

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another, unless otherwise noted)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
<b>Hepatitis B (HepB)</b> <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give HepB dose #1 within 24hrs of birth to all medically stable infants weighing <math>\geq 2000\text{g}</math> and born to HBsAg-negative mothers. Give dose #2 at age 1–2m and the final dose at age 6–18m (the last dose in the infant series should not be given earlier than age 24wks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine (ages 1–2m, 6–18m) or with 3 doses of Pediarix (ages 2m, 4m, 6m), which may result in giving a total of 4 doses of HepB vaccine.</li> <li><b>If mother is HBsAg-positive:</b> Give HBIG and HepB dose #1 within 12hrs of birth; complete series by age 6m.</li> <li><b>If mother's HBsAg status is unknown:</b> Give HepB dose #1 within 12 hrs of birth. If low birth weight (less than 2000g), also give HBIG within 12hrs. For infants weighing 2000g or more whose mother is subsequently found to be HBsAg positive, give the infant HBIG ASAP (no later than age 7d) and follow HepB immunization schedule for infants born to HBsAg-positive mothers.</li> <li>Vaccinate all other children and teens who have not completed a series of HepB vaccine.</li> </ul>	<ul style="list-style-type: none"> <li>Do not restart series, no matter how long since previous dose.</li> <li>3-dose series can be started at any age.</li> <li>Minimum intervals between doses: 4wks between #1 and #2, 8wks between #2 and #3, and at least 16wks between #1 and #3 (and give dose #3 no earlier than age 24wks).</li> </ul> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; margin-top: 10px;"> <p><b>Special Notes on Hepatitis B Vaccine (HepB)</b></p> <p><b>Dosing of HepB:</b> Monovalent vaccine brands are interchangeable. For people age 0 through 19yrs, give 0.5 mL of 3 doses of Engerix-B or Recombivax HB; unvaccinated people age 18yrs and older may also be given 2 doses of Heplisav-B spaced 4wks apart.</p> <p><b>Alternative dosing schedule for unvaccinated adolescents age 11 through 15yrs:</b> Give 2 doses Recombivax HB 1.0 mL (adult formulation) spaced 4–6m apart. (Engerix-B is not licensed for a 2-dose schedule.)</p> </div>	<p><b>Contraindication</b></p> <p>Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components, including hypersensitivity to yeast.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness, with or without fever.</li> <li>For infants who weigh less than 2000g, see ACIP recommendations at <a href="http://www.cdc.gov/mmwr/PDF/rr/rr5416.pdf">www.cdc.gov/mmwr/PDF/rr/rr5416.pdf</a>.</li> </ul>
<b>DTaP, DT</b> (Diphtheria, tetanus, acellular pertussis) <i>Give IM</i>	<ul style="list-style-type: none"> <li>Give to children at ages 2m, 4m, 6m, 15–18m, and 4–6yrs.</li> <li>May give dose #1 as early as age 6wks.</li> <li>May give #4 as early as age 12m if 6m have elapsed since #3.</li> <li>Do not give DTaP/DT to children age 7yrs and older.</li> <li>If possible, use the same DTaP product for all doses.</li> </ul>	<ul style="list-style-type: none"> <li>Dose #2 and #3 may be given 4wks after previous dose.</li> <li>Dose#4 may be given 6m after #3.</li> <li>If dose #4 is given before 4th birthday, wait at least 6m for #5 (age 4–6yrs).</li> <li>If dose #4 is given after 4th birthday, #5 is not needed.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components, with or without fever.</li> <li>For all pertussis-containing vaccines: Encephalopathy not attributable to an identifiable cause, within 7d after DTP/DTaP/Tdap.</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>Moderate or severe acute illness.</li> <li>History of Arthus reaction following a prior dose of tetanus or diphtheria toxoid-containing vaccine (including MenACWY); defer vaccination until at least 10yrs have elapsed since the last tetanus toxoid-containing vaccine.</li> <li>Guillain-Barré syndrome (GBS) within 6wks after previous dose of tetanus toxoid-containing vaccine.</li> <li>For all pertussis-containing vaccines: Progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.</li> </ul>
