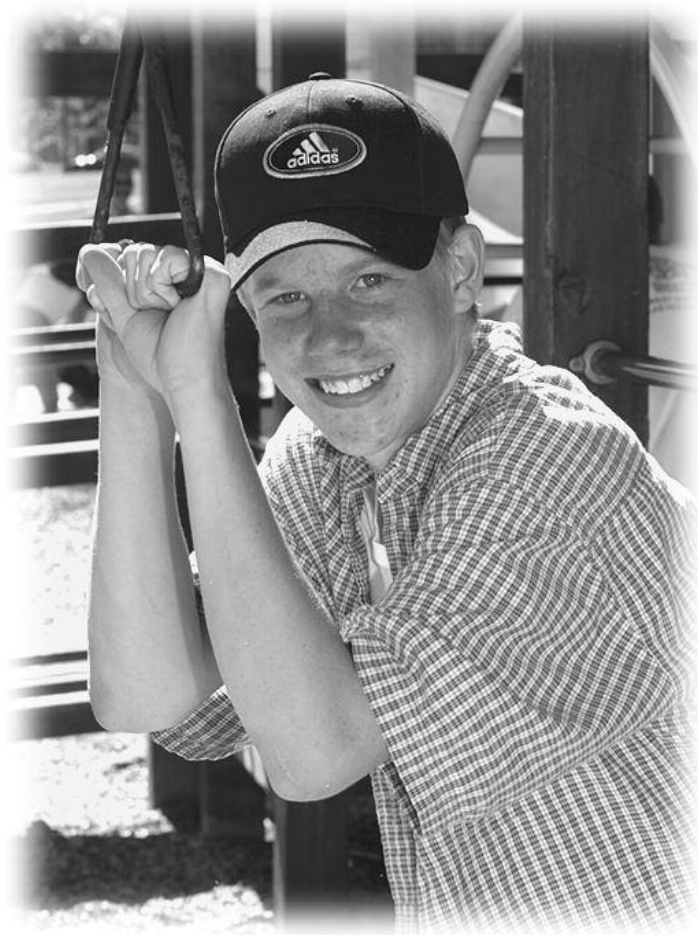


# Colorado Immunization Manual

## SECTION 16 Adult Immunization Information



# **Colorado Immunization Manual**

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SUBJECT: ADOLESCENT AND ADULT IMMUNIZATION INFORMATION

## **SECTION 16**

### **Adult Immunization Information**

#### **CONTENTS**

This section contains information for providers and patients. Specific vaccine information and recommendations for adults can be found in Section 8.

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# 2011 Summary of ACIP/ACOG/AAFP Adult Immunization Recommendations

Colorado Department of Public Health and Environment/HealthTeamWorks

## Fig. 1: Recommended Adult Immunization Schedule, by Vaccine and Age Group

Vaccine ▼	Age group ▶	19–26 years	27–49 years	50–59 years	60–64 years	≥65 years	
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs					Td booster every 10 yrs
Human papillomavirus (HPV) <sup>2,*</sup>		3 doses (females)					
Varicella <sup>3,*</sup>		2 doses					
Zoster <sup>4</sup>					1 dose		
Measles, mumps, rubella (MMR) <sup>5,*</sup>		1 or 2 doses		1 dose			
Influenza <sup>6,*</sup>		1 dose annually					
Pneumococcal (polysaccharide) <sup>7,8</sup>		1 or 2 doses				1 dose	
Hepatitis A <sup>9,*</sup>		2 doses					
Hepatitis B <sup>10,*</sup>		3 doses					
Meningococcal <sup>11,*</sup>		1 or more doses					

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults ages 19 years and older, as of January 1, 2011. For all vaccines being recommended on the adult immunization schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (<http://www.cdc.gov/vaccines/pubs/acip-list.htm>).

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at <http://www.vaers.hhs.gov> or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at <http://www.hrsa.gov/vaccinecompensation> or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at <http://www.cdc.gov/vaccines> or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 24 hours a day, 7 days a week.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

## Fig. 2: Vaccines That Might Be Indicated for Adults Based on Medical and Other Indications

Vaccine ▼	Indication ▶	Pregnancy	Immunocompromising conditions (excluding human immunodeficiency virus [HIV]) <sup>3-5,12</sup>	HIV infection <sup>3,5,12,13</sup> CD4+ T lymphocyte count		Diabetes, heart disease, chronic lung disease, chronic alcoholism	Asplenia <sup>13</sup> (including elective splenectomy) and persistent complement component deficiencies	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Health-care personnel	
				<200 cells/μL	≥200 cells/μL						
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>		Td	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs								
Human papillomavirus (HPV) <sup>2,*</sup>			3 doses for females through age 26 years								
Varicella <sup>3,*</sup>		Contraindicated	2 doses								
Zoster <sup>4</sup>		Contraindicated	1 dose								
Measles, mumps, rubella (MMR) <sup>5,*</sup>		Contraindicated	1 or 2 doses								
Influenza <sup>6,*</sup>			1 dose TIV annually								1 dose TIV or LAIV annually
Pneumococcal (polysaccharide) <sup>7,8</sup>			1 or 2 doses								
Hepatitis A <sup>9,*</sup>			2 doses								
Hepatitis B <sup>10,*</sup>			3 doses								
Meningococcal <sup>11,*</sup>			1 or more doses								

**NOTE:** These schedules must be read along with the footnotes. \*Covered by the Vaccine Injury Compensation Program.

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., on the basis of medical, occupational, lifestyle, or other indications)

Contraindicated

For updates on vaccines, visit the HealthTeamWorks website at [www.healthteamworks.org](http://www.healthteamworks.org) or the CDPHE website at [www.coloradoimmunizations.com](http://www.coloradoimmunizations.com).

## 1. Tetanus, diphtheria, and acellular pertussis (Td/Tdap) vaccination

Administer a one-time dose of Tdap to adults aged less than 65 years who have not received Tdap previously or for whom vaccine status is unknown to replace one of the 10-year Td boosters, and as soon as feasible to all 1) postpartum women, 2) close contacts of infants younger than age 12 months (e.g., grandparents and child-care providers), and 3) healthcare personnel with direct patient contact. Adults aged ≥65 years who have not previously received Tdap and who have close contact with an infant aged less than 12 months also should be vaccinated. Other adults aged ≥65 years may receive Tdap. Tdap can be administered regardless of interval since the most recent tetanus or diphtheria-containing vaccine.

Adults with uncertain or incomplete history of completing a 3-dose primary vaccination series with Td-containing vaccines should begin or complete a primary vaccination series. For unvaccinated adults, administer the first 2 doses at least 4 weeks apart and the third dose 6–12 months after the second. If incompletely vaccinated (i.e., less than 3 doses), administer remaining doses. Substitute a one-time dose of Tdap for one of the doses of Td, either in the primary series or for the routine booster, whichever comes first.

If a woman is pregnant and received the most recent Td vaccination ≥10 years ago, administer Td during the second or third trimester. If the woman received the most recent Td vaccination <10 years previously, administer Tdap during the immediate postpartum period. At the clinician's discretion, Td may be deferred during pregnancy and Tdap substituted in the immediate postpartum period, or Tdap may be administered instead of Td to a pregnant woman after an informed discussion with the woman.

The ACIP statement for recommendations for administering Td as prophylaxis in wound management is available at <http://www.cdc.gov/vaccines/pubs/acip-list.htm>.

## 2. Human papillomavirus (HPV) vaccination

HPV vaccination with either quadrivalent (HPV4) vaccine or bivalent vaccine (HPV2) is recommended for females at age 11 or 12 years and catch-up vaccination for females aged 13 through 26 years. Ideally, vaccine should be administered before potential exposure to HPV through sexual activity; however, females who are sexually active should still be vaccinated consistent with age-based recommendations. Sexually active females who have not been infected with any of the four HPV vaccine types (types 6, 11, 16, and 18, all of which HPV4 prevents) or any of the two HPV vaccine types (types 16 and 18, both of which HPV2 prevents) receive the full benefit of the vaccination. Vaccination is less beneficial for females who have already been infected with one or more of the HPV vaccine types. HPV4 or HPV2 can be administered to persons with a history of genital warts, abnormal Papanicolaou test, or positive HPV DNA test, because these conditions are not evidence of previous infection with all vaccine HPV types.

HPV4 may be administered to males aged 9 through 26 years to reduce their likelihood of genital warts. HPV4 would be most effective when administered before exposure to HPV through sexual contact.

A complete series for either HPV4 or HPV2 consists of 3 doses. The second dose should be administered 1–2 months after the first dose; the third dose should be administered 6 months after the first dose.

