Centers for Disease Control and Prevention National Center for Immunization and Respiratory Diseases



2024 Updates to ACIP Recommended Immunization Schedules

MCAAP Immunization Initiative Webinar Series 01 February 2024

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National Center for Immunization and Respiratory Diseases Centers for Disease Control and Prevention

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- Use of vaccines in a manner not approved by the U.S. Food and Drug Administration (FDA) will be discussed
 - But in accordance with Advisory Committee on Immunization Practices (ACIP) recommendations
- The findings and conclusions in this presentation are those of the presenters and do not necessarily represent the official position of the Centers for Disease Control and Prevention

Learning Objectives

- Describe the 2024 updates to the Childhood and Adolescent Immunization Schedule
- Describe the 2024 updates to the Adult Immunization Schedule
- Locate relevant immunization schedule resources

Outline

- Overview of immunization schedule
- 2024 update to the child & adolescent immunization schedule
- 2024 update to the adult immunization schedule
- Vaccination resources for healthcare providers

Immunization schedule: Overview

Immunization Schedules: Overview

- Two separate schedules
 - Child and adolescent schedule (age birth through 18 years)
 - Adult schedule (age 19 years or older)
- Updated each year
 - Represents current, approved ACIP policy
 - Designed for implementation of **ACIP** policy

Monoclonal antibody	unizing Agents in the Child and Adolescen	tion(s) Trade nam	How to use the chil	d and adolescent immunization	
Respiratory syncytial virus mo		donisi Trase nam	now to use the em		
Vaccine COVID-19	Recommend for ages 19 years o		ult Immunizatio	on Schedule	
	Vaccines in the Adult Immunization	Schedule*			
Dengue vaccine Diphtheria, tetanus, and acellu	Vaccine	Abbreviation(s)	Trade name(s)	How to use the adult immunization schee	
		1vCOV-mRNA	Comirnaty®/Pfizer-BioNTech COVID-19 Vaccine	1 Determine 2 Assess need 3 Review vaccine 4 Review 5 Re	
Haemophilus influenzae type b	COVID-19 vaccine		Spikevax*/Moderna COVID-19 Vaccine	 recommended for additional types, dosing contraindications or vaccinations recommended frequencies and and precautions At 	
Hepatitis A vaccine		1vCOV-aPS	Novavax COVID-19 Vaccine ActHIB*	by age vaccinations by intervals, and for vaccine types (A	
	Haemophilus influenzae type b vaccine	Hib	Hiberix®	(Table 1) medical considerations for (Appendix) condition or special situations	
Hepatitis B vaccine			PedvaxHIB*	other indication (Notes)	
Human papillomavirus vaccine Influenza vaccine (inactivated	Hepatitis A vaccine	HepA	Havrix® Vagta®	(Table 2)	
Influenza vaccine (live, attenua	Hepatitis A and hepatitis B vaccine	HepA-HepB	Twinrix*		
Measles, mumps, and rubella			Engerix-B*	Recommended by the Advisory Committee on Immunization Practices (www.cdc.go	
Meningococcal serogroups A,	Hepatitis B vaccine	НерВ	Heplisav-B* PreHevbrio*	acip) and approved by the Centers for Disease Control and Prevention (www.cdc.go College of Physicians (www.acponline.org), American Academy of Family Physicians	
Meningococcal serogroup B v			Recombivax HB*	org), American College of Obstetricians and Gynecologists (www.acog.org), America	
Meningococcal serogroup A, E	Human papillomavirus vaccine	HPV	Gardasil 9*	of Nurse-Midwives (www.midwife.org), American Academy of Physician Associates (org), American Pharmacists Association (www.pharmacist.com), and Society for Hea	
Mpox vaccine	Influenza vaccine (inactivated)	IIV4	Many brands	Epidemiology of America (www.shea-online.org).	
Pneumococcal conjugate vaco	Influenza vaccine (live, attenuated)	LAIV4	FluMist [®] Quadrivalent		
Pneumococcal polysaccharide	Influenza vaccine (recombinant)	RIV4	Flublok [®] Quadrivalent	 Suspected cases of reportable vaccine-preventable diseases or outbreaks to 	
Poliovirus vaccine (inactivated	Measles, mumps, and rubella vaccine	MMR	M-M-R II* Priorix*	the local or state health department	
Respiratory syncytial virus vac Rotavirus vaccine		MenACWY-CRM	Menveo*	 Clinically significant adverse events to the Vaccine Adverse Event Reporting System www.vaers.hhs.gov or 800-822-7967 	
Tetanus, diphtheria, and acellu	Meningococcal serogroups A, C, W, Y vaccine	MenACWY-TT	MenQuadfi*	Questions or comments	
Tetanus and diphtheria vaccin	Meningococcal serogroup B vaccine	MenB-4C	Bexsero®	Contact www.cdc.gov/cdc-info or 800-CDC-INFO (800-232-4636), in English or Spanis	
	mennigseseen serogroup o rucente	MenB-FHbp	Trumenba*	8 a.m8 p.m. ET, Monday through Friday, excluding holidays.	
Varicella vaccine Combination vaccines (use co	Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/ MenB-FHbp	Penbraya™	Download the CDC Vaccine Schedules app for providers at	
DTaP, hepatitis B, and inactivat DTaP, inactivated poliovirus, ar	Mpox vaccine	Mpox	Jynneos®	www.cdc.gov/vaccines/schedules/hcp/schedule-app.html.	
DTaP and inactivated poliovirus, an	Pneumococcal conjugate vaccine	PCV15	Vaxneuvance™	Helpful information	
DTaP, inactivated poliovirus, H		PCV20	Prevnar 20™	 Complete Advisory Committee on Immunization Practices (ACIP) recommendations www.cdc.gov/vaccines/hcp/acip-recs/index.html 	
hepatitis 8 vaccine	Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®	 ACIP Shared Clinical Decision-Making Recommendations: 	
Measles, mumps, rubella, and Administer recommended vaccin	Poliovirus vaccine	IPV	Ipol*	www.cdc.gov/vaccines/acip/acip-scdm-faqs.html	
extended intervals between dose The use of trade names is for iden	Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™	 General Best Practice Guidelines for Immunization www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html 	
1/16/2023	Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™	Vaccine information statements: www.cdc.gov/vaccines/hcp/vis/index.html Manual for the Surveillance of Vaccine-Preventable Diseases	
	Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®	(including case identification and outbreak response): Sc www.cdc.gov/vaccines/pubs/surv-manual fr on	
	Varicella vaccine	VAR	Varivax®	S attolica _{nte}	
	Zoster vaccine, recombinant	RZV	Shingrix	U.S. Department of Health and Human Services	
	*Administer recommended vaccines if vaccination series if there are extended intervals between dos imply endorsement by the ACIP or CDC.		r unknown. Do not restart or add doses to vaccine mes is for identification purposes only and does not	U.S. Department of Health and Human Services Centers for Disease Control and Prevention	

