

**Recommended and Minimum Ages and Intervals
Between Doses of Routinely Recommended Vaccines^{1,2,3,4}**

Vaccine and dose number	Recommended age for this dose	Minimum age for this dose	Recommended interval to next dose	Minimum interval to next dose
Diphtheria-tetanus-acellular pertussis (DTaP)-1 ⁵	2 months	6 weeks	8 weeks	4 weeks
DTaP-2	4 months	10 weeks	8 weeks	4 weeks
DTaP-3	6 months	14 weeks	6-12 months	6 months ⁶
DTaP-4 ⁶	15-18 months	12 months ⁶	3 years	6 months
DTaP-5	4-6 years	4 years	—	—
<i>Haemophilus influenzae</i> type b (Hib)-1 ^{5,7}	2 months	6 weeks	8 weeks	4 weeks
Hib-2	4 months	10 weeks	8 weeks	4 weeks
Hib-3 ⁸	6 months	14 weeks	6-9 months	8 weeks
Hib-4	12-15 months	12 months	—	—
Hepatitis A (HepA)-1 ⁵	12-23 months	12 months	6-18 months	6 months
HepA-2	≥18 months	18 months	—	—
Hepatitis B (HepB)-1 ⁵	Birth	Birth	4 weeks-4 months	4 weeks
HepB-2	1-2 months	4 weeks	8 weeks-17 months	8 weeks
HepB-3 ⁹	6-18 months	24 weeks	—	—
Herpes zoster (HZV) ¹⁰	≥60 years	60 years	—	—
Human papillomavirus (HPV)-1 ¹¹	11-12 years	9 years	8 weeks	4 weeks
HPV-2	11-12 years (+ 2 months)	9 years (+ 4 weeks)	4 months	12 weeks ¹²
HPV-3 ¹²	11-12 years (+ 6 months)	9 years (+24 weeks)	—	—
Influenza, inactivated (IIV) ¹³	≥6 months	6 months ¹⁴	4 weeks	4 weeks
Influenza, live attenuated (LAIV) ¹³	2-49 years	2 years	4 weeks	4 weeks
Measles-mumps-rubella (MMR)-1 ¹⁵	12-15 months	12 months	3-5 years	4 weeks
MMR-2 ¹⁵	4-6 years	13 months	—	—
Meningococcal conjugate (MCV)-1 ¹⁶	11-12 years	6 weeks ¹⁷	4-5 years	8 weeks
MCV-2	16 years	11 years (+ 8 weeks)	—	—
Meningococcal polysaccharide (MPSV4)-1 ¹⁶	—	2 years	5 years	5 years
MPSV4-2	—	7 years	—	—
Pneumococcal conjugate (PCV)-1 ⁷	2 months	6 weeks	8 weeks	4 weeks
PCV-2	4 months	10 weeks	8 weeks	4 weeks
PCV-3	6 months	14 weeks	6 months	8 weeks
PCV-4	12-15 months	12 months	—	—
Pneumococcal polysaccharide (PPSV)-1	—	2 years	5 years	5 years
PPSV-2 ¹⁸	—	7 years	—	—
Poliovirus, Inactivated (IPV)-1 ⁵	2 months	6 weeks	8 weeks	4 weeks
IPV-2	4 months	10 weeks	8 weeks-14 months	4 weeks
IPV-3	6-18 months	14 weeks	3-5 years	6 months
IPV-4 ¹⁹	4-6 years	4 years	—	—
Rotavirus (RV)-1 ²⁰	2 months	6 weeks	8 weeks	4 weeks
RV-2	4 months	10 weeks	8 weeks	4 weeks
RV-3 ²¹	6 months	14 weeks	—	—
Tetanus-diphtheria (Td)	11-12 years	7 years	10 years	5 years
Tetanus-diphtheria-acellular pertussis (Tdap) ²²	≥11 years	7 years	—	—
Varicella (Var)-1 ¹⁵	12-15 months	12 months	3-5 years	12 weeks ²³
Var-2 ¹⁵⁺	4-6 years	15 months ²⁴	—	—