Although HPV vaccination is not specifically recommended for persons with the medical indications described in Figure 2, "Vaccines that might be indicated for adults based on medical and other indications," it may be administered to these persons because the HPV vaccine is not a live-virus vaccine. However, the immune response and vaccine efficacy might be less for persons with the medical indications described in Figure 2 than in persons who do not have the medical indications described or who are immunocompetent.

## 3. Varicella vaccination

All adults without evidence of immunity to varicella should receive 2 doses of single-antigen varicella vaccine if not previously vaccinated or the second dose if they have received only 1 dose, unless they have a medical contraindication. Special consideration should be given to those who 1) have close contact with persons at high risk for severe disease (e.g., health-care personnel and family con-

tacts of persons with immunocompromising conditions) or 2) are at high risk for exposure or transmission (e.g., teachers; child-care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children; nonpregnant women of childbearing age; and international travelers).

Evidence of immunity to varicella in adults includes any of the following: 1) documentation of 2 doses of varicella vaccine at least 4 weeks apart; 2) U.S.-born before 1980 (although for health-care personnel and pregnant women, birth before 1980 should not be considered evidence of immunity); 3) history of varicella based on diagnosis or verification of varicella by a health-care provider (for a patient reporting a history of or having an atypical case, a mild case, or both, health-care providers should seek either an epidemiologic link with a typical varicella case or to a laboratory-confirmed case or evidence of laboratory confirmation, if it was performed at the time of acute disease); 4) history of herpes zoster based on diagnosis or verification of herpes zoster by a health-care provider; or 5) laboratory evidence of immunity or laboratory confirmation of disease.

Pregnant women should be assessed for evidence of varicella immunity. Women who do not have evidence of immunity should receive the first dose of varicella vaccine upon completion or termination of pregnancy and before discharge from the health-care facility. The second dose should be administered 4–8 weeks after the first dose.

## 4. Herpes zoster vaccination

A single dose of zoster vaccine is recommended for adults aged ≥60 years regardless of whether they report a prior episode of herpes zoster. Persons with chronic medical conditions may be vaccinated unless their condition constitutes a contraindication.

## 5. Measles, mumps, rubella (MMR) vaccination

Adults born before 1957 generally are considered immune to measles and mumps. All adults born in 1957 or later should have documentation of 1 or more doses of MMR vaccine unless they have a medical contraindication to the vaccine, laboratory evidence of immunity to each of the three diseases, or documentation of provider-diagnosed measles or mumps disease. For rubella, documentation of provider-diagnosed disease is not considered acceptable evidence of immunity.

Measles component: A second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who 1) have been recently exposed to measles or are in an outbreak setting; 2) are students in postsecondary educational institutions; 3) work in a health-care facility; or 4) plan to travel internationally. Persons who received inactivated (killed) measles vaccine or measles vaccine of unknown type during 1963–1967 should be revaccinated with 2 doses of MMR vaccine.

Mumps component: A second dose of MMR vaccine, administered a minimum of 28 days after the first dose, is recommended for adults who 1) live in a community experiencing a mumps outbreak and are in an affected age group; 2) are students in postsecondary educational institutions; 3) work in a health-care facility; or 4) plan to travel internationally. Persons vaccinated before 1979 with either killed mumps vaccine or mumps vaccine of unknown type who are at high risk for mumps infection (e.g., persons who are working in a health-care facility) should be revaccinated with 2 doses of MMR vaccine.

Rubella component: For women of childbearing age, regardless of birth year, rubella immunity should be determined. If there is no evidence of immunity, women who are not pregnant should be vaccinated. Pregnant women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the health-care facility.

Healthcare personnel born before 1957: For unvaccinated healthcare personnel born before 1957 who lack laboratory evidence of measles, mumps, and/or rubella immunity or laboratory confirmation of disease, healthcare facilities should 1) consider routinely vaccinating personnel with 2 doses of MMR vaccine at the appropriate interval (for measles and mumps) and 1 dose of MMR vaccine (for rubella), and 2) recommend 2 doses of MMR vaccine at the appropriate interval during an outbreak of measles or mumps, and 1 dose during an outbreak of rubella. Complete information about evi-

dence of immunity is available at <http://www.cdc.gov/vaccines/recs/provisional/default.htm>.

## 6. Seasonal influenza vaccination

Annual vaccination against influenza is recommended for all persons aged 6 months and older, including all adults. Healthy, nonpregnant adults aged less than 50 years without high-risk medical conditions can receive either intranasally administered live, attenuated influenza vaccine (FluMist®), or inactivated vaccine. Other persons should receive the inactivated vaccine. Adults aged 65 years and older can receive the standard influenza vaccine or the high-dose (Fluzone®) influenza vaccine. Additional information about influenza vaccination is available at <http://www.cdc.gov/vaccines/vpd-vac/flu/default.htm>.

## 7. Pneumococcal polysaccharide (PPSV) vaccination

Vaccinate all persons with the following indications: **Medical:** Chronic lung disease (including asthma); chronic cardiovascular diseases; diabetes mellitus; chronic liver diseases; cirrhosis; chronic alcoholism; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy [if elective splenectomy is planned, vaccinate at least 2 weeks before surgery]); immunocompromising conditions (including chronic renal failure or nephrotic syndrome); and cochlear implants and cerebrospinal fluid leaks. Vaccinate as close to HIV diagnosis as possible.

**Other:** Residents of nursing homes or long-term care facilities and persons who smoke cigarettes. Routine use of PPSV is not recommended for American Indians/Alaska Natives or persons aged less than 65 years unless they have underlying medical conditions that are PPSV indications. However, public health authorities may consider recommending PPSV for American Indians/Alaska Natives and persons aged 50 through 64 years who are living in areas where the risk for invasive pneumococcal disease is increased.

## 8. Revaccination with PPSV

One-time revaccination after 5 years is recommended for persons aged 19 through 64 years with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); and for persons with immunocompromising conditions. For persons aged 65 years and older, one-time revaccination is recommended if they were vaccinated 5 or more years previously and were aged less than 65 years at the time of primary vaccination.

## 9. Hepatitis A vaccination

Vaccinate persons with any of the following indications and any person seeking protection from hepatitis A virus (HAV) infection.

**Behavioral:** Men who have sex with men and persons who use injection drugs.

**Occupational:** Persons working with HAV-infected primates or with HAV in a research laboratory setting.

**Medical:** Persons with chronic liver disease and persons who receive clotting factor concentrates.

**Other:** Persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A (a list of countries is available at <http://www.cdc.gov/travel/content/diseases.aspx>).

Unvaccinated persons who anticipate close personal contact (e.g., household contact or regular babysitting) with an international adoptee from a country of high or intermediate endemicity during the first 60 days after arrival of the adoptee in the United States should consider vaccination. The first dose of the 2-dose hepatitis A vaccine series should be administered as soon as adoption is planned, ideally ≥2 weeks before the arrival of the adoptee.

Single-antigen vaccine formulations should be administered in a 2-dose schedule at either 0 and 6–12 months (Havrix®), or 0 and 6–18 months (Vaqta®). If the combined hepatitis A and hepatitis B vaccine (Twincix®) is used, administer 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, administered on days 0, 7, and 21–30 followed by a booster dose at month 12 may be used.

## 10. Hepatitis B vaccination

Vaccinate persons with any of the following indications and any person seeking protection from hepatitis B virus (HBV) infection.

**Behavioral:** Sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than one sex partner during the previous 6 months); persons seeking evaluation or treatment for a sexually transmitted dis-

ease (STD); current or recent injection-drug users; and men who have sex with men.

**Occupational:** Health-care personnel and public-safety workers who are exposed to blood or other potentially infectious body fluids.

**Medical:** Persons with end-stage renal disease, including patients receiving hemodialysis; persons with HIV infection; and persons with chronic liver disease.

**Other:** Household contacts and sex partners of persons with chronic HBV infection; clients and staff members of institutions for persons with developmental disabilities; and international travelers to countries with high or intermediate prevalence of chronic HBV infection (a list of countries is available at <http://www.ncc.cdc.gov/travel/content/diseases.aspx>).

Hepatitis B vaccination is recommended for all adults in the following settings: STD treatment facilities; HIV testing and treatment facilities; facilities providing drug-abuse treatment and prevention services; health-care settings targeting services to injection-drug users or men who have sex with men; correctional facilities; end-stage renal disease programs and facilities for chronic hemodialysis patients; and institutions and nonresidential day-care facilities for persons with developmental disabilities.

Administer or complete a 3-dose series of hepatitis B vaccine to those persons not previously vaccinated. The second dose should be administered 1 month after the first dose; the third dose should be administered at least 2 months after the second dose (and at least 4 months after the first dose). If the combined hepatitis A and hepatitis B vaccine (Twincix®) is used, administer 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, administered on days 0, 7, and 21–30 followed by a booster dose at month 12 may be used.

