upon completion of their education.

Required course content
The course should cover Level 2 functions:

- Coronal polishing
- Place sealants
- Place and remove retraction materials
- Fabricate and place temporary crowns
- Cement temporary crowns
- Place and remove matrix band and wedge
- Remove periodontal dressings
- Place post-extraction dressings

Board approval criteria
For board approval, the course must address the required content shown above and meet one of these criteria:

- Offered by a provider that is either PACE- or CERP-approved
- Offered by a provider accredited by an agency recognized by the U.S. Department of Education
- A public high school or adult CTE program approved by the state department of education

Note in Response to Stakeholder Feedback

The Workgroup received questions from stakeholders related to flexibility in education requirements for Level 2. The Workgroup believes that the recommended course approval criteria are appropriately flexible to allow for the development of structured training experiences. Examples include hybrid programs that could potentially include remote or asynchronous didactic education coupled with work-based learning for which the supervising dentist serves as preceptor, in situations or areas where traditional courses are scarce or insufficiently available. The workgroup encourages stakeholders to commit resources to the development of solutions that meet the recommended content requirements and ensure patient protection.

Level 3: Expanded Restorative Functions

Overview

Level 3 dental assistants perform advanced intraoral restorative functions.

Supervision

Tasks are performed under the dentist's direct and indirect supervision.

Description

Level 3 dental assistants perform intraoral restorative functions of advanced complexity that carry a higher level of risk for injury or pain for the patient than those included in Level 2. These functions are reversible intraoral restorative functions delegated by the dentist under direct or indirect supervision. Safe and effective performance of these functions requires more advanced knowledge of oral anatomy, hand skills, and mastery of specific operational techniques beyond those required for Level 2.

The purpose of delegating Level 3 functions to dental assistants is to improve efficiency of the dental office and allow dental hygienists and dentists to spend more time on procedures requiring the professional skill and judgment commensurate with their education and training, which helps increase the capacity of dental offices to see patients and improves access to dental care.

Delegable Tasks

- Expanded restorative functions that are reversible, not including cavity or crown preparation or the cutting or removal of hard or soft tissue
- May carry an increased risk of pain or injury for the patient
- Can be delegated to a dental assistant while a dentist is on the premises but may be working in another operatory

Examples of Level 3 tasks are:

- Place liners and bases

- Place, contour, finish, and adjust direct restorations in a cavity prepared by the dentist or dental therapist
- Final impressions
- Place and cement prefabricated crowns (such as stainless steel crowns) on a tooth prepared by the dentist or dental therapist
- Interim therapeutic restorations
- Cementation of a permanent indirect restoration (crown) on a tooth prepared by the dentist or dental therapist

Other tasks appropriate for Level 1 are listed in Appendix B.

Pathways

	Education	Assessment
Pathway 1	**Board-approved Restorative EFDA program** Meet Level 2 requirements and earn national accredited dental assistant certification recognized by the state board. Then, complete a restorative EFDA program approved by the state dental board that addresses Level 3 functions	Standardized nationally recognized written and/or hands-on exam approved by the dental board
Pathway 2	**CODA-accredited program** Graduate from a CODA-accredited program that covers Level 3 functions	Standardized nationally recognized written and/or hands-on exam approved by the dental board

The pathways for Level 3 continue to conform to the Workgroup's principles of providing multiple options to qualify while also supporting uniform standards, allowing dental assistants to grow their careers by building on training, education, and experience acquired at earlier levels, and taking advantage of the high-quality education available in CODA-accredited programs.

Program criteria
The program should cover:

- Dental anatomy and physiology
- Place, contour, finish, and adjust direct restoration
- Final impressions
- Place and cement fabricated crowns
- Interim therapeutic restorations
- Cementation of permanent indirect restorations

For board approval, the course must be offered by a provider that is accredited by an agency recognized by the U.S. Department of Education, including CODA.

Nitrous Oxide Monitoring

Pathway

Prerequisite	Education	Assessment
Meet Level 1 requirements Hold BLS certification	**Course or program** Complete a board-approved course or graduate from a CODA-accredited program that covers nitrous oxide monitoring	End-of-course exam

Required course content
The course should cover:

- Advantages and contraindications of nitrous oxide
    - Advantages: Discuss the safety, rapid recovery, minimal side effects, and suitability for various patients.
    - Contraindications: Cover conditions such as COPD, pregnancy, psychiatric conditions, and immune disorders. Focus on pre-sedation patient screening and ensuring proper patient selection.
- Inhalation sedation equipment
    - Overview of equipment: Review nitrous oxide delivery systems, how to adjust concentrations, and ensure proper equipment function.
    - Hands-on training: Practice setting up and operating the equipment, including how to monitor oxygen levels.
- Sedation procedure and patient monitoring
    - Chemical makeup of nitrous oxide: Overview of nitrous oxide pharmacology and how it works in the body.
    - Patient education: Train dental assistants on how to explain the procedure, effects, and what patients should expect before and after sedation.
    - Steps of sedation:
        - Patient positioning
        - Administration of nitrous oxide/oxygen
        - Monitoring patient response and adjusting gas flow
        - Pediatric sedation considerations
        - Patient Monitoring: Focus on continuous monitoring of respiration, responsiveness, and any signs of oversedation.
- Emergencies and complications
    - Common complications:
        - Oversedation
        - Nausea and vomiting
        - Airway obstruction
        - Vertigo or disorientation
    - Emergency management: Apply BLS skills in case of respiratory depression or unconsciousness. Briefly review the recognition of these emergencies, but rely on participants' existing knowledge of CPR, airway management, and AED use.
- Post-sedation care and documentation

- Post-sedation recovery: Emphasize how to monitor patients during recovery from nitrous oxide sedation, focusing on re-establishing full awareness and checking for any delayed reactions.
- Patient communication: Train on discussing post-sedation instructions with patients or caregivers, including any risks of driving or returning to regular activities.
- Documentation: Review the legal and procedural documentation for sedation events, focusing on how to record sedation dosages, patient reactions, and any interventions performed.

Board approval criteria
For board approval, the course must address the required content shown above and meet one of these criteria:

- Offered by a provider that is either PACE- or CERP-approved
- Offered by a provider accredited by an agency recognized by the U.S. Department of Education
- A public high school or adult CTE program approved by the state department of education

Note: There are 13 states that allow dental assistants who have met specified requirements to administer nitrous oxide in addition to monitoring. The Workgroup's recommendations do not address administration of nitrous oxide by dental assistants and also do not recommend against allowing dental assistants who have met appropriate requirements conforming to sound public protection principles from performing this function.

Designations for Each Dental Assisting Level

One of the factors contributing to the lack of uniformity across states affecting the dental assisting profession is the inconsistent use of designations and titles in different states. The meaning of the term "registered dental assistant" varies greatly in the states that use it; it may mean:

- An entry-level dental assistant
- An assistant who has met radiography requirements or requirements to perform other individual functions (like coronal polishing)
- An intermediate level between the entry level and the restorative expanded functions level
- The highest level of dental assistant in the state, but not authorized to perform restorative functions
- A restorative expanded functions assistant

Similarly, in some states, the term "EFDA" or "EDDA" is roughly equivalent to the intermediate level in other states, and a different designation is used for the restorative expanded functions level.

The most uniformity of titles is seen at the entry level, where 30 states simply call this level "dental assistant." However, there are still 20 states and DC that use a different term to refer to these assistants.

While it is not essential for states to use the same terms to achieve greater uniformity of scope of practice and requirements for dental assistants, the Workgroup believes that adopting more uniform designations for dental assistants at each tier will reduce confusion and support the objective of achieving an understandable road map for dental assistants to navigate their careers.

The Workgroup recommends these designations for dental assistants at each level described in the model:

Level as Outlined Above	Recommended Designation
Level 1	Dental Assistant 1
Level 2	Dental Assistant 2
Level 3: Restorative EFDA	Dental Assistant 3 — Restorative EFDA

Rationale

These designations:

- Help demonstrate a clear progression from the first tier to the highest tier
- Are easy to understand and do not use terms that are new or unfamiliar in the dental field
- Provide flexibility for states to credential or not credential each of the levels

We recognize that in states that are already using these designations, the adoption of different meanings for these terms could cause temporary confusion during a transition period, or states could continue to use these terms in a way that is out of alignment with the model. To completely avoid creating conflict with any existing state designations, it would be necessary to recommend terms that are not currently in use in any state, and doing so would introduce a different set of drawbacks, in that the terms would likely be unfamiliar, unintuitive, and not aligned with general naming conventions for allied health personnel.

While there is no perfect solution, the Workgroup has determined that recommending terms that are clear, easy to understand, and familiar will support the goal of uniformity more than inventing new, unfamiliar terms.

Emerging Functions

How states choose to address new dental assisting functions that emerge over time, because of new technology or efforts to expand dental assisting scope of practice, is an area where the best efforts to move toward a more uniform model for the dental assisting profession may encounter challenges.

Our intention has been to describe each level using objective criteria, including the underlying principles that govern decision-making for each level, to create a framework that will allow states and employers to determine whether a function may be delegated to dental assistants meeting the requirements of one of the defined levels or whether additional new knowledge and skills are required.

New or “emerging” functions may come under discussion when new technology creates new functions or alters the skill level needed to perform existing functions — for example, digital imaging technology has changed the skill level needed for making impressions. In addition, stakeholders may propose expanding the scope of practice for dental assistants to include functions not previously performed by assistants, such as administration of local anesthetic, blood draws (phlebotomy), application of silver diamine fluoride, scaling/prophylaxis, or periodontal probing.

Because one of our guiding principles has been to build on commonalities that already exist among states, we have not included in the model functions that have only recently come under discussion but have not been authorized or addressed in more than a few states. However, we believe that the model provides a framework for consideration of how to treat these functions and encourages states, as they engage in these discussions, to ask the following questions:

- What is the rationale for considering adding a new function to dental assistants' scope or recategorizing an existing function?
- Is adoption of new technology occurring rapidly, and are employers seeking guidance around delegation?
- Will the public benefit from authorization of new functions for dental assistants, such as through increases in access to care?
- Will dental offices benefit through increasing their capacity to see patients?
- Will the addition of new functions support retention and recruitment of dental assistants?

If the function is worth additional consideration, the following questions can provide a framework for categorizing the function into an existing level or developing pathways for a separate new level or category:

- Is the function intraoral?
- Is the function reversible?
- Is the function invasive? Does it penetrate hard or soft tissue?
- Will the function result in the placement of a permanent restoration or appliance?
- What is the risk of pain or injury to the patient?
- Does the function require advanced hand skills or mastery of advanced operational techniques?
- Does any existing level have the knowledge needed, or is new knowledge required?

It may also be important to consider whether the function overlaps with any other healthcare professions' scope of practice and whether laws and regulations governing those professions address the performance of that function by those outside the profession. For example, is starting IV lines or doing blood draws prohibited for those not licensed as a nurse or phlebotomist?

If new knowledge is required, developing a set of requirements that includes education from an accredited source and/or assessment from a national organization offering accredited exams/certifications would support future uniformity as the function is adopted in additional states.

Registration

An important question that states must consider when determining how best to regulate dental assistants is whether to require registration for some or all levels of assistant.

"Registration" is a broad term signifying varying levels of rigor and continued oversight over a profession, depending on the state. For our purposes, "registration" encompasses any issuance of a state credential to a dental assistant who has met competence requirements set forth by the state.

The Workgroup notes that there are many practical benefits to requiring registration for dental assistants at all levels, including these:

- Accurate and up-to-date rosters of employed dental assistants in every state will greatly assist the dental community in monitoring trends in dental assisting employment and measuring the success of steps taken to mitigate the shortage.
- Information collected through registration will allow for additional research into factors influencing successful recruitment and retention that could provide valuable insights to those seeking solutions to the workforce shortage.

For these reasons alone, we encourage state policymakers to require registration for all dental assistants.

Registering dental assistants will also bring these public protection benefits:

- Regulators report that in states where dental assistants are not registered, a dental hygienist whose license is revoked for disciplinary reasons may legally work in a dental setting as a dental assistant, which may pose a risk to patient health and safety; giving the state board of dentistry regulatory authority over dental assistants will eliminate this problem.

- Registration allows the state to revoke an authorization to work in cases where dental assistants have demonstrated that they are a danger to patients.

- Registration removes the burden from employers to verify that dental assistants have met requirements.

- Registration enables the state to require and verify that dental assistants complete continuing education requirements, which fosters a more competent workforce and supports delivery of high-quality patient care.

- Registered or licensed dental assistants may be required to complete education required of other health professionals, such as child abuse recognition and reporting, identifying victims of human trafficking, cultural competency, and similar topics that benefit the public; these requirements support public safety and the provision of a higher level of care to patients.

- Registration facilitates the process of verifying credentials when a dental assistant moves to a new state.

Despite these considerable benefits, the Workgroup recognizes that it may be unfeasible in some states, for administrative or political reasons, to adopt a model calling for registration of all dental assistants. With this in mind, we have sought to propose a model founded on objective criteria that are straightforward for an employer to verify so that, if registration cannot be implemented in a state, the state can nonetheless participate in the benefits brought about by adopting uniform descriptions, scopes of practice, and requirements for each level of dental assistant.

We also make note of the strong trend among states to require registration for the restorative EFDA level (Level 3 in the model). Of the 25 states that expressly allow some level of dental assistant to perform expanded restorative functions, 21 require registration or licensure for that level. Functions performed at this level hold the highest risk of injury or harm to the patient, and registration of this level aligns with each state's public protection interests. We therefore recommend registration for the restorative EFDA level.

Continuing Education

We encourage states to require continuing education (CE) for dental assistants. For Level 1, at a minimum, CE in infection prevention and control should be required. For Level 2 and Level 3, we encourage states to adopt similar CE requirements to include, at a minimum, infection control and patient safety CE.

While CE requirements in the 24 states that require CE for dental assistants vary from one hour/unit per year to 15 hours/units per year, we encourage states to adopt requirements for Level 2 and Level 3 that are no less than the average number of units across all the states that have a CE requirement for dental assistants — approximately 8 hours/units per year. We also note that 12 hours/units per year is the most common quantity of CE units required, and this higher number may be a more appropriate requirement for Level 3.

As long as CE requirements are within reasonable ranges, we don't believe a state that has adopted the model should view moderate differences in approaches to CE as a reason for not recognizing the status of a dental assistant from another state that has also adopted the model.

Jurisprudence Education or Exam

The Workgroup supports verification of dental assistants' knowledge of state laws, rules, and regulation through a required course or examination. However, for the foreseeable future, we expect the content of such courses or exams to continue to be state-specific, and for any jurisprudence requirements to be determined and administered at the state level.

Guidance for Implementation

Flexibility and Adaptability

The Workgroup emphasizes and is committed to enhancing uniformity for the dental assisting profession. The Workgroup also recognizes that all healthcare professions are regulated at the state level, allowing states to make policies that address the unique conditions and circumstances

affecting their residents. The Dental Assisting Professional Model is a set of recommendations for the dental community to use as a resource and guide in planning and making decisions about the structure of the dental assisting profession. It is intended to be specific enough to create a shared national understanding about the scope of practice of dental assistants and the knowledge and skills required for them to support high-quality, consistent and safe patient care, but also to be flexible enough to allow for adaptations that address the unique realities in particular states.

As stakeholders consider how to use the Dental Assisting Professional Model as a resource in their own state or setting, the Workgroup encourages inclusion of a wide range of perspectives, including those of dentists, dental assistants, other dental team members, educators, regulators and the public.

Maintaining the Model

The recommendations described in this document were developed in collaboration and with representation and input from key dental and dental assisting organizations. The Workgroup believes there may be value in forming a more permanent coalition to continue considering questions that affect the uniformity of the dental assisting profession, including providing guidance on incorporating emerging functions into practice and regulations and how the model can be adjusted to accommodate different states' needs without undermining the goal of enhancing uniformity. Additional information about the formation of such a coalition will be shared with stakeholders as those plans develop.

Approaches to Transition

As states consider adopting the recommended model, we expect stakeholders to express concerns about how the new framework will affect dental assistants who have already been employed and working before the introduction of the new model.

To facilitate the transition to a new model, we recommend establishing an alternative pathway for dental assistants who are already working to qualify for the appropriate equivalent level in the new model.

Each state may handle the transition differently, because the current variations in state regulation of dental assistant do not allow for a uniform solution to transition these dental assistants.

Broadly speaking, a state's options for transitioning existing participants in the workforce to equivalent levels in the new model consist of:

- Allow dental assistants who were working prior to adoption of the model to continue performing those duties they have already been performing; provide a grace period for them to meet requirements outlined in the model for qualifying to perform new functions.

- Require dental assistants who were working prior to adoption of the model to meet all requirements under the new model within a reasonably generous timeframe.

- Require dental assistants who were working prior to adoption of the model to meet modified requirements that take into account their existing level of knowledge gained

through prior training, education and experience; an example of a modified requirement is allowing work experience and a dentist's attestation of competence to substitute for all or part of an education or exam requirement.

In some states, it might be appropriate to deploy some combination of the above approaches, if prior requirements create different considerations for different levels.

Resources and Support

Certain aspects of the Workgroup's recommendations will require resources and support materials that may not be currently available. In some cases, existing materials, such as training manuals, course curricula, and exams, may need to be adapted to bring them into alignment with the recommended model. In other cases, new materials may need to be developed to support successful implementation. Identifying and evaluating existing resources and developing plans for the creation of new resources has been outside the scope of the Workgroup's current 12-month endeavor. It has been the Workgroup's intention to provide enough detail to allow relevant organizations and providers of services to begin to identify what work will be needed to help advance and support the model.

We call upon all stakeholders in dentistry to support and participate in the development of the tools that states, employers, and dental assistants will need to ensure that adoption of the model by a state will bring about real changes that support a high quality of care and provide the foundation for attractive career prospects for potential dental assistants, enhanced recruitment and retention, and improvements in dental offices' capacity to serve patients.

Model Statutory and Regulatory Language

A future version of this document will include model legal language for statutes (laws) and rules/regulations for state policymakers and regulators who wish to implement the model in their states to use as a template.

Phase 2: Orthodontic and Anesthesia Functions

The foregoing model is the product of 12 months' intensive analysis and deliberation by the Workgroup. Most of our discussion centered around tasks that dental assistants perform in a general dentistry setting. As we deliberated, we understood that there are several subsets of dental assisting tasks that require deeper analysis and engagement with the dentist specialists in whose practices those dental assisting functions are performed, and that the close consideration required would be outside the scope of what the Workgroup would be able to address in its proposed 12-month timeframe. Specifically, orthodontic functions and anesthesia functions are two critical areas that warrant detailed attention.

Orthodontic Functions

In some states, orthodontic duties are included in a dental assistant's scope of practice along with general dental assisting functions and specialty functions. In four states, the state has carved out a separate specialty designation for orthodontic assistants, with accompanying specialized scope and requirements. While there is much overlap among the orthodontic functions addressed across

states, as with general duties, no two states have the same scope of practice with respect to orthodontic dental assisting and no two states have the same requirements for assistants who perform orthodontic expanded functions. However, identifying a common orthodontic assisting scope of practice and set of requirements will bring these benefits:

- Protect the public in orthodontic settings, where there is a significant trend toward delegating intraoral functions to dental assistants
- Establish a clear way for dental assistants to train and qualify to perform orthodontic expanded functions
- Identify and define an attractive option for dental assistants to pursue career advancement

Anesthesia Functions

Administration of anesthesia is the dental office procedure that carries the greatest risk for immediate adverse outcomes. Many states have adopted or amended rules addressing requirements for dentists to administer anesthesia in their offices to conform with the 2016 *ADA Guidelines for the Use of Sedation and General Anesthesia by Dentists* in the last eight years, and these requirements frequently also address the role of auxiliaries in assisting in anesthesia procedures. There are currently seven states that have defined requirements for a "dental anesthesia assistant," an "oral maxillofacial surgery assistant" or similarly titled role. Unsurprisingly, there are variations in the scope of practice and requirements for these anesthesia assistants across states.

Establishing recommendations for a uniform scope of practice and requirements for anesthesia assistants will help states regulate this critical area with more certainty that they are following best practices and providing the safest patient care.

In a second phase to this project, DANB intends to convene two smaller sets of stakeholders and subject matter experts to collaborate on developing recommendations for uniform regulation of orthodontic assistants and anesthesia assistants, following the same guiding principles centered on protecting the public, building on existing commonalities among states, providing and clearly defining a career road map for dental assistants, and supporting feasible implementation.

Stakeholder Feedback

The Workgroup completed a draft of this document at the end of January 2025. In February and March 2025, the staff supporting the Workgroup circulated the draft document to organizations representing key stakeholder groups, including national dental associations and organizations, state dental associations, state dental boards, and dental support organizations (DSOs), and made a survey form available for those that wished to provide feedback. Support staff also conducted a survey of dental assistants and dental assisting educators. The stakeholder comment period remained open through May 2025.

In soliciting comments from stakeholders, the Workgroup received significant supportive feedback for the project as whole, with many stakeholders expressing that an effort to improve uniformity for the dental assisting profession was long overdue. There was also broad support for the proposed three-tier structure and scope of practice for each level. When it came to proposed education, training, and exam requirements for each level, there were some differences of opinion among important stakeholder groups, with some dentists tending to favor fewer requirements and

reductions in onboarding costs, and dental assistants and educators tending to favor formal requirements at each level.

During the yearlong development of the model, the views of dentists, dental assistants, educators, and regulators were well represented on the Workgroup, and all participants strove to work through differences to develop a balanced set of recommendations that would protect the public, provide career growth opportunities for dental assistants, promote recruitment and retention of personnel, increase practice efficiency and improve access to and consistency in the quality of patient care. The Workgroup is grateful to the stakeholders who provided feedback and hopes to continue the conversation as we educate the dental community about the Dental Assisting Professional Model and work with stakeholders on additional resources to support dentistry in its efforts to develop the dental assisting workforce.

Appendix A: Dental Assisting Professional Model Workgroup Members

Workgroup Member (State)	Affiliation	Nominating Organization
Dolores A. Cottrell, DDS, MSHA (NY) — Workgroup Co-Chair	Executive Secretary, New York State Board for Dentistry	Invited participant
Helen Sublette, BS, CDA, COA, CDIPC, FADAA (NC) — Workgroup Co-Chair	Owner, Coastal Dental Professionals Consulting	American Dental Assistants Association
Bridgett Anderson, LDA, MBA (MN)	Executive Director, Minnesota Board of Dentistry	American Association of Dental Administrators
Christian Avelar, CDA, RDA (NJ)	Dental Assistant, Mountain Lakes Premier Dental	Hispanic Dental Association
Bobby Carmen, DDS, MAGD (OK)	Owner, Bobby J Carmen DDS; President, Oklahoma Board of Dentistry	American Association of Dental Boards
Tracy Cramer (OR)	State Representative (District-22), Oregon House of Representatives	Invited participant
Megen Elliott, MS, CDA, RDH (WI)	Dental Assistant Program Director, Northwood Technical College	American Dental Hygienists' Association
Rebecca Erwin, CDA, RDH (WV)	Dental Assisting Instructor, Putnam Career & Technical Center	Invited participant
Nabil Fehmi, DDS (AZ)	Founder and Chief Clinical Officer, Westwind Integrated Health	Association of Dental Support Organizations
David Fried, DMD (CT)	Co-Chair, Council on Government Affairs and Past President, Connecticut State Dental Association; Faculty, General Dentistry, University of Connecticut	ADA Council on Dental Practice
Sandra Garcia-Young, CDA, CDIPC, RDA, FADAA, FAADOM (TX)	Practice Administrator, CentroMed; Trustee, The DALE Foundation	DALE Foundation
Margaret Gingrich, DDS (MI)	Owner and General Dentist, Gingrich Dental PC	ADA Council on Dental Practice
Sarah Holland, MS (VA) — Public Representative	Founding CEO, Virginia Health Catalyst; Co-Founder, American Network of Oral Health Coalitions	Invited participant
Kay Jukes, BS, CDA, RDA (TX)	Dental Assisting Program Director, Houston Community College	American Dental Education Association

Workgroup Member (State)	Affiliation	Nominating Organization
Lenny Mayorga, DDS (CA)	Pediatric Dentist, AltaMed Health Services	Hispanic Dental Association
Julie Muhle, M.Ed., BOE, CDA, CRFDA (NV)	Academic Program Director for Dental Assisting, Truckee Meadows Community College	Invited participant
Jamie Sacksteder, Ph.D. (VA)	Executive Director, Virginia Board of Dentistry	American Association of Dental Administrators
Enrique Sanchez-Castillo, CDA, EFDA (IN)	Expanded Function Dental Assistant, Meridian Health Services	Invited participant
Leah Schulz, DDS (CO)	Director of Dental Projects, Salud Family Health; President, Colorado Dental Association	National Network for Oral Health Access
Janée Tamayo, CDA, CPFDA (NC)	Dental Flight Chief, U.S. Air Force; Chair, Dental Assisting National Board	Dental Assisting National Board

Kerri Friel, CDA, COA, RDH, MA (RI), a professor in the Dental Health Department at the Community College of Rhode Island, participated in select Workgroup meetings as part of her role on a dental assistant workforce coalition.

Appendix B: Supplemental List of Functions

Dental assistants perform an extraordinary number of functions and tasks, and it would not be possible to consider and address all of them in these recommendations. The functions presented above in each level are representative of that level and are also the most commonly addressed in state dental practice acts and regulations. To supplement these selected functions and provide additional guidance, the Workgroup makes the following recommendations for levels of delegation of functions that are not addressed above:

Level 1:

1. Transfer dental instruments
2. Record dental screenings
3. Record charting of the oral cavity and surrounding structures
4. Chart existing restorations or conditions
5. Recognize basic dental emergencies
6. Instructing in the use and care of dental appliances
7. Remove debris created in the course of treatment
8. Application of disclosing solutions
9. Recording patient treatment
10. Perform mouth mirror inspection of the oral cavity
11. Assist with basic restorative procedures, including prosthodontics and restorative dentistry
12. Recognize basic medical emergencies
13. Perform intra/extraoral photography
14. Apply hot/cold packs
15. Provide pre- and post-operative instructions
16. Monitor vital signs
17. Clean and polish removable appliances and prostheses
18. Assist with basic intraoral surgical procedures, including extractions, periodontics, endodontics, and implants
19. Respond to basic medical emergencies
20. Instruct patients on bleaching procedures
21. Review medical/dental history
22. Complete laboratory authorization forms for provider review/approval
23. Respond to basic dental emergencies
24. Prepare a patient for nitrous oxide analgesia administration
25. Use light curing device
26. Pour and trim diagnostic casts for evaluation by the provider

Level 2:

1. Monitor and respond to post-surgical bleeding
2. Polish assigned teeth with a slow-speed rotary handpiece immediately before an acid etch procedure
3. Remove excess temporary cement from supragingival surfaces of a tooth with hand instruments only
4. Cleanse/polish teeth in preparation for a procedure
5. Place periodontal dressings

Level 3:

1. Place temporary fillings
2. Remove temporary fillings
3. Before cementation by the dentist, adjusting and polishing contacts and occlusion of indirect restorations
4. Etch, wash and dry dentin
5. Extraorally adjust dentures

Dental Laboratory Program – Program Implementation Update and Limited Waiver on Enforcement

Tuesday, June 23, 2026

Dental Laboratory Program Implementation Update

House Bill 2594 (2025) created the Dental Laboratory Program within the Health Licensing Office (HLO). The bill establishes an operational date of July 1, 2026.

The HLO is currently in the rulemaking process for implementation of the program. However, permanent administrative rules will not be in effect by July 1, 2026. As part of the rulemaking process, proposed fees are subject to review pursuant to ORS 291.055 by the Director of the Oregon Department of Administrative Services.

Until permanent rules are filed and effective, the HLO is unable to begin accepting applications or collecting fees for Dental Laboratory authorizations.

For this reason, the HLO will begin accepting applications and fees after permanent rules become effective. Additional information regarding application availability and program implementation timelines will be communicated as updates become available.

Limited Waiver of Enforcement

To support implementation of the new program, the HLO will exercise enforcement discretion during a limited transition period.

From July 1, 2026, through September 30, 2026, the HLO will not impose discipline solely for operating a dental laboratory in Oregon without an HLO-issued authorization where authorization is required.

This temporary waiver applies to:

- Dental laboratories operating in Oregon that are required to obtain authorization under ORS 679.700 through 679.720; and
- Exempt dental laboratories that are required to submit an annual filing with the HLO under ORS 679.705.

This limited waiver applies only to authorization requirements associated with program implementation and does not waive compliance with any other applicable statutes or administrative rules. All other applicable statutory and regulatory requirements remain in effect and subject to HLO oversight and enforcement.

Communication Updates

To receive updates regarding the Dental Laboratory Program, subscribe to HLO topic-specific email updates:
https://public.govdelivery.com/accounts/ORHA/subscriber/new?preferences=true#tab1

Questions regarding the Dental Laboratory Program

Inquiries and questions may be directed to:
Anne Thompson
(503) 509-4775
anne.p.thompson@oha.oregon.gov

Enrolled
House Bill 2594

Sponsored by Representatives PHAM H, JAVADI; Representative NOSSE (Presession filed.)

CHAPTER .....

AN ACT

Relating to dental laboratories; creating new provisions; amending ORS 676.565, 676.579, 676.590, 676.612, 676.613, 676.622, 676.992, 679.010 and 679.176; repealing ORS 679.530; and prescribing an effective date.

Be It Enacted by the People of the State of Oregon:

SECTION 1. As used in sections 1 to 5 of this 2025 Act:

(1) "Certified dental laboratory technician" means a dental laboratory technician who is certified by the National Board for Certification in Dental Laboratory Technology, or its successor organization, as approved by the Health Licensing Office by rule.

(2) "Dental laboratory" means a facility where one or more dental laboratory technicians make, provide, repair or alter dental prosthetic appliances and other artificial materials and devices that are returned to a dentist and inserted into the human oral cavity, or that come into contact with the human oral cavity's adjacent structures and tissues, of a dental patient.

(3) "Dental laboratory technician" means a person who, pursuant to a dentist's prescribed work order, makes, provides, repairs or alters dental prosthetic appliances and other artificial materials and devices that are returned to the dentist and inserted into the human oral cavity, or that come into contact with the human oral cavity's adjacent structures and tissues, of the dentist's patient.

(4) "Dentist" means a dentist licensed under ORS chapter 679.

(5) "Material content disclosure" means a notice provided to a dentist by a dental laboratory that includes:

(a) The name, physical address and registration number of the dental laboratory;

(b) The city, state and country of origin where the technological work under the work order was performed in whole or in part;

(c) The city, state and country of the dental laboratory or dental laboratories that manufactured or repaired, directly or indirectly, the dental prosthetic appliances or other artificial materials and devices ordered under the work order; and

(d) So that the dentist may include the information in the patient's record, the manufacturer and brand name or the United States Food and Drug Administration registration number of all patient contact materials used in a dental prosthetic appliance or other artificial material or device that is inserted into the human oral cavity, or that comes into contact with the human oral cavity's adjacent structures and tissues, of the dentist's patient.

(6) "Responsible person" means the person who:

(a) Controls a majority interest in a dental laboratory; or

(b) Is primarily responsible for the supervision of the day-to-day operations of the dental laboratory.

(7) "Work order" means a written instrument prescribed by a dentist that directs a dental laboratory to, for an individual patient, make, provide, repair or alter one or more dental prosthetic appliances or other artificial materials or devices that will be returned to the dentist and inserted into the human oral cavity, or that will come into contact with the human oral cavity's adjacent structures and tissues, of the dentist's patient.

SECTION 2. (1) A dental laboratory may not operate or do business in this state unless the dental laboratory holds an active registration issued by the Health Licensing Office under section 3 of this 2025 Act.

(2) A dental laboratory is considered to operate or do business in this state if the dental laboratory is physically located within this state or prepares work product pursuant to a work order that originated from a dentist licensed in this state.

(3)(a) Subsection (1) of this section does not apply to a dental laboratory that:

(A) Is in a dental office;

(B) Is owned and operated by and under the supervision of a practicing dentist; and

(C) Does not perform work pursuant to work orders that originate from outside of the dentist's practice.

(b) A dental laboratory described in paragraph (a) of this subsection shall annually file with the office:

(A) The address of the dental laboratory; and

(B) The name, license number and contact information of the dentist described in paragraph (a) of this subsection.

(4) A dental laboratory operated as part of an educational program is not required to register under section 3 of this 2025 Act if the dental laboratory is operated solely for the purpose of allowing students to perform duties that are part of a supervised course of study in an educational program that meets any of the accreditation standards described in ORS chapter 679.

(5) Sections 1 to 5 of this 2025 Act do not apply to services authorized under:

(a) ORS 680.010 to 680.205 when performed by a dental hygienist licensed under ORS 680.010 to 680.205; or

(b) ORS 680.500 to 680.565 when performed by a denturist licensed under ORS 680.500 to 680.565.

SECTION 3. (1) The Health Licensing Office may issue a dental laboratory registration to an applicant that submits a completed application and pays the fee established under ORS 676.576. The application must include:

(a) The name, mailing address, phone number and electronic mail address of the dental laboratory;

(b) The physical address of the dental laboratory if different than the mailing address;

(c) The name, mailing address, phone number and electronic mail address of the responsible person or the name and license number of the dentist who supervises the dental laboratory;

(d) An attestation by the responsible person or the dentist supervising the dental laboratory that the dental laboratory meets the infectious disease control requirements of the federal Occupational Safety and Health Administration and the Centers for Disease Control and Prevention; and

(e) An attestation by the responsible person or the dentist supervising the dental laboratory that the dental laboratory will comply with the requirements of section 4 of this 2025 Act.

(2) To be eligible for registration under this section, the applicant must include with the application documentation that the applicant, or an employee of the applicant who works at least 30 hours per week in the dental laboratory:

(a) Has successfully completed, during the 12 months immediately preceding the application for registration, at least 12 hours of continuing education in dental laboratory technology approved or accepted by the National Board for Certification in Dental Laboratory Technology, or its successor organization, and by the Health Licensing Office;

(b) Is a certified dental laboratory technician in good standing; or

(c) Is a dentist.

(3) The office shall assign a registration number to each registered dental laboratory. The dental laboratory shall include the dental laboratory registration number on all invoices and other correspondence of the dental laboratory.

(4) A dental laboratory registered under this section shall maintain a qualified employee as described in subsection (2) of this section.

(5) A dental laboratory registration is valid for one year.

SECTION 4. (1) A dental laboratory registered under section 3 of this 2025 Act shall provide to a prescribing dentist who submits a work order to the dental laboratory:

(a) A material content disclosure for each dental prosthetic appliance or other artificial material or device in a manner that is easily entered into the patient record; and

(b) The point of origin of the manufacture of each dental prosthetic appliance or other artificial material or device ordered under the work order.

(2) If a dental prosthetic appliance or other artificial material or device ordered under the work order was partially or entirely manufactured by one or more third parties, the point of origin disclosure described in subsection (1) of this section must identify:

(a) The portion of the dental prosthetic appliance or other artificial material or device that was manufactured by the third party; and

(b) The city, state and country of each third party.

SECTION 5. In the manner prescribed in ORS chapter 183 for contested cases, the Health Licensing Office may impose a form of discipline listed in ORS 676.612 against a dental laboratory registered under section 3 of this 2025 Act for any violation of sections 1 to 5 of this 2025 Act or rules adopted under sections 1 to 5 of this 2025 Act or for the commission of a prohibited act described in ORS 676.612.

SECTION 6. Violation of section 2 of this 2025 Act is a Class B violation.

SECTION 7. The Health Licensing Office may adopt rules to carry out sections 1 to 5 of this 2025 Act.

SECTION 8. Section 3 of this 2025 Act is amended to read:

Sec. 3. (1) The Health Licensing Office may issue a dental laboratory registration to an applicant that submits a completed application and pays the fee established under ORS 676.576. The application must include:

(a) The name, mailing address, phone number and electronic mail address of the dental laboratory;

(b) The physical address of the dental laboratory if different than the mailing address;

(c) The name, mailing address, phone number and electronic mail address of the responsible person or the name and license number of the dentist who supervises the dental laboratory;

(d) An attestation by the responsible person or the dentist supervising the dental laboratory that the dental laboratory meets the infectious disease control requirements of the federal Occupational Safety and Health Administration and the Centers for Disease Control and Prevention; and

(e) An attestation by the responsible person or the dentist supervising the dental laboratory that the dental laboratory will comply with the requirements of section 4 of this 2025 Act.

[*(2) To be eligible for registration under this section, the applicant must include with the application documentation that the applicant, or an employee of the applicant who works at least 30 hours per week in the dental laboratory:*]

[*(a) Has successfully completed, during the 12 months immediately preceding the application for registration, at least 12 hours of continuing education in dental laboratory technology approved or accepted by the National Board for Certification in Dental Laboratory Technology, or its successor organization, and by the Health Licensing Office;*]

[*(b) Is a certified dental laboratory technician in good standing; or*]

[*(c) Is a dentist.*]

(2)(a) To be eligible for registration under this section, the applicant must include with the application documentation that the dental laboratory:

(A) Employs a certified dental laboratory technician who is in good standing with the National Board for Certification in Dental Laboratory Technology, or its successor organization, and approved by the Health Licensing Office by rule, and who works at least 30 hours per week in the dental laboratory; or

(B) Is operated under the supervision of a dentist who works at least 30 hours per week in the dental laboratory.

(b) Paragraph (a) of this subsection does not apply to a dental laboratory that provides to the office documentation that the dental laboratory has been continuously owned and operated by the same individual since January 1, 2013.

(3) The office shall assign a registration number to each registered dental laboratory. The dental laboratory shall include the dental laboratory registration number on all invoices and other correspondence of the dental laboratory.

(4) A dental laboratory registered under this section shall maintain a qualified employee as described in subsection (2) of this section.

(5) A dental laboratory registration is valid for one year.

SECTION 9. ORS 679.176 is amended to read:

679.176. **(1) As used in this section:**

(a) "Sub-work order" means a written instrument by which a dental laboratory registered under section 3 of this 2025 Act subcontracts all or part of the work directed to be done by a work order prescribed by a dentist licensed under ORS chapter 679.

(b) "Work order" has the meaning given that term in section 1 of this 2025 Act.

