

# Recommended Childhood and Adolescent Immunization Schedule 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 <sup>1</sup>		HepB	HepB	HepB <sup>1</sup>			HepB					HepB Series			
Diphtheria, Tetanus, Pertussis <sup>2</sup>			DTaP	DTaP	DTaP			DTaP			DTaP	Tdap		Tdap	
<i>Haemophilus influenzae</i> type b <sup>3</sup>			Hib	Hib		Hib <sup>3</sup>		Hib							
Inactivated Poliovirus			IPV	IPV			IPV				IPV				
Measles, Mumps, Rubella <sup>4</sup>								MMR			MMR		MMR		
Varicella <sup>5</sup>								Varicella				Varicella			
Meningococcal <sup>6</sup>										MPSV4	PCV	MCV4		MCV4	
Pneumococcal <sup>7</sup>				PCV	PCV		PCV				PCV		PPV		
Influenza <sup>8</sup>							Influenza (Yearly)						Influenza (Yearly)		
Hepatitis A <sup>9</sup>														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 may be licensed and recommended during the year. Licensed combination vaccines may be used whenever

■■■■■ Range of recommended ages

■■■■■ Catch-up immunization

■■■■■ 11-12 year old assessment

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 the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.



- 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 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 she is HbsAg-positive, the infant should receive HBIG as soon as possible (no later than one week of age). 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 monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at one to two months of age. The final dose should be administered at 24 weeks of age or later. It is permissible to administer four doses of HepB (e.g., when combination vaccines are given after the birth dose); however, if monovalent HepB is used, a dose at four months of age 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 nine to 18 months of age (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 12 months of age, provided that six months have elapsed since the third dose and the child is unlikely to return at 15 to 18 months of age. The final dose in the series should be given at age four years or older. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap, adolescent preparation) is recommended at age 11 to 12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a Td booster dose. Adolescents 13 to 18 years of age who missed the 11- to 12-year Td/Tdap booster dose also should receive a single dose of Tdap if they have completed the recommended childhood DTP/DTaP vaccination series. Subsequent tetanus and diphtheria toxoids (Td) 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 two and four months, a dose at age six months is not required. DTaP/Hib combination products should not be used for primary immunization in infants two, four, or six months of age but can be used as boosters after any Hib vaccine. The final dose in the series should be administered at age 12 months or older.
- Measles, mumps, and rubella vaccine (MMR).** The second dose of MMR is recommended routinely at age four to six years but may be administered during any visit, provided that at least four weeks have elapsed since the first dose and both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by age 11 to 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 chickenpox). Susceptible persons 13 years and older should receive two doses administered at least four weeks apart.
- Meningococcal vaccine (MCV4).** MCV4 should be given to all children at the 11- to 12-year-old visit, as well as to unvaccinated adolescents at high school entry (15 years of age). Other adolescents who wish to decrease their risk for meningococcal disease also may 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 two years and older with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups (see MMMWR 2005;54[RR-7]:1-21); use MPSV4 for children two to 10 years of age and MCV4 for older children, although MPSV4 is an acceptable alternative.
- Pneumococcal vaccine.** The heptavalent pneumococcal conjugate vaccine (PCV) is recommended for all children two to 23 months of age and for certain children 24 to 59 months of age. The final dose in the series should be given at age 12 months or older. **Pneumococcal polysaccharide vaccine (PPV)** is recommended in addition to PCV for certain high-risk groups. See MMMWR 2000;49[RR-9]:1-35.
- Influenza vaccine.** Influenza vaccine is recommended annually for children six months and older with certain risk factors (including, but not limited to, asthma, cardiac disease, sickle cell disease, human immunodeficiency virus, diabetes, and conditions that can compromise respiratory function or handling of respiratory secretions or that can increase the risk for aspiration), health care professionals, and other persons (including household members) in close contact with persons in groups at high risk (see MMMWR 2005;54[RR-8]:1-55). In addition, healthy children six to 23 months of age and close contacts of healthy children zero to five months of age are recommended to receive influenza vaccine because children in this age group are at substantially increased risk for influenza-related hospitalizations. For healthy persons five to 49 years of age, the intranasally administered, live, attenuated influenza vaccine (LAIV) is an acceptable alternative to the intramuscular trivalent inactivated influenza vaccine (TIV). See MMMWR 2005;54[RR-8]:1-55. Children receiving TIV should be administered a dosage appropriate for their age (0.25 mL if six to 35 months of age or 0.5 mL if three years or older). Children eight years and younger who are receiving influenza vaccine for the first time should receive two doses (separated by at least four weeks for TIV and at least six weeks for LAIV).
- Hepatitis A vaccine (HepA).** HepA is recommended for all children at one year of age (i.e., 12 to 23 months). The two doses in the series should be administered at least six months apart. States, counties, and communities with existing HepA vaccination programs for children two to 18 years of age are encouraged to maintain these programs. In these areas, new efforts focused on routine vaccination of one-year-old children should enhance, not replace, ongoing programs directed at a broader population of children. HepA is also recommended for certain high-risk groups (see MMMWR 1999;48[RR-12]:1-37).