- 1 Combination vaccines are available. Use of licensed combination vaccines is generally preferred to separate injections of their equivalent component vaccines. When administering combination vaccines, the minimum age for administration is the oldest age for any of the individual components (*exception*: the minimum age for the first dose of MenHibrix is 6 weeks); the minimum interval between doses is equal to the greatest interval of any of the individual components.
- 2 Information on travel vaccines including typhoid, Japanese encephalitis, and yellow fever, is available at www.cdc.gov/travel. Information on other vaccines that are licensed in the US but not distributed, including anthrax and smallpox, is available at www.bt.cdc.gov.
- 3 Ages and intervals less than 4 months may be expressed in weeks. When the term “months” is used to express an age or interval, it means calendar months.
- 4 A hyphen used to express a range (as in “12-15 months”) means “through.”
- 5 Combination vaccines containing a hepatitis B component (Comvax, Pediarix, and Twinrix) are available. These vaccines should not be administered to infants younger than 6 weeks because of the other components (i.e., Hib, DTaP, HepA, and IPV).
- 6 The minimum recommended interval between DTaP-3 and DTaP-4 is 6 months. However, the fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose. DTaP-4 need not be repeated if administered at least 4 months after DTaP-3. This is a special grace period (2 months long) that can be used while evaluating records retrospectively. An additional 4 days should not be added to this grace period.
- 7 Children receiving the first dose of Hib or PCV vaccine at age 7 months or older require fewer doses to complete the series.
- 8 If PRP-OMP (Pedvax-Hib) was administered at ages 2 and 4 months, a dose at age 6 months is not required.
- 9 HepB-3 should be administered at least 8 weeks after HepB-2 and at least 16 weeks after HepB-1, and should not be administered before age 24 weeks.
- 10 Herpes zoster vaccine is recommended as a single dose for persons 60 years of age and older.
- 11 Bivalent HPV vaccine (Cervarix) is approved for females 9 through 25 years of age. Quadrivalent HPV vaccine (Gardasil) is approved for males and females 9 through 26 years of age.
- 12 The minimum age for HPV-3 is based on the baseline minimum age for the first dose (9 years) and the minimum interval of 24 weeks between the first and third doses. Dose 3 need not be repeated if it is given at least 16 weeks after the first dose (and if the intervals between doses 1 and 2 and doses 2 and 3 are maintained at 4 weeks and 12 weeks, respectively).
- 13 One dose of influenza vaccine per season is recommended for most people. Children younger than 9 years of age who are receiving Influenza vaccine for the first time should receive 2 doses this season. See current influenza recommendations for other factors affecting the decision to administer one vs. two doses to children younger than 9 years.
- 14 The minimum age for inactivated influenza vaccine varies by vaccine manufacturer and formulation. See package inserts for vaccine-specific minimum ages.
- 15 Combination measles-mumps-rubella-varicella (MMRV) vaccine can be used for children aged 12 months through 12 years. (See CDC. General Recommendations on Immunization: recommendations of the ACIP. *MMWR* 2011;60[No. RR-2],7.)
- 16 Revaccination with meningococcal vaccine is recommended for previously vaccinated persons who remain at high risk for meningococcal disease. (See CDC. Updated recommendations from the ACIP for vaccination of persons at prolonged increased risk for meningococcal disease. *MMWR* 2009;58:[1042-3])
- 17 Menactra can be given as young as 9 months for high-risk children. Menveo can be given as young as 2 months for high-risk children. MenHibrix can be given as young as 6 weeks for high-risk children. MenHibrix is given as a four dose series at 2 months, 4 months, 6 months and 12-18 months.
- 18 A second dose of PPSV 5 years after the first dose is recommended for persons <65 years of age at highest risk for serious pneumococcal infection, and for those who are likely to have a rapid decline in pneumococcal antibody concentration. (See CDC. Prevention of pneumococcal disease: recommendations of the ACIP. *MMWR* 1997;46[No. RR-8].)
- 19 A fourth dose is not needed if the third dose was administered on or after the 4th birthday and at least 6 months after the previous dose.
- 20 The first dose of rotavirus must be administered between 6 weeks 0 days and 14 weeks 6 days. The vaccine series should not be started for infants 15 weeks 0 days or older. Rotavirus vaccine should not be administered to children older than 8 months 0 days, regardless of the number of doses received before that age.
- 21 If two doses of Rotarix are administered as age appropriate, a third dose is not necessary.
- 22 Only one dose of Tdap is recommended. Subsequent doses should be given as Td. For management of a tetanus-prone wound in a person who has received a primary series of a tetanus-toxoid containing vaccine, the minimum interval after a previous dose of any tetanus-containing vaccine is 5 years.
- 23 For persons beginning the series on or after the 13th birthday, the minimum interval from varicella-1 to varicella-2 is 4 weeks. While it is not recommended, if a child younger than 13 years receives varicella-2 at an interval of 4 weeks or longer from varicella-1, the dose does not need to be repeated.
- 24 A special grace period of 2 months, based on expert opinion, can be applied to the minimum age of 15 months when evaluating records retrospectively, which will result in an acceptable minimum age of 13 months. An additional 4 days should not be added to this grace period.