[*(1)*] **(2)** [*No dentist may*] **A dentist may not** use the services of any person[*,*] **who is** not licensed to practice dentistry in this state[*, to construct, alter, repair, reline, reproduce or duplicate any prosthetic denture, bridge, appliance or any other structure to be worn in the human mouth,*] **to make, provide, repair or alter dental prosthetic appliances or other artificial materials or devices that are returned to a dentist and inserted into the human oral cavity, or that come into contact with the human oral cavity's adjacent structures and tissues,** unless the dentist first [*furnishes to such*] **provides to the** person a [*written*] work order, in substantially the following form:

(Date) _____, 2____

TO: (Name of dental [*technician or*] laboratory with address) **(Dental laboratory registration number)**

RE: (Name or number of patient)

(Description of the work to be done, including diagrams if necessary, together with specifications of the type of materials to be used.)

(Name of ordering dentist)

(Address) _____

(Current license number) ____

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(3) A person that receives a work order prescribed by a dentist under subsection (1) of this section may not engage as a subcontractor another person that is not authorized to

perform the services necessary to complete the work order unless the person that receives the work order first provides to the subcontractor a sub-work order in substantially the following form:

(Date) _____, 2____

TO: (Name of subcontracted dental laboratory with address) (Subcontracted dental laboratory registration number, if applicable)

RE: (Name or number of patient)

(Description of the work to be done, including diagrams if necessary, together with specifications of the type of materials to be used.)

(Name of ordering dental laboratory)

(Address) _____

(Current dental laboratory registration number) ____

[*(2) A duplicate copy of each such work order issued by the dentist shall be retained by each dentist for not less than two years. The Oregon Board of Dentistry or its agents shall be permitted to inspect, upon demand, the duplicate copies of all such work orders retained by each dentist.*]

(4)(a) A dentist shall retain for at least two years from the date of prescription a duplicate copy of each work order prescribed by the dentist. The Oregon Board of Dentistry, or an agent of the board, may inspect, upon demand, the duplicate copies of all work orders and sub-work orders retained pursuant to this paragraph.

(b) A person described in subsection (3) of this section shall attach a duplicate copy of each sub-work order issued by the person to a duplicate copy of the associated work order and shall retain the duplicate copies for at least two years from the date of issuance. The Health Licensing Office, or an agent of the office, may inspect, upon demand, the duplicate copies of all work orders and sub-work orders retained pursuant to this paragraph.

(5) A work order or sub-work order may be transmitted or retained in an electronic format.

[*(3)*] **(6)** [*No work order shall*] **A work order may not** permit or require the taking of impressions of any part of the human oral cavity by any person [*not a dentist licensed by the board*] **who is not a dentist licensed under ORS chapter 679 or a denturist licensed under ORS 680.500 to 680.565**.

SECTION 10. ORS 676.565 is amended to read:

676.565. Pursuant to ORS 676.568, the Health Licensing Office shall provide administrative and regulatory oversight and centralized service for the following boards, councils and programs:

(1) Board of Athletic Trainers, as provided in ORS 688.701 to 688.734;

(2) Board of Cosmetology, as provided in ORS 690.005 to 690.225;

(3) State Board of Denture Technology, as provided in ORS 680.500 to 680.565;

(4) State Board of Direct Entry Midwifery, as provided in ORS 687.405 to 687.495;

(5) Respiratory Therapist and Polysomnographic Technologist Licensing Board, as provided in ORS 688.800 to 688.840;

(6) Environmental Health Registration Board, as provided in ORS chapter 700;

(7) Board of Electrologists and Body Art Practitioners, as provided in ORS 690.350 to 690.410;

(8) Advisory Council on Hearing Aids, as provided in ORS 694.015 to 694.170;

(9) Sexual Offense Treatment Board, as provided in ORS 675.365 to 675.410;

(10) Long Term Care Administrators Board, as provided in ORS 678.710 to 678.820;

(11) Board of Licensed Dietitians, as provided in ORS 691.405 to 691.485;

(12) Behavior Analysis Regulatory Board, as provided in ORS 676.806;

(13) Board of Certified Advanced Estheticians, as provided in ORS 676.630 to 676.660;

(14) Art therapy, as provided in ORS 681.740 to 681.758;

(15) Lactation consultation, as provided in ORS 676.665 to 676.689;

(16) Music therapy, as provided in ORS 681.700 to 681.730;

(17) Genetic counseling, as provided in ORS 676.730 to 676.748;

(18) State Board of Sign Language Interpreters, as provided in ORS 676.750 to 676.789; [*and*]

(19) Temporary staffing agencies, as provided in ORS 676.695 to 676.725[.]**; and**

(20) Dental laboratories, as provided in sections 1 to 5 of this 2025 Act.

SECTION 11. ORS 676.579 is amended to read:

676.579. (1)(a) The Health Licensing Office is under the supervision and control of a director, who is responsible for the performance of the duties, functions and powers and for the organization of the office.

(b) The Director of the Oregon Health Authority shall establish the qualifications for and appoint the Director of the Health Licensing Office, who holds office at the pleasure of the Director of the Oregon Health Authority.

(c) The Director of the Health Licensing Office shall receive a salary as provided by law or, if not so provided, as prescribed by the Director of the Oregon Health Authority.

(d) The Director of the Health Licensing Office is in the unclassified service.

(2) The Director of the Health Licensing Office shall provide the boards, councils and programs administered by the office with any services and employees as the office requires to carry out the office's duties. Subject to any applicable provisions of the State Personnel Relations Law, the Director of the Health Licensing Office shall appoint all subordinate officers and employees of the office, prescribe their duties and fix their compensation.

(3) The Director of the Health Licensing Office is responsible for carrying out the duties, functions and powers under ORS 675.365 to 675.410, 676.560 to 676.625, 676.630 to 676.660, 676.665 to 676.689, 676.695 to 676.725, 676.730 to 676.748, 676.750 to 676.789, 676.810, 676.815, 676.825, 676.992, 678.710 to 678.820, 680.500 to 680.565, 681.700 to 681.730, 681.740 to 681.758, 687.405 to 687.495, 687.895, 688.701 to 688.734, 688.800 to 688.840, 690.005 to 690.225, 690.350 to 690.410, 691.405 to 691.485 and 694.015 to 694.170 and ORS chapter 700 **and sections 1 to 5 of this 2025 Act**.

(4) The enumeration of duties, functions and powers in subsection (3) of this section is not intended to be exclusive or to limit the duties, functions and powers imposed on or vested in the office by other statutes.

SECTION 12. ORS 676.590 is amended to read:

676.590. (1) Information obtained by the Health Licensing Office as part of an investigation conducted under the following laws and any reports issued by an investigator are exempt from public disclosure:

(a) ORS 676.630 to 676.660, 676.665 to 676.689, 676.695 to 676.725, 676.730 to 676.748, 676.750 to 676.789, 681.700 to 681.730, 681.740 to 681.758, 690.005 to 690.225, 690.350 to 690.410 or 694.015 to 694.170 **or sections 1 to 5 of this 2025 Act**.

(b) ORS 676.560 to 676.625 if the investigation is related to the regulation of:

(A) Advanced nonablative esthetics under ORS 676.630 to 676.660;

(B) Lactation consultation under ORS 676.665 to 676.689;

(C) Music therapy under ORS 681.700 to 681.730;

(D) Art therapy under ORS 681.740 to 681.758;

(E) Barbering, hair design, esthetics, nail technology or natural hair care under ORS 690.005 to 690.225;

(F) Electrologists and body art practitioners under ORS 690.350 to 690.410;

(G) Dealing in hearing aids under ORS 694.015 to 694.170;

(H) Genetic counseling under ORS 676.730 to 676.748;

(I) Signed language interpretation under ORS 676.750 to 676.789; [*or*]

(J) Temporary staffing agencies under ORS 676.695 to 676.725[.]**; or**

(K) Dental laboratories under sections 1 to 5 of this 2025 Act.

(2) The office shall disclose information obtained as part of an investigation described in subsection (1) of this section to a person who demonstrates by clear and convincing evidence that the public interest in disclosure outweighs other interests in nondisclosure, including the public interest in nondisclosure.

(3) A complaint that forms the basis for an investigation described in subsection (1) of this section shall not be considered information obtained as part of an investigation and is not exempt from public disclosure.

(4) Upon request, the office shall disclose to a person against whom disciplinary action is sought any information obtained as part of an investigation described in subsection (1) of this section, if the information is not otherwise privileged or confidential under state or federal law.

SECTION 13. ORS 676.612 is amended to read:

676.612. (1) Subject to ORS 676.616 and 687.445, and in the manner prescribed in ORS chapter 183 for contested cases and as specified in ORS 675.385, 676.660, 676.685, 676.745, 676.777, 676.825, 678.780, 680.535, 681.733, 681.755, 687.445, 688.734, 688.836, 690.167, 690.407, 691.477, 694.147 and 700.111 **and section 5 of this 2025 Act**, the Health Licensing Office may refuse to issue or renew, may suspend or revoke or may otherwise condition or limit an authorization or may discipline or place on probation an authorization holder for commission of the prohibited acts listed in subsection (2) of this section.

(2) A person subject to the authority of a board, council or program listed in ORS 676.565 commits a prohibited act if the person engages in:

(a) Fraud, misrepresentation, concealment of material facts or deception in applying for or obtaining an authorization to practice in this state, or in any written or oral communication to the office concerning the issuance or retention of the authorization.

(b) Using, causing or promoting the use of any advertising matter, promotional literature, testimonial, guarantee, warranty, label, insignia or any other representation, however disseminated or published, that is false, misleading or deceptive.

(c) Making a representation that the authorization holder knew or should have known is false or misleading regarding skill or the efficacy or value of treatment or remedy administered by the authorization holder.

(d) Practicing under a false, misleading or deceptive name, or impersonating another authorization holder.

(e) Permitting a person other than the authorization holder to use the authorization.

(f) Practicing with a physical or mental condition that presents an unreasonable risk of harm to the authorization holder or to the person or property of others in the course of performing the authorization holder's duties.

(g) Practicing while under the influence of alcohol, cannabis, controlled substances or other skill-impairing substances, or engaging in the illegal use of controlled substances or other skill-impairing substances so as to create a risk of harm to the person or property of others in the course of performing the duties of an authorization holder.

(h) Failing to properly and reasonably accept responsibility for the actions of employees.

(i) Employing, directly or indirectly, any suspended, uncertified, unlicensed or unregistered person to practice a regulated occupation or profession subject to the authority of the boards, councils and programs listed in ORS 676.565.

(j) Unprofessional conduct, negligence, incompetence, repeated violations or any departure from or failure to conform to standards of practice in performing services or practicing in a regulated occupation or profession subject to the authority of the boards, councils and programs listed under ORS 676.565.

(k) Conviction of any criminal offense, subject to ORS 670.280. A copy of the record of conviction, certified by the clerk of the court entering the conviction, is conclusive evidence of the conviction. A plea of no contest or an admission of guilt is a conviction for purposes of this paragraph.

(L) Failing to report any adverse action, as required by statute or rule, taken against the authorization holder by another regulatory jurisdiction or any peer review body, health care institution, professional association, governmental agency, law enforcement agency or court for acts or conduct similar to acts or conduct that would constitute grounds for disciplinary action as described in this section.

(m) Violation of a statute regulating an occupation or profession subject to the authority of the boards, councils and programs listed in ORS 676.565.

(n) Violation of any rule regulating an occupation or profession subject to the authority of the boards, councils and programs listed in ORS 676.565.

(o) Failing to cooperate with the office in any investigation, inspection or request for information.

(p) Selling or fraudulently obtaining or furnishing an authorization to practice in a regulated occupation or profession subject to the authority of the boards, councils and programs listed in ORS 676.565, or aiding or abetting such an act.

(q) Selling or fraudulently obtaining or furnishing any record related to practice in a regulated occupation or profession subject to the authority of the boards, councils and programs listed in ORS 676.565, or aiding or abetting such an act.

(r) Failing to pay an outstanding civil penalty or fee that is due or failing to meet the terms of any order issued by the office that has become final.

(3) For the purpose of requesting a state or nationwide criminal records check under ORS 181A.195, the office may require the fingerprints of a person who is:

(a) Applying for an authorization;

(b) Applying for renewal of an authorization; or

(c) Under investigation by the office.

(4) If the office places an authorization holder on probation under subsection (1) of this section, the office, in consultation with the appropriate board, council or program, may determine and at any time modify the conditions of the probation.

(5) If an authorization is suspended, the authorization holder may not practice during the term of suspension. Upon the expiration of the term of suspension, the authorization may be reinstated by the office if the conditions of suspension no longer exist and the authorization holder has satisfied all requirements in the relevant statutes or administrative rules for issuance, renewal or reinstatement.

SECTION 14. ORS 676.613 is amended to read:

676.613. (1) In addition to all other remedies, when it appears to the Health Licensing Office that a person is engaged in, has engaged in or is about to engage in any act, practice or transaction that violates any provision of ORS 675.365 to 675.410, 676.630 to 676.660, 676.665 to 676.689, 676.695 to 676.725, 676.730 to 676.748, 676.750 to 676.789, 676.810, 676.815, 678.710 to 678.820, 680.500 to 680.565, 681.700 to 681.730, 681.740 to 681.758, 687.405 to 687.495, 688.701 to 688.734, 688.800 to 688.840, 690.005 to 690.225, 690.350 to 690.410, 691.405 to 691.485 or 694.015 to 694.170 or ORS chapter 700 **or sections 1 to 5 of this 2025 Act**, the office may, through the Attorney General or the district attorney of the county in which the act, practice or transaction occurs or will occur, apply to the court for an injunction restraining the person from the act, practice or transaction.

(2) A court may issue an injunction under this section without proof of actual damages. An injunction issued under this section does not relieve a person from any other prosecution or enforcement action taken for violation of statutes listed in subsection (1) of this section.

SECTION 15. ORS 676.622 is amended to read:

676.622. (1) A transaction conducted through a state or local system or network that provides electronic access to the Health Licensing Office information and services is exempt from any requirement under ORS 675.365 to 675.410, 676.560 to 676.625, 676.630 to 676.660, 676.665 to 676.689, 676.695 to 676.725, 676.730 to 676.748, 676.750 to 676.789, 676.810, 676.815, 676.992, 680.500 to 680.565, 681.700 to 681.730, 681.740 to 681.758, 687.405 to 687.495, 688.701 to 688.734, 688.800 to 688.840, 690.005 to 690.225, 690.350 to 690.410, 691.405 to 691.485 and 694.015 to 694.170 and ORS chapter 700

and sections 1 to 5 of this 2025 Act, and rules adopted thereunder, requiring an original signature or the submission of handwritten materials.

(2) Electronic signatures subject to ORS 84.001 to 84.061 and facsimile signatures are acceptable and have the same force as original signatures.

SECTION 16. ORS 676.992 is amended to read:

676.992. (1) Except as provided in subsection (3) of this section, and in addition to any other penalty or remedy provided by law, the Health Licensing Office may impose a civil penalty not to exceed $5,000 for each violation of the following statutes and any rule adopted under the following statutes:

(a) ORS 688.701 to 688.734 (athletic training);

(b) ORS 690.005 to 690.225 (cosmetology);

(c) ORS 680.500 to 680.565 (denture technology);

(d) Subject to ORS 676.616 and 687.445, ORS 687.405 to 687.495 (direct entry midwifery);

(e) ORS 690.350 to 690.410 (tattooing, electrolysis, body piercing, earlobe piercing, dermal implanting and scarification);

(f) ORS 694.015 to 694.170 (dealing in hearing aids);

(g) ORS 688.800 to 688.840 (respiratory therapy and polysomnography);

(h) ORS chapter 700 (environmental sanitation);

(i) ORS 675.365 to 675.410 (sexual abuse specific treatment);

(j) ORS 678.710 to 678.820 (nursing home administrators and residential care facility administrators);

(k) ORS 691.405 to 691.485 (dietitians);

(L) ORS 676.612 (prohibited acts);

(m) ORS 676.802 to 676.830 (applied behavior analysis);

(n) ORS 681.700 to 681.730 (music therapy);

(o) ORS 676.630 to 676.660 (advanced nonablative esthetics procedure);

(p) ORS 681.740 to 681.758 (art therapy);

(q) ORS 676.665 to 676.689 (lactation consultation);

(r) ORS 676.730 to 676.748 (genetic counseling); [*and*]

(s) ORS 676.750 to 676.789 (signed language interpretation)[.]**; and**

(t) Sections 1 to 5 of this 2025 Act (dental laboratories).

(2) The office may take any other disciplinary action that it finds proper, including but not limited to assessment of costs of disciplinary proceedings, not to exceed $5,000, for violation of any statute listed in subsection (1) of this section or any rule adopted under any statute listed in subsection (1) of this section.

(3) Subsection (1) of this section does not limit the amount of the civil penalty resulting from a violation of ORS 694.042.

(4) In imposing a civil penalty under this section, the office shall consider the following factors:

(a) The immediacy and extent to which the violation threatens the public health or safety;

(b) Any prior violations of statutes, rules or orders;

(c) The history of the person incurring a penalty in taking all feasible steps to correct any violation; and

(d) Any other aggravating or mitigating factors.

(5) Civil penalties under this section shall be imposed as provided in ORS 183.745.

(6) The moneys received by the office from civil penalties under this section shall be deposited in the Health Licensing Office Account and are continuously appropriated to the office for the administration and enforcement of the laws the office is charged with administering and enforcing that govern the person against whom the penalty was imposed.

SECTION 17. ORS 679.010 is amended to read:

679.010. As used in this chapter and ORS 680.010 to 680.205, unless the context requires otherwise:

(1) "Dental assistant" means a person who, under the supervision of a dentist or dental therapist, renders assistance to a dentist, dental therapist, dental hygienist, dental technician or another dental assistant or who, under the supervision of a dental hygienist, renders assistance to a dental hygienist providing dental hygiene.

(2) "Dental hygiene" is that portion of dentistry that includes, but is not limited to:

(a) The rendering of educational, preventive and therapeutic dental services and diagnosis and treatment planning for such services;

(b) Prediagnostic risk assessment, scaling, root planing, curettage, the application of sealants and fluoride and any related intraoral or extraoral procedure required in the performance of such services; and

(c) Prescribing, dispensing and administering prescription drugs for the services described in paragraphs (a) and (b) of this subsection.

(3) "Dental hygienist" means a person who, under the supervision of a dentist, practices dental hygiene.

(4) "Dental technician" means a person who, at the authorization of a dentist, makes, provides, repairs or alters [*oral*] **dental** prosthetic appliances and other artificial materials and devices that are returned to a dentist and inserted into the human oral cavity or that come in contact with its adjacent structures and tissues.

(5) "Dental therapist" means a person licensed to practice dental therapy under ORS 679.603.

(6) "Dental therapy" means the provision of preventive dental care, restorative dental treatment and other educational, clinical and therapeutic patient services as part of a dental care team, including the services described under ORS 679.621.

(7) "Dentist" means a person who may perform any intraoral or extraoral procedure required in the practice of dentistry.

(8) "Dentist of record" means a dentist that either authorizes treatment for, supervises treatment of or provides treatment for a patient in a dental office or clinic owned or operated by an institution as described in ORS 679.020 (3).

(9)(a) "Dentistry" means the healing art concerned with:

(A) The examination, diagnosis, treatment planning, treatment, care and prevention of conditions within the human oral cavity and maxillofacial region, and of conditions of adjacent or related tissues and structures; and

(B) The prescribing, dispensing and administering of prescription drugs for purposes related to the activities described in subparagraph (A) of this paragraph.

(b) "Dentistry" includes, but is not limited to:

(A) The cutting, altering, repairing, removing, replacing or repositioning of hard or soft tissues and other acts or procedures as determined by the Oregon Board of Dentistry and included in the curricula of:

(i) Dental schools accredited by the Commission on Dental Accreditation of the American Dental Association;

(ii) Post-graduate training programs; or

(iii) Continuing education courses.

(B) The prescription and administration of vaccines.

(10) "Direct supervision" means supervision requiring that a dentist diagnose the condition to be treated, that a dentist authorize the procedure to be performed, and that a dentist remain in the dental treatment room while the procedures are performed.

(11) "Expanded practice dental hygienist" means a dental hygienist who performs dental hygiene services in accordance with ORS 680.205 as authorized by an expanded practice dental hygienist permit issued by the board under ORS 680.200.

(12) "General supervision" means supervision requiring that a dentist authorize the procedures by standing orders, practice agreements or collaboration agreements, but not requiring that a dentist be present when the authorized procedures are performed. The authorized procedures may also be performed at a place other than the usual place of practice of the dentist.

(13) "Indirect supervision" means supervision requiring that a dentist authorize the procedures and that a dentist be on the premises while the procedures are performed.

SECTION 18. ORS 679.530 is repealed.

SECTION 19. (1) Sections 1 to 5 of this 2025 Act, the amendments to ORS 676.565, 676.579, 676.590, 676.612, 676.613, 676.622, 676.992, 679.010 and 679.176 by sections 9 to 17 of this 2025 Act and the repeal of ORS 679.530 by section 18 of this 2025 Act become operative on July 1, 2026.

(2) The amendments to section 3 of this 2025 Act by section 8 of this 2025 Act become operative on January 1, 2030.

(3) The Health Licensing Office may take any action before the operative date specified in subsection (1) of this section that is necessary to enable the office to exercise, on and after the operative date specified in subsection (1) of this section, all of the duties, functions and powers conferred on the office by sections 1 to 5 of this 2025 Act, the amendments to ORS 676.565, 676.579, 676.590, 676.612, 676.613, 676.622, 676.992, 679.010 and 679.176 by sections 9 to 17 of this 2025 Act and the repeal of ORS 679.530 by section 18 of this 2025 Act.

SECTION 20. This 2025 Act takes effect on the 91st day after the date on which the 2025 regular session of the Eighty-third Legislative Assembly adjourns sine die.

Passed by House April 10, 2025

.....
Timothy G. Sekerak, Chief Clerk of House

.....
Julie Fahey, Speaker of House

Passed by Senate May 21, 2025

.....
Rob Wagner, President of Senate

Received by Governor:

.....M.,....., 2025

Approved:

.....M.,....., 2025

.....
Tina Kotek, Governor

Filed in Office of Secretary of State:

.....M.,....., 2025

.....
Tobias Read, Secretary of State

To: OBD Info * OBD <information@obd.oregon.gov>
Cc: DREASHER Dawn * OBD <Dawn.Dreasher@obd.oregon.gov>
Subject: Public Comment: Dental Hygienist Administration of Botulinum Toxin

To the Oregon Board of Dentistry and the Licensing, Standards and Competency Committee,

The American Academy of Facial Esthetics (AAFE) supports allowing Oregon dental hygienists to administer Botulinum Toxin Type A. We also ask the Board to plan for dermal fillers in a second phase. Both should come with a clear training standard and dentist supervision.

We understand the Board referred this issue to the Licensing, Standards and Competency Committee at its June 12, 2026 meeting. We offer these comments to support that review.

About the AAFE

The AAFE been training dental professionals for over 20 years and has trained dental hygienists in injectables for over four years. I and the AAFE have been privileged to be the keynote speaker at the American Association of Dental Boards (AADB) on several occasions over the last few years. We have worked with regulators and stakeholders on this issue in Utah, Oklahoma, Kansas, Arizona and Alabama, among other states. Two dental hygienists who have completed AAFE training and an additional faculty training serve on our faculty.

Dental hygienists at the AAFE receive the same training we give every dentist, physician, nurse practitioner, nurse and physician assistant. We do not offer a reduced curriculum to any profession.

Our recommendations

1. Training. The 2025 proposal required 10 hours of hands-on training in Botulinum Toxin Type A. We recommend a minimum of 20 hours of AGD PACE or ADA CERP approved continuing education with live patient treatment. Training should cover Botulinum Toxin Type A for facial esthetics and for TMJ disorders and orofacial pain, including trigger point injections. This matches the 24-hour standard Oklahoma requires of its hygienists.

2. Scope. Hygienists should be able to use Botulinum Toxin Type A for both facial esthetics and therapeutic orofacial pain management, within the oral and maxillofacial region already defined for Oregon dentists.

3. Dermal fillers as a second phase. Other states already authorize trained dental hygienists to use dermal fillers, and other states are moving in the same direction. We recommend the Board adopt Botulinum Toxin Type A first, then add dermal fillers with their own training requirement.

4. Setting and supervision. Hygienists should administer injectables only in a dental office, under the supervision of a dentist who has also completed injectable training that meets the Board's requirements for dentists. We support applying the Board's existing supervision rules.

5. Prerequisite. We support keeping the local anesthesia endorsement as a requirement, as the 2025 proposal did.

Why this standard works

Dental hygienists already give intraoral injections, study head and neck anatomy and assess patients every day. Twenty-four hours of live patient training gives them the added skill to treat safely and to recognize and manage complications.

Other states like Oklahoma have allowed trained hygienists to administer neuromodulators since 2023. Its rule requires training in neuromodulators for TMJ disorders and myofascial pain, neuromodulators for esthetics and dermal fillers. Oregon can adopt a similar model.

The AAFE is glad to share our curriculum with the Committee or testify at a future meeting. We are proud to have helped and continue to help state dental boards navigate this topic.

Respectfully,

Dr. Louis Malcmacher

2120 South Green Road

South Euclid, Ohio 44121

800 952-0521

www.FacialEsthetics.org

AAFE

AMERICAN ACADEMY
OF FACIAL ESTHETICS

NEWSLETTERS & ARTICLES OF INTEREST

Post-Meeting Highlights

August 6-7, 2026

The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

The Commission on Dental Accreditation (CODA) held its Summer 2026 meeting in Chicago on August 6 and 7. CODA met to review accreditation actions, consider policy reports, and address key issues shaping dental education and accreditation. This summary highlights key reports and major actions.

CODA Adopts Three-Meeting Schedule

In response to feedback from various stakeholders, CODA approved a three-meeting cycle in 2027 and 2028 in an attempt to make CODA more agile and improve the timeliness of accreditation decisions. The revised schedule increases opportunities for report review and CODA action throughout the year, reduces the time between site visits and accreditation decisions, and provides programs with greater flexibility in the submission and review process. Overall, the approved schedule is intended to enhance CODA's responsiveness, efficiency, and ability to adopt timely accreditation actions while better meeting the needs of stakeholders including the public. Find the full meeting schedule and deadlines at https://coda.ada.org/accreditation/meeting-materials.

2027 CODA Meeting		
Winter	**Summer**	**Fall**
February 11 -12 Report Deadline: November 12, 2026	June 17 -18 Report Deadline: March 10, 2027	October 14 -15 Report Deadline: July 6, 2027

CODA Policy Manual Updates

CODA adopted a multi-phase strategy to comprehensively update CODA's Evaluation and Operational Policies and Procedures (EOPP) manual. The proposed revisions improve the document's organization and clarity. The first phase is to implement targeted policy updates and rescissions designed to align the manual with current operational practices, including:

- **Meeting Minutes**: Retain official meeting minutes for internal use and publish post-meeting highlights (in addition to unofficial actions) to provide stakeholders with more meaningful information about key actions, discussions, and developments.
- **New Meeting Structure**: Update policies to reflect the expanded meeting schedule and deadlines for those meetings.
- **Confidentiality Policy**: Expand confidentiality requirements to enable program representatives (CEO/CAO/Program Director) may add a designee and clarify that Review Committee work is confidential and not available for public observation. This update will ensure that all publicized actions have been acted upon by CODA to avoid confusion.
- **Policy on Attendance at Open Session of CODA Meetings**: Confidential Review Committee materials will not be available to the public to ensure that stakeholders are receiving formally acted-upon CODA actions. Clarify that all public attendees are virtual.
- **Rescind the Policy on Attendance at Open Session of Review Committee Meetings** to reflect that Review Committee work is incomplete until CODA takes final action.
- **Advertising Policy**: Update advertising statement to reflect that CODA is a programmatic accreditor and remove physical address.
- **Site Visitors**: Extend all criteria to allow additional opportunities for volunteers who have recently retired and allow for rolling submission of nominations.

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- **Discontinue Hearing on Standards policy**: Open hearing participation has dwindled, and participants are asked to submit comments in writing regardless of the testimony. Written comments allow all stakeholders to provide input and allow the applicable committee to fully digest the comment(s).

CODA adopted the policy changes outlined and authorized continued modernization of the EOPP manual, with additional phases of review and refinement scheduled through Winter 2027. The document and revisions are posted at https://coda.ada.org/policies-and-guidelines.

Request to Consider Standardized Leave Policy

Following the Winter 2026 request to evaluate the inclusion of a standardized leave policy in CODA accreditation standards, all Review Committees supported adding/revising standards to require programs to maintain leave-of-absence policies for students, residents, and/or fellows. All standards will be circulated to communities of interest for six (6) months before further CODA review in Winter 2027. These proposed revisions can be found on CODA's website.

Standards related to Diversity and Humanistic Culture

In light of ongoing federal regulatory developments related to Diversity, Equity, and Inclusion (DEI), CODA rescinded diversity-related accreditation standards for Dental Education, Oral and Maxillofacial Surgery, Dental Hygiene, and Dental Therapy whose enforcement was suspended in Summer 2025. These revisions can be found on CODA's website.

Request to Consider AGD Representation

CODA reviewed the Academy of General Dentistry's (AGD) Winter 2026 request and Summer 2026 follow-up information requesting representation on the CODA Board of Commissioners. CODA adopted a resolution to thank AGD for its interest in ensuring general dentistry representation and determined that the interests of general dentistry are best supported through participation on CODA's committees, where multiple opportunities for involvement and input exist, rather than a single appointment to the Board of Commissioners.

Request to Consider US Dental School International Sites

CODA has received multiple requests from accredited programs to study the possibility of accrediting international sites for US dental schools. CODA directed numerous review committees as well as the Standing Committees on Quality Assurance and Strategic Planning, Documentation and Policy Review, and International Accreditation to review existing CODA policies and procedures related to permitting U.S. dental schools to offer international program sites. All committees will present recommendations for CODA's consideration at the Winter 2027 meeting.

Frequency of Citings

All Review Committees reviewed the frequency of accreditation standard citations within their respective disciplines to identify trends and inform future standards and accreditation discussions. Review the frequency of citings for Dental Education, Advanced, and Allied.

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The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Review Committee Reports
Dental Education

Revised Dental Education Standards

CODA adopted the revised Accreditation Standards for Dental Education Programs **with implementation on July 1, 2028**. Programs with site visits between January 1, 2027, and July 1, 2028, can elect either the current or revised standards for accreditation review. The new Self-Study Guide will be distributed this fall.

This is the first comprehensive review of the Dental Education Standards since implementation in 2013. Following two public comment periods and over 60 committee meetings, the Ad Hoc Committee to Review the Accreditation Standards for Dental Education Programs finalized the dental education standards. Key revisions include:

- **Removal of Examples of Evidence:** Specific documentation will be presented in the Self-Study Guide.
- **Definition of Terms:** Several definitions were added and updated. Definitions were added for "clinical examination", "fifty percent calculation for direct patient competency", and "co-treatment" to provide directions for the revisions for Standard 2-14 (direct clinical patient experiences) and 2-15 (clinical competency assessments).
- **Clinical Competency in the Replacement of Missing Teeth:** CODA adopted the recommendation of the Ad Hoc Committee to retain requirements for direct patient experiences in fixed prosthodontics, removable prosthodontics, and implant dentistry while providing greater flexibility in how those experiences are achieved. CODA acknowledged the Ad Hoc Committee's observation that the revisions adequately address stakeholder feedback.
- An overview of all changes and the new standard document can be found on the Standards page on CODA's website.

Dental Therapy: Circulation of Proposed Revisions to Standards

CODA directed the proposed revisions to the Accreditation Standards for Dental Therapy Education Programs be circulated for a period of six (6) months to the communities of interest to obtain feedback on the proposed revisions, with comments to be reviewed at future meetings of the Ad Hoc Committee to Review the Accreditation Standards for Dental Therapy Education Programs.

Proposed revisions include eliminating the word "should" from intent statements, removing examples of evidence from the standards, updating definitions, reorganizing and consolidating standards, simplifying facility requirements, broadening program director eligibility, and increasing flexibility in competency assessments while maintaining the three-year curriculum requirement. These proposed revisions can be found on the Comments on Standards page.

The Ad Hoc Committee will be retained through implementation and begin revisions to the Self-Study Guide to align with the new standards.

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Post-Meeting Highlights

August 6-7, 2026

The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Advanced Dental Education

Operative Dentistry, Cariology, and Biomaterials: New Standards

CODA adopted the Accreditation Standards for Advanced Dental Education Programs in Operative Dentistry, Cariology, and Biomaterials with an **implementation date of January 1, 2027**. CODA also directed a new member to the Postdoctoral General Dentistry Review Committee for the role of Operative Dentistry educator nominated by the Academy of Operative Dentistry effective January 1, 2027.

In June 2024, the Academy of Operative Dentistry (AOD) requested that CODA establish accreditation for Advanced Dental Education Programs in Operative Dentistry, Cariology, and Biomaterials. After determining the request met CODA's criteria for a new dental education discipline, CODA approved development of an accreditation process in January 2025 and appointed an Ad Hoc Committee to draft standards. The committee developed proposed standards covering key areas including educational programs, faculty, patient care, and research. In August 2025, CODA approved circulation of the draft standards to communities of interest for a one-year comment period. These new standards can be found on the Standards page on CODA's website.

Dental Anesthesiology: Revisions to Standards

CODA adopted proposed revisions to the Accreditation Standard 3-2 (program director board certification) for Advanced Dental Education Programs in Dental Anesthesiology for **January 1, 2027 implementation.** The revision comes after a request from the American Dental Board of Anesthesiology (ADBA) to update Standard 3-2 to specify that program directors must be certified by the ADBA, the only dental anesthesiology certifying board recognized by the National Commission on Recognition of Dental Specialties and Certifying Boards. Revisions can be found on the Standards page on CODA's website.

Oral and Maxillofacial Surgery: Policies around Program Closure

CODA directed the Standing Committee on Documentation and Policy Review to review CODA's policies related to program closure. Following the abrupt closure of an Oral and Maxillofacial Surgery residency program with less than two months' notice, the OMS Review Committee (OMS RC) reviewed CODA's policies governing program discontinuance and closure. CODA concurred with the OMS RC's recommendation that CODA's existing policies should be examined to determine whether additional safeguards are needed.

Orofacial Pain: Revisions to Standards

CODA adopted the proposed revisions to Standard 211 (Clinical Sciences) for Advanced Dental Education Programs in Orofacial Pain, for **implementation on July 1, 2027**. At its Winter 2026 meeting, the Committee reviewed further comments and focused on refining Standard 2-11e, ultimately recommending updated language. The revisions can be found on the Standards page on CODA's website.

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The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Allied Dental Education

Dental Assisting: Circulation of Proposed Revisions to Standards

CODA directed the proposed revisions to the Accreditation Standards for Dental Assisting Education Programs be circulated for a period of six (6) months to the communities of interest to obtain feedback on the proposed revisions, with comments to be reviewed at future meetings of the Ad Hoc Committee on Dental Assisting Standards.

The committee met from 2024 through 2026 to evaluate the standards and develop proposed revisions. The proposed revisions include updates to admissions requirements, curriculum management, faculty qualifications, educational support services, health and safety provisions, and clinical education requirements, while streamlining language, clarifying expectations, and modernizing standards to reflect current educational practices. These proposed revisions can be found on the Comments on Standards page.

Dental Hygiene

Review of Standard 3-2

CODA directed the proposed revision to Dental Hygiene Standard 3-2 to be circulated to the communities of interest for review and comment for six (6) months with review at the following CODA meeting. An Ad Hoc Committee was formed in Winter 2026 after concerns about inconsistent interpretation of the amount of time program administrators must devote to administrative responsibilities. The committee recommended revising the standard to emphasize that most of the program administrator's time must be dedicated to program operation, supervision, evaluation, and revision, while also clarifying documentation expectations through updates to the intent statement and examples of evidence. These proposed revisions can be found on the Comments on Standards page.

New Business

Educational Activity Sites

CODA appointed an Ad Hoc Committee to review the use of major educational activity site satellite campuses, evaluate associated reporting requirements, and assess how programs with separate satellite cohorts should be monitored. The Dental Hygiene Review Committee (DH RC) raised concerns regarding the growth of major educational activity site satellite locations in dental hygiene programs, particularly sites that enroll separate student cohorts and provide education separate from the program’s main campus. The committee believes further study is needed to determine whether current CODA reporting requirements and guidelines adequately address these satellite locations and ensure consistent educational quality and oversight. The committee will report back to CODA at the Winter 2027 meeting.

Dental Hygiene Diagnosis

CODA appointed an Ad Hoc Committee to evaluate the potential reincorporation of dental hygiene diagnosis into the accreditation standards as well as assess its impact on educational programs and competency expectations. Recognizing ongoing discussion within the profession regarding the use and

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educational significance of dental hygiene diagnosis, the DH RC believes additional study is necessary before considering any standard revisions.

Dental Laboratory Technology: Update on Proposed Revisions to Standards

After a 12-month circulation of the Accreditation Standards for Dental Laboratory Technology (DLT) Education Programs, CODA directed the Ad Hoc Committee on Dental Laboratory Technology Standards review the written comments received through the Dental Laboratory Technology Portal, including the program length of a dental laboratory technology education program with the opportunity to provide input to the DLT RC and CODA for the Winter 2027 meetings.

Thank you, Outgoing Commissioners

CODA extends its gratitude to the following Commissioners, whose terms conclude in October 2026:

- Dr. Indraneel Bhattacharyya
- Ms. Margaret Bowman-Pensel
- Dr. Ngoc Chu
- Dr. Paul Luepke
- Dr. Cataldo Leone
- Ms. Lisa Mayer

Their dedication and impact on CODA will be felt for years to come.