Adult patients receiving hemodialysis or with other immunocompromising conditions should receive 1 dose of 40 µg/mL (Recombivax HB®) administered on a 3-dose schedule or 2 doses of 20 µg/mL (Engerix-B®) administered simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.

## 11. Meningococcal vaccination

Meningococcal vaccine should be administered to persons with the following indications:

**Medical:** A 2-dose series of meningococcal conjugate vaccine is recommended for adults with anatomic or functional asplenia, or persistent complement component deficiencies. Adults with HIV infection who are vaccinated should also receive a routine 2-dose series. The 2 doses should be administered at 0 and 2 months.

**Other:** A single dose of meningococcal vaccine is recommended for unvaccinated first-year college students living in dormitories; microbiologists routinely exposed to isolates of *Neisseria meningitidis*; military recruits; and persons who travel to or live in countries in which meningococcal disease is hyper-endemic or epidemic (e.g., the "meningitis belt" of sub-Saharan Africa during the dry season [December through June]), particularly if their contact with local populations will be prolonged. Vaccination is required by the government of Saudi Arabia for all travelers to Mecca during the annual Hajj.

Meningococcal conjugate vaccine, quadrivalent (MCV4) is preferred for adults with any of the preceding indications who are aged 55 years and younger; meningococcal polysaccharide vaccine (MPSV4) is preferred for adults aged 56 years and older. Revaccination with MCV4 every 5 years is recommended for adults previously vaccinated with MCV4 or MPSV4 who remain at increased risk for infection (e.g., adults with anatomic or functional asplenia, or persistent complement component deficiencies).

## 12. Immunocompromising conditions

Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, influenza [inactivated influenza vaccine]) and live vaccines generally are avoided in persons with immune deficiencies or immunocompromising conditions. Information on specific conditions is available at <http://www.cdc.gov/vaccines/pubs/acip-list.htm>.

## 13. Selected conditions for which *Haemophilus influenzae* type b (Hib) vaccine may be used

1 dose of Hib vaccine should be considered for persons who have sickle cell disease, leukemia, or HIV infection, or who have had a splenectomy, if they have not previously received Hib vaccine.

## Immunization Program Resources



Colorado Department  
of Public Health  
and Environment

General Immunization Questions: (303) 692-2650

Website: [www.coloradoimmunizations.com](http://www.coloradoimmunizations.com)

CAIC Website: (with flu shot clinic listings)

[www.immunizecolorado.com](http://www.immunizecolorado.com)

Hepatitis B Project: (303) 692-2673

Disease Reports: 1-800-866-2759

Vaccine Adverse Event Reporting System (VAERS):

1-877-375-2579. Clinically significant adverse events that follow

immunization should be reported to VAERS. Guidance about how

to obtain and complete a VAERS form is also available at <http://www.vaers.hhs.gov>.

Vaccine Information Statements (VISs): [www.cdc.gov/vaccines/pubs/vis](http://www.cdc.gov/vaccines/pubs/vis)

Family Healthline: (303) 692-2229 (Denver metro) or 1-800-688-7777

CDC Information Contact Center (for immunization questions):

1-800-CDC-INFO (1-800-232-4636); [NIPINFO@cdc.gov](mailto:NIPINFO@cdc.gov)

Approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the American College of Physicians. Complete statements from ACIP are available at <http://www.cdc.gov/vaccines/pubs/acip-list.htm>.



HealthTeamWorks

HealthTeamWorks, formerly known as CCGC, is a non-profit multi-stakeholder collaborative working to redesign the healthcare delivery system and promote integrated communities of care, using evidence-based medicine and innovative systems. Our goals are to optimize health, improve quality and safety, reduce costs, and improve care experience for patients and their healthcare teams.



DEPARTMENT OF  
HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL  
AND PREVENTION

Website: [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines)

# Summary of Recommendations for Adult Immunization (Age 19 years & older)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Influenza</b> Trivalent inactivated influenza vaccine (TIV) <i>Give IM</i></p> <p>Live attenuated influenza vaccine (LAIV) <i>Give intranasally</i></p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>Beginning with the 2010–11 influenza season, vaccination is recommended for all adults. (This includes healthy adults ages 19–49yrs without risk factors.)</li> <li>LAIV is only approved for healthy nonpregnant people age 2–49yrs.</li> <li>Adults ages 65yrs and older may be given standard-dose TIV or, alternatively, a high-dose TIV.</li> </ul> <p><b>Note:</b> LAIV may not be given to some adults; see contraindications and precautions listed in far right column.</p>	<ul style="list-style-type: none"> <li>Give 1 dose every year in the fall or winter.</li> <li>Begin vaccination services as soon as vaccine is available and continue until the supply is depleted.</li> <li>Continue to give vaccine to unvaccinated adults throughout the influenza season (including when influenza activity is present in the community) and at other times when the risk of influenza exists.</li> <li>If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, V ar, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> </ul>	<p><b>Contraindications and precautions</b> (mild illness is not a contraindication)</p> <p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to this vaccine, to any of its components, or to eggs.</li> <li>For LAIV only: pregnancy; chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic (including diabetes) disorders; immunosuppression (including that caused by medications or HIV).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>History of Guillain-Barré syndrome (GBS) within 6wks following previous influenza vaccination.</li> <li>For LAIV only: receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination.</li> </ul>
<p><b>Pneumococcal polysaccharide</b> (PPSV) <i>Give IM or SC</i></p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>People age 65yrs and older.</li> <li>People younger than age 65yrs who have chronic illness or other risk factors, including chronic cardiac or pulmonary disease (including asthma), chronic liver disease, alcoholism, diabetes, CSF leaks, cigarette smoking, as well as candidates for or recipients of cochlear implants and people living in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities).</li> <li>Those at highest risk of fatal pneumococcal infection, including people who             <ul style="list-style-type: none"> <li>Have anatomic or functional asplenia, including sickle cell disease.</li> <li>Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin’s disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome.</li> <li>Are receiving immunosuppressive chemotherapy (including corticosteroids).</li> <li>Have received an organ or bone marrow transplant.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Give 1 dose if unvaccinated or if previous vaccination history is unknown.</li> <li>Give a 1-time revaccination to people             <ul style="list-style-type: none"> <li>Age 65yrs and older if 1st dose was given since dose #1.</li> <li>Age 19 through 64yrs who are at highest risk of fatal pneumococcal infection or rapid antibody loss (see the 3rd bullet in the box to left for listings of people at highest risk) and 5yrs have elapsed since dose #1.</li> </ul> </li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness.</p>

\*This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, call the CDC-INFO Contact Center at (800) 232-4636; visit CDC’s website at [www.cdc.gov/vaccines/pubs/ACIP-11st.htm](http://www.cdc.gov/vaccines/pubs/ACIP-11st.htm); or visit the Immunization Action Coalition (IAC) website at [www.immunize.org/acip](http://www.immunize.org/acip). This table is revised periodically. Visit IAC’s website at [www.immunize.org/adultrules](http://www.immunize.org/adultrules) to make sure you have the most current version.

