### Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years)

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<th>Vaccine name and route</th>
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<tr>
<td><strong>Hepatitis B</strong> (HepB)</td>
<td>• Vaccinate all children age 0 through 18yrs.</td>
<td>• Do not restart series, no matter how long since previous dose.</td>
<td><strong>Contraindication</strong> Previous anaphylaxis to this vaccine or to any of its components.</td>
</tr>
<tr>
<td><strong>DTaP, DT</strong> (Diphtheria, tetanus, acellular pertussis)</td>
<td>• Give to children at ages 2m, 4m, 6m, 15–18m, 4–6yrs.</td>
<td>• #2 and #3 may be given 4wks after previous dose.</td>
<td><strong>Precautions</strong> • Moderate or severe acute illness.</td>
</tr>
<tr>
<td><strong>Tdap, Td</strong> (Tetanus, diphtheria, acellular pertussis)</td>
<td>• 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.</td>
<td>• Children as young as age 7yrs and teens who are unvaccinated or behind schedule should complete a primary Td series (spaced at 0, 1–2m, and 6–12m intervals); substitute Tdap for any dose in the series, preferably as dose #1.</td>
<td><strong>Contraindications</strong> • Previous anaphylaxis to this vaccine or to any of its components.</td>
</tr>
<tr>
<td><strong>Inactivated Polio</strong> (IPV)</td>
<td>• Give to children at ages 2m, 4m, 6–18m, 4–6yrs.</td>
<td>• The final dose should be given on or after the 4th birthday and at least 6m from the previous dose.</td>
<td><strong>Precautions</strong> • Moderate or severe acute illness.</td>
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**Special Notes on Hepatitis B Vaccine (HepB)**

- **Dosing of HepB:** Monovalent vaccine brands are interchangeable. For people age 0 through 19yrs, give 0.5 mL of either Engerix-B or Recombivax HB.
- **Alternative dosing schedule for unvaccinated adolescents age 11 through 15yrs:** Give 2 doses Recombivax HB 1.0 mL (adult formulation) spaced 4–6m apart. (Engerix-B is not licensed for a 2-dose schedule.)
- **For preterm infants:** Consult ACIP hepatitis B recommendations (MMWR 2005; 54 [RR-16]).

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**Technical content reviewed by the Centers for Disease Control and Prevention**

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This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC’s website at www.cdc.gov/vaccines/pubs/ACIP-list.htm or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip.

This table is revised periodically. Visit IAC’s website at www.immunize.org/childrules to make sure you have the most current version.
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<td><strong>Influenza</strong></td>
<td>• Vaccinate all children and teens age 6m through 18yrs.</td>
<td>• If younger than age 13yrs, space dose #1 and #2 at least 3m apart.</td>
<td>• Previous anaphylaxis to this vaccine, to any of its components, including egg protein.</td>
</tr>
<tr>
<td>Inactivated influenza vaccine (IIV)</td>
<td>• LAIV may be given to healthy, non-pregnant people age 2–49yrs.</td>
<td>• May use as postexposure prophylaxis if given within 5d.</td>
<td>• For LAIV only: age younger than 2yrs; 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); for children and teens ages 6m through 18yrs, current long-term aspirin therapy; for children age 2 through 4yrs, wheezing or asthma within the past 12m, per healthcare provider statement. For children/teens who experience only hives with exposure to eggs, give IV with additional safety precautions as found in the 2012 ACIP influenza recommendations, pages 613–618.*</td>
</tr>
<tr>
<td><strong>Varicella</strong></td>
<td>• Give 0.25 mL dose to children age 6–35m and 0.5 mL dose if age 3yrs and older.</td>
<td>• For IIV, give 0.25 mL dose to children age 6–35m and 0.5 mL dose if age 3yrs and older.</td>
<td>• Moderate or severe acute illness.</td>
</tr>
<tr>
<td>(Var)</td>
<td>• If LAIV and either MMR, Var, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</td>
<td>• If Var and either MMR, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</td>
