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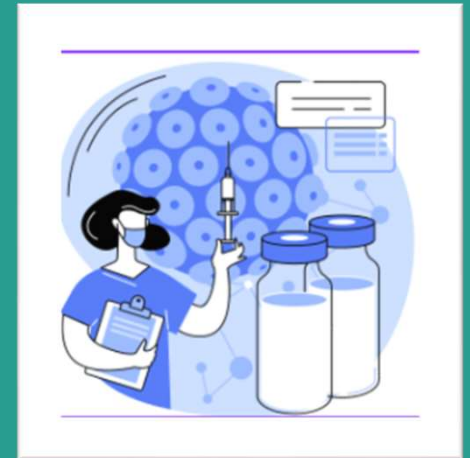
American Academy of Pediatrics

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Immunization Webinar Series: A Review of 2023 Vaccine Updates & What to Expect in 2024

Sharon Hovey, MD, FAAP



CME Accreditation Statement

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HELLO!

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Sharon Hovey, MD, FAAP

Pediatrician at Duly Health and Care

Learning Objectives

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Review updated vaccine recommendations for children and adolescents

Understand changes made to the ACIP 2024 Immunization Schedules

Discuss the importance of childhood vaccines

ACIP Meeting Updates

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- ▶ On October 26, ACIP approved the 2024 vaccine schedule for children and adolescents.
- ▶ Benefits of approving the schedule earlier than normal:
 - ▶ Improve delays to healthcare providers knowledge and practices related to new vaccine recommendations
 - ▶ Speed up insurance reimbursement to providers
 - ▶ Increase ability of certain providers to administer immunizations (some states link pharmacists' immunization authority to the schedule)

Overview of Updates

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- ▶ Added the following vaccines and other immunizing agents:
 - ▶ 20-Valent Pneumococcal Conjugate Vaccine (PCV20)
 - ▶ RSV monoclonal antibody (nirsevimab)
 - ▶ Meningococcal groups A, B, C, W, Y (Penbraya)
 - ▶ Mpox vaccine (Jynneos)
- ▶ Updated:
 - ▶ COVID-19 Vaccines and Influenza Vaccine for 2023-2024 season
- ▶ Addendum:
 - ▶ New section to summarize new and updated ACIP recommendations that will occur after the 2024 child and adolescent immunization schedule is published.

Changes to the Cover Page

<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-10-25-26/02-IZ-Schedules-Wodi-508.pdf>

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	Beyfortus™
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
	1vCOV-aPS	
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®
	Hib (PRP-OMP)	PedvaxHIB®
Hepatitis A vaccine	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®
	MenACWY-TT	MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C	Bexsero®
	MenB-FHbp	Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/ MenB-FHbp	Penbraya™
Mpox vaccine	Mpox	Jynneos®
Pneumococcal conjugate vaccine	PCV15	Vaxneuvance™
	PCV20	Prennar 20®
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine (inactivated)	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Abrysvo™
Rotavirus vaccine	RV1	Rotarix®
	RV5	RotaTaq®
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-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and <i>Haemophilus influenzae</i> type b vaccine	DTaP-IPV/Hib	Pentacel®
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix® Quadacel®
DTaP, inactivated poliovirus, <i>Haemophilus influenzae</i> type b, and hepatitis B vaccine	DTaP-IPV-Hib-HepB	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 (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/hcp/acip-recs/index.html
- ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip/acip-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



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C5310020-D

Changes to Table 2

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	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.	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
<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-T (ActHib®, Pentacel®, Hibertix®), 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 at age 7 through 11 months; OR if current age is 12 through 59 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) This dose 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 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, or age 60 through 71 months 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, 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	6 months		

Changes to Table 3

- ▶ Updated the legend definitions for more clarity
- ▶ Harmonized changes with adult vaccine schedules

<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-10-25-26/02-IZ-Schedules-Wodi-508.pdf>

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)		2nd RSV season	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									

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
*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/general-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

Table 3: New Legend Definitions

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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
*Vaccinate after pregnancy, if indicated



