

# **Immunization Protocol**

Tetanus, diphtheria, and Tetanus-containing Combination Vaccines (Adacel <sup>®</sup> , Boostrix <sup>™</sup> , Tenivac <sup>®</sup> , and TdVax <sup>™</sup> )		
Last Reviewed	26 March 2024	
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## 1. What's new

As of February 28, 2024, the ACIP recommends use of tetanus and diphtheria vaccine (Td) off-label for children <7 years of age who have a contraindication to pertussis-containing vaccine.

## 2. Oregon immunization protocol

A. Check the ALERT Immunization Information System (IIS) to determine whether the patient needs this vaccine and any other vaccines.

#### B. Screen clients for contraindications and precautions.

- C. Provide a current Vaccine Information Statement (VIS), answering any questions.
- D. Record all required data elements in the client's permanent health record.
- E. Verify needle length for intramuscular (IM) injection into the deltoid muscle.
- F. To avoid injury related to vaccine administration, make sure staff who administer vaccines recognize the anatomic landmarks for identifying the deltoid muscle and use proper IM administration technique.
- G. Ensure epinephrine hydrochloride solution (1:1,000) and other appropriate agents and equipment are available for immediate use in case of anaphylactic or acute hypersensitivity reaction.
- H. Give a 0.5-mL dose of Tdap or Td IM, according to the age-appropriate schedule.
- Td vaccine should only be given to a child <7 years of age when a valid contraindication to DTaP exists.<sup>11</sup>
- J. May be given with all ACIP-recommended child and adult vaccinations.
- K. Ask client to remain seated on the premises for 15 minutes after vaccination to decrease the risk of injury should they faint.

Health Officer Signature	Date

Health Officer Signature

#### 3. Vaccine schedule for tetanus, diphtheria, and pertussis<sup>5</sup>

For unvaccinated persons ≥7 years of age*								
Dose and Route -	• 0.5-mL, IM							
Dose	Dose Preferred age Minimum acceptable age Minimum acceptable spacing							
1								
2	7 years	≥7 years	4 weeks after dose 1					
3		6 months after dose 2						

\*See Appendices for catch-up schedule for partially vaccinated children.

Date

Booster schedule for persons ≥10 years of age <sup>6</sup>							
Dose and Route	e: 0.5-mL, IM						
Dose	Dose Preferred age Minimum acceptable age Minimum acceptable spacing						
First booster	11 years 10 years ≥5 years after last dose of DTaP						
Additional boosters	N/A	N/A	Routine: every 10 years Wound management: ≥5 years				

## **Pregnant Persons<sup>6</sup>**

Dose and Route: 0.5-mL, IM

- Tdap should be administered during <u>every</u> pregnancy, at 27–36 weeks' gestation, preferably during the earlier part of the third trimester. Vaccination during the third trimester provides the highest concentration of maternal antibodies to be transferred closer to birth.
- Tdap can be given at any time during pregnancy if needed for catch-up or wound management.

# Td for children <7 years of age with a contraindication to pertussis-containing vaccines<sup>10</sup>

Dose and Route	Dose and Route: 0.5-mL, IM					
Dose Preferred age Minimum acceptable age		Minimum acceptable spacing				
1#						
2	4 months	10 weeks	4 weeks dose 1 (DTaP) to 2 (Td)			
3	6 months	14 weeks	4 weeks dose 2 to 3			
4	15–18 months	12 months	6 months dose 3 to 4			
5*	4–6 years	6 months dose 4 to 5				

<sup>#</sup>The only contraindication specific to the pertussis component of diphtheria-tetanus-pertussis vaccines is encephalopathy following a previous dose. Therefore, it is presumed that Dose 1 was already given as DTaP.

\*Dose 5 not needed if dose 4 given at  $\geq$ 4 years of age.

