

2022 CATCH-UP VACCINATION SCHEDULE: 4 MONTHS–18 YEARS* (Part 1 of 2)

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
PERSONS AGED 4 MONTHS–6 YEARS					
HepB ¹	Birth	4 weeks	8 weeks and at least 16wks after 1st dose; minimum age for the final dose is 24wks		
RV ²	6 weeks maximum age 14wks, 6 days for 1st dose	4 weeks	4 weeks maximum age 8mos, 0 days for final dose		
DTaP ³	6 weeks	4 weeks	4 weeks	6 months	6 months ⁴
Hib ⁴	6 weeks	4 weeks if 1st dose given before 1st birthday 8 weeks (as final dose) if 1st dose given at age 12–14mos No further doses needed if 1st dose given at age ≥15mos	4 weeks⁵ if current age is <12mos and 1st dose was given at <7mos of age, and at least 1 previous dose was PRP-T (ActHib, Pentacel, Hiberix), Vaxelis or unknown 8 weeks and age 12–59mos (as final dose)⁴ if current age is <12mos and 1st dose was given at age 7–14mos; <i>OR</i> if current age is 12–59mos and 1st dose was given before 1st birthday, and 2nd dose given at <15mos of age; <i>OR</i> if both doses were PRP-OMP (PedvaxHIB) and were given before 1st birthday No further doses needed if previous dose given at age ≥15mos	8 weeks (as final dose) This dose only necessary for ages 12–59mos who received 3 doses before 1st birthday	
PCV13 ⁵	6 weeks	4 weeks if 1st dose given before 1st birthday 8 weeks (as final dose for healthy children) if 1st dose given at or after 1st birthday No further doses needed for healthy children if 1st dose given at age ≥24mos	4 weeks if current age <12mos and previous dose given at age <7mos 8 weeks (as final dose for healthy children) if previous dose given between 7–11mos (wait until at least 12mos old); <i>OR</i> if current age is ≥12mos and at least 1 dose was given before age 12mos. No further doses needed for healthy children if previous dose given at age ≥24mos	8 weeks (as final dose) This dose only necessary for ages 12–59mos who received 3 doses before age 12mos or for high-risk children who received 3 doses at any age	
IPV ⁶	6 weeks	4 weeks ⁶	4 weeks ⁶ if person is <4yrs 6 months (as final dose) if person is ≥4yrs	6 months⁶ minimum age 4yrs for final dose	
MMR ⁸	12 months	4 weeks			
VAR ⁹	12 months	3 months			
HepA ¹⁰	12 months	6 months			
Meningococcal ¹¹	2 months: Menveo; 9 months: Menactra 2 years: MenQuadfi	8 weeks ¹¹	see footnote 11	see footnote 11	
PERSONS AGED 7–18 YEARS					
Meningococcal ¹¹	N/A	8 weeks ¹¹			
Td/Tdap ¹²	7 years ¹²	4 weeks	4 weeks if 1st dose of DTaP/DT given before 1st birthday 6 months (as final dose) if 1st dose of DTaP/DT or Tdap/Td given at or after 1st birthday	6 months if 1st dose of DTaP/DT given before 1st birthday	
HPV ¹³	9 years	Routine dosing intervals are recommended¹³			
HepA ¹⁰	N/A	6 months			
HepB ¹	N/A	4 weeks	8 weeks and at least 16wks after 1st dose		
IPV ⁶	N/A	4 weeks	6 months⁶ A 4th dose is not necessary if 3rd dose given at age ≥4yrs and ≥6mos after previous dose	A 4th dose is indicated if all previous doses were given at age <4yrs or if 3rd dose given <6mos after 2nd dose	
MMR ⁸	N/A	4 weeks			
VAR ⁹	N/A	3 months if person is <13yrs 4 weeks if person is ≥13yrs			
Dengue ¹⁴	9 years	6 months	6 months		

(continued)

FOOTNOTES TO 2022 CATCH-UP VACCINATION SCHEDULES: 4 MONTHS–18 YEARS OF AGE

*The tables 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 this table in conjunction with the child and adolescent immunization schedules ("Vaccination Schedule: 0–18 Years of Age") and their respective footnotes.**