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www.cdc.gov/vaccines/schedules/index.html

UNITED STATES

UNITED STATES

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ntion (www.cdc.gov), America my of Family Physicians acog.org), American Colleg Physician Associates (www n), and Society for Healthcare

Adult Immunization Schedule by Age

Recommendations for Ages 19 Years or Older, United States, 2024

<u>Print</u>

Using the schedule

To make vaccination recommendations, healthcare providers should:

1. Determine recommended vaccinations by age (Table 1)

2. Assess need for additional recommended vaccinations by medical condition or other indication (Table 2)

3. Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)

4. Review contraindications and precautions for vaccine types (Appendix)

5. Review new or updated ACIP guidance (Addendum)

The Immunization Schedule

Vaccines in the schedule	Vaccination notes
Table 1. By age	Appendix
Table 2. By indications	Addendum
Download the Schedule	More Schedule Resources
Printable schedule, color 📕	Compliant version of the schedule
Printable schedule, black & white 📕	Schedule changes and guidance
Download the mobile schedule app	Syndicate the schedules on your website

Vaccines You May Need

Recommended vaccines for adults

Get personalized recommendations

🔀 Get email updates

https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

Adult Immunization Schedule by Age

Recommendations for Ages 19 Years or Older, United States, 2024

<u>Print</u>

Using the schedule

To make vaccination recommendations, healthcare providers should:

