



# Recommended Adult Immunization Schedule, 2006

**\*\*Chart must be used with footnotes below\*\***

Vaccine ↓	Age →	19-49 years	50-64 years	≥65 years
Tetanus, Diphtheria (Td) <sup>1*</sup> Tetanus, Diphtheria, Pertussis (Tdap) <sup>1*</sup>		1-dose booster every 10 years		
Measles, Mumps, Rubella (MMR) <sup>2*</sup>		1 or 2 doses	1 dose	
Varicella <sup>3*</sup>		2 doses (0, 4-8 weeks)	2 doses (0, 4-8 weeks)	
Influenza <sup>4*</sup>		1 dose annually	1 dose annually	
Pneumococcal (polysaccharide) <sup>5</sup>		1-2 doses		1 dose
Hepatitis A <sup>6*</sup>		2 doses (0, 6 months)		
Hepatitis B <sup>7*</sup>		3 doses (0, 1-2, 4-6 months)		
Meningococcal <sup>8</sup>		1 or more doses		

\*Covered by the Vaccine Injury Compensation Program (see back for more information)

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

 Recommended if some other risk factor is present (e.g., based on medical, occupational, lifestyle, or other indications)

- Tetanus and Diphtheria (Td) and Tetanus, Diphtheria and Pertussis (Tdap):** Tdap is now recommended for adults age <65 years in place of their 10-year booster dose of Td. Tdap is also recommended for adults having close contact with infants age <12 months (e.g., parents of infants, child care providers, healthcare workers). Providers may use an interval as short as 2 years since the most recent tetanus toxoid-containing vaccine. All previously unvaccinated adults should complete a 3-dose primary series of Td. Tdap may be used for 1 of the 3 doses of the primary series in adults age <65 years. Td is recommended every 10 years as a booster for adults age ≥65 years and older.
- Measles, Mumps, Rubella:** Adults born before 1957 are considered naturally immune. Adults born in 1957 or later should receive 1 dose of MMR vaccine. Some adults may need 2 doses given not less than 4 weeks apart (e.g., college students, those working in healthcare facilities, and international travelers).
- Varicella:** Administer varicella vaccine as 2 doses separated by 4-8 weeks, to all susceptible adults, particularly those who will have close contact with persons at high risk for serious complications (i.e., healthcare workers and family contacts of immunocompromised persons). Pregnant women should be assessed for immunity to varicella and if susceptible, vaccinated in the immediate postpartum period. Evidence of immunity includes persons born in the U.S. before 1966, persons born in the U.S. between 1966 and 1997 who recall a history of varicella disease (either physician, parental, or self report), persons with a history of herpes zoster, documentation of vaccination, or laboratory evidence of immunity.
- Influenza:** Administer influenza vaccine annually to all adults age ≥50 years, additionally, give to adults with chronic conditions that increase their risk of complications of influenza including, cardiac and pulmonary disorders, metabolic diseases (including diabetes), renal dysfunctions, hemoglobinopathies, immunosuppression, and conditions that can compromise respiratory function or the handling of respiratory secretions (e.g., cognitive disorder, spinal cord injury, neuromuscular or seizure disorder). Also, give to household contacts, caregivers and healthcare workers of those in the above risk categories. Adults living with or providing out-of-home care to infants age <6 months should also receive annual influenza vaccination. Any adult wishing to reduce the likelihood of becoming ill with influenza may be vaccinated.
- Pneumococcal:** Give pneumococcal polysaccharide vaccine (PPV) to all adults age ≥65 years; and those age <65 years with chronic cardiovascular disease, chronic pulmonary disease, diabetes mellitus,

alcoholism, cirrhosis, CSF leaks, functional or anatomic asplenia, HIV infection, malignancy, chronic renal failure, nephrotic syndrome, or if receiving immunosuppressive chemotherapy. Routine revaccination of immunocompetent adults previously vaccinated with PPV is not recommended; however, a one-time revaccination is recommended if a person was vaccinated ≥5 years previously and either was age <65 years when first vaccinated and is now age ≥65 years, or is at highest risk for invasive pneumococcal infection as defined by ACIP.

- Hepatitis A:** Give 2 doses of hepatitis A vaccine, 6 months apart to adults at increased risk for infection with hepatitis A virus (HAV). Populations at risk include persons traveling to or working in countries with intermediate to high rates of HAV, men who have sex with men, persons who use street drugs, persons with chronic liver disease, persons with clotting factor disorders, and persons working with HAV in research settings or with HAV-infected primates. Other adults wishing to obtain immunity may also be vaccinated.
- Hepatitis B:** Give 3 doses of hepatitis B vaccine at intervals of 0, 1, and 6 months to all at-risk adults. Indications grouped by risk are as follows. *Occupational:* healthcare workers, public safety workers, persons in training for medicine, dentistry, nursing, laboratory technology, and other allied health professions. *Behavioral:* injection-drug users, persons with more than one sex partner in the previous 6 months, persons with a recently acquired STD or a client of an STD clinic, men who have sex with men. *Other:* household contacts and sex partners of persons with chronic hepatitis B virus (HBV) infection, clients and staff of institutions for the developmentally disabled, inmates, and international travelers who will be in countries with high or intermediate prevalence of HBV for ≥6 months.
- Meningococcal:** Give meningococcal conjugate vaccine (MCV4) to adults age ≤55 years at-risk of invasive disease or with increased risk of exposure. Vaccinate adults with terminal complement component deficiencies, anatomic or functional asplenia, as well as persons traveling to countries with endemic meningococcal disease, military recruits, lab workers working with *N. meningitidis*, and college freshmen who will be living in dormitories. **Meningococcal polysaccharide vaccine (MPSV4)** is available for adults age >55 years who have the above risk factors. MPSV4 is an acceptable alternative when MCV4 is unavailable. For adults who have previously received MPSV4, revaccination may be necessary 5 years following initial vaccination for persons remaining at risk of meningococcal disease. The use of MCV4 for adults age 55 years and younger is preferred. For those age >55 years, MPSV4 is acceptable for revaccination. Recommendations for revaccination following MCV4 are pending.

