

Recommended Childhood Immunization Schedule

United States, January – December 2001

Vaccines¹ are listed under routinely recommended ages. **[Bars]** indicate range of recommended ages for immunization. Any dose not given at the recommended age should be given as a "catch-up" immunization at any subsequent visit when indicated and feasible. **(Ovals)** indicate vaccines to be given if previously recommended doses were missed or given earlier than the recommended minimum age.

Age ► Vaccine ▼	Birth	1 mo	2 mos	4 mos	6 mos	12 mos	15 mos	18 mos	24 mos	4-6 yrs	11-12 yrs	14-18 yrs
Hepatitis B ²	Hep B #1											
		Hep B #2			Hep B #3						Hep B ²	
Diphtheria, Tetanus, Pertussis ³			DTaP	DTaP	DTaP		DTaP ³			DTaP	Td	
<i>H. influenzae</i> type b ⁴			Hib	Hib	Hib	Hib						
Inactivated Polio ⁵			IPV	IPV	IPV ⁵						IPV ⁵	
Pneumococcal Conjugate ⁶			PCV	PCV	PCV	PCV						
Measles, Mumps, Rubella ⁷						MMR				MMR ⁷	MMR ⁷	
Varicella ⁸						Var					Var ⁸	
Hepatitis A ⁹									Hep A-in selected areas ⁹			

Approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).

1. This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of 11/1/00, for children through 18 years of age. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and its other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

2. **Infants born to HBsAg-negative mothers** should receive the 1st dose of hepatitis B (Hep B) vaccine by age 2 months. The 2nd dose should be at least one month after the 1st dose. The 3rd dose should be administered at least 4 months after the 1st dose and at least 2 months after the 2nd dose, but not before 6 months of age for infants.

Infants born to HBsAg-positive mothers should receive hepatitis B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate sites. The 2nd dose is recommended at 1-2 months of age and the 3rd dose at 6 months of age.

Infants born to mothers whose HBsAg status is unknown should receive hepatitis B vaccine within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than 1 week of age).

All children and adolescents who have not been immunized against hepatitis B should begin the series during any visit. Special efforts should be made to immunize children who were born in or whose parents were born in areas of the world with moderate or high endemicity of hepatitis B virus infection.

3. The 4th dose of DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) may be administered as early as 12 months of age, provided 6 months have elapsed since the 3rd dose and the child is unlikely to return at age 15-18 months. Td (tetanus and diphtheria toxoids) is recommended at 11-12 years of age if at least 5 years have elapsed since the last dose of DTP, DTaP or DT. Subsequent routine Td boosters are recommended every 10 years.

4. Three *Haemophilus influenzae* type b (Hib) conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at 2 and 4 months of age, a dose at 6 months is not required. Because clinical studies in infants have demonstrated that using some combination products may induce a lower immune response to the Hib vaccine component, DTaP/Hib combination products should not be used for primary immunization in infants at 2, 4 or 6 months of age, unless FDA-approved for these ages.

5. An all-IPV schedule is recommended for routine childhood polio vaccination in the United States. All children should receive four doses of IPV at 2 months, 4 months, 6-18 months, and 4-6 years of age. Oral polio vaccine (OPV) should be used only in selected circumstances. (See MMWR *Morb Mortal Wkly Rep* May 19, 2000/49(RR-5);1-22).

6. The heptavalent conjugate pneumococcal vaccine (PCV) is recommended for all children 2-23 months of age. It also is recommended for certain children 24-59 months of age. (See MMWR *Morb Mortal Wkly Rep* Oct. 6, 2000/49(RR-9);1-35).

7. The 2nd dose of measles, mumps, and rubella (MMR) vaccine is recommended routinely at 4-6 years of age but may be administered during any visit, provided at least 4 weeks have elapsed since receipt of the 1st dose and that both doses are administered beginning at or after 12 months of age. Those who have not previously received the second dose should complete the schedule by the 11-12 year old visit.

8. Varicella (Var) vaccine is recommended at any visit on or after the first birthday for susceptible children, i.e. those who lack a reliable history of chickenpox (as judged by a health care provider) and who have not been immunized. Susceptible persons 13 years of age or older should receive 2 doses, given at least 4 weeks apart.

9. Hepatitis A (Hep A) is shaded to indicate its recommended use in selected states and/or regions, and for certain high risk groups; consult your local public health authority. (See MMWR *Morb Mortal Wkly Rep* Oct. 1, 1999/48(RR-12); 1-37).

For additional information about the vaccines listed above, please visit the National Immunization Program Home Page at www.cdc.gov/nip or call the National Immunization Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).