<b>Td, Tdap</b> (Tetanus, diphtheria, acellular pertussis) <i>Give IM</i>	<ul style="list-style-type: none"> <li>For children and teens lacking previous Tdap: Give Tdap routinely at age 11–12yrs and vaccinate older teens on a catch-up basis; then boost every 10yrs with Td.</li> <li>Make special efforts to give Tdap to children and teens who are 1) in contact with infants younger than age 12m and, 2) healthcare workers with direct patient contact.</li> <li>Give Tdap to pregnant adolescents during each pregnancy (preferred during the early part of gestational weeks 27 through 36wks), regardless of interval since prior Td or Tdap.</li> </ul>	<ul style="list-style-type: none"> <li>DTaP and DT should not be used for children age 7yrs and older; use Td and Tdap instead.</li> <li>Children as young as age 7yrs and teens who are unvaccinated or behind schedule should complete a primary Td series (3 doses, with an interval of 1–2m between dose #1 and #2, and an interval of 6–12m between dose #2 and #3); substitute Tdap for any dose in the series, preferably as dose #1.</li> <li>Tdap should be given regardless of interval since previous Td.</li> </ul>	<p>(Continued from previous row)</p>

This document was adapted from the vaccine recommendations of the Advisory Committee on Immunization Practices (ACIP) and also *Best Practices Guidance of the ACIP*. To view the full vaccine recommendations, visit CDC's website at [www.cdc.gov/vaccines/hcp/ACIP-recs/index.html](http://www.cdc.gov/vaccines/hcp/ACIP-recs/index.html) or, for the complete guidance document, visit [www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html)

**This table is revised periodically.** Visit IAC's website at [www.immunize.org/childrules](http://www.immunize.org/childrules) to make sure you have the most current version.

For the purposes of calculating intervals between doses, 4 weeks = 28 days. Intervals of 4 months or greater are determined by calendar months.

A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses.

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<p><b>Rotavirus (RV)</b> <i>Give orally</i></p>	<ul style="list-style-type: none"> <li>• Rotarix (RV1): Give at ages 2m, 4m.</li> <li>• RotaTeq (RV5): Give at ages 2m, 4m, 6m.</li> <li>• May give dose #1 as early as age 6wks.</li> <li>• Give final dose no later than age 8m–0d.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not begin series in infants older than age 14wks 6d.</li> <li>• Intervals between doses may be as short as 4wks.</li> <li>• If prior vaccination included use of different or unknown brand(s), a total of 3 doses should be given.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. If allergy to latex, use RV5.</li> <li>• History of intussusception.</li> <li>• Diagnosis of severe combined immunodeficiency (SCID).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness, with or without fever.</li> <li>• Altered immunocompetence other than SCID.</li> <li>• Chronic gastrointestinal disease.</li> <li>• For RV1 only, spina bifida or bladder exstrophy.</li> </ul>
<p><b>Hib (Haemophilus influenzae type b)</b> <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>• ActHib (PRP-T), Hiberix, or Pentacel: Give at age 2m, 4m, 6m, 12–15m (booster dose).</li> <li>• PedvaxHIB (containing PRP-OMP): Give at age 2m, 4m, 12–15m (booster dose).</li> <li>• Dose #1 of Hib vaccine should not be given earlier than age 6wks.</li> <li>• Give final dose (booster dose) no earlier than age 12m and a minimum of 8wks after the previous dose.</li> <li>• Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered for dose #1 and dose #2, a total of 3 doses is necessary to complete the primary series in infants, followed by a booster after age 12m.</li> <li>• For vaccination of children 12 through 59m who are immunocompromised (immunoglobulin deficiency, complement component deficiency, HIV infection, receipt of chemotherapy or radiation therapy for cancer) or asplenic: if previously received no doses or only 1 dose before age 12m, give 2 additional doses at least 8wks apart; if previously received 2 or more doses before age 12m, give 1 additional dose.</li> <li>• Hib is not routinely given to healthy children age 5yrs and older.