1. Determine recommended vaccinations by age (Table 1)

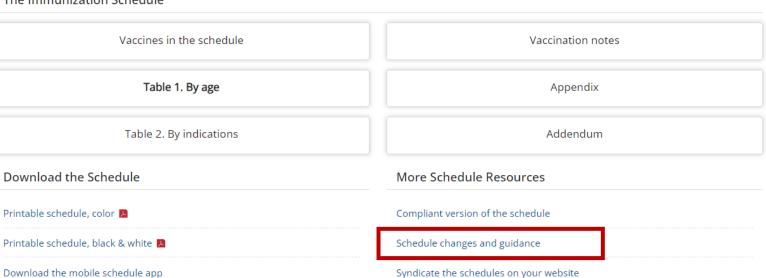
2. Assess need for additional recommended vaccinations by medical condition or other indication (Table 2)

3. Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)

4. Review contraindications and precautions for vaccine types (Appendix)

5. Review new or updated ACIP guidance (Addendum)

The Immunization Schedule



Vaccines You May Need

Recommended vaccines for adults

Get personalized recommendations

🔀 Get email updates

https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

Adult Immunization Schedule Changes for 2024

General schedule	\checkmark
COVID-19 vaccination	\checkmark
Hepatitis A vaccination	\checkmark
Hepatitis B vaccination	\checkmark
HPV vaccination	\checkmark
Influenza vaccination	\checkmark
Meningococcal vaccination	\checkmark
Mpox vaccination	\sim
Pneumococcal vaccination	\checkmark
Poliovirus vaccination	\checkmark
Respiratory syncytial virus vaccination	\vee
Tdap vaccination	\checkmark

Child and Adolescent Immunization Schedule Changes for 2024

General schedule	~
COVID-19 vaccination	\sim
DTaP vaccination	\sim
HPV vaccination	\sim
Influenza vaccination	\sim
MMR vaccination	\sim
Meningococcal ACWY vaccination	\sim
MenB vaccination	\sim
Mpox vaccination	\sim
Pneumococcal vaccination	\sim
Poliovirus vaccination	\sim
Respiratory syncytial virus immunization	\sim
Respiratory syncytial virus vaccination	\sim
Tdap vaccination	\sim
Appendix	~

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

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Advisory Committee on Immunization Practices Recommended Immunization Schedule for Adults Aged 19 Years or Older — United States, 2024 Centers for Disease Control and Prevention

Weekly / January 11, 2024 / 73(1);11-15

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Neil Murthy, MD¹; A. Patricia Wodi, MD¹; Veronica V. McNally, JD²; Matthew F. Daley, MD³; Sybil Cineas, MD⁴ (VIEW AUTHOR AFFILIATIONS)

View suggested citation

At its October 2023 meeting, the Advisory Committee on Immunization Practices* (ACIP) approved the Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024. The adult immunization schedule, which can be found on the CDC immunization schedule website (https://www.cdc.gov/vaccines/schedules), is published annually to consolidate and summarize updates to ACIP recommendations on the vaccination of adults and to assist health care providers in implementing current ACIP recommendations. The 2024 immunization schedule includes several changes to the cover page, tables, notes, and appendix from the 2023 immunization schedule.⁺ In addition, the 2024 adult immunization schedule includes a new addendum section that summarizes new or updated ACIP recommendations that will occur before the next annual update to the adult immunization schedule. Health care providers are advised to use the cover page, tables, notes, appendix, and addendum together to determine recommended vaccinations for patient populations.

This adult immunization schedule is recommended by ACIP (https://www.cdc.gov/vaccines/acip) and approved by CDC (https://www.cdc.gov), the American College of Physicians (https://www.acponline.org 2), the American Academy of Family Physicians (https://www.aafp.org 2), the American College of Obstetricians and Gynecologists (https://www.acog.org 2), the American College of Nurse-Midwives (https://www.midwife.org 12), the American Academy of Physician Associates (https://www.aapa.org 🖸), the American Pharmacists Association (https://www.pharmacist.com 🖸), and the Society for Healthcare Epidemiology of America (https://shea-online.org 🖸).

ACIP's recommendations on the use of each vaccine are developed after in-depth reviews of vaccine-related data, including disease epidemiology and societal impacts, vaccine efficacy and effectiveness, vaccine safety, quality of evidence, feasibility of program implementation, impact on health equity, and economic analyses of immunization policy (1,2). Health care providers should be aware that changes in recommendations for specific vaccines occur between these annual updates to the adult immunization schedule.⁵ Such changes will be summarized in the new addendum section; however, health care providers are encouraged to refer to ACIP recommendations for detailed guidance on the use of each vaccine

(https://www.cdc.gov/vaccines/hcp/acip-recs). An online version of the 2024 adult immunization schedule and instructions for downloading the schedule app to use on mobile devices are available on the immunization schedule website

(https://www.cdc.gov/vaccines/schedules). The use of vaccine trade names in this report and in the adult immunization schedule is for identifica does not imply endorsement by ACIP or CDC.