No Guidance/
Not Applicable

COVID-19 Vaccines

- ▶ Removed bivalent vaccine information and added guidance for updated 2023-2024 COVID-19 vaccines

COVID-19 vaccination

(minimum age: 6 months [Moderna and Pfizer-BioNTech COVID-19 vaccines], 12 years [Novavax COVID-19 Vaccine])

Routine vaccination

Age 6 months–4 years

- **Unvaccinated:**

- 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4–8 weeks
- 3-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 3–8, 11–16 weeks

- **Previously vaccinated* with 1 dose of any Moderna:**

1 dose of updated (2023–2024 Formula) Moderna 4–8 weeks after the most recent dose.

- **Previously vaccinated* with 2 or more doses of any Moderna:**

1 dose of updated (2023–2024 Formula) Moderna at least 8 weeks after the most recent dose.

- **Previously vaccinated* with 1 dose of any Pfizer-BioNTech:**

2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 8 weeks (minimum interval between previous Pfizer-BioNTech and dose 1: 3–8 weeks).

- **Previously vaccinated* with 2 or more doses of any Pfizer-BioNTech:**

1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 5–11 years

- **Unvaccinated:** 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech vaccine.

- **Previously vaccinated* with 1 or more doses of Moderna or Pfizer-BioNTech:** 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 12–18 years

- **Unvaccinated:**

- 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech vaccine
- 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3–8 weeks

- **Previously vaccinated* with any COVID-19 vaccine(s):**

1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.

chedule-changes.html

<https://www.cdc.gov/vaccines/schedules/downloads/cmmu/0-18yrs-cmmu-combined-schedule.pdf>

COVID-19 Vaccine Policy

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- ▶ Updated COVID-19 vaccination guidelines from the CDC:
- ▶ **Interchangeability:** The same manufacturer should be used for all doses; however a different age-appropriate COVID-19 vaccine may be administered if:
 - ▶ Same vaccine not available at the vaccination site.
 - ▶ Previous dose is unknown.
 - ▶ Person would otherwise not receive the vaccine dose.
 - ▶ Person starts but unable to complete a vaccine series with the same vaccine due to a contraindication.
 - ◆ A VAERS report is *not* indicated in these circumstances.
- ▶ **Age Transitions:** Updated guidance for children who transition during the initial COVID-19 vaccination series to receive the age-appropriate dosage based on their age *on the day of vaccination*.

<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-10-25-26/03-COVID-Wallace-508.pdf>
<https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html>

Influenza Vaccination

- ▶ Updated to reflect the recommendations for the 2023-24 influenza season.
- ▶ “Special situations”: added note that people with an egg allergy can be vaccinated with any influenza vaccine with no additional safety concerns.

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Influenza vaccination

(minimum age: 6 months [IIV], 2 years [LAIV4], 18 years [recombinant influenza vaccine, RIV4])

Routine vaccination

- Use any influenza vaccine appropriate for age and health status annually:
 - **Age 6 months–8 years** who have received **fewer than 2** influenza vaccine doses before July 1, 2023, or whose influenza vaccination history is unknown: 2 doses, separated by at least 4 weeks. Administer dose 2 even if the child turns 9 years between receipt of dose 1 and dose 2.
 - **Age 6 months–8 years** who have received **at least 2** influenza vaccine doses before July 1, 2023: 1 dose
 - **Age 9 years or older**: 1 dose
- For the 2023–2024 season, see www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm.
- For the 2024–25 season, see the 2024–25 ACIP influenza vaccine recommendations.

Special situations

- **Close contacts (e.g., household contacts) of severely immunosuppressed persons who require a protected environment:** should not receive LAIV4. If LAIV4 is given, they should avoid contact with for such immunosuppressed persons for 7 days after vaccination.

Note: Persons with an egg allergy can receive any influenza vaccine (egg-based and non-egg-based) appropriate for age and health status.

