Recommended Immunization Schedule for Adults Aged 19 Years or Older, United States, 2018

In February 2018, the Recommended Immunization Schedule for Adults Aged 19 Years or Older, United States, 2018 became effective, as recommended by the Advisory Committee on Immunization Practices (ACIP) and approved by the Centers for Disease Control and Prevention (CDC). The adult immunization schedule was also approved by the American College of Physicians, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the American College of Nurse-Midwives.

CDC announced the availability of the 2018 adult immunization schedule in the Morbidity and Mortality Weekly Report (MMWR). The schedule is published in its entirety in the Annals of Internal Medicine.

The adult immunization schedule consists of figures that summarize routinely recommended vaccines for adults by age groups and medical conditions and other indications, footnotes for the figures, and a table of vaccine contraindications and precautions. Note the following when reviewing the adult immunization schedule:

- The figures in the adult immunization schedule should be reviewed with the accompanying footnotes.
- The figures and footnotes display indications for which vaccines, if not previously administered, should be administered unless noted otherwise.
- The table of contraindications and precautions identifies populations and situations for which vaccines should not be used or should be used with caution.
- When indicated, administer recommended vaccines to adults whose vaccination history is incomplete or unknown.
- Increased interval between doses of a multidose vaccine series does not diminish vaccine effectiveness; it is not necessary to restart the vaccine series or add doses to the series because of an extended interval between doses.
- Combination vaccines may be used when any component of the combination is indicated and when the other components of the combination are not contraindicated.
- The use of trade names in the adult immunization schedule is for identification purposes only and does not imply endorsement by the ACIP or CDC.

Special populations that need additional considerations include:

- Pregnant women. Pregnant women should receive the tetanus, diphtheria, and acellular pertussis vaccine (Tdap) during pregnancy and the influenza vaccine during or before pregnancy. Live vaccines (e.g., measles, mumps, and rubella vaccine [MMR]) are contraindicated.
- Asplenia. Adults with asplenia have specific vaccination recommendations because of their increased risk for infection by encapsulated bacteria. Anatomical or functional asplenia includes congenital or acquired asplenia, splenic dysfunction, sickle cell disease and other hemoglobinopathies, and splenectomy.
- Immunocompromising conditions. Adults with immunosuppression should generally avoid live vaccines. Inactivated vaccines (e.g., pneumococcal vaccines) are generally acceptable. High-level immunosuppression includes HIV infection with a CD4 cell count <200 cells/μL, receipt of daily corticosteroid therapy with ≥20 mg of prednisone or equivalent for ≥14 days, primary immunodeficiency disorder (e.g., severe combined immunodeficiency or complement component deficiency), and receipt of cancer chemotherapy. Other immunocompromising conditions and immunosuppressive medications to consider when vaccinating adults can be found in IDSA Clinical Practice Guideline for Vaccination of the Immunocompromised Host. Additional information on vaccinating immunocompromised adults is in General Best Practice Guidelines for Immunization.

Additional resources for health care providers include:

- Details on vaccines recommended for adults and complete ACIP statements at www.cdc.gov/vaccines/hcp/acip-recs/index.html
- Vaccine Information Statements that explain benefits and risks of vaccines at www.cdc.gov/vaccines/hcp/vaccines/index.html
- Information and resources on vaccinating pregnant women at www.cdc.gov/vaccines/adults/rec-vac/pregnant.html
- Information on travel vaccine requirements and recommendations at www.cdc.gov/travel/
destinations/list
- CDC Vaccine Schedules App for immunization service providers to download at www.cdc.gov/vaccines/schedules/hcp/schedule-app.html
- Adult Vaccination Quiz for self-assessment of vaccination needs based on age, health conditions, and other indications at www2.cdc.gov/nip/adultimmunization/default.asp
- Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger at www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html

Report suspected cases of reportable vaccine-preventable diseases to the local or state health department, and report all clinically significant postvaccination events to the Vaccine Adverse Event Reporting System at www.vaers.hhs.gov or by telephone, 800-822-7967. All vaccines included in the adult immunization schedule except 23-valent pneumococcal polysaccharide and zoster vaccines are covered by the Vaccine Injury Compensation Program. Information on how to file a vaccine injury claim is available at www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382. Submit questions and comments to CDC through www.cdc.gov/cdc-info or by telephone, 800-CDC-INFO (800-232-4636), in English and Spanish, 8:00am–8:00pm ET, Monday–Friday, excluding holidays.