## 4. Licensed Tdap / Td vaccine<sup>1-4,6</sup>

Trade Name	Vaccine Components	Presentation	Acceptable Age Range
Adacel	Tdap	0.5-mL single-dose vials and prefilled syringes	≥7 years*
Boostrix	Tdap	0.5-mL single-dose vials and prefilled syringes	≥7 years*
Tenivac	Td	0.5-mL single-dose vials and prefilled syringes	≥7 years*
TdVax	Td	0.5-mL single-dose vials	≥7 years*

\*Off-label use, approved by ACIP for all products<sup>6,11</sup>

#### 5. Recommendations for use<sup>5,6,10,11</sup>

- A. Routine use: All persons ≥11 years of age who have not received a dose of Tdap should receive a single dose of Tdap at the first opportunity, regardless of when they last received a Td booster.
- B. **Catch-up vaccination**: Persons who do not have documentation of receiving a series of diphtheria/tetanus-containing vaccine in childhood need a single-dose of Tdap vaccine and two doses of Td vaccine given over 6 months. See appendices for details.
- C. **Wound management:** Either Td or Tdap can be used for wound management. Tdap is preferred for persons who haven't previously received Tdap or whose history is unknown.
- D. Children <7 years of age with a contraindication to pertussis-containing vaccines: A DTaP vaccine series is recommended for children younger than 7 years. If a contraindication to pertussis-containing vaccines develops after the first DTaP dose in a child <7 years, Td may be administered off-label for all recommended remaining doses, using the same schedule used for DTaP. Note that the only contraindication specific to the pertussis component in DTaP is encephalopathy within 7 days of vaccination, not attributable to another cause and that children who receive Td in place of DTaP may have sub-optimal protection against diphtheria.<sup>10,11</sup>

#### 6. Contraindications<sup>1-4,5</sup>

A. Encephalopathy (e.g., coma, decreased level of consciousness, or prolonged seizures) not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap. These persons should receive Td in place of Tdap.

B. Severe allergic reaction (e.g., anaphylaxis) to a previous dose or to any vaccine component. Tenivac prefilled syringe tip caps may contain natural rubber latex.

Vaccine	Vaccine Excipient Summary <sup>8</sup>
Adacel	aluminum phosphate, formaldehyde, 2-phenoxyethanol, glutaraldehyde
Boostrix	formaldehyde, aluminum hydroxide, sodium chloride, polysorbate 80
Tenivac	aluminum phosphate, formaldehyde, sodium chloride
TdVax	aluminum phosphate, formaldehyde, thimerosal

## 7. Warnings and precautions<sup>5,7</sup>

- A. **Neurological disorders**: (Tdap) Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized; these precautions are for pertussis components.
- B. **Guillain-Barré syndrome**: Guillain-Barré syndrome <6 weeks after a previous dose of tetanus toxoid-containing vaccine.
- C. Arthus-type hypersensitivity: History of Arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid–containing vaccines; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid–containing vaccine.
- D. Moderate or severe acute illness with or without fever.

#### 8. Other considerations<sup>5</sup>

#### A. History of disease:

- a. Persons who have a history of pertussis should receive a booster dose of Tdap according to the routine recommendation. While pertussis disease likely confers some natural immunity, duration of protection is not long-term.
- b. Tetanus or diphtheria disease does not confer immunity against re-infection. Persons who have a history of a primary series should receive a booster dose during convalescence. Persons without a history of vaccination should begin the 3-dose Tdap/Td series.

#### B. Inadvertent administration of the incorrect formulation:

a. DtaP is not indicated for persons aged ≥7 years. If DtaP is administered inadvertently to a <u>fully vaccinated child</u> aged 7–10 years, this dose should be counted as the adolescent Tdap dose.

- b. If DtaP is administered inadvertently to an <u>under-vaccinated child</u> aged 7–10 years, this dose should count as the Tdap dose of the catch-up series, and the child should receive an adolescent booster dose of Tdap.
- c. If DtaP is administered inadvertently to a person aged ≥11 years, this dose should count as the Tdap dose, and the person should not receive an additional dose of Tdap.
- d. Children aged 7–9 years who are fully vaccinated: if Tdap is administered inadvertently, the Tdap dose should not be counted as valid. The adolescent Tdap dose should be administered as recommended when this child is aged 11–12 years. However, if Tdap is administered at age 10 years, the Tdap dose may count as the adolescent Tdap dose.
- e. For additional information see Catch Up Guidance in Appendix A and B.