Based on recommendations of the Advisory Committee on Immunization Practices (ACIP), and the American College of Physicians, and endorsed by the Minnesota Immunization Practices Advisory Committee of the Minnesota Department of Health (MDH).

# Catch-Up Schedule and Minimum Intervals for Adults

For any vaccine given in a series, it is not necessary to start over. Refer to the table below for recommended “catch-up” schedule and minimum intervals between doses. Determine the number of previous doses of each vaccine received, find that number in the first column, and read across to the appropriate column for the next dose(s) and minimum interval(s).

Number of previous doses of each vaccine	Doses to be given and <b>minimum intervals from previous dose</b> for adults $\geq 19$ years			
	First dose	Second dose	Third dose	Booster dose
None	Tetanus, Diphtheria (Td) Tetanus, Diphtheria, Pertussis (Tdap)	Td: 4 weeks after 1st dose	Td: 6 months after 2nd dose	Td: 10 years after completion of the primary series or since last booster dose
	Measles, Mumps, Rubella (MMR)	MMR: 4 weeks after 1st dose		
	Pneumococcal (PPV)	PPV: 5 years after 1st dose for those who received 1st dose at <65 years and are now $\geq 65$ years, or who are at highest risk for pneumococcal infection		
	Hepatitis A (HAV)	HAV: 6 months after 1st dose		
	Hepatitis B (HBV)	HBV: 4 weeks after 1st dose	HBV: 8 weeks after 2nd dose when catching up final dose; for an accelerated schedule the 3rd dose cannot be given sooner than 4 months after the 1st dose	
	Varicella	Varicella: 4 weeks after 1st dose		
One				
Two				
Three				

## Guidelines for Patients with an Incomplete or Nonexistent Vaccine History

- This catch-up schedule must be used together with the guidelines printed on the reverse side.
- Use all opportunities to assess the vaccination status of adult patients. At age 50, give a Tdap or Td (unless a dose has been given in the previous 10 years) and evaluate for risk factors for pneumococcal and other vaccine-preventable diseases.
- If patient has started a series (e.g., HBV) but not completed it, continue where he/she left off. Never restart a series of any vaccine (*exception: oral typhoid vaccine in some situations*).
- MMR and varicella vaccines can be given at the same visit. If not given simultaneously, they must be separated by at least 4 weeks.
- Patients do not need measles, mumps, and/or rubella vaccine if they were born before 1957, have lab evidence of immunity, or (for measles/mumps only) have physician-diagnosed disease history. Consider vaccinating women born before 1957 who may become pregnant and do not have lab evidence of immunity or physician-diagnosed disease.
- For adult patients who are refugees or immigrants, provide vaccinations as you would for any other adult patient. Translations of foreign vaccine terms and vaccine products can be found in the *MDH Provider's Guide to Immunizations* or on the MDH web site: [www.health.state.mn.us/immunize](http://www.health.state.mn.us/immunize).
- Patients age 18 years or older, including foreign-born adults, do not need polio vaccination unless they are traveling to a country where wild poliovirus still exists.
- A Mantoux test can be administered simultaneously with any live or inactivated vaccine. If the patient already received MMR or varicella vaccine, the Mantoux test must be delayed for at least 4 weeks after the MMR or varicella; if the Mantoux was applied first, any vaccine, including MMR and varicella, can be given at any time.
- Count only vaccinations that are well documented (i.e., including *month, year, and preferably, day* of vaccination). If no documentation exists, assume the patient is unvaccinated. It is always better to vaccinate when in doubt, rather than miss an opportunity to provide protection.

### \*Vaccine Injury Compensation Program

When vaccinating adults with vaccines covered by the Vaccine Injury Compensation Program, a Vaccine Information Statement (VIS) must be given each time the patient receives the vaccine. The date of the edition of VIS given and date that the VIS was provided to the patient must be documented in the clinic/patient record. Other required documentation includes dates of vaccination, name of the vaccine, manufacturer, and lot number; and name, address, and title of the individual who administered the vaccine. The most current VISs can be downloaded from the MDH website at [www.health.state.mn.us/immunize](http://www.health.state.mn.us/immunize).

### Reporting Adverse Reactions

Report adverse reactions to vaccines through the federal Vaccine Adverse Event Reporting System (VAERS). For information on reporting reactions following vaccines administered by private clinics, call the 24-hour national toll-free information line, 800-822-7967. You may also visit [www.vaers.hhs.gov](http://www.vaers.hhs.gov). Report reactions to vaccine administered in public clinics to the Minnesota Department of Health, 651-201-5414 or toll-free 877-676-5414.

### Disease Reporting

Report suspected cases of vaccine-preventable diseases to the local health department or to the Minnesota Department of Health, P.O. Box 64975, St. Paul, MN 55164-0975, 651-201-5414 or toll-free 877-676-5414.