

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	Beigfortis™
Vaccine		
COVID-19	1vCOV-mRNA	Trade name(s) Comirnaty®/Pfizer-BioNTech COVID-19 Vaccine Spikevax®/Moderna COVID-19 Vaccine Novavax COVID-19 Vaccine
Dengue vaccine	1vCOV-aPS	
Diphtheria, tetanus, and acellular pertussis vaccine	DEN4CYD DTaP	Dengvaxia® Daptacel® Infanrix®
Haemophilus influenzae type b vaccine	Hib (PRP-T)	ActHIB®
Hepatitis A vaccine	Hib (PRP-OMP) HepA	Hibberix® PedvaxHIB®
Hepatitis B vaccine	HepB	Havrix® Vaqta®
Human papillomavirus vaccine	HPV	Engerix-B® Recombinax HB®
Influenza vaccine (inactivated)	IV4	Gardasil 9®
Influenza vaccine (live, attenuated)	LAIV4	Multiple
Measles, mumps, and rubella vaccine	MMR	FluMist® Quadrivalent M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM	Menveo®
Meningococcal serogroup B vaccine	MenACWY-TT	MenQuadfi®
Meningococcal serogroup A, B, C, W, Y vaccine	MenB-4C MenB-FHbp MenACWY-TT/ MenB-FHbp	Beisero® Trumenba® Penbraya™
Mpox vaccine	Mpox	Jynneos®
Pneumococcal conjugate vaccine	PCV15	Vaxneuvance™
Pneumococcal polysaccharide vaccine	PCV20	Prevnar 20®
Poliovirus vaccine (inactivated)	PPSV23	Pneumovax 23®
Respiratory syncytial virus vaccine	IPV	Ipol®
Rotavirus vaccine	RSV	Abrysvo™
Tetanus, diphtheria, and acellular pertussis vaccine	RV1	Rotarix®
Tetanus and diphtheria vaccine	RV2	Rotateq®
Varicella vaccine	Tdap	Adacel® Boostrix®
Combination vaccines (use combination vaccines instead of separate injections when appropriate)	Td	Tenivac® Tdap™
DTaP, hepatitis B, and inactivated poliovirus vaccine	VAR	Varivax®
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine	DTaP-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and Haemophilus influenzae type b, and hepatitis B vaccine	DTaP-IPV/Hib	Pentacel®
DTaP, inactivated poliovirus, and Haemophilus influenzae type b, and hepatitis B vaccine	DTaP-IPV	Kinrix®
DTaP, inactivated poliovirus, Haemophilus influenzae type b, and hepatitis B vaccine	DTaP-IPV-Hib-HepB	Quadracel® Vaxelis®
Measles, mumps, rubella, and varicella vaccine	MMRV	ProQuad®

*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.

11/16/2023

How to use the child and adolescent immunization schedule

- 1 Determine recommended vaccine by age (Table 1)
- 2 Determine recommended interval for catch-up vaccination (Table 2)
- 3 Assess need for additional recommended vaccines by medical condition or other indication (Table 3)
- 4 Review vaccine types, frequencies, intervals, and considerations for special situations (Notes)
- 5 Review contraindications and precautions for vaccine types (Appendix)
- 6 Review new or updated ACIP guidance for vaccine types (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 Assistants (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/hcp/acip-recs/index.html
- ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip-recs/scdm-fags.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



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U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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 st dose	1 dose depending on maternal RSV vaccination status, See Notes								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)		1 st dose	2 nd dose	See Notes													
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)		1 st dose	2 nd dose	2 nd dose	3 rd dose		4 th dose					5 th dose					
<i>Haemophilus influenzae</i> type b (Hib)		1 st dose	2 nd dose	2 nd dose	See Notes		3 rd or 4 th dose, See Notes										
Pneumococcal conjugate (PCV15, PCV20)		1 st dose	2 nd dose	2 nd dose	3 rd dose		4 th dose										
Inactivated poliovirus (IPV <18 yrs)		1 st dose	2 nd dose	2 nd dose	3 rd dose		3 rd dose					4 th dose					See Notes
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)											1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)						
Influenza (IIV4)											Annual vaccination 1 or 2 doses			Annual vaccination 1 dose only			
Influenza (LAIV4)											Annual vaccination 1 or 2 doses			Annual vaccination 1 dose only			
Measles, mumps, rubella (MMR)					See Notes	See Notes	1 st dose					2 nd dose					
Varicella (VAR)							1 st dose					2 nd dose					
Hepatitis A (HepA)					See Notes						2-dose series, 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)														1 st dose		2 nd dose	
Meningococcal B (MenB-4C, MenB-FHbp)															See Notes		
Respiratory syncytial virus vaccine (RSV [Abrysvo])																	Seasonal administration during pregnancy, See Notes
Dengue (DENV4CYD; 9–16 yrs)																	Seropositive in endemic dengue areas (See Notes)
Mpox																	

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.**

Children age 4 months through 6 years						
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	
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	6 weeks	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	
Haemophilus influenzae 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-T (ActHib [®] , Pentacel [®] , Hibex [®]), 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 and second dose was administered at younger than 15 months; OR if both doses were PedvaxHib [®] and were administered before the 1 st birthday	8 weeks (as final dose) 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 first dose was administered at the 1 st birthday or after	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		
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				
Denque	9 years	6 months				

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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
RSV-mAb (nirsevimab)		2nd RSV season	<15% or <200mm	≥15% and ≥200mm	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			See Notes						
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	Not 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	Recommended for all age-eligible children, and additional doses may be necessary based on medical condition or other indications. See Notes.	Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction	Contraindicated or not recommended ^a Vaccinate after pregnancy, if indicated	No Guidance/Not Applicable		

^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/contraindications.html.

^b Severe Combined Immunodeficiency

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

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