

2010 Recommended Immunization Schedule Ages Birth – 6 Years United States



Vaccine ▼	Age ▶	Birth	1 Month	2 Months	4 Months	6 Months	12 Months	15 Months	18 Months	19 – 23 Months	2 – 3 Years	4 – 6 Years
Hepatitis B ¹		HepB	HepB			HepB						
Rotavirus ²				RV	RV	RV ²						
Diphtheria, Tetanus, Pertussis ³				DTaP	DTaP	DTaP	see footnote 3	DTaP				DTaP
<i>Haemophilus influenzae</i> type b ⁴				Hib	Hib	Hib ⁴		Hib				
Pneumococcal ⁵				PCV	PCV	PCV		PCV				PPSV
Inactivated Poliovirus ⁶				IPV	IPV			IPV				IPV
Influenza ⁷								Influenza (Yearly)				
Measles, Mumps, Rubella ⁸								MMR		see footnote 8		MMR
Varicella ⁹								Varicella		see footnote 9		Varicella
Hepatitis A ¹⁰								HepA (2 doses)			HepA Series	
Meningococcal ¹¹											MCV	

Age or range of recommended ages Certain high-risk groups

This schedule includes recommendations in effect as of December 15, 2009. Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference, and the potential for adverse events. Find more information at www.cdc.gov/vaccines/recs/schedules.

Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations: www.cdc.gov/vaccines/pubs/ACIP-list.htm. Clinically significant adverse events that follow immunization should be reported to the **Vaccine Adverse Event Reporting System (VAERS)** at www.vaers.hhs.gov or by telephone at, 1-800-822-7967.

This schedule is approved by the Advisory Committee on Immunization Practices www.cdc.gov/vaccines/recs/acip, the American Academy of Pediatrics www.aap.org and the American Academy of Family Physicians www.aafp.org.

FOOTNOTES

1. Hepatitis B vaccine (HepB) (Minimum age: birth)

- At birth:**
- Administer monovalent HepB to all newborns before hospital discharge.
 - If mother is hepatitis B surface antigen (HBsAg)-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
 - If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine mother's HBsAg status as soon as possible and, if HBsAg-positive, administer HBIG (no later than age 1 week).
- After 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 or 2 months. Monovalent HepB vaccine should be used for doses administered before age 6 weeks. The final dose should be administered no earlier than age 24 weeks.
 - Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg 1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).
 - Administration of 4 doses of HepB to infants is permissible when a combination vaccine containing HepB is administered after the birth dose. The fourth dose should be administered no earlier than age 24 weeks.

2. Rotavirus vaccine (RV) (Minimum age: 6 weeks)

- Administer the first dose at age 6 through 14 weeks (maximum age: 14 weeks, 6 days). Vaccination should not be initiated for infants aged 15 weeks, 0 days or older.
- The maximum age for the final dose in the series is 8 months, 0 days.
- If Rotarix® is administered at ages 2 and 4 months, a dose at 6 months is not indicated.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) (Minimum age: 6 weeks)

- The fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.
- Administer the final dose in the series at age 4 through 6 years.

4. *Haemophilus influenzae* type b conjugate vaccine (Hib) (Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB® or Comvax® [HepB-Hib]) is administered at ages 2 and 4 months, a dose at age 6 months is not indicated.
- TriHibit (DTaP/Hib) and Hiberix (PRP-T) should not be used for doses at ages 2, 4, or 6 months for the primary series but can be used as the final dose in children aged 12 months through 4 years.

5. Pneumococcal vaccine (Minimum age: 6 weeks for pneumococcal conjugate vaccine [PCV]; 2 years for pneumococcal polysaccharide vaccine [PPSV])

- PCV is recommended for all children aged younger than 5 years. Administer 1 dose of PCV to all healthy children aged 24 through 59 months who are not completely vaccinated for their age.
- Administer PPSV 2 or more months after last dose of PCV to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant.

6. Inactivated poliovirus vaccine (IPV) (Minimum age: 6 weeks)

- The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose.
- If 4 doses are administered prior to age 4 years, a fifth dose should be administered at age 4 through 6 years.

7. Influenza vaccine - seasonal (Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])

- Administer annually to children aged 6 months through 18 years.
- For healthy children aged 2 through 6 years (those who do not have underlying medical conditions that predispose them to influenza complications), either LAIV or TIV may be used, except LAIV should not be given to children aged 2 through 4 years who have had wheezing in the past 12 months.
- Children receiving TIV should receive 0.25 mL if aged 6 through 35 months or 0.5 mL if aged 3 years or older.
- Administer 2 doses (separated by at least 4 weeks) to children aged younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.
- For recommendations for use of influenza A (H1N1) 2009 monovalent vaccine, see *MMWR* 2009;58(No. RR-10).

8. Measles, mumps, and rubella vaccine (MMR) (Minimum age: 12 months)

- Administer the second dose at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 28 days have elapsed since the first dose.

9. Varicella vaccine (Minimum age: 12 months)

- Administer the second dose at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 3 months have elapsed since the first dose.
- For persons aged 12 months through 12 years, the minimum interval between doses is 3 months. However, if the second dose was administered at least 28 days after the first dose, it can be accepted as valid.

10. Hepatitis A vaccine (HepA) (Minimum age: 12 months)

- Administer to all children aged 1 year (i.e., aged 12 through 23 months). Administer 2 doses at least 6 months apart.
- Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepA also is recommended for older children who live in areas where vaccination programs target older children, who are at increased risk for infection, or for whom immunity against hepatitis A is desired.