# Summary of Recommendations for Adult Immunization (Age 19 years & older) (Page 2 of 4)

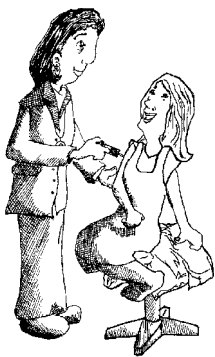
Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<b>MMR</b> (Measles, mumps, rubella) <i>Give SC</i>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>• People born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if there is no laboratory evidence of immunity or documentation of a dose given on or after the first birthday.</li> <li>• People in high-risk groups, such as healthcare personnel (paid, unpaid, or volunteer), students entering college and other post-high school educational institutions, and international travelers, should receive a total of 2 doses.</li> <li>• People born before 1957 are usually considered immune, but evidence of immunity (serology or documented history of 2 doses of MMR) should be considered for healthcare personnel.</li> <li>• Women of childbearing age who do not have acceptable evidence of rubella immunity or vaccination.</li> </ul>	<ul style="list-style-type: none"> <li>• Give 1 or 2 doses (see criteria in 1st and 2nd bullets in box to left).</li> <li>• If dose #2 is recommended, give it no sooner than 4wks after dose #1.</li> <li>• If a pregnant woman is found to be rubella susceptible, give 1 dose of MMR postpartum.</li> <li>• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> <li>• Within 72hrs of measles exposure, give 1 dose as postexposure prophylaxis to susceptible adults.</li> </ul> <p><b>Note:</b> Routine post-vaccination serologic testing is not recommended.</p>	<p><b>Contraindications and precautions</b> (mild illness is not a contraindication)</p> <p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-term immunosuppressive therapy; or severely symptomatic HIV).</li> </ul> <p><b>Note:</b> HIV infection is NOT a contraindication to MMR for those who are not severely immunocompromised (i.e., CD4+ T-lymphocyte counts are greater than or equal to 200 cells/<math>\mu</math>L).</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, and/or immune globulin were given in past 11m, see ACIP statement <i>General Recommendations on Immunization*</i> regarding time to wait before vaccinating.</li> <li>• History of thrombocytopenia or thrombocytopenic purpura.</li> </ul> <p><b>Note:</b> If TST (tuberculosis skin test) and MMR are both needed but not given on same day, delay TST for 4–6wks after MMR.</p>
<b>Varicella</b> (chickenpox) (Var) <i>Give SC</i>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>• All adults without evidence of immunity.</li> </ul> <p><b>Note:</b> Evidence of immunity is defined as written documentation of 2 doses of varicella vaccine; a history of varicella disease or herpes zoster (shingles) based on healthcare-provider diagnosis; laboratory evidence of immunity; and/or birth in the U.S. before 1980, with the exceptions that follow.</p> <ul style="list-style-type: none"> <li>- Healthcare personnel (HCP) born in the U.S. before 1980 who do not meet any of the criteria above should be tested or given the 2-dose vaccine series. If testing indicates they are not immune, give the 1st dose of varicella vaccine immediately. Give the 2nd dose 4–8 wks later.</li> <li>- Pregnant women born in the U.S. before 1980 who do not meet any of the criteria above should either 1) be tested for susceptibility during pregnancy and if found susceptible, given the 1st dose of varicella vaccine postpartum before hospital discharge, or 2) not be tested for susceptibility and given the 1st dose of varicella vaccine postpartum before hospital discharge. Give the 2nd dose 4–8wks later.</li> </ul> <ul style="list-style-type: none"> <li>• People age 60yrs and older.</li> </ul>	<ul style="list-style-type: none"> <li>• Give 2 doses.</li> <li>• Dose #2 is given 4–8wks after dose #1.</li> <li>• If dose #2 is delayed, do not repeat dose #1. Just give dose #2.</li> <li>• If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> <li>• May use as postexposure prophylaxis if given within 5d.</li> </ul> <p><b>Note:</b> Routine post-vaccination serologic testing is not recommended.</p>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>• Pregnancy or possibility of pregnancy within 4wks.</li> <li>• Persons on high-dose immunosuppressive therapy or who are immunocompromised because of malignancy and primary or acquired cellular immunodeficiency, including HIV/AIDS (although vaccination may be considered if CD4+ T-lymphocyte counts are greater than or equal to 200 cells/<math>\mu</math>L. See <i>MMWR</i> 2007;56,RR-4).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness.</li> <li>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP statement <i>General Recommendations on Immunization*</i> regarding time to wait before vaccinating.</li> <li>• Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination, if possible; delay resumption of these antiviral drugs for 14d after vaccination.</li> </ul>
<b>Zoster</b> (shingles) (Zos) <i>Give SC</i>	<ul style="list-style-type: none"> <li>• People age 60yrs and older.</li> </ul>	<ul style="list-style-type: none"> <li>• Give 1-time dose if unvaccinated, regardless of previous history of herpes zoster (shingles) or chickenpox.</li> <li>• If 2 or more of the following live virus vaccines are to be given—MMR, Zos, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous anaphylactic reaction to any component of zoster vaccine.</li> <li>• Primary cellular or acquired immunodeficiency.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Pregnancy.</li> <li>• Moderate or severe acute illness.</li> <li>• Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination, if possible; delay resumption of these antiviral drugs for 14d after vaccination.</li> </ul>

# Summary of Recommendations for Adult Immunization (Age 19 years & older) (Page 3 of 4)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Td, Tdap</b> (Tetanus, diphtheria, pertussis) <i>Give IM</i></p> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin-top: 10px;"> <p><i>Using tetanus toxoid (TT) instead of Tdap or Td is not recommended.</i></p> </div>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>All people who lack written documentation of a primary series consisting of at least 3 doses of tetanus- and diphtheria-toxoid-containing vaccine.</li> <li>A booster dose of Td or Tdap may be needed for wound management, so consult ACIP recommendations.*</li> <li>In pregnancy, when indicated, give Td or Tdap in 2nd or 3rd trimester. If not administered during pregnancy, give Tdap in immediate postpartum period.</li> </ul> <p><b>For Tdap only:</b></p> <ul style="list-style-type: none"> <li>Adults younger than age 65yrs who have not already received Tdap.</li> <li>Adults of any age, including adults age 65yrs and older, in contact with infants younger than age 12m (e.g., parents, grandparents, childcare providers) who have not received a dose of Tdap should be prioritized for vaccination.</li> <li>Healthcare personnel of all ages.</li> <li>Adults age 65yrs and older without a risk indicator (e.g., not in contact with an infant) may also be vaccinated with Tdap.</li> </ul>	<ul style="list-style-type: none"> <li>For people who are unvaccinated or behind, complete the primary Td series (spaced at 0, 1–2m, 6–12m intervals); substitute a one-time dose of Tdap for one of the doses in the series, preferably the first.</li> <li>Give Td booster every 10yrs after the primary series has been completed.</li> <li>Tdap can be given regardless of interval since previous Td.</li> </ul>	<p><b>Contraindications and precautions</b> (mild illness is not a contraindication)</p> <p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous anaphylactic reaction to this vaccine or to any of its components.</li> <li>For Tdap only, history of encephalopathy, not attributable to an identifiable cause, within 7d following DTP/DTaP.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Guillain-Barré syndrome within 6wks following previous dose of tetanus-toxoid-containing vaccine.</li> <li>Progressive or unstable neurologic disorder, uncontrolled seizures, or progressive neuropathy.</li> <li>History of arthus reaction following a prior dose of tetanus-toxoid-containing vaccine.</li> </ul> <p><b>Note:</b> Tdap may be given to pregnant women at the provider’s discretion.</p>
<p><b>Hepatitis A</b> (HepA) <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>All people who want to be protected from hepatitis A virus (HAV) infection.</li> <li>People who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan.</li> <li>People with chronic liver disease; injecting and non-injecting drug users; men who have sex with men; people who receive clotting-factor concentrates; people who work with HAV in experimental lab settings; food handlers when health authorities or private employers determine vaccination to be appropriate.</li> <li>People who anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days following the adoptee’s arrival in the U.S.</li> <li>Adults age 40yrs or younger with recent (within 2 wks) exposure to HAV. For people older than age 40yrs with recent (within 2 wks) exposure to HAV, immune globulin is preferred over HepA vaccine.</li> </ul>	<ul style="list-style-type: none"> <li>Give 2 doses.</li> <li>The minimum interval between doses #1 and #2 is 6m.</li> <li>If dose #2 is delayed, do not repeat dose #1. Just give dose #2.</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>For Twinrix (hepatitis A and B combination vaccine [GSK]) for patients age 18yrs and older only: give 3 doses on a 0, 1, 6m schedule. There must be at least 4wks between doses #1 and #2, and at least 5m between doses #2 and #3. An alternative schedule can also be used at 0, 7d, 21–30d, and a booster at 12m.</p> </div>	<p><b>Contraindication</b></p> <p>Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Safety during pregnancy has not been determined, so benefits must be weighed against potential risk.</li> </ul>
<p><b>Hepatitis B</b> (HepB) <i>Give IM</i></p> <p>Brands may be used interchangeably.</p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>All adults who want to be protected from hepatitis B virus infection.</li> <li>Household contacts and sex partners of HBsAg-positive people; injecting drug users; sexually active people not in a long-term, mutually monogamous relationship; men who have sex with men; people with HIV; persons seeking STD evaluation or treatment; hemodialysis patients and those with renal disease that may result in dialysis; healthcare personnel and public safety workers who are exposed to blood; clients and staff of institutions for the developmentally disabled; inmates of long-term correctional facilities; certain international travelers; and people with chronic liver disease.</li> </ul> <p><b>Note:</b> Provide serologic screening for immigrants from endemic areas. If patient is chronically infected, assure appropriate disease management. For sex partners and household contacts of HBsAg-positive people, provide serologic screening and administer initial dose of HepB vaccine at same visit.</p>	<ul style="list-style-type: none"> <li>Give 3 doses on a 0, 1, 6m schedule.</li> <li>Alternative timing options for vaccination include 0, 2, 4m; 0, 1, 4m; and 0, 1, 2, 12m (Engerix brand only).</li> <li>There must be at least 4wks between doses #1 and #2, and at least 8wks between doses #2 and #3. Overall, there must be at least 16wks between doses #1 and #3.</li> <li><b>Schedule for those who have fallen behind:</b> If the series is delayed between doses, DO NOT start the series over. Continue from where you left off.</li> </ul>	<p><b>Contraindication</b></p> <p>Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precaution</b></p> <p>Moderate or severe acute illness.</p>

