

Catch-up Immunization Schedule for Children and Adolescents Aged 4 Months Through 18 Years Who Start Late or Who Are More Than 1 Month Behind - United States • 2018
(for DTaP, IPV, Hep B, Hib, Measles, Mumps, Rubella, Pneumococcal, Varicella, TD, Tdap, Meningococcal ACWY)

Tables 1 and 2 provide catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age. Always use these tables in conjunction with the footnotes that follow.

Table 1. Catch-up Schedule for Children Age 4 Months Through 6 Years
Minimum Interval Between Doses

Vaccine	Minimum Age for Dose 1	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; minimum age for the final dose is 24 weeks		
Diphtheria, Tetanus, Pertussis ²	6 wks	4 weeks	4 weeks	6 months	6 months ²
Haemophilus Influenzae type b ³	6 wks	4 weeks if first dose administered before the 1 st birthday 8 weeks (as final dose) if first dose administered at age 12 through 14 months No further doses needed if first dose administered at age 15 months or older	4 weeks if current age is younger than 12 months and first dose was administered at younger than age 7 months, and at least 1 previous dose was PRP-T (ActHiB, Pentacel, Hiberix) or unknown. 8 weeks and age 12 through 59 months (as final dose) <ul style="list-style-type: none"> if current age is younger than 12 months and first dose was administered at age 7 through 11 months; OR If current age is 12 through 59 months and first dose was administered before the 1st birthday and second dose administered at younger than 15 months; OR If both doses were PRP-OMP (PedvaxHIB; Comvax) and were administered before the 1st birthday No further doses needed if previous dose administered at age 15 months or older	8 weeks (as final dose) This dose only necessary for children aged 12 months through 59 months who received 3 doses before the 1st birthday	
Pneumococcal ⁴	6 wks	4 weeks if first dose administered before the 1st birthday 8 weeks (as final dose for healthy children) if first dose administered at the 1 st birthday or after No further doses needed for healthy children if first dose administered at age 24 months or older	4 weeks if current age is younger than 12 months and previous dose given at less than 7 months old 8 weeks (as final dose for healthy children) <ul style="list-style-type: none"> if previous dose given between 7 through 11 months (wait until at least 12 months old); OR if current age is 12 months or older and at least 1 dose was given before age 12 months No further doses needed for healthy children if previous dose administered at age 24 months or older	8 weeks (as final dose) This dose only necessary for children aged 12 months through 59 months who received 3 doses before age 12 months or for high risk children who receive 3 doses at any age	
Inactivated Poliovirus ⁵	6 wks	4 weeks ⁵	4 weeks ⁵ If current age is < 4 years 4 weeks ⁵ 6 months (as final dose) if current age is 4 years or older	6 months ⁵ (minimum age 4 years for final dose)	
Measles, Mumps, Rubella ⁶	12 mos	4 weeks			
Varicella ⁷	12 mos	3 months			

¹ Hepatitis (Hep B) vaccine

• Unvaccinated persons should complete a 3-dose series at 0, 1-2, and 6 months.

² Diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine

• The 5th dose of DTaP vaccine is not necessary if the 4th dose was administered at 4 years or older.

³ Haemophilus influenzae type b conjugate (Hib) vaccine

- **1st dose at 7-11 months:** Give 2nd dose at least 4 weeks later and 3rd (final) dose at 12-15 months or 8 weeks after 2nd dose (whichever is later).
- **1st dose at 12-14 months:** Give 2nd (final) dose at least 8 weeks after 1st dose.
- **1st dose before 12 months and 2nd dose before 15 months:** Give 3rd (final) dose 8 weeks after 2nd dose.
- **2 doses of PedvaxHib before 12 months:** Give 3rd (final) dose at 12-59 months and at least 8 weeks after 2nd dose.
- **Unvaccinated at 15-59 months:** 1 dose.

⁴ Pneumococcal vaccines [Minimum age: 6 weeks for pneumococcal conjugate vaccine (PCV).

- 1 dose for healthy children aged 24-59 months with any incomplete PCV13 schedule.

⁵ Inactivated poliovirus (IPV) vaccine

- In the first 6 months of life, use minimum ages and intervals only for travel to a polio-endemic region or during an outbreak.
- If 4 or more doses were given before the 4th birthday, give 1 more dose at 4-6 years and at least 6 months after the previous dose.
- A 4th dose is not necessary if the 3rd dose was given on or after the 4th birthday and at least 6 months after the previous dose.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age. If only OPV was administered, and all doses were administered prior to 4 years of age, 1 dose of IPV should be administered at 4 years or older, at least 4 weeks after the last OPV dose.
- **Series Containing Oral Polio Vaccine (OPV)**, either mixed OPV-IPV or OPV only series:
 - Total number of doses needed to complete the series is the same as that recommended for the U.S. IPV schedule.
 - Only trivalent OPV (tOPV) counts toward the U.S. vaccination requirements.