</li> <li>• 1 dose of Hib vaccine should be administered to children age 5yrs and older who have anatomic or functional asplenia (including sickle cell disease) and who have not received a primary series and booster dose or at least 1 dose of Hib vaccine after age 14m.</li> <li>• 1 dose of Hib vaccine should be administered to unvaccinated persons 5 through 18yrs of age with HIV infection.</li> </ul>	<p><b>All Hib vaccines:</b></p> <ul style="list-style-type: none"> <li>• If dose #1 was given at 12–14m, give booster in 8wks.</li> <li>• Give only 1 dose to unvaccinated children ages 15–59m.</li> </ul> <p><b>ActHib:</b></p> <ul style="list-style-type: none"> <li>• Dose #2 and #3 may be given 4wks after previous dose.</li> <li>• If dose #1 was given at age 7–11m, only 3 doses are needed; #2 is given at least 4wks after #1, then final dose at age 12–15m (wait at least 8wks after dose #2).</li> </ul> <p><b>PedvaxHIB:</b></p> <ul style="list-style-type: none"> <li>• Dose #2 may be given 4wks after #1.</li> </ul> <p>Recipients of hematopoietic stem cell transplant should receive 3 doses of Hib vaccine at least 4wks apart beginning 6–12m after transplant, regardless of Hib vaccination history.</p>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components.</li> <li>• Age younger than 6wks.</li> </ul> <p><b>Precaution</b></p> <p>Moderate or severe acute illness, with or without fever.</p>

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<p><b>Varicella</b> (Var) (Chickenpox) <i>Give Subcut</i></p>	<ul style="list-style-type: none"> <li>• Give dose #1 at age 12–15m.</li> <li>• Give dose #2 at age 4–6yrs. Dose #2 of Var or MMRV may be given earlier if at least 3m since dose #1. If dose #2 was given at least 4wks after dose #1, it can be accepted as valid.</li> <li>• Give a 2nd dose to all older children/teens with history of only 1 dose.</li> <li>• MMRV may be used in children age 12m through 12yrs (see note below).</li> </ul>	<ul style="list-style-type: none"> <li>• If younger than age 13yrs, space dose #1 and #2 at least 3m apart. If age 13yrs or older, space at least 4wks apart.</li> <li>• May use as postexposure prophylaxis if given within 5d.</li> <li>• If Var and either LAIV, MMR, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart. (If yellow fever vaccine, space by 30d.)</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous severe allergic reaction (e.g., anaphylaxis) 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> <li>• Family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g., parents and siblings), unless the immune competence of the potential vaccine recipient has been substantiated clinically or verified by a laboratory test.</li> <li>• Children on high-dose immunosuppressive therapy or who are immunocompromised because of malignancy and primary or acquired immunodeficiency, including HIV/AIDS (although vaccination may be considered if CD4+ T-lymphocyte percentages are 15% or greater in children age 1 through 8yrs or 200 cells/μL in children age 9yrs and older).</li> </ul> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness, with or without fever.</li> <li>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP's <i>Best Practices Guidance</i><sup>1</sup> 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> <li>• Use of aspirin or aspirin-containing products.</li> <li>• For MMRV only, personal or family (i.e., sibling or parent) history of seizures.</li> </ul> <p><b>NOTE:</b> For patients with humoral immunodeficiency or leukemia, see ACIP recommendations at <a href="http://www.cdc.gov/mmwr/pdf/rr/rr5604.pdf">www.cdc.gov/mmwr/pdf/rr/rr5604.pdf</a>.</p>