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Dental Assisting National Board

Posted Sept. 15, 2026

Summary of major actions taken by DANB's Board of Directors at the 2026 Annual Board Meeting
Chicago, IL
July 23-24, 2026
Including a meeting of the DALE Foundation Board of Trustees
July 23, 2026

DANB Directors in Attendance:
Barbara Mousel, D.D.S., CDA, RDH, Board Chair; Sandra L. Garcia Young, CDA, CDIPC, RDA, FADAA, FAADOM, Chair-Elect; Kerri Friel, CDA, COA, RDH, M.A., Secretary-Treasurer; Kimberly Plate, CDA, CPFDA, CRFDA, B.S., Immediate Past Chair; Vicki Brett, CDA, RDH, B.S.D.H; Tanya Dorf Brunner, M.S., Public Member; Stephanie Bustos, CDA, RDA; Carlos Gaxiola, CDIPC, RDA, RDHAP, RDH; Frank Maggio, D.D.S.; Renee McNally, CDIPC, COA, CRFDA, CPFDA, CDA, RDA; Kishan Patel, CDA, COA, CPFDA, CRFDA; Janée Tamayo, CDA, CPFDA, B.S., MSgt, USAF, Certificant-at-Large; Lindsay Yates, D.D.S.; Jason Lawrence, D.D.S., Leader-in-Training (nonvoting); Merli Vedia, Leader-in-Training (nonvoting)

DALE Foundation Trustees in Attendance:
Sandra L. Garcia Young, CDA, CDIPC, RDA, FADAA, FAADOM, Board President; Kerri Friel, CDA, COA, RDH, M.A., Secretary-Treasurer; Vicki L. Brett, CDA, RDH, B.S.D.H.; Janée Tamayo, CDA, CPFDA, B.S., MSgt, USAF

DANB's Chief Executive Officer Laura Skarnulis, serves as an ex officio member of DANB's Board of Directors and the DALE Foundation Board of Trustees.

Engagement with Key Stakeholders

DANB's Communities of Interest
The Board engaged in several strategic discussions and activities. Notably, DANB's Communities of Interest participated in meeting, which included representatives and presentations from the American Association of Dental Boards (AADB), the American Dental Association (ADA): Council on Dental Education & Licensure (CDEL), the American Dental Association (ADA): Commission on Dental Accreditation (CODA), the American Dental Assistants Association (ADAA), the American Dental Education Association (ADEA), the Association for Dental Safety (ADS, formerly OSAP). ADA's Council on Dental Practice (CDP) could not participate but provide a written report.

Assessment and Certification Updates

Dental Assisting Professional Model – Orthodontic Assisting
The Orthodontic Assisting phase of the Dental Assisting Professional Model has been finalized following extensive input from a 10-member industry expert workgroup representing state dental boards, orthodontic practices, educators, and DANB Board members. The model received overwhelmingly positive feedback during the targeted comment period and the DANB Board unanimously endorsed the Orthodontic Assisting model at the Annual Meeting.

DANB Exams
DANB's core certification exams (Radiation Health and Safety, Infection Control, General Chairside and Coronal Polishing) have undergone review and continue to demonstrate stable performance and healthy candidate demand. DANB regularly reviews exam performance, candidate volume, content relevance, and program viability, implementing targeted updates or retirement recommendations as needed to maintain a balanced and sustainable examination portfolio.

General Chairside current practices as tested in the GC exam were revalidated by an 11-member subject matter expert (SME) group in a job task analysis workshop (JTA). The SMEs confirmed the accuracy and relevance of tasks currently tested in the GC exam and made some recommendations for DANB's Exam Committee to consider in the future after results are verified through a national survey of dental assistants and their current job tasks related to GC. The same process will be followed to validate the currency of content for RHS and ICE exams as part of normal cyclical validation of the certification scheme for the CDA. Any significant exam changes will be communicated in advance to key stakeholders, including program educators.

Awareness, Education, and Engagement Activities

Staff shared updates on marketing, education, business development, and external relations activities that are expanding awareness of and engagement with DANB. Recent campaigns have increased reach and participation, while new education products, research, and the soon to be published "Salary and Satisfaction Survey" are providing additional opportunities to support the profession and inform future initiatives. Staff also highlighted growing collaboration with state boards, educational institutions, DSOs, and workforce partners, creating opportunities to strengthen credentialing pathways, education, scholarships, and workforce development.

Additionally, DANB recently partnered with SkillsUSA by sponsoring students and recruiting judges for the dental assisting competition, engaging with students and industry professionals throughout the event. These efforts strengthened DANB's connections with the next generation of dental assistants and supported opportunities to recognize and encourage excellence in the profession.

Strategic Discussions

The Board engaged in strategic discussions on key issues and opportunities shaping the dental assisting profession and DANB's future, including the evolving role of Oral Preventive Assistants (OPAs), insights from the Assessment Modernization Summit, and key organizational updates. These discussions provided an opportunity for Board members to share perspectives and help inform DANB's ongoing strategic planning and future priorities.

Scholarships

DANB and the DALE Foundation have increased their scholarships efforts and investment to provide more opportunities to those interested in education, exams and certification. DANB now offers four scholarships including the ADS-DANB-DALE Foundation Andrew Whitehead Certification & Education Scholarship, the DANB/DALE Foundation Scholarship, the Liz Koch Memorial Scholarship, and the ADAA/DANB Scholarship.

<u>DANB/DALE Foundation Scholarship</u>
The DANB/DALE Foundation Scholarship is open to entry-level and early career dental assistants. Recipients will receive between $250 and $1,000 in vouchers or reimbursement for DANB exams, review courses, or practice tests. In 2026, 14 recipients were awarded over $8,500 in support.

<u>Liz Koch Memorial Scholarship</u>
For more than a decade, the Liz Koch Memorial Scholarship has helped dental professionals advance their education and achieve their career goals. Each recipient received between $250 and $1,000 for education such as school tuition, course fees, or conference fees. In 2026, 13 recipients received a total of $6,000 to support their career advancement.

ADS-DANB-DALE Foundation Andrew Whitehead Education and Certification Scholarship
This scholarship supports oral healthcare professionals in their pursuit of the CDIPC and DISIPC certifications. In 2026, 54 scholarships were awarded.

Other Priorities and Initiatives

Legislative Activity and Government Relations
DANB continues to monitor and develop strategies to address new laws and regulations affecting dental assistants, as well as emerging state-level issues related to dental assisting requirements and scope of practice.

Board Governance Updates
At the recommendation of the DALE Foundation Board of Trustees, the DANB Board of Directors approved updates to the DALE Foundation Mission Statement.

Board of Directors Updates

Board Leadership
The DANB Board of Directors elected Tanya Dorf Brunner to the Chair-Elect officer position of the DANB Board of Directors for the 2026-2027 Board Year, beginning September 1, 2026.

Per the succession requirements outlined in the bylaws, in the 2026-2027 term, the Immediate Past Chair position will be filled by Barbara Mousel, D.D.S., CDA, RDH and the Chair position will be filled by Sandra Garcia Young, CDA, CDIPC,RDA, FADAA, FAADOM. The Secretary-Treasurer position will be held by Kerri Friel, CDA,COA, RDH, M.A, completing her second year of the two-year Secretary-Treasurer term.

Additionally, final terms of Vick Brett, CDA, RDH, B.S.D.H. and Carlos Gaxiola, CDIPC, RDA, RDHAP, RDH will conclude on August 31, 2026.

DALE Foundation Updates
The DALE Foundation Board met on July 23, 2026. During the meeting, the Board reviewed DALE Foundation financials, discussed their efforts and commitment to workforce development initiatives, and reviewed scholarship activities.

Additionally, the DALE Foundation Board conducted a reviewed and revised the Foundation's mission statement to reflect its to reflect its refocused role in research, scholarships, and workforce development, with an emphasis on supporting patient safety, quality care, and access to care. The revised mission statement was approved by the DALE Foundation Board and subsequently approved by the DANB Board of Directors.

Upcoming Meetings
The 2027 Winter Meeting will be held in Tampa, Florida on February 4-5, 2027.

Surveys reveal new perspectives on scaling dental assistants

Many states are exploring allowing dental assistants to perform supragingival scaling, sometimes called an Oral Preventive Assistant (OPA), as a solution to the ongoing workforce challenges.

Such important considerations need to include perspectives and input from all who may be impacted or involved. To that end, the Dental Assisting National Board (DANB) conducted research to capture essential insights from dental assistants and patients.

“In many states, the groups discussing whether to create a scaling assistant or OPA provider level include dentists and dental hygienists,” said Hanna Aronovich, DANB Chief Marketing and Strategy Officer. “The voices of dental assistants and patients need to be heard as well, and we wanted to ensure these perspectives are brought to the forefront.”

Assistant and patient perspectives

Dental assistants were mixed in their support and interest, with about half expressing support for the new role and interest in pursuing it, if available. The other half were opposed or unsure. Dental assistants reported that thorough training, education and credentials are important qualifications, as is increased compensation.

Patients overwhelmingly said receiving routine cleanings is important, but those who reported receiving annual cleanings varied by income level. Like dental assistants, patients expressed that proper education, training and credentials were very important.

“It’s notable that both dental assistants and patients were aligned in what they felt were necessary qualifications for dental assistants performing supragingival scaling,” Aronovich noted. “Both groups emphasized the importance of clinical skills as well as credentials, such as licensure, registration or certification.”

The current landscape

Currently four states allow dental assistants to perform supragingival scaling (Arizona, Illinois, Kansas, and Virginia), with two more states (Missouri and Nevada) moving proposals forward. In the last five years, several other states (Colorado, Kentucky, Montana, Washington, and Wisconsin) have put forward legislation or regulations that did not advance.

“DANB has been contacted by states for guidance and has been closely tracking these proposals across the country,” said Michelle Lee, DANB Vice President of External Relations and Policy. “Although frameworks for national standards exist, like the Dental Access Model Act, we’re observing that states are taking customized approaches to developing education, training, and credentialing requirements for this new provider level.”

To share insights and learnings, DANB facilitated a workgroup of dental professionals from across the country to explore the evolving landscape of OPAs and scaling assistants. The group discussed potential future scenarios and training and competency models.

“DANB is committed to supporting the dental assisting profession and the critical role they play on the dental team,” Lee said. “DANB has been considering ways we can support dental assistants in states where these functions are allowed, as well as meeting with states that are exploring these options to provide information and insights to aid in their decision-making.”

DANB

Dental Assistants and Supragingival Scaling

Perspectives from patients and the profession

Many states are exploring allowing dental assistants to perform supragingival scaling, sometimes called an Oral Preventive Assistant. This is an important conversation and perspectives from all involved are needed.

To gather more perspectives, the Dental Assisting National Board (DANB) conducted research to capture essential insights from dental assistants and patients.

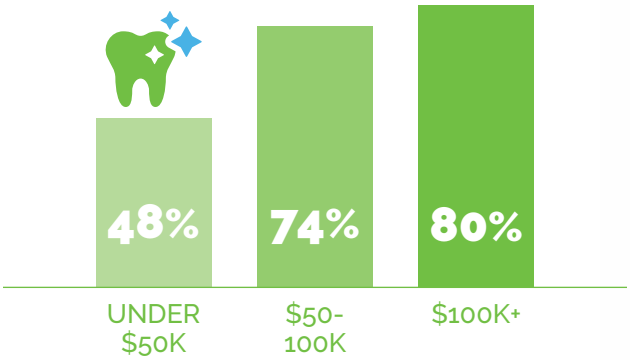
Patient Perspectives

Patients recognized the importance of routine cleanings and expected their provider to have education and credentials.

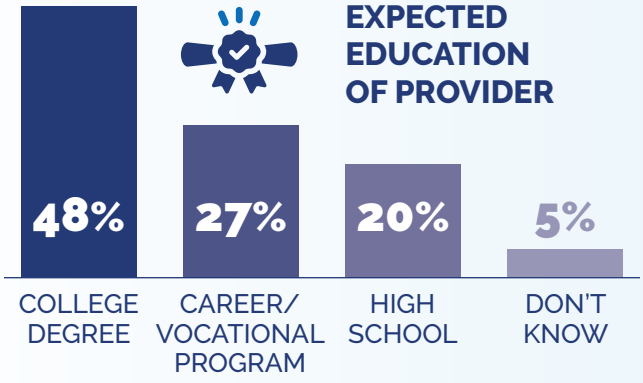
74% SAID ROUTINE CLEANINGS ARE VERY IMPORTANT

65% HAD A ROUTINE TEETH CLEANING WITHIN THE LAST 12 MONTHS

PATIENTS WITH HIGHER HOUSEHOLD INCOME WERE MORE LIKE TO RECEIVE A ROUTINE TEETH CLEANING



EXPECTED EDUCATION OF PROVIDER



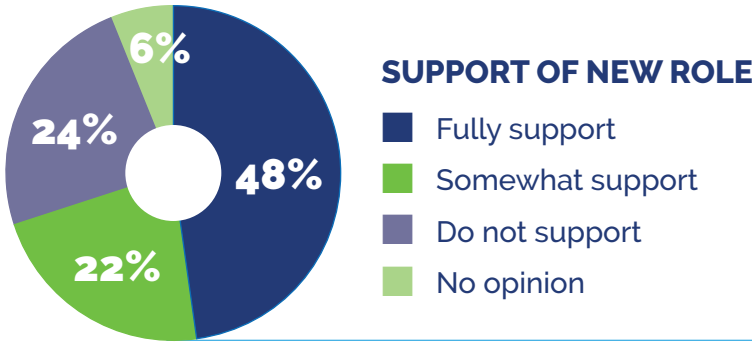
4 OUT OF 5 PATIENTS SAID IT WAS VERY IMPORTANT FOR PROVIDERS TO HAVE HANDS-ON CLINICAL TRAINING AND HOLD A LICENSE, REGISTRATION OR CERTIFICATION

Dental Assistant Perspectives

Dental assistants were mixed in their support and interest of performing supragingival scaling, but expressed the need for qualifications and receiving increased compensation.

65%

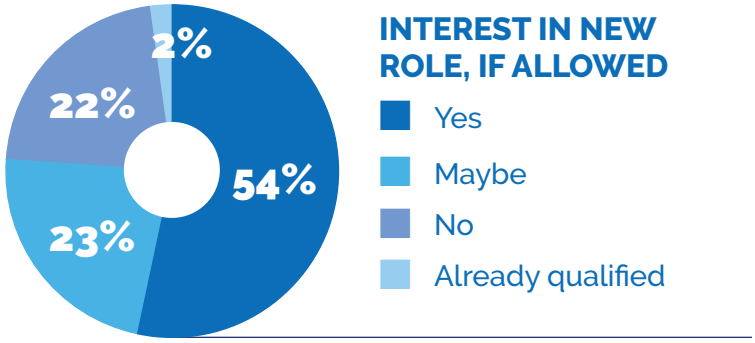
AWARE THAT SOME STATES ARE LOOKING TO ALLOW ASSISTANTS TO PERFORM SUPRAGINGIVAL SCALING



PAY AS TOP CONSIDERATION

$35

PER HOUR = FAIR PAY
(NATIONAL MEDIAN)



IMPORTANT QUALIFICATIONS

Dental assistants expressed very strong support for training, education, and credentials.



ABOUT THE SURVEY

The patient survey was conducted in July 2026 by Big Village Surveys, an online consumer omnibus survey. More than 1,000 adults responded, representing a variety of demographics. This survey sample size is sufficient to generalize the results to the U.S. adult population.

The dental assistant survey was conducted in conjunction with DANB's 2026 Dental Assistants Salary and Satisfaction Survey in April 2026. More than 1,500 dental assistants responded. This survey sample size is sufficient to generalize the results to the U.S. dental assistant population.

DENTAL DIGEST

September 2026



Save the date for Annual Meeting!
October 17-18 at the Gaylord National in Maryland

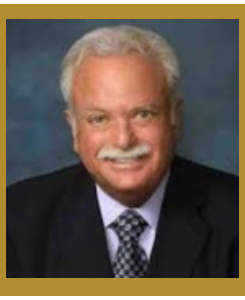
News from AADB

Join us October 17–18, 2026, at the Gaylord National in National Harbor, Maryland, for the AADB 143rd Annual Meeting, held as part of the Dental Testing and Regulatory Summit.

This year's meeting will feature timely discussions on sedation and anesthesia oversight by state dental boards and other important regulatory issues affecting dental boards across North America.

If you have not received your registration link or need assistance registering, please email info@dental-summit.org.

From the President's Perspective



I hope everyone had a great summer and fall is off to a good start! We look forward to welcoming everyone to our 143rd Annual Meeting at the Gaylord National in Maryland on October17-18. This meeting provides an excellent opportunity to network and learn about the trends/issues State Dental Boards are facing. Our focused CE Sessions this year will provide a variety of perspectives on current trends and updates for office-based sedation/anesthesia in dentistry. We hope to see you soon!

News in Licensure



Dentist arrested after 4-year-old dies following routine procedure

"A pediatric dentist in Texas was arrested on July 15 for allegedly administering doses of sedatives, which would have been toxic for an adult, that killed a 4-year-old girl during a frenotomy to fix a tongue tie...." **Read more here.**



Washington DC weighs interstate compact bill

"Washington, D.C., Council member Wendell Felder introduced legislation July 14 that would join the district in the Interstate Dental and Dental Hygiene Licensure Compact." **Read more here.**

This newsletter is intended to provide information to those interested in the regulation of the dental profession. The American Association of Dental Boards does not endorse or advocate any of the positions discussed in this brief.

American Association of Dental Boards

DENTAL DIGEST

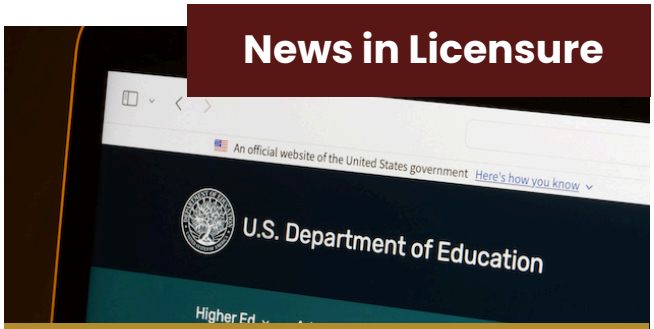
September 2026

News in Licensure



Training Matters: Why Competency Should Guide Office-Based Pediatric Anesthesia Policy

"Pediatric office-based deep sedation and general anesthesia policy should prioritize patient safety and preserve access to care..." **Read more here.**



ADA raises concerns about proposed accreditation rule changes

"The ADA is raising concerns about proposed changes to federal regulations governing the recognition of accrediting agencies..." **Read more here.**

HAS YOUR BOARD EXPERIENCED ISSUES REQUIRING NATIONAL INPUT OR ASSISTANCE?

WE'VE RECENTLY UPDATED OUR OBJECTIVES TO BETTER SERVE YOU!

"The AADB supports America's State Dental Boards in their duty to protect the public through licensing, disciplining, and regulating Dentists, Hygienists, and other auxiliary personnel in Dentistry.

To further these goals, AADB shall: Act as an INDEPENDENT national advocacy group to promote issues for the greater good and benefit of dental boards and greater public protection."

LET US KNOW HOW WE CAN ASSIST YOUR BOARD AND ENHANCE OUR SUPPORT AS YOU NAVIGATE THE TRENDS IN DENTAL REGULATION!

This newsletter is intended to provide information to those interested in the regulation of the dental profession. The American Association of Dental Boards does not endorse or advocate any of the positions discussed in this brief.

Contact:
ADA:
mediarelations@ada.org

ADEX:
communications@adextesting.org

American Dental Association and American Board of Dental Examiners Announce Collaboration to Advance Dental Hygiene Licensure

CHICAGO, Oct. 5, 2026 – The American Dental Association (ADA), the Joint Commission on National Dental Examinations (JCNDE) and the American Board of Dental Examiners (ADEX) have begun collaborative discussions focused on advancing dental hygiene licensure assessment, in service to the public's health.

This work builds on the organizations' recent collaboration to advance dental licensure assessment through the incorporation of the ADA and JCNDE's Dental Licensure Objective Structured Clinical Examination (DLOSCE) into the ADEX Dental Examination. In the same spirit, the ADA and ADEX are exploring opportunities to support dental hygiene licensure by strengthening alignment in examination content, evaluation methods, and candidate experience, thereby advancing candidate assessment to assist state boards in their mission to protect the public.

"The ADA is committed to supporting licensure approaches that put patient safety first and are rigorous, fair, and responsive to the needs of the oral health workforce," said Richard Rosato, D.D.S., ADA President. "Our recent work with ADEX to incorporate the DLOSCE into the ADEX Dental Examination demonstrated what is possible when organizations align around public protection, candidate assessment, and licensure mobility. We look forward to continuing that collaboration in support of dental hygiene licensure."

ADEX Chair Mark Armstrong, D.D.S., added, "ADEX's responsibility to state dental boards extends across the oral health professions, including both dentistry and dental hygiene. As we have done with the ADEX Dental Examination and the DLOSCE, our goal is to advance dental hygiene licensure assessment while preserving the clinical standards and public protection priorities that are central to our mission."

The ADA and ADEX anticipate continued engagement over the coming months as both organizations explore best practices and potential opportunities to support consistent, modern, and defensible dental hygiene licensure examination standards in service to the public health.

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About the American Dental Association
The not-for-profit ADA is the nation's largest dental association, representing 152,000 dentist members. The premier source of oral health information, the ADA has advocated for the public's

health and promoted the art and science of dentistry since 1859. The ADA's state-of-the-art research facilities develop and test dental products and materials that have advanced the practice of dentistry and made the patient experience more positive. The ADA Seal of Acceptance has long been a valuable and respected guide to consumer dental care products. The Journal of the American Dental Association (JADA), published monthly, is the ADA's flagship publication and the best-read scientific journal in dentistry. For more information about the ADA, visit ADA.org. For more information on oral health, including prevention, care and treatment of dental disease, visit the ADA's consumer website MouthHealthy.org.

About the American Board of Dental Examiners (ADEX)

The American Board of Dental Examiners (ADEX) is a not-for-profit organization dedicated to supporting dental boards in their mission to protect the public through the licensure of qualified oral health professionals. Established in 1969, ADEX administers independent competency examinations developed and approved by representatives of state dental boards. ADEX examinations are accepted or required by law in 51 U.S. jurisdictions and serve as the initial licensure pathway for 98% of dental and 85% of dental hygiene candidates nationwide. Through ongoing collaboration with dental boards and educators, ADEX continues to advance innovative, evidence-based assessment methods that uphold the highest standards of fairness, clinical competence, and public protection. Learn more at adextesting.org.

AMERICAN BOARD of DENTAL EXAMINERS

Date: October 2026

Prepared by: Stephen Prisby, ADEX Regulatory and Educational Affairs Director

ADEX News & Updates

The American Board of Dental Examiners (ADEX) is a national, non-profit examination organization dedicated to supporting state dental boards' mission to protect the public. ADEX administers fair, valid, reliable, and standardized national licensure examinations in the oral health professions. Its examination system is built around regulator collaboration, trained and calibrated examiners, nationally coordinated scoring, quality assurance, and a governance model that includes state board and educator-examiner participation.

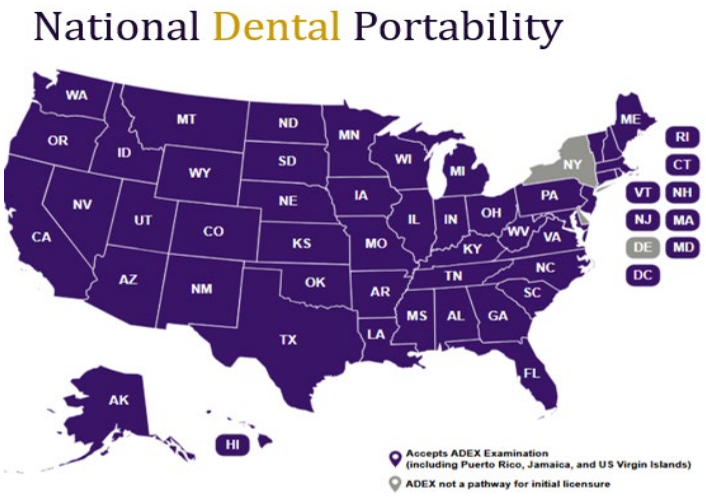
ADEX supports the licensure needs of state dental boards and commissions across more than 50 U.S. states and jurisdictions. In 2025, ADEX offered more than 570 examination dates at 312 testing locations and served more than 466 dental education programs nationwide. ADEX continues to support boards in all 51 jurisdictions where its examinations are accepted through direct outreach, board meeting engagement, secure score reporting, and regulator-informed examination updates.

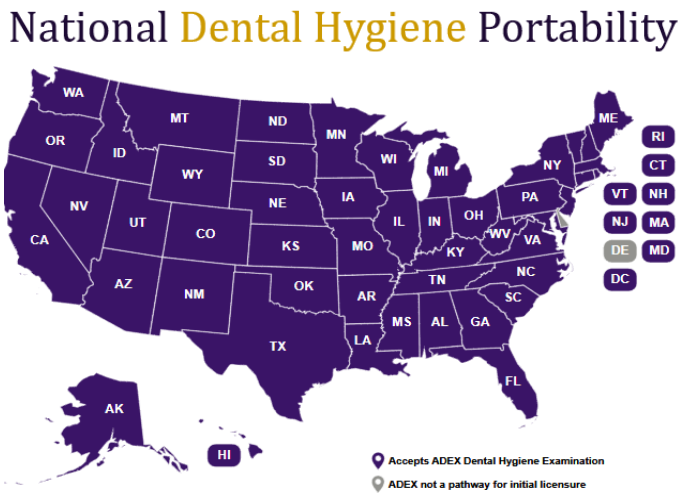
- **Board-centered expertise:** ADEX's regulatory collaboration is grounded in direct experience with state dental board operations, public protection responsibilities, rulemaking realities, and the day-to-day needs of board members and staff. Current and former state dental board members serve throughout ADEX's leadership, examiner network, and advisory structure, giving ADEX a practical and continuous connection to the boards it supports. That board-level experience strengthens ADEX's ability to develop and administer examinations that reflect real regulatory expectations and help ensure entry-level oral health practitioners are prepared to practice safely after completing required education and testing standards.

- **National reach and regulatory visibility**: ADEX has established direct engagement across all 50 states and Washington, DC, creating a strong foundation for consistent communication with boards, administrators, and regulatory stakeholders.

- **Modern examination strategy**: ADEX is positioned to support simulation, OSCE-based assessment, ADA DLOSCE integration, and other modern approaches that move licensure away from outdated, fragmented, and overly variable models.

- **Portability and consistency:** A national standard should reduce unnecessary barriers for qualified candidates while preserving the authority of state boards. ADEX gives boards a pathway to support mobility without weakening public protection. The ADEX Exams are the most widely accepted dental and dental hygiene exams for initial licensure in the United States.





The Nebraska Board of Dentistry at its October 2, 2026 Board Meeting, voted unanimously to join ADEX as a full member state and to accept the ADEX Dental Hygiene Exam for initial licensure effective October 2, 2026.

Examiner and Council Participation Opportunity

State dental board members can do more than review examination outcomes; they can directly help shape the national licensure standard. Participation as an ADEX examiner gives regulators firsthand insight into candidate assessment, calibration, scoring, public protection safeguards, and the practical operation of fair and standardized licensure examinations. It also gives board members a way to contribute to national consistency while strengthening their own board's understanding of examination quality.

Through the ADEX Council on Examinations, each ADEX Member state appoints a dentist and dental hygienist to serve three-year terms. Current state dental board members, or individuals who have served within the past five years, are eligible for appointment. Council and committee participation gives state regulators a direct voice in exam development, policy discussion, professional calibration, and the continuing refinement of licensure assessments.

- **Examine:** Former and current state board members, along with educators, participate directly in examination administration and gain firsthand insight into the public-protection framework behind ADEX licensure assessments. **The ADEX examining team includes more than 1,400 calibrated and trained professionals committed to maintaining the highest testing standards and supporting safe, competent practice.**
- **Develop:** Receive training, calibration, and professional development connected to contemporary licensure assessment. Represent the state board perspective in national examination policy and governance discussions on the Council on Examinations.
- **Connect:** Collaborate with regulators, educators, and examiner colleagues across jurisdictions with the Annual Dental Testing & Regulatory Summit.

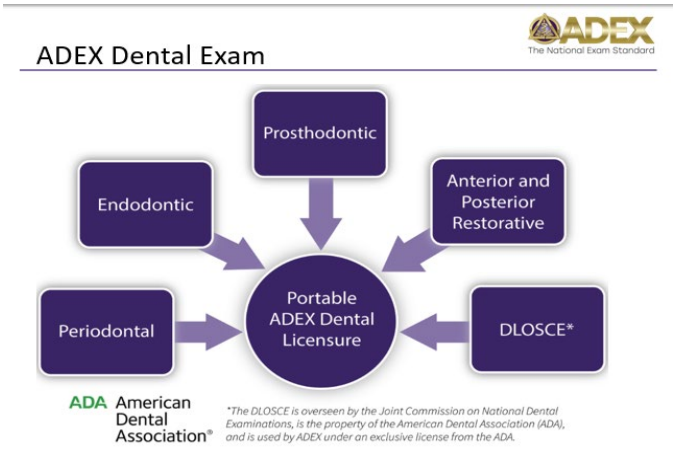
The integration of the ADA's DLOSCE as the cognitive assessment component within the ADEX Dental Examination is complete as of August 2026. This collaboration is designed to simplify pathways, reduce redundancy, and better align dental licensure with national models used across other health professions.

The ADA's **Dental Licensure Objective Structured Clinical Examination (DLOSCE)** was developed by the **Joint Commission on National Dental Examinations (JCNDE)**. It is a unique nationally standardized, case-based examination that evaluates clinical judgment, diagnosis, treatment planning, patient management, and readiness for independent practice. The examination consists of 150 multiple-choice questions based on realistic patient cases and incorporates interactive 3-D images that candidates can rotate, zoom, and manipulate to simulate the evaluation of clinical findings. The DLOSCE assesses the critical thinking and decision-making skills required for safe, competent, and independent dental practice using a valid, reliable, and modern examination format. The examination is administered over 6 hours and 45 minutes, including optional breaks.

The JCNDE is governed by an independent 16-member commission representing a broad range of stakeholders, including: dental education, dental practice, state dental boards, dental hygiene, dental students & public members – These representatives come from ADEA, ASDA, ADHA, AADB and the ADA.

The JCNDE oversees the following exams:

- Integrated National Board Dental Examination (INBDE)
- National Board Dental Hygiene Examination (NBDHE)
- Dental Licensure Objective Structured Clinical Examination (DLOSCE)
- Dental Hygiene Licensure Objective Structured Clinical Examination (DHLOSCE)



American Dental Association and American Board of Dental Examiners Announce Collaboration to Advance Dental Hygiene Licensure

CHICAGO, Oct. 5, 2026 – The American Dental Association (ADA), the Joint Commission on National Dental Examinations (JCNDE) and the American Board of Dental Examiners (ADEX) have begun collaborative discussions focused on advancing dental hygiene licensure assessment, in service to the public's health.

This work builds on the organizations' recent collaboration to advance dental licensure assessment through the incorporation of the ADA and JCNDE's Dental Licensure Objective Structured Clinical Examination (DLOSCE) into the ADEX Dental Examination. In the same spirit, the ADA and ADEX are exploring opportunities to support dental hygiene licensure by strengthening alignment in examination content, evaluation methods, and candidate experience, thereby advancing candidate assessment to assist state boards in their mission to protect the public.

"The ADA is committed to supporting licensure approaches that put patient safety first and are rigorous, fair, and responsive to the needs of the oral health workforce," said Richard Rosato, D.D.S., ADA President. "Our recent work with ADEX to incorporate the DLOSCE into the ADEX Dental Examination demonstrated what is possible when organizations align around public protection, candidate assessment, and licensure mobility. We look forward to continuing that collaboration in support of dental hygiene licensure."

ADEX Chair Mark Armstrong, D.D.S., added, “ADEX’s responsibility to state dental boards extends across the oral health professions, including both dentistry and dental hygiene. As we have done with the ADEX Dental Examination and the DLOSCE, our goal is to advance dental hygiene licensure assessment while preserving the clinical standards and public protection priorities that are central to our mission.”

The ADA and ADEX anticipate continued engagement over the coming months as both organizations explore best practices and potential opportunities to support consistent, modern, and defensible dental hygiene licensure examination standards in service to the public health.

The 3rd Annual Dental Testing and Regulatory Summit scheduled October 14-18, 2026, at the Gaylord National Harbor just outside Washington, DC. This annual regulatory and testing meeting brings together state dental board leaders, administrators, educators, exam leaders, and national stakeholders for focused discussion on licensure, examination modernization, portability, public protection, and emerging regulatory issues. The Summit includes the Annual Meetings for the American Board of Dental Examiners, the American Association of Dental Administrators, the American Association of Dental Boards and the Educators’ Conference. Over 1,000 participants were registered to attend this prestigious event. A summary of the event and important information will be shared when available.

ADEX continues to strengthen its collaborative engagement with state regulatory partners nationwide. I will continue sharing updates with your board and remain available for future board meeting presentations and questions. These national updates may support your state as it considers licensure policy, examination acceptance, workforce mobility, and public protection priorities.