- Hepatitis B (HepB) vaccine. (Minimum age: birth)**
 - Unvaccinated persons should complete a 3-dose series at 0, 1–2, 6mos.
 - A 2-dose series (doses separated by at least 4mos) of adult formulation Recombivax HB may be given to children aged 11–15yrs.
 - A 2-dose series of HepB (Hepslisav-B) at least 4wks apart, or a 3- or 4-dose series of the combined HepA and HepB vaccine (Twinrix) may be given to adolescents aged ≥18yrs.
- Rotavirus (RV) vaccines (Minimum age: 6wks for both RV1 [Rotarix] and RV5 [RotaTeq])**
 - Vaccination series should not be initiated on or after age 15wks, 0 days. The maximum age for final dose is 8mos, 0 days.
 - Administer a 2-dose series (Rotarix) or a 3-dose series (RotaTeq). If any dose in the series is either RotaTeq or unknown, default to a 3-dose series.
- Diphtheria, tetanus, and acellular pertussis (DTaP) vaccine. (Minimum age: 6wks. Exception: DTaP-IPV [Kinrix, Quadracel]: 4yrs)**
 - The 5th dose of DTaP vaccine is not needed if 4th dose was given at age ≥4yrs and ≥6mos after 3rd dose
- Haemophilus influenzae type b (Hib) conjugate vaccine. (Minimum age: 6wks for PRP-T [ActHib, Hiberix], PRP-OMP [PedvaxHIB], DTaP-IPV/Hib [Pentacel], DTaP-IPV-Hib-HepB [Vaxelis])**
 - If the 1st dose was given at age 7–11mos, give the 2nd dose at least 4wks later and a 3rd (and final) dose at age 12–15mos or 8wks after 2nd dose, whichever is later.
 - If 1st dose was given at ages 12–14mos, give 2nd (final) dose at least 8wks after dose 1.
 - If 1st dose is given before 1st birthday and 2nd dose is given <15mos of age, a 3rd (and final) dose should be given 8wks after 2nd dose.
 - If 2 doses of PedvaxHIB were given before 1st birthday, the 3rd (and final) dose should be given at age 12–59mos and at least 8wks after the 2nd dose.
 - If 1 dose was given at age ≥15mos, no further doses needed.
 - For unvaccinated children aged 15–59mos, give only 1 dose.
 - Unvaccinated children age ≥60mos who are not considered high risk do not require catch-up vaccination.
 - Vaxelis can be used for catch-up vaccination in children age <5yrs.
- Pneumococcal vaccines. (Minimum age: 6wks for PCV13, 2yrs for PPSV23)**
 - Administer 1 dose of PCV13 to all healthy children aged 24–59mos with any incomplete PCV13 series.
- Inactivated poliovirus vaccine (IPV). (Minimum age: 6wks)**
 - In the first 6mos of life, minimum age and minimum intervals are only recommended if the person is at risk for imminent exposure to circulating poliovirus (eg, travel to a polio-endemic region or during an outbreak).
 - If both trivalent OPV (tOPV) and IPV were given as part of a series, a total of 4 doses should be given to complete the series. Doses should be at least 4wks apart, with the final dose given on or after the 4th birthday and at least 6mos after the previous dose. If only OPV were given, and all doses given before 4yrs of age, 1 dose of IPV should be given at age ≥4yrs, at least 6mos after last OPV dose.
 - Only tOPV counts toward the US vaccination requirements. Doses of OPV given before 4/1/2016 should be counted (unless noted as given during a campaign). Doses of OPV given on or after 4/1/2016 should not be counted.
 - IPV is not routinely recommended for U.S. residents aged ≥18yrs.
- Influenza vaccines. (Minimum age: 6mos for inactivated influenza vaccine [IIV], 2yrs for live attenuated influenza vaccine [LAIV4], 18yrs for recombinant influenza vaccine [RIV4])**
 - Use any age and health status-appropriate influenza vaccine annually.
 - See "VACCINATION SCHEDULE: 0–18 YEARS OF AGE" for further guidance.
- Measles, mumps, and rubella (MMR) vaccine. (Minimum age: 12mos for routine vaccination)**
 - Unvaccinated persons should complete a 2-dose series at least 4wks apart.
 - Maximum age for MMRV vaccine: 12yrs
- Varicella (VAR) vaccine. (Minimum age: 12mos)**
 - Ensure that all persons aged 7–18yrs without evidence of immunity have 2 doses of varicella vaccine. For children aged 7–12yrs, the recommended interval between doses is 3mos (if the 2nd dose was given at least 4wks after the 1st dose, it can be accepted as valid); for persons aged ≥13yrs, the routine interval between doses is 4–8wks.
 - Maximum age for MMRV vaccine: 12yrs
- Hepatitis A vaccine (HepA). (Minimum age: 12mos)**
 - Unvaccinated children through 18yrs should complete 2 doses ≥6mos apart.
 - Children who previously received 1 dose at age ≥12mos should receive 2nd dose ≥6mos after 1st dose.