DC 24/7: Saving Lives, Protecting People* Search Morbidity and Mortality Weekly Report (MMWR) Advisory Committee on Immunization Practices Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or



Weekly / January 11, 2024 / 73(1);6-10

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A. Patricia Wodi, MD¹; Neil Murthy, MD¹; Veronica V. McNally, JD²; Matthew F. Daley, MD³; Sybil Cineas, MD⁴ (VIEW AUTHOR AFFILIATIONS) View suggested citation

At its October 2023 meeting, the Advisory Committee on Immunization Practices* (ACIP) approved the Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024. The child and adolescent immunization schedule, which can be found on the CDC immunization schedule website (https://www.cdc.gov/vaccines/schedules), is published annually to consolidate and summarize updates to ACIP recommendations on the vaccination of children and adolescents and to assist health care providers in implementing current ACIP recommendations. The 2024 immunization schedule includes several changes to the cover page, tables, notes, and appendix from the 2023 immunization schedule.¹ In addition, the 2024 child and adolescent immunization schedule includes a new addendum section to summarize new or updated ACIP recommendations that will occur before the next annual update to the child and adolescent immunization schedule. Health care providers are advised to use the cover page, tables, notes, appendix, and addendum together to identify the recommended immunizations for patient populations.

The 2024 child and adolescent immunization schedule is recommended by ACIP (https://www.cdc.gov/vaccines/acip) and approved by CDC (https://www.cdc.gov), the American Academy of Pediatrics (https://www.aap.org 🗹), the American Academy of Family Physicians (https://www.aafp.org/home.html [2]), the American College of Obstetricians and Gynecologists (https://www.acog.org/ 2), the American College of Nurse-Midwives (https://www.midwife.org 2), the American Academy of Physician Associates (https://www.aapa.org 🗹), and the National Association of Pediatric Nurse Practitioners (https://www.napnap.org ☑).

ACIP's recommendations for the use of each vaccine and other immunizing agents are developed after in-depth reviews of product-related data, including the epidemiology and societal impacts of the vaccine-preventable disease, efficacy and effectiveness of the vaccine or other immunizing agent, safety of the vaccine or other immunizing agent, quality of evidence, feasibility of program implementation, impact on health equity, and economic analyses of immunization policy (1,2). Health care providers should be aware that changes in recommendations for specific vaccines and related agents occur between these annual updates to the child and adolescent immunization schedule.⁵ Such changes will be summarized in the new addendum section: however, health care providers are encouraged to refer to ACIP vaccine recommendations for detailed guidance on the use of each product (https://www.cdc.gov/vaccines/hcp/acip-recs). An online version of the 2024 child and adolescent immunization schedule and instructions for downloading the schedule app are available on the immunization schedule website (https://www.cdc.gov/vaccines/schedules). The use of trade names in the child and adolescent immunization schedule and in this report is for identification purposes only and does not imply endorsement by ACIP or CDC.



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Immunization Schedules

CDC > Schedules Home > For Healthcare Providers

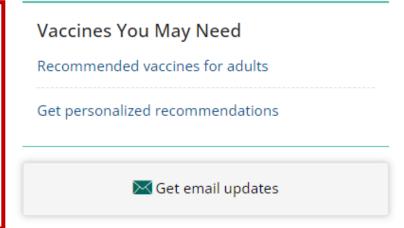
Adult Immunization Schedule by Age

Recommendations for Ages 19 Years or Older, United States, 2024

<u>Print</u>

Using the schedule

- To make vaccination recommendations, healthcare providers should:
- 1. Determine recommended vaccinations by age (Table 1)
- 2. Assess need for additional recommended vaccinations by medical condition or other indication (Table 2)
- 3. Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)
- 4. Review contraindications and precautions for vaccine types (Appendix)
- 5. Review new or updated ACIP guidance (Addendum)



