

Child and Adolescent Immunization Schedule

Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger

UNITED STATES
2024

Vaccines and Other Immunizing Agents in the Child and Adolescent Immunization Schedule*

Monoclonal antibody	Abbreviation(s)	Trade name(s)
Respiratory syncytial virus monoclonal antibody (Nirsevimab)	RSV-mAb	Beqfortus™
Vaccine	Abbreviation(s)	Trade name(s)
COVID-19	1VCOV-mRNA	Comirnaty®/Pfizer-BioNTech COVID-19 Vaccine Spikevax®/Moderna COVID-19 Vaccine Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia®
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel® Infanrix®
<i>Haemophilus influenzae</i> type b vaccine	Hib (PRP-T)	ActHIB® Hiberix® PedvaxHIB®
Hepatitis A vaccine	Hib (PRP-OMP) HepA	Havrix® Vaqta®
Hepatitis B vaccine	HepB	Engerix-B® Recombinax HB®
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IV4	Multiple
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM	Menveo®
Meningococcal serogroup B vaccine	MenB-4C	MenQuadfi®
Meningococcal serogroup A, B, C, W, Y vaccine	MenB-FHbp MenACWY-TT/ MenB-FHbp	Bexsero® Trumenba® Penbraya™
Mpox vaccine	Mpox	Jynneos®
Pneumococcal conjugate vaccine	PCV15 PCV20	Vaxneuvance™ Prevnar 20®
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine (inactivated)	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Abrysvo™
Rotavirus vaccine	RV1 RV5	Rotarix® Rotateq®
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Tetanus and diphtheria vaccine	Td	Tenivac® Tdvax™
Varicella vaccine	VAR	Varivax®

Combination vaccines (use combination vaccines instead of separate injections when appropriate)
 DTaP, hepatitis B, and inactivated poliovirus vaccine
 DTaP, inactivated poliovirus, and *Haemophilus influenzae* type b vaccine
 DTaP and inactivated poliovirus vaccine
 DTaP, inactivated poliovirus, *Haemophilus influenzae* type b, and hepatitis B vaccine
 Measles, mumps, rubella, and varicella vaccine
 *Administer recommended vaccines if immunization history is incomplete or unknown. Do not restart or add doses to vaccine series for extended intervals between doses. When a vaccine is not administered at the recommended age, administer at a subsequent visit. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

How to use the child and adolescent immunization schedule

- Determine recommended vaccine by age up vaccination (Table 1)
- Determine recommended interval for catch-up vaccination (Table 2)
- Assess need for additional recommended vaccines by medical condition or other indication (Table 3)
- Review vaccine types, frequencies, intervals, and considerations for special situations (Notes)
- Review contraindications and precautions for vaccine types (Appendix)
- Review new or updated ACIP guidance (Addendum)

Recommended by the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/acip) and approved by the Centers for Disease Control and Prevention (www.cdc.gov), American Academy of Pediatrics (www.aap.org), American Academy of Family Physicians (www.aafp.org), American College of Obstetricians and Gynecologists (www.acog.org), American College of Nurse-Midwives (www.midwife.org), American Academy of Physician Associates (www.aapa.org), and National Association of Pediatric Nurse Practitioners (www.napnap.org).

Report
 • Suspected cases of reportable vaccine-preventable diseases or outbreaks to your state or local health department
 • Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or 800-822-7967

Questions or comments
 Contact www.cdc.gov/cdc-info or 800-CDC-INFO (800-232-4636), in English or Spanish, 8 a.m.–8 p.m. ET, Monday through Friday, excluding holidays

Download the CDC Vaccine Schedules app for providers at www.cdc.gov/vaccines/schedules/hcp/schedule-app.html

- Helpful information**
- Complete Advisory Committee on Immunization Practices (ACIP) recommendations: www.cdc.gov/vaccines/acip/recs/index.html
 - ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip/recs/scdm-faqs.html
 - General Best Practice Guidelines for Immunization (including contraindications and precautions): www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html
 - Vaccine information statements: www.cdc.gov/vaccines/hcp/vis/index.html
 - Manual for the Surveillance of Vaccine-Preventable Diseases (including case identification and outbreak response): www.cdc.gov/vaccines/pubs/surv-manual



