

Injectable Vaccine Administration: Ages Birth-18 Years¹

| Vaccine | Age/Reminders | Route ² | Contraindications ³ |
|---|---|--------------------|--|
| Diphtheria, Tetanus, Pertussis (DTaP) | Ages 6 weeks-6 years; do NOT give DTaP doses at/after age 7 years | IM | Anaphylactic reaction to prior dose or component; encephalopathy without other cause within 7 days of a pertussis-containing vaccine |
| Tetanus, Diphtheria, Pertussis (Tdap) | Routinely given at ages 11-12 years; catch up all adolescents aged 13 years & older without a previous dose; some children aged 7-10 years may need 1 Tdap dose | IM | Anaphylactic reaction to prior dose or component; encephalopathy without other cause within 7 days of a pertussis-containing vaccine |
| Tetanus, Diphtheria (Td) | For persons aged 7 years and older who have a contraindication to pertussis vaccine or have received a previous dose of Tdap | IM | Anaphylactic reaction to prior dose or component |
| <i>Haemophilus influenzae</i> type B (Hib) ¹ | No routine doses after age 59 months | IM | Anaphylactic reaction to prior dose or component |
| Pneumococcal Conjugate (PCV13) ¹ | No routine doses after age 59 months | IM | Anaphylactic reaction to prior dose or component |
| Hepatitis B (hep B) | 1 st dose at birth; last dose at/after age 6 months | IM* | Anaphylactic reaction to prior dose or component (baker's yeast) |
| Inactivated Polio (IPV) | Give last dose at/after age 4 years; 6 month minimum interval between next to last and last dose | SC or IM | Anaphylactic reaction to prior dose or component (neomycin, streptomycin, polymyxin B) |
| Measles, Mumps, Rubella (MMR) | 1 st dose at/after age 12 months; 4 week minimum interval between doses (all ages) | SC | Anaphylactic reaction to prior dose or component (neomycin or gelatin); pregnancy; immunosuppression ³ |
| Varicella (Var) | 1 st dose at/after age 12 months; minimum interval between doses varies: ages 12 months-12 years = 3 months, ages 13 years & older = 4 weeks | SC | Anaphylactic reaction to prior dose or component (neomycin or gelatin); pregnancy; immunosuppression ³ |
| Inactivated Influenza (IIV) ⁴ | Vaccine brand, dosage, and number of doses needed based on person's age and vaccine history | IM* | Anaphylactic reaction to prior dose or component |
| IIV4 | Ages 6 months & older | IM* | |
| IIV3 & cclIIV4 | Ages 4 years & older | IM* | |
| Hepatitis A (hep A) | 1 st dose at/after age 12 months; 6 month minimum interval between doses; catch up all children through age 18 years | IM | Anaphylactic reaction to prior dose or component; hypersensitivity to alum; Havrix [®] : 2-phenoxyethanol |
| Meningococcal Conjugate (MenACWY) ^{1,5} | Routinely given at ages 11-12 years; give 2 nd dose at age 16 years | IM | Anaphylactic reaction to prior dose or component (diphtheria toxoid) |
| Meningococcal B (Men B) | Ages 10 years & older when indicated; may vaccinate ages 16-23 years | IM | Anaphylactic reaction to prior dose or component |
| Human Papillomavirus (9vHPV) ⁶ | Routinely given at ages 11-12 years; minimum age 9 years; number doses needed based on person's age and health status | IM* | Anaphylactic reaction to prior dose or component (baker's yeast); not recommended for use in pregnancy |

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| Route | IM = Intramuscular | SC = Subcutaneous |
| Site | Anterolateral Thigh or Deltoid | Anterolateral Thigh or Lateral Upper Arm |
| Needle length/gauge | 1-1.5 inches/22-25 gauge | 5/8 inch/23-25 gauge |

*Certain vaccines given by the wrong route need to be repeated: hepatitis B, inactivated influenza, and HPV. When not given IM, these vaccines MUST be repeated using correct intervals from the last (invalid) dose.

¹ Refer to Recommended Childhood Immunization and Catch-up Schedules at <http://www.cdc.gov/vaccines>. High risk children may need additional doses of pneumococcal conjugate (PCV13), pneumococcal polysaccharide (PPSV23), meningococcal conjugate (MenACWY) or *Haemophilus influenzae* type b (Hib). Refer to the footnotes in the "Recommended Immunization Schedules for Persons Aged 0 Through 18 Years."

² Professional judgment is appropriate when selecting site, needle length and needle gauge for use in all children, especially small infants or larger children. Vaccines should never be administered in the buttocks. Refer to "Giving All the Doses" (by age group) at www.aimtoolkit.org.

³ See package insert for complete component listing (by brand). Refer to ACIP General Recommendations for a comprehensive list of vaccine contraindications and precautions at www.cdc.gov/vaccines. For MMR and varicella, check which immune suppressing conditions are considered as contraindications to vaccination.

⁴ Age indications for Influenza Vaccines vary by brand. For more information on flu vaccines, refer to package inserts, www.cdc.gov/flu, or www.michigan.gov/flu → Current Flu Season Vaccination Materials for Health Care Professionals → Influenza Vaccine Updates → Seasonal Influenza Vaccine Presentation Chart.

⁵ MenACWY licensure ages: Menveo[®] (Novartis) ages 2 months-55 years; Menactra[®] (Sanofi Pasteur) ages 9 months-55 years.

⁶ 9vHPV is the only HPV vaccine being distributed in the U.S. The last 2vHPV doses expired November 2016, and the last 4vHPV doses will expire May 2017.