https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

Recommended Adult Immunization Schedule for ages 19 years or older

UNITED STATES

Vaccine	Abbreviation(s)	Trade name(s)		How to	use the adult immunization schedule
	1vCOV-mRNA	Comirnaty®/Pfizer-BioNTech COVID		1 Determine	2 Assess need 3 Review vaccine 4 Review 5 Review new
COVID-19 vaccine	1vCOV-aPS	Spikevax®/Moderna COVID-19 Vace Novavax COVID-19 Vaccine	cine	 recommender vaccinations 	
	TVCOVAFS	ActHIB*		by age	vaccinations by intervals, and for vaccine types (Addendum)
Haemophilus influenzae type b vaccine	Hib	Hiberix® PedvaxHIB®		(Table 1)	medical considerations for (Appendix) condition or special situations other indication (Notes)
Hepatitis A vaccine	НерА	Havrix® Vaqta®			(Table 2)
Hepatitis A and hepatitis B vaccine	HepA-HepB	Twinrix®			
		Engerix-B [®]			by the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/ ved by the Centers for Disease Control and Prevention (www.cdc.gov). American
Hepatitis B vaccine	Pocomr	nondod Child a	nd Ada		mmunization Schedule
Human papillomavirus vaccine				lescenti	2024
Influenza vaccine (inactivated)	for ages 1	8 years or younge	r		2024
Influenza vaccine (live, attenuated)	Vaccines and Other	Immunizing Agents in the Child and	Adolescent Immu	nization Schedule*	and a sub-
	Monoclonal antibody	monoclonal antibody (Nirsevimab)	Abbreviation(s)	Trade name(s) Beyfortus ^{ter}	How to use the child and adolescent immunization
Influenza vaccine (recombinant)	Vaccine	monocional anubody (Nilsevimab)	Abbreviation(s)	Trade name(s)	schedule
Measles, mumps, and rubella vaccine	COVID-19		1vCOV-mRNA	Comirnaty®/Pfizer- BioNTech COVID-19 Vaccine	1 2 3 4 5 6 Determine Determine Assess need Review
Meningococcal serogroups A, C, W, Y vaccine			1vCOV-aPS	Spikevax*/Moderna COVID-19 Vaccine Novavax COVID-19 Vaccine	recommended recommended for additional vaccine types, contraindications updated ACIP vaccine types interval for catch-recommended frequencies, (Table 1) up vaccination vaccines (Table 2) by medical considerations (Appendix)
Meningococcal serogroup B vaccine	Dengue vaccine Diphtheria, tetanus, and a	cellular pertussis vaccine	DEN4CYD DTaP	Dengvaxia* Daptacel* Infanrix*	(1804 2) oprifeitial Considerations (Appendix) condition of for special other indication situations (Table 3) (Notes)
Meningococcal serogroup A, B, C, W, Y vaccine	Haemophilus influenzae ty	pe b vaccine	HIb (PRP-T)	ActHIB* Hiberix*	
			Hib (PRP-OMP)	PedvaxHIB*	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
Mpox vaccine	Hepatitis A vaccine		HepA	Havrix® Vaqta®	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
Pneumococcal conjugate vaccine	Hepatitis B vaccine		НерВ	Engerix-B* Recombivax HB*	(www.midwife.org), American Academy of Physician Associates (www.aapa.org), and National
De sum a se se la shura sebari da va sela s	Human papillomavirus va Influenza vaccine (inactiva		HPV IIV4	Gardasil 9* Multiple	Association of Pediatric Nurse Practitioners (www.napnap.org).
Pneumococcal polysaccharide vaccine	Influenza vaccine (live, atte	enuated)	LAIV4	FluMist [®] Quadrivalent	