⁶ Measles, mumps, and rubella (MMR) vaccine

- Unvaccinated children and adolescents: 2 doses at least 4 weeks apart.

⁷ Varicella Vaccine

- Ensure persons 7-18 years without evidence of immunity (see MMWR 2007; 56 [No. RR-4]; at www.cdc.gov/mmwr/pdf/rr/rr5604.pdf) have 2 doses of varicella vaccine.
 - **Ages 7-12:** routine interval 3 months (minimum interval: 4 weeks).
 - **Ages 13 and older:** minimum interval 4 weeks.

Table 2. Catch-up Schedule for Children and Adolescents Age 7 Through 18 Years

Vaccine	Minimum Age for Dose 1	Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4
Meningococcal ¹	6 weeks	8 weeks		
Tetanus, Diphtheria / Tetanus, Diphtheria, Pertussis ²	7 yrs ²	4 weeks	4 weeks if first dose of DTaP/DT administered before the 1st birthday 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td administered at or after the 1st birthday	6 months if first dose of DTaP/DT administered before the 1st birthday
Hepatitis B ³	Not Applicable (N/A)	4 weeks	8 weeks and at least 16 weeks after first dose	
Inactivated Poliovirus ⁴	N/A	4 weeks	6 months ⁴ A fourth dose is not necessary if the third dose was administered at age 4 years or older and at least 6 months after the previous dose.	6 months ⁴ A fourth dose of IPV is indicated if all previous doses were administered at <4 years or if the third dose was administered < 6 months after the second dose.
Measles, Mumps, Rubella ⁵	N/A	4 weeks		
Varicella ⁶	N/A	3 months if younger than age 13 years 4 weeks if age 13 years or older		

¹ Meningococcal vaccines

- Age 13-15 years: 1 dose now and booster at age 16-18 years. Minimum interval 8 weeks.
- Age 16-18 years: 1 dose.

² Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis (Tdap) vaccine

- **Adolescents 13–18 who have not received Tdap:** 1 dose, followed by a Td booster every 10 years.
- **Persons aged 7–18 years not fully immunized with DTaP:** 1 dose of Tdap as part of the catch-up series (preferably the first dose). If additional doses are needed, use Td.

- **Children 7–10 years** who receive Tdap inadvertently or as part of the catch-up series may receive the routine Tdap dose at 11–12 years.
- **DTaP inadvertently given after the 7th birthday: Child 7–10:** DTaP may count as part of catch-up series. Routine Tdap dose at 11-12 may be given.
- **Adolescent 11–18:** Count dose of DTaP as the adolescent Tdap booster.

³ **Hepatitis B (HepB) vaccine**

- Unvaccinated persons should complete a 3-dose series at 0, 1-2, and 6 months.
- Adolescents 11–15 years of age may use an alternative 2-dose schedule, with at least 4 months between doses (adult formulation **Recombivax HB** only).

⁴ **Inactivated poliovirus (IPV) vaccine**

- If 4 or more doses were given before the 4th birthday, give 1 more dose at age 4–6 years and at least 6 months after the previous dose.
- A 4th dose is not necessary if the 3rd dose was given on or after the 4th birthday and at least 6 months after the previous dose.
- IPV is not routinely recommended for U.S. residents 18 years or older.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age. If only OPV was administered, and all doses were administered prior to 4 years of age, 1 dose of IPV should be administered at 4 years or older, at least 4 weeks after the last OPV dose.
- **Series Containing Oral Polio Vaccine (OPV)**, either mixed OPV-IPV or OPV only series:
 - Total number of doses needed to complete the series is the same as that recommended for the U.S. IPV schedule.
 - Only trivalent OPV (tOPV) counts toward the U.S. vaccination requirements.

⁵ **Measles, mumps, and rubella (MMR) vaccine**

- Unvaccinated children and adolescents: 2 doses at least 4 weeks apart.

⁶ **Varicella (VAR) vaccine**

- varicella vaccine.
 - **Ages 7-12:** routine interval 3 months (minimum interval: 4 weeks).
 - **Ages 13 and older:** minimum interval 4 weeks.