<p><b>MMR</b> (Measles, mumps, rubella) <i>Give Subcut</i></p>	<ul style="list-style-type: none"> <li>• Give dose #1 at age 12–15m.</li> <li>• Give MMR at age 6–11m if traveling internationally; revaccinate with 2 doses of MMR at age 12–15m and at least 4wks later. The dose given at younger than 12m does not count toward the 2-dose series.</li> <li>• Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 4wks since dose #1. For MMRV: dose #2 may be given earlier if at least 3m since dose #1.</li> <li>• Give a 2nd dose to all older children and teens with history of only 1 dose.</li> <li>• MMRV may be used in children age 12m through 12yrs (see note above).</li> </ul>	<ul style="list-style-type: none"> <li>• If MMR and either LAIV, Var, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart. (If yellow fever vaccine, space by 30d.)</li> <li>• When using MMR for both doses, minimum interval is 4wks.</li> <li>• When using MMRV for both doses, minimum interval is 3m.</li> <li>• May use as postexposure measles prophylaxis if given within 3d.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• Previous severe allergic reaction (e.g., anaphylaxis) 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> <li>• Family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g., parents and siblings), unless the immune competence of the potential vaccine recipient has been substantiated clinically or verified by a laboratory test.</li> </ul> <p><b>NOTE:</b> HIV infection is NOT a contraindication to MMR for children who are not severely immunocompromised (see ACIP recommendations at <a href="http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf">www.cdc.gov/mmwr/pdf/rr/rr6204.pdf</a>).</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness, with or without fever.</li> <li>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP's <i>Best Practices Guidance</i><sup>1</sup> regarding time to wait before vaccinating.</li> <li>• History of thrombocytopenia or thrombocytopenic purpura.</li> <li>• For MMRV only, personal or family (i.e., sibling or parent) history of seizures.</li> <li>• Need for tuberculin skin testing (TST) or interferon-gamma release assay (IGRA) testing. If TST or IGRA needed, give TST or IGRA before or on same day as MMR, or give TST or IGRA 4wks following MMR.</li> </ul>

**NOTE:** For the first dose of MMR and varicella given at age 12–47m, either MMR and Var or MMRV may be used. Unless the parent or caregiver expresses a preference for MMRV, CDC recommends that MMR and Var be used for the first doses in this age group.

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<p><b>Pneumococcal conjugate (PCV13)</b>                      Prevnar 13                      Give IM</p>	<ul style="list-style-type: none"> <li>• Give at ages 2m, 4m, 6m, 12–15m (booster dose).</li> <li>• Dose #1 may be given as early as age 6wks.</li> <li>• For age 24 through 59m and healthy: If unvaccinated or any incomplete schedule of 3 doses of PCV 13 was received previously, give 1 supplemental dose of PCV13 at least 8 wks after the most recent dose.</li> <li>• For high-risk** children ages 2 through 5 yrs: Give 2 doses at least 8 wks apart if they previously received an incomplete schedule of fewer than 3 doses; give 1 dose at least 8 wks after the most recent dose if they previously received 3 doses.</li> <li>• For high-risk** children: All recommended PCV13 doses should be given prior to PPSV vaccination.</li> <li>• PCV13 is not routinely given to healthy children age 5yrs and older.</li> </ul> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; margin-top: 10px;"> <p><b>** High-risk</b>                      For both PCV13 and PPSV23, those with sickle cell disease; anatomic or functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes; cerebrospinal fluid leaks; HIV infection; immunosuppression; diseases associated with immunosuppressive and/or radiation therapy; solid organ transplantation; or who have or will have a cochlear implant.</p> <p>For PPSV23 only in children ages 6–18yrs, alcoholism and/or chronic liver disease.</p> </div>	<ul style="list-style-type: none"> <li>• When children are behind on PCV13 schedule, minimum interval for doses given to children younger than age 12m is 4wks; for doses given at 12m and older, it is 8wks.</li> <li>• <b>For age 7 through 11m:</b> If history of 0 doses, give 2 doses of PCV13, 4wks apart, with a 3rd dose at age 12–15m; if history of 1 or 2 doses, give 1 dose of PCV13 with a 2nd dose at age 12–15m at least 8wks later.</li> <li>• <b>For age 12 through 23m:</b> If unvaccinated or history of 1 dose before age 12m, give 2 doses of PCV13 8wks apart; if history of 1 dose at or after age 12m or 2 or 3 doses before age 12m, give 1 dose of PCV13 at least 8wks after most recent dose.