11. Meningococcal vaccine (Minimum age: 2 years for meningococcal conjugate vaccine [MCV4] and for meningococcal polysaccharide vaccine [MPSV4])

- Administer MCV4 to children aged 2 through 10 years with persistent complement component deficiency, anatomic or functional asplenia, and certain other conditions placing them at high risk.
- Administer MCV4 to children previously vaccinated with MCV4 or MPSV4 after 3 years if first dose was administered at age 2 through 6 years.

Catch-up Immunization Schedule 4 Months – 6 Years

United States, 2010

This table provides catch-up schedules and minimum intervals between doses for children 4 months to 6 years whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses.

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
Hepatitis B ¹	Birth	4 weeks	8 weeks and at least 16 weeks after first dose		
Rotavirus ²	6 weeks	4 weeks	4 weeks ²		
Diphtheria, Tetanus, Pertussis ³	6 weeks	4 weeks	4 weeks	6 months	6 months ³
<i>Haemophilus influenzae</i> type b ⁴	6 weeks	4 weeks if first dose given at younger than 12 months of age 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 or older	4 weeks ⁴ if current age is younger than 12 months 8 weeks (as final dose) ⁴ if current age is 12 months or older and first dose given at younger than age 12 months and second dose given at younger than 15 months No further doses needed if previous dose given at age 15 months or older	8 weeks (as final dose) This dose is only necessary for children aged 12 – 59 months who received 3 doses before age 12 months	
Pneumococcal ⁵	6 weeks	4 weeks if first dose given at younger than 12 months of age 8 weeks (as final dose for healthy children) if first dose given at age 12 months or older or current age is 24 – 59 months No further doses needed for healthy children if first dose given at age 24 months or older	4 weeks if current age is younger than 12 months 8 weeks (as final dose) if current age is 12 months or older No further doses needed for healthy children if previous dose given at age 24 months or older	8 weeks (as final dose) This dose is only necessary for children aged 12 – 59 months who received 3 doses before age 12 months or for high risk children who received 3 doses at any age	
Inactivated Poliovirus ⁶	6 weeks	4 weeks	4 weeks	6 months	
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			
Varicella ⁸	12 mos	3 months			
Hepatitis A ⁹	12 mos	6 months			

FOOTNOTES

1. Hepatitis B vaccine (HepB)

- Administer the 3-dose series to those not previously vaccinated.

2. Rotavirus vaccine (RV)

- The maximum age for the first dose is 14 weeks, 6 days. Vaccination should not be initiated for infants aged 15 weeks, 0 days or older.
- The maximum age for the final dose in the series is 8 months, 0 days.
- If Rotarix® was administered for the first and second doses, a third dose is not indicated.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP)

- The fifth dose is not necessary if the fourth dose was administered at age 4 years or older.

4. *Haemophilus influenzae* type b conjugate vaccine (Hib)

- Hib vaccine is not generally recommended for persons aged 5 years or older. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults. However, studies suggest good immunogenicity in persons who have sickle cell disease, leukemia, or HIV infection, or who have had a splenectomy; administering 1 dose of Hib vaccine to these persons who have not previously received Hib vaccine is not contraindicated.
- If the first 2 doses were PRP-OMP (PedvaxHIB® or Comvax®), and administered at age 11 months or younger, the third (and final) dose should be administered at age 12 through 15 months and at least 8 weeks after the second dose.
- If the first dose was administered at age 7 through 11 months, administer the second dose at least 4 weeks later and a final dose at age 12 through 15 months.

5. Pneumococcal conjugate vaccine (PCV, PPSV)

- Administer 1 dose of pneumococcal conjugate vaccine (PCV) to all healthy children aged 24 through 59 months who have not received at least 1 dose of PCV on or after age 12 months.
- For children aged 24 through 59 months with underlying medical conditions, administer 1 dose of PCV if 3 doses were received previously, or administer 2 doses of PCV at least 8 weeks apart if fewer than 3 doses were received previously.
- Administer pneumococcal polysaccharide vaccine (PPSV) to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant, at least 8 weeks after the last dose of PCV.

6. Inactivated poliovirus vaccine (IPV)

- The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose.
- A fourth dose is not necessary if the third dose was administered at age

4 years or older and at least 6 months following the previous dose.

- In the first 6 months of life, minimum age and minimum intervals are only recommended if the person is at risk for imminent exposure to circulating poliovirus (i.e., travel to a polio-endemic region or during an outbreak).

7. Measles, mumps, and rubella vaccine (MMR)

- Administer the second dose routinely at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 28 days have elapsed since the first dose.
- If not previously vaccinated, administer 2 doses with at least 28 days between doses.

8. Varicella vaccine

- Administer the second dose at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 3 months have elapsed since the first dose.
- For persons aged 12 months through 12 years, the minimum interval between doses is 3 months. However, if the second dose was administered at least 28 days after the first dose, it can be accepted as valid.

9. Hepatitis A vaccine (HepA)

- HepA is recommended for children older than 23 months who live in areas where vaccination programs target older children, who are at increased risk of infection, or for whom immunity against hepatitis A is desired.

Information about reporting reactions after immunization is available:

- Online at www.vaers.hhs.gov
- By telephone at the 24-hour national toll-free information line at **1-800-822-7967**

Suspected cases of vaccine-preventable diseases should be reported to the state Department of Health.

Find more information, including precautions and contraindications for immunization, from the National Center for Immunization and Respiratory Diseases at www.cdc.gov/vaccines or by telephone at **1-800-CDC-INFO** (1-800-232-4636).

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If you have a disability and need this document in another format, please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).



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