Poliovirus vaccine	Measles, mumps, and rube	ella vaccine	MMR	M-M-R II* Priorix*	 Suspected cases of reportable vaccine-preventable diseases or outbreaks to your state or local health department
Respiratory syncytial virus vaccine	Meningococcal serogroup	s A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo* MenQuadfi*	 Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or 800-822-7967
	Meningococcal serogroup	B vaccine	MenB-4C	Bexsero®	
Tetanus and diphtheria toxoids	Meningococcal serogroup	A. B. C. W. Y vaccine	MenB-FHbp MenACWY-TT/	Trumenba* Penbraya [™]	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,
	276.0		MenB-FHbp		Monday through Friday, excluding holidays
Tetanus and diphtheria toxoids and acellular	Mpox vaccine Pneumococcal conjugate	vaccine	Mpox PCV15	Jynneos® Vaxneuvance™	Download the CDC Vaccine Schedules app for providers at
pertussis vaccine	Pneumococcal polysaccha	ulda upecina	PCV20 PPSV23	Prevnar 20* Pneumovax 23*	www.cdc.gov/vaccines/schedules/hcp/schedule-app.html
Varicella vaccine	Poliovirus vaccine (inactiva	ated)	IPV	Ipol*	Halafad information
Zoster vaccine, recombinant	Respiratory syncytial virus Rotavirus vaccine	vaccine	RSV RV1	Abrysvo [™] Rotarix [®]	 Helpful information Complete Advisory Committee on Immunization Practices (ACIP) recommendations:
Administer recommended vaccines if vaccination h			RV5	RotaTeq*	www.cdc.gov/vaccines/hcp/acip-recs/index.html
series if there are extended intervals between dose	Tetanus, diphtheria, and a	cellular pertussis vaccine	Tdap	Adacel® Boostrix®	 ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip/acip-scdm-faqs.html
imply endorsement by the ACIP or CDC.	Tetanus and diphtheria va	ccine	Td	Tenivac [®]	 General Best Practice Guidelines for Immunization (including contraindications and precautions):
1/16/2023	Varicella vaccine		VAR	Tdvax™ Varivax®	www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html * Vaccine information statements:
		se combination vaccines instead of separate inject	ions when appropriate)	Dediashd	www.cdc.gov/vaccines/hcp/vis/index.html
	DTaP, hepatitis B, and inact DTaP, inactivated polioviru	tivated poliovirus vaccine is, and Haemophilus influenzae type b vaccine	DTaP-Hep8-IPV DTaP-IPV/Hib	Pediarix* Pentacel*	Manual for the Surveillance of Vaccine-Preventable Diseases Scan QR code (including case identification and outbreak response): Scan QR code for access to
	DTaP and inactivated polic	wirus vaccine	DTaP-IPV	Kinrix* Quadracel*	www.cdc.gov/vaccines/pubs/surv-manual online schedu
	DTaP, inactivated polioviru	s, Haemophilus influenzae type b, and	DTaP-IPV-Hib-	Quadracel Vaxelis	
	hepatitis B vaccine		НерВ		U.S. Department of
	extended intervals between o	and varicella vaccine ccines if immunization history is incomplete or unkno foses. When a vaccine is not administered at the record dentification purposes only and does not imply endo	mmended age, administe	r at a subsequent visit.	Health and Human Services Centrers for Disease Control and Prevention
	The use of trade names is for i 11/16/2023	occurrention purposes only and does not imply endo	ascinent by the ACIP or C	LA.	

