

AN EPIDEMIOLOGY PUBLICATION OF THE OREGON DEPARTMENT OF HUMAN SERVICES

INTRODUCING THE ADULT IMMUNIZATION SCHEDULE

CDC HAS PRODUCED the first comprehensive schedule of adult vaccinations for hepatitis A, hepatitis B, *Streptococcus pneumoniae* (pneumonia), tetanus/diphtheria, measles/mumps/rubella (MMR), varicella,

and, of course, influenza. Table 1, below, is the age-based schedule for adults; it is accompanied by footnotes (much abbreviated here) summarizing finer points of the recommendations. Table 2 (*verso*), details recommended

actions for persons with certain medical conditions. Printable, annotated, color versions are also available at <http://www.cdc.gov/nip/recs/adult-schedule.htm>.

Table 1 RECOMMENDED ADULT IMMUNIZATION SCHEDULE, UNITED STATES 2002–2003

Vaccine	Age in years		
	19–49	50–64	65
Tetanus, diphtheria (Td)¹	1 dose booster every 10 years after primary series ²		
Influenza	1 dose annually for persons with medical, occupational or other indications or household contacts of persons with indications ³	1 annual dose	
Pneumococcal (polysaccharide)	1 dose for persons with medical or other indications (1 dose revaccination for immunosuppressive conditions) ⁴		1 dose for unvaccinated persons 1 dose revaccination ⁵
Hepatitis B¹	3 doses (0, 1–2, 4–6 months) for persons with medical, behavioral, occupational or other indications ⁶		
Hepatitis A	2 doses (0, 6–12 months) for persons with medical, behavioral, occupational or other indications ⁷		
Measles, mumps, rubella (MMR)¹	1 dose if MMR vaccination history is reliable; 2 doses for persons with occupational, geographic or other indications ⁸		
Varicella¹	2 doses (0, 4–8 weeks) for persons who are susceptible ⁹		
Meningococcal (polysaccharide)	1 dose for persons with medical or other indications ¹⁰		

For all persons of this age group
 For persons with medical / exposure indications
 Catch-up on childhood vaccinations

1. Covered by the Vaccine Injury Compensation Program.
 2. Primary Series: two doses given 4 weeks apart and the 3rd dose given 6–12 months later.¹
 3. Medical Indications: see Table 2. Occupational indications: health-care workers; out-of-home caregivers of kids <24 months and kids with asthma. Other indications: residents of long-term-care facilities.²
 4. Medical indications: see Table 2. Other indications: American Indians/Alaska Natives; residents of long-term-care facilities.³
 5. For those with the medical conditions in Table 2 and for those ≥65, revaccinate once if they were vaccinated ≥5 years previously and were <65 at the time of first vaccination.³
 6. Medical indications: hemodialysis patients and recipients of clotting-factor concentrates. Occupational indications: health-care and public-safety workers with on-the-job blood exposures; health-profession students. Behavioral indications: IV drug users, persons with

multiple sex partners or a recent STD, STD clinic clients, and men who have sex with men (MSM). Other indications: household and sexual contacts of chronic carriers, clients and staff of institutions for the developmentally disabled, international travelers located for >6 months in countries with high or intermediate prevalence of chronic HBV infection, and inmates of correctional facilities.⁴
 7. Give 3 doses of hep A/hep B combined vaccine at 0, 1, and 6 months. Medical indications: persons with clotting-factor disorders or chronic liver disease. Behavioral indications: MSM, IV drug and noninjecting illegal drug users. Occupational indications: persons working with hepatitis A virus-infected primates or with HAV in a research laboratory. Other indications: travel to or work in countries that have high or intermediate rates of hepatitis A.⁵
 8. Adults born before 1957 should be immune to measles. Give 2 doses of MMR to later-born unvaccinated adults who are/were: (a) vaccinated with killed-measles-virus

vaccine from 1963-1969; (b) college students; (c) health-care workers; (d) susceptible international travelers to measles-endemic countries. One dose of MMR is adequate for mumps protection. Give 1 dose of MMR to rubella-unvaccinated women, then counsel them to not get pregnant for 4 weeks. Do not vaccinate pregnant women.⁶
 9. Recommended for everyone who has neither a reliable chickenpox history nor serologic evidence of varicella zoster virus (VZV) infection. Do not vaccinate pregnant women. Counsel childbearing women to not get pregnant for 4 weeks after vaccination.^{7,8}
 10. Medical indications terminal complement-component deficiencies or asplenia. Other indications: travel to the “meningitis belt” of sub-Saharan Africa and Mecca [Saudi Arabia] during Hajj; college dormitory-dwelling in areas where the vaccine serogroups (A, C, Y and W) circulate— not Oregon.⁹



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Table 2 RECOMMENDED IMMUNIZATION FOR ADULTS ≥19 YEARS WITH MEDICAL CONDITIONS, UNITED STATES 2002–2003
Find which of the medical conditions applies to your patient, check the columns for the vaccine you want to give; read pertinent footnotes below

Table 2		Vaccine					
Medical Condition	Tetanus-diphtheria (Td)*	Influenza	Pneumococcal (poly-saccharide)	Hepatitis B	Hepatitis A	Measles, mumps, rubella (MMR)*	Varicella
Pregnancy		A					
Diabetes, heart disease, chronic pulmonary disease, chronic liver disease (including chronic alcoholism)		B	C		D		
Congenital immunodeficiency, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, radiation or large amounts of corticosteroids			E				F
Renal failure/end stage renal disease and recipients of demodialysis or clotting factor concentrates			E	G			
Asplenia including elective splenectomy and terminal complement-component deficiencies			E, H, I				
Human immunodeficiency infection (HIV)			E, J			K	
	For all persons of this age group	For persons with medical / exposure indications		Catch-up on childhood vaccinations		Contraindicated	

* Covered by the Vaccine Injury Compensation Program.
A. If pregnancy is at second or third trimester during influenza season.
B. Although chronic liver disease and alcoholism are not indicator conditions for influenza vaccination, administer 1 dose annually if the patient is aged ≥50 years, has other indications for influenza vaccine, or if patient requests vaccination.
C. Asthma is an indicator condition for influenza but not for pneumococcal vaccination.

D. For all persons with chronic liver disease.
E. Revaccinate once if ≥5 years have elapsed since initial vaccination.
F. Persons with impaired humoral but not cellular immunity might be vaccinated (8).
G. Hemodialysis patients: Use special formulation of vaccine (40 µ/mL) or two 1.0 mL 20 µg doses administered at one site. Vaccinate early in the course of renal disease. Assess antibody titers to hepatitis B surface antigen (anti-HBs) levels annually. Administer addition-

al doses if anti-HBs levels decline to <10 milliinternational units (mIU)/mL.
H. Also administer meningococcal vaccine.
I. Elective splenectomy: Vaccinate ≥2 weeks before surgery.
J. Vaccinate as close to diagnosis as possible when CD4 cell counts are highest.
K. Withhold MMR or other measles-containing vaccines from HIV-infected persons with evidence of severe immunosuppression.

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