<td>• History of Guillain-Barré syndrome (GBS) within 6wks of a previous influenza vaccination.</td>
</tr>
<tr>
<td>(Chickenpox)</td>
<td>• Give 2 doses, spaced 4wks apart, to children age 6m through 8yrs who 1) are first-time vaccinees or 2) who meet any of the additional guidance in the current year’s ACIP influenza vaccine recommendations*.</td>
<td>• 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 the 2nd dose was given at least 4wks after 1st dose, it can be accepted as valid.</td>
<td>• 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.</td>
</tr>
<tr>
<td><strong>MMR</strong></td>
<td>• Give dose #1 at age 12–15m.</td>
<td>• Give dose #1 at age 12–15m.</td>
<td>• Previous anaphylaxis to this vaccine, to any of its components.</td>
</tr>
<tr>
<td>(Measles, mumps, rubella)</td>
<td>• 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 the 2nd dose was given at least 4wks after 1st dose, it can be accepted as valid.</td>
<td>• If younger than age 13yrs, space dose #1 and #2 at least 3m apart. If age 13yrs and older, space at least 4wks apart.</td>
<td>• Pregnancy or possibility of pregnancy within 4wks.</td>
</tr>
<tr>
<td>Give SC</td>
<td>• Give a 2nd dose to all older children/teens with history of only 1 dose.</td>
<td>• May use as postexposure prophylaxis if given within 5d.</td>
<td>• 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 either 15% or greater in children age 1 through 8yrs or 200 cells/µL or greater in children age 9yrs and older).</td>
</tr>
<tr>
<td></td>
<td>• MMRV may be used in children age 12m through 12yrs (see note below).</td>
<td>• If Var and either MMR, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</td>
<td>• Precautions for children/teens with epilepsy.</td>
</tr>
<tr>
<td></td>
<td>Note: For the first dose of MMR and varicella given at age 12–47mos, 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.</td>
<td></td>
<td>• Moderate or severe acute illness.</td>
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<tr>
<td></td>
<td>• If younger than age 13yrs, space dose #1 and #2 at least 3m apart. If age 13yrs and older, space at least 4wks apart.</td>
<td></td>
<td>• If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP’s General Recommendations on Immunization* regarding time to wait before vaccinating.</td>
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<tr>
<td></td>
<td>• When using MMR for both doses, minimum interval is 4wks.</td>
<td>• Give dose #2 at age 4–6yrs. If 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.</td>
<td>• 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.</td>
</tr>
<tr>
<td></td>
<td>• When using MMRV for both doses, minimum interval is 3m.</td>
<td>• Within 72hrs of measles exposure, give 1 dose of MMR as postexposure prophylaxis to susceptible healthy children age 12m and older.</td>
<td>• For MMRV only, personal or family (i.e., sibling or parent) history of seizures.</td>
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<td></td>
<td>• If MMR and either Var, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.</td>
<td>• If MMRV may be used in children age 12m through 12yrs (see note above).</td>
<td>Note: For patients with humoral immunodeficiency or leukemia, see ACIP recommendations.*</td>
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| **Hib** *(Haemophilus influenzae type b)*  
*Give IM* | • ActHib: give at ages 2m, 4m, 6m, 12–15m (booster dose).  
• PedvaxHIB or Comvax: give at ages 2m, 4m, 12–15m (booster dose).  
• Dose #1 of Hib vaccine should not be given earlier than age 6wks.  
• Give final dose (booster dose) of any Hib vaccine no earlier than age 12m and a minimum of 8wks after the previous dose.  
• 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.  
• Give 1 dose of Hib vaccine to unvaccinated or partially vaccinated children age 5yrs and older who have leukemia, malignant neoplasms, anatomic or functional asplenia (including sickle cell disease), HIV infection, or other immunocompromising condition.  
• Hib is not routinely given to healthy children age 5yrs and older.  
• Hibexir is approved ONLY for the booster dose at age 12m through 4yrs.  