Scan QR code for access to online schedule



C5310020-D

For access to Notes, Appendix, and Addendum, visit: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-indications.html#addendum-child>

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

These recommendations must be read with the notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars. To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine and other immunizing agents	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 yrs	17–18 yrs	
Respiratory syncytial virus (RSV-mAb [Nirsevimab])	1 dose (8 through 19 months). See Notes																	
Hepatitis B (HepB)	1 st dose	← 2 nd dose →	← 3 rd dose →															
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)	See Notes																	
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)	1 st dose	1 st dose	2 nd dose	3 rd dose	← 4 th dose →													5 th dose
<i>Haemophilus influenzae</i> type b (Hib)	1 st dose	1 st dose	2 nd dose	3 rd or 4 th dose	← 4 th dose →													
Pneumococcal conjugate (PCV15, PCV20)	1 st dose	1 st dose	2 nd dose	3 rd dose	← 4 th dose →													
Inactivated poliovirus (IPV <18 yrs)	1 st dose	1 st dose	2 nd dose	3 rd dose	← 4 th dose →													
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)	1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)																	
Influenza (IV4)	Annual vaccination 1 or 2 doses																	
Influenza (LAIV4)	Annual vaccination 1 or 2 doses OR Annual vaccination 1 dose only																	
Measles, mumps, rubella (MMR)	See Notes																	
Varicella (VAR)	See Notes																	
Hepatitis A (HepA)	See Notes																	
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)	1 dose																	
Human papillomavirus (HPV)	See Notes																	
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2 years)	See Notes																	
Meningococcal B (MenB-4C, MenB-FHbp)	See Notes																	
Respiratory syncytial virus vaccine (RSV [Abrysvo])	Seasonal administration during pregnancy. See Notes																	
Dengue (DENACYD; 9–16 yrs)	Seropositive in endemic dengue areas (See Notes)																	
Mpox	See Notes																	

Range of recommended ages for all children
 Range of recommended ages for catch-up vaccination
 Range of recommended ages for certain high-risk groups
 Recommended vaccination can begin in this age group
 Recommended vaccination based on shared clinical decision-making
 No recommendation/not applicable

For access to the Notes, Appendix, and Addendum, visit: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-indications.html#addendum-child>

Table 2 Recommended Catch-up Immunization Schedule for Children and Adolescents Who Start Late or Who Are More than 1 Month Behind, United States, 2024

The table 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 Table 1 and the Notes that follow.**