#### C. Wound management recommendations<sup>6</sup>

History of adsorbed	Clean, minor wounds		All other wounds*	
tetanus toxoid doses	Tdap or Td	TIG#	Tdap or Td	TIG#
Unknown or <3 doses	Yes	No	Yes	Yes
≥3 doses	Administer if ≥10 years since last dose	No	Administer if ≥5 years since last dose	No

\*Wounds contaminated with dirt, feces, soil or saliva; puncture wounds; avulsions; or wounds from missiles, crushing, burns or frostbite. See OHA Immune Globulin, Tetanus protocol.

#Persons with HIV or severe immunodeficiency should receive tetanus immune globin, regardless of immunization history or wound severity.

## 9. Side effects and adverse reactions<sup>1-4</sup>

Тдар	
Adverse Event	Frequency
Injection site pain	Up to 78%
Other local reactions (redness, swelling)	Up to 25%
Fever >100.4°F	Up to 5%
Other systemic reactions (fatigue, headache, GI symptoms)	Up to 43%
Td	
Adverse Event	Frequency
Injection site pain	Up to 81%
Other local reactions (redness, swelling)	Up to 26%
Fever >100.4°F	Up to 2%
Other systemic reactions (malaise, headache, pain in joints)	Up to 25%

## **10.** Storage and handling<sup>1-4</sup>

All clinics and pharmacies enrolled with the Vaccines for Children (VFC) Program must <u>immediately</u> report any storage and handling deviations to the Oregon Immunization Program at 971-673-4VFC (4823).

Vaccine	Temp Storage Issues		Notes
All	Store at 2°– 8°C (36°–46°F)	Do not freeze. Do not use if vaccine has been frozen.	

## **11.** Adverse events reporting

Report adverse events online to the Vaccine Adverse Events Reporting System (VAERS) at <u>https://vaers.hhs.gov/reportevent.html</u>.

VAERS Reporting Table:

https://vaers.hhs.gov/docs/VAERS\_Table\_of\_Reportable\_Events\_Following\_Vaccina tion.pdf

#### Event and interval from vaccination

- A. Anaphylaxis or anaphylactic shock (7 days)
- B. (Tdap) Encephalopathy or encephalitis (7 days)
- C. Brachial neuritis (28 days)
- D. Shoulder Injury Related to Vaccine Administration (7 days)
- E. Vasovagal syncope (7 days)
- F. Any acute complications or sequelae (including death) of above events (interval not applicable)
- G.Events described in manufacturer's package insert as contraindications to additional doses of vaccine (interval see package insert)

## 12. References

- Adacel® package insert, updated January 2023. Available at: <u>www.fda.gov/vaccines-blood-biologics/vaccines/adacel</u>. Accessed 26 March 2024.
- 2. Boostrix<sup>™</sup> package insert, updated October 2022. Available at: <u>www.fda.gov/media/124002/download</u>. Accessed 26 March 2024.
- 3. Tenivac® package insert, updated 19 December 2022. Available at: <u>www.fda.gov/media/76610/download</u>. Accessed 26 March 2024.
- 4. TdVax<sup>™</sup> package insert, current as of September 2018. Available at:

www.fda.gov/media/76430/download. Accessed 26 March 2024.

- Liang, JL, Tiwari T, Moro P, et al. Prevention of pertussis, tetanus, and diphtheria with vaccines in the United States: Recommendations of the ACIP. MMWR 2018; 67(2):1–44. Available at: <u>www.cdc.gov/mmwr/volumes/67/rr/pdfs/rr6702a1-H.pdf</u>. Accessed 26 March 2024.
- Havers FP, Moro P, Hunter P, Hariri S, Bernstein H. Use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccines: Recommendations of the ACIP. MMWR 2020; 69(3): 77–83. Available at: <u>www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6903a5-H.pdf</u>. Accessed 26 March 2024.
- Kroger A, Bahta L, Long S, Sanchez P. General Best Practice Guidelines for Immunization. Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP). Available at: <u>www.cdc.gov/vaccines/hcp/aciprecs/general-recs/index.html</u>. Accessed 26 March 2024.
- 8. CDC. Vaccine Excipient Summary. November 2021. Available at: <u>www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/excipient-table-</u> <u>2.pdf</u>. Accessed 26 March 2024.
- CDC. Catch-up guidance for children 7-18 years. Updated December 2023. Available at <u>www.cdc.gov/vaccines/schedules/downloads/child/job-aids/tdap-1.pdf</u> and <u>https://www.cdc.gov/vaccines/schedules/downloads/child/job-aids/tdap-2.pdf</u>. Accessed 26 March 2024.
- CDC. About Young Children with a Contraindication to Pertussis-Containing Vaccines. Updated January 2024. Available at: <u>www.cdc.gov/vaccines/vpd/dtap-tdap-td/hcp/td-offlabel.html</u>. Accessed 26 Mar 2024.
- Hughes M and Santoli J. VFC Resolution Update: Tetanus and Diphtheria Toxoid Containing Vaccines. ACIP Meeting presentation, 28 Feb 2024. Available at: <u>www.cdc.gov/vaccines/acip/meetings/downloads/slides-2024-02-</u> <u>28-29/01-DT-Hughes-Santoli-508.pdf</u>. Accessed 26 March 2024.