For questions or additional information, please contact:

Stephen Prisby
Regulatory and Educational Affairs Director
sprisby@adextesting.org

Current Trends in the Dental Profession

TDIC Board Meeting
May 29, 2026
Anders Bjork

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What We'll Cover Today

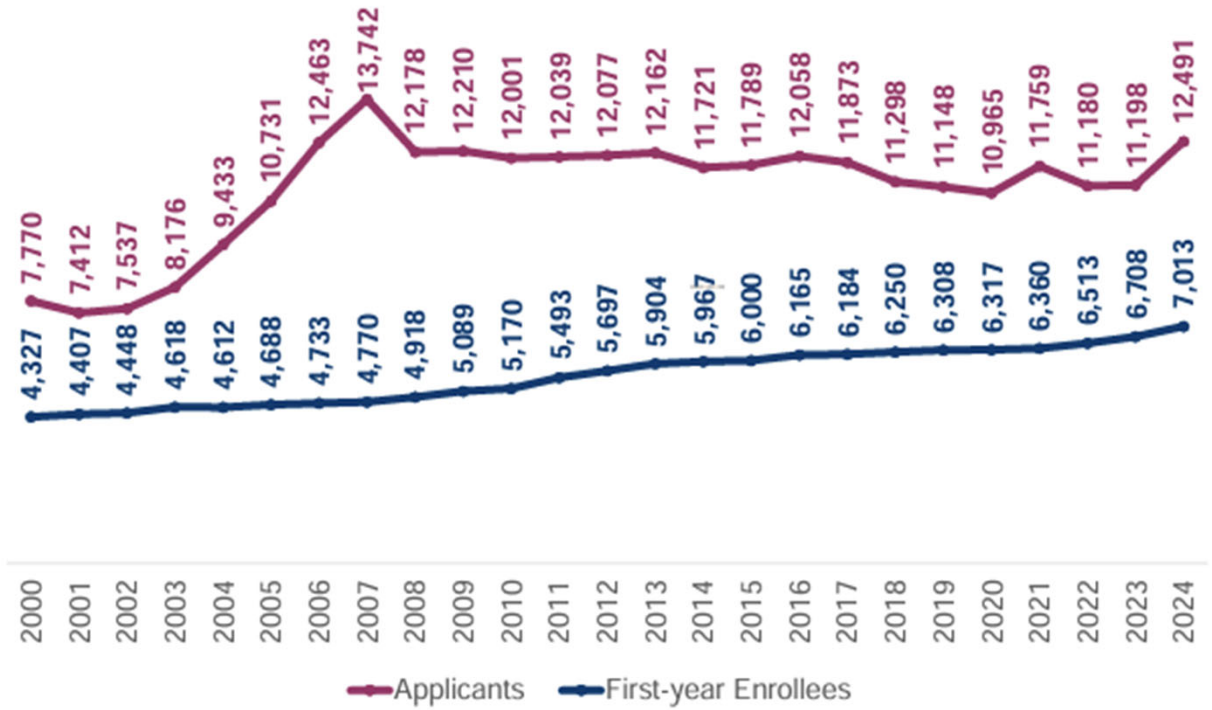
- Dental education trends
- Solo practice ownership
- Women in the profession
- Age range in the profession
- DSOs: Employment and private equity



Dental Education

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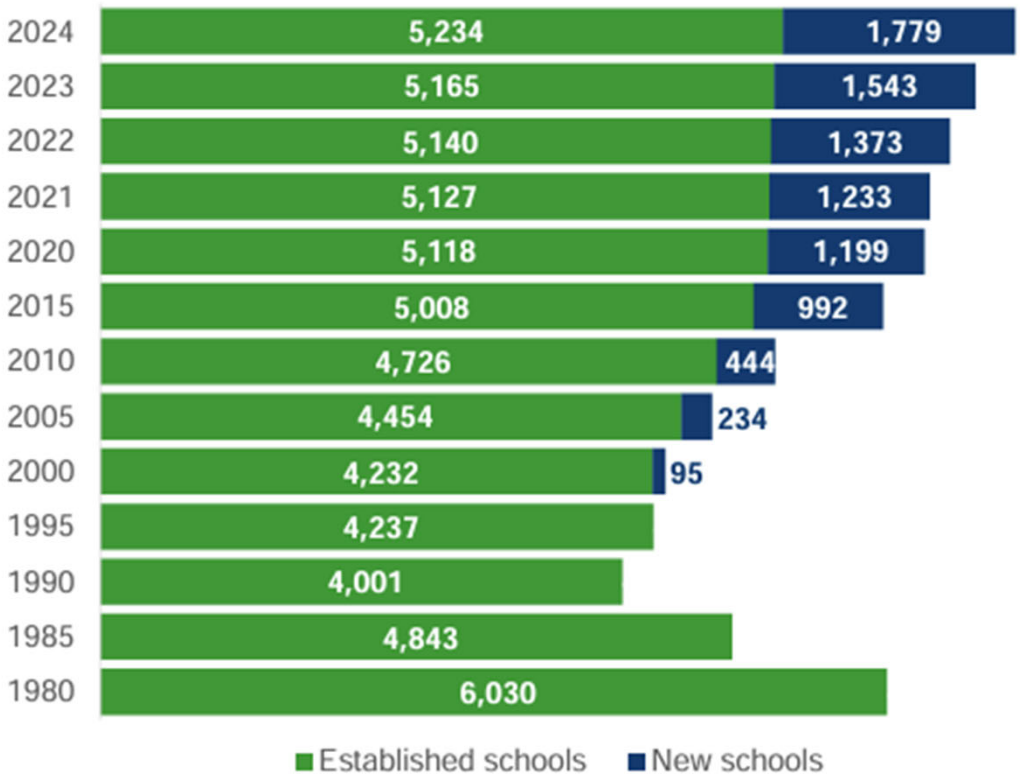
Dental School Applicants and Enrollment Up



- Applicant numbers to U.S. dental schools in 2024 hit their highest mark since 2007 at 13,742 after several years of stagnation
- From 2023 to 2024, the number of applicants went up by 11.5%
- First-year enrollment continued rising in 2024 with the launch of three new dental schools

*Source: ADA Health Policy Institute

First-Year Enrollment Continues to Grow

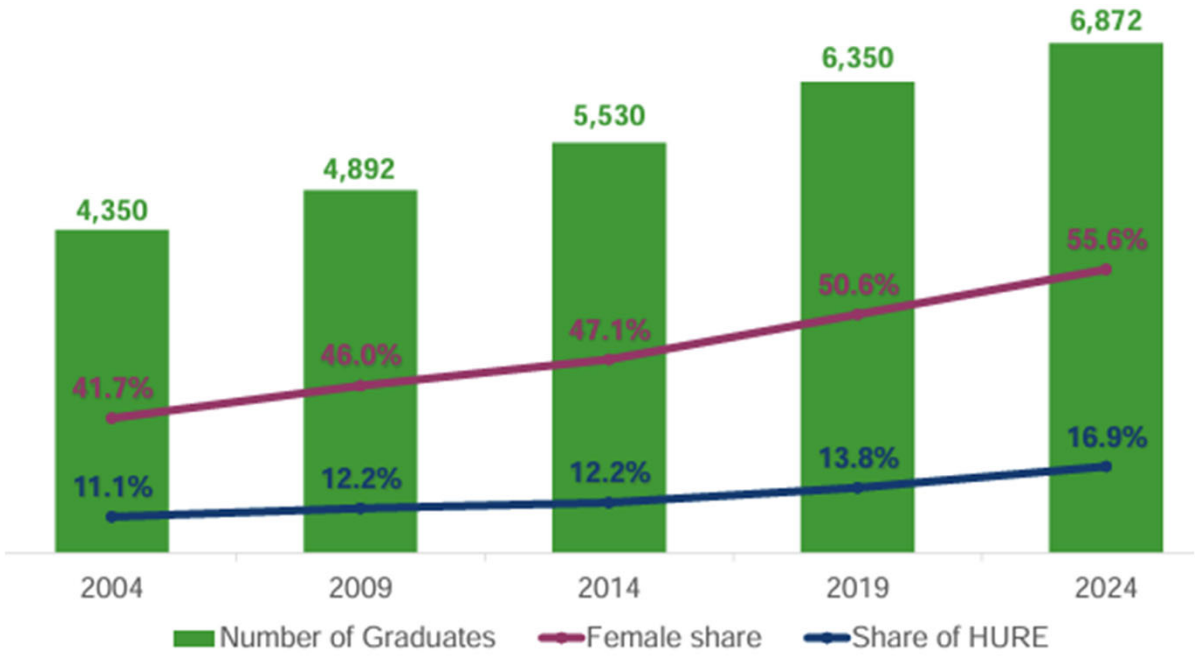


*Source: ADA Health Policy Institute

- First-year enrollment decreased in the 1980s after a high of 6,030 in 1980. Enrollment has increased every year since 1990

- The surge since 2020 is mostly attributed to the opening of new dental

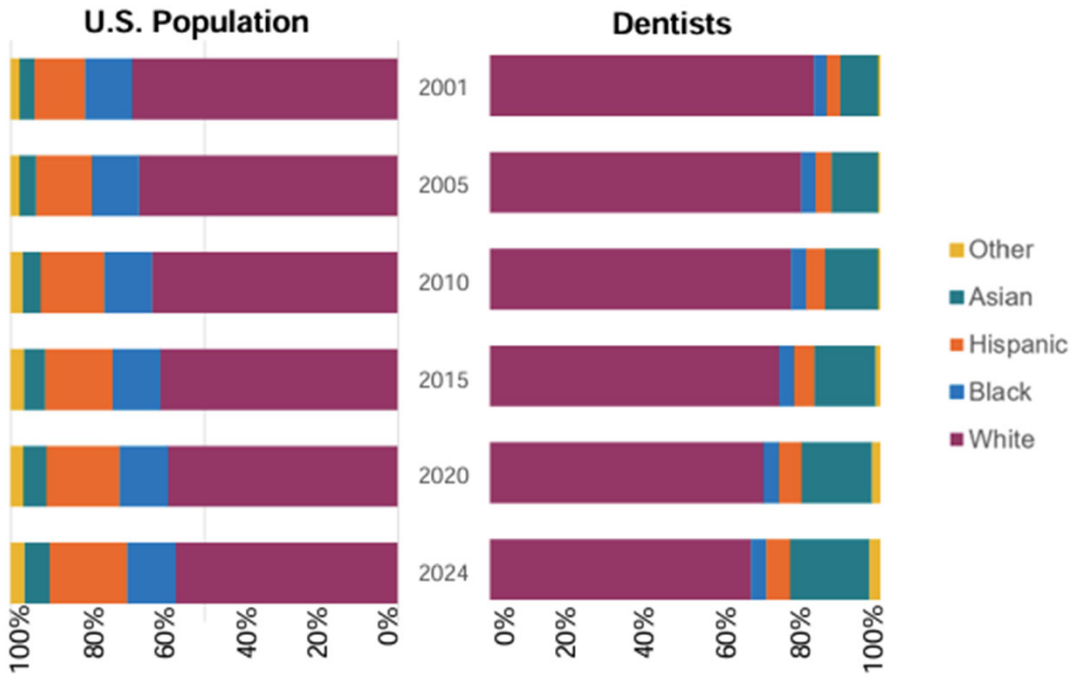
More Graduates and More Diversity



- In the last two decades, the number of graduates grew by 58%
- Since 2019, female dentists represented over half of the graduating class
- Dentists of historically underrepresented race/ethnicity (HURE) have also grown, but at a slower pace from 11% in 2004 to 17% in 2024

*Source: ADA Health Policy Institute

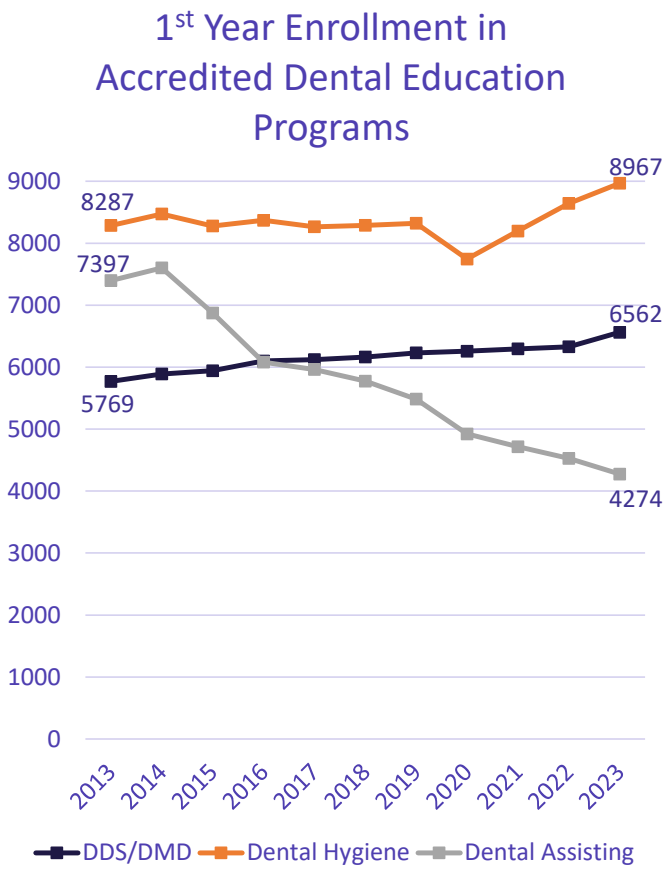
Dentist Race/Ethnicity Does Not Match the Population

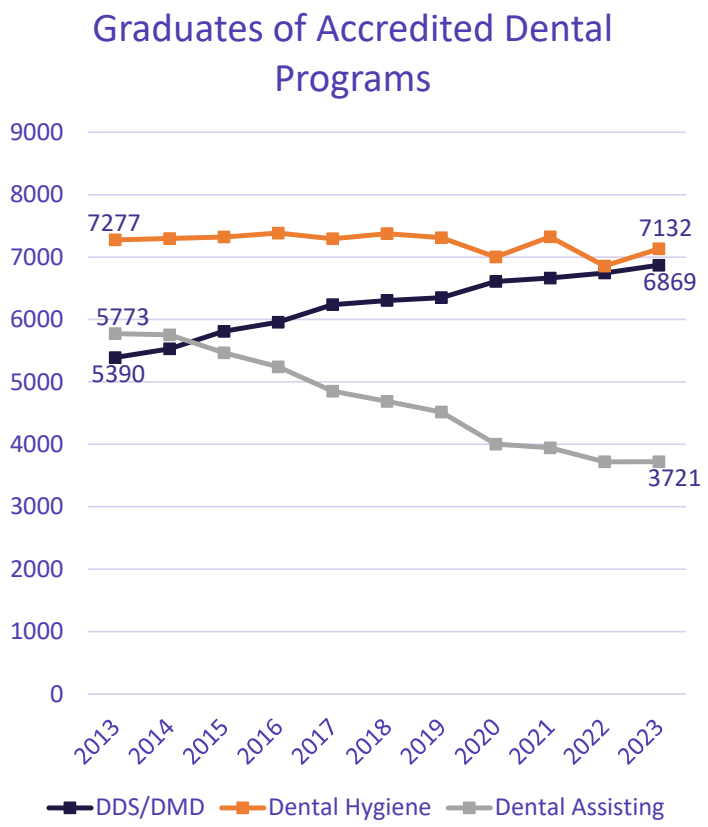


- When compared to the U.S. population, there is a greater proportion of White and Asian dentists
- While the proportions increased over the years, Black and Hispanic dentists are still underrepresented when compared with the U.S. population

*Source: ADA Health Policy Institute

Enrollment and Graduation Trends Among Accredited Dental Education Program





*Source: ADEA

Investigation

A national analysis of factors associated with the prevalence and practice of expanded function dental assistants in the United States

Hanna Aronovich, BA[a]; Victoria Nguyen, PhD[b]; Sophie Wilkinson, MPH[c]

[a]Dental Assisting National Board, Chicago, IL; [b]Wharton School, University of Pennsylvania, Philadelphia, PA; [c]New Jersey Department of Disability Services, Trenton, NJ.

Supplemental material is available online.

ABSTRACT

Background. The scope and regulation of expanded function dental assistants (EFDAs) vary according to state. The authors explored predictors of EFDA workforce participation rates and quantified EFDA regulation, delegation patterns, and perception nationally.

Methods. The authors applied a cross-sectional design using secondary data collection and 2 online surveys to dentists (n = 558) and dental assistants (n = 1,016). Licensed dentists and dental assistants working in a dental practice in the United States were eligible to participate.

Results. In states with registered EFDAs, nearly one-half (46.9%) had low EFDA rates. More established EFDA levels were associated with higher EFDA rates. Dentists delegated preventive functions to dental assistants frequently, but only 32.9% delegated direct restorations. Delegation depended on both environmental and personal factors. Dentists were approximately twice as likely to delegate direct restorations if they felt it saved them time, nearly 12 times more likely to delegate in states with function-specific certificates (compared with states without EFDA registration), and more than 4 times more likely to delegate in public health settings than in dental support organizations. Overall, both regulations and workplace environment strongly influenced how much responsibility dentists gave to dental assistants.

Conclusions. EFDAs represent a valuable, yet underdeveloped, component of the dental workforce. There are opportunities to increase EFDA rates and delegation. Although this study has limitations, the authors point to key considerations and opportunities for future workforce development and research.

Practical Implications. States aiming to introduce or expand EFDA roles should collaborate with associations and schools to provide EFDA training, guidance on how to fully use EFDAs, and information on the associated productivity benefits.

Key Words. EFDA; expanded functions; dental assistant.

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The concept of expanded function dental assistants (EFDAs) gained traction in the 1960s when the US government dedicated resources to studying and funding health care professions.[1] At that time, EFDAs were defined as dental assistants (DAs) or dental hygienists with certification or training to perform reversible restorative procedures, such as placing restorations, carving and finishing amalgam restorations, fabricating temporary restorations, and taking impressions.[2] Researchers found that delegating restorative procedures to EFDAs resulted in appreciable increases in dentists' productivity with no substantial reduction in the quality of the services.[2] As a result, the 1960s and 1970s were an active period for more research on EFDA training, quality, delegation, and practice impact, with findings continuing to show the benefits of using EFDAs.[3-6]

During this time, government projections anticipated an insufficient number of dentists to meet the country's oral health care needs and took steps to address the situation. Funding was provided

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to train EFDAs through dental schools and community colleges,[1] and dentists received training to work productively with EFDAs.[7] As an example, more than 30 dental schools received grants through the Training in Expanded Auxiliary Management program offered through the US Department of Health and Human Services in the early 1970s.[2] However, by the 1980s, federal funds and research for EFDA initiatives had declined.[7]

The scope of practice, professional requirements, and regulation of EFDAs vary widely across states, resulting in inconsistent use and an unclear picture of the national workforce. Most studies conducted over the past 20 years have been state-specific such as the economic impact, productivity, and efficiency of EFDAs in Colorado,[8,9] practice patterns and attitudes of EFDAs in Maine,[10] and the willingness to use EFDAs in Iowa[11] and Minnesota.[12] The American Dental Association's (ADA's) 2017 EFDA Utilization Survey[13] offered a preliminary overview of delegation patterns but did not explore state-specific factors. Researchers from The National Dental Practice-Based Research Network's (NDPBRN) found that expanded function assistants and dental hygienists were underused.[14]

Internationally, some countries allow DAs to perform expanded functions; research exists but is sparce. In a 2014 review, researchers identified 5 studies (2 in the United States, 1 each in Canada, Gambia, and Singapore). All were found to be at high risk of bias, and 4 were published decades earlier, so no firm conclusions were drawn.[15] In a 2015 study, researchers found that dentists in Nigeria had an unfavorable opinion of EFDAs,[16] and results from a 2023 study showed dentists in Bulgaria had a more favorable view.[17]

Although these studies provide some valuable insights, they do not capture a comprehensive national view and lack data connecting state EFDA requirements, delegation patterns, and practitioner perspectives. As a result, our objective was to address the gap in research through a multilayered approach. By combining state-level data with practitioner perspectives, we sought to uncover predictors of EFDA workforce participation rates, while also providing a nationwide view of how EFDAs are regulated, used, and perceived by dentists and DAs across the United States.

METHODS

Study design and oversight

We used a quantitative, nonexperimental, cross-sectional design using secondary data collection and 2 national online surveys. Our study was verified as exempt by Solutions IRB on May 17, 2025. Informed consent was obtained from all participants before their participation in the study. Participants were informed of the study's purpose, procedures, potential risks and benefits, and their right to withdraw at any time without penalty.

Definition of levels

We used the term levels to describe the various qualifications a DA may have within a state, which could range from an entry-level or unlicensed level to a restorative EFDA level. For our study, a state is considered to have an EFDA level if it has defined regulations and a scope of practice for DAs that includes preventive or restorative functions (RFs). The specific name or title of the EFDA level is determined by the state.

Definition of expanded functions

We defined expanded functions as preventive or restorative procedures, including applying topical fluoride; coronal polishing; placing sealants; monitoring nitrous oxide; fabricating, placing, and cementing temporary crowns; placing and cementing prefabricated crowns; taking impressions for fabrication of appliances; taking final impressions for fabrication of indirect restorations; placing liners and bases; and placing, contouring, and finishing direct restorations.

In each state, these functions may fall within different levels. For example, some states allow unlicensed DAs to apply topical fluoride, and other states allow this at the EFDA level or have function-specific requirements. In addition, not all states allow DAs to perform all functions.

State regulatory type categorizations

Because each state has different EFDA requirements, we categorized states into the following 4 groups.

- EFDA with registration: state has formal licensure or registration system for EFDAs

ABBREVIATION KEY

ADA: American Dental Association.
BLS: Bureau of Labor Statistics.
DA: Dental assistant.
DSO: Dental support organization.
EFDA: Expanded function dental assistant.
LDA: Licensed dental assistant.
NDPBRN: The National Dental Practice-Based Research Network.
RDA: Registered dental assistant.
RF: Restorative function.

- EFDA without registration: EFDA level exists but state has no registration for EFDAs
- Function-specific: state issues 1 or more certificates or has defined requirements for individual expanded functions
- No EFDA: state has no formal EFDA level or function-specific requirements; states in this category may allow unlicensed DAs to perform expanded functions

Some states had both an EFDA level with registration and function-specific certificates or requirements. In these cases, the state was classified as EFDA with registration.

State-level data collection and variables

To investigate the relationship between variables including EFDA requirements, level age (the number of years the EFDA level has been established), and EFDA workforce participation rates, we compiled state requirement data from the Dental Assisting National Board,[18] DA population according to state from US Bureau of Labor Statistics (BLS),[19] and EFDA counts and data from state dental board correspondence and rosters.

EFDA data and assessment

We coded education and examination requirements as either required or not required. If taking an examination or completing education was 1 pathway but not the only option, we categorized it as not required. We calculated EFDA workforce participation rates by dividing the number of EFDAs in a state by the total number of DAs (including EFDAs) in that state. We considered a state's EFDA participation rate to be low if it was less than 0.1 (ie, $< 10\%$ of DAs were EFDAs).

We analyzed EFDA participation rate for states that had an EFDA level with registration ($n = 28$) and were established enough to have issued EFDA credentials ($n = 25$). Some states' EFDA rates were higher than 1. We attributed this to the state having a higher EFDA participation rate plus a combination of SE in BLS data, rosters including retired or nonworking DAs, or some dental hygienists holding the EFDA credentials.

The EFDA level established date is either the date the first EFDA credential was issued or the first documented date of the EFDA level's existence, whichever came first.

Practitioner data collection and variables

To examine associations between state regulatory type, practice environments, perceptions, and delegation patterns, we developed and distributed via 2 online surveys a 16-item questionnaire for dentists and an 11-item questionnaire for DAs. Items assessed awareness, delegation practices, and attitudes. Surveys using SurveyMonkey (SurveyMonkey, Inc) used multiple-choice, Likert scale, and open-ended formats.

Participants were recruited via convenience sampling. The ADA and the Academy of General Dentistry emailed the dentist questionnaire to a combined total of approximately 70,000 contacts. Because these emails were sent via outside organizations and the lists were not mutually exclusive, we cannot calculate the response rate.

We recruited DAs by emailing DAs who opted in to the Dental Assisting National Board's email database. This email was delivered to 49,810 dental assistants with a 2% response rate.

Licensed dentists and DAs working in a dental practice or clinic in the United States were eligible to participate. We did not collect demographic data on age, race, ethnicity, or sex. We accepted all eligible responses received during the data collection period from June 1 through June 30, 2025.

We aimed to recruit a minimum of 400 dentists and 400 DAs. A total of 558 dentists and 1,016 DAs completed the survey. Based on BLS 2024[19] and ADA[20] workforce estimates (375,430 DAs, 202,485 dentists), these sample sizes are sufficient to support a range of statistical analyses.

In addition to the state variables of regulatory environment and EFDA workforce participation rate, we looked at practitioner variables, including practice setting, delegation patterns, and practitioner perspectives.

Statistical analysis

Descriptive statistics were used to summarize EFDA requirements, workforce data, and survey responses. Simple (unadjusted) linear regression was used to examine the association between EFDA level age and EFDA workforce participation rates. Simple (unadjusted) logistic regressions

Table 1. Characteristics of dentist (n = 558) and dental assistant (n = 1,016) survey respondents.

CHARACTERISTIC	DENTIST,* NO. (%†)	DENTAL ASSISTANT,‡ NO. (%†)
Experience, Y		
0-5	34 (6.1)	221 (21.8)
6-10	48 (8.6)	115 (11.3)
11-15	69 (12.4)	113 (11.1)
16-20	82 (14.7)	102 (10.0)
≥21	324 (58.1)	463 (45.6)
No response	1 (0.4)	2 (0.2)
Practice Setting		
Private practice, general	392 (70.3)	577 (56.8)
Private practice, specialty	44 (7.9)	155 (15.3)
Community, public, or Federally Qualified Health Center	61 (10.9)	131 (12.9)
Dental support organization	45 (8.1)	104 (10.2)
University or college	15 (2.7)	44 (4.3)
Other	0 (0)	3 (0.3)
No response	1 (0.4)	2 (0.1)
State Type§		
EFDA¶ with registration	354 (63.4)	721 (71.0)
EFDA without registration	93 (16.7)	158 (15.6)
Function-specific certificate	75 (13.4)	97 (9.5)
No EFDA	36 (6.5)	40 (3.9)

* Responses received from dentists in all states except Hawaii, North Dakota, and Wyoming. † Percentages do not necessarily total 100% due to rounding. ‡ Responses received from dental assistants in all states except Utah. § All state regulatory types are represented in the responses. ¶ EFDA: Expanded function dental assistant.

were used to evaluate factors influencing delegation including state regulatory type, practice setting, and perceptions. Analyses were conducted using SAS OnDemand for Academics software (SAS Institute) and Stata software, Version 19.5 (StataCorp). Missing data are noted in the tables. All analyses were performed at a .05 significance level unless noted.

RESULTS

There are the 4 key themes in the results: state observations, dentists' perspectives, DAs' perspectives, and expanded functions delegation patterns. Table 1 contains the demographic characteristics of the dentist and DA respondents. Among dentists who completed the questionnaire, nearly all were employed full-time (91.3%), most worked in private general practice (70.3%), and more than one-half practiced for more than 20 years (58.1%). Among DAs, most worked in private general practice (56.8%). Although some were newer to the profession, the largest share (45.6%) had more than 20 years of experience. We received responses from dentists in all states except Hawaii, North Dakota, and Wyoming, and responses from DAs in all states except Utah. All state regulatory types are represented in the responses.

State observations

Most states (n = 28) have an EFDA level with registration, 8 states have an EFDA level without registration, 7 states issue certificates or have requirements for specific functions, and 8 states have no formal EFDA level (Figure 1).

Among states with an EFDA level with registration established enough to provide data (n = 25), there were 32 EFDA levels. Of those, 15 EFDA levels (46.9%) had low EFDA workforce participation rates of less than 0.1 (10%). Almost all EFDA levels (96.8%) required completing

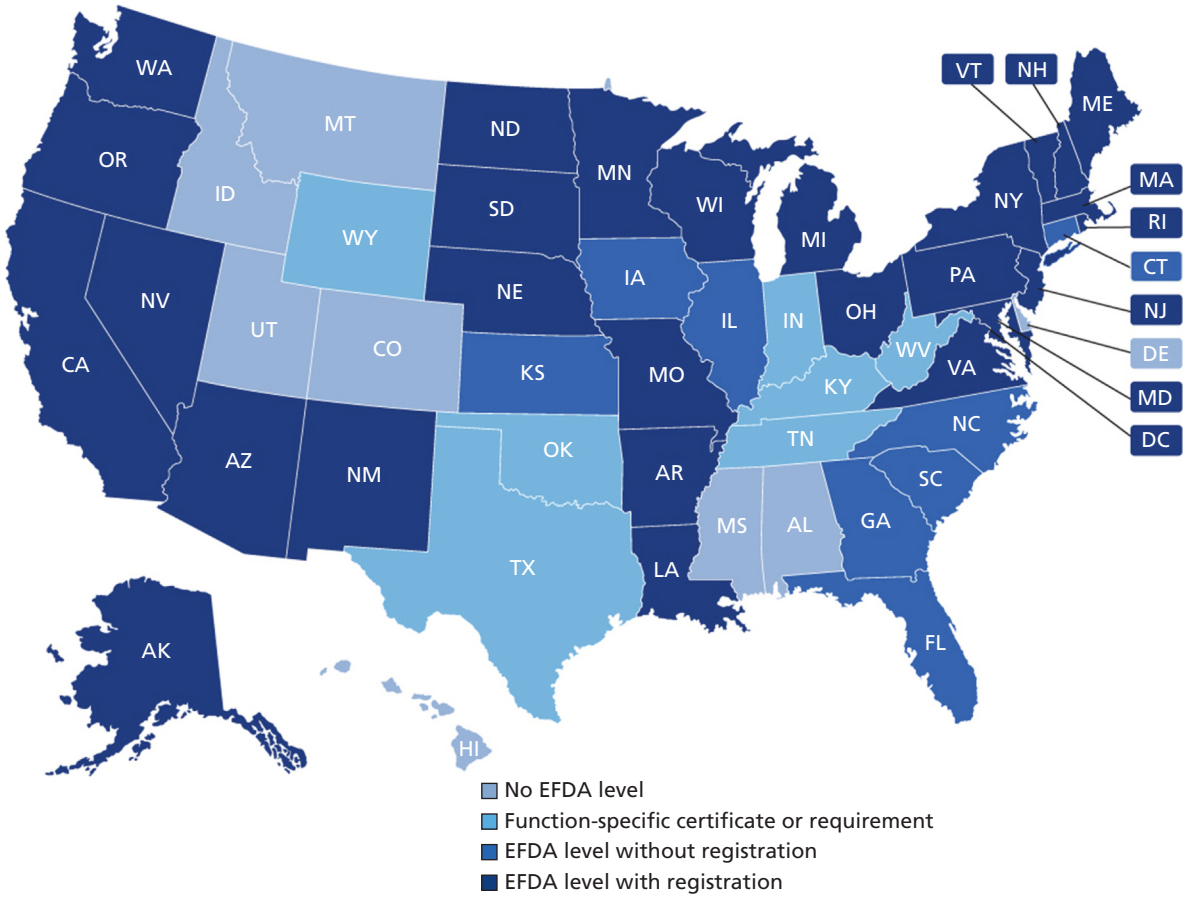


Figure 1. Map of expanded function dental assistant (EFDA) regulation categories across the United States.

education or passing an examination, with the most common approach being required education and examination (62%) (Table 2).

The relationship between EFDA level age and EFDA workforce participation rate in states with EFDA registration is illustrated in Figure 2. This relationship is statistically significant. Results of the linear regression analysis showed that EFDA level age was a significant positive predictor of EFDA rate. For each additional year of EFDA level age, the EFDA participation rate increased 2.1 percentage points ($P < .0001$; $\beta = 0.021$) (Table 3).

Dentist perspectives

Table 4 contains dentist perspectives on EFDA awareness, employment, delegation, support, and motivators. Most dentists (76.7%) were aware of their state's EFDA requirements, employed an EFDA (84.7%), and delegated at least 1 expanded function (84.2%).

Dentists' support of EFDAs was nearly universal; 92% expressed support for their assistants to become EFDAs, with minimal and nonsignificant variation according to state regulation type. Dentists indicated willingness to provide support through on-the-job training (75.4%), a pay raise after becoming qualified (67.7%), flexible scheduling to study or attend classes (49.8%), and financial support for education (46.3%) or examination fees (40%) (Table 4).

When deciding to delegate an expanded function (Table 4), dentists most frequently considered the assistant's skill, qualifications, and whether delegation was allowed in the state. Procedure complexity, convenience, and time to perform the function were also factors, although less so. A total of 27.1% of dentists did not consider whether delegation was allowed in the state, possibly due to confusion or low awareness of requirements or working in a state with a more permissive regulatory environment.

Table 2. Characteristics of states with EFDA* levels with registration.

STATE	LEVEL†,‡	AGE		WORKFORCE			REQUIREMENTS	
		Year Established§,¶	Level Age, Y	EFDAs, No.§	All DAs, No.#	EFDA Rate	Education†	Examination†
Alaska	DA qualified in RF	2011	14	17	1,080	0.02	Yes	Yes
Arizona	EFDA	2018	7	283	7,482	0.04	Yes	Yes
Arkansas	RDA**	1986	39	3,877	3,020	1.28††	No	No
California	RDA	1976	49	29,370	54,580	0.54	No	Yes
California	RDA in extended functions	1986	39	2,218	54,580	0.04	Yes	Yes
Louisiana	Expanded duty DA	1993	32	6,942	4,420	1.57††	Yes	No
Maine	EFDA	2015	10	153	1,450	0.11	Yes	Yes
Maryland	DA qualified in general duties	2002	23	2,824	6,520	0.43	Yes	Yes
Massachusetts	Certified assistant	2014	11	1,026	9,250	0.11	No	Yes
Massachusetts	EFDA	2014	11	27	9,250	0.00	Yes	Yes
Michigan	RDA	1979	46	1,811	11,830	0.15	Yes	Yes
Minnesota	LDA‡‡	1977	48	7,587	5,590	1.36††	Yes	Yes
Minnesota	LDA with RF	2004	21	248	5,590	0.04	Yes	No
Missouri	EFDA	1994	31	1,980	7,380	0.27	Yes	Yes
Nebraska	LDA	2018	7	101	2,360	0.04	No	Yes
Nebraska	EFDA	2019	6	19	2,360	0.01	Yes	Yes
New Hampshire	EFDA	2015	10	49	1,400	0.04	Yes	Yes
New Jersey	RDA	1981	44	3,436	10,660	0.32	Yes	Yes
New Mexico	Expanded function dental auxiliary	2011	14	106	2,010	0.05	Yes	Yes
New York	RDA	1998	27	1,501	19,700	0.08	Yes	Yes
North Dakota	RDA	1993	32	720	920	0.78	No	Yes
North Dakota	RDA with RF permit	2015	10	35	920	0.04	Yes	Yes
Ohio	Expanded function dental auxiliary	1976	49	3,583	11,130	0.32	No	Yes
Oregon	EFDA	1972	53	8,624	5,480	1.57††	No	Yes
Oregon	EFDA with RF	2010	15	126	5,480	0.02	Yes	Yes
Oregon	Expanded function preventive DA	2018	7	118	5,480	0.02	No	Yes
Pennsylvania	EFDA	1994	31	2,900	12,410	0.23	Yes	Yes
Rhode Island	Dental Assisting National Board–certified assistant	2002	23	345	1,120	0.31	No	Yes
South Dakota	RDA	1992	33	1,052	1,240	0.85	Yes	No
Vermont	EFDA	2010	15	81	650	0.12	Yes	Yes
Virginia	DA II	2015	10	61	11,040	0.01	Yes	Yes
Washington	EFDA	2009	16	389	13,330	0.03	Yes	Yes

* EFDA: Expanded function dental assistant. † Source: Dental Assisting National Board.[18] ‡ Level is the term used to describe a state's regulations and a scope of practice for a dental assistant (DA) that includes preventive or restorative functions (RFs). The specific name of the EFDA level is determined by the state. § Source: State dental board correspondence and rosters (e-mail correspondance with 27 state dental boards, June 2026). ¶ The EFDA level year established date is either the date the first EFDA credential was issued or the first documented date of the EFDA level's existence, whichever came first. # Source: US Bureau of Labor Statistics.[19] ** RDA: Registered dental assistant. †† These states have an EFDA rate > 1. We attributed this to the state having a high EFDA rate plus a combination of SE in US Bureau of Labor Statistics data, rosters including retired or nonworking DAs, or some dental hygienists holding EFDA credentials. ‡‡ LDA: Licensed dental assistant.

Dentist assistant perspectives

Most DAs (57.4%) reported holding a state EFDA credential, 35% did not, and 7.5% did not know their status. Among EFDAs, 59.2% wished their dentist delegated expanded functions more frequently, 22.1% were unsure, and 18.6% were satisfied with delegation. Among non-EFDA

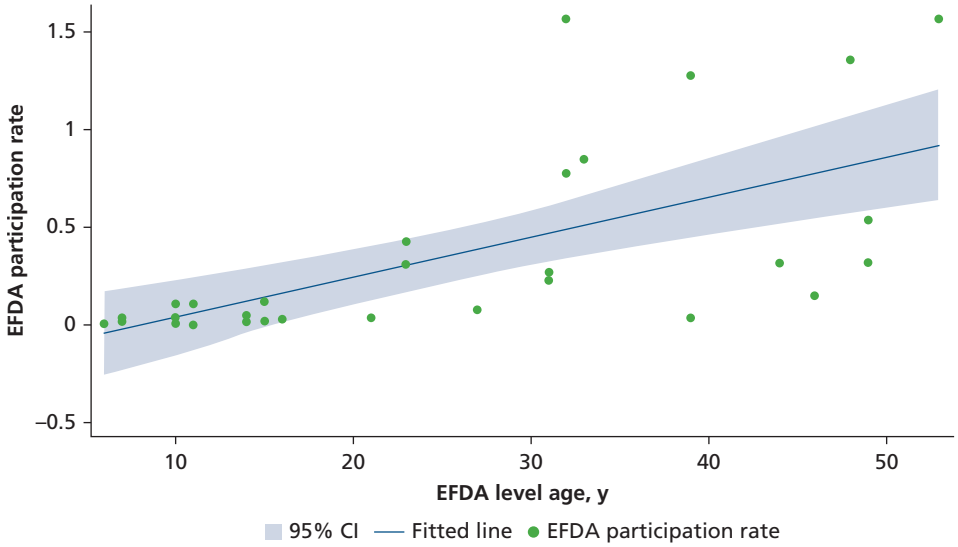


Figure 2. Chart plotting the expanded function dental assistant (EFDA) level age and the EFDA participation rate in each state with EFDA registration.

Table 3. Significant simple regression estimates of associations between EFDA* level age and workforce participation rate† (n = 32 states) and dentists' characteristics and perspectives on EFDAs and their delegation of direct restorations to EFDAs‡ (n = 335 dentists).

VARIABLE	DENTISTS' DELEGATION OF DIRECT RESTORATIONS TO EFDA		
	Odds Ratio	95% CI	*P* Value
Dentists' Characteristics			
Practice setting [Reference: dental support organization or dental chain]			
Community, public, or federally qualified health center	4.38	1.58 to 12.08	< .01
State regulatory type [Reference: EFDA without registration]			
Function-specific	11.48	3.99 to 35.15	< .001
State regulatory type [Reference: no EFDA]			
Function-specific	2.67	0.84 to 8.47	< .10
Dentists' Perspectives on EFDAs			
Time required to perform the function considered [Reference: no]			
Yes	2.14	1.35 to 3.38	< .001

* EFDA: Expanded function dental assistant. † The association between EFDA age and workforce participation rate was estimated using simple linear regression (β coefficient [SE], 0.021 [0.004]; 95% CI, 0.011 to 0.029; $P < .001$). ‡ Associations between dentists' characteristics and perspectives on EFDAs and their delegation of direct restorations to EFDAs were estimated using simple logistic regression (odds ratios, 95% CIs).

assistants, 61.2% expressed interest in becoming an EFDA. Factors assistants considered very important to pursuing an EFDA credential were receiving a pay raise (80.8%), cost to earn the qualification (60.8%), time to complete the program (58.2%), examination requirements (54.3%), and the need to attend classes (50.9%) (Table 4). Interest in becoming an EFDA and pay as a primary motivator were consistent, with minimal variation according to state regulation type.

Expanded functions delegation patterns

Dentists' delegation approaches are illustrated in Table 5. Dentists reported delegating preventive and temporary procedures most frequently, such as applying topical fluoride (89.3%), coronal polishing (77.7%), taking impressions for appliances (74.4%), and sealants (64.6%). In contrast, only approximately one-third of dentists delegated restorative functions (RFs).

Table 4. Dentists' responses (n = 558) to EFDA* awareness, employment, delegation, and support, and dental assistants' responses (n = 1,016) to EFDA credential, delegation, and motivators.

VARIABLE	NO. (%†)
Dentists' Responses	
Know EFDA requirements in your state	
No	54 (9.7)
Yes	428 (76.7)
Unsure	76 (13.6)
Employ EFDAs	
No	85 (15.3)
Yes	472 (84.7)
Missing	1 (0.00)
Delegate at least 1 expanded function	
No	88 (15.8)
Yes	470 (84.2)
Support assistant to become EFDA	
No	42 (7.8)
Yes	497 (92.2)
Missing	19 (0.00)
How to support assistant to become EFDA‡	
Job training	
No	137 (24.6)
Yes	421 (75.4)
Offer raise	
No	180 (32.3)
Yes	377 (67.7)
Missing	1 (0.00)
Flexible scheduling	
No	280 (50.2)
Yes	278 (49.8)
Pay for education	
No	299 (53.6)
Yes	529 (46.6)
Pay for examination	
No	335 (60.0)
Yes	233 (40.0)
Delegation factors considered‡	
Assistant's skill	
No	77 (13.8)
Yes	481 (86.2)
Assistant's qualifications	
No	114 (20.4)
Yes	444 (79.6)
Allowed in state	
No	151 (27.1)
Yes	407 (72.9)
Complexity of function	
No	182 (32.6)
Yes	376 (67.4)

* EFDA: Expanded function dental assistant. † Percentages do not necessarily total 100% due to rounding. Percentages are based on nonmissing data. ‡ Respondents could check multiple responses. § Question only given to EFDAs. ¶ Question only given to non-EFDAs.

Table 4. Continued

VARIABLE	NO. (%[†])
Convenience	
No	273 (48.9)
Yes	285 (51.1)
Time to perform function	
No	275 (49.3)
Yes	283 (50.7)
Dental Assistants' Responses	
Have EFDA credential	
No	356 (35.0)
Yes	584 (57.5)
Unsure	76 (7.5)
Would like more delegation (n = 660)[§]	
No	123 (18.6)
Yes	391 (59.2)
Unsure	146 (22.1)
Interest in becoming EFDA (n = 356)[¶]	
No	56 (15.7)
Yes	218 (61.2)
Unsure	82 (23.3)
Factors considered in becoming EFDA	
Pay raise (n = 950)	
Very important	768 (80.8)
Important	135 (14.2)
Somewhat important	31 (3.3)
Not important	16 (1.7)
Cost to earn (n = 944)	
Very important	574 (60.8)
Important	241 (25.5)
Somewhat important	81 (8.6)
Not important	48 (5.1)
Time to earn (n = 953)	
Very important	555 (58.2)
Important	249 (26.1)
Somewhat important	92 (9.7)
Not important	57 (6.0)
Examinations required (n = 950)	
Very important	516 (54.3)
Important	268 (28.2)
Somewhat important	88 (9.3)
Not important	78 (8.2)
Classes required (n = 945)	
Very important	481 (50.9)
Important	283 (29.9)
Somewhat important	109 (11.5)
Not important	72 (7.6)

Results of logistic regression analysis showed time was a significant predictor of delegation. Dentists who considered time to perform functions were significantly more likely to delegate at least 1 EFDA function, including direct restorations (odds ratio [OR], 2.14; 95% CI, 1.35 to 3.38;

Table 5. Dentist-reported delegation of expanded functions and delegation of direct restorations according to state type and practice setting (n = 470 dentists).