The following abbreviations are used for vaccines in the adult immunization schedule (in the order of their appearance):

- IV inactivated influenza vaccine
- RIV recombinant influenza vaccine
- Tdap tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine
- Td tetanus and diphtheria toxoids
- MMR measles, mumps, and rubella vaccine
- VAR varicella vaccine
- ZVL zoster vaccine live
- HPV vaccine human papillomavirus vaccine
- PCV13 13-valent pneumococcal conjugate vaccine
- PPSV23 23-valent pneumococcal polysaccharide vaccine
- HepA hepatitis A vaccine
- HepA-HepB hepatitis A vaccine and hepatitis B vaccine
- HepB hepatitis B vaccine
- MenACWY serogroups A, C, W, and Y meningococcal vaccine
- MenB serogroup B meningococcal vaccine
- Hib Haemophilus influenzae type b vaccine

**Figure 1. Recommended immunization schedule for adults aged 19 years or older by age group, United States, 2018**

This figure should be reviewed with the accompanying footnotes. This figure and the footnotes describe indications for which vaccines, if not previously administered, should be administered unless noted otherwise.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19–21 years</th>
<th>22–26 years</th>
<th>27–49 years</th>
<th>50–64 years</th>
<th>≥65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td>1 dose annually</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Tdap or Td</td>
<td>1 dose Tdap, then Td booster every 10 yrs</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MMR</td>
<td>1 or 2 doses depending on indication (if born in 1957 or later)</td>
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<tr>
<td>VAR</td>
<td>2 doses</td>
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<tr>
<td>RZV (preferred)</td>
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<td></td>
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<tr>
<td>or ZVL</td>
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<tr>
<td>HPV–Female</td>
<td>2 or 3 doses depending on age at series initiation</td>
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<tr>
<td>HPV–Male</td>
<td>2 or 3 doses depending on age at series initiation</td>
<td></td>
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<tr>
<td>PCV13</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>PPSV23</td>
<td>1 or 2 doses depending on indication</td>
<td></td>
<td></td>
<td>1 dose</td>
<td></td>
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<tr>
<td>HepA</td>
<td></td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
<td></td>
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<tr>
<td>HepB</td>
<td></td>
<td></td>
<td>3 doses</td>
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<tr>
<td>MenACWY</td>
<td>1 or 2 doses depending on indication, then booster every 5 yrs if risk remains</td>
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<tr>
<td>MenB</td>
<td></td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hib</td>
<td></td>
<td>1 or 3 doses depending on indication</td>
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</tbody>
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Legend:
- **Yellow**: Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection
- **Purple**: Recommended for adults with other indications
- **White**: No recommendation

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1. Influenza
2. Tdap or Td
3. MMR
4. VAR
5. RZV (preferred) or ZVL
6. HPV–Female, HPV–Male
7. PCV13, PPSV23
8. HepA
9. HepB
10. MenACWY, MenB
11. Hib
Figure 2. Recommended immunization schedule for adults aged 19 years or older by medical condition and other indications, United States, 2018