</li> <li>• <b>For age 2 through 5yrs</b> and at high risk**: If unvaccinated or any incomplete schedule of 1 or 2 doses, give 2 doses of PCV13, 1 at least 8wks after the most recent dose and another dose at least 8wks later; if any incomplete series of 3 doses, give 1 supplemental dose of PCV13 at least 8wks after the most recent dose.</li> <li>• <b>For children ages 6 through 18yrs</b> with functional or anatomic asplenia (including sickle cell disease), HIV infection or other immunocompromising condition, cochlear implant, or CSF leak, give 1 dose of PCV13 if no previous history of PCV13.</li> </ul>	<p><b>Contraindication</b>                      Previous severe allergic reaction (e.g., anaphylaxis) to a PCV vaccine, to any of its components, or to any diphtheria toxoid-containing vaccine.</p> <p><b>Precaution</b>                      Moderate or severe acute illness, with or without fever.</p>
<p><b>Pneumococcal polysaccharide (PPSV23)</b>                      Pneumovax 23                      Give IM or Subcut</p>	<ul style="list-style-type: none"> <li>• Give 1 dose at least 8wks after final dose of PCV13 to high-risk** children age 2yrs and older.</li> <li>• For children who have sickle cell disease, functional or anatomic asplenia, HIV infection, or other immunocompromising condition, give a 2nd dose of PPSV 5 yrs after previous PPSV. (See ACIP pneumococcal recommendations at <a href="http://www.cdc.gov/mmwr/pdf/rr/rr5911.pdf">www.cdc.gov/mmwr/pdf/rr/rr5911.pdf</a>.)</li> </ul>		<p><b>Contraindication</b>                      Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components.</p> <p><b>Precaution</b>                      Moderate or severe acute illness, with or without fever.</p>
<p><b>Human papillomavirus (HPV)</b>                      Give IM</p>	<ul style="list-style-type: none"> <li>• Give a 2-dose series of HPV to girls and boys at age 11–12yrs on a 0, 6–12m schedule. (May give as early as age 9yrs.)</li> <li>• Give a 3-dose series of HPV to girls and boys age 15yrs or older or who are immunocompromised or have autoimmune disease on a 0, 1–2, 6m schedule. (May give as early as age 9yrs.)</li> <li>• Give a 3-dose series of HPV to all older girls/women (through age 26yrs) and boys/men (through age 21yrs) who were not previously vaccinated.</li> <li>• <b>Other guidance:</b> Pregnancy is neither a contraindication nor a precaution to HPV vaccine.</li> </ul>	<ul style="list-style-type: none"> <li>• With the exception of immunocompromised persons, or persons with autoimmune disease, a 2-dose schedule may be followed for all persons initiating the HPV vaccine series before age 15yrs.</li> <li>• A 3-dose schedule must be followed for all persons initiating the series at age 15yrs or older, as well as for immunocompromised persons or persons with autoimmune disease ages 9 through 26yrs.</li> <li>• Minimum intervals between doses: 2-dose schedule: 5m; 3-dose schedule: 4wks between #1 and #2; 12wks between #2 and #3 and 5m between #1 and #3.</li> </ul>	<p><b>Contraindication</b>                      Previous severe allergic reaction (e.g., anaphylaxis) 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, with or without fever.</li> </ul>

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<p><b>Hepatitis A (HepA)</b> <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>• Give 2 doses spaced 6–18m apart to all children at age 1yr (12–23m).</li> <li>• Vaccinate all previously unvaccinated children and adolescents age 2yrs and older who                             <ul style="list-style-type: none"> <li>– Want to be protected from HAV infection and lack a specific risk factor.</li> <li>– Live in areas where vaccination programs target older children.</li> <li>– Are homeless.</li> <li>– Have chronic liver disease, clotting factor disorder, or are adolescent males who have sex with other males.</li> <li>– Use illicit drugs (injectable or non-injectable).</li> </ul> </li> <li>– Anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60d following the adoptee’s arrival in the U.S.