Vaccine	Minimum Age for Dose 1	Children age 4 months through 6 years			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Minimum Interval Between Doses					
Hepatitis B	Birth	4 weeks	8 weeks and at least 16 weeks after first dose minimum age for the final dose is 24 weeks		
Rotavirus	6 weeks Maximum age for first dose is 14 weeks, 6 days. 6 weeks	4 weeks	4 weeks maximum age for final dose is 8 months, 0 days		
Diphtheria, tetanus, and acellular pertussis		4 weeks	4 weeks	6 months	6 months A fifth dose is not necessary if the fourth dose was administered at age 4 years or older and at least 6 months after dose 3
<i>Haemophilus influenzae</i> type b	6 weeks	No further doses needed if first dose was administered at age 15 months or older. 4 weeks if first dose was administered before the 1 st birthday. 8 weeks (as final dose) if first dose was administered at age 12 through 14 months.	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 first dose was administered at younger than age 7 months and at least 1 previous dose was PRP-1 (ActHib [®] , Pentacel [®] , Hibertac [®] , Hibervax [®]), Vaxelis [®] or unknown 8 weeks and age 12 through 59 months (as final dose) if current age is younger than 12 months and first dose was administered before the 1 st birthday; OR if current age is 12 through 59 months and first dose was administered at younger than 15 months; OR if both doses were Pevaxim [®] and were administered before the 1 st birthday	6 months (as final dose) This dose is only necessary for children age 12 through 59 months who received 3 doses before the 1 st birthday.	
Pneumococcal conjugate	6 weeks	No further doses needed for healthy children if first dose was administered at age 24 months or older 4 weeks if first dose was administered before the 1 st birthday 8 weeks (as final dose for healthy children) if previous dose was administered 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 administered before age 12 months	No further doses needed for healthy children if previous dose was administered at age 24 months or older 4 weeks if current age is younger than 12 months and previous dose was administered at <7 months old 8 weeks (as final dose for healthy children) if previous dose was administered 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 administered before age 12 months	8 weeks (as final dose) This dose is only necessary for children age 12 through 59 months regardless of risk, with any risk, who received 3 doses before age 12 months.	
Inactivated poliovirus	6 weeks	4 weeks	4 weeks if current age is <4 years 6 months (as final dose) if current age is 4 years or older	6 months (minimum age 4 years for final dose)	
Measles, mumps, rubella	12 months	4 weeks			
Varicella	12 months	3 months			
Hepatitis A	12 months	6 months			
Meningococcal ACWY	2 months MenACWY/CRM 2 years MenACWY-TT	8 weeks	See Notes	See Notes	See Notes
Children and adolescents age 7 through 18 years					
Meningococcal ACWY	Not applicable (N/A)	8 weeks			
Tetanus, diphtheria, tetanus, diphtheria, and acellular pertussis	7 years	4 weeks	4 weeks if first dose of DTaP/DT was administered before the 1 st birthday 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td was administered at or after the 1 st birthday	6 months if first dose of DTaP/DT was administered before the 1 st birthday	
Human papillomavirus	9 years	Routine dosing intervals are recommended.			
Hepatitis A	N/A	6 months			
Hepatitis B	N/A	4 weeks	8 weeks and at least 16 weeks after first dose		
Inactivated poliovirus	N/A	4 weeks	6 months 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.		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	N/A	4 weeks			
Varicella	N/A	3 months if younger than age 13 years. 4 weeks if age 13 years or older			
Dengue	9 years	6 months			

For access to the Notes, Appendix, and Addendum, visit: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-indications.html#addendum-child>

Table 3 Recommended Child and Adolescent Immunization Schedule by Medical Indication, United States, 2024

Always use this table in conjunction with Table 1 and the Notes that follow. Medical conditions are often not mutually exclusive. If multiple conditions are present, refer to guidance in all relevant columns. See Notes for medical conditions not listed.

Vaccine and other immunizing agents	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count ^a		CSF leak or cochlear implant	Asplenia or persistent complement deficiencies	Heart disease or chronic lung disease	Kidney failure, End-stage renal disease or on Dialysis	Chronic liver disease	Diabetes
			<15% or <200mm	≥15% and ≥200mm						
RSV-mAb (nirsevimab)	Pregnancy	2nd RSV season	1 dose depending on maternal RSV vaccination status, See Notes		1 dose depending on maternal RSV vaccination status, See Notes	2nd RSV season for chronic lung disease (See Notes)	1 dose depending on maternal RSV vaccination status, See Notes			
Hepatitis B										
Rotavirus		SCID ^b								
DTaP/Tdap	DTaP Tdap: 1 dose each pregnancy									
Hib		HSCT: 3 doses	See Notes			See Notes				
Pneumococcal										
IPV										
COVID-19										
IIV4										
LAIV4									Asthma, wheezing: 2–4 years ^c	
MMR	*									
VAR	*									
Hepatitis A										
HPV	*	3 dose series. See Notes								
MenACWY										
MenB										
RSV (Abrysvo)	Seasonal administration, See Notes									
Dengue										
Mpox	See Notes									

a. For additional information regarding HIV laboratory parameters and use of live vaccines, see the General Best Practice Guidelines for Immunization, "Altered Immunocompetence," at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html.

b. Severe Combined Immunodeficiency

c. LAIV4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

Recommended for all age-eligible children who lack documentation of a complete vaccination series

Not recommended for all children, but is recommended for some children based on increased risk for or severe outcomes from disease

Contraindicated or not recommended

*Vaccinate after pregnancy, if indicated

Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction

No Guidance/Not Applicable

For access to the Notes, Appendix, and Addendum, visit: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-indications.html#addendum-child>