

## Footnotes (continued)

*Other:* Residents of nursing homes and other long-term care and assisted-living facilities; persons likely to transmit influenza to persons at high risk (e.g., in-home household contacts and caregivers of children younger than age 5 years, persons age 50 years and older, and persons of all ages with high-risk conditions).

Healthy, nonpregnant adults younger than age 50 years without high-risk medical conditions who are not contacts of severely immunocompromised persons in special-care units may receive either intranasally administered live, attenuated influenza vaccine (FluMist) or inactivated vaccine. Other persons should receive the inactivated vaccine.

**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 Indian/Alaska Natives or persons younger than age 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 ages 50 through 64 years who are living in areas in which the risk for invasive pneumococcal disease is increased.

**8. Revaccination with PPSV.** One-time revaccination after 5 years is recommended for persons 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 age 65 years and older, one-time revaccination is recommended if they were vaccinated 5 or more years previously and were younger than age 65 years at the time of primary vaccination.

**9. Hepatitis A (HepA) 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 [wwwn.cdc.gov/travel/content/diseases.aspx](http://wwwn.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 given as soon as adoption is planned, ideally 2 or more weeks before the arrival of the adoptee.

Single-antigen vaccine formulations should be given 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 (Twinrix) is used, give 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, given on days 0, 7, and 21 to 30 followed by a booster dose at month 12 may be used.

**10. Hepatitis B (HepB) 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 disease (STD); current

or recent injection-drug users; and men who have sex with men.

*Occupational:* Healthcare 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 [wwwn.cdc.gov/travel/content/diseases.aspx](http://wwwn.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; healthcare 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 daycare facilities for persons with developmental disabilities.

Give or complete a 3-dose series of hepatitis B vaccine to those persons not previously vaccinated. The second dose should be given 1 month after the first dose; the third dose should be given 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 (Twinrix) is used, give 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, given on days 0, 7, and 21 to 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) given on a 3-dose schedule or 2 doses of 20 µg/mL (Engerix-B) given simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.

**11. Meningococcal vaccination.** Meningococcal vaccine should be given to persons with the following indications:

*Medical:* Adults with anatomic or functional asplenia, or persistent complement component deficiencies.

*Other:* 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 hyperendemic 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 (MCV4) is preferred for adults with any of the preceding indications who are age 55 years or younger; meningococcal polysaccharide vaccine (MPSV4) is preferred for adults age 56 years and older. Revaccination with MCV4 after 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). Persons whose only risk factor is living in on-campus housing are not recommended to receive an additional dose.

**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 [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).

**13. Selected conditions for which *Haemophilus influenzae* type b (Hib) vaccine may be used.** Hib vaccine generally is not recommended for persons age 5 years and older. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults. However, studies suggest good immunogenicity in patients who have sickle cell disease, leukemia, or HIV infection or who have had a splenectomy. Giving 1 dose of Hib vaccine to these high-risk persons who have not previously received Hib vaccine is not contraindicated.

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 [www.vaers.hhs.gov](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 [www.hrsa.gov/vaccinecompensation](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 [www.cdc.gov/vaccines](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.

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