VARIABLE	DELEGATE, NO. (%*)	DO NOT DELEGATE, NO. (%*)	NOT ALLOWED, NO. (%*)	MISSING DATA, NO.
Dentist-Reported Delegation of Expanded Functions†				
Apply topical fluoride	399 (89.7)	36 (8.1)	10 (2.2)	25
Fabricate, place, and cement temporary crowns	379 (84)	66 (14.6)	6 (1.3)	19
Perform coronal polishing	341 (78)	75 (17.2)	21 (4.8)	33
Take impressions for fabrication of appliances	335 (74.4)	73 (16.2)	42 (9.5)	20
Place sealants	288 (65.0)	118 (26.6)	37 (8.4)	27
Monitor nitrous oxide	246 (56.4)	140 (32.1)	50 (11.5)	34
Place, contour, and finish direct restorations	143 (32.9)	192 (44.1)	100 (23.0)	35
Place and cement prefabricated crowns	140 (32.3)	223 (51.5)	70 (16.2)	37
Take final impressions for fabrication of indirect restorations	126 (29.0)	195 (44.8)	114 (26.2)	35
Place liners and bases	122 (28.2)	234 (54.2)	76 (17.6)	38
Dentist-Reported Delegation of Direct Restorations				
State type				
EFDA‡ with registration	100 (37.7)	125 (47.2)	40 (15.1)	36
EFDA without registration	5 (6.8)	37 (50.0)	32 (43.2)	
Function-specific certificate	32 (47.1)	20 (29.4)	16 (23.5)	
No EFDA	6 (22.2)	10 (37.0)	11 (40.7)	
Practice setting				
Private practice, general	101 (32.4)	142 (45.5)	69 (22.1)	53
Private practice, specialty	8 (30.8)	11 (42.3)	7 (26.9)	
Community, public, or federally qualified health center	19 (43.2)	14 (31.8)	11 (25.0)	
Dental chain or dental support organization	9 (25.7)	18 (51.4)	8 (22.9)	

* Percentages do not necessarily total 100% due to rounding. Percentages are based on nonmissing data. † Only dentists who indicated they delegated at least 1 expanded function received this question (n = 470). ‡ EFDA: Expanded function dental assistant.

$P = .001$). Other factors such as skill, convenience, and complexity were not statistically significant predictors.

State type and practice setting revealed differences in dentists delegating direct restorations to DAs (Table 3). Dentists in states with function-specific certificates were 12 times more likely to delegate direct restorations than dentists in states without EFDA registration (OR, 11.84; 95% CI, 3.99 to 35.15; $P < .0001$) and were 2 times more likely to delegate direct restorations than those in states with no EFDA level at a moderate statistical significance of 10% (OR, 2.67; 95% CI, 0.84 to 8.47; $P < .10$).

The odds of dentists delegating direct restorations were 4 times higher for dentists in public health settings than dentists in dental support organizations (DSOs) (OR, 4.38; 95% CI, 1.58 to 12.08; $P < .01$) (Table 2). There were no statistically significant differences in the odds of delegating direct restorations between dentists in general or specialty private practice and dentists in DSOs.

DISCUSSION

Our study findings highlight substantial variation in EFDA prevalence and delegation across states. Both regulatory frameworks and workplace factors appear to play a critical role in shaping dentists' delegation practices, particularly for more complex procedures such as direct restorations.

State factors and workforce rates

The data indicated that states with longer-established EFDA levels typically had higher EFDA workforce participation rates, and states with newer EFDA levels had lower EFDA rates. Although it may seem intuitive that older EFDA levels would have greater workforce participation rates, participation could also decline over time if the level is not valued or relevant, as research shows.[21,22] The continued participation in EFDA levels suggests sustained relevance, dentist acceptance, ongoing institutional support, workplace need, and market recognition. In addition, the older EFDA levels, particularly those established in the 1970s, also benefited from the widespread training programs and government funding available at the time.

The requirements to become an EFDA, typically completing approved education, passing an examination, or both, did not appear to relate to EFDA workforce participation rates, as we observed states in this category that had both high and low EFDA rates. This is meaningful because several states have sought to increase the DA workforce levels through deregulation.[23-25] On the basis of this finding, regulation or deregulation alone may not be a factor that influences DA workforce levels.

States with EFDA levels established in the 1970s also benefitted from federal initiatives and funding that provided resources for creating EFDA programs and training dentists how to fully use EFDAs.[2,7] This highlights that both concerted support and time are essential for workforce development after regulatory adoption. Similarly, NDPBRN's researchers concluded that dentists' limited experience with EFDAs may explain the lack of use.[14]

These factors are relevant, particularly as states address workforce issues and explore expanding DA duties, such as conversations around oral preventive assistants and allowing assistants to perform supragingival scaling.[26] States pursuing expanding duties should consider that adopting new models takes time, training, and widespread support.

Dentist perspectives and delegation patterns

Dentist survey results indicated strong overall support for EFDAs; however, practical support was limited and delegation frequency differed according to function. Dentists commonly delegated preventive and temporary functions and more rarely delegated RFs. These findings mirrored results from the Iowa Dentists Willingness survey,[11] the Minnesota Use of Restorative Procedures[12] study, and the ADA's 2017 EFDA utilization survey.[13] Even in a state with no EFDA regulations, such as Colorado, the mean percentage of delegating direct restorations was from 34% through 38%,[8,9] which was in range with the national average in this study. However, the researchers from NDPBRN found that only 6% of dentists delegated direct restorations to assistants.[14]

Dentists who considered the time involved in performing a function were more likely to delegate to EFDAs, which indicates that efficiency and productivity gains are motivators. This finding was supported by the results from a Colorado study,[9] which showed a positive relationship between level of delegation and patient visits, gross billings, and net income.

EFDAs wished their dentists delegated more functions to them, indicating opportunities to further leverage this provider level. DAs who were not yet EFDAs were most motivated by the potential for higher pay, which aligned with dentists' inclinations, as 68% indicated willingness to provide pay raises.

Environment and delegation patterns

Practice setting and regulatory environment corresponded with more frequent delegation of direct restorations. Dentists working in EFDA states with registration or EFDA states with function-specific certificates were more likely to delegate direct restorations to EFDAs, possibly because they had assurance of the DA's skill, which dentists noted as the most important consideration. Dentists in public health settings were more likely to delegate RFs to EFDAs, which likely stems from the philosophy in public health dentistry to fully use all providers to increase access to care.[27]

That 23.3% of dentists were not aware of their state's EFDA requirements and 7.4% of DAs did not know their EFDA status indicate potential confusion and low awareness of EFDA requirements and credentials. Standardizing EFDA requirements and scope of practice could support EFDA acceptance by dentists, increase delegation, and mitigate the confusion. The 2026 Dental Assisting Professional Model can be referenced by states as a guide toward uniformity.[28]

Limitations and future research

Our study has several limitations. Although the sampling frame included all 50 states, some analyses were limited to states with EFDA registration data, which may limit generalizability to other states. The sampling approach may create limitations if dentists who belong to membership associations have different perspectives than dentists who do not. Survey response rates were modest, introducing the possibility of nonresponse bias if respondents differ systematically from nonrespondents. Survey data were self-reported and may be subject to recall or reporting bias. Because public health and DSO-affiliated providers represent a smaller proportion of the workforce and were not oversampled, our study had limited statistical power to examine setting-specific differences. In addition, there are limitations in the BLS data, including declining response rates and margins of error.

Although the study's generalizability is limited, the findings provide valuable insight into EFDA-related regulatory environments and workforce experiences across multiple data sources. Further research could explore dentists' motivations and comfort with delegating expanded functions, particularly RFs as well as actual and perceived value to the practice and the relationship with the regulatory environment. With practices facing rising costs, stagnant reimbursement rates, and workforce shortages, there could be great value in future research that focuses on the productivity and cost benefits of fully using EFDAs. More rigorous research designs will be important to understand how delegation affects practice capacity and access to oral health care.

CONCLUSIONS

More than 50 years after their introduction, EFDAs represent a valuable, yet underdeveloped component of the US dental workforce. This limited study points to key considerations and opportunities for future workforce development. States aiming to introduce or expand EFDA roles should collaborate with dental associations, dental schools, and dental assisting programs to provide EFDA training and create guidance for dentists on using EFDAs and the productivity benefits for doing so. Dental practices can improve EFDA workforce volume, rates, and use by means of incorporating EFDA levels into their operations and work flows and offering corresponding pay increases to providers at that level. Collaboration across organizations and providers is essential for translating an EFDA level "on paper" into a robust workforce that is widely used. ■

DISCLOSURE

Ms. Aronovich is employed by the Dental Assisting National Board. None of the other authors reported any disclosures.

SUPPLEMENTAL DATA

Supplemental data related to this article can be found at: https://doi.org/10.1016/j.adaj.2026.06.009.

Address correspondence to Ms. Aronovich, Dental Assisting National Board, 444 N Michigan Ave, Chicago, IL 60611, e-mail: haronovich@danb.org

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ORCID Numbers. Hanna Aronovich: https://orcid.org/0009-0005-9536-6535; Victoria Nguyen: https://orcid.org/0009-0006-2297-9514; Sophie Wilkinson: https://orcid.org/0009-0006-0504-8208. For information regarding ORCID numbers, go to http://orcid.org.

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A National Analysis of Factors Associated with the Prevalence and Practice of EFDAs

DANB

Why do some states have a robust expanded functions dental assistant (EFDA) workforce, while other states don't? Research published in the *Journal of the American Dental Association* explored several factors.

KEY FINDINGS:



Dentists' support of EFDAs was nearly universal.

92% expressed support for their assistants to become EFDAs

Top ways of providing support:

- On-the-job training
- Offering a pay raise

Regulation did not hinder the EFDA workforce.

EFDA requirements (often education, an exam, or both) did not appear related to EFDA workforce participation rates.



Restorative functions are not widely delegated.

1 out of 3 delegated direct restorations

Saving time was a key motivator



Growing the workforce takes time and resources.

More established EFDA levels, particularly ones that had widespread training and funding available at the time, were associated with higher EFDA rates.



In states with registered EFDAs, nearly half had low EFDA rates (less than 10%).



1 in 4 dentists reported being unsure of state EFDA requirements.



SOLUTION:

Standardizing EFDA requirements and scope of practice could support EFDA acceptance and utilization by dentists and mitigate confusion.

Research source: Journal of the American Dental Association, Sept. 2026.

LICENSE RATIFICATION

RATIFICATION OF LICENSES

As authorized by the Board, licenses to practice dentistry, dental therapy and dental hygiene were issued to applicants who fulfilled all routine licensure requirements. It is recommended the Board ratify the issuance of the following licenses. Complete application files will be available for review during the Board meeting.

DENTAL HYGIENISTS

H9339	BIERMAN, ELIZABETH CLAIRE	2026-08-11
H9340	BRENNAN, MCKENZIE DAWN	2026-08-11
H9341	BAUTISTA CARLOS, JOCELYN	2026-08-11
H9342	WASHBURN, RACHEL	2026-08-11
H9343	KIRYUTA, KELLY R	2026-08-11
H9344	LOPEZ, GABRIELA MICHEL	2026-08-11
H9345	ADNAN, RANIA AHMED	2026-08-18
H9346	RAVAL, CATHERINE GUINEVERE	2026-08-18
H9347	TRUONG, ERICA NGUYEN	2026-08-18
H9348	ORTEGA, SYDNEY NICOLE	2026-08-18
H9349	LAMORE, EYERUS ENDALE	2026-08-18
H9350	MORALES, SANDRA	2026-08-18
H9351	MURO, ABBY LYNN	2026-08-18
H9352	AVERILL, WHITNEY RUTH	2026-08-18
H9353	SULEIMAN-SHUAIB, FATIMAT TEMITOPE	2026-08-18
H9354	COLLINS-WRIGHT, VICTOR ALEXANDER	2026-08-18
H9355	PORTMAN, HAYLEY ALLENE	2026-08-18
H9356	GUZMAN, JOSE MANUEL	2026-08-18
H9357	HSU, KRISTINA ANN	2026-08-18
H9358	HUYNH, PHUONG VO YEN	2026-08-18
H9359	KIM, SUN JIN	2026-08-19
H9360	GREENFIELD, LINDSEY PAIGE	2026-08-21
H9361	ABASCAL GUERRERO, CITLALLI	2026-08-26
H9362	HEDRICK, KATIE	2026-08-26
H9363	GUZMAN, VALERIA STEPHANIE	2026-08-26
H9364	NGUYEN, THIEN NHAT	2026-08-26
H9365	DE LA HOZ, LISSET	2026-08-27
H9366	ZELASKO, JESSICA	2026-08-28
H9367	NGUYEN, TRINITY	2026-08-31
H9368	TINDALL, KAELA	2026-09-03
H9369	GILLIGAN, KELLIE	2026-09-16
H9370	WATTS, BAILEY ALYCE	2026-09-16
H9371	RAMIREZ PINEDO, ELIZABETH KEYLA	2026-09-16

H9372	GARCIA, EBBY MARTINEZ	2026-09-16
H9373	BAIR, LISETTE	2026-09-16
H9374	HARTZ, JESSICA	2026-09-17
H9375	MARFOGLIA, MEAGAN	2026-09-17
H9376	PHAM, ALEXIA	2026-09-22
H9377	BARNES, JENIFER L	2026-09-24
H9378	IKE, EZINNA EBELE	2026-09-24
H9379	LOPEZ, MITCHELL	2026-09-25
H9380	BEAVERS, NICOLE R	2026-10-01
H9381	INTERIAN BE, ANA MARIA	2026-10-01

DENTISTS

D12415	KAYA, ZOIA	2026-08-18
D12416	HAMDAN, MANAL	2026-08-18
D12417	ZAKHARIYA, NADEZHDA	2026-08-18
D12418	SLUNAKER, DUSTIN LEE	2026-08-18
D12419	NARKHEDE, NARITA PANKAJ	2026-08-19
D12420	GHIAM, MONA	2026-08-19
D12421	LIU, CINDY	2026-08-25
D12422	THANASUWAT, BURINRUTT	2026-08-25
D12423	HUMESTON, BRENT MICHAEL	2026-08-31
D12424	CASTELLANO GUTIERREZ, FRANDY ARTURO	2026-09-03
D12425	ADDO, OFORI	2026-09-03
D12426	LEE, PETER Y	2026-09-10
D12427	SEUI, HAYLEY	2026-09-10
D12428	MORRISON, KARISSA ANN	2026-09-14
D12429	LE, VIVIAN	2026-09-22
D12430	NGUYEN, TU NHI	2026-09-24
D12431	HERNANDEZ-GIL, JOSE ALBERTO	2026-09-30
D12432	TRAN, ALEXANDER	2026-09-30
D12433	GREEN, HENRY	2026-10-01
D12434	SAGER, CORY	2026-10-08

DENTAL FACULTY

DF0058	CHANTAROTHORN, KANISA	2026-09-30

LICENSE, PERMIT & CERTIFICATION

Request for reinstatement of an expired license – Teri Lynn Fernlund, R.D.H.

The Board has received a request for the reinstatement of an expired license. OAR 818-021-0085 requires that before a license that has been expired may be reinstated, the applicant must complete several steps. One of the requirements for reinstatement is that the applicant "passes any other qualifying examination as may be determined necessary by the Board after assessing the applicant's professional background and credentials."

Teri Lynn Fernlund (H6910) held a license to practice dental hygiene in Oregon that expired on September 30, 2023. Since Ms. Fernlund's dental hygiene license expired, she has held an active license in Arizona, which was issued in 2022 and expired in 2025. Ms. Fernlund would now like to reinstate her Oregon dental hygiene license so she can resume practicing in Oregon. Ms. Fernlund has submitted a License and Permit Reinstatement Application, fees, proof of continuing education for the renewal cycle(s) during which her license was expired, passed the Board's Jurisprudence Examination,
and has submitted a background check. No other licensing agencies report any adverse action taken against Ms. Fernlund. Board staff submitted an inquiry to the National Practitioners Data Bank and the Healthcare Integrity Data Bank and no negative information regarding Ms. Fernlund has been filed by any other entity in either of these data banks.

Pursuant to OAR 818-021-0085, the Board needs to determine if it is necessary for Ms. Fernlund to take any further examination and whether to reinstate Ms. Fernlund's dental hygiene license.

Relevant Rules:

818-021-0085 – Renewal or Reinstatement of Expired License

Any person whose license to practice as a dentist or dental hygienist has expired, may apply for reinstatement under the following circumstances:
(1) If the license has been expired 30 days or less, the applicant shall:
- (a) Pay a penalty fee of $50;
- (b) Pay the biennial renewal fee; and
- (c) Submit a completed renewal application and certification of having completed the Board's continuing education requirements.

(2) If the license has been expired more than 30 days but less than 60 days, the applicant shall:
- (a) Pay a penalty fee of $100;
- (b) Pay the biennial renewal fee; and
- (c) Submit a completed renewal application and certification of having completed the continuing education requirements.

(3) If the license has been expired more than 60 days, but less than one year, the applicant shall:
- (a) Pay a penalty fee of $150;
- (b) Pay a fee equal to the renewal fees that would have been due during the period the license was expired;
- (c) Pay a reinstatement fee of $500; and
- (d) Submit a completed application for reinstatement provided by the Board, including certification of having completed continuing education credits as required by the Board during the period the license was expired. The Board may request evidence of satisfactory completion of continuing education

courses.

(4) If the license has been expired for more than one year but less than four years, the applicant shall:

(a) Pay a penalty fee of $250;

(b) Pay a fee of equal to the renewal fees that would have been due during the period the license was expired;

(c) Pay a reinstatement fee of $500;

(d) Pass the Board's Jurisprudence Examination;

(e) Pass any other qualifying examination as may be determined necessary by the Board after assessing the applicant's professional background and credentials;

(f) Submit evidence of good standing from all states in which the applicant is currently licensed; and

(g) Submit a completed application for reinstatement provided by the Board including certification of having completed continuing education credits as required by the Board during the period the license was expired. The Board may request evidence of satisfactory completion of continuing education courses.

(5) If a dentist or dental hygienist fails to renew or reinstate his or her license within four years from expiration, the dentist or dental hygienist must apply for licensure under the current statute and rules of the Board.

RECEIVED
SEP 16 2026
Oregon Board of Dentistry

OREGON BOARD OF DENTISTRY
LICENSE AND PERMIT REINSTATEMENT APPLICATION

Return to: Oregon Board of Dentistry
Unit 23
PO Box 4395
Portland, OR 97208-4395

2105 $533.00
1290 $750.00
1707 $8.00

Name TERI LYNN FERNLUND
License # H6910

Licensure Fees:	$533.00
Penalty Fee:	$250.00
Reinstatement:	$500.00
OWHI Survey Fee:	$8.00
Total:	$1,291.00

Please list the address to which you prefer your mail to be sent. At least one address must be a physical street address.

☐ Primary
Business Address

☑ Home
Address

Phone:
Email Address:

NOTE: ALSO COMPLETE AND SIGN ON THE REVERSE
INCOMPLETE FORMS WILL BE RETURNED

Response to Board request for information re: Request for Licensure Requirements Exception – Dr. Zaid Badr

At the August 21, 2026 Board meeting, Dr. Zaid Badr presented a request that the Board provide Dr. Badr with an exception to the Licensure without Further Examination rule 818-021-0011. The Board requested more information be provided by Dr. Badr.

Dr. Badr's response follows the restatement of the original memo from the August 2026 Board meeting. Additional attachments are from Dr. Badr are included.

August 21, 2026 memo:

Request for Licensure Requirements Exception – Dr. Zaid Badr

On June 30, 2026, the Board received an application for dental license without further examination for Zaid Badr.

Dr. Badr completed his dental school education in 2015 at the University of Jordan, in Amman, Jordan. Dr. Badr. Completed a three year graduate program in Operative Dentistry from the University of North Carolina, School of Dentistry, in 2021.

Dr. Badr holds a temporary faculty dental license in Wisconsin and a dental license in Illinois. Dr. Badr has previously held an instructor license in North Carolina (exp. 2021) and a faculty license in Nebraska (exp. 2023).

Dr. Badr's application certifies he has completed 4440 clinical practice hours in the last five years at 1801 W Wisconsin Ave (Marquette University School of Dentistry).

Dr. Badr's application states he has completed the Board required 40 hours of Continuing Education in the two years prior to submitting his application to the Board.

Dr. Badr supplied proof of passing the clinical examinations in 2024 and 2025.

Pursuant to OAR 818-021-0011 the Board needs to decide if they will give exception to Dr. Badr's residency certification in operative dentistry as acceptable to the required completion of a postdoctoral General Dentistry Residency program of not less than two years at a dental school accredited by the Commission on Dental Accreditation of the American Dental Association.

Relevant Rule:

818-021-0011
Application for License to Practice Dentistry Without Further Examination

(1) The Oregon Board of Dentistry may grant a license without further examination to a dentist who holds a license to practice dentistry in another state or states if the dentist meets the requirements set forth in ORS 679.060 and 679.065 and submits to the Board satisfactory evidence of:

(a) Having graduated from a school of dentistry accredited by the Commission on Dental Accreditation of the American Dental Association; or

(b) Having graduated from a dental school located outside the United States or Canada, completion of a predoctoral dental education program of not less than two years at a dental school accredited by the Commission on Dental Accreditation of the American Dental Association or completion of a postdoctoral General Dentistry Residency program of not less than two years at a dental school accredited by the Commission on Dental Accreditation of the American Dental Association, and proficiency in the English language; and

(c) Having passed the dental clinical examination conducted by a regional testing agency, by a state dental licensing authority, by a national testing agency or other Board-recognized testing agency; and

(d) Holding an active license to practice dentistry, without restrictions, in any state; including documentation from the state dental board(s) or equivalent authority, that the applicant was issued a license to practice dentistry, without restrictions, and whether or not the licensee is, or has been, the subject of any final or pending disciplinary action; and

(e) Having conducted licensed clinical practice in Oregon, other states or in the Armed Forces of the United States, the United States Public Health Service or the United States Department of Veterans Affairs for a minimum of 3,500 hours in the five years immediately preceding application. Licensed clinical practice could include hours devoted to teaching by dentists employed by a dental education program in a CODA accredited dental school, with verification from the dean or appropriate administration of the institution documenting the length and terms of employment, the applicant's duties and responsibilities, the actual hours involved in teaching clinical dentistry, and any adverse actions or restrictions; and

(f) Having completed 40 hours of continuing education in accordance with the Board's continuing education requirements contained in these rules within the two years immediately preceding application.

(2) Applicants must pass the Board's Jurisprudence Examination.

(3) Prior to initial licensure, an applicant must complete a one-hour pain management course specific to Oregon provided by the Pain Management Commission of the Oregon Health Authority (Effective July 1, 2022).

(4) A dental license granted under this rule will be the same as the license held in another state; i.e., if the dentist holds a general dentistry license, the Oregon Board will issue a general (unlimited) dentistry license. If the dentist holds a license limited to the practice of a specialty, the Oregon Board will issue a license limited to the practice of that specialty. If the dentist holds more than one license, the Oregon Board will issue a dental license which is least restrictive.

Note: Illinois rule for application for licensure:

Ill. Admin. Code tit. 68, § 1220.100 - Application for Licensure

An applicant for a license to practice dentistry in Illinois shall file an application on forms supplied by the Division that shall include:

a) For graduates from a dental college or school in the United States or Canada, certification of successful completion of 60 semester hours or its equivalent of college pre-dental education, and graduation from a dental program specified in Section 1220.140.

b) For graduates from a dental college or school outside of the United States or Canada:

1) Certification of graduation from a dental college or school; and

2) Clinical Training

A) Certification from an approved dental college or school in the United States or Canada that the applicant has completed a minimum of 2 years of general dental clinical training at the school in which the applicant met the same level of scientific knowledge and clinical competence as all graduates from that school or college. The 2 years of general dental clinical training shall consist of:

i) 2850 clock hours completed in 2 academic years for full-time applicants; or

ii) 2850 clock hours completed in 4 years with a minimum of 700 hours per year for part-time applicants; or

B) In the alternative, certification, from the program director of an accredited advanced dental education program approved by the Division, of completion of no less than 2 academic years may be substituted for the 2 academic years of general dental clinical

training. The accredited advanced dental education program must have sufficient clinical and didactic training. An advanced dental education clinical program in Prosthodontics, pediatric dentistry, periodontics, endodontics, orthodontics, and oral and maxillofacial surgery is acceptable under this Part;

In summary: does the Board find cause to approve Dr. Badr's request for exception to the licensure requirements for an applicant to have completed a postdoctoral General Dentistry Residency program of not less than two years at a dental school accredited by the Commission on Dental Accreditation of the American Dental Association?

Dear Members of the Oregon Board of Dentistry:

As I stated in my previous response, I would like to begin by bringing to the Board's attention a significant new development that directly relates to the central issue discussed at the August 21, 2026 meeting.

At its Summer 2026 meeting, the Commission on Dental Accreditation (CODA) formally adopted new Accreditation Standards for Advanced Dental Education Programs in Operative Dentistry, Cariology, and Biomaterials. Of particular relevance, CODA also directed that an Operative Dentistry educator, nominated by the Academy of Operative Dentistry, be added to CODA's **Postdoctoral General Dentistry Review Committee**. CODA separately identifies the Postdoctoral General Dentistry Review Committee, which oversees the Advanced Education in General Dentistry, General Practice Residency, and Advanced Education in Operative Dentistry, Cariology, and Biomaterials programs, as distinct from its specialty-specific review committees in Endodontics, Periodontics, Prosthodontics, Oral and Maxillofacial Surgery, and other recognized disciplines.

https://coda.ada.org/sitecore/content/ADA-Organization/ADA/CODA/home/accreditation/meeting-materials

I believe this development is highly relevant because the principal concern raised during the Board meeting was whether my Operative Dentistry residency should be considered postgraduate training in general dentistry. CODA's current structure now provides strong, independent support for that classification. I am not suggesting that these newly adopted standards retroactively make the UNC program I completed from 2018 through 2021 CODA-accredited. Rather, CODA's decision provides authoritative contemporary evidence regarding how advanced education in Operative Dentistry, Cariology, and Biomaterials fits within the national dental framework as Postdoctoral General Dentistry Residency.

This is also consistent with the Board's own August 25 correspondence, which expressly states that "Operative Dentistry is considered a branch, or discipline of General Dentistry." The Board explained that the additional questions were intended to obtain more information regarding the variety, type, and quantity of my residency clinical activity.

Since receiving the Board's request, I have made substantial efforts to recover contemporaneous records from my UNC email, official transcript, schedules, course materials, seminar records, program guidelines, and other documents. I am providing the information available to me below. Certain detailed institutional records, such as historical year-by-year CDT procedure reports, are not records that a former resident would ordinarily request or maintain. I requested this information from UNC; however they were unable to provide a complete, detailed, and fully accurate record of my clinical procedures because the University transitioned to a different electronic patient record system in 2020, during my residency.

I would also respectfully ask that the Board, when considering my application, review the complete correspondence previously submitted by me and my attorney, including the supporting materials

addressing the recognition and classification of operative dentistry as general dentistry by multiple national entities, including the ADA, UNC, American Board of General Dentistry and now CODA. During the prior meeting, it appeared that some of that information submitted to the board prior to its meeting may not have been fully considered or included in the public packet.

UNC's written program guidelines describe the Advanced Education Program in Operative Dentistry as a full-time, three-year program, with scheduled activities generally Monday through Friday from 8:00 AM to 5:00 PM. Graduation required completion of all program obligations, including patient care, clinical teaching, didactic education, and research. Residents were required to obtain North Carolina clinical credentials before independently providing care or supervising DDS clinics, and to manage emergencies involving their patients.

With that context, I respectfully provide the following responses to the Board's twelve requests.

Dr. Badr's response to the Board requests – in order, after each Board submitted question

1. Provide documentation to show the didactic and clinical training provided as advanced level of skill and/or case complexity beyond that accomplished in pre-doctoral training in the following disciplines:
a) operative dentistry
b) restoration of the edentulous space
c) periodontal therapy
d) endodontic therapy
e) oral surgery
f) evaluation and treatment of dental emergencies
g) pain and anxiety control utilizing behavioral and/or pharmacological techniques
h) other

Dr. Badr's response:

1. Advanced didactic and clinical training
The Advanced Education Program in Operative Dentistry and Biomaterials combined longitudinal clinical patient care with advanced didactic coursework, literature review, clinical seminars, interdisciplinary education, teaching, and research. The program's principal emphasis was advanced operative and restorative dentistry within a comprehensive patient-care model.

Operative dentistry. My training included continuous enrollment in the Graduate Operative Clinic together with Operative Dentistry Seminars, Clinical Seminars, Literature Review, Graduate Dental Materials, and related coursework. The program's structured clinical seminars required residents to evaluate and present comprehensive patient cases, including medical and dental history, complete charting, radiographic interpretation, diagnosis, sequencing of treatment, treatment performed, prognosis, and maintenance.

Advanced restorative training included direct and indirect restorations, adhesive dentistry, esthetic dentistry, fixed prosthodontic procedures, management of endodontically treated teeth, occlusion, implant restorations, and contemporary digital techniques. The program's documented preparation exercises included PFM and all-ceramic restorations, fixed partial dentures, monolithic zirconia, porcelain veneers, gold inlays and onlays, and provisional restorations.

Restoration of the edentulous space. The curriculum included fixed, removable, and implant-supported approaches to replacement of missing teeth. Documented education included complete dentures and digital dentures, principles of removable partial denture design, fixed prosthodontics, pontic design, implants, implant-supported overdentures, implant treatment planning, implant provisionalization, and implant restoration.

Periodontal therapy. Periodontal diagnosis and management were integrated into comprehensive care and restorative treatment planning. Clinical seminar requirements expressly included complete periodontal charting and periodontal diagnosis. My curriculum also included PERI 820 and PERI 821, including implant and clinical implantology education. Additional documented activities addressed periodontal classification and diagnosis, peri-implantitis, root coverage, soft-tissue management, guided tissue regeneration, ridge augmentation, sinus augmentation, periodontal-restorative relationship, and the diagnosis of common periodontal conditions.

Endodontic therapy. Endodontics was incorporated through diagnosis, treatment planning, emergency care, management of routine endodontic conditions within general dentistry, and restoration of endodontically treated teeth. The interdisciplinary seminar curriculum included a dedicated Endodontics diagnosis session, while subsequent faculty calibration included endodontic diagnosis, pulp testing, treatment pathways, trauma, and clinical protocols. The program's emergency and trauma materials addressed pulpal and periapical diagnosis, luxation injuries, fractures, avulsion, pulp capping, pulpotomy, root-canal treatment, and decisions regarding treatment versus referral. The advanced operative curriculum also specifically included restoration of endodontically treated teeth.

Oral surgery. My training included surgical and implant-related education relevant to comprehensive general dentistry, including surgical protocols, implant treatment planning, guided implant surgery, ridge augmentation, sinus augmentation, peri-implant disease, and interdisciplinary implant treatment. We were also instructed on piezosurgery and ridge-splitting concepts.

Evaluation and treatment of dental emergencies. Emergency management was an explicit responsibility of Operative Dentistry residents. UNC's written program guidelines state that graduate residents were expected to manage emergencies involving their patients of record and to provide emergency coverage when another graduate resident was unavailable. We were on an on-call schedule to manage emergencies, ranging between 2-5 days a month. We also participated in formal after-hours emergency call.

2. Provide the programs written curriculum plan for the first year. Include a description of structured clinical experiences and didactic sessions that were designed to achieve the written goals and objectives or competencies for the first year training

Dr. Badr's response:

2. First-year written curriculum plan
My first year extended from July 2018 through June 2019. The official transcript and contemporaneous schedules document a structured combination of advanced coursework, Graduate Operative Clinic, seminars, interdisciplinary education, teaching, and research.

Courses and structured educational experiences included Applied Pharmacology, Head and Neck Anatomy, Oral Biology, Research Design, Interdisciplinary Care Conference, Graduate Dental Materials, Operative Dentistry Seminar, Literature Review, Clinical Seminar, Graduate Operative Clinic, Dental Implants, Clinical Implantology, and Advanced Oral Radiology.

3. Provide the Board a description and schedule of all rotations you completed during the first year of your program.

Dr. Badr's response:

3. First-year rotations and schedule

The program was not organized primarily as a hospital-based GPR with discrete month-long specialty rotations. Rather, training was longitudinal and integrated. I remained responsible for ongoing patient care in the Graduate Operative Clinic while simultaneously participating in specialty and interdisciplinary education, teaching, seminars, and research.

My approximate first-year weekly allocation was 20 hours of clinical patient care, 8 hours of teaching, 11 hours of didactic coursework/seminars, and 1 hour of research. Detailed contemporaneous schedules are provided with this submission.

4. Provide the Board with a comprehensive list of CDT or other procedures codes you completed while enrolled in the programs first year. These procedures should be broken up into sections that show the quantity of each. CDT codes related to the following disciplines of General Dentistry is requested:
a) operative dentistry
b) restoration of the edentulous space
c) periodontal therapy
d) endodontic therapy
e) oral surgery
f) evaluation and treatment of dental emergencies
g) pain and anxiety control utilizing behavioral and/or pharmacological techniques
h) other

Dr. Badr's response:

4. First-year CDT/procedure codes and quantities

I do not currently possess a comprehensive copy of the institutional year-by-year CDT procedure report from my first year. I requested this information from UNC; however, they were unable to provide a complete, detailed, and fully accurate record of my clinical procedures because the University transitioned to a different electronic patient record system in 2020, during my residency.

5. Provide the programs written curriculum plan for the second year. Include a description of structured clinical experiences and didactic sessions that were designed to achieve the written goals and objectives or competencies for resident training.

Dr. Badr's response:

5. Second-year written curriculum plan

My second year extended from July 2019 through June 2020 and continued the longitudinal clinical-care model.

The academic record and schedules document continued Graduate Operative Clinic, Operative Dentistry Seminar, Clinical Seminar, Literature Review, Biostatistics, Applied Dental Research, teaching, interdisciplinary education, and research.

The 2019 OPER 704 seminar sequence provides particularly clear evidence of the breadth of the second-year curriculum. It included patient evaluation and assessment; oral and maxillofacial pathology; endodontic, periodontal, orthodontic, prosthodontic, pediatric, and operative diagnoses; management of anxious and geriatric patients; and comprehensive treatment planning.

The Spring 2020 Clinical Seminar further required residents to present comprehensive cases incorporating medical and dental history, complete charting, periodontal diagnosis, radiographic interpretation, treatment planning, clinical documentation, prognosis, and maintenance. Presentations were expected to be supported by scientific evidence.

6. Provide the Board a description and schedule of all rotations you completed during the second year of your program.

Dr. Badr's response:

6. Second-year rotations and schedule

As in the first year, the program used longitudinal comprehensive patient care rather than isolated specialty blocks. I continued to provide direct patient care in the Graduate Operative Clinic while participating in clinical teaching, specialty and interdisciplinary seminars, literature review, research, implant-related education, and emergency coverage.

Exposure to other disciplines occurred through interdisciplinary conferences, specialty seminars, faculty calibration, comprehensive treatment planning, and management of the resident's own patients rather than by removing the resident from the primary clinical program for prolonged specialty rotations.
The typical weekly allocation was approximately 20 hours of direct clinical patient care, 8 hours of clinical teaching, 4 hours of didactic/seminar activities, and 8 hours of research.

7. Provide the Board with a comprehensive list of CDT or other procedures codes you completed while enrolled in the program as a second year resident These procedures should be broken up into sections that show the quantity of each. CDT codes related to the following disciplines of General Dentistry is requested:
a) operative dentistry
b) restoration of the edentulous space
c) periodontal therapy
d) endodontic therapy
e) oral surgery
f) evaluation and treatment of dental emergencies
g) pain and anxiety control utilizing behavioral and/or pharmacological techniques
h) other

Dr. Badr's response:

7. Second-year CDT/procedure codes and quantities

I do not currently possess the complete institutional CDT/procedure report for my second year. I requested this information from UNC; however, they were unable to provide a complete, detailed, and fully accurate

record of my clinical procedures because the University transitioned to a different electronic patient record system in 2020, during my residency.

8. Provide the programs written curriculum plan for the third year. Include a description of structured clinical experiences and didactic sessions that were designed to achieve the written goals and objectives or competencies for resident training.

Dr. Badr's response:

8. Third-year written curriculum plan
My third year extended from July 2020 through June 2021 and continued advanced clinical care, clinical teaching, seminars, professional development, and research.

The written program requirements are especially important here. UNC expressly required residents to continue fulfilling patient-care and clinical-teaching obligations through completion of the program, regardless of when the master's thesis was defended.

The Fall 2020 Operative Dentistry Seminar III curriculum included providing clinical consultations, occlusal diagnosis and disease, TMJ and centric relation, anterior guidance, posterior occlusion, treatment determination, occlusal splints, equilibration, implant treatment planning and surgical-guide fabrication, digital wax-up and restoration design, implant provisionalization and restoration, veneers, CAD/CAM inlays and onlays, and restoration of endodontically treated teeth.

During the first half of the third year, my typical schedule included approximately 20 hours per week of direct clinical patient care, 8 hours of clinical teaching, 4 hours of didactic coursework/seminars, and 8 hours of research.

During the second half of the third year, the schedule consisted primarily of approximately 20 hours per week of direct clinical care and 20 hours per week of clinical teaching, with occasional seminars.

The comprehensive written examination required after completion of the second year also occurred as part of this progression and required a passing score for graduation.

9. Provide the Board a description and schedule of all rotations you completed during the third year of your program.

Dr. Badr's response:

9. Third-year rotations and schedule

The third year again followed the longitudinal model rather than a hospital-style specialty rotation structure. I continued to provide Graduate Operative clinical care while participating in clinical teaching, seminars, and completion of the research requirement.