This figure should be reviewed with the accompanying footnotes. This figure and the footnotes describe indications for which vaccines, if not previously administered, should be administered unless noted otherwise.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Pregnancy</th>
<th>Immuno-compromised (excluding HIV infection)</th>
<th>HIV infection CD4+ count (cells/μL)</th>
<th>Asplenia, complement deficiencies</th>
<th>End-stage renal disease, on hemodialysis</th>
<th>Heart or lung disease, alcoholism</th>
<th>Chronic liver disease</th>
<th>Diabetes</th>
<th>Health care personnel</th>
<th>Men who have sex with men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza¹</td>
<td></td>
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<tr>
<td>Tdap² or Td²</td>
<td>1 dose Tdap each pregnancy</td>
<td>1 dose Tdap, then Td booster every 10 yrs</td>
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<tr>
<td>MMR³</td>
<td>contraindicated</td>
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<tr>
<td>VAR⁴</td>
<td>contraindicated</td>
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<tr>
<td>RZV⁵ (preferred)</td>
<td>2 doses RZV at age ≥50 yrs (preferred)</td>
<td>1 dose RZV at age ≥60 yrs</td>
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<tr>
<td>ZVL⁵</td>
<td>contraindicated</td>
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<tr>
<td>HPV–Female⁶</td>
<td>3 doses through age 26 yrs</td>
<td>2 or 3 doses through age 26 yrs</td>
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<tr>
<td>HPV–Male⁶</td>
<td>3 doses through age 26 yrs</td>
<td>2 or 3 doses through age 21 yrs</td>
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<tr>
<td>PCV13⁷</td>
<td>1 dose</td>
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<tr>
<td>PPSV23⁷</td>
<td>1, 2, or 3 doses depending on indication</td>
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<tr>
<td>HepA⁸</td>
<td>2 or 3 doses depending on vaccine</td>
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<tr>
<td>HepB⁹</td>
<td>3 doses</td>
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<tr>
<td>MenACWY¹⁰</td>
<td>1 or 2 doses depending on indication, then booster every 5 yrs if risk remains</td>
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<tr>
<td>MenB¹⁰</td>
<td>2 or 3 doses depending on vaccine</td>
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<tr>
<td>Hib¹¹</td>
<td>3 doses HSCT recipients only</td>
<td>1 dose</td>
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</tbody>
</table>

- **Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection**
- **Recommended for adults with other indications**
- **Contraindicated**
- **No recommendation**
1. **Influenza vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html
   **General information**
   - Administer 1 dose of age-appropriate inactivated influenza vaccine (IIV) or recombinant influenza vaccine (RIV) annually.
   - Live attenuated influenza vaccine (LAIV) is not recommended for the 2017–2018 influenza season.
   - A list of currently available influenza vaccines is available at www.cdc.gov/flu/protect/vaccine/vaccines.htm
   **Special populations**
   - Pregnant women
   - Adults with hives-only egg allergy
   - Adults with egg allergy other than hives (e.g., angioedema or respiratory distress): Administer IIV or RIV in a medical setting under supervision of a health care provider who can recognize and manage severe allergic conditions
   
2. **Tetanus, diphtheria, and pertussis vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/tdap-td.html
   **General information**
   - Administer to adults who previously did not receive a dose of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) as an adult or child (routinely recommended at age 11–12 years) 1 dose of Tdap, followed by a dose of tetanus and diphtheria toxoids (Td) booster every 10 years.
   - Information on the use of Tdap or Td as tetanus prophylaxis in wound management is available at www.cdc.gov/mmwr/preview/mmwrhtml/rr5517a1.htm
   **Special populations**
   - Pregnant women: Administer 1 dose of Tdap during each pregnancy, preferably in the early part of gestational weeks 27–36
   - Adults who have sex with men: Administer 2 or 3 doses depending on age at initial vaccination (see above); no history of HPV vaccine, administer 3-dose series at 0, 1–2, and 6 months.
   - Men who have sex with men: Administer 2- or 3-dose series depending on age at initial vaccination (see above); no history of HPV vaccine, administer 3-dose series at 0, 1–2, and 6 months.

3. **Measles, mumps, and rubella vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mmr.html
   **General information**
   - Administer 1 dose of measles, mumps, and rubella vaccine (MMR) to adults with no evidence of immunity to measles, mumps, or rubella.
   - Evidence of immunity is:
     - Born before 1957 (except for pregnant women and health care personnel, see below)
     - Documentation of receipt of 2 doses of varicella or varicella-containing vaccine at least 4 weeks apart
     - Diagnosis or verification of history of varicella or herpes zoster by a health care provider
     - Laboratory evidence of immunity or disease
   **Special populations**
   - Pregnant women and nonpregnant women of childbearing age with no evidence of immunity to rubella: Administer 1 dose of MMR (if pregnant, administer MMR after pregnancy and before discharge from health care facility).