To request this material in an alternative format (e.g., Braille) or to clarify any part of the above order, contact the Oregon Health Authority Immunization Program at 971.673.0300 and 711 for TTY. For other questions, consult with the vaccine recipient's primary health care provider or a consulting physician.

Electronic copy of this standing order is available at: <u>https://www.oregon.gov/oha/ph/preventionwellness/vaccinesimmunization/immunizationproviderres</u> <u>ources/pages/stdgordr.aspx</u>

## **13.** Appendix A – Catch-up guidance 7 through 9 years

Available at: www.cdc.gov/vaccines/schedules/downloads/child/job-aids/tdap-1.pdf

## Catch-Up Guidance for Children 7 through 9 Years of Age

#### Tetanus-, Diphtheria-, and Pertussis-Containing Vaccines: Tdap/Td<sup>1</sup>

The table below provides guidance for children whose vaccinations have been delayed. Start with the child's age and information on previous doses (previous doses must be documented and must meet minimum age requirements and minimum intervals between doses). Use this table in conjunction with table 2 of the Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, found at www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html.

IF current age is	AND # of previous doses of DTaP, DT, Td, or Tdap is	AND	AND	AND	THEN	Next dose due	
	Unknown or 0	<b>→</b>	+	+	Give Dose 1 (Tdap) today	Give Dose 2 (Td or Tdap) at least 4 weeks after Dose 1	
		Dose 1 was given <b>before</b> 12 months of age	<b>→</b>	<b>→</b>	Give Dose 2 (Tdap) today	Give Dose 3 (Td or Tdap) at least 4 weeks after Dose 2	
			It has been at least 4 weeks	Dose 1 was Tdap	Give Dose 2 (Td or Tdap) today	Give Dose 3 (Td or Tdap)	
	1	Dose 1 was given at 12 months of age or older	since Dose 1	Dose 1 was <b>not</b> Tdap	Give Dose 2 (Tdap) today	at least 6 calendar months after Dose 2	
			It has <b>not</b> been at least 4 weeks since Dose 1	Dose 1 was Tdap	No dose today	Give Dose 2 (Td or Tdap) at least 4 weeks after Dose 1	
				Dose 1 was <b>not</b> Tdap		Give Dose 2 (Tdap) at least 4 weeks after Dose 1	
		Dose 1 was given <b>before</b> 12 months of age	It has been at least 4 weeks since Dose 2	Dose 2 was Tdap <sup>1</sup>	Give Dose 3 (Td or Tdap) today Give Dose 3 (Tdap) today	Give Dose 4 (Td or Tdap) at least 6 calendar months after Dose 3	
7 through 9 years <sup>1</sup>				No dose was Tdap			
			It has <b>not</b> been	Dose 2 was Tdap		Give Dose 3 (Td or Tdap) at least 4 weeks after Dose 2	
	2			at least 4 weeks since Dose 2	No dose was Tdap	No dose today	Give Dose 3 (Tdap) at least 4 weeks after Dose 2
		2 Dose 1 was	It has been at least 6 calendar months since Dose 2	Any dose was Tdap <sup>1</sup>	Give Dose 3 (Td or Tdap) today	Give Tdap at	
				No dose was Tdap	Give Dose 3 (Tdap) today	11–12 years of age <sup>1,2</sup>	
		given at 12 months of age or older	It has <b>not</b> been at least	Any dose was Tdap <sup>1</sup>		Give Dose 3 (Td or Tdap) at least 6 calendar months after Dose 2 <sup>1</sup>	
			6 calendar months since Dose 2	No dose was Tdap	No dose today	Give Dose 3 (Tdap) at least 6 calendar months after Dose 2	

<sup>1</sup> For persons 7-9 years of age who receive a dose of Tdap, the routine adolescent Tdap dose should be administered at age 11-12 years. <sup>2</sup> Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxoid-containing vaccine.