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

Changes to Table 1

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 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	3 rd dose	← 4 th dose →					5 th dose								
Haemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes	← 3 rd or 4 th dose, See Notes →													
Pneumococcal conjugate (PCV15, PCV20)			1 st dose	2 nd dose	3 rd dose	← 4 th dose →													
Inactivated poliovirus (IPV <18 yrs)			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 (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	← 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 ≥2years)		See Notes														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 (DEN4CYD; 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

Meningococcal ACWY Vaccination

- ▶ MenACWY-D (Menactra) has been removed from all sections.
- ▶ Added information on recommendation for the pentavalent meningococcal A, B, C, W, Y vaccine (Penbraya).

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Meningococcal serogroup A,C,W,Y vaccination
(minimum age: 2 months [MenACWY-CRM, Menveo],
2 years [MenACWY-TT, MenQuadfi], 10 years
[MenACWY-TT/MenB-FHbp, Penbraya])

Routine vaccination

- 2-dose series at age 11–12 years; 16 years

Catch-up vaccination

- Age 13–15 years: 1 dose now and booster at age 16–18 years (minimum interval: 8 weeks)
- Age 16–18 years: 1 dose

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

Pneumococcal Vaccination

- ▶ PCV13 has been deleted from all sections.
- ▶ The routine vaccination, catch-up vaccination, and “Special Situations” sections have been updated with the new recommendations for use of 15-valent pneumococcal conjugate vaccine (PCV15), PCV20, and PPSV23.
- ▶ New *Red Book Chapter* Available
 - ▶ Pneumococcal Infections chapter is updated to reflect current guidelines for the use of the new 20-valent pneumococcal conjugate vaccine (PCV20, Prevnar 20, Pfizer) for children

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Pneumococcal vaccination
(minimum age: 6 weeks [PCV15], [PCV 20]; 2 years [PPSV23])

Routine vaccination with PCV

- 4-dose series at 2, 4, 6, 12–15 months

Catch-up vaccination with PCV

- Healthy children ages 2–4 years with any incomplete* PCV series: 1 dose PCV
- For other catch-up guidance, see Table 2.

Note: For children **without** risk conditions, PCV20 is not indicated if they have received 4 doses of PCV13 or PCV15 or another age appropriate complete PCV series.

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

Poliovirus Vaccination

- ▶ “Catch up” vaccination revised to include updated recommendations for adolescents aged 18 years.
- ▶ Added recommendations for adolescents aged 18 years who are at increased risk for exposure to poliovirus and have completed the primary series.

Poliovirus vaccination (minimum age: 6 weeks)

Routine vaccination

- 4-dose series at ages 2, 4, 6–18 months, 4–6 years; administer the final dose on or after age 4 years and at least 6 months after the previous dose.
- 4 or more doses of IPV can be administered before age 4 years when a combination vaccine containing IPV is used. However, a dose is still recommended on or after age 4 years and at least 6 months after the previous dose.

Catch-up vaccination

- In the first 6 months of life, use minimum ages and intervals only for travel to a polio-endemic region or during an outbreak.
- **Adolescents age 18 years known or suspected to be unvaccinated or incompletely vaccinated:** administer remaining doses (1, 2, or 3 IPV doses) to complete a 3-dose primary series.* Unless there are specific reasons to believe they were not vaccinated, most persons aged 18 years or older born and raised in the United States can assume they were vaccinated against polio as children.

Series containing oral poliovirus 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. See www.cdc.gov/mmwr/volumes/66/wr/mm6601a6.htm?s_cid=mm6601a6_w.
- Only trivalent OPV (tOPV) counts toward the U.S. vaccination requirements.
 - Doses of OPV administered before April 1, 2016, should be counted (unless specifically noted as administered during a campaign).
 - Doses of OPV administered on or after April 1, 2016, should not be counted.
 - For guidance to assess doses documented as “OPV,” see www.cdc.gov/mmwr/volumes/66/wr/mm6606a7.htm?s_cid=mm6606a7_w.

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>; • For other catch-up guidance, see Table 2.

ges.html

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

Mpox Vaccine

- ▶ Mpox note was added to provide guidance for use of Jynneos in adolescents age 18 years based on sexual risk factors.