4. **Varicella vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/varicella.html
   **General information**
   - Administer to adults without evidence of immunity to varicella 2 doses of varicella vaccine (VAR) 4–8 weeks apart if previously received no varicella-containing vaccine (if previously received 1 dose of varicella-containing vaccine, administer 1 dose of VAR at least 4 weeks after the first dose).
   - Evidence of immunity to varicella is:
     - U.S.-born before 1980 (except for pregnant women and health care personnel, see below)
     - Documentation of receipt of 2 doses of varicella or varicella-containing vaccine at least 4 weeks apart
     - Diagnosis or verification of history of varicella or herpes zoster by a health care provider
     - Laboratory evidence of immunity or disease
   **Special populations**
   - Administer 2 doses of VAR 4–8 weeks apart if previously received no varicella-containing vaccine (if previously received 1 dose of varicella-containing vaccine, administer 1 dose of VAR at least 4 weeks after the first dose) to:
     - Pregnant women without evidence of immunity: Administer the first of the 2 doses or the second dose after pregnancy and before discharge from health care facility
     - Health care personnel without evidence of immunity: Administer the first of the 2 doses or the second dose after pregnancy and before discharge from health care facility
   - Adults with HIV infection and CD4 cell count ≥200 cells/µL: May administer, based on individual clinical decision, 2 doses of VAR 3 months apart.
   - Adults with HIV infection and CD4 cell count ≥200 cells/µL: Varicella vaccination is contraindicated for pregnant women and adults with severe immunodeficiency

5. **Zoster vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/shingles.html
   **General information**
   - Administer 2 doses of recombinant zoster vaccine (RZV) 2–6 months apart to adults aged 50 years or older regardless of past episode of herpes zoster or receipt of zoster vaccine live (ZVL).
   - Administer 2 doses of RZV 2–6 months apart to adults who previously received ZVL at least 2 months after ZVL.
   - For adults aged 60 years or older, administer either RZV or ZVL (RZV is preferred).
   **Special populations**
   - ZVL is contraindicated for pregnant women and adults with severe immunodeficiency.

6. **Human papillomavirus vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hpv.html
   **General information**
   - Administer human papillomavirus (HPV) vaccine to females through age 26 years and males through age 21 years (males aged 22 through 26 years may be vaccinated based on individual clinical decision).
   - The number of doses of HPV vaccine to be administered depends on age at initial HPV vaccination:
     - No previous dose of HPV vaccine: Administer 3-dose series at 0, 1–2, and 6 months.
     - Age 9–14 years at HPV vaccine series initiation and received 1 dose or 2 doses less than 5 months apart: Administer 1 dose.
     - Age 9–14 years at HPV vaccine series initiation and received 2 doses at least 5 months apart: No additional dose is needed.
   **Special populations**
   - Adults with immunocompromising conditions (including HIV infection) through age 26 years: Administer 3-dose series at 0, 1–2, and 6 months.
   - Men who have sex with men through age 26 years: Administer 2- or 3-dose series depending on age at initial vaccination (see above); no history of HPV vaccine, administer 3-dose series at 0, 1–2, and 6 months.
   - Pregnant women through age 26 years: HPV vaccination is not recommended during pregnancy, but there is no evidence that the vaccine is harmful and no intervention needed for women who inadvertently receive HPV vaccine while pregnant; delay remaining doses until after pregnancy; pregnancy testing is not needed before vaccination.