UNC's program guidelines independently confirm that clinical care and teaching obligations continued through the completion of the full three-year residency.

The first half of the year consisted approximately of 20 hours of clinical patient care, 8 hours of clinical teaching, 4 hours of didactic/seminar activity, and 8 hours of research each week. The second half consisted primarily of approximately 20 hours of clinical patient care and 20 hours of clinical teaching each week, together with occasional seminars.

10..Provide the Board with a comprehensive list of CDT or other procedures codes you completed while enrolled in the program as a third year resident. These procedures should be broken up into sections that show the quantity of each. CDT codes related to the following disciplines of General Dentistry is requested:

a) operative dentistry
b) restoration of the edentulous space
c) periodontal therapy
d) endodontic therapy
e) oral surgery
f) evaluation and treatment of dental emergencies
g) pain and anxiety control utilizing behavioral and/or pharmacological techniques
h) other

Dr. Badr's response:

10. Third-year CDT/procedure codes and quantities

I requested this information from UNC; however, they were unable to provide a complete, detailed, and fully accurate record of my clinical procedures because the University transitioned to a different electronic patient record system in 2020, during my residency.

11. Provide the Board a copy of your master's thesis and research projects. When did you complete your oral defense? How much time were you allotted for research and academic interests each year?

As of August 24, 2026, the UNC website https://dentistry.unc.edu/advanced-dental-education/operative-biomaterials/ states:

"Our program prepares graduates for a successful career in dental education and other areas through the use of contemporary operative dentistry skills and technologies"

..."Graduates also have the potential for careers such as clinical or technical research directors in companies with a dental emphasis, consultants to dental corporations, insurance providers, public health policy organizations, professional dental societies, philanthropic dental research, and education funding agencies."

Dr. Badr's response:

11. Master's thesis, research projects, oral defense, and research allocation

Research was an integrated requirement of the residency rather than its primary purpose. UNC required every graduate resident to conduct research and scientific writing as part of the process of producing a master's thesis. The thesis had to be successfully defended and prepared in publishable form before completion of the graduate program, and at least one manuscript was expected to be submitted to an indexed peer-reviewed journal. Residents were also required to present their research.

I successfully completed my master's thesis defense on March 31, 2021. My surviving records independently document that date. A copy of the master's thesis can be provided with the supporting materials.

The amount of protected research time varied by year. During the first year, approximately 1 hour per week was allocated to research. During the second year and first half of the third year, approximately 8 hours per week were allocated to research. During the second half of the third year, there was no separate regular research block; my schedule consisted primarily of approximately 20 hours per week of direct clinical patient care and 20 hours per week of clinical teaching, together with occasional seminars.

This schedule demonstrates that the research component complemented rather than replaced the program's substantial clinical responsibilities.

12. Provide the Board with written documentation and a statement directly from the current Dean of the University of North Carolina Adams School of Dentistry showing that the three year 3-year Masters of Science and certificate program you completed in Operative Dentistry and Biomaterials is directly equivalent to a two year postdoctoral General Dentistry Residency program. Course equivalency or other measures to demonstrate equal scope and level of knowledge is required by the Board. Additionally, Provide the Board with the UNC Dean's direct email and phone number in case additional information and documentation is required.

Dr. Badr's response:

12. Equivalency to a two-year postdoctoral General Dentistry residency

I have attached a letter from the current program director supporting this point. Here is the contact information for the current dean and current program director:

Current Dean: Dr. Janet Guthmiller, janet_guthmiller@unc.edu, (319) 331-7466.

Current Program Director and Department Chair: Dr. Ibrahim Duqum, ibrahim_duqum@unc.edu, (919) 537-3964.

I would, however, respectfully ask the Board to consider the objective evidence relevant to that determination.

The curriculum and records submitted above demonstrate education extending across comprehensive diagnosis and treatment planning, operative dentistry, periodontics, endodontics, prosthodontics, replacement of missing teeth, implant dentistry, pharmacology, pain and anxiety control, radiology, oral pathology, emergencies, medically complex patients, and other areas relevant to general dental care.

There is now additional independent evidence regarding the classification of this type of postgraduate education. At its Summer 2026 meeting, CODA adopted accreditation standards specifically for Advanced Dental Education Programs in Operative Dentistry, Cariology, and Biomaterials and directed that an Operative Dentistry educator be appointed to its **Postdoctoral General Dentistry Review Committee**. This provide highly relevant national accreditation evidence that advanced Operative Dentistry education is being incorporated into CODA's postdoctoral general-dentistry review structure rather than treated as a separate specialty review committee.

Taken together, I believe the duration, clinical structure, curricular breadth, competency assessment, comprehensive patient-care responsibilities, and current CODA framework provide substantial objective evidence for the Board's evaluation of my postgraduate training.

Consideration of my application and competence as a whole

Finally, I respectfully ask that the Board evaluate these residency records in the context of the totality of my professional record, rather than requiring the residency, standing alone, to establish specialty-level competency in every discipline of dentistry.

During the Board meeting, I was specifically asked whether my residency included endodontic and periodontal training. I explained that the program followed a comprehensive patient-care model in which I served as the primary dental provider for my patients. When patients required routine procedures within the scope of general dentistry and within my competence, those procedures were incorporated into their overall treatment. When care required advanced specialty-level management, the patient was referred to the appropriate specialty service. That is how comprehensive general dentistry is ordinarily practiced.

The curriculum and records support that explanation. Residents maintained longitudinal responsibility for patient care, handled patient emergencies, participated in interdisciplinary education, and were required to diagnose, treatment plan, treat, evaluate prognosis, and provide maintenance planning for comprehensive cases.

At the prior meeting, one question raised was how the Board could otherwise evaluate my competency in areas such as endodontics and periodontics. As was noted during that discussion, I successfully completed the ADEX clinical licensing examination, which evaluates clinical competencies including endodontic and periodontal components. My qualifications should therefore not be evaluated through the residency title alone.

In addition to my postgraduate training, my professional record includes more than 4,400 hours of clinical practice in the United States within the last five years with no disciplinary history; dental licensure and clinical practice dating to 2015; clinical practice in the United States dating to 2018; a North Carolina intern dental license; Nebraska and Wisconsin faculty dental licenses; an unrestricted Illinois dental license; and successful completion of the applicable licensing examinations, including ADEX and NBDE.

I have also held substantial responsibility for comprehensive patient care in U.S. CODA-accredited dental schools. At UNC and UNMC, I supervised students providing clinical treatment to patients. At Marquette, I served as a Comprehensive Patient Management Group Leader, with responsibility for overseeing the overall care provided by students and faculty in my clinic, including routine dental treatment and emergencies. I later served as Director of the Technological Innovation Center, where I similarly held responsibility for clinical activities performed by students and faculty.

I have supervised patient care, evaluated student performance, corrected clinical deficiencies, and helped determine whether treatment met acceptable standards. Those responsibilities reflect a level of trust in my clinical judgment that is directly relevant to an assessment of competence. I am not suggesting that faculty experience alone should determine licensure, only that it should be meaningfully considered as part of the totality of my professional record.

I also believe it is important to distinguish competency in general dentistry from advanced specialty-level competency. I am seeking licensure as a general dentist, not as an endodontist, periodontist, oral surgeon, or other specialist. Like any general dentist, I understand my strengths, limitations, and boundaries. I diagnose, explain the findings to my patients, offer treatment options, explain the advantages and disadvantages of each option. I would not, however, undertake a complex endodontic, periodontal, surgical, or other specialty-level procedure beyond my training or experience; I would refer that patient to the appropriate specialist. Appropriate case selection, recognition of one’s limitations, and referral are themselves essential components of safe general dental practice.

My professional record has also been recognized through significant teaching, academic, and professional honors, including the 2026 ADEA Faculty Award, the Golden Apple Award at Marquette University, the Faculty Recognition Award at the University of Nebraska Medical Center, the Spurgeon Award for best resident at UNC, and Fellowship in the International College of Dentists, USA Section.

Taken together, I respectfully ask the Board to evaluate my application based on the totality of my professional record, rather than placing disproportionate weight on the title of one residency program or on historical records that a former resident would not ordinarily retain.

I am not asking the Board to lower its standards or waive competency requirements. I am asking that the existing pathway be applied to what the complete record demonstrates: a three-year full-time U.S. postgraduate clinical program in a CODA-accredited institution; sustained comprehensive patient-care responsibility; interdisciplinary general-dentistry education; formal clinical and didactic assessment; successful U.S. clinical licensing examinations; years of licensed clinical practice without disciplinary action; and substantial responsibility for supervising, evaluating, and ensuring safe patient care within CODA-accredited dental schools.

I respectfully believe that this record demonstrates that I have practiced safely and competently for many years and have repeatedly been entrusted with substantial responsibility for comprehensive clinical care.

I also believe that allowing an experienced clinician and educator with this background to practice in Oregon would not simply benefit me personally. Oregon would gain a provider with extensive clinical, educational, and supervisory experience who has demonstrated a sustained commitment to safe patient care and to the dental profession.

Thank you for your consideration.

Respectfully,
Zaid Badr, DDS, MS, MFD RCSI, FIC

Post-Meeting Highlights

August 6-7, 2026

The Commission on Dental Accreditation serves the public and dental professions by developing and implementing accreditation standards that promote and monitor the continuous quality and improvement of dental education programs.

Advanced Dental Education

Operative Dentistry, Cariology, and Biomaterials: New Standards

CODA adopted the Accreditation Standards for Advanced Dental Education Programs in Operative Dentistry, Cariology, and Biomaterials with an **implementation date of January 1, 2027**. CODA also directed a new member to the Postdoctoral General Dentistry Review Committee for the role of Operative Dentistry educator nominated by the Academy of Operative Dentistry effective January 1, 2027.

In June 2024, the Academy of Operative Dentistry (AOD) requested that CODA establish accreditation for Advanced Dental Education Programs in Operative Dentistry, Cariology, and Biomaterials. After determining the request met CODA's criteria for a new dental education discipline, CODA approved development of an accreditation process in January 2025 and appointed an Ad Hoc Committee to draft standards. The committee developed proposed standards covering key areas including educational programs, faculty, patient care, and research. In August 2025, CODA approved circulation of the draft standards to communities of interest for a one-year comment period. These new standards can be found on the Standards page on CODA's website.

Dental Anesthesiology: Revisions to Standards

CODA adopted proposed revisions to the Accreditation Standard 3-2 (program director board certification) for Advanced Dental Education Programs in Dental Anesthesiology for **January 1, 2027 implementation.** The revision comes after a request from the American Dental Board of Anesthesiology (ADBA) to update Standard 3-2 to specify that program directors must be certified by the ADBA, the only dental anesthesiology certifying board recognized by the National Commission on Recognition of Dental Specialties and Certifying Boards. Revisions can be found on the Standards page on CODA's website.

Oral and Maxillofacial Surgery: Policies around Program Closure

CODA directed the Standing Committee on Documentation and Policy Review to review CODA's policies related to program closure. Following the abrupt closure of an Oral and Maxillofacial Surgery residency program with less than two months' notice, the OMS Review Committee (OMS RC) reviewed CODA's policies governing program discontinuance and closure. CODA concurred with the OMS RC's recommendation that CODA's existing policies should be examined to determine whether additional safeguards are needed.

Orofacial Pain: Revisions to Standards

CODA adopted the proposed revisions to Standard 211 (Clinical Sciences) for Advanced Dental Education Programs in Orofacial Pain, for **implementation on July 1, 2027**. At its Winter 2026 meeting, the Committee reviewed further comments and focused on refining Standard 2-11e, ultimately recommending updated language. The revisions can be found on the Standards page on CODA's website.

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THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Attachment 3

Department of Operative Dentistry

Advanced Education Program in Operative Dentistry

GENERAL PROGRAM GUIDELINES AND RESPONSIBILITIES OF OPERATIVE DENTISTRY GRADUATE STUDENTS

Revised July 3, 2017

I. General Information

1. The Advanced Education Program in Operative Dentistry at the University of North Carolina at Chapel Hill is a full-time, three-year program. As such, graduate students will have scheduled activities Monday-Friday, from 8:00AM to 5:00PM except when indicated.

2. The program typically starts the first week of July and ends June 30 (of year 3). Graduate students need to be available prior to July 1 for orientation sessions scheduled by the Office of Advanced Dental Education. Regardless of the date of the thesis defense (for MS students), graduate students will only graduate from the program when all program obligations, including patient care and clinical teaching, have been completed, which usually occurs on June 30 of the third year.

3. The successful presentation and writing of a thesis document (approved by a thesis committee) and the completion of all clinical and teaching obligations are required for graduation.

4. Detailed and extensive information about the program, including UNC SOD Policies, Program Policies, Curriculum and Courses, Course Materials, Schedules, Clinic Guidelines, Thesis Information and Links, Library Resources, etc, can be found online at https://www.dentistry.unc.edu/experience/policies/#ade and the program's Sakai page https://sakai.unc.edu/portal under the course name "Grad Operative". You will need your ONYEN and password to access this resourceful website.

5. All students are expected to comply with the UNC honor code. https://studentconduct.unc.edu/sites/studentconduct.unc.edu/files/documents/Instrument.pdf

6. International students must comply with UNC Office of International Affairs (International Center, http://oisss.unc.edu/) rules and regulations concerning legal residence in the United States.

7. Use and distribution of teaching materials you are given while in the program, including PowerPoint files, images, slides, videos, handouts, and other files are only allowed with written permission of the author(s). These materials are to be used to support your training while you are here, and their unauthorized copy and distribution is a violation of copyright laws.

8. Please realize this is a dynamic program and changes may occur during your three years in the program. When these changes do occur, you will be informed by the Program Director and/or the Department Manager, and will be expected to abide by those changes.

II. Patient Care

1. All enrolled Operative Dentistry graduate students will provide patient care during 3-4 clinic sessions each week until successful completion of the program. See the "Clinic Guidelines" Sakai page for specific details.

2. All dentists enrolled in an Advanced Education Clinical Program must be credentialed by the North Carolina State Board of Dental Examiners (NCSBDE) within two months of the effective start date of their program -exceptions may apply to Military Dentists. Until the NCSBDE intern license is received, students cannot provide clinical care or GTA supervision in DDS clinics. If the intern license is not issued within two months of the start date of the program, students may seek an extension of this deadline by submitting an appeal, in writing, to the Dean of the School of Dentistry prior to the expiration of the two-month deadline. The time in the program may be extended upon decision by the program's performance review committee.

3. Graduate students are required to charge an appropriate fee for treatment rendered according to the School's master fee schedule, and, within reason, ensure that the patient pays the fee. Monthly report detailing goals, production and collections are available to track performance.

4. Graduate students are expected to handle emergencies for their patients of record, but if he/she is not available, any available graduate students are expected to cover the emergency during regular School of Dentistry operating hours. See the document "Graduate student on Call Responsibilities" on the "Clinic Guidelines" Sakai page for specific details.

5. Treating patients outside the School of Dentistry is prohibited. Also, treating patients within the school without faculty coverage or after hours is prohibited.

III. Teaching

1. Graduate students will be involved in teaching preclinical laboratory courses and in supervising predoctoral clinics throughout the program.

2. If you are assigned teaching responsibilities that you cannot meet, you must arrange coverage by another graduate student or faculty member, and inform the Department Manager of the arrangement

3. When supervising predoctoral students in preclinical laboratory courses or predoctoral clinics, graduate students should be respectful and remember that (a) they are representing the department, and (b) they are role models for the students.

4. When supervising students in predoctoral clinics, Electronic Patient Records should be reviewed and signed, as well as grades assigned, in a timely manner after the clinic period (within 24 hs if possible). Graduate students should actively work with DDS students to ensure complete and logically organized progress notes and should communicate with DDS Group Directors when DDS students fail to respond.

IV. Didactic

1. Attendance and participation is required at all seminars and lectures in all of the scheduled courses. Schedules will be distributed a few weeks before the start of each semester. A list of courses is available in Sakai under "Curriculum" and "Course Materials."

2. Operative Dentistry graduate students are allowed to take courses outside of the Operative Dentistry curriculum, so long as the courses do not conflict with the Operative Dentistry schedule and compromise the graduate student's progress towards graduation. Written approval must be obtained from the Program Director prior to enrolling in a course outside the Operative Dentistry curriculum.

3. A comprehensive written examination will be given following completion of the second year (during the fall semester of the 3rd year). The exact date will be determined at the end of the second year spring semester as soon as possible. Graduate students will be responsible for all materials covered in Operative Dentistry during the program up to that date. A minimum score of 70% is required for students to graduate from the program.

V. Research

1. All graduate students will be involved in research and scientific writing during the program, as part of the process of generating a master's thesis.

2. A faculty advisor and thesis committee should be convened no later than the Spring semester of year 1.

3. Graduate students are responsible for scheduling periodic meetings with their advisor and thesis committee, and for keeping them and the Program Director informed about their thesis research and writing progress. Thesis deadlines will be communicated by the Office of Academic Affairs, and it is the graduate student's responsibility to comply with them.

4. Masters theses must be defended and written in publishable form before completing the graduate program. At least one manuscript should be submitted for publication in an indexed peer-review journal before program completion.

5. Graduate students are encouraged to elaborate a timeline spanning thesis protocol development to thesis defense. The thesis defense should be scheduled no later than March of year 3, to allow time to revise the written thesis before the graduate school thesis deadline which is typically in April for the May graduation and June completion of all program requirements.

6. Presentation of graduate students' research at the NC Section of the AADR meeting (Dental Research in Review Day) is required each year of the program.

7. Third year graduate students are required to present their thesis research results at the annual AADR meeting which typically occurs in the Spring semester following DRRD, and coincides with the IADR meeting biennially.

8. Graduate students are strongly encouraged to become student members of the Academy of Operative Dentistry and attend the AOD annual meeting. Meeting registration is normally waved for those presenting a Table Clinic, so Table Clinic submission is highly encouraged.

V. Research (continued)

9. Graduate students are encouraged to make presentations at other national or international meetings when funding is available through the department, travel grants, scholarship, or via their thesis advisor (grants).

VI. Eligibility

1. Academic eligibility is defined in the Graduate School Handbook (http://handbook.unc.edu/table.html). Students are encouraged to become familiar with eligibility and reinstatement procedures. In summary, a student becomes academically ineligible if s/he receives a grade of F (fail) or nine or more hours of L (low pass), or if s/he fails a written or oral examination for the second time.

VII. Time Away from the Program

1. Students are permitted two weeks of vacation per year, for a total of six weeks of vacation during their three-year program.

   https://www.dentistry.unc.edu/wp-content/uploads/2014/08/Leave-Guidelines-for-Advanced-Education-Programs.pdf?b087d9

2. Students are not permitted to take more than a total of six weeks of vacation during their three-year program. In the third year, accrued leave over the four week yearly maximum of all types of leave (per ADE Guidelines) will be forfeited.
3. Graduate students should not schedule vacation time when classes are in session.
4. Requests for any time away, including vacation time, must be approved by the Program Director.
5. Reasonable travel time to and from professional meetings is exempt from this policy, but all travel, including to and from meetings, should be approved by the program director.
6. Any time you must leave the School during the school day, the departmental manager should be advised and be given a telephone number where you can be reached.

I understand these guidelines and my responsibilities as an Operative Dentistry advanced education student and will comply by them. I understand that if I do not comply with the responsibilities given here, it may be grounds for dismissal from the program.

Zaid Badr
Graduate Student

7/25/2018
Date

Program Director

07/26/18
Date

Treatment completed by Dr. Zaid Badr during his residency in the Graduate Operative & Biomaterials program.

D0140 - Limited Oral Evaluation	38
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D0190 - Screening of A Patient	70
D0210 - Intraoral Comprehensive Series	4
D0220 - Intraoral Periapical First Image	9
D0230 - Intraoral Periapical Each Additional	8
D0330 - Panoramic Image	5
D0470 - Diagnostic Casts	31
D1206 - Topical Application of Fluoride Varnish	4
D1208 - Topical Application of Fluoride	3
D1354 - Application of Caries Arresting Medicament	4
D2140 - Amalgam - One Surface	4
D2160 - Amalgam - Three Surfaces	1
D2330 - Resin-based Composite-One Surface, Anterior	9
D2331 - Resin-based Composite - Two Surfaces	7
D2332 - Resin-based Composite - Three Surfaces, Anterior	2
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D2392 - Resin-based Composite - Two Surface, Posterior	14
D2393 - Resin-based Composite - Three Surface, Posterior	4
D2643 - Onlay - Porcelain/Ceramic - Three Surface	1
D2644 - Onlay - Porcelain/Ceramic - Four or More Surfaces	3
D2740 - Crown Porcelain/Ceramic	12
D2752 – Crown – Porcelain Fused to Noble Metal	2
D2790 - Crown - Full Cast High Noble Metal	1
D2799 - Interim Crown	2
D2949 - Restorative Foundation	2
D2950 - Core Buildup, Including Any Pins	9
D2962 - Labial Veneer (Porcelain Laminate) - Indirect	9
D5821 - Interim Partial Denture	1
D6056 – Prefabricated Abutment	4
D6057 - Custom Fabricated Abutment	15
D6058 - Abutment Supported Porcelain/Ceramic Crown	7
D6059 - Abutment Supported PFM (high noble metal)	2
D6061 - Abutment Supported PFM (noble metal)	3
D6068 - Abutment Supported Retainer for Porcelain/Ceramic FPD	4

D6071 – Abutment Supported Retainer for Porcelain Fused to Metal FPD	2
D6096 - Remove Broken Implant Retaining Screw	2
D6240 - Pontic - Porcelain Fused to High Noble Metal	1
D6242 - Pontic - Porcelain Fused to Noble Metal	2
D6245 - Pontic - Porcelain/Ceramic	3
D6752 - Retainer Crown - Porcelain Fused to Noble Metal	2
D9944 - Occlusal Guard - Hard Appliance	1
D9975 - External Bleaching, Home Application, per arch	1

Adams School of Dentistry

The University of North Carolina at Chapel Hill

Department of Restorative Sciences

Brauer Hall, Room 433
Campus Box 7450
140 Dental Circle
Chapel Hill, NC 27514

(919) 445-0323 | Laura Bunn, ljbunn@unc.edu

September 5, 2026

To Whom It May Concern:

I am writing in my capacity as Chair of the Department of Restorative Sciences and Interim Program Director of the Graduate Program in Operative Dentistry and Biomaterials at the University of North Carolina at Chapel Hill, Adams School of Dentistry to verify and describe the postgraduate clinical training completed by Dr. Zaid Badr. Dr. Badr successfully completed the three-year postgraduate residency program in Operative Dentistry and Biomaterials from July 1, 2018, through June 30, 2021.

UNC's Operative Dentistry program is an advanced dental education program in General Dentistry that provides advanced clinical and didactic training in Restorative Dentistry with focus on comprehensive patient care, diagnosis, treatment planning, prevention, and esthetic dentistry. Residents are trained to manage patients comprehensively within the scope of General Dentistry.

During the program, Dr. Badr served as the primary dental provider for his assigned patients. He was responsible for patient evaluation and diagnosis, development and sequencing of comprehensive treatment plans, delivery of treatment, monitoring outcomes, and coordination of care. In addition to routine and advanced restorative procedures, he provided routine dental care and dental procedure within the scope of general dentistry when clinically appropriate. More complex cases were typically referred to the appropriate specialty clinic and managed collaboratively in comprehensive manner.

The didactic curriculum supported this clinical model through coursework spanning multiple areas of comprehensive dental practice. These didactic and clinical experiences were integrated throughout the three-year program to develop advanced restorative dentistry providers with a strong foundation in comprehensive patient care.

Dr. Badr's training therefore combined advanced general, operative and restorative dentistry with a comprehensive- general care model in which he assumed primary responsibility for patient care.

Please feel free to contact me if additional information regarding the structure, curriculum, or clinical scope of Dr. Badr's advanced dental training is required.

Sincerely,

Ibrahim Duqum

Ibrahim Duqum, DDS, MS, FICD
Dr. Claude A. Adams, Jr. and Grace Adams Distinguished Professor
Chair, Department of Restorative Sciences
University of North Carolina at Chapel Hill

Adams School of Dentistry
919-537-3964
Ibrahim_duqum@unc.edu

Attachment 6

Dr. Badr’s thesis begins on following page.

SURVIVAL RATE AND FRACTURE RESISTANCE OF DIFFERENT TYPES OF MONOLITHIC ZIRCONIA CROWNS AFTER TWO METHODS OF ARTIFICIAL AGING.

Zaid Badr

A thesis submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Science in the Adams School of Dentistry (Operative Dentistry).

Chapel Hill
2021

Approved by:

Taiseer Sulaiman

Ryan Cook

Ibrahim Duqum

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Zaid Badr
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ABSTRACT

Zaid Badr: Survival Rate and Fracture Resistance of Different Types of Monolithic Zirconia Crowns After Two Methods of Artificial Aging.
(Under the direction of Taiseer Sulaiman)

Objective: to study the survival rate and fracture resistance of four different types of monolithic zirconia crowns based on their yttria content, after artificial aging under thermocylcing aging alone and combined thermo-mechanical loading using a chewing simulator.

Materials and Methods: full coverage anatomical monolithic zirconia crowns were made using four types of zirconia materials, Gradient 3Y-PSZ and 5Y-PSZ, Gradient 4Y-PSZ and 5Y-PSZ, Non-Gradient 4Y-PSZ, and Non-Gradient 3Y-PSZ as control (n=20 each). The crowns were bonded to fiber reinforced resin dies. Half of the crowns were subjected to thermo-mechanical loading under 110 N at a frequency of 1.4 Hz for 1.2 million cycles with simultaneous thermocycling (10,000 cycles, 5-55˚C). The other half were subjected to thermocycling alone (10,000 cycles, 5-55˚C). The survival rate for each material was observed. Each crown was loaded to failure to calculate its fracture resistance after aging. Two-way ANOVA was used to test the effect of zirconia type and ageing method on the fracture resistance of the crowns.

Results: All four types of zirconia survived the artificial aging with no failures. The artificial aging method did not affect the fracture resistance of zirconia crowns p=0.18. The concentration of yttria at the occlusal part of the restoration affected the fracture resistance p=0.0001.

Conclusion: Increasing the yttria concentration at the occlusal third of the crown decreased the fracture resistance. The mechanical loading protocol did not affect the fracture resistance of zirconia.

To my family, thank you for your support. My in-laws, your generosity is beyond inspiring. I hope to pay back the favor one day.

To the two people who mean the world to me. My wife Manal. You stood by my side the whole time like no one else. Loving me even at my worst. I do not know what I have done in my life to deserve all this love. There are not enough words to define how wonderful you are!

To my kid Hasan. I have never thought that I could have ever loved someone this much. I might be biased, but you are the best boy in the world, the best there is, the best there was and the best there ever will be. When I wake up in the morning… you are the reason why.

ACKNOWLEDGEMENTS

I would like to extend my gratitude to my mentor Dr. Sulaiman for his tremendous help and never lasting support until the last minute! This project would have still be a thought without your efforts. Dr. Sulaiman is an example of a true leader.

This was a team effort. With that being said, I would also like to sincerely thank my committee members Dr. Duqum and Dr. Cook for their valuable input in this project. I would also like to thank the zirconia expert Dr. Zhang for the help with the microscopic analysis. I would also like to thank Lee Culp and Matt Stone for providing some of the materials and help making the samples. A special thanks to Brandon Rodgers for his help in making and loading the samples.

I would like to thank Dr. Oliveira, my program director, for his never-ending help and support thorough out the program.

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LIST OF ABREVIATION AND SYMBOLS

°C	Degree of Celsius
°F	Degree of Fahrenheit
µ	Micron
%	Percent
~	Approximately equal
>	Greater than
<	Less than
4-META	4-methacryloxyethyl trimellitate anhydrate
10-MDP	10- methacryloyloxydecyl dihydrogen phosphate
Bis-GMA	Bisphenol A glycidyl methacrylate
CAD	Computer aided Design
CAM	Computer aided manufacturing
cm2	Square Centimeter
FDP	Fixed Dental Prostheses
ISO	International Standard Organization
Kgf	Kilogram-force
MAC-10	Methacryloyloxy-1,10-undecanedicarboxylic acid
min	Minute
mm	Millimeter(s)
mol%	Molecule percent

MPa	Mega Pascal
mw	Megawatt
N	Newton
SEM	Scanning Electron Microscope
SBS	Shear Bond Strength
SD	Standard Deviation
vol.	Volume
wt. %	Weight percent
Y_2O_3	Yttria oxide
Y-PSZ	Yttria Stabilized tetragonal Zirconia

CHAPTER 1: REVIEW OF THE LITERATURE

1.1 Introduction

Zirconia based dental restorations grew popular in the last two decades. This can be attributed to them being less expensive options and are less time consuming when compared to porcelain fused to metal restorations. The wide spread use of CAD/CAM technology in dentistry could be a contributing factor in the advent and use of these restorations and plays an integral part in their manufacturing process. Zirconia survived as a dental material mainly because of its ability to arrest crack propagation by transformation toughening. Transformation toughening happens by changing the phase of zirconia molecules around the crack from the tetragonal phase to the larger monoclinic phase, thus arresting the crack and preventing its further development [(1)].

One should keep in mind that the zirconia is a broad term and can represent different materials with different physical and optical properties and therefore, different clinical performance [(2)]. Zirconia based dental restorations when first introduced as a restorative material in the form of 3Y-PSZ, was used as a core for a layered dental restoration just like its counterpart porcelain fused to metal dental restoration. Meaning that the restoration has two different materials, a core, which was made out from Zirconium oxide and a layering porcelain material. The rationale behind this design was to cover the unsightly less esthetic opaque zirconia core by a translucent porcelain material. This would result in a more esthetically pleasing restoration [(3)].

In an attempt to reduce the opacity of zirconia and start using it as a monolithic restoration, the alumina content was decreased introducing the second-generation of zirconia restorations. Decreasing the alumina content resulted in esthetic enhancement without compromising the mechanical properties of zirconia. However, it was not esthetic enough for the use in the anterior esthetic zone [4]. Notably, the first two generations have been studied extensively and are considered the "gold standard" for their zirconia counterparts due to their superior physical properties such as, flexural strength, fracture toughness, transformation toughness and elastic modulus [5].

A third generation 5Y-PSZ evolved in an attempt to make zirconia more esthetically pleasing by increasing the yttria content to 5 mol%. This tremendously increased the translucency of zirconia and improved its esthetic potential. However, this change in the material chemistry came at a price as the physical properties, transformation toughness in particular, dramatically dropped. In one study by Zhang et al, the third generation did not show any transformation after 300 h of accelerated hydrothermal treatment [5].

A fourth generation 4Y-PSZ has emerged were the yttria content was changed to 4 mol% in an attempt to regain the physical properties of the 3Y-PSZ zirconia while maintaining the desired esthetic properties of the 5Y-PSZ zirconia [6].

The fourth generation was shortly followed by the gradient systems, in which different compositions of zirconia were combined in a puck. It was created to provide dental restorations that follow the gradient translucency of the natural tooth structure while maintaining the high strength of the first two generations [7, 8].

It is best to evaluate a dental restoration by studying the survival rate of such material in-vivo. This can be both costly and time consuming. Testing those materials in an artificial environment that resembles the clinical conditions where it is meant to be used can be a good alternative to clinical trials [9].

This research study was conducted to study the survival rate of four different types of monolithic zirconia crowns after artificial aging using a chewing simulator.

1.2 Classification of Dental Ceramics

Ceramics used in dentistry can be classified by their composition into: predominantly glass materials, particle filled glasses and polycrystalline ceramics (Figure 1.1)

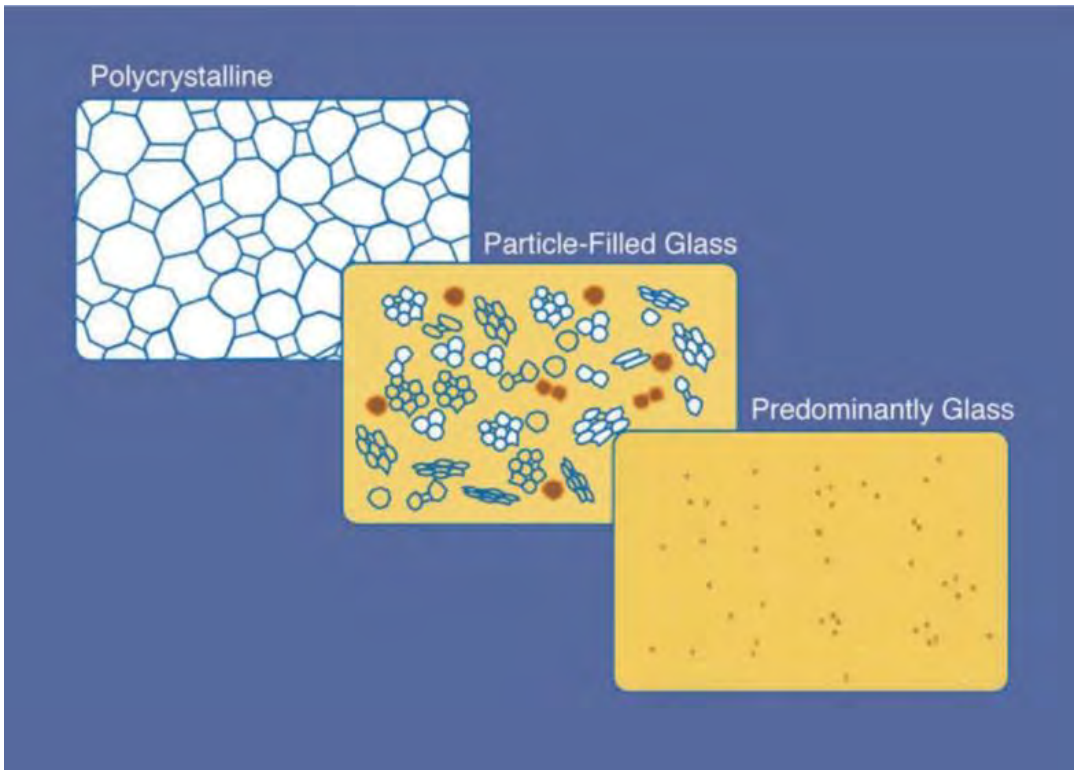


Figure 1.1: Classification of dental ceramics [40].

Both the glass and crystalline phases play major roles in dental ceramics. The glass phase is important when it comes to aesthetics while the crystalline phase determines the strength of a dental restoration. Increasing the glass content of ceramic material results in highly esthetic restorations with a light refractive index that is similar to that of dental enamel. This would explain its common use in dental veneer restorations. On the other hand, increasing the crystalline content is useful for the fabrication of strong restorations that can withstand high masticatory forces i.e. fixed dental prosthesis [10].

Predominantly Glass Ceramics

The glass in dental ceramics is comprised of silica and alumina. It forms a feldspar, which is an amorphous mixture of mined minerals. Cations like sodium and potassium can be added to alter the physical properties of the ceramic. Such properties include the firing temperature and the coefficient of thermal expansion. Predominantly glass ceramics are ideal for mimicking the optical properties of natural teeth [11]. These materials are usually used in veneers or as veneering porcelain over higher strength metal or polycrystalline frameworks [12].

Particle Filled Glass Ceramics

The addition of crystalline particles can change the optical and physical properties of dental glass. The first particle that was successfully added to dental ceramics was leucite. Leucite increases the coefficient of thermal expansion of the ceramic to a level slightly higher than that of the dental alloy framework underneath. This causes more contraction of the ceramic upon cooling of the porcelain when compared to the underlying framework. The difference in contraction results in compression of the glass ceramic over the metal. Nonetheless, it is more favorable for the ceramic to be under compression than tension since ceramics fail by crack

propagation of internal flaws within the material and those flaws do not propagate under compression [13, 14]. Esthetically, leucite was an excellent addition to glass ceramics because it has an index of refraction that is very close to feldspathic glasses. In addition, leucite etches at a much faster rate than the base glass, which results in a rough surface were establishment of an effective micromechanical bond can be easily achieved [10, 11]. Another example of particle filled glass ceramics is the addition of aluminum oxide particles and higher percentages of leucite to the glass. This results in a moderate increase in ceramic strength [13].

Polycrystalline Ceramics

Polycrystalline ceramics consist of closely packed crystals with no amorphous glass phase. This yields a ceramic with higher fracture resistance and strength. However, the absence of glass results in an opaque material with a high light refractive index. Subsequently polycrystalline ceramics are often veneered using glass ceramics.

Since sintered polycrystalline ceramics have high strength, fabrication of dental prosthesis is challenging. To overcome this issue, polycrystalline ceramics are milled in their pre-sintered state and then are sintered. However, sintering results in a significant amount of volumetric shrinkage of the ceramic [10, 14]. Therefore, computer aided design/ computer aided manufacturing (CAD/CAM) is necessary for the fabrication of such dental restorations. During polycrystalline restoration fabrication, a specific software is used to digitally process the 3D data captured intraorally or from a master cast. The software can be used to either create an enlarged die, where ceramic can be packed or create an oversized restoration from a partially fired ceramic powder [15, 16].

1.3 Properties of Zirconia

Pure zirconia has three crystalline forms depending on its temperature. The crystalline phase at room temperature and up to 1170 °C is monoclinic. Between 1170 °C and 2370 °C is tetragonal. The structure after 2370 °C is cubic (Figure 1.2). Upon cooling the tetragonal phase, the structure changes back to the monoclinic form that is accompanied by a 4.5% increase in volume. Stabilizing agents such as yttria (Y_2O_3) allows the retention of the tetragonal phase when cooling to room temperature [17, 18].