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Mpox vaccination (minimum age: 18 years [Jynneos®])

Special situations

- **Age 18 years and at risk for Mpox infection:** 2-dose series, 28 days apart.

Risk factors for Mpox infection include:

- Persons who are gay, bisexual, and other MSM, transgender or nonbinary people who in the past 6 months have had:
 - A new diagnosis of at least 1 sexually transmitted disease
 - More than 1 sex partner
 - Sex at a commercial sex venue
 - Sex in association with a large public event in a geographic area where Mpox transmission is occurring
- Persons who are sexual partners of the persons described above
- Persons who anticipate experiencing any of the situations described above

- **Pregnancy:** There is currently no ACIP recommendation for Jynneos use in pregnancy due to lack of safety data in pregnant persons. Pregnant persons with any risk factor described above may receive Jynneos.

For detailed information, see: www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-10-25-26/04-MPOX-Rao-508.pdf

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>
<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

RSV Monoclonal Antibody

- ▶ Added schedule for use of nirsevimab (Beyfortus) in infants and young children.
 - ▶ Includes guidance for jurisdictions with RSV seasonality that differs from most of the continental US

Respiratory syncytial virus immunization
(minimum age: birth [Nirsevimab, RSV-mAb (Beyfortus™)])

Routine immunization

- **Infants born October – March in most of the continental United States***
 - Mother did not receive RSV vaccine OR mother's RSV vaccination status is unknown: administer 1 dose nirsevimab within 1 week of birth in hospital or outpatient setting
 - Mother received RSV vaccine **less than 14 days** prior to delivery: administer 1 dose nirsevimab within 1 week of birth in hospital or outpatient setting
 - Mother received RSV vaccine **at least 14 days** prior to delivery: nirsevimab not needed but can be considered in rare circumstances at the discretion of healthcare providers (see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html)
- **Infants born April–September in most of the continental United States***
 - Mother did not receive RSV vaccine OR mother's RSV vaccination status is unknown: administer 1 dose nirsevimab shortly before start of RSV season*
 - Mother received RSV vaccine **less than 14 days** prior to delivery: administer 1 dose nirsevimab shortly before start of RSV season*
 - Mother received RSV vaccine **at least 14 days** prior to delivery: nirsevimab not needed but can be considered in rare circumstances at the discretion of healthcare providers (see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html)

Infants with prolonged birth hospitalization** (e.g., for prematurity) discharged October through March should be immunized shortly before or promptly after discharge.

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

RSV Vaccine

- ▶ Added schedule for use of RSV vaccine (Abrysvo) during pregnancy.
 - ▶ Includes information describing timing of vaccination including guidance of jurisdictions with RSV seasonality that differs from most of continental US.

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Respiratory syncytial virus vaccination (RSV [Abrysvo™])

Routine vaccination

- **Pregnant at 32 weeks 0 days through 36 weeks and 6 days gestation from September through January in most of the continental United States*:** 1 dose RSV vaccine (Abrysvo™). Administer RSV vaccine regardless of previous RSV infection.

- Either maternal RSV vaccination or infant immunization with nirsevimab (RSV monoclonal antibody) is recommended to prevent respiratory syncytial virus lower respiratory tract infection in infants.

- **All other pregnant persons:** RSV vaccine not recommended.

There is currently no ACIP recommendation for RSV vaccination in subsequent pregnancies. No data are available to inform whether additional doses are needed in later pregnancies.

***Note:** Providers in jurisdictions with RSV seasonality that differs from most of the continental United States (e.g., Alaska, jurisdiction with tropical climate) should follow guidance from public health authorities (e.g., CDC, health departments) or regional medical centers on timing of administration based on local RSV seasonality.

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

Importance of Vaccinating

Declining Childhood Vaccinations

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- ▶ Routine Kindergarten vaccinations hit a new low of 93% in 2022 (below the 95% threshold)
- ▶ Non-medical exemptions are biggest drivers – religious and philosophical exemptions rose rapidly
- ▶ Exemptions over 5% increases risk of vaccine-preventable disease outbreaks
 - ▶ Current outbreak of measles in Cook County among unvaccinated children
- ▶ Misinformation continues to impact vaccination with a loss of trust in public health and disruption of care.