Trap may be administered regardless of the interval since the last tetarius- and dipitchena-toxoid-containing vaccine.

Reference: Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger–United States, 2023. <a href="http://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf">www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf</a>

# Catch-Up Guidance for Children 7 through 9 Years of Age

# Tetanus-, Diphtheria-, and Pertussis-Containing Vaccines: Tdap/Td<sup>1</sup>

IF current age is	AND # of previous doses of DTaP, DT, Td, or Tdap is	AND	AND	AND	THEN	Next dose due
7 through 9 years <sup>1</sup>	3	Dose 1 was given <b>before</b> 12 months of age	It has been at least 6 calendar months since Dose 3	Any dose was Tdap <sup>1</sup>	Give Dose 4 (Td or Tdap) today	Give Tdap at 11–12 years of age <sup>12</sup>
				No dose was Tdap	Give Dose 4 (Tdap) today	
			It has <b>not</b> been at least 6 calendar months since Dose 3	Any dose was Tdap <sup>1</sup>	No dose today	Give Dose 4 (Td or Tdap) at least 6 calendar months after Dose 3 <sup>1</sup>
				No dose was Tdap		Give Dose 4 (Tdap) at least 6 calendar months after Dose 3 <sup>1</sup>
		Dose 1 was given at 12 months of age or older	No dose was Tdap	<b>→</b>	Give Dose 4 (Tdap²) today	Give Tdap at 11–12 years of age <sup>1,2</sup>
			Any dose was Tdap	<b>→</b>	No dose today	
	4	<b>→</b>	Dose of DTaP or Tdap given after 4 <sup>th</sup> birthday	<b>→</b>	No dose today	Give Tdap at 11–12 years of age <sup>12</sup>
			No DTaP or Tdap given after 4 <sup>th</sup> birthday	<b>→</b>	Give a dose of Tdap today	Give Tdap at 11–12 years of age <sup>12</sup>

<sup>1</sup> For persons 7-9 years of age who receive a dose of Tdap, the routine adolescent Tdap dose should be administered at age 11-12 years. <sup>2</sup> Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxoid-containing vaccine.

Reference: Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger—United States, 2023. www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf

#### 14. Appendix B – Catch-up guidance 10 through 18 years

Available at: www.cdc.gov/vaccines/schedules/downloads/child/job-aids/tdap-2.pdf

# Catch-Up Guidance for Children 10 through 18 Years of Age

#### Tetanus-, Diphtheria-, and Pertussis-Containing Vaccines: Tdap/Td

The table below provides guidance for children whose vaccinations have been delayed. Start with the child's age and information on previous doses (previous doses must be documented and must meet minimum age requirements and minimum intervals between doses). Use this table in conjunction with table 2 of the Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, found at www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html.

