

FIGURE. Recommended childhood and adolescent immunization schedule, by vaccine and age — United States, 2006

Vaccine ▼	Age ▶	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	24 months	4–6 years	11–12 years	13–14 years	15 years	16–18 years
Hepatitis B ¹	HepB		HepB	HepB ¹		HepB						HepB Series			
Diphtheria, Tetanus, Pertussis ²			DTaP	DTaP	DTaP			DTaP			DTaP	Tdap	Tdap		
Haemophilus influenzae type b ³			Hib	Hib	Hib ³		Hib								
Inactivated Poliovirus			IPV	IPV		IPV					IPV				
Measles, Mumps, Rubella ⁴							MMR				MMR		MMR		
Varicella ⁵							Varicella					Varicella			
Meningococcal ⁶												MCV4		MCV4	
Pneumococcal ⁷			PCV	PCV	PCV		PCV				PCV		PPV		
Influenza ⁸							Influenza (yearly)					Influenza (yearly)			
Hepatitis A ⁹							HepA series					HepA series			

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2005, for children through age 18 years. Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. Indicates age groups that warrant special effort to administer those vaccines not previously administered. Additional vaccines might be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination

are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult respective Advisory Committee on Immunization Practices (ACIP) statements for detailed recommendations. Clinically significant adverse events that follow vaccination should be reported through the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at <http://www.vaers.hhs.gov> or by telephone, 800-822-7967.

 Range of recommended ages Catch-up immunization Assessment at age 11–12 years

- Hepatitis B vaccine (HepB).** AT BIRTH: All newborns should receive monovalent HepB soon after birth and before hospital discharge. Infants born to mothers who are hepatitis B surface antigen (HBsAg)-positive should receive HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. Infants born to mothers whose HBsAg status is unknown should receive HepB within 12 hours of birth. The mother should have blood drawn as soon as possible to determine her HBsAg status; if HBsAg-positive, the infant should receive HBIG as soon as possible (no later than age 1 week). For infants born to HBsAg-negative mothers, the birth dose can be delayed in rare circumstances but only if a physician's order to withhold the vaccine and a copy of the mother's original HBsAg-negative laboratory report are documented in the infant's medical record. FOLLOWING THE BIRTH DOSE: The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at age 1–2 months. The final dose should be administered at age ≥24 weeks. Administering four doses of HepB is permissible (e.g., when combination vaccines are administered after the birth dose); however, if monovalent HepB is used, a dose at age 4 months is not needed. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of the HepB series at age 9–18 months (generally at the next well-child visit after completion of the vaccine series).
- Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).** The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15–18 months. The final dose in the series should be administered at age ≥4 years. Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap adolescent preparation) is recommended at age 11–12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a tetanus and diphtheria toxoids (Td) booster dose. Adolescents aged 13–18 years who missed the age 11–12-year Td/Tdap booster dose should also receive a single dose of Tdap if they have completed the recommended childhood DTP/DTaP vaccination series. Subsequent Td boosters are recommended every 10 years.
- Haemophilus influenzae type b conjugate vaccine (Hib).** Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4, or 6 months but may be used as boosters after any Hib vaccine. The final dose in the series should be administered at age ≥12 months.
- Measles, mumps, and rubella vaccine (MMR).** The second dose of MMR is recommended routinely at age 4–6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and both doses are administered at or after age 12 months. Children who have not previously received the second dose should complete the schedule by age 11–12 years.
- Varicella vaccine.** Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children (i.e., those who lack a reliable history of varicella). Susceptible persons aged ≥13 years should receive 2 doses administered at least 4 weeks apart.
- Meningococcal vaccine (MCV4).** Meningococcal conjugate vaccine (MCV4) should be administered to all children at age 11–12 years as well as to unvaccinated adolescents at high school entry (age 15 years). Other adolescents who wish to decrease their risk for meningococcal disease may also be vaccinated. All college freshmen living in dormitories should also be vaccinated, preferably with MCV4, although meningococcal polysaccharide vaccine (MPSV4) is an acceptable alternative. Vaccination against invasive meningococcal disease is recommended for children and adolescents aged ≥2 years with terminal complement deficiencies or anatomic or functional asplenia and for certain other high risk groups (see MMWR 2005;54[No. RR-7]); use MPSV4 for children aged 2–10 years and MCV4 for older children, although MPSV4 is an acceptable alternative.
- Pneumococcal vaccine.** The heptavalent pneumococcal conjugate vaccine (PCV) is recommended for all children aged 2–23 months and for certain children aged 24–59 months. The final dose in the series should be administered at age ≥12 months. Pneumococcal polysaccharide vaccine (PPV) is recommended in addition to PCV for certain high-risk groups. See MMWR 2000;49(No. RR-9).
- Influenza vaccine.** Influenza vaccine is recommended annually for children aged ≥6 months with certain risk factors (including, but not limited to, asthma, cardiac disease, sickle cell disease, human immunodeficiency virus infection, diabetes, and conditions that can compromise respiratory function or handling of respiratory secretions or that can increase the risk for aspiration), health-care workers, and other persons (including household members) in close contact with persons in groups at high risk (see MMWR 2005;54[No. RR-8]). In addition, healthy children aged 6–23 months and close contacts of healthy children aged 0–5 months are recommended to receive influenza vaccine because children in this age group are at substantially increased risk for influenza-related hospitalizations. For healthy, nonpregnant persons aged 5–49 years, the intranasally administered, live, attenuated influenza vaccine (LAIV) is an acceptable alternative to the intramuscular trivalent inactivated influenza vaccine (TIV). See MMWR 2005;54(No. RR-8). Children receiving TIV should be administered an age-appropriate dosage (0.25 mL for children aged 6–35 months or 0.5 mL for children aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by at least 4 weeks for TIV and at least 6 weeks for LAIV).
- Hepatitis A vaccine (HepA).** HepA is recommended for all children at age 1 year (i.e., 12–23 months). The 2 doses in the series should be administered at least 6 months apart. States, counties, and communities with existing HepA vaccination programs for children aged 2–18 years are encouraged to maintain these programs. In these areas, new efforts focused on routine vaccination of children aged 1 year should enhance, not replace, ongoing programs directed at a broader population of children. HepA is also recommended for certain high risk groups (see MMWR 1999;48[No. RR-12]).