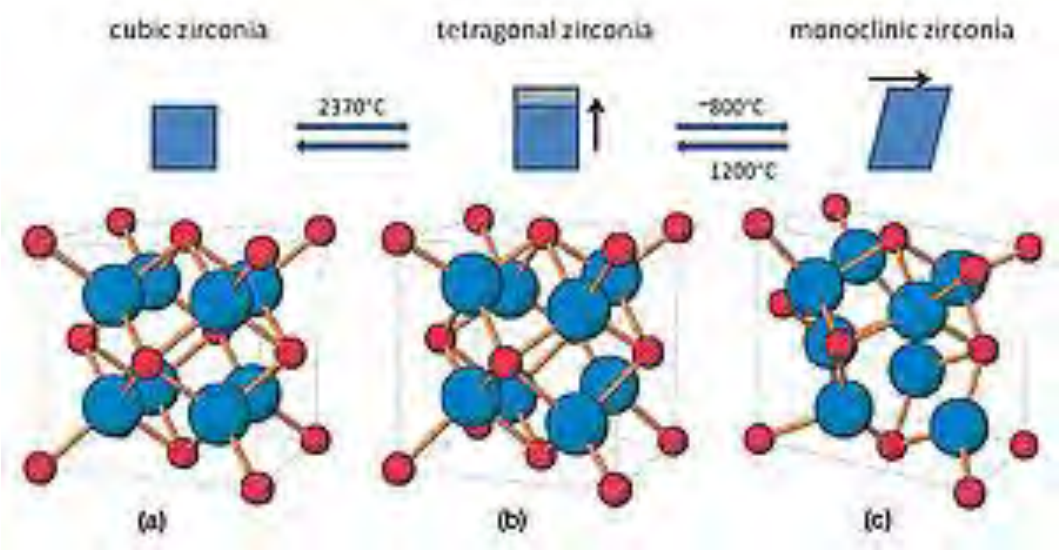


Figure 1.2: Three crystalline forms of zirconia [38].

Partially stabilized tetragonal zirconia has the highest flexural strength among ceramic materials. However, this superior flexural strength is not what makes it a valid material surviving for all those years, since dental ceramics fail by crack propagation. Zirconia is unique for its "transformation toughening" property that can stop crack propagation. This happens at the edges of the crack where the tetragonal phase transforms into the larger monoclinic phase, leading to formation of favorable compressive stresses instead of damaging tensile stresses at the crack

margins (Figure 1.3). This property arrests crack propagation, earning zirconia the title of "ceramic steel" [1, 18].

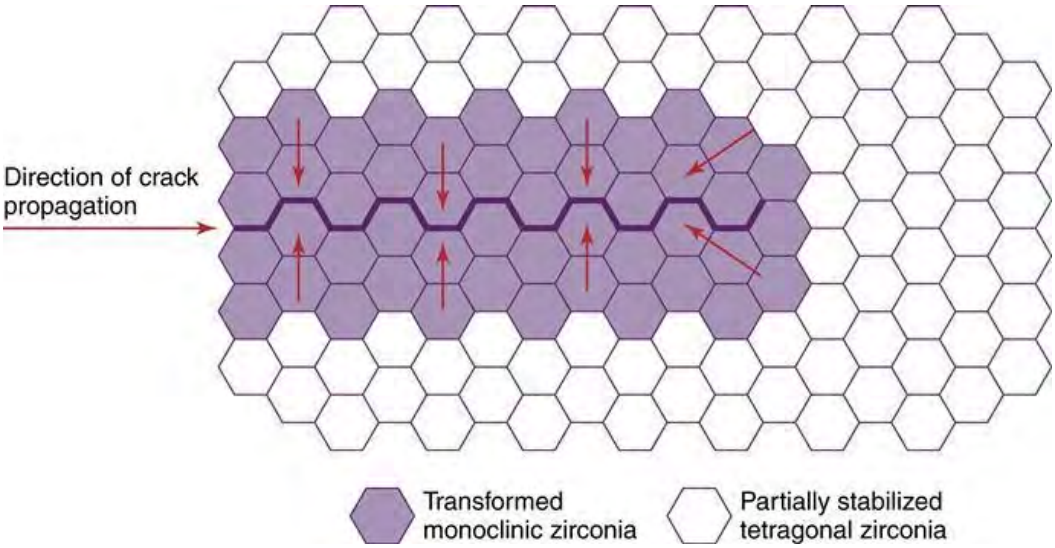


Figure 1.3: Illustration of the Transformation Toughening [39].

The tetragonal to monoclinic phase transformation came at a cost. When zirconia was used as a joint replacement material, a series of femoral head prosthesis failures were documented in the literature. This led to the emergence of the phenomenon of "low thermal degradation": Under the presence of water, the tetragonal particles of zirconia at the surface transform into the monoclinic phase. This caused surface and strength degradation with microcracking at the surface [19, 20].

1.4 Layered Zirconia

Traditional 3Y-PSZ (first generation) has the best mechanical properties of all ceramics with a biaxial flexural strength of 900 - 1500 MPa. It has > 85% tetragonal phase by composition

and a high light refractive index. This renders zirconia opaque and esthetically unpleasing when compared to natural teeth. To overcome this issue, zirconia was used as a core material layered with translucent feldspathic porcelain [2, 3].

The most common problem that was seen with layered zirconia was porcelain chipping [21, 22]. This might be explained by the difference in the coefficients of thermal expansion between the coping material and the veneering material, which can lead to the formation inner tensile stress between the two upon cooling. A slow cooling regimen was suggested to overcome this issue [23]. Another explanation for porcelain chipping can be contributed to the presence of more than 2 mm of unsupported porcelain due to design flaws in the prosthesis framework [24]. This can be corrected by using anatomically guided copings instead of flat copings, which subsequently helps in controlling the veneered porcelain thickness [25, 26].

Layered zirconia restorations require more aggressive tooth preparation to accommodate for the thickness of the two materials. A minimal thickness of 0.6 mm for the coping and 1.2 mm for the veneering porcelain is required [27].

The abrasiveness of veneering feldspathic porcelain to natural opposing enamel is another complication that is seen with layered restorations [28]. This worsens by the use of rough unpolished or unglazed porcelain at the occlusal surface of a restoration [29].

The complication free - clinical survival rate of layered zirconia fixed dental prosthesis after a mean of 5 years ranged between 54 – 100% with porcelain chipping being the number one cause of failure [22]. The high rate of porcelain chipping had been linked to two factors. First, the low thermal conductivity of the zirconia framework. This can cause unfavorable temperature distribution between the veneering porcelain and the zirconia framework during firing of the

veneering ceramic leading to the development of internal stresses between the two. Slow cooling and slow heating regimens should be used when firing porcelain to zirconia to overcome this problem [21, 22]. Second, having more than 2 mm of unsupported porcelain over the framework can lead to porcelain chipping. Since porcelain is weaker than the zirconia framework, it is more predisposed to fracture. In order to limit the fracture of veneering ceramic, the zirconia framework should be designed and milled in an anatomical way that can limit the amount of the unsupported veneering porcelain [25, 26]. Those factors can explain the wide range in the success rate of the layered zirconia fixed dental prosthesis. However, the survival of the zirconia framework/ copping tend to be high approximating 91% after 10 years [30].

1.5 Monolithic Zirconia

Monolithic zirconia restorations emerged as a solution to the frequent chipping of veneering porcelain [22], the aggressive preparation requirements [27], and the abrasive potential of feldspathic porcelain to natural opposing enamel [28]. In addition to the high survival rate of zirconia cores and frameworks [30].

Later, the second-generation zirconia was introduced. The alumina content of this generation was reduced, resulting in a slightly more esthetically pleasing material without compromising the mechanical properties of zirconia. However, this enhancement in optical properties was not enough for its use in esthetically-critical zones. Its use is limited to the posterior dentition and still as a core material in layered restorations [4]. The second-generation 3Y-PSZ has < 15% of cubic phase and > 85% tetragonal phase, which preserves the transformation toughness ability of the material. It has a biaxial flexural strength of 850 - 1300 MPa [31]. Furthermore, polished monolithic 3Y-PSZ zirconia is the least abrasive ceramic to

natural dentition [32]. This generation zirconia showed good clinical performance with low failure rate when compared to layered zirconia restorations after up to 7.5 years [33].

In an attempt to make monolithic zirconia more appealing, a third generation 5Y-PSZ evolved. It consisted of 5 mol% yttria instead of 3 mol% yttria, resulting in more translucent restorations and overcoming the undesired esthetics [5]. Nevertheless, this change in chemical components led to a decline in its physical properties, specifically the transformation toughening. This is explained by the drop in concentration of the tetragonal phase to less than 50%. Therefore, the a significant decrease in the number of tetragonal molecules that can transform into the monoclinic phase. This resulted in a reduction in the material's ability to arrest crack propagation. The biaxial flexural strength is approximately 400 - 900 MPa [31]. This generation should be used in caution for the aforementioned reasons [34].

Recently, a fourth generation 4Y-PSZ surfaced in which the yttria content was reduced from 5 mol% to 4 mol% in an attempt to regain the physical properties of the 3Y-PSZ zirconia and maintain the desired esthetic properties from the 5Y-PSZ zirconia [35]. It has less than 75% of the tetragonal phase and more than 25% of the cubic phase with a biaxial flexural strength ranging between 600 to 1000 MPa [31].

Generation.	Yittria Content. mol %	Alumina Content. wt. %	Cubic Phase %.	Tetragonal Phase %.	Modulus of elasticity. Gpa	Fracture toughness. Mpa.m	Flexural strength. Gpa
First	3	0.25	<15	>85	200-210	3.5-4.5	1.0-1.5
Second	3	0.05	<15	>85	200-210	3.5-4.5	0.9-1.3
Third	5	0.05	>50	<50	200-210	2.2-2.7	0.4-0.9
Fourth	4	0.05	>25	<75	200-210	2.5-3.5	0.6-1.0

Table 1.1: Properties of Dental Zirconias [31].

1.6 Gradient Zirconia

The most recent generation is the gradient system. As the name implies, the system provides dental restorations that follow the gradient translucency of a natural tooth structure; all while maintaining its high strength. It is composed of two types of zirconia combined together in a single restoration with an intermediate zone that follows gradual transition between the two. For example, ZirCAD Prime has both 3Y-PSZ and 5Y-PSZ [8]. ZirCAD Multi is another example that contains 4Y-PSZ and 5Y-PSZ [7]. It has been claimed that those systems can be used as universal restorations, both in anterior and posterior teeth, as single unit crowns or up to 16 unit fixed dental prosthesis, and as monolithic or layered restorations.

Gradient zirconia can me made using three manufacturing methods: pressing, layer by layer colloidal casting or single pour colloidal casting (Figure 1.4) [57].

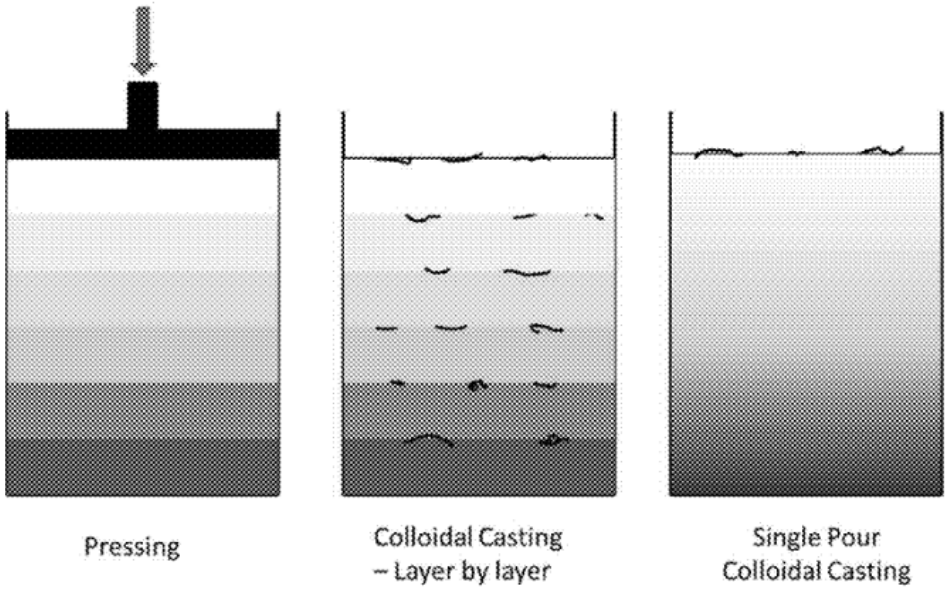


Figure 1.4: Manufacturing of Gradient Zirconia [57].

Pressing

In this method, zirconia particles are filled in a mold followed by uniaxial pressure to form a blank. Then multiple blanks (layers) with different translucencies can be combined together by cold isostatic pressing. This yields a uniform puck with multiple translucencies. Advantages of using this technique include the formation of a uniform blank with the least amount of deformation in the zirconia material. However, the major drawback of using this method is the formation of clear boundaries of color between layers. In order to hide those boundaries, the use of many layers of multiple translucencies is suggested to create a smoother transition.

Layer by Layer Colloidal Casting

This method is an example of a filtration technique. First, the zirconia powder is suspended in a solution. Then, the mix is poured into a mold that has a filtration mesh at its end.

This is followed by particle filtration against the mesh aided by vacuum pressure. This process can be repeated using multiple zirconia suspensions with different color properties until the desired appearance is achieved. Similarly to the pressing method, the boundaries between layers are clear and visible. Thus, the need for multiple layers to create a smooth transition is necessary. Since each layer is poured separately after filtration of the previous one, impurities can easily accumulate between layers. Those impurities burn out after sintering leaving voids behind. These voids from centers where future cracks can initiate and propagate.

Single Pour Colloidal Casting

This technique is also based on the filtration method. However, instead of mixing and pouring layers separately, one mix is suspended and poured. The mix is made using different powders of zirconia with the desired esthetic and mechanical properties. This technique relies on the characteristics of particle distribution and dispersion in a solution. Various particle distribution can be predicted within the suspension. Hence, the desired optical and physical properties can be achieved by altering those characteristics to place each group of particles where necessary, ensuring the gradual change in translucencies. Since this technique uses a single pour only, no clear demarcation is visible between different groups of particles. The single pour minimizes the number of impurities as well.

1.6 Laboratory fatigue testing

Ideally, it is best to assess a dental restoration by studying its survival rate intraorally by means of randomized-controlled trials. Such trials can be limited by many factors including the need for a considerable amount of funding, IRB approval, recruitment of subjects, high dropout

rates and time commitment. A suggested alternative for testing is to use an artificial environment that simulates the clinical conditions in which the material is meant to be used [9].

While the most common and simple way to test all ceramic restorations is by single load to failure testing, the results of those studies are not clinically relevant. In a study, Kelly et al. compared the failure mode of dental ceramics under single load to failure testing to clinical failure. He observed that none of the fracture tests represented the failure mechanism seen clinically [36].

Artificial aging was suggested in order to overcome the drawbacks of clinical testing that include higher time demands and expenses. Concurrently, artificial aging allowed for proper load to failure testing. Emphasis is placed on artificial aging combining both thermal cycling and mechanical loading to simulate the oral environment [37].

Dental ceramics fail as a result of continuous weak stresses that cannot induce immediate failure. Those stresses result in initiation and/or propagation of already existing defects. Over time, the continuous fatiguing results in propagation of those cracks until the material fractures. Ceramics also fail at lower loads underwater due to static crack propagation [41]. Thermo-mechanical loading underwater is the closest in-vitro testing that can mimic the conditions and nature of ceramic failure [42].

The chewing simulator machine allows for the adjustments of some of the testing parameters to ensure the desired testing conditions, those variables are:

1. Loading force: the loading force can be either greater than the average physiologic human biting forces, or comparable to the average physiologic forces but with higher number of cycles. Those two approaches were suggested to speed up the simulation

process. Another loading approach that can further speed up the fatiguing process is the use of various load forces in an ascending manner with a sufficient amount of repetitive cycles. The latter is referred to as the "stairway fatiguing" [43].

2. Number of cycles: fatigue failure starts by crack formation. With the continuous loading, cracks propagate and fuse into larger cracks. Subsequently, catastrophic failure happens after the final loading cycle that exceeds the mechanical capacity of the material. Therefore, the number of loading cycles is crucial. The number of cycles is directly linked to the number of clinical years with an estimate of 250,000 cycles representing one year (44). A study compared the cumulative clinical survival rate of lithium disilicate restorations with in-vitro survival rate found up to 100% agreement between the two (45).

3. Frequency of loading: the loading frequency resembles the chewing rate. Using a frequency between 1-2 Hz has been commonly utilized [46]. Additionally, using a frequency not exceeding 3 to 4 Hz has been suggested since the duration of mastication is 0.25 to 0.33 seconds [47]. However, the actual effect of the frequency is still unknown. In a study byRosentritt et al. no difference was observed in the fracture strength of fixed dental prosthesis after doubling the loading frequency from 1.6 to 3 Hz [37].

4. Vertical and lateral movements: the direction of chewing force can be represented in the horizontal and vertical planes thus, the forces in the chewing simulator should simulate both. The simulation of lateral movement in aging studies has been a controversial topic. Some studies advocate for the incorporation of lateral movement

when fatiguing dental ceramics [48, 49]. On the other hand, other studies found no significant effect of using lateral movement when fatiguing ceramic restorations [37].

5. Testing machine: many fatigue devices were used to test dental restorations such as Willytec chewing simulator (most commonly used), electrodynamic fatigue testing machine, closed-loop servohydraulucs and MTS Mini-Bionix. The most important aspect in a fatigue machine is to simulate the oral environment. All the above-mentioned devices can simulate the oral environment to a certain degree. The main deference between those machines rests in the force generating mechanism. Nevertheless, no evidence supports one device over the others [50].

6. Humidity of environment: consensus shows that testing dental ceramics in 100% wet environment is important to represent the wet oral environment where the material will be utilized. It has been proven that ceramics tend to be weakened by the presence of water [41].

7. Thermocycling: is yet another important factor when it comes to testing ceramics. thermocycling is not only important to replicate the temperature fluctuation in an oral environment but also affects crack propagation by applying compression and tension forces at the tip of the crack thus, increasing the level of damage [51]. The most commonly used temperature range for thermocycling is 5-55 °C. The number of cycles depends on dwell time and pause time settings of the thermocycling unit. Since thermocycling and mechanical loading are commonly applied together, the number of thermal cycles if often limited by the number of mechanical cycles applied [52].

8. Antagonist: the material, size, shape and modulus of elasticity of the antagonist are important factors that can affect the fatigue behavior of dental ceramics. Using natural human teeth as antagonist might be the next best thing to the clinical scenario but its use can be limited by the heterogeneity of teeth; making it hard to standardize. For that reason, stainless steel and ceramic are commonly used as indenters [53].

9. Abutment: the use of natural human teeth as abutments to mimic the oral environment has been suggested and previously used. However, it is hard to standardize the preparation when natural teeth are used. Other materials can be used to overcome this issue such as epoxy resin and acrylic resin. It is important to use a material that shares key physical properties with human teeth i.e. modulus of elasticity and bonding capacity [54].

10. Artificial periodontium: the presence of periodontium can affect the stress distribution to surrounding bone [55]. Many materials have been used to simulate the periodontium such as polyether, gum resin and polysiloxane. Those materials vary in their physical and mechanical properties, which lead to varying degrees of movement under loading. While it was found that the use of artificial periodontium could significantly affect the fracture strength of dental ceramics [56], its use is still contradictory. Hence, some authors argue that using artificial periodontium while fatiguing reduces the axial forces on the testing specimens in an uncontrolled manner. Therefore, its use should be avoided [9].

CHAPTER 2: RESEARCH STUDY

Introduction

The increasing popularity of zirconia as a dental material may be attributed to its ability to stop crack propagation by transformation toughening. Transformation toughening happens by changing the phase of zirconia molecules around the crack from the tetragonal phase to the larger monoclinic phase, thus arresting the crack and preventing further propagation [(1)].

Several zirconia generations have evolved from the traditional high-strength first generation (3Y-PSZ) zirconia. Due to the high opacity of the first generation (3Y-PSZ), zirconia was mainly used as a substructure that was layered over with translucent porcelain to insure the desired esthetics [(3)].

A second generation (3Y-PSZ) was created by decreasing the alumina content in zirconia for optical enhancement without compromising its mechanical properties. This advent provided satisfactory monolithic restorations that could be used in the less esthetically critical zones. However, it was not translucent enough to be used in areas of high esthetic demands [(4)].

A third generation 5Y-PSZ evolved in an attempt to make zirconia more esthetically pleasing by increasing the yttria content to 5 mol%. This new formulation increased the translucency of zirconia, overcoming the undesired esthetics shortcomings of the last two generations. However, the change in the material chemistry came at a price, as the physical properties and transformation toughness dropped [(5)].

Recently, a fourth generation 4Y-PSZ has emerged. The yttria content was changed to 4 mol% in an attempt to regain the physical properties of the 3Y-PSZ zirconia, while maintaining the desired esthetic properties of the 5Y-PSZ zirconia [6].

The most recent generation is the gradient system. As the name implies, the system provides dental restorations that follow the gradient translucency of a natural tooth structure; all while maintaining its high strength. It is composed of two types of zirconia combined together in a single puck with an intermediate zone that follows the gradual transition between the two [7, 8].

Clinical Relevance

Zirconia is a broad term and can represent different restorations with different properties. Therefore, it is vital to investigate the mechanical properties and behavior of such restorations in a setting that mimics the oral environment to help predict outcomes in clinical practice.

Specific Aims and Hypotheses

The aims of this study are to:

- Evaluate the effect of aging method; thermocycling alone and combined thermo-mechanical loading on the fracture resistance of single unit zirconia crowns.
- Evaluate the fracture resistance of four different types of single unit zirconia crowns based on their yttria concentration, gradient 3Y-PSZ- 5Y-PSZ, gradient 4Y-PSZ- 5Y-PSZ, non-gradient 4Y-PSZ and non-gradient 3Y-PSZ.

The Null hypotheses:

- There is no difference in the means of fracture resistance of zirconia crowns after aging by means of thermocycling alone and combined thermo-mechanical loading.
- There is no difference in the means of fracture resistance between gradient 3Y-PSZ and 5Y-PSZ, gradient 4Y-PSZ and 5Y-PSZ, non-gradient 4Y-PSZ and non-gradient 3Y-PSZ crowns.

Materials and Methods

A plastic Ivorine mandibular left first molar was prepared for a full coverage ceramic crown restoration. The preparation was carried out using a high-speed electric hand-piece rotating at 200,000 rpm with air- and water-cooling and diamond modified flat-end taper burs (Brassler, Savannah, GA). The preparation insured an axial reduction of 1 to 1.5 mm, a marginal rounded shoulder of 1 mm, an occlusal reduction of 1.5 mm and a taper of 10 degrees (Figures 2.1 and 2.2). This master die was scanned using a 3Shape TRIOS 3 scanner. Eighty fiber reinforced resin dies (Trilor, Bioloren Srl) were milled to replicate the exact preparation on the master die [8, 9]. Eighty full-coverage crowns were designed to fit the master die previously scanned using 3Shape TRIOS Design Studio software. The design of the crowns followed the aforementioned dimensions (Figures 2.3 and 2.4). The design parameters were set to 20μm space at the margins and an internal cement space of 60μm following the instructions of the milling unit. The crowns were milled using four different zirconia materials in a PrograMill PM7 milling machine (Ivoclar Vivadent: Schaan, Liechtenstein), twenty crowns in each:



Figure 2.1 Die Preparation, Axial View



Figure 2.2 Die Preparation, Occlusal View.



Figure 2.3 Crown Occlusal, Thickness of 1.5 mm



Figure 2.4 3Y-PSZ (ZirCAD LT) Crown

Group 1 (Control) – monolithic, non-gradient 3Y-PSZ (ZirCAD LT, Ivoclar Vivadent: Schaan, Liechtenstein).

Group 2 – monolithic, non-gradient 4Y-PSZ (ZirCAD MT, Ivoclar Vivadent: Schaan, Liechtenstein).

Group 3 – monolithic, gradient 3Y-PSZ and 5Y-PSZ (ZirCAD Prime, Ivoclar Vivadent: Schaan, Liechtenstein).

Group 4 – monolithic, gradient 4Y-PSZ and 5Y-PSZ (ZirCAD MT Multi, Ivoclar Vivadent: Schaan, Liechtenstein).

The milling of the two gradient zirconia groups (group 3 and group 4) insured 3 mm of 5Y-PSZ occlusally.

The crowns were sintered using program 1 (IPS e.max ZirCAD standard program) for 9 hours 50 minutes at up 1600˚C temperature in a sintering furnace (Programat S1 1600, Ivoclar Vivadent: Schaan, Liechtenstein). The crowns were polished using a two-stage polishing kit (Luster Zirconia Polishing Kit, Meisinger, USA). No stains nor glaze were added. Figure 2.5 shows the different types of zirconia crowns after milling, sintering and polishing.



Figure 2.5 Finished Monolithic Zirconia Crowns, From Right to Left, 4Y-PSZ & 5Y-PSZ (ZirCAD MT Multi), 3Y-PSZ & 5Y-PSZ (ZirCAD Prime), 4Y-PSZ (ZirCAD MT) and 3Y-PSZ (ZirCAD LT). Notice the difference in optical properties between the gradient and the nno-gradient groups.

Cementation of the crowns:

The fit of each crown was checked under 3.5x magnification using a sharp dental explorer number 5. The crowns were adhesively bonded to their corresponding dies using the APC concept [(60)]. The intaglio surface of each crown was air-particle abraded using 50μ

aluminum oxide, under 2 Bar pressure for 15 seconds at a distance of 10 mm. Monobond Plus (Ivoclar Vivadent: Schaan, Liechtenstein) was applied to the fitting surface followed by Multilink Primer (Ivoclar Vivadent: Schaan, Liechtenstein). Then the crowns were bonded to the dies using a self-curing resin cement (Multilink Automix, Ivoclar Vivadent: Schaan, Liechtenstein). Figure 2.6.



Figure 2.6 Zirconia Crown and Die after Cementation.

Aging of the restoration:

The crowns in each group were further divided into two subgroups (N=10 each). In the subgroup A, the crowns were artificially aged using simultaneous thermo-mechanical loading. The loading force was 110 N at a frequency of 1.4 Hz for 1.2 million cycles with simultaneous

thermocycling (10,000 cycles, 5-55˚C) in a computer controlled multifunctional mastication simulator (SD Mechatronik, Fedkirchen- Westerham, Germany). This equals 5 years of clinical service [44]. Test specimens were oriented parallel to the long axis of the tooth and embedded in auto-polymerizing acrylic resin (VariDur 200, Buehler, Lake Bluff, IL, USA) 1 mm below the crown margin in the cylinder specimen holders of the chewing simulator. A 4 mm stainless steel ball was used as an antagonist at a 1 mm vertical start point. The initial contact was at the central fossa followed by a 1 mm horizontal shift towards the buccal groove. (Figure 2.7)

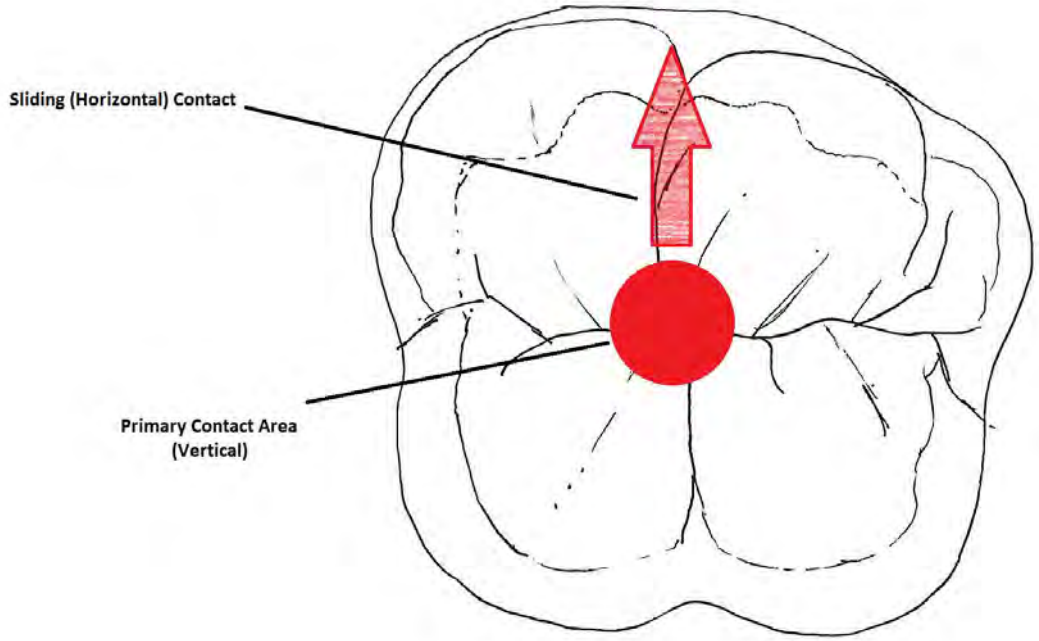


Figure 2.7 Vertical and Horizontal Contacts in the Chewing Simulator.

In Subgroup B the crowns were aged by means of thermocycling only (10,000 cycles, 5-55˚C) in a computer controlled multifunctional mastication simulator (SD Mechatronik, Fedkirchen- Westerham, Germany).

Failure evaluation:

Wear detectors were used to monitor the samples thus, to record the number of cycles needed until failure. After 1.2 million cycles, all surviving specimens were examined under 3.5X magnification for visible damage in the crown or the die following fatigue testing. Failure was defined as crown or die complete or partial fracture, visible cracking or debonding.

Scanning electron microscope analysis:

Random samples from each group were selected for further analysis under scanning electron microscope (SEM). An SEM (Hitachi S-4700 Field Emission Microscope) was used to evaluate microcracks at both the vertical and lateral contacts. Samples were attached to an aluminum SEM sample holder with double-stick carbon tape. Samples were coated using a layer of 10nm Gold-Palladium (AuPd).

Fracture resistance:

After aging, the fracture resistance of each sample was calculated by loading the samples by a 2 mm stainless steel cone antagonist at a speed of 1mm/min until fracture occurs using a universal testing machine (Instron 4411, SINTECH, MTS System Corporation, USA).

The list of materials used in this study are listed in Table 2.1

Item	Justification	Quantity
Stainless steel sphere antagonist, Diam. 4mm (N=8)	Were used in the chewing simulator as an antagonist to the restorations	40 (5 packs)
Stainless steel cone Antagonist, 30°, tip radius 1mm (N=8)	Were used to fracture the restorations	80 (10 packs)
Multilink Automix System Pack	Were used to bond the crowns to their dies	2
IPS e.max ZirCAD Prime 98.5-16mm A1	Were used as a crown material for group 1	1
IPS e.max ZirCAD MT Multi Disc 98.5-16mm A1	Were used as a crown material for group 2	1
IPS e.max ZirCAD MT 98.5 14mm A1	Were used as a crown material for group 3	1
IPS e.max ZirCAD LT 98.5 16mm A1	Were used as a crown material for group 4	1
Trilor 98 98 X 20mm Bone	Were used as a die material	4

Table 2.1 List of Materials Used in This Study

Statistical analysis

Two-way Analysis of Variance (ANOVA) and Tukey's Studentized Range test were used to assess the effect of aging method and zirconia ytrria content on the fracture resistance of crowns. The level of significance was set at $\alpha = 0.05$.

Results

Fatigue and thermocycling testing:

All specimens, regardless of the zirconia used, survived the 1.2 million cycles and thermocycling. There were no cracks or fractures seen on the dies nor the crowns.

Scanning electron microscope evaluation:

Microcracks were seen under scanning election microscope in all fatigued specimens. The microcracks were associated with the sliding contacts mainly (Figure 2.8). More microcracks were seen in the gradient zirconia groups (Groups 3 and 4) followed by the 4Y-PSZ (group 2) then 3Y-PSZ (control) Figure 2.9.

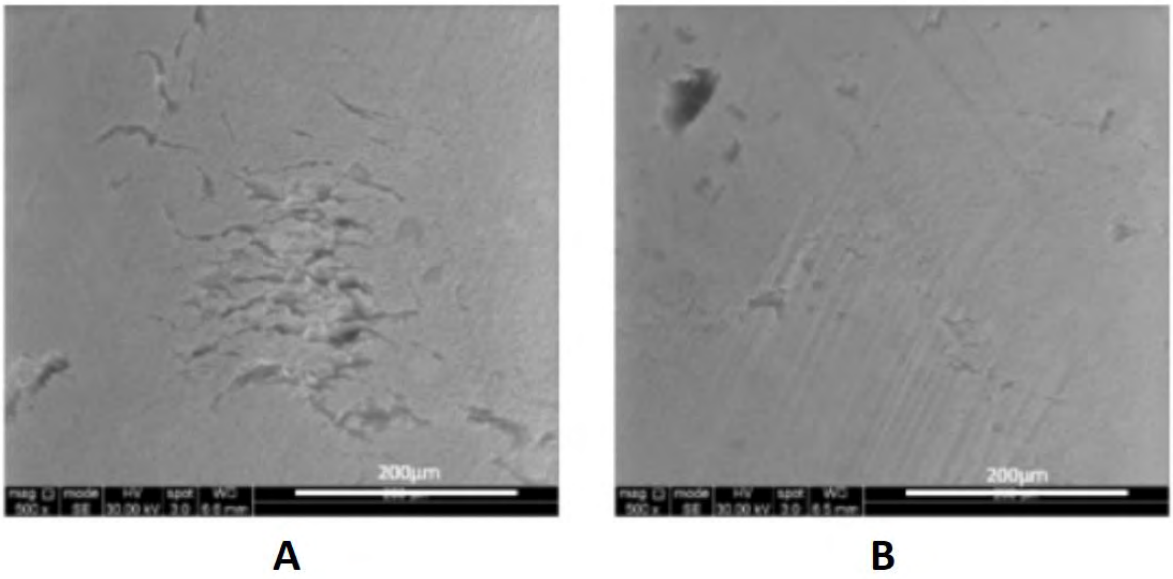


Figure 2.8 Scanning Electron Microscope Analysis of Areas of Impact on 3Y-PSZ & 5Y-PSZ (ZirCAD Prime) Crown Under up to 500 Magnification, (A) Area of Contact after Sliding Movement of the Antagonist. (B) Area of Contact after Vertical Movement of Antagonist.

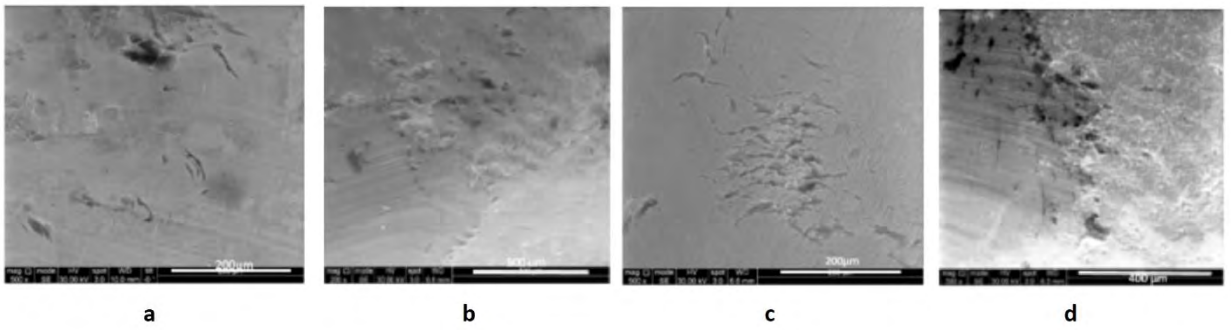


Figure 2.9 Scanning Electron Microscope Analysis of Areas of Impact after Sliding Movement of the Antagonist on Zirconia Crowns Under 500 Magnification, (a) 3Y-PSZ (ZirCAD LT) (b) 4Y-PSZ (ZirCAD HT) (c) 3Y-PSZ & 5Y-PSZ (ZirCAD Prime) (d) 4Y-PSZ & 5Y-PSZ (ZirCAD HT Multi)

Fracture resistance:

The mean values of fracture resistance for each group is listed in Table 2.2. Two online calculators were used for conducting the statistical analysis at (https://www.socscistatistics.com/ and http://vassarstats.net/anova2u.html). The mean difference in fracture resistance was not statistically significant after thermocycling alone when compared to thermo-mechanical loading within each type of zirconia *p*-value = 0.18 (First Null was accepted). However, a significant variation in fracture resistance means among zirconia groups based on yttria concentration was seen *p*-value = 0.000 (Second Null was rejected) Table 2.3. A statistically significant difference was found in the means of fracture resistance between group 1 (non-gradient 3Y-PSZ) and group 2 (non-gradient 4Y-PSZ) p=0.019, group 1 (non-gradient 3Y-PSZ) and group 3 (gradient 3Y-PSZ and 5Y-PSZ) p=0.000, group 1 (non-gradient 3Y-PSZ) and group 4 (gradient 4Y-PSZ and 5Y-PSZ) p=0.000, group 2 (non-gradient 4Y-PSZ) and group 3 (gradient 3Y-PSZ and 5Y-PSZ) p=0.001, group 2 (non-gradient 4Y-PSZ) and group 4 (gradient 4Y-PSZ and 5Y-PSZ) p=0.000.

The difference in means of fracture resistance between group 3 (gradient 3Y-PSZ and 5Y-PSZ) and group 4 (gradient 4Y-PSZ and 5Y-PSZ) p=0.98 was not statistically significant (table 2.4). Figure 2.10 shows the relation between the types of zirconia used and fracture resistance of the crowns.

Group	3Y-PSZ		4Y-PSZ		3-5Y-PSZ		4-5Y-PSZ	
Aging	B	A	B	A	B	A	B	A
Number	10	10	10	10	10	10	10	10
Mean FR	3728.6	3708.4	3309.9	3172.9	2597.8	2461.3	2591.1	2393.6
SD	463.1	479.9	397.0	427.6	333.5	332.1	503.4	270.0

B: Thermocycling alone, A: Thermo-mechanical loading, FR: Fracture Resistance

Table 2.2 Mean Fracture Resistance Values for Each Group.

Source	SS	DF	MS	F	P
Aging	301461.72	1	301461.74	1.81	0.1827
Ytrria Content	21070226.19	3	7023408.7	42.15	<.0001*
Interaction	82448.21	3	27482.74	0.16	0.9229
Error	11998099.94	72	166640.28		
Total	33452236.08	79			

Table 2.3 Two Way Analysis of Variance Summary.