# Summary of Recommendations for Adult Immunization (Age 19 years & older) (Page 4 of 4)

Vaccine name and route	For whom vaccination is recommended	Schedule for vaccine administration (any vaccine can be given with another)	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Human papillomavirus (HPV)</b> (HPV2, Cervarix) (HPV4, Gardasil) <i>Give IM</i></p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>All previously unvaccinated women through age 26yrs.</li> <li>Consider giving HPV4 to men through age 26yrs to reduce their likelihood of acquiring genital warts.</li> </ul>	<ul style="list-style-type: none"> <li>Give 3 doses on a 0, 2, 6m schedule.</li> <li>There must be at least 4wks between doses #1 and #2 and at least 12wks between doses #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all three doses.</li> </ul>	<p><b>Contraindications and precautions</b> (mild illness is not a contraindication)</p> <p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Data on vaccination in pregnancy are limited. Vaccination should be delayed until after completion of the pregnancy.</li> </ul>
<p><b>Meningococcal conjugate vaccine, quadrivalent (MCV4)</b> Menactra, Menveo <i>Give IM</i></p> <p><b>Meningococcal polysaccharide vaccine (MPSV4)</b> Menomune <i>Give SC</i></p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>People with anatomic or functional asplenia or persistent complement component deficiency.</li> <li>People who travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the “meningitis belt” of Sub-Saharan Africa).</li> <li>Microbiologists routinely exposed to isolates of <i>N. meningitidis</i>.</li> <li>Incoming and current college students ages 19 through 21 may require vaccination; see 5th bullet in the box to the right for details.</li> </ul>	<ul style="list-style-type: none"> <li>Give 2 initial doses of MCV4 separated by 2m to adults 55yrs and younger with risk factors listed in 1st bullet in column to left or if vaccinating adults in this age group with HIV infection. Give 1 dose of MPSV4 to adults 56yrs and older with risk factors.</li> <li>Give 1 initial dose to all other adults with risk factors (see 2nd–4th bullets in column to left).</li> <li>Give booster doses every 5yrs to adults with continuing risk (see the 1st–3rd bullets in column to left for listings of people with possible continuing risk).</li> <li>MCV4 is preferred over MPSV4 for people age 55yrs and younger; use MPSV4 ONLY if age 56yrs or older or if there is a permanent contraindication/precaution to MCV4.</li> <li>Give 1 initial dose to <i>unvaccinated incoming</i> college students ages 19–21yrs; give booster dose to <i>incoming</i> students who received the most recent dose when younger than 16yrs. <i>Consider</i> same vaccination strategy for existing college students ages 19–21yrs.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> </ul>
<p><b>Polio (IPV)</b> <i>Give IM or SC</i></p>	<p>For people through age 18 years, consult “Summary of Recommendations for Child/Teen Immunization” at <a href="http://www.immunize.org/catg.d/p2010.pdf">www.immunize.org/catg.d/p2010.pdf</a>.</p> <ul style="list-style-type: none"> <li>Not routinely recommended for U.S. residents age 18yrs and older.</li> </ul> <p>Note: Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Previously vaccinated adults can receive 1 booster dose if traveling to polio endemic areas or to areas where the risk of exposure is high.</p>	<ul style="list-style-type: none"> <li>Refer to ACIP recommendations* regarding unique situations, schedules, and dosing information.</li> </ul>	<p><b>Contraindication</b> Previous anaphylactic reaction to this vaccine or to any of its components.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>Pregnancy.</li> </ul>



# Vaccinations for Adults

## You're NEVER too old to get immunized!

Getting immunized is a lifelong, life-protecting job. Don't leave your healthcare provider's office without making sure you've had all the vaccinations you need.

Vaccine Age ▶ ▼	19–49 years	50–64 years	65 years & older
<b>Influenza</b>	You need a dose every fall (or winter) for your protection and for the protection of others around you.		
<b>Pneumococcal</b>	You need 1–2 doses if you smoke cigarettes or if you have certain chronic medical conditions.*		You need 1 dose at age 65 (or older) if you've never been vaccinated.
<b>Tetanus, diphtheria, pertussis (whooping cough) (Td, Tdap)</b>	Be sure to get a 1-time dose of “Tdap” vaccine (the adult whooping cough vaccine) if you are younger than age 65 years, are 65+ and have contact with an infant, are a healthcare worker, or simply want to be protected from whooping cough. You need a Td booster dose every 10 years. Consult your healthcare provider if you haven't had at least 3 tetanus- and diphtheria-containing shots sometime in your life or have a deep or dirty wound.		
<b>Hepatitis B (HepB)</b>	You need this vaccine if you have a specific risk factor for hepatitis B virus infection* or you simply wish to be protected from this disease. The vaccine is given in 3 doses, usually over 6 months.		
<b>Hepatitis A (HepA)</b>	You need this vaccine if you have a specific risk factor for hepatitis A virus infection* or you simply wish to be protected from this disease. The vaccine is usually given as 2 doses, 6–18 months apart.		
<b>Human papillomavirus (HPV)</b>	You need this vaccine if you are a woman who is age 26 years or younger. One brand, Gardasil, can be given to men age 26 years or younger to prevent genital warts. The vaccine is given in 3 doses over 6 months.		
<b>Measles, mumps, rubella (MMR)</b>	You need at least 1 dose of MMR if you were born in 1957 or later. You may also need a 2nd dose.*		
<b>Varicella (Chickenpox)</b>	If you've never had chickenpox or you were vaccinated but received only 1 dose, talk to your healthcare provider to find out if you need this vaccine.*		
<b>Meningococcal</b>	If you are going to college and plan to live in a dormitory, or have one of several medical conditions*, you need to get vaccinated against meningococcal disease. You may also need additional booster doses.*		
<b>Zoster (shingles)</b>			If you are age 60 years or older, you should get this vaccine now.

\* Consult your healthcare provider to determine your level of risk for infection and your need for this vaccine.

**Do you travel outside the United States?** If so, you may need additional vaccines. The Centers for Disease Control and Prevention (CDC) provides information to assist travelers and their healthcare providers in deciding the vaccines, medications, and other measures necessary to prevent illness and injury during international travel. Visit CDC's website at [www.cdc.gov/travel](http://www.cdc.gov/travel) or call (800) CDC-INFO ([800] 232-4636). You may also consult a travel clinic or your healthcare provider.

Patient name: \_\_\_\_\_ Date of birth: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 (mo.) (day) (yr.)

# Screening Questionnaire for Adult Immunization

**For patients:** The following questions will help us determine which vaccines you may be given today. If you answer "yes" to any question, it does not necessarily mean you should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Are you sick today?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you have allergies to medications, food, a vaccine component, or latex?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you ever had a serious reaction after receiving a vaccination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you have cancer, leukemia, AIDS, or any other immune system problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you take cortisone, prednisone, other steroids, or anticancer drugs, or have you had radiation treatments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Have you had a seizure or a brain or other nervous system problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. For women: Are you pregnant or is there a chance you could become pregnant during the next month?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have you received any vaccinations in the past 4 weeks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Form completed by: \_\_\_\_\_ Date: \_\_\_\_\_

Form reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Did you bring your immunization record card with you?**    yes     no

It is important for you to have a personal record of your vaccinations. If you don't have a personal record, ask your healthcare provider to give you one. Keep this record in a safe place and bring it with you every time you seek medical care. Make sure your healthcare provider records all your vaccinations on it.

## Information for Health Professionals about the Screening Questionnaire for Adults

Are you interested in knowing why we included a certain question on the Screening Questionnaire? If so, read the information below. If you want to find out even more, consult the references listed at the bottom of this page.

### 1. Are you sick today? [all vaccines]

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events (1). However, as a precaution with moderate or severe acute illness, all vaccines should be delayed until the illness has improved. Mild illnesses (such as upper respiratory infections or diarrhea) are NOT contraindications to vaccination. Do not withhold vaccination if a person is taking antibiotics.

### 2. Do you have allergies to medications, food, a vaccine component, or latex? [all vaccines]

History of anaphylactic reaction such as hives (urticaria), wheezing or difficulty breathing, or circulatory collapse or shock (not fainting) to a vaccine component or latex is a contraindication to some vaccines. For example, if a person experiences anaphylaxis after eating eggs, do not administer influenza vaccine, or if a person has anaphylaxis after eating gelatin, do not administer MMR or varicella vaccine. Local reactions are not contraindications. For a table of vaccines supplied in vials or syringes that contain latex, go to [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf). For an extensive list of vaccine components, see reference 2.