IF current age is	AND # of previous doses of DTaP, DT, Td, or Tdap is	AND	AND	AND	THEN	Next dose due
10 through 18 years	Unknown or 0	<b>→</b>	+	+	Give Dose 1 (Tdap) today	Give Dose 2 (Td or Tdap) at least 4 weeks after Dose 1
	1	Dose 1 was given <b>before</b> 12 months of age	$\rightarrow$	<b>→</b>	Give Dose 2 (Tdap) today	Give Dose 3 (Td or Tdap) at least 4 weeks after Dose 2
		Dose 1 was given at 12 months of age or older	It has been at least 4 weeks since Dose 1	Dose 1 was Tdap <sup>1,2</sup>	Give Dose 2 (Td or Tdap) today <sup>2</sup>	Give Dose 3 (Td or Tdap) at least 6 calendar months after Dose 2
				Dose 1 was <b>not</b> Tdap	Give Dose 2 (Tdap) today	
			It has <b>not</b> been at least 4 weeks since Dose 1	Dose 1 was Tdap	No dose today	Give Dose 2 (Td or Tdap) at least 4 weeks after Dose 1 <sup>2</sup>
				Dose 1 was <b>not</b> Tdap	No dose today	Give Dose 2 (Tdap) at least 4 weeks after Dose 1
	2	Dose 1 was given <b>before</b> 12 months of age	It has been at least 4 weeks since Dose 2	Any dose was Tdap <sup>1</sup>	Give Dose 3 (Td or Tdap) today <sup>2</sup>	Give Dose 4 (Td or Tdap) at least 6 calendar months after Dose 3
				No dose was Tdap <sup>3</sup>	Give Dose 3 (Tdap) today	
			It has <b>not</b> been 4 weeks since Dose 2	Any dose was Tdap <sup>1</sup>	No dose today	Give Dose 3 (Td or Tdap) at least 4 weeks after Dose 2 <sup>2</sup>
				No dose was Tdap <sup>3</sup>	No dose today	Give Dose 3 (Tdap) at least 4 weeks after Dose 2
		Dose 1 was given at 12 months of age or older	It has been at least 6 calendar months since Dose 2	Any dose was Tdap <sup>1</sup>	Give Dose 3 (Td or Tdap) today <sup>2</sup>	Give Td or Tdap 10 years after Dose 3
				No dose was Tdap <sup>3</sup>	Give Dose 3 (Tdap) today	
			It has <b>not</b> been 6 calendar months since Dose 2	Any dose was Tdap <sup>1</sup>	No dose today	Give Dose 3 (Td or Tdap) at least 6 calendar months after Dose 2 <sup>2</sup>
				No dose was Tdap <sup>3</sup>	No dose today	Give Dose 3 (Tdap) at least 6 calendar months after Dose 2

<sup>1</sup>Given at 10 years of age or older.

<sup>2</sup>If the previous Tdap dose(s) was administered before the 10<sup>th</sup> birthday, then a dose of Tdap is recommended now.

<sup>3</sup>Or Tdap administered at 9 years of age or younger.

# Catch-Up Guidance for Children 10 through 18 Years of Age

## Tetanus-, Diphtheria-, and Pertussis-Containing Vaccines: Tdap/Td

IF current age is	AND # of previous doses of DTaP, DT, Td, or Tdap is	AND	AND	AND	THEN	Next dose due
10 through 18 years	3	Dose 1 was given <b>before</b> 12 months of age	It has been at least 6 calendar months since Dose 3	Any dose was Tdap <sup>1</sup>	Give Dose 4 (Td or Tdap) today <sup>2</sup>	Give Td or Tdap 10 years after Dose 4
				No dose was Tdap <sup>3</sup>	Give Dose 4 (Tdap) today	
			It has <b>not</b> been 6 calendar months since Dose 3	Any dose was Tdap¹	No dose today	Give Dose 4 (Td or Tdap) at least 6 calendar months after Dose 3 <sup>2</sup>
				No dose was Tdap <sup>3</sup>	No dose today	Give Dose 4 (Tdap) at least 6 calendar months after Dose 3
		Dose 1 was given at 12 months of age or older	No dose was Tdap³	<b>→</b>	Give Dose 4 (Tdap) today	Give Td or Tdap 10 years after Dose 4
			Any dose was Tdap¹	→	No dose today	Give Td or Tdap 10 years after Dose 3 <sup>2</sup>
	4	<b>→</b>	No Tdap was given at age 7 years or older	→	Give a dose of Tdap today <sup>4</sup>	Give Td or Tdap 10 years after Tdap dose
			Any dose of Tdap was given at age 7 years or older <sup>1</sup>	No Tdap was given at age 10 or older		
				Tdap was given at age 10 or older	No dose today	Give Td or Tdap 10 years after Dose 4

<sup>1</sup>Given at 10 years of age or older.

<sup>2</sup>If the previous Tdap dose(s) was administered before the 10<sup>th</sup> birthday, then a dose of Tdap is recommended now.

<sup>3</sup>Or Tdap administered at 9 years of age or younger.

<sup>4</sup>The preferred age at administration for this dose is 11–12 years. However, if Tdap is administered at age 10 years, the Tdap dose may count as the adolescent Tdap dose.

Reference: Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger–United States, 2023. <a href="http://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf">www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf</a>