Pairwise Comparisons	Means	$HSD_{.05}$ = 465.0749	$Q_{.05}$=3.8088
3Y-PSZ:4Y-PSZ	3Y-PSZ= 3708.42 4Y-PSZ= 3172.95	535.47	Q = 4.39 (p=.01872)*
3Y-PSZ:3-5Y-PSZ	3Y-PSZ= 3708.42 3-5Y-PSZ= 2461.29	1247.13	Q = 10.21 (p=.00000)*
3Y-PSZ:4-5Y-PSZ	3Y-PSZ= 3708.42 4-5Y-PSZ= 2393.62	1314.8	Q = 10.77 (p=.00000)*
4Y-PSZ:3-5Y-PSZ	4Y-PSZ= 3172.95 3-5Y-PSZ= 2461.29	711.66	Q = 5.83 (p=.00116)*
4Y-PSZ:4-5Y-PSZ	4Y-PSZ= 3172.95 4-5Y-PSZ= 2393.62	779.33	Q =6.36 (p=.00037)*
3-5Y-PSZ:4-5Y-PSZ	3-5Y-PSZ= 2461.29	67.67	Q = 0.55 (p=.97926)

	4-5Y-PSZ= 2393.62		

Table 2.4 Post HOC Tukey Pairwise Comparisons Between the Groups.

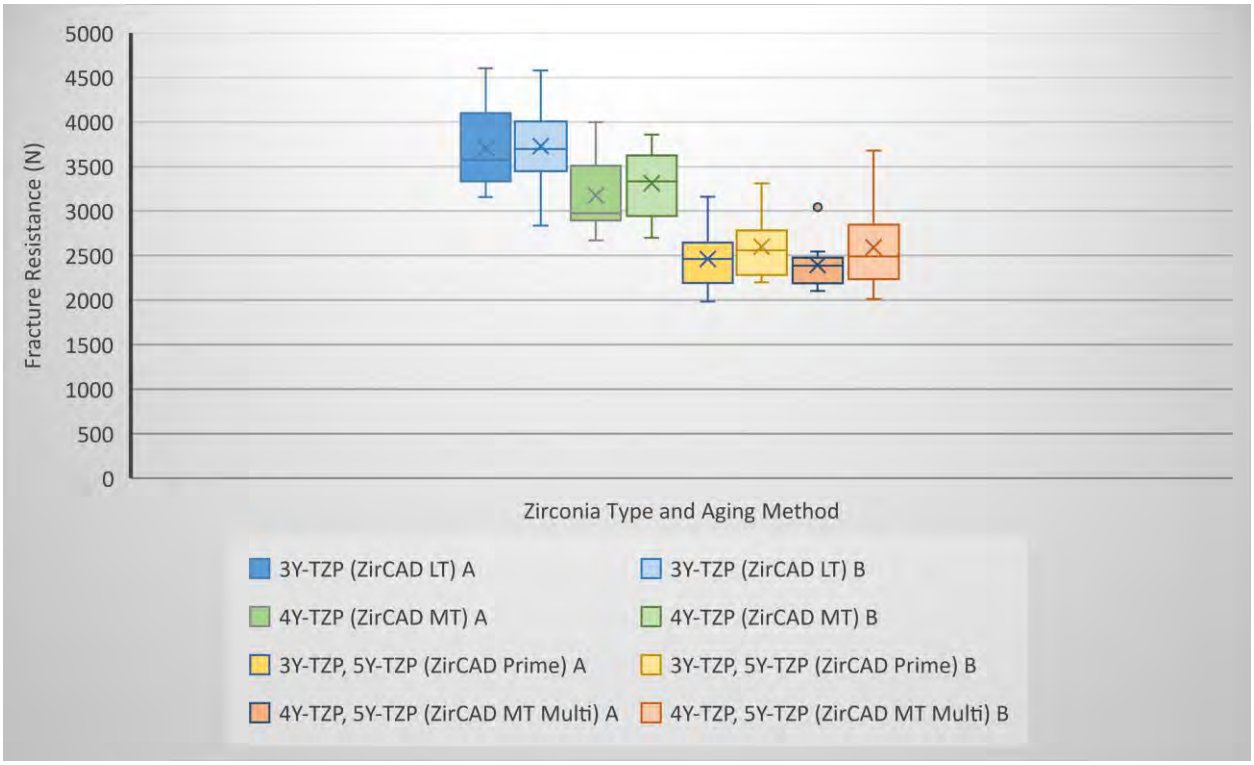


Figure 2.10 Fracture Resistance Among Different Types of Zirconia Crowns After Aging.

Discussion:

It is imperative to investigate emerging dental materials by solid well-designed evidence prior to its clinical use. While the ultimate evidence to support the usage of such materials might be randomized clinical trials, such trials are expensive, complex and lengthy. Donovan et al stated that it takes about 10 years to conduct and publish a 5-year follow-up clinical trial. By that time, the material tested might be outdated or discontinued [(61)]. One way to overcome the drawbacks of conducting randomized clinical trials would be testing the materials in vitro by means of artificial aging to predict its clinical behavior prior to intraoral use.

The fatiguing parameters used in this study were based on an article that compared the success rate of dental ceramics intraorally to the success rate of the same types of dental ceramics by means of fatiguing. An agreement of 75% to 100% was seen between the two after 5 years of clinical/ artificial aging [62].

While the most common mastication force used in the literature was 49N [46]. The simulation biting force in this study was set at 110 N, which is around the physiological biting force in humans [63]. This was selected to ensure an aging situation that is similar to the intraoral environment.

The microcracks seen under the microscope were mainly associated with lateral forces. This can be explained by the nature of dental ceramics, dental ceramics behave better on compression, when compared to tension, which is associated with lateral forces [64, 65, 66]. Thus, applying horizontal forces during in vitro fatiguing of dental ceramics is important to subject the material to cycles of tensile forces, which are more damaging to the material when compared when in compression.

The dies used in this study were made from fiber-reinforced resin (Trilor, Bioloren Srl). This material was chosen as a crown abutment instead of natural teeth because it is easy to standardize and has the same key physical properties as natural dentin [58, 59]. This would ensure a decent representation of the oral tissues without the use of natural teeth. Natural teeth can complicate the testing since it comes in variable sizes, shapes and compositions [67, 68].

All crowns, regardless of type of zirconia used, survived the fatiguing process. This finding is comparable to two in-vitro studies. In the first study, monolithic, gradient 4Y-PSZ and 5Y-PSZ (ZirCAD MT Multi, Ivoclar Vivadent: Schaan, Liechtenstein) was compared to

monolithic, non-gradient 3Y-PSZ (ZirCAD LT, Ivoclar Vivadent: Schaan, Liechtenstein). The two materials survived artificial aging under similar artificial conditions [7]. Whereas in the second study, monolithic, gradient 3Y-PSZ and 5Y-PSZ (ZirCAD® Prime, Ivoclar Vivadent: Schaan, Liechtenstein) was compared to non-gradient 3Y-PSZ (ZirCAD LT, Ivoclar Vivadent: Schaan, Liechtenstein) and showed the same results [8]. To the best of the author's knowledge, no study has investigated the effect of thermomechanical cyclic loading of monolithic zirconia crowns on the survival rate using all the four tested zirconia materials in this study.

The high survival rate of the traditional monolithic, non-gradient 3Y-PSZ (ZirCAD LT, Ivoclar Vivadent: Schaan, Liechtenstein) was projected. This is mainly due to the transformation toughening phenomena [1]. Transformation toughening happens by changing the phase of zirconia molecules around the crack from the tetragonal phase to the larger monoclinic phase, thus arresting the crack and preventing further propagation. This can also explain the high success rate of 4Y-PSZ (ZirCAD MT, Ivoclar Vivadent: Schaan, Liechtenstein) since it has high amount of the tetragonal phase (75%) [31].

The high survival rate of the two gradient zirconia groups monolithic, gradient 3Y-PSZ and 5Y-PSZ (ZirCAD® Prime, Ivoclar Vivadent: Schaan, Liechtenstein) and monolithic, gradient 4Y-PSZ and 5Y-PSZ (ZirCAD MT Multi, Ivoclar Vivadent: Schaan, Liechtenstein) might be related to the presence of high tetragonal zirconia at the cervical part of the crown. Thus, a crack might had been initiated at the occlusal 5Y-PSZ zirconia then advanced to the transitional and 3Y-PSZ or 4Y-PSZ zones where higher percentages of tetragonal zirconia is present for transformation toughening to take place thus, stopping further propagation and complete fracture. Further fractographic analysis, which is beyond the scoop of this research, is needed to study this theory.

The bonding of glass dental ceramics increased its survival rates and fracture resistance [69]. This enhancement in mechanical properties can be seen when fragile feldspathic veneers are bonded to dental enamel. Such procedure can result in high success rate over 15 years [70, 71]. However, it is still unknown whether bonding zirconia crowns to their dies had aided in their high survival rates in this study. It is worth mentioning that bonding of zirconia is different from the bonding of other dental ceramics and until this moment is still a divisive topic [60, 72]. The role of bonding was not investigated in this study.

The first null hypothesis was accepted since the mean fracture resistance for zirconia crowns was not different between the two aging methods. This finding was noticed in other studies were fracture resistance of zirconia was compared before and after fatiguing and thermocycling. In one study, fatiguing and thermocycling of zirconia disks made from 3Y-PSZ and 5Y-PSZ in two different thicknesses did not affect the mean biaxial fracture loads of those two materials [73]. Another study compared the biaxial fracture loads of 3Y-PSZ, 4Y-PSZ and 5Y-PSZ disks in 0.7 mm thickness disks and 1.2 mm thickness disks before and after thermos-mechanical loading and found no difference in the mean biaxial fracture loads of those disks before and after fatiguing [74]. The same finding was seen when the fracture resistance of zirconia anatomic crowns were tested. The thermo-mechanical loading did not affect the mean fracture resistance of zirconia crowns made from 3Y-PSZ and gradient 4Y-5Y-PSZ [7]. Similar results were seen when the fracture resistance of 3Y-PSZ and gradient 3Y-5Y-PSZ zirconia crowns was compared before and after fatiguing [8].

The second null hypothesis was rejected since the mean values of fracture resistance were different among the groups. The non-gradient 3Y-PSZ (ZirCAD LT, Ivoclar Vivadent: Schaan, Liechtenstein) had the highest fracture resistant mean values, followed by the non-gradient 4Y-

PSZ (ZirCAD HT, Ivoclar Vivadent: Schaan, Liechtenstein) followed by the two gradient systems; gradient 3Y-PSZ and 5Y-PSZ (ZirCAD Prime, Ivoclar Vivadent: Schaan, Liechtenstein) and gradient 4Y-PSZ and 5Y-PSZ (ZirCAD MT Multi, Ivoclar Vivadent: Schaan, Liechtenstein). The mean facture resistance values between the two gradient systems was not statistically significant. The yttria content at the occlusal surface was the main factor in determining the zirconia's fracture resistance regardless of its yttria content at the cervical and middle thirds of the crown.

Milling of the gradient zirconia systems can result in different composition and concentration of each layer. This can result of restorations with no or minimal translucent 5Y-PSZ zirconia. Luckily, the technician can control this by choosing where the restoration will be milled whiten the puck. Thus, those gradient zirconia restorations can be used as universal crown material depending on the esthetic and mechanical needs in each situation.

In this study, the milling of the two gradient zirconia groups (group 3 and group 4) insured 3 mm of 5Y-PSZ occlusally. This was done to standardize and ensure the maximum concentration of the weakest zirconia phase in each crown, assuming that any difference in orientation will result in crowns with better mechanical properties.

The main limitation of this study is situated in its nature as an in vitro study, in spite of all the efforts made to simulate the harsh oral environment. Further clinical studies are needed to investigate the in vivo survival rate of those different zirconia materials.

Conclusions

The survival rate of four different types of monolithic zirconia crowns with different yttira content were similar after artificial aging under thermo-mechanical loading that is equal to 5 years of clinical survival.

More microcracks can be seen with higher occlusal yttria content. Those microcracks were mainly associated with lateral (horizontal) fatiguing forces.

The fracture resistance of zirconia crowns were as follows (from most to least resistant): 3Y-PSZ> 4Y-PSZ> 3Y-PSZ, 5Y-PSZ = 4Y-PSZ, 5Y-PSZ. The fracture resistance depends on the yttria content at the occlusal third of the crown.

Further clinical studies are needed to support the findings of this in vitro trial.

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Request for Licensure Requirements Exception – Dr. Dania Mustafa

On April 3, 2026, the Board received an application for dental license by examination for Dania Mustafa.

Dr. Mustafa completed her dental school education in 2010 at the Al-Mustansirya university / collage of dentistry in Baghdad, Iraq. Dr. Mustafa completed a two year AEGD program in General Dentistry at the Cleveland Dental Institute in July 2025.

Dr. Mustafa held a resident dental license in Ohio (May 2023 to July 2025). Dr. Mustafa holds active and a dental license in Washington and Illinois.

Dr. Mustafa supplied proof of passing the clinical examinations in 2025. Dr. Mustafa supplied proof of passing the National Board Dental Examination in 2022.

Cleveland Dental Institute

Office of Academic Affairs and Student Services

Official Transcript

Name: Dania Mustafa
Student #: AG100042
Date of Birth: 04/09/1987
Address: 6524 SW Skiver Dr., Beaverton, OR 97078
Area of Studies: General Dentistry
Date of Enrollment: July 1st, 2023
Date of Graduation: June 30th, 2025
Certificate Granted: Advanced Education General Dentistry Two Years

Pursuant to OAR 818-021-0010 the Board needs to decide if they will give exception to Dr. Mustafa's residency certification in place of a dental degree upon completion of a predoctoral dental education program of not less than two years at a dental school accredited by the Commission on Dental Accreditation of the American Dental Association.

Relevant Rule:

818-021-0010
Application for License to Practice Dentistry

(1) An applicant to practice general dentistry, in addition to the requirements set forth in ORS 679.060 and 679.065, shall submit to the Board satisfactory evidence of:

(a) Having graduated from a school of dentistry accredited by the Commission on Dental Accreditation of the American Dental Association; or

(b) Having graduated from a dental school located outside the United States or Canada, completion of a predoctoral dental education program of not less than two years at a dental school accredited by the Commission on Dental Accreditation of the American Dental Association, and proficiency in the English language; and

(c) Certification of having passed the dental examination administered by the Joint Commission on National Dental Examinations or Canadian National Dental Examining Board Examination.

(2) An applicant who has not met the educational requirements for licensure may apply for examination if the Dean of an accredited school certifies the applicant will graduate.

(3) An applicant must pass a Board examination consisting of a clinical portion administered by the Board, or any clinical Board examination administered by any state, or regional testing agency, national testing agency or other Board-recognized testing agency and a jurisprudence portion administered by the Board. Clinical examination results will be recognized by the Board for five years.

(4) A person who fails any Board approved clinical examination three times must successfully complete the remedial training recommended by the testing agency. Such remedial training must be conducted by a dental school accredited by the Commission on Dental Accreditation of the American Dental Association.

(5) Prior to initial licensure, an applicant must complete a one-hour pain management course specific to Oregon provided by the Pain Management Commission of the Oregon Health Authority (Effective July 1, 2022).

Dear Oregon Board Members,

Thank you for your email requesting additional information regarding my dental education.

I understand that the Oregon State Board of Dentistry's responsibility is to protect the public and maintain a rigorous licensing process to ensure that dentists practicing in Oregon are competent and well-prepared. I respect this responsibility and believe that my education, clinical training, and professional experience have adequately prepared me to meet the requirements for Oregon licensure.

I would like to provide further clarification regarding my two-year Advanced Education in General Dentistry (AEGD) certificate from Cleveland Dental Institute (CDI) and how this program meets the educational requirements outlined in the Oregon Administrative Rules (OAR).

I successfully completed a two-year, CODA-accredited AEGD program, which provided extensive advanced clinical training in comprehensive general dentistry. During this program, I completed a substantial number of clinical procedures under the direct supervision and evaluation of experienced faculty specialists. The breadth and complexity of my clinical training extended well beyond the routine procedures typically encountered in dental school.

Additionally, I have successfully passed both written and clinical examinations administered by national and regional dental boards.

Advanced Clinical Training and Experience

As part of the clinical rotations at the CODA-accredited Cleveland Dental Institute AEGD program, I gained extensive experience in:

- **Treating medically compromised patients.**
- **Participating in on-call responsibilities.**
- **Performing complex surgical procedures.**
- **Providing comprehensive dental care to underserved populations in urban, suburban, and rural communities throughout Ohio.**
- **Managing complex dental cases referred by local dentists, particularly cases involving patients with limited access to specialty care.**

The CDI clinics frequently treated patients requiring complex dental treatment, as access to specialists accepting Medicaid and Medicare was limited in the surrounding communities. My clinical experience included, but was not limited to:

- **Single-tooth flippers and immediate dentures.**
- **Complex root canal treatments and endodontic retreatment.**
- **Management of referred endodontic cases and retrieval of separated instruments.**
- **Surgical removal of difficult full-bony impacted third molars.**
- **Full-mouth extractions.**
- **Treatment of pediatric patients under general anesthesia.**

Many of these cases involved medically complex patients or challenging treatment situations that required advanced clinical judgment and comprehensive treatment planning.

Before being permitted to perform advanced procedures, residents completed extensive lectures, advanced courses, and hands-on workshops conducted by specialist faculty. Every procedure was performed under appropriate faculty supervision and was evaluated to ensure that the required clinical standards were met. In addition, conducting research was one of the requirements for graduation from the CDI program.

Clinical Documentation and Supporting Evidence

The two-year AEGD program was an invaluable learning experience that equipped me with advanced training in comprehensive dentistry and the skills necessary to provide high-quality patient care.

I have attached the following supporting documents for your review:

1. **additional information about the CODA accreditation AEGD program, and its recognition as an accredited advanced dental education program.**
2. **A summary of the total dental procedures I performed during my two-year clinical AEGD residency, under the supervision and evaluation of various specialist faculty members. This summary further demonstrates the depth and breadth of my clinical experience.**

Considering the comprehensive nature of my two-year AEGD education, the extensive clinical hours completed, the complexity of the procedures performed, and the direct

supervision provided by specialist faculty, I respectfully believe that this training has prepared me exceptionally well to provide safe and competent care to the public.

I would be grateful if the Board could review my AEGD certificate and supporting documentation and clarify how the educational requirements under the applicable OAR provisions apply to my completed two-year CODA-accredited AEGD program.

Dania Mustafa

Ministry of Higher Education
and Scientific Research
Al-Mustansiriya University
College of Dentistry

بسم الله الرحمن الرحيم



Ref. :705
Date: 12/6/2016

RECEIVED
MAY 14 2026
Oregon Board
of Dentistry

To whom it may concern
Transcript of Records

This is to certify that **(DANIA NABIL FARHAN MUSTAFA)** whose photo is affixed above had fulfilled the requirements of the study at the college of dentistry, Al–Mustansiriya university in the academic year **(2009-2010).** She had been awarded a B.D.S degree at **(first term)** with a grading of **(Pass)** and an average mark of **(58.010).** The graduation average mark constitutes the student's performances of the five years of the study. The graduates rank was **(75)** among a class of **(88)** students.

The following are the marks (M) and the units of study; theory (T) and practical (P).

First year 2005-2006			
Subject	M	Units	
		T	P
Biology	73	4	2
Physics	60	4	2
Chemistry	56	4	2
Computers	80	2	2
Dental Anatomy	52	2	2

Second year 2006-2007			
Subject	M	Units	
		T	P
Anatomy	62	2	6
Biochemistry	62	4	2
Dental Materials	71	2	2
Histology	58	4	2
Physiology	70	4	2
Oral Histology	51	2	2
Prosthodontics	65	2	4

Third year 2007-2008			
Subject	M	Units	
		T	P
Prosthodontics	61	2	4
Pharmacology	52	4	2
Conservative Dentistry	55	2	4
Oral Surgery	67	2	2
Microbiology	54	4	2
Radiology	66	2	2
General Pathology	60	4	2

Fourth year 2008-2009			
Subject	M	Units	
		T	P
Community Dentistry	61	2	2
Prosthodontics	53	2	4
General Surgery	52	2	2
Oral Pathology	50	2	4
Conservative Dentistry	67	2	2
Periodontology	60	2	2
Oral Surgery	59	2	4
Endodontics	62	2	2
Orthodontics	63	2	2
General Medicine	54	2	2
Fixed Prosthodontics	50*	2	2

Fifth year 2009-2010			
Subject	M	Units	
		T	P
Oral Medicine	53	2	2
Endodontics	59	2	2
Orthodontics	56	2	2
Oral Surgery	57	2	4
Preventive Dentistry	54	2	2
Pedodontics	59	2	2
Fixed Prosthodontics	60	2	2
Prosthodontics	59	2	4
Periodontology	56	2	4
Conservative Dentistry	54	2	2

Remarks:

1. **Passing average and passing grade is 50%.**
2. **(*) pass in 2nd term.**
3. **Teaching language is English.**

REGISTRAR
COLLEGE OF DENTISTRY

Assist. Professor
Dr. Hikmet A.Sh.Al-Gharrawi

وزارة التعليم العالي والبحث العلمي
Ministry Of Higher Education & Scientific Research
رئاسة الجامعة المستنصرية
Al-Mustansiriyah University

No: 2401 العدد/
Date: 18.7.2016 / / التاريخ

نصادق على صحة ختم وتوقيع عميد كلية ..... على هذه الشهادة او الوثيقة.

We certify that the stamps and signature of the dean of the college of Dentistry on this certificate document is bona fide.

Dr.zainab S. Mustafa
Acting president

د.زينب صادق مصطفى
ع/ رئيس الجامعة المستنصرية





No. : 22135
Date : 26/9/2016

Lec.
Dr. Aula Kamal Rafeeq
Registrar

Ass. Prof.
Dr. Biland Mohammed S. Shukri
Assistant Dean for scientific affairs

Ministry of Higher Education
& Scientific Research
Al Mustansiriyah University
College of Dentistry
Iraq - Baghdad
Dean Office

بسم الله الرحمن الرحيم
جمهورية العراق

وزارة التعليم العالي و البحث العلمي
الجامعة المستنصرية
كلية طب الأسنان
العراق - بغداد
مكتب العميد

الى /

RECEIVED
MAY 1 4 2026
Oregon Board
of Dentistry

E -mail : must_coll_ofdentistry@yahoo.com

هاتف الكلية / ٥٣٧٢٢٣٧ - ٥٣٧٢٢٣٨

Cleveland Dental Institute

Office of Academic Affairs and Student Services

Official Transcript

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Area of Studies: General Dentistry
Date of Enrollment: July 1st, 2023
Date of Graduation: June 30th, 2025
Certificate Granted: Advanced Education General Dentistry Two Years

Year 1 Courses	Description	Clock Hrs.	Grade
D100	Oral Diagnosis and Treatment Planning	25hrs.	P
D105	Promoting Oral and Systemic Health and Disease Prevention	15hrs.	P
D110	Practice Management	20hrs.	P
D115	Pharmacology	6hrs.	P
D120	Periodontics	8hrs.	P
D125	Management of Pain and Anxiety	12hrs.	P
D130	Restorative Dentistry	10hrs.	P
D135	Endodontics	6hrs.	P
D140	Prosthodontics	8hrs.	P
D145	Oral Surgery	10hrs.	P
D150	Pediatric Dentistry	6hrs.	P
D155	Orthodontics	8hrs.	P
D160	Management of Dental and Medical Emergencies	2hrs.	P
D165	Dental Implants	10hrs.	P
D170	Principles of Botox Injection Techniques	7hrs.	P

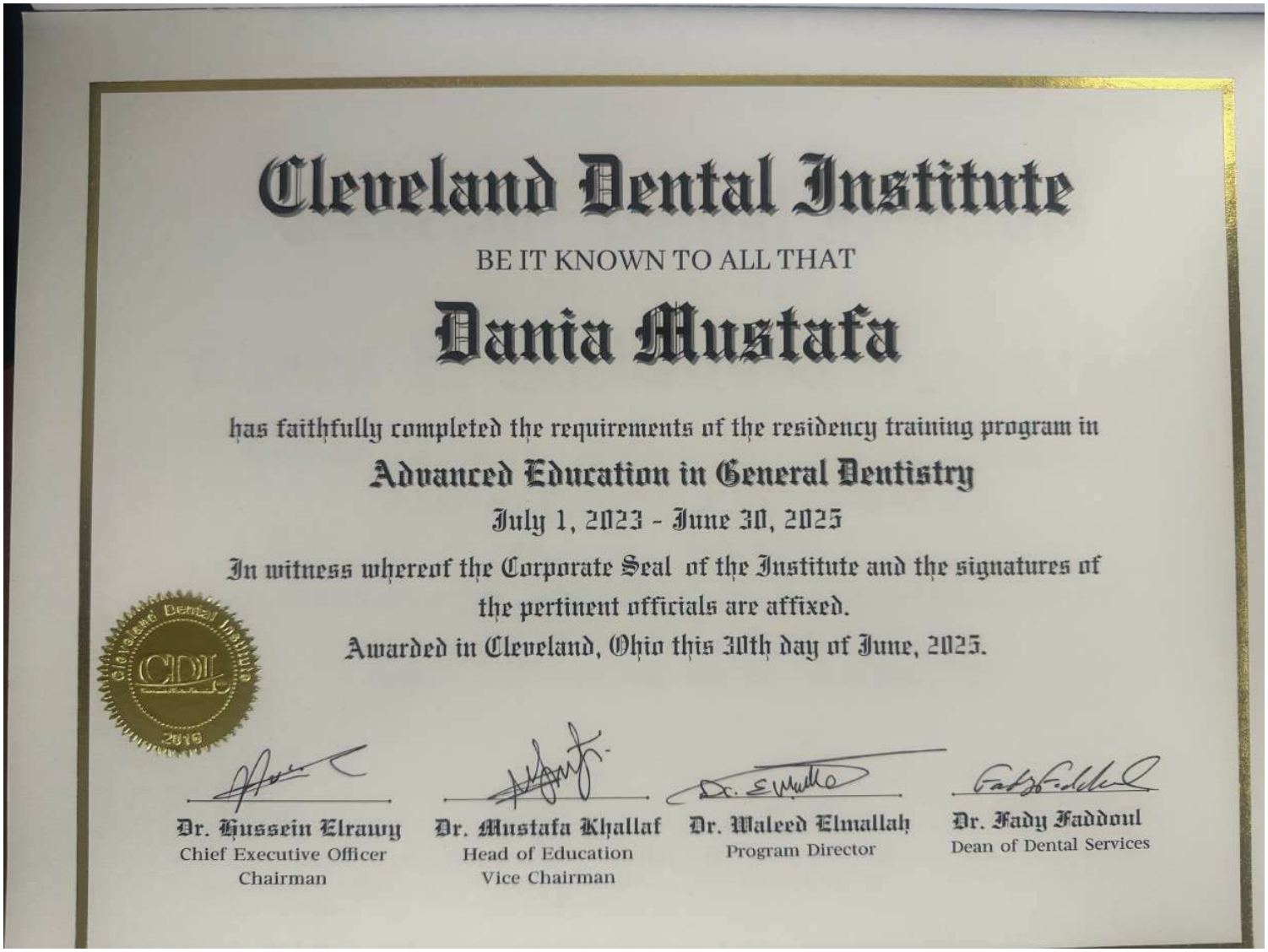
Year 1 Clinical Hours
1960 hrs.

Year 2 Courses	Description	Clock Hrs.	Grade
D200	Multidisciplinary Seminars	25hrs.	P
D205	IV Sedation	8hrs.	P
D210	Management of Pain and Anxiety	12hrs.	P
D215	Advanced Restorative Dentistry	10hrs.	P
D220	Surgical Periodontics	8hrs.	P
D225	Advanced Endodontic	6hrs.	P
D230	Prosthodontics	8hrs.	P
D235	Advanced Oral Surgery	10hrs.	P
D240	Treatment of Dental and Medical Emergencies	2hrs.	P
D245	Dental Implants	10hrs.	P
D250	Facial Anatomical Landmarks and Basics of Botox Injection Techniques	7hrs.	P

Year 2 Clinical Hours
1960 hrs.

x Ina Xhindoli

Ina Xhindoli
Registrar



Cleveland Dental Institute

BE IT KNOWN TO ALL THAT

Dania Mustafa

has faithfully completed the requirements of the residency training program in

Advanced Education in General Dentistry

July 1, 2023 - June 30, 2025

In witness whereof the Corporate Seal of the Institute and the signatures of the pertinent officials are affixed.

Awarded in Cleveland, Ohio this 30th day of June, 2025.

Cleveland Dental Institute CDI 2016

Dr. Hussein Elrawy	Dr. Mustafa Khallaf	Dr. Waleed Elmallah	Dr. Fady Faddoul
Chief Executive Officer Chairman	Head of Education Vice Chairman	Program Director	Dean of Dental Services

Report Name: Resident Procedure Analysis Final
Description: No Description
Report Creator: user13000000048782
Report Location: public/org13443/Resident Procedure Analysis Final.xanalyzer
Created on: Jun 30, 2025 12:30:43 PM
Cube: Ledger
Date Exported: Jun 30, 2025 12:30:43 PM
Filters Used: Revision History includes Current
Provider includes Mustafa and Dania
Location excludes n/a
Date (Service) is from 07/01/2023 To 06/30/2025
Custom Selection Items

			Provider	
			Mustafa, Dania	
Proc. Category	Proc. Code	Proc. Description	Patient Count	Procedure Count
Adjunct Serv	D9110	Palliative treatment of dental pain – per vis	2	2
	D9222	Deep sedation/general anesthesia - first 15	1	1
	D9223	Deep sedation/general anesthesia – each a	1	4
	D9230	Nitrous Oxide	30	41
	D9248	Non-intravenous conscious sedation	1	1
	D9310	Professional Consultation	9	9
	D9430	Office Visit for Observation	5	5
	D9911	Desensitizing Resin	1	1
	D9941	Soft Night Guard	2	2
	D9944	Occlusal guard - hard appliance, full arch	3	3
	D9972	zoom whitening per arch	2	3
	Nitrous	Nitrous Oxide Adult	2	2
	Seat crn	Seat Crown	1	1
	f/u office	Follow Up/Office Visit	136	150
	f/up ext	Follow up extraction	88	93
Adjunct Serv Total			**268**	**318**
Diagnostic	D0120	Periodic Evaluation	529	538
	D0140	Limited Evaluation	457	470
		Limited Evaluation (Referred)	6	6
	D0145	Evaluation of Young Patient	1	1
	D0150	Comprehensive Evaluation	647	649
	D0180	Periodontal Evaluation	3	3
	D0210	Intraoral – comprehensive series of radiogr	84	84
	D0220	Intraoral Periapical Images	920	1,038
	D0230	Intraoral Periapical Add'l	757	1,440
	D0240	Intraoral Occlusal Image	10	21
	D0251	Extra-oral posterior dental radiographic ima	1	1
	D0270	Bitewing Single Image	81	85
	D0272	Bitewing Two Images	241	255
	D0274	Bitewing Four Images	944	972
	D0277	Vertical Bitewing 7 to 8 Images	2	2
	D0330	Panoramic Image	845	875
	D0340	2D cephalometric image	1	1
	D0367	CT Capture, Both Jaws	21	21
	D0383	CT Image, Both Jaws	1	1
	D0481	Electron Microscopy	1	1
	D0707	I/O periapical-img capture only	1	1
	MNRCONSENT	MINOR CONSENT	2	2
	ORALCONSEN	ORAL CONSENT	1	1

Diagnostic Total			**1,918**	**6,468**
Endodontics	D3110	Direct Pulp Cap	1	1
	D3120	Indirect Pulp Cap	14	17
	D3220	Therapeutic Pulpotomy	14	15
	D3221	Pulpal Debridement	1	1
	D3310	Root Canal Therapy on Anterior	26	32
	D3320	Root Canal Therapy on Premolar	25	27
	D3330	Root Canal Therapy on Molar Tooth	50	55
	FRCT	FINISH RCT	1	1
	S RCT	Start Root Canal	44	47
Endodontics Total			**154**	**196**
Implant Serv	D6010	Endosteal Implant Placement	3	4
	D6057	Custom Abutment	1	4
	D6058	Full Porcelain/Ceramic Crown	2	5
	D6065	Full Porcelain/C Crown-Implant	1	1
	D6104	Bone Graft, Implant Placement	1	2
	D6105	Removal of implant body not requiring bone	1	1
	H.ABUTMENT	Healing Abutment	1	1

Implant Serv Total			**8**	**18**
Oral Surgery	D7140	Routine Extraction	278	693
	D7210	Extraction of Erupted Tooth with Bone Rem	4	5
	D7220	Remove ST Impacted Tooth	7	8
	D7230	Remove PB Impacted Tooth	10	16
	D7240	Remove CB Impacted Tooth	4	5
	D7241	Extraction Complications	3	3
	D7250	Removal of Residual Tooth Roots	1	2
	D7261	Closure of Sinus Perforation	1	1
	D7280	Access Unerupted Tooth	2	2
	D7283	Device to Erupt Impacted Tooth	3	3
	D7310	Alveoloplasty with extractions 4+ teeth, pe	9	16
	D7311	Alveoloplasty with extractions 1-3 teeth, p	6	11
	D7320	Alveoloplasty without extractions (4-8) per	1	1
	D7410	Excise Ben. Lesion (<1.25cm)	1	1
	D7471	Remove Lateral Exostosis	2	2
	D7472	Remove Torus Palatinus	1	1
	D7473	Remove Torus Mandibularis	2	3
	D7510	Drain Intraoral Abscess	1	1
	D7953	Bone Replacement Graft	1	2
	D7960	Frenulectomy	1	1
	D7961	Frenectomy - buccal/labial	1	1
	SUTREM	SUTURE REMOVAL	3	3

Oral Surgery Total			**308**	**781**
Orthodontics	ORTHOADJ	ORHTO ADJUSTMENT	1	1
Orthodontics Total			**1**	**1**
Periodontics	D4211	Gingivectomy (1-3)	2	3
	D4212	Gingivectomy-Access/Restoration	9	9
	D4249	Hard Tissue Crown Lengthening	1	1
	D4267	Guided tissue regeneration, natural teeth -	1	2
	D4270	Pedicle Soft Tissue Graft	2	2
	D4322	Splint - intra-coronal	1	1
	D4323	Splint - extra-coronal	2	5
	D4341	Scaling & Root Planing (4-8)	37	105
	D4342	Scaling & Root Planing (1-3)	14	29
	D4355	Full mouth debridement to enable a compre	5	5
	D4910	Periodontal Maintenance	7	7

Periodontics Total			72	169
Preventive	D0001	New Patient Exam Package - If prophy not	8	8
	D1110	Prophylaxis - Adult	646	662
	D1120	Prophylaxis - Child	350	355
	D1206	Topical Applic Fluoride Varnish	215	215
	D1208	Topical Application of Fluoride	254	260
	D1310	Nutritional Counseling	1	1
	D1330	Oral Hygiene Instructions	7	7
	D1351	Sealant	45	184
	D1353	Sealant repair - per tooth	1	2
	D1354	Interim caries arresting medicament applica	8	28
	D1355	Caries preventive meds-per th	1	1
	D1510	Space maintainer - fixed, unilateral – per q	1	1
		Space maintainer - fixed, unilateral – per t	3	4
	D1556	Removal of fixed unilateral space maintaine	1	1
	D1557	Removal of fixed bilateral space maintainer	1	1

Preventive Total			1,027	1,730
Prosth, remov	0005	Final Impression	5	5
	Adj	Adjust Denture/Partial	10	11
	Bitereg	Bite Registration	24	24
	D5110	Full Upper Denture	39	40
	D5120	Full Lower Denture	30	31
	D5130	Immediate denture - maxillary	1	1
	D5140	Immediate denture - mandibular	1	1
	D5213	Maxillary partial denture - cast metal frame	7	7
	D5214	Mandibular partial denture - cast metal fra	15	15
	D5226	Lower Partial w/ Flexible Base	1	1
	D5410	Adjust Full Upper Denture	3	3
	D5411	Adjust Full Lower Denture	6	6
	D5422	Adjust Partial Lower Denture	2	2
	D5520	Replace Tooth on Full Denture	1	1
	D5621	Repair cast partial framework, mandibular	1	1
	D5640	Replace Broken Tooth on Partial Denture	1	1
	D5650	Add Tooth to Existing Partial Denture	1	1
	D5820	Flipper 1 tooth	1	1
		Flipper 2 or more teeth	1	1
	Delivery	Denture Delivery	2	2
	N4115	Soft Reline- Chairside	3	5
	PRELIM	Preliminary Impression	4	4
		Preliminary Scan	38	40
	PrimImp	Primary Impression	2	2
	Try In	Try In	6	7
	Wax Bite	Wax Bite	2	4

Prosth, remov Total			**99**	**217**
Prostho, fixed	0008	RECEMENT TEMP CROWN	1	1
	BRDGPREP	BRIDGE PREP	2	3
	D6245	Full Porcelain/Ceramic Pontic	1	1
	D6740	Retainer crown - porcelain/ceramic	1	2
Prostho, fixed Total			**3**	**7**
Restorative	.	BRIDGE SEAT	1	1
	0007	IRM	1	1
	0009	TEMP FILLING	2	2
	CRNPREP	Crown Prep	35	46
	CRNSCAN	CROWN SCAN	2	2
	D2330	Anterior Resin Composite 1s	57	89
	D2331	Anterior Resin Composite 2s	37	55
	D2332	Anterior Resin Composite 3s	60	83
	D2335	Anterior Resin Composite 4+s	71	100
	D2391	Posterior Resin Composite 1s	223	363
	D2392	Posterior Resin Composite 2s	254	371
	D2393	Posterior Resin Composite 3s	94	121
	D2394	Posterior Resin Composite 4+s	38	41
	D2740	Full Porcelain/Ceramic Crown	25	29
	D2929	Prefab Porcelain/C Crown-Prim	1	1
	D2930	Prefabricated Steel Crown-Prim	20	27
	D2950	Core Buildup w/ Any Pins	24	26
	D2952	Post & Core Added to Crown	2	2
	D2954	Prefabricated Post & Core	3	3
	FILLADJ	FILLING ADJUSTMENT	4	5
	REDOCrown	Redo crown after fabrication	1	1
	RedoFill	Redo filling	7	7
Restorative Total			**618**	**1,376**
n/a	Not Available: spaces etc.	Not Available: spaces etc.	8	0
n/a Total			**8**	**0**
Grand Total			**2,516**	**11,281**