 - Adolescents aged ≥18yrs may receive a 3- or 4-dose series of the combined HepA and HepB vaccine (Twinrix).
- Meningococcal vaccines. (Minimum age: 2mos for MenACWY-CRM [Menveo], 9mos for MenACWY-D [Menactra], 2yrs for MenACWY-TT [MenQuadfi], 10yrs for serogroup B meningococcal [MenB] vaccines: MenB-4C [Bexsero] and MenB-FHbp [Trumenba])**
 - MenACWY vaccines:
 - If the 1st dose is given at age 13–15yrs, a booster dose should be given at age 16–18yrs ≥8wks between doses.
 - If the 1st dose is given at age 16–18yrs, a booster dose is not needed.
 - If not previously vaccinated at 16yrs, give 1 dose to 1st-year college students living in residential housing or military recruits.
 - MenB vaccines:
 - A 2-dose series may be given based on shared clinical decision-making to persons 16–23yrs (16–18 preferred) who are not at increased risk.
 - MenACWY and MenB vaccines may be given simultaneously but at different anatomic sites, if feasible.
- Tetanus, diphtheria, and acellular pertussis (Tdap) vaccine. (Minimum age: 11yrs for routine vaccination, 7yrs for catch-up)**
 - Persons 13–18yrs who have not received Tdap vaccine should receive 1 dose of Tdap followed by Td or Tdap booster every 10yrs.
 - Persons 7–18yrs not fully immunized with DTaP should receive 1 dose of Tdap as part of the catch-up series (preferably 1st dose). Give Td or Tdap if more doses are needed.
 - Children age 7–9yrs who receive Tdap should receive routine Tdap dose at age 11–12yrs. Children age 10yrs who receive Tdap do not need the routine Tdap dose at age 11–12yrs.
 - Inadvertent doses of DTaP vaccine:
 - If administered inadvertently at age 7–9yrs, DTaP may count as part of the catch-up series. Routine Tdap dose should be given at age 11–12yrs.
 - If administered inadvertently at age 10–18yrs, the dose should be counted as the adolescent Tdap booster.
- Human papillomavirus (HPV) vaccines. (Minimum age: 9yrs for 9vHPV [Gardasil9])**
 - Give HPV vaccine to all adolescents age 11–12yrs (can start at 9yrs) and through age 18yrs if not adequately vaccinated.
 - Give 2 doses at 0, 6–12mos if initiating vaccination at age 9–14yrs. Minimum interval between doses is 5mos; repeat dose if given too soon.
 - Give 3 doses at 0, 1–2, 6mos if initiating vaccination at age ≥15yrs. Minimum intervals are 4wks between 1st and 2nd dose, 12wks between 2nd and 3rd dose, and 5mos between 1st and 3rd dose; repeat dose if given too soon.
 - Series does not need to be restarted if vaccination schedule is interrupted.
 - No additional doses needed if valid vaccination series completed with any HPV vaccine.
- Dengue vaccine (Minimum age: 9yrs for DEN4CYD [Dengvaxia])**
 - Give 3 doses at 0, 6, 12mos in persons age 9–16yrs who live in dengue endemic areas and have laboratory-confirmed previous dengue infection
- Covid-19 vaccines (Minimum age: 5yrs for BNT162b2; 18yrs for mRNA-1273 and Ad.26.COV2.S)**
 - ACIP recommends use of COVID-19 vaccines for everyone ages ≥5yrs.
 - Pfizer-BioNTech vaccine (BNT162b2): give 2 doses, 21 days apart
 - Moderna vaccine (mRNA-1273): give 2 doses, 28 days apart
 - Janssen (J&J) vaccine (Ad.26.COV2.S): give 1 dose only

NOTE: Refer to the ACIP 2022 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger footnotes for vaccinations of persons with high risk conditions or other special situations.

CHANGES IN THE SCHEDULE SINCE LAST RELEASE

- Dengue vaccine has been added to the schedule for persons who live in dengue endemic areas and have laboratory-confirmed previous dengue infection.
- The Hib note has been revised to include recommendations for Vaxelis use.
- The Meningococcal note has been revised to include information on simultaneous administration.

REFERENCES

For information on individual vaccines see product monographs, contact the manufacturer, or call the National Immunization Hotline at (800) 232-4636. Advisory Committee on Immunization Practices (ACIP). Catch-up Immunization Schedule for Children and Adolescents Who Start Late or Who Are More than 1 Month Behind—Recommendations for Ages 18 Years or Younger, United States, 2022. <https://www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html>. Accessed March 23, 2022.

Comirnaty [package insert]. Mainz, Germany and New York, NY: BioNTech and Pfizer, Inc.; 2021.

Janssen COVID-19 Vaccine [package insert]. Horsham, PA: Janssen Biotech, Inc.; 2022.

Spikevax [package insert]. Cambridge, MA: Moderna, Inc.; 2022.