</li> <li>• Give 1 dose to children age 6–11m who travel anywhere outside the U.S., most, but not all of Western Europe, New Zealand, Australia, Canada, or Japan. This dose does not count toward the routine 2-dose series given at age 1yr.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum interval between doses is 6m.</li> <li>• Children who are not fully vaccinated by age 2yrs can be vaccinated at a subsequent visit.</li> <li>• Administer 2 doses at least 6m apart to previously unvaccinated persons who live in areas where vaccination programs target older children, or who are at increased risk for infection.</li> <li>• Give 1 dose as postexposure prophylaxis to incompletely vaccinated children and teens age 12m and older who have recently (during the past 2wks) been exposed to hepatitis A virus. For children younger than 12 months, use IG (0.1 mL/kg), rather than vaccine, for postexposure prophylaxis.</li> </ul>	<p><b>Contraindication</b> Previous severe allergic reaction (e.g., anaphylaxis) 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, with or without fever.</li> </ul>
<p><b>Inactivated polio (IPV)</b> <i>Give Subcut or IM</i></p>	<ul style="list-style-type: none"> <li>• Give to children at ages 2m, 4m, 6–18m, 4–6yrs.</li> <li>• May give dose #1 as early as age 6wks.</li> <li>• Not routinely recommended for U.S. residents age 18yrs and older (except certain travelers). For information on polio vaccination for international travelers, see <a href="http://wwwnc.cdc.gov/travel/diseases">wwwnc.cdc.gov/travel/diseases</a>.</li> </ul>	<ul style="list-style-type: none"> <li>• The final dose should be given on or after the 4th birthday and at least 6m from the previous dose.</li> <li>• If dose #3 is given after 4th birthday, dose #4 is not needed if dose #3 is given at least 6m after dose #2.</li> </ul>	<p><b>Contraindication</b> Previous severe allergic reaction (e.g., anaphylaxis) 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, with or without fever.</li> <li>• Pregnancy.</li> </ul>
<p><b>Influenza</b> Inactivated influenza* vaccine (IIV) <i>Give IM</i> <small>* includes recombinant influenza vaccine (RIV) for teens ages 18yrs and older</small>  Live attenuated influenza vaccine (LAIV)  <i>Give NAS (intranasally)</i></p>	<ul style="list-style-type: none"> <li>• Vaccinate all children and teens age 6m and older.</li> <li>• For children age 6m through 8yrs, give 2 doses of age-appropriate vaccine, spaced 4 wks apart, who 1) are first-time vaccinees, or 2) have received only one lifetime dose previous to this current season (season runs July to June)</li> <li>• For IIV in children age 6–35m: Give one of the following: Fluarix 0.5 mL dose, FluLaval 0.5 mL dose, or Fluzone 0.25 mL dose.</li> <li>• For IIV in children age 3yrs and older: Give 0.5 mL dose of any age-appropriate influenza vaccine.</li> <li>• For teens age 18yrs and older: recombinant influenza vaccine (RIV) may also be used.</li> <li>• <b>Other guidance:</b> Children with functional or anatomic asplenia, complement deficiency, cochlear implant, or CSF leak should not receive LAIV.</li> </ul>	<p><b>Contraindications</b></p> <ul style="list-style-type: none"> <li>• History of severe allergic reaction (e.g., anaphylaxis) to this vaccine (except egg) or after a previous dose of any influenza vaccine.</li> <li>• For LAIV only: Age younger than 2yrs; pregnancy; immunosuppression (including that caused by medications or HIV); for children and teens ages 6m through 18yrs, current aspirin or salicylate-containing medication; for children age 2 through 4yrs, wheezing or asthma within the past 12m, per healthcare provider statement. Receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, oseltamivir, or peramivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination.</li> </ul> <p><b>NOTE:</b> People with egg allergy of any severity can receive any recommended and age-appropriate influenza vaccine (i.e., any IIV, RIV, or LAIV) that is otherwise appropriate for their health status. People having had a previous severe reaction to eggs involving symptoms other than hives should be administered vaccine in a medical setting (e.g., a health department or physician office) and should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions.</p> <p><b>Precautions</b></p> <ul style="list-style-type: none"> <li>• Moderate or severe acute illness, with or without fever.</li> <li>• History of Guillain-Barré syndrome (GBS) within 6wks of a previous influenza vaccination.</li> <li>• For children/teens who experience only hives with exposure to eggs, give any age-appropriate influenza vaccine.</li> <li>• For LAIV only: Chronic pulmonary (including asthma in children age 5yrs and older), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic or metabolic (including diabetes) disorders.</li> </ul>	