% of kindergarteners with a vaccine exemption

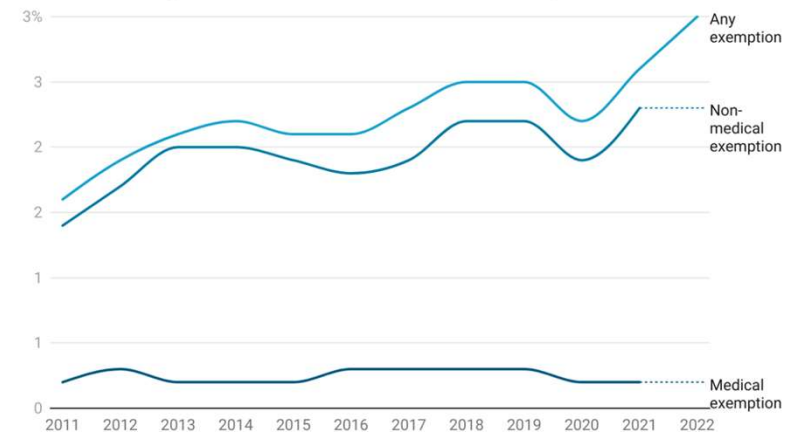


Chart: YLE/Katelyn Jetelina • Source: CDC • Created with Datawrapper

<https://yourlocalepidemiologist.substack.com/p/drop-in-routine-vaccinations>

Current Respiratory Landscape

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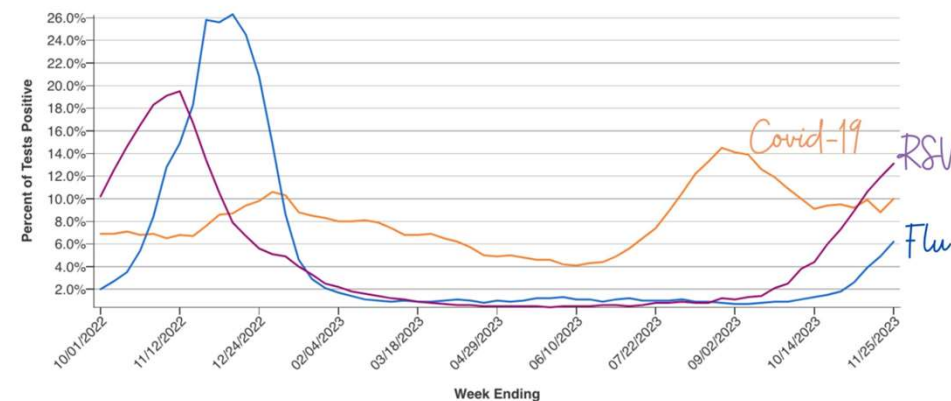
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- ▶ Influenza-Like Illnesses Increasing
 - ▶ Influenza-like illnesses in the US is surpassing the "epidemic" level threshold, expected to increase even more.
- ▶ Respiratory Illness Activity
 - ▶ Surge is driven by both flu and RSV
 - ▶ COVID-19 remains a significant contributor to positive test results.
- ▶ Mortality Trends
 - ▶ Flu deaths are rising – *8 pediatric deaths this season*
 - ▶ COVID-19 continues to cause the highest percentage of deaths, although lower than last year.

Percent of Tests Positive for Respiratory Viruses

Weekly percent of tests positive for the viruses that cause COVID-19, influenza, and RSV at the national level.



If you have not already, it is not too late to get vaccinated against respiratory viruses this season!

<https://yourlocalepidemiologist.substack.com/p/state-of-affairs-dec-5>

Getting Back on Track

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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.**

- ▶ ACIP Catch-Up schedule (Table 2)
- ▶ Catch-Up Job Aids from CDC

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THANK YOU!

Any questions?

Upcoming Webinars

- ▶ 2024 Immunization Webinar Series

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