### 3. Have you ever had a serious reaction after receiving a vaccination? [all vaccines]

History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication for subsequent doses (1). Under normal circumstances, vaccines are deferred when a precaution is present. However, situations may arise when the benefit outweighs the risk (e.g., during a community pertussis outbreak).

### 4. Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder? [LAIV]

People with any of these health conditions should not be given the intranasal live attenuated influenza vaccine (LAIV). Instead, they should be vaccinated with the injectable influenza vaccine.

### 5. Do you have cancer, leukemia, AIDS, or any other immune system problem? [LAIV, MMR, VAR, ZOS]

Live virus vaccines (e.g., LAIV, measles-mumps-rubella [MMR], varicella [VAR], zoster [ZOS]) are usually contraindicated in immunocompromised people. However, there are exceptions. For example, MMR vaccine is recommended and varicella vaccine should be considered for adults with CD4+ T-lymphocyte counts of greater than or equal to 200 cells/ $\mu$ L. Immunosuppressed people should not receive LAIV. For details, consult the ACIP recommendations (3, 4, 5).

### 6. Do you take cortisone, prednisone, other steroids, or anticancer drugs, or have you had radiation treatments? [LAIV, MMR, VAR, ZOS]

Live virus vaccines (e.g., LAIV, MMR, VAR, ZOS) should be postponed until after chemotherapy or long-term high-dose steroid therapy has ended. For details and length of time to postpone, consult the ACIP statement (1, 5). To find specific vaccination schedules for stem cell transplant (bone marrow transplant) patients, see reference 6. LAIV can be given only to healthy non-pregnant people younger than age 50 years.

### 7. Have you had a seizure or a brain or other nervous system problem? [influenza, Td/Tdap]

Tdap is contraindicated in people who have a history of encephalopathy within 7 days following DTP/DTaP given before age 7 years. An unstable progressive neurologic problem is a precaution to the use of Tdap. For people with stable neurologic disorders (including seizures) unrelated to vaccination, or for people with a family history of seizure, vaccinate as usual. A history of Guillain-Barré syndrome (GBS) is a consideration with the following: 1) Td/Tdap: if GBS has occurred within 6 weeks of a tetanus-containing vaccine and decision is made to continue vaccination, give Tdap instead of Td if no history of prior Tdap; 2) Influenza vaccine (TIV/LAIV): if GBS has occurred within 6 weeks of a prior influenza vaccine, vaccinate with TIV if at high risk for severe influenza complications.

### 8. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug? [LAIV, MMR, VAR]

Certain live virus vaccines (e.g., LAIV, MMR, VAR) may need to be deferred, depending on several variables. Consult the most current ACIP recommendations for current information on intervals between antiviral drugs, immune globulin or blood product administration and live virus vaccines. (1)

### 9. For women: Are you pregnant or is there a chance you could become pregnant during the next month? [MMR, LAIV, VAR, ZOS]

Live virus vaccines (e.g., MMR, VAR, ZOS, LAIV) are contraindicated one month before and during pregnancy because of the theoretical risk of virus transmission to the fetus. Sexually active women in their childbearing years who receive live virus vaccines should be instructed to practice careful contraception for one month following receipt of the vaccine. On theoretical grounds, inactivated poliovirus vaccine should not be given during pregnancy; however, it may be given if risk of disease is imminent and immediate protection is needed (e.g., travel to endemic areas). Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester. (1, 3, 4, 5, 7, 8)

### 10. Have you received any vaccinations in the past 4 weeks?

[LAIV, MMR, VAR, yellow fever] If the person to be vaccinated was given either LAIV or an injectable live virus vaccine (e.g., MMR, VAR, ZOS, yellow fever) in the past 4 weeks, they should wait 28 days before receiving another vaccination of this type. Inactivated vaccines may be given at any spacing interval if they are not administered simultaneously.

#### References:

1. CDC. General recommendations on immunization, at [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).
2. Table of Vaccine Components: [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/exipient-table-2.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/exipient-table-2.pdf).
3. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps. *MMWR* 1998; 47 (RR-8).
4. CDC. Prevention of varicella: Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007; 56 (RR-4).
5. CDC. Prevention and control of influenza—recommendations of ACIP, at [www.cdc.gov/flu/professionals/vaccination](http://www.cdc.gov/flu/professionals/vaccination).
6. CDC. Excerpt from Guidelines for preventing opportunistic infections among hematopoietic stem cell transplant recipients, *MMWR* 2000; 49 (RR-10), [www.cdc.gov/vaccines/pubs/downloads/b\\_hstc-recs.pdf](http://www.cdc.gov/vaccines/pubs/downloads/b_hstc-recs.pdf).
7. CDC. Notice to readers: Revised ACIP recommendation for avoiding pregnancy after receiving a rubella-containing vaccine. *MMWR* 2001; 50 (49).
8. CDC. Prevention of pertussis, tetanus, and diphtheria among pregnant and postpartum women and their infants: Recommendations of the ACIP. *MMWR* 2008; 57 (RR-4).

Nombre del paciente: \_\_\_\_\_ Fecha de nacimiento: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 (mes) (día) (año)

# Cuestionario de selección para vacunación de adultos

**A los pacientes:** Las siguientes preguntas nos ayudarán a determinar cuáles vacunas le podemos dar hoy. Si contesta “sí” a alguna pregunta, eso no siempre quiere decir que no lo deben vacunar. Simplemente quiere decir que hay que hacerle más preguntas. Si alguna pregunta no está clara, pida a su profesional de la salud que se la explique.

	Sí	No	No sabe
1. ¿Está enfermo hoy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. ¿Es alérgico a algún medicamento, alimento, a algún componente de las vacunas o al látex?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. ¿Tuvo alguna vez una reacción seria después de vacunarse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. ¿Tiene algún problema de salud a largo plazo, como enfermedad del corazón, enfermedad de los pulmones, asma, enfermedad de los riñones, enfermedad metabólica (como la diabetes), anemia o algún otro trastorno de la sangre?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. ¿Tiene cáncer, leucemia, SIDA o algún otro problema del sistema inmunológico?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. ¿Toma cortisona, prednisona, otros esteroides o medicamentos contra el cáncer, o le han hecho tratamientos de radiación?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. ¿Tuvo alguna vez convulsiones o problemas del cerebro o algún otro problema del sistema nervioso?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Durante el año pasado, ¿le hicieron una transfusión de sangre o de productos de la sangre, o le dieron inmunoglobulina o gamaglobulina o un medicamento antiviral?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Para las mujeres: ¿Está embarazada o hay alguna posibilidad de que quede embarazada en el próximo mes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. ¿Le aplicaron alguna vacuna en las últimas 4 semanas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Formulario llenado por: \_\_\_\_\_ Fecha: \_\_\_\_\_

Formulario revisado por: \_\_\_\_\_ Fecha: \_\_\_\_\_

**¿Trajo su comprobante de vacunación?**    sí     no

Es importante que tenga un comprobante de vacunación personal. Si no lo tiene, pídale a su profesional de la salud que le dé uno. Guárdelo en un lugar seguro y llévalo todas las veces que reciba atención médica. Asegúrese de que su profesional de la salud escriba allí todas las vacunas que reciba.

## Information for Health Professionals about the Screening Questionnaire for Adults

Are you interested in knowing why we included a certain question on the Screening Questionnaire? If so, read the information below. If you want to find out even more, consult the references listed at the bottom of this page.

### 1. Are you sick today? [all vaccines]

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events (1). However, as a precaution with moderate or severe acute illness, all vaccines should be delayed until the illness has improved. Mild illnesses (such as upper respiratory infections or diarrhea) are NOT contraindications to vaccination. Do not withhold vaccination if a person is taking antibiotics.

### 2. Do you have allergies to medications, food, a vaccine component, or latex? [all vaccines]

History of anaphylactic reaction such as hives (urticaria), wheezing or difficulty breathing, or circulatory collapse or shock (not fainting) to a vaccine component or latex is a contraindication to some vaccines. For example, if a person experiences anaphylaxis after eating eggs, do not administer influenza vaccine, or if a person has anaphylaxis after eating gelatin, do not administer MMR or varicella vaccine. Local reactions are not contraindications. For a table of vaccines supplied in vials or syringes that contain latex, go to [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf). For an extensive list of vaccine components, see reference 2.

### 3. Have you ever had a serious reaction after receiving a vaccination? [all vaccines]

History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication for subsequent doses (1). Under normal circumstances, vaccines are deferred when a precaution is present. However, situations may arise when the benefit outweighs the risk (e.g., during a community pertussis outbreak).