The Childhood and Adolescent Immunization Schedule is approved by:  
 Advisory Committee on Immunization Practices [www.cdc.gov/nip/acip](http://www.cdc.gov/nip/acip) • American Academy of Pediatrics [www.aap.org](http://www.aap.org) • American Academy of Family Physicians [www.aafp.org](http://www.aafp.org)

# Recommended Immunization Schedule for Children and Adolescents Who Start Late or Who Are More Than 1 Month Behind

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The tables below give catch-up schedules and minimum intervals between doses for children who have delayed immunizations. There is no need to restart a vaccine series regardless of the time that has elapsed between doses. Use the chart appropriate for the child's age.

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses				
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5	
Diphtheria, Tetanus, Pertussis	6 wks	4 weeks	4 weeks	6 months	6 months <sup>1</sup>	
Inactivated Poliovirus	6 wks	4 weeks	4 weeks	4 weeks <sup>2</sup>		
Hepatitis B <sup>3</sup>	Birth	4 weeks	8 weeks (and 16 weeks after first dose)			
Measles, Mumps, Rubella	12 mo	4 weeks <sup>4</sup>				
Varicella	12 mo	4 weeks	4 weeks <sup>5</sup> if current age < 12 months	8 weeks (as final dose) This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months		
<i>Haemophilus influenzae</i> type b <sup>6</sup>	6 wks	8 weeks (as final dose) if first dose given at age 12–14 months No further doses needed if first dose given at age ≥ 15 months	8 weeks (as final dose) <sup>6</sup> if current age ≥ 12 months and second dose given at age < 15 months No further doses needed if previous dose given at age ≥ 15 months			
Pneumococcal <sup>7</sup>	6 wks	4 weeks if first dose given at age < 12 months and current age < 24 months 8 weeks (as final dose) if first dose given at age ≥ 12 months or current age 24–59 months No further doses needed for healthy children if first dose given at age ≥ 24 months	4 weeks if current age < 12 months 8 weeks (as final dose) if current age ≥ 12 months No further doses needed for healthy children if previous dose given at age ≥ 24 months	8 weeks (as final dose) This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months	 	

## CATCH-UP SCHEDULE FOR CHILDREN AGED 7 YEARS THROUGH 18 YEARS

Vaccine	Minimum Interval Between Doses		
	Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Booster Dose
Tetanus, Diphtheria <sup>8</sup>	4 weeks	6 months	6 months if first dose given at age < 12 months and current age < 11 years; otherwise 5 years
Inactivated Poliovirus <sup>9</sup>	4 weeks	4 weeks	IPV <sup>2,9</sup>
Hepatitis B	4 weeks	8 weeks (and 16 weeks after first dose)	
Measles, Mumps, Rubella	4 weeks		
Varicella <sup>10</sup>	4 weeks		

- Diphtheria, tetanus, pertussis.** The fifth dose is not necessary if the fourth dose was administered after the fourth birthday.
- Inactivated polio virus (IPV).** For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if the third dose was administered at age four years or older. If OPV and IPV were administered as part of a series, a total of four doses should be given, regardless of the child's current age.
- Hepatitis B.** Administer the three-dose series to all children and adolescents younger than 19 years if they were not previously vaccinated.
- Measles, mumps, rubella.** The second dose is recommended routinely at age four to six years but may be administered earlier if desired.
- H. influenzae type b.** Vaccine is not generally recommended for children five years and older.
- H. influenzae type b.** If current age is less than 12 months and the first two doses were PRP-OMP (PedvaxHB or ComVax [Merck]), the third (and final) dose should be administered at age 12 to 15 months and at least eight weeks after the second dose.
- Pneumococcal vaccine.** Vaccine is not generally recommended for children five years and older.
- Tetanus, diphtheria (Td).** Adolescent tetanus, diphtheria, and pertussis vaccine (Tdap) may be substituted for any dose in a primary catch-up series or as a booster if age appropriate for Tdap. A five-year interval from the last Td dose is encouraged when Tdap is used as a booster dose. See ACIP recommendations for further information.
- IPV.** Vaccine is not generally recommended for persons 18 years and older.
- Varicella vaccine.** Administer the two-dose series to all susceptible adolescents 13 years and older.

**Report adverse reactions to vaccines through the federal Vaccine Adverse Event Reporting System.** For information on reporting reactions following immunization, please visit [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or call the 24-hour national toll-free information line 800-822-7967. Report suspected cases of vaccine-preventable diseases to your state or local health department.

**For additional information about vaccines, including precautions and contraindications for immunization and vaccine shortages, please visit the National Immunization Program Website at [www.cdc.gov/nip](http://www.cdc.gov/nip) or contact 800-CDC-INFO (800-232-4636) (In English, En Español — 24/7)**