Vaccine name and route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another, unless otherwise noted)	Schedule for catch-up vaccination and related issues	Contraindications and precautions (mild illness is not a contraindication)
<p><b>Meningococcal conjugate, quadrivalent (MenACWY)</b> Menactra and Menveo <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>• Give a 2-dose series of MenACWY with dose #1 at age 11–12yrs and dose #2 at age 16yrs.</li> <li>• If unvaccinated at 11–12yrs, give dose #1 at age 13 through 15yrs. Give dose #2 at 16 through 18yrs with a minimum interval of at least 8wks between doses.</li> <li>• If unvaccinated at 11 through 15yrs, give dose #1 at 16 through 18yrs.</li> <li>• For college students, give 1 (initial) dose to unvaccinated first-year students age 19 through 21yrs who live in a residence hall; give dose #2 if most recent dose given when younger than age 16yrs.</li> <li>• Give Menveo to children age 2–18m with persistent complement component deficiency, HIV infection, or anatomic/functional asplenia; give at ages 2, 4, 6, 12–15m.</li> <li>• For unvaccinated or partially vaccinated children age 7–23m with persistent complement component deficiency: 1) if age 7–23m and using Menveo, give a 2-dose series at least 3m apart with dose #2 given after age 12m or, 2) if age 9–23m and using Menactra, give a 2-dose series at least 3m apart. Give either brand of MenACWY to unvaccinated children age 24m and older with persistent complement component deficiency or anatomic or functional asplenia; give 2 doses, 2m apart. If Menactra is given, it must be separated by 4wks from the final dose of PCV13.</li> <li>• Give age-appropriate series of meningococcal conjugate vaccine (brand must be licensed for age of child) to 1) children age 2m and older at risk during a community outbreak attributable to a vaccine serogroup and 2) children age 2m and older traveling to or living in countries with hyperendemic or epidemic meningococcal disease. Prior receipt of MenHibrix is not sufficient for children traveling to the meningitis belt or the Hajj.</li> </ul>	<ul style="list-style-type: none"> <li>• If previously vaccinated and risk of meningococcal disease persists, revaccinate with MenACWY in 3yrs (if previous dose given when younger than age 7yrs) or in 5 yrs (if previous dose given at age 7yrs or older). Then, give additional booster doses every 5 yrs if risk continues.</li> <li>• Minimum ages: 2m Menveo; 9m Menactra.</li> <li>• If using Menactra in a high-risk child, it should be given before or at the same visit as DTaP is administered.</li> </ul>	<p><b>Contraindication</b> Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components.</p> <p><b>Precaution</b> Moderate or severe acute illness, with or without fever.</p>
<p><b>Meningococcal serogroup B (MenB)</b> Bexsero and Trumenba <i>Give IM</i></p>	<ul style="list-style-type: none"> <li>• Teens age 16 through 18yrs may be vaccinated routinely as a Category B recommendation (provider-patient discussion). Give 2 doses of either MenB vaccine: Bexsero, spaced 1m apart; Trumenba, spaced 6m apart. MenB brands are not interchangeable.</li> <li>• For children age 10yrs and older with persistent complement component deficiencies, functional or anatomic asplenia, including sickle cell disease, or who are at risk during a community outbreak of serotype B, give either 2 doses of Bexsero, 1m apart, or 3 doses of Trumenba on a 0, 1–2, and 6m schedule. MenB brands are not interchangeable.</li> <li>• MenB vaccine may be given concomitantly with MenACWY vaccine.</li> </ul>		