### 4. Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder? [LAIV]

People with any of these health conditions should not be given the intranasal live attenuated influenza vaccine (LAIV). Instead, they should be vaccinated with the injectable influenza vaccine.

### 5. Do you have cancer, leukemia, AIDS, or any other immune system problem? [LAIV, MMR, VAR, ZOS]

Live virus vaccines (e.g., LAIV, measles-mumps-rubella [MMR], varicella [VAR], zoster [ZOS]) are usually contraindicated in immunocompromised people. However, there are exceptions. For example, MMR vaccine is recommended and varicella vaccine should be considered for adults with CD4+ T-lymphocyte counts of greater than or equal to 200 cells/ $\mu$ L. Immunosuppressed people should not receive LAIV. For details, consult the ACIP recommendations (3, 4, 5).

### 6. Do you take cortisone, prednisone, other steroids, or anticancer drugs, or have you had radiation treatments? [LAIV, MMR, VAR, ZOS]

Live virus vaccines (e.g., LAIV, MMR, VAR, ZOS) should be postponed until after chemotherapy or long-term high-dose steroid therapy has ended. For details and length of time to postpone, consult the ACIP statement (1, 5). To find specific vaccination schedules for stem cell transplant (bone marrow transplant) patients, see reference 6. LAIV can be given only to healthy non-pregnant people younger than age 50 years.

### 7. Have you had a seizure or a brain or other nervous system problem? [influenza, Td/Tdap]

Tdap is contraindicated in people who have a history of encephalopathy within 7 days following DTP/DTaP given before age 7 years. An unstable progressive neurologic problem is a precaution to the use of Tdap. For people with stable neurologic disorders (including seizures) unrelated to vaccination, or for people with a family history of seizure, vaccinate as usual. A history of Guillain-Barré syndrome (GBS) is a consideration with the following: 1) Td/Tdap: if GBS has occurred within 6 weeks of a tetanus-containing vaccine and decision is made to continue vaccination, give Tdap instead of Td if no history of prior Tdap; 2) Influenza vaccine (TIV/LAIV): if GBS has occurred within 6 weeks of a prior influenza vaccine, vaccinate with TIV if at high risk for severe influenza complications.

### 8. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug? [LAIV, MMR, VAR]

Certain live virus vaccines (e.g., LAIV, MMR, VAR) may need to be deferred, depending on several variables. Consult the most current ACIP recommendations for current information on intervals between antiviral drugs, immune globulin or blood product administration and live virus vaccines. (1)

### 9. For women: Are you pregnant or is there a chance you could become pregnant during the next month? [MMR, LAIV, VAR, ZOS]

Live virus vaccines (e.g., MMR, VAR, ZOS, LAIV) are contraindicated one month before and during pregnancy because of the theoretical risk of virus transmission to the fetus. Sexually active women in their childbearing years who receive live virus vaccines should be instructed to practice careful contraception for one month following receipt of the vaccine. On theoretical grounds, inactivated poliovirus vaccine should not be given during pregnancy; however, it may be given if risk of disease is imminent and immediate protection is needed (e.g., travel to endemic areas). Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester. (1, 3, 4, 5, 7, 8)

### 10. Have you received any vaccinations in the past 4 weeks?

[LAIV, MMR, VAR, yellow fever] If the person to be vaccinated was given either LAIV or an injectable live virus vaccine (e.g., MMR, VAR, ZOS, yellow fever) in the past 4 weeks, they should wait 28 days before receiving another vaccination of this type. Inactivated vaccines may be given at any spacing interval if they are not administered simultaneously.

#### References:

1. CDC. General recommendations on immunization, at [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).
2. Table of Vaccine Components: [www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/exipient-table-2.pdf](http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/exipient-table-2.pdf).
3. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps. *MMWR* 1998; 47 (RR-8).
4. CDC. Prevention of varicella: Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007; 56 (RR-4).
5. CDC. Prevention and control of influenza—recommendations of ACIP, at [www.cdc.gov/flu/professionals/vaccination](http://www.cdc.gov/flu/professionals/vaccination).
6. CDC. Excerpt from Guidelines for preventing opportunistic infections among hematopoietic stem cell transplant recipients, *MMWR* 2000; 49 (RR-10), [www.cdc.gov/vaccines/pubs/downloads/b\\_hstc-recs.pdf](http://www.cdc.gov/vaccines/pubs/downloads/b_hstc-recs.pdf).
7. CDC. Notice to readers: Revised ACIP recommendation for avoiding pregnancy after receiving a rubella-containing vaccine. *MMWR* 2001; 50 (49).
8. CDC. Prevention of pertussis, tetanus, and diphtheria among pregnant and postpartum women and their infants: Recommendations of the ACIP. *MMWR* 2008; 57 (RR-4).

Your name: \_\_\_\_\_ Date of birth: \_\_\_\_/\_\_\_\_/\_\_\_\_ Today's date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
(mo.) (day) (yr.) (mo.) (day) (yr.)



## Do I need any vaccinations today?

Many adults are behind on their vaccinations. This questionnaire will help you and your healthcare provider determine if you need any vaccinations today. Please check the boxes that apply to you.

### Influenza vaccination

- I haven't had my annual influenza vaccination yet this season.

### Pneumococcal vaccination

- I am age 65 or older, and I have never had a pneumococcal shot.
- I am age 65 or older and had one pneumococcal shot when I was younger than age 65; it has been 5 years or more since that shot.
- I am younger than age 65, I have not been vaccinated against pneumococcal disease, and at least one of the following applies to me:
- I smoke cigarettes.
  - I have heart, lung (including asthma), liver, kidney, or sickle cell disease; diabetes; or alcoholism.
  - I have a weakened immune system due to cancer, Hodgkin's disease, leukemia, lymphoma, multiple myeloma, kidney failure, HIV/AIDS; or I am receiving radiation therapy; or I am on medication that suppresses my immune system.
  - I have had an organ or bone marrow transplant.
  - I have had my spleen removed, have had or will have a cochlear implant, or have leaking spinal fluid.

### Tetanus-, diphtheria-, and pertussis (whooping cough)-containing vaccination (e.g., DTP, DTaP, Tdap, or Td)

- I am younger than age 65 and have not had a pertussis-containing vaccine (Tdap) as an adult.
- I am age 65 years or older and have or will have close contact with a child younger than age 12 months and have not had a pertussis-containing vaccine (Tdap) as an adolescent or adult.
- I am a healthcare worker and have not had a pertussis-containing vaccine (Tdap) as an adult.
- I have not yet had at least 3 tetanus- and diphtheria-containing shots.
- I have had at least 3 tetanus- and diphtheria-containing shots in my lifetime, but I believe it's been 10 years or more since I received my last shot.
- I have no idea if I ever received any tetanus- and diphtheria-containing shots in school, the military, or elsewhere.

### Measles-Mumps-Rubella (MMR) vaccination

- I was born in 1957 or later and never received an MMR shot.
- I am a woman thinking about a future pregnancy and do not know if I'm immune to rubella.
- I am a healthcare worker, I do not have a history of measles or mumps, and I've had only one dose of MMR vaccine.
- I was born in 1957 or later, and I am included in one of the following groups for whom 2 MMR shots are recommended, but I have received only 1 shot.
- I am entering college or a post-high school educational institution.
  - I had a blood test that shows I do not have immunity to measles, mumps, or rubella.
  - I travel internationally.

### Human papillomavirus vaccination

- I am a woman age 26 or younger and haven't completed a series of shots against human papillomavirus.
- I am a man age 26 or younger and want protection against genital warts.
- I am a woman older than age 26 who started the series of shots but never completed it.

(continued on page 2)

**Hepatitis A vaccination**

- I want to be vaccinated to avoid getting hepatitis A and spreading it to others.
- I was vaccinated with hepatitis A vaccine in the past but never received the second shot.
- I might have been exposed to the hepatitis A virus in the past 2 weeks.
- I am in one of the following risk groups, and I haven't completed the 2-dose series of hepatitis A shots:
  - I travel in countries where hepatitis A is common.<sup>1,2</sup>
  - I have (or will have) contact with an adopted child within the first 60 days of their arrival from a country where hepatitis A is common.<sup>2</sup>
  - I am a man who has sex with men.
  - I use street drugs.
  - I have chronic liver disease.
  - I have a clotting factor disorder.
  - I work with HAV-infected primates or with HAV in a research laboratory setting.