7. **Pneumococcal vaccination**
   www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/pneumo.html
   **General information**
   - Administer to immunocompetent adults aged 65 years or older 1 dose of 13-valent pneumococcal conjugate vaccine (PCV13), if not previously administered, followed by 1 dose of 23-valent pneumococcal polysaccharide vaccine (PPSV23) at least 1 year after PCV13; if PPSV23 was previously administered but not PCV13, administer PCV13 at least 1 year after PPSV23.
   - When both PCV13 and PPSV23 are indicated, administer PCV13 first (PCV13 and PPSV23 should not be administered during the same visit); additional information on vaccine timing is available at www.cdc.gov/vaccines/vpd/pneumo/downloads/pneumo-vaccine-timing.pdf.
Special populations
- Administer to adults aged 19 through 64 years with the following chronic conditions: 1 dose of PPSV23 (at age 65 years or older, administer 1 dose of PCV13, if not previously received, and another dose of PPSV23 at least 1 year after PCV13 and at least 5 years after PPSV23):
  - Chronic heart disease (excluding hypertension)
  - Chronic lung disease
  - Chronic liver disease
  - Alcoholism
  - Diabetes mellitus
  - Cigarette smoking
- Administer to adults aged 19 years or older with the following indications: 1 dose of PCV13 followed by 1 dose of PPSV23 at least 8 weeks after PCV13, and a second dose of PPSV23 at least 5 years after the first dose of PPSV23 (if the most recent dose of PPSV23 was administered before age 65 years, at age 65 years or older, administer another dose of PPSV23 at least 5 years after the last dose of PPSV23):
  - Immune deficiency disorders (including B- and T-lymphocyte deficiency, complement deficiencies, and phagocytic disorders)
  - HIV infection
  - Anatomical or functional asplenia (including sickle cell disease and other hemoglobinopathies)
  - Chronic renal failure and nephrotic syndrome
- Administer to adults aged 19 years or older with the following indications: 1 dose of PCV13 followed by 1 dose of PPSV23 at least 8 weeks after PCV13 (if the dose of PPSV23 was administered before age 65 years, at age 65 years or older, administer another dose of PPSV23 at least 5 years after the last dose of PPSV23):
  - Cerebrospinal fluid leak
  - Cochlear implant

8. Hepatitis A vaccination
www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hepa.html

General information
- Administer to adults who have a specific risk (see below), or lack a risk factor but want protection, 2-dose series of single antigen hepatitis A vaccine (HepA; Havrix at 0 and 6–12 months or Vaqta at 0 and 6–18 months; minimum interval: 6 months) or a 3-dose series of combined hepatitis A and hepatitis B vaccine (HepA-HepB) at 0, 1, and 6 months (minimum intervals: 4 weeks between doses 1 and 2 for HepB and HepA-HepB; between doses 2 and 3, 8 weeks for HepB and 5 months for HepA-HepB).

Special populations
- Administer HepA or HepA-HepB to adults with the following indications:
  - Chronic liver disease (e.g., hepatitis C infection, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice the upper limit of normal)
  - HIV infection
  - Percutaneous or mucosal risk of exposure to blood (e.g., household contacts of hepatitis B surface antigen [HBSAg]-positive persons; adults younger than age 60 years with diabetes mellitus or aged 60 years or older with diabetes mellitus based on individual clinical decision; adults in predialysis care or receiving hemodialysis or peritoneal dialysis; recent or current injection drug users; health care and public safety workers at risk for exposure to blood or blood-containing body fluids)
  - Sexual exposure risk (e.g., sex partners of HBSAg-positive persons; sexually active persons not in a mutually monogamous relationship; persons seeking evaluation or treatment for a sexually transmitted infection; and men who have sex with men [MSM])
  - Receive care in settings where a high proportion of adults have risks for hepatitis B infection (e.g., facilities providing sexually transmitted disease treatment, drug-abuse treatment and prevention services, hemodialysis and end-stage renal disease programs, institutions for developmentally disabled persons, health care settings targeting services to injection drug users or MSM, HIV testing and treatment facilities, and correctional facilities)
  - Travel to countries with high or intermediate hepatitis B endemicity

9. Hepatitis B vaccination
www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hepb.html

General information
- Administer to adults who have a specific risk (see below), or lack a risk factor but want protection, 3-dose series of single antigen hepatitis B vaccine (HepB) or combined hepatitis A and hepatitis B vaccine (HepA-HepB) at 0, 1, and 6 months (minimum intervals: 4 weeks between doses 1 and 2 for HepB and HepA-HepB; between doses 2 and 3, 8 weeks for HepB and 5 months for HepA-HepB).

Special populations
- Administer HepB or HepA-HepB to adults with the following indications:
  - Close, personal contact with an international adoptee (e.g., household or regular babysitting) during the first 60 days after arrival in the United States from a country with high or intermediate endemicity (administer the first dose as soon as the adoption is planned)
  - Healthy adults through age 40 years who have recently been exposed to hepatitis A virus; adults older than age 40 years may receive HepA or HepA-HepB if hepatitis A immunoglobulin cannot be obtained

10. Meningococcal vaccination
www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mening.html

Special populations: Serogroups A, C, W, and Y meningococcal vaccine (MenACWY)
- Administer 2 doses of MenACWY at least 8 weeks apart and revaccinate with 1 dose of MenACWY every 5 years, if the risk remains, to adults with the following indications:
  - Anatomical or functional asplenia (including sickle cell disease and other hemoglobinopathies)
  - HIV infection
  - Persistent complement component deficiency
  - Eculizumab use
- Administer 1 dose of MenACWY and revaccinate with 1 dose of MenACWY every 5 years, if the risk remains, to adults with the following indications:
  - Travel to or live in countries where meningococcal disease is hyperendemic or epidemic, including countries in the African meningitis belt or during the Hajj
  - At risk from a meningococcal disease outbreak attributed to serogroup A, C, W, or Y
  - Microbiologists routinely exposed to Neisseria meningitidis
  - Military recruits
  - First-year college students who live in residential housing (if they did not receive MenACWY at age 16 years or older)

General Information: Serogroup B meningococcal vaccine (MenB)
- May administer, based on individual clinical decision, to young adults and adolescents aged 16–23 years (preferred age is 16–18 years) who are not at increased risk 2-dose series of MenB-4C (Bexsero) at least 1 month apart or 2-dose series of MenB-FHbp (Trumenba) at least 6 months apart
  - MenB-4C and MenB-FHbp are not interchangeable

Special populations: MenB
- Administer 2-dose series of MenB-4C at least 1 month apart or 3-dose series of MenB-FHbp at 0, 1–2, and 6 months to adults with the following indications:
  - Anatomical or functional asplenia (including sickle cell disease)
  - Persistent complement component deficiency
  - Eculizumab use
  - At risk from a meningococcal disease outbreak attributed to serogroup B
  - Microbiologists routinely exposed to Neisseria meningitidis

11. Haemophilus influenzae type b vaccination
www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hib.html

Special populations
- Administer Haemophilus influenzae type b vaccine (Hib) to adults with the following indications:
  - Anatomical or functional asplenia (including sickle cell disease) or undergoing elective splenectomy: Administer 1 dose if not previously vaccinated (preferably at least 14 days before elective splenectomy)
  - Hematopoietic stem cell transplant (HSCT): Administer 3-dose series with doses 4 weeks apart starting 6 to 12 months after successful transplant regardless of Hib vaccination history
### Contraindications and Precautions for Vaccines Routinely Recommended for Adults

<table>
<thead>
<tr>
<th>Vaccine(s)</th>
<th>Contraindications</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>All vaccines routinely recommended for adults</td>
<td>• Severe reaction, e.g., anaphylaxis, after a previous dose or to a vaccine component</td>
<td>• Moderate or severe acute illness with or without fever</td>
</tr>
</tbody>
</table>

### Additional Contraindications and Precautions for Vaccines Routinely Recommended for Adults

<table>
<thead>
<tr>
<th>Vaccine(s)</th>
<th>Additional Contraindications</th>
<th>Additional Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tdap, Td</td>
<td>For pertussis-containing vaccines: encephalopathy, e.g., coma, decreased level of consciousness, or prolonged seizures, not attributable to another identifiable cause within 7 days of administration of a previous dose of a vaccine containing tetanus or diphtheria toxoid or acellular pertussis</td>
<td>• Guillain-Barré syndrome within 6 weeks after a previous dose of tetanus toxoid-containing vaccine</td>
</tr>
<tr>
<td>MMR²</td>
<td>Severe immunodeficiency, e.g., hematologic and solid tumors, chemotherapy, congenital immunodeficiency or long-term immunosuppressive therapy¹, human immunodeficiency virus (HIV) infection with severe immunocompromise</td>
<td>Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)¹</td>
</tr>
<tr>
<td>VAR²</td>
<td>Severe immunodeficiency, e.g., hematologic and solid tumors, chemotherapy, congenital immunodeficiency or long-term immunosuppressive therapy¹, HIV infection with severe immunocompromise</td>
<td>Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)¹</td>
</tr>
<tr>
<td>ZVL²</td>
<td>Severe immunodeficiency, e.g., hematologic and solid tumors, chemotherapy, congenital immunodeficiency or long-term immunosuppressive therapy¹, HIV infection with severe immunocompromise</td>
<td>Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)¹</td>
</tr>
<tr>
<td>HPV vaccine</td>
<td>Severe immunodeficiency, e.g., hematologic and solid tumors, chemotherapy, congenital immunodeficiency or long-term immunosuppressive therapy¹, HIV infection with severe immunocompromise</td>
<td>Recent (within 11 months) receipt of antibody-containing blood product (specific interval depends on product)¹</td>
</tr>
<tr>
<td>PCV13</td>
<td>Severe allergic reaction to any vaccine containing diphtheria toxoid</td>
<td></td>
</tr>
</tbody>
</table>

2. MMR may be administered together with VAR or ZVL on the same day. If not administered on the same day, separate live vaccines by at least 28 days.
3. Immunosuppressive steroid dose is considered to be daily receipt of 20 mg or more prednisone or equivalent for 2 or more weeks. Vaccination should be deferred for at least 1 month after discontinuation of immunosuppressive steroid therapy. Providers should consult ACIP recommendations for complete information on the use of specific live vaccines among persons on immune-suppressing medications or with immune suppression because of other reasons.
4. Vaccine should be deferred for the appropriate interval if replacement immune globulin products are being administered. See: Best practices guidance of the Advisory Committee on Immunization Practices (ACIP). Available at: www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html.
5. Measles vaccination may temporarily suppress tuberculin reactivity. Measles-containing vaccine may be administered on the same day as tuberculin skin testing, or should be postponed for at least 4 weeks after vaccination.

### Abbreviations of Vaccines

<table>
<thead>
<tr>
<th>Vaccine(s)</th>
<th>Abbreviations</th>
</tr>
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<tbody>
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<td>IIV</td>
<td>inactivated influenza vaccine</td>
</tr>
<tr>
<td>RIV</td>
<td>recombinant influenza vaccine</td>
</tr>
<tr>
<td>Tdap</td>
<td>tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine</td>
</tr>
<tr>
<td>Td</td>
<td>tetanus and diphtheria toxoids</td>
</tr>
<tr>
<td>MMR</td>
<td>measles, mumps, and rubella vaccine</td>
</tr>
<tr>
<td>VAR</td>
<td>varicella vaccine</td>
</tr>
<tr>
<td>ZVL</td>
<td>zoster vaccine live</td>
</tr>
<tr>
<td>HPV vaccine</td>
<td>human papillomavirus vaccine</td>
</tr>
<tr>
<td>PCV13</td>
<td>13-valent pneumococcal conjugate vaccine</td>
</tr>
<tr>
<td>PPV23</td>
<td>23-valent pneumococcal polysaccharide vaccine</td>
</tr>
<tr>
<td>MenB</td>
<td>meningococcal B vaccine</td>
</tr>
<tr>
<td>MenACWY</td>
<td>serogroups A, C, W, and Y meningococcal vaccine</td>
</tr>
<tr>
<td>HepA</td>
<td>hepatitis A vaccine</td>
</tr>
<tr>
<td>HepB</td>
<td>hepatitis B vaccine</td>
</tr>
<tr>
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<td>hepatitis A and hepatitis B vaccines</td>
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<td>Hib</td>
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