11/16/2023

Use the cover page, tables, notes, appendix, and addendum together to determine recommended vaccinations for patient populations.



2024 Updates to Child/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
	1vCOV-aPS	Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia*
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel* Infanrix*
Haemophilus influenzae type b vaccine	Hib (PRP-T) Hib (PRP-OMP)	ActHIB* Hiberix* PedvaxHIB*
Hepatitis A vaccine	HepA	Havrix* Vagta*
Hepatitis B vaccine	HepB	Engerix-B* Recombivax HB*
Human papillomavirus vaccine	HPV	Gardasil 9*
Influenza vaccine (inactivated)	IIV4	Multiple
Influenza vaccine (live, attenuated)	LAIV4	FluMist [®] Ouadrivalen
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	Мрох	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	Rotarix®
	RV5	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 in	ijections when appropriate)	Martin Contractor
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	Pediarix*
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccin		Pentacel*
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix* Quadracel*
DTaP, inactivated poliovirus, Haemophilus influenzae 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

1	2	3	4	5	6
Determine recommended vaccine by age (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 contraindication and precautions for vaccine type (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

Ouestions or comments

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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-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



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



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C\$310020-D

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 1vCOV-aPS Novavax COVID-19 Vaccine Dengue vaccine DEN4CYD Dengvaxia* Diphtheria, tetanus, and acellular pertussis vaccine DTaP Daptacel* Infanrix* Haemophilus influenzae type b vaccine Hib (PRP-T) ActHIB* Hiberix* Hib (PRP-OMP) PedvaxHIB* Hepatitis A vaccine HepA Havrix* Vaqta* Hepatitis B vaccine HepB Engerix-B* Recombivax HB* Human papillomavirus vaccine HPV Gardasil 9* IIV4 Multiple Influenza vaccine (inactivated) Influenza vaccine (live, attenuated) LAIV4 FluMist[®] Quadrivalent Measles, mumps, and rubella vaccine MMR M-M-RII® Priorix* Meningococcal serogroups A, C, W, Y vaccine MenACWY-CRM Menveo* MenACWY-TT MenOuadfi* Meningococcal serogroup B vaccine MenB-4C Bexsero* MenB-FHbp Trumenba* Meningococcal serogroup A, B, C, W, Y vaccine MenACWY-TT/ Penbraya[™] MenB-FHbp Mpox Jynneos* Mpox vaccine PCV15 Pneumococcal conjugate vaccine Vaxneuvance™ PCV20 Prevnar 20* CDC Pneumococcal polysaccharide vaccine PPSV23 Pneumovax 23® Poliovirus vaccine (inactivated) IPV Ipol* Respiratory syncytial virus vaccine RSV Abrysvo[™] Rotavirus vaccine RV1 Rotarix* RV5 RotaTeg* 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 inject ns when appropriate DTaP, hepatitis B, and inactivated poliovirus vaccine DTaP-HepB-IPV Pediarix* DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine DTaP-IPV/Hib Pentacel* DTaP and inactivated poliovirus vaccine DTaP-IPV Kinrix® Ouadracel* DTaP-IPV-Hib-Vaxelis" DTaP, inactivated poliovirus, Haemophilus influenzae type b, and hepatitis B vaccine HepB

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

1	2	3	4	5	6
Determine ecommended accine by age 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 o updated ACIP guidance (Addendum)

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Report

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* Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or 800-822-7967

Questions or comments

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Helpful information

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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



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



UNITED STATES



C\$310020-D



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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		Trade name(s)
COVID-19	1vCOV-mRNA	Comirnaty®/Pfizer- BioNTech COVID-19 Vaccine Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia*
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel* Infanrix*
Haemophilus influenzae type b vaccine	Hib (PRP-T)	ActHIB* Hiberix*
	Hib (PRP-OMP)	PedvaxHIB*
Hepatitis A vaccine	HepA	Havrix* Vaqta*
Hepatitis B vaccine	НерВ	Engerix-B* Recombivax HB*
Human papillomavirus vaccine	HPV	Gardasil 9*
Influenza vaccine (inactivated)	IIV4	Multiple
Influenza vaccine (live, attenuated)	LAIV4	FluMist [®] Ouadrivalen
Measles, mumps, and rubella vaccine	MMR	M-M-R II* Priorix*
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM	Menveo*
	MenACWY-TT	MenOuadfi*
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 PCV20	Vaxneuvance™ Prevnar 20*
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine (inactivated)	IPV	Ipol*
Respiratory syncytial virus vaccine	RSV	Abrysvo**
Rotavirus vaccine	RV1	Rotarix®
	RV5	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 inj	ections when appropriate)	El company a series a
DTaP, hepatitis B, and inactivated pollovirus vaccine	DTaP-HepB-IPV	Pediarix*
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine	DTaP-IPV/Hib	Pentacel [®]
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix* Quadracel*
DTaP, inactivated poliovirus, Haemophilus influenzae 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.

8	1	2	3	4	5	6
	Determine recommended vaccine by age (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)	Ret up gu (Ac

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How to use the child and adolescent immunization

Report

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Questions or comments

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 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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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
	1vCOV-aP5	Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia*
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel* Infanrix*
Haemophilus influenzae type b vaccine	Hib (PRP-T)	ActHIB* Hiberix*
	Hib (PRP-OMP)	PedvaxHIB*
Hepatitis A vaccine	НерА	Havrix* Vəqta*
Hepatitis B vaccine	НерВ	Engerix-B* Recombivax HB*
Human papillomavirus vaccine	HPV	Gardasil 9*
Influenza vaccine (inactivated)	IIV4	Multiple
Influenza vaccine (live, attenuated)	LAIV4	FluMist [®] Quadrivalen
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	Мрох	Jynneos*
Prieumococcal conjugate vaccine	PEVIS	vaxileuvarice
	PCV20	Prevnar 20*
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Respiratory syncytial virus vaccine	RSV	Abrysvo [™]
Rotavirus vaccine	RVI	Notarix.
	RV5	RotaTeