

## Footnotes — Recommended immunization schedule for persons aged 0 through 18 years—United States, 2016

For further guidance on the use of the vaccines mentioned below, see: <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>.

For vaccine recommendations for persons 19 years of age and older, see the Adult Immunization Schedule.

### Additional information

- For contraindications and precautions to use of a vaccine and for additional information regarding that vaccine, vaccination providers should consult the relevant ACIP statement available online at <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>.
- For purposes of calculating intervals between doses, 4 weeks = 28 days. Intervals of 4 months or greater are determined by calendar months.
- Vaccine doses administered 4 days or less before the minimum interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum interval or minimum age should not be counted as valid doses and should be repeated as age-appropriate. The repeat dose should be spaced after the invalid dose by the recommended minimum interval. For further details, see *MMWR, General Recommendations on Immunization and Reports* / Vol. 60 / No. 2; Table 1. *Recommended and minimum ages and intervals between vaccine doses* available online at <http://www.cdc.gov/mmwr/pdf/r/r6002.pdf>.
- Information on travel vaccine requirements and recommendations is available at <http://wwwnc.cdc.gov/travel/destinations-list>.

- For vaccination of persons with primary and secondary immunodeficiencies, see Table 13, “*Vaccination of persons with primary and secondary immunodeficiencies*,” in *General Recommendations on Immunization* (ACIP), available at <http://www.cdc.gov/mmwr/pdf/r/r6002.pdf>; and American Academy of Pediatrics, “Immunization in Special Clinical Circumstances,” in *Kimberlin DW, Brady MT, Jackson MA, Long SS eds. Red Book: 2015 report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics.

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

##### Routine vaccination:

###### At birth:

- Administer monovalent HepB vaccine to all newborns before hospital discharge.
- For infants born to hepatitis B surface antigen (HBsAg)-positive mothers, administer HepB vaccine and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. These infants should be tested for HBsAg and antibody to HBsAg (anti-HBs) at age 9 through 18 months (preferably at the next well-child visit) or 1 to 2 months after completion of the HepB series if the series was delayed; CDC recently recommended testing occur at age 9 through 12 months; see <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6439a6.htm>.

- If mother’s HBsAg status is unknown, within 12 hours of birth administer HepB vaccine regardless of birth weight. For infants weighing less than 2,000 grams, administer HBIG in addition to HepB vaccine within 12 hours of birth. Determine mother’s HBsAg status as soon as possible and, if mother is HBsAg-positive, also administer HBIG for infants weighing 2,000 grams or more as soon as possible, but no later than age 7 days.

##### Doses following the birth dose:

- 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.
- Infants who did not receive a birth dose should receive 3 doses of a HepB-containing vaccine on a schedule of 0, 1 to 2 months, and 6 months starting as soon as feasible. See Figure 2.
- Administer the second dose, 1 to 2 months after the first dose (minimum interval of 4 weeks), administer the third dose at least 8 weeks after the second dose AND at least 16 weeks after the **first** dose. The final (third or fourth) dose in the HepB vaccine series should be administered **no earlier than age 24 weeks**.
- Administration of a total of 4 doses of HepB vaccine is permitted when a combination vaccine containing HepB is administered after the birth dose.

##### Catch-up vaccination:

- Unvaccinated persons should complete a 3-dose series.
- A 2-dose series (doses separated by at least 4 months) of adult formulation Recombivax HB is licensed for use in children aged 11 through 15 years.
- For other catch-up guidance, see Figure 2.

#### 2. Rotavirus (RV) vaccines. (Minimum age: 6 weeks for both RV1 [Rotarix] and RV5 [RotaTeq])

##### Routine vaccination:

Administer a series of RV vaccine to all infants as follows:

- If Rotarix is used, administer a 2-dose series at 2 and 4 months of age.
- If RotaTeq is used, administer a 3-dose series at ages 2, 4, and 6 months.
- If any dose in the series was RotaTeq or vaccine product is unknown for any dose in the series, a total of 3 doses of RV vaccine should be administered.

##### Catch-up vaccination:

- The maximum age for the first dose in the series 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.
- For other catch-up guidance, see Figure 2.

#### 3. Diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine. (Minimum age: 6 weeks. Exception: DTaP-IPV [Kinrix, Quadacel]: 4 years)

##### Routine vaccination:

- Administer a 5-dose series of DTaP vaccine at ages 2, 4, 6, 15 through 18 months, and 4 through 6 years.
- The fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.
- Inadvertent administration of 4th DTaP dose early. If the fourth dose of DTaP was administered at least 4 months, but less than 6 months, after the third dose of DTaP, it need not be repeated.

For further guidance on the use of the vaccines mentioned below, see: <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>.

#### 4. *Haemophilus influenzae* type b (Hib) conjugate vaccine (cont'd)

- Hib vaccine is not routinely recommended for patients 5 years or older. However, 1 dose of Hib vaccine should be administered to unimmunized\* persons aged 5 years or older who have anatomic or functional asplenia (including sickle cell disease) and unvaccinated persons 5 through 18 years of age with HIV infection.

\* *Patients who have not received a primary series and booster dose or at least 1 dose of Hib vaccine after 14 months of age are considered unimmunized.*

#### 5. Pneumococcal vaccines. (Minimum age: 6 weeks for PCV13, 2 years for PPSV23)

##### Routine vaccination with PCV13:

- Administer a 4-dose series of PCV13 vaccine at ages 2, 4, and 6 months and at age 12 through 15 months.
- For children aged 14 through 59 months who have received an age-appropriate series of 7-valent PCV (PCV7), administer a single supplemental dose of 13-valent PCV (PCV13).

##### Catch-up vaccination with PCV13:

- Administer 1 dose of PCV13 to all healthy children aged 24 through 59 months who are not completely vaccinated for their age.
- For other catch-up guidance, see Figure 2.

##### Vaccination of persons with high-risk conditions with PCV13 and PPSV23:

- All recommended PCV13 doses should be administered prior to PPSV23 vaccination if possible.
- For children 2 through 5 years of age with any of the following conditions: chronic heart disease (particularly cyanotic congenital heart disease and cardiac failure); chronic lung disease (including asthma if treated with high-dose oral corticosteroid therapy); diabetes mellitus; cerebrosplenic fluid leak; cochlear implant; sickle cell disease and other hemoglobinopathies; anatomic or functional asplenia; HIV infection; chronic renal failure; nephrotic syndrome; diseases associated with treatment with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, and Hodgkin disease; generalized malignancy; solid organ transplantation; or multiple myeloma:
- 1. If neither PCV13 nor PPSV23 has been received previously, administer 1 dose of PCV13 now and 1 dose of PPSV23 at least 8 weeks later.
- 2. If PCV13 has been received previously but PPSV23 has not, administer 1 dose of PPSV23 at least 8 weeks after the most recent dose of PCV13.
- 3. If PPSV23 has been received but PCV13 has not, administer 1 dose of PCV13 at least 8 weeks after the most recent dose of PPSV23.
- For children aged 6 through 18 years with chronic heart disease (particularly cyanotic congenital heart disease and cardiac failure), chronic lung disease (including asthma if treated with high-dose oral corticosteroid therapy), diabetes mellitus, alcoholism, or chronic liver disease, who have not received PPSV23, administer 1 dose of PPSV23. If PCV13 has been received previously, then PPSV23 should be administered at least 8 weeks after any prior PCV13 dose.
- A single revaccination with PPSV23 should be administered 5 years after the first dose to children with sickle cell disease or other hemoglobinopathies; anatomic or functional asplenia; congenital or acquired immunodeficiencies; HIV infection; chronic renal failure; nephrotic syndrome; diseases associated with treatment with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, and Hodgkin disease; generalized malignancy; solid organ transplantation; or multiple myeloma.

- If neither PCV13 nor PPSV23 has been received previously, administer 1 dose of PCV13 now and 1 dose of PPSV23 at least 8 weeks later.
- If PCV13 has been received previously but PPSV23 has not, administer 1 dose of PPSV23 at least 8 weeks after the most recent dose of PCV13.
- If PPSV23 has been received but PCV13 has not, administer 1 dose of PCV13 at least 8 weeks after the most recent dose of PPSV23.

- For children aged 6 through 18 years with chronic heart disease (particularly cyanotic congenital heart disease and cardiac failure), chronic lung disease (including asthma if treated with high-dose oral corticosteroid therapy), diabetes mellitus, alcoholism, or chronic liver disease, who have not received PPSV23, administer 1 dose of PPSV23. If PCV13 has been received previously, then PPSV23 should be administered at least 8 weeks after any prior PCV13 dose.

- A single revaccination with PPSV23 should be administered 5 years after the first dose to children with sickle cell disease or other hemoglobinopathies; anatomic or functional asplenia; congenital or acquired immunodeficiencies; HIV infection; chronic renal failure; nephrotic syndrome; diseases associated with treatment with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, and Hodgkin disease; generalized malignancy; solid organ transplantation; or multiple myeloma.

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

##### Routine vaccination:

- Administer a 4-dose series of IPV at ages 2, 4, 6 through 18 months, and 4 through 6 years. The final dose in the series should be administered on or after the fourth birthday and at least 6 months after the previous dose.

##### Catch-up vaccination:

- In the first 6 months of life, minimum age and minimum intervals are only recommended if the person is at risk of imminent exposure to circulating poliovirus (i.e., travel to a polio-endemic region or during an outbreak).
- If 4 or more doses are administered before age 4 years, an additional dose should be administered at age 4 through 6 years and at least 6 months after 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 after the previous dose.

For further guidance on the use of the vaccines mentioned below, see: <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>.

#### 10. Hepatitis A (HepA) vaccine (cont'd)

##### Special populations:

- Administer 2 doses of HepA vaccine at least 6 months apart to previously unvaccinated persons who live in areas where vaccination programs target older children, or who are at increased risk for infection. This includes persons traveling to or working in countries that have high or intermediate endemicity of infection; men having sex with men; users of injection and non-injection illicit drugs; persons who work with HAV-infected primates or with HAV in a research laboratory; persons with clotting factor disorders; persons with chronic liver disease; and persons who anticipate close personal contact (e.g., household or regular babysitting) with an international adoptee during the first 60 days after arrival in the United States from a country with high or intermediate endemicity. The first dose should be administered as soon as the adoption is planned, ideally 2 or more weeks before the arrival of the adoptee.

#### 11. Meningococcal vaccines. (Minimum age: 6 weeks for Hib-MenCY [MenHibrix], 10 months for serogroup B MenACWY-D [Menactra], 2 months for MenACWY-CRM [Menveo], 10 years for serogroup B meningococcal [MenB] vaccines: MenB-4C [Bexsero] and MenB-FHbp [Trumenba])

##### Routine vaccination:

- Administer a single dose of Menactra or Menveo vaccine at age 11 through 12 years, with a booster dose at age 16 years.
- Adolescents aged 11 through 18 years with human immunodeficiency virus (HIV) infection should receive a 2-dose primary series of Menactra or Menveo with at least 8 weeks between doses.
- For children aged 2 months through 18 years with high-risk conditions, see below.

##### Catch-up vaccination:

- Administer Menactra or Menveo vaccine at age 13 through 18 years if not previously vaccinated.
- If the first dose is administered at age 13 through 15 years, a booster dose should be administered at age 16 through 18 years with a minimum interval of at least 8 weeks between doses.
- If the first dose is administered at age 16 years or older, a booster dose is not needed.
- For other catch-up guidance, see Figure 2.

##### Clinical discretion:

- Young adults aged 16 through 23 years (preferred age range is 16 through 18 years) may be vaccinated with either a 2-dose series of Bexsero or a 3-dose series of Trumenba vaccine to provide short-term protection against most strains of serogroup B meningococcal disease. The two MenB vaccines are not interchangeable; the same vaccine product must be used for all doses.

##### Vaccination of persons with high-risk conditions and other persons at increased risk of disease:

##### Children with anatomic or functional asplenia (including sickle cell disease):

##### Meningococcal conjugate ACWY vaccines:

- Menveo
  - Children who initiate vaccination at 8 weeks: Administer doses at 2, 4, 6, and 12 months of age.
  - Unvaccinated children who initiate vaccination at 7 through 23 months: Administer 2 doses, with the second dose at least 12 weeks after the first dose AND after the first birthday.
  - Children 24 months and older who have not received a complete series: Administer 2 primary doses at least 8 weeks apart.

##### MenHibrix

- Children who initiate vaccination at 6 weeks: Administer doses at 2, 4, 6, and 12 through 15 months of age.
- If the first dose of MenHibrix is given at or after 12 months of age, a total of 2 doses should be given at least 8 weeks apart to ensure protection against serogroups C and Y meningococcal disease.
- Menactra
  - Children 24 months and older who have not received a complete series: Administer 2 primary doses at least 8 weeks apart. If Menactra is administered to a child with asplenia (including sickle cell disease), do not administer Menactra until 2 years of age and at least 4 weeks after the completion of all PCV13 doses.

##### Meningococcal B vaccines:

- Bexsero or Trumenba
  - Persons 10 years or older who have not received a complete series: Administer a 2-dose series of Bexsero, at least 1 month apart. Or a 3-dose series of Trumenba, with the second dose at least 2 months after the first and the third dose at least 6 months after the first. The two MenB vaccines are not interchangeable; the same vaccine product must be used for all doses.

##### Children with persistent complement component deficiency (includes persons with inherited or chronic deficiencies in C3, C5-9, properdin, factor D, factor H, or taking eculizumab [Soliris]):

##### Meningococcal conjugate ACWY vaccines:

- Menveo
  - Children who initiate vaccination at 8 weeks: Administer doses at 2, 4, 6, and 12 months of age.
  - Unvaccinated children who initiate vaccination at 7 through 23 months: Administer 2 doses, with the second dose at least 12 weeks after the first dose AND after the first birthday.
  - Children 24 months and older who have not received a complete series: Administer 2 primary doses at least 8 weeks apart.
- MenHibrix
  - Children who initiate vaccination 6 weeks: Administer doses at 2, 4, 6, and 12 through 15 months of age.
  - If the first dose of MenHibrix is given at or after 12 months of age, a total of 2 doses should be given at least 8 weeks apart to ensure protection against serogroups C and Y meningococcal disease.



# Recommended Immunization Schedules for Persons Aged 0 Through 18 Years

## UNITED STATES, 2016

This schedule includes recommendations in effect as of January 1, 2016. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Vaccination providers should consult the relevant Advisory Committee on Immunization Practices (ACIP) statement for detailed recommendations, available online at <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>. Clinically significant adverse events that follow vaccination should be reported to the Vaccine Adverse Event Reporting System (VAERS) online (<http://www.vaers.hhs.gov>) or by telephone (800-822-7967).

The Recommended Immunization Schedules for Persons Aged 0 Through 18 Years are approved by the

**Advisory Committee on Immunization Practices**  
(<http://www.cdc.gov/vaccines/acip>)

**American Academy of Pediatrics**  
(<http://www.aap.org>)

**American Academy of Family Physicians**  
(<http://www.aafp.org>)

**American College of Obstetricians and Gynecologists**  
(<http://www.acog.org>)



**Figure 1. Recommended immunization schedule for persons aged 0 through 18 years – United States, 2016.**

**(FOR THOSE WHO FALL BEHIND OR START LATE, SEE THE CATCH-UP SCHEDULE [FIGURE 2]).** These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Figure 1. To determine minimum intervals between doses, see the catch-up schedule (Figure 2). School entry and adolescent vaccine age groups are shaded.

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16–18 yrs
Hepatitis B <sup>1</sup> (HepB)	1 <sup>st</sup> dose	2 <sup>nd</sup> dose					3 <sup>rd</sup> dose									
Rotavirus <sup>2</sup> (RV) RV1 (2-dose series); RV5 (3-dose series)		1 <sup>st</sup> dose	2 <sup>nd</sup> dose	See footnote 2												
Diphtheria, tetanus, & acellular pertussis <sup>3</sup> (DTaP; <7 yrs)		1 <sup>st</sup> dose	2 <sup>nd</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose		4 <sup>th</sup> dose					5 <sup>th</sup> dose				
<i>Haemophilus influenzae</i> type b <sup>4</sup> (Hib)		1 <sup>st</sup> dose	2 <sup>nd</sup> dose	2 <sup>nd</sup> dose	See footnote 4		3 <sup>rd</sup> or 4 <sup>th</sup> dose; See footnote 4									
Pneumococcal conjugate <sup>5</sup> (PCV13)		1 <sup>st</sup> dose	2 <sup>nd</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose		4 <sup>th</sup> dose									
Inactivated poliovirus <sup>6</sup> (IPV; <18 yrs)		1 <sup>st</sup> dose	2 <sup>nd</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose							4 <sup>th</sup> dose				
Influenza <sup>7</sup> (IV; LAIV)						Annual vaccination (IV only) 1 or 2 doses						Annual vaccination (LAIV or IV) 1 or 2 doses		Annual vaccination (LAIV or IV) 1 dose only		
Measles, mumps, rubella <sup>8</sup> (MMR)						See footnote 8	1 <sup>st</sup> dose					2 <sup>nd</sup> dose				
Varicella <sup>9</sup> (VAR)							1 <sup>st</sup> dose					2 <sup>nd</sup> dose				
Hepatitis A <sup>10</sup> (HepA)							2-dose series; See footnote 10									
Meningococcal <sup>11</sup> (Hib–MenCY ≥ 6 weeks; MenACWY–D ≥ 9 mos; MenACWY–CRM ≥ 2 mos)						See footnote 11								1 <sup>st</sup> dose		Booster
Tetanus, diphtheria, & acellular pertussis <sup>3</sup> (Tdap; ≥ 7 yrs)														(Tdap)		
Human papillomavirus <sup>12</sup> (2vHPV; females only; 4vHPV, 9vHPV; males and females)														(3-dose series)		
Meningococcal B <sup>11</sup>															See footnote 11	
Pneumococcal polysaccharide <sup>5</sup> (PPSV23)														See footnote 5		

**Range of recommended ages for all children** **Range of recommended ages for catch-up immunization** **Range of recommended ages for certain high-risk groups** **Range of recommended ages for non-high-risk groups that may receive vaccine, subject to individual clinical decision making** **No recommendation**

This schedule includes recommendations in effect as of January 1, 2016. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Vaccination providers should consult the relevant Advisory Committee on Immunization Practices (ACIP) statement for detailed recommendations, available online at <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>. Clinically significant adverse events that follow vaccination should be reported to the Vaccine Adverse Event Reporting System (VAERS) online (<http://www.vaers.hhs.gov>) or by telephone (800-822-7967). Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for vaccination, is available from CDC online (<http://www.cdc.gov/vaccines/recs/vac-admin/contraindications.htm>) or by telephone (800-CDC-INFO [800-232-4636]).

This schedule is approved by the Advisory Committee on Immunization Practices (<http://www.cdc.gov/vaccines/acip>), the American Academy of Pediatrics (<http://www.aap.org>), the American Academy of Family Physicians (<http://www.aafp.org>), and the American College of Obstetricians and Gynecologists (<http://www.acog.org>).

**NOTE: The above recommendations must be read along with the footnotes of this schedule.**

**FIGURE 2. Catch-up immunization schedule for persons aged 4 months through 18 years who start late or who are more than 1 month behind — United States, 2016.** The figure below provides 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 this table in conjunction with Figure 1 and the footnotes that follow.

Children age 4 months through 6 years										Children and adolescents age 7 through 18 years									
Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses								Dose 3 to Dose 4	Dose 4 to Dose 5								
		Dose 1 to Dose 2	Dose 2 to Dose 3		Dose 3 to Dose 4														
Hepatitis B <sup>1</sup>	Birth	4 weeks	8 weeks and at least 16 weeks after first dose. Minimum age for the final dose is 24 weeks.	4 weeks <sup>2</sup>	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>3</sup>										
Rotavirus <sup>2</sup>	6 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>3</sup>										
Diphtheria, tetanus, and acellular pertussis <sup>3</sup>	6 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>3</sup>										
Haemophilus influenzae type b <sup>4</sup>	6 weeks	4 weeks if first dose was administered before the 1 <sup>st</sup> birthday. 8 weeks (as final dose) if first dose was administered at age 12 through 14 months. No further doses needed if first dose was 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) or unknown. 8 weeks • if current age is younger than 12 months and first dose was administered at age 7 through 11 months (wait until at least 12 months old); OR • if current age is 12 through 59 months, and first dose was administered before the 1 <sup>st</sup> birthday, and second dose administered at younger than 15 months; OR • if both doses were PRP-OMP (PedvaxHib; Convax) and were administered before the 1 <sup>st</sup> birthday (wait until at least 12 months old). No further doses needed if previous dose was administered at age 15 months or older.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose for healthy children) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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 age 12 through 59 months who received 3 doses before the 1 <sup>st</sup> birthday.										
	Pneumococcal <sup>5</sup>	6 weeks	4 weeks if first dose administered before the 1 <sup>st</sup> birthday. 8 weeks (as final dose for healthy children) if first dose was administered at the 1 <sup>st</sup> 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 <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	4 weeks if current age is younger than 12 months and previous dose given at <7months old. 8 weeks (as final dose) if previous dose given between 7-11 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.	6 months <sup>6</sup> (minimum age 4 years for final dose).									
Inactivated poliovirus <sup>6</sup>	6 weeks	4 weeks <sup>6</sup>	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Measles, mumps, rubella <sup>8</sup>	12 months	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Varicella <sup>9</sup>	12 months	3 months	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Hepatitis A <sup>10</sup>	12 months	6 months	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Meningococcal <sup>11</sup> (Hib-MenACY-D ≥ 9 mos; MenACWY-CRM ≥ 2 mos)	6 weeks	8 weeks <sup>11</sup>	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>	See footnote 11									
Children and adolescents age 7 through 18 years																			
Meningococcal <sup>11</sup> (Hib-MenACY-D ≥ 9 mos; MenACWY-CRM ≥ 2 mos)	Not Applicable (N/A)	8 weeks <sup>11</sup>	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Tetanus, diphtheria, and acellular pertussis <sup>3</sup>	7 years <sup>12</sup>	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>	6 months if first dose of DTaP/DT was administered before the 1 <sup>st</sup> birthday. 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td was administered at or after the 1 <sup>st</sup> birthday.									
Human papillomavirus <sup>13</sup>	9 years																		
Hepatitis A <sup>10</sup>	N/A	6 months	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Hepatitis B <sup>1</sup>	N/A	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Inactivated poliovirus <sup>6</sup>	N/A	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Measles, mumps, rubella <sup>8</sup>	N/A	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										
Varicella <sup>9</sup>	N/A	3 months if younger than age 13 years. 4 weeks if age 13 years or older.	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	4 weeks	6 months <sup>6</sup>										

**NOTE: The above recommendations must be read along with the footnotes of this schedule.**