**High-risk**: 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; or who have or will have a cochlear implant. | • All Hib vaccines:  
If #1 was given at age 12–14m, give booster in 8wks.  
Give only 1 dose to unvaccinated children age 15 through 59m.  
**ActHib**:  
• #2 and #3 may be given 4wks after previous dose.  
• If #1 was given at age 7–11m, only 3 doses are needed; #2 is given 4–8wks after #1, then boost at age 12–15m (wait at least 8wks after #2).  
**PedvaxHIB and Comvax**:  
• #2 may be given 4wks after dose #1.  
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.  
• For minimum intervals, see 3rd bullet at left.  
• For age 7–11m: 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 after;  
For age 12–23m: 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; if history of 4 doses of PCV7 or other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent dose.  
• For age 24–71m 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, or if 4 doses of PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent PCV7 dose.  
• For children age 6 through 18yrs 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 prior history of PCV13.  
• For age younger than 6wks.  
• Previous anaphylaxis to a PCV vaccine, to any of its components, or to any diphtheria toxoid-containing vaccine.  
**Precaution**: Moderate or severe acute illness.  
| **Pneumococcal conjugate (PCV13)**  
*Give IM* | • Give at ages 2m, 4m, 6m, 12–15m (booster dose).  
• Dose #1 may be given as early as age 6wks.  
• When children are behind on PCV13 schedule, minimum interval between doses given to children younger than age 12m is 4wks; for doses given at 12m and older, it is 8wks.  
• For age 24–59m and healthy: if unvaccinated or any incomplete schedule or if 4 doses of PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent dose.  
• For high-risk**: children age 24–71m: Give 2 doses at least 8wks apart if they previously received fewer than 3 doses; give 1 dose at least 8wks after the most recent dose if they previously received 3 doses.  
• PCV13 is not routinely given to healthy children age 5yrs and older.  
**High-risk**: 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; or who have or will have a cochlear implant. | • For age younger than 6wks.  
• Previous anaphylaxis to this vaccine or to any of its components.  
**Precaution**: Moderate or severe acute illness.  
| **Pneumococcal polysaccharide (PPSV23)**  
*Give IM or SC* | • Give 1 dose at least 8wks after final dose of PCV13 to high-risk**: children age 2yrs and older.  
• For children who have an immunocompromising condition or have sickle cell disease or functional or anatomic asplenia, give a 2nd dose of PPSV 5yrs after previous PPSV (consult ACIP PPSV recommendations at www.cdc.gov/vaccines/pubs/ACIP-list.htm*).  
• Minimum intervals between doses: 4wks between #1 and #2; 12 wks between #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all doses. | • For age younger than 6wks.  
• Previous anaphylaxis to this vaccine or to any of its components.  
**Precaution**: Moderate or severe acute illness.  
**Pregnancy**.  
| **Human papillomavirus (HPV)**  
(HPV2, Cervarix)  
(HPV4, Gardasil)  
*Give IM* | • Give 3-dose series of either HPV2 or HPV4 to girls and 3-dose series of HPV4 to boys at age 11–12yrs on a 0, 1–2, 6m schedule. (May be given as early as age 9yrs.)  
• Give a 3-dose series of either HPV2 or HPV4 to all older girls/women (through age 26yrs) and 3-dose series of HPV4 to all older boys/men (through age 21yrs) who were not previously vaccinated.  
Minimum intervals between doses: 4wks between #1 and #2; 12 wks between #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all doses. | • For age younger than 6wks.  
• Previous anaphylaxis to this vaccine or to any of its components.  
**Precaution**: Moderate or severe acute illness.  
**Pregnancy**.
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## Vaccine name and route

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| **Rotavirus**  
**RV**  
*Give orally* | • Rotarix (RV1): give at ages 2m, 4m.  
• RotaTeq (RV5): give at ages 2m, 4m, 6m.  
• May give dose #1 as early as age 6wks.  
• Give final dose no later than age 8m 0 days. | • Do not begin series in infants older than age 14wks 6 days.  