**Hepatitis B vaccination**

- I want to be vaccinated to avoid getting hepatitis B and spreading it to others.
- I am age 18 or younger and haven't completed the series of hepatitis B shots.
- I was vaccinated with hepatitis B vaccine in the past but never completed the full 3-dose series.
- I am in one of the following risk groups, and I haven't completed the series of hepatitis B shots:
  - I am sexually active and am not in a long-term, mutually monogamous relationship.
  - I am a man who has sex with men.
  - I am an immigrant, or my parents are immigrants from an area of the world where hepatitis B is common.<sup>3,4</sup>
  - I live with or am a sex partner of a person with hepatitis B.
  - I have been diagnosed with a sexually transmitted disease.
  - I have been diagnosed with HIV.
  - I inject street drugs.
  - I have chronic liver disease.
  - I am or will be on kidney dialysis.
  - I am a healthcare or public safety worker who is exposed to blood or other body fluids.
  - I provide direct services for people with developmental disabilities.
  - I travel outside the U.S.<sup>1,3</sup>

**Chickenpox (varicella) vaccination**

- I was born in 1980 or later and have never had chickenpox or the vaccine, or I just don't know.
- I was born before 1980 and am either a healthcare worker or foreign born, and am not sure if I've had chickenpox or not.
- I have received 1 dose of varicella vaccine in the past, but never got a second shot.

**Meningococcal vaccination**

- I am age 18 or younger and haven't received a meningococcal shot.
- I am age 21 or younger and am (or will be) attending college.
- I am traveling to an area of the world where meningococcal disease is common.<sup>1</sup>
- I have sickle cell disease, or my spleen isn't working or has been removed, or I have a persistent complement component deficiency.
- I am a microbiologist routinely exposed to isolates of *Neisseria meningitidis*.
- I was previously vaccinated 5 or more years ago and continue to be at risk for meningococcal disease. Note: this does not apply to students whose only risk factor is attending college.

**Shingles (zoster) vaccination**

- I am an adult age 60 or older and haven't had a shingles shot.

**Note:** Adults may need additional vaccinations, such as polio or others. Talk to your healthcare provider.

**Footnotes**

1. Call your local travel clinic to find out if additional vaccines are recommended.
2. Countries where hepatitis A is common include all countries other than the U.S., Western Europe, Canada, Japan, Australia, and New Zealand.
3. Areas with high rates of hepatitis B include Africa, China, Korea, Southeast Asia including Indonesia and the Philippines, South and Western Pacific Islands, interior Amazon Basin, certain parts of the Caribbean (i.e., Haiti and the Dominican Republic), and the Middle East except Israel. Areas with moderate rates include South Central and Southwest Asia, Israel, Japan, Eastern and Southern Europe, Russia, and most of Central and South America.
4. Most adults from moderate- or high-risk areas of the world do not know their hepatitis B status. All patients from these areas need hepatitis B blood tests to determine if they have been previously infected. The first hepatitis B shot can be given during the same visit as the blood tests but only after the blood is drawn.

# Healthcare Personnel Vaccination Recommendations

Vaccine	Recommendations in brief
<b>Hepatitis B</b>	Give 3-dose series (dose #1 now, #2 in 1 month, #3 approximately 5 months after #2). Give IM. Obtain anti-HBs serologic testing 1–2 months after dose #3.
<b>Influenza</b>	Give 1 dose of influenza vaccine annually. Give inactivated injectable influenza vaccine intramuscularly or live attenuated influenza vaccine (LAIV) intranasally.
<b>MMR</b>	For healthcare personnel (HCP) born in 1957 or later without serologic evidence of immunity or prior vaccination, give 2 doses of MMR, 4 weeks apart. For HCP born prior to 1957, see below. Give SC.
<b>Varicella (chickenpox)</b>	For HCP who have no serologic proof of immunity, prior vaccination, or history of varicella disease, give 2 doses of varicella vaccine, 4 weeks apart. Give SC.
<b>Tetanus, diphtheria, pertussis</b>	Give a one-time dose of Tdap as soon as feasible to all HCP who have not received Tdap previously. Give Td boosters every 10 years thereafter. Give IM.
<b>Meningococcal</b>	Give 1 dose to microbiologists who are routinely exposed to isolates of <i>N. meningitidis</i> . Give IM or SC.

*Hepatitis A, typhoid, and polio vaccines are not routinely recommended for HCP who may have on-the-job exposure to fecal material.*

## Hepatitis B

Healthcare personnel (HCP) who perform tasks that may involve exposure to blood or body fluids should receive a 3-dose series of hepatitis B vaccine at 0-, 1-, and 6-month intervals. Test for hepatitis B surface antibody (anti-HBs) to document immunity 1–2 months after dose #3.

- If anti-HBs is at least 10 mIU/mL (positive), the patient is immune. No further serologic testing or vaccination is recommended.
- If anti-HBs is less than 10 mIU/mL (negative), the patient is unprotected from hepatitis B virus (HBV) infection; revaccinate with a 3-dose series. Retest anti-HBs 1–2 months after dose #3.
  - If anti-HBs is positive, the patient is immune. No further testing or vaccination is recommended.
  - If anti-HBs is negative after 6 doses of vaccine, patient is a non-responder.

**For non-responders:** HCP who are non-responders should be considered susceptible to HBV and should be counseled regarding precautions to prevent HBV infection and the need to obtain HBIG prophylaxis for any known or probable parenteral exposure to hepatitis B surface antigen (HBsAg)-positive blood.<sup>1</sup> It is also possible that non-responders are persons who are HBsAg positive. Testing should be considered. HCP found to be HBsAg positive should be counseled and medically evaluated.

**Note:** Anti-HBs testing is not recommended routinely for previously vaccinated HCP who were not tested 1–2 months after their original vaccine series. These HCP should be tested for anti-HBs when they have an exposure to blood or body fluids. If found to be anti-HBs negative, the HCP should be treated as if susceptible.<sup>1</sup>

## Influenza

All HCP, including physicians, nurses, paramedics, emergency medical technicians, employees of nursing homes and chronic care facilities, students in these professions, and volunteers, should receive annual vaccination against influenza. Live attenuated influenza vaccine (LAIV) may only be given to non-pregnant healthy HCP age 49 years and younger. Inactivated injectable influenza vaccine (TIV) is preferred over LAIV for HCP who are in close contact with severely immunosuppressed persons (e.g., stem cell transplant patients) when patients require protective isolation.

## Measles, Mumps, Rubella (MMR)

HCP who work in medical facilities should be immune to measles, mumps, and rubella.

- HCP born in 1957 or later can be considered immune to measles, mumps, or rubella only if they have documentation of (a) laboratory confirmation

of disease or immunity (HCP who have an “indeterminate” or “equivocal” level of immunity upon testing should be considered nonimmune) or (b) appropriate vaccination against measles, mumps, and rubella (i.e., 2 doses of live measles and mumps vaccines given on or after the first birthday, separated by 28 days or more, and at least 1 dose of live rubella vaccine).

- Although birth before 1957 generally is considered acceptable evidence of measles, mumps, and rubella immunity, healthcare facilities should consider recommending 2 doses of MMR vaccine routinely to unvaccinated HCP born before 1957 who do not have laboratory evidence of disease or immunity to measles, mumps, and/or rubella. For these same HCP who do not have evidence of immunity, healthcare facilities should recommend 2 doses of MMR vaccine during an outbreak of measles or mumps and 1 dose during an outbreak of rubella.

## Varicella

It is recommended that all HCP be immune to varicella. Evidence of immunity in HCP includes documentation of 2 doses of varicella vaccine given at least 28 days apart, history of varicella or herpes zoster based on physician diagnosis, laboratory evidence of immunity, or laboratory confirmation of disease.

## Tetanus/Diphtheria/Pertussis (Td/Tdap)

All HCPs who have not or are unsure if they have previously received a dose of Tdap should receive a one-time dose of Tdap as soon as feasible, without regard to the interval since the previous dose of Td. Then, they should receive Td boosters every 10 years thereafter.

## Meningococcal

Vaccination is recommended for microbiologists who are routinely exposed to isolates of *N. meningitidis*. Use of MCV4 is preferred for persons younger than age 56 years; give IM. Use MPSV4 only if there is a permanent contraindication or precaution to MCV4. Use of MPSV4 (not MCV4) is recommended for HCP older than age 55; give SC.

## References

1. See Table 3 in “Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis,” *MMWR*, June 29, 2001, Vol. 50, RR-11.

For additional specific ACIP recommendations, refer to the official ACIP statements published in *MMWR*. To obtain copies, visit CDC’s website at [www.cdc.gov/vaccines/pubs/ACIP-list.htm](http://www.cdc.gov/vaccines/pubs/ACIP-list.htm); or visit the Immunization Action Coalition (IAC) website at [www.immunize.org/acip](http://www.immunize.org/acip).

*Adapted from the Michigan Department of Community Health*