• Intervals between doses may be as short as 4wks.  
• If prior vaccination included use of different or unknown brand(s), a total of 3 doses should be given. | **Contraindications**  
• Previous anaphylaxis to this vaccine or to any of its components.  
• History of intussusception.  
• Diagnosis of severe combined immunodeficiency (SCID).  
**Precautions**  
• Moderate or severe acute illness.  
• Altered immunocompetence other than SCID.  
• Chronic gastrointestinal disease.  
• Spina bifida or bladder extrophy. |
| **Hepatitis A**  
**HepA**  
*Give IM* | • Give 2 doses spaced 6 to 18m apart to all children at age 1yr (12–23m).  
• Vaccinate all previously unvaccinated children and adolescents age 2yrs and older who  
  - Want to be protected from HAV infection and lack a specific risk factor.  
  - Live in areas where vaccination programs target older children.  
  - Travel anywhere except U.S., W. Europe, N. Zealand, Australia, Canada, or Japan.  
  - Have chronic liver disease, clotting factor disorder, or are adolescent males who have sex with other males.  
  - Use illicit drugs (injectable or non-injectable).  
  - 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. | • Minimum interval between doses is 6m.  
• Children who are not fully vaccinated by age 2yrs can be vaccinated at subsequent visits.  
• Consider routine vaccination of children age 2yrs and older in areas with no existing program.  
• 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. | **Contraindication**  
Previous anaphylaxis to this vaccine or to any of its components.  
**Precaution**  
Moderate or severe acute illness. |
| **Meningococcal conjugate, quadrivalent**  
(MCV4)  
Menactra (MCV4-D)  
Menveo (MCV4-CRM)  
*Give IM*  
**Hib-MenCY**  
*Give IM*  
**Meningococcal polysaccharide** (MPSV4)  
*Give SC* | • Give quadrivalent MCV (Menactra [MCV4-D] or Menveo [MCV4-CRM]) dose #1 routinely at age 11 through 12yrs and a booster dose at age 16yrs.  
• Give MCV4 to all unvaccinated teens age 13 through 18yrs; if vaccinated at age 13–15yrs, give booster dose at age 16–18yrs with a minimum interval of at least 8 weeks between doses.  
• Give 1 initial dose to unvaccinated first-year college students age 19–21yrs who live in residence halls; give booster dose if most recent dose given when younger than age 16yrs.  
• Give Hib-MenCY (MenHibrix) to children age 2 through 18m with persistent complement component deficiency or anatomic/functional asplenia; give at ages 2, 4, 6, 12–15m  
• For unvaccinated or partially vaccinated children age 9 through 23m with persistent complement component deficiency, complete a series of 2 doses of MCV4-D at least 12wks apart.  
• Give either brand of MCV4 to unvaccinated or partially vaccinated children age 24m and older with persistent complement component deficiency or anatomic or functional asplenia; complete a series of 2 doses, 2m apart. If MCV4-D is given, it must be separated by 4wks from the final dose of PCV13.  
• Give age-appropriate series of MCV (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 9m and older travelling to or living in countries with hyperendemic or epidemic meningococcal disease. Prior receipt of Hib-MenCY is not sufficient for children traveling to the meningitis belt or the Haj. | • If previously vaccinated with MPSV4 or MCV4 and risk of meningococcal disease persists, revaccinate with MCV4 in 3yrs (if previous dose given when younger than age 7yrs) or in 5yrs (if previous dose given at age 7yrs or older). Then, give additional booster doses every 5yrs if risk continues.  
• When administering MCV4 to children and teens with HIV infection, give 2 initial doses, separated by 8wks.  
• Minimum ages for MCV: 6 wks (Hib-MenCY), 9m (MCV4-D), 2yrs (MCV4-CRM). | **Contraindication**  
Previous anaphylaxis to this vaccine or to any of its components.  
**Precaution**  
Moderate or severe acute illness.  
**Note:** Only use MPSV4 if there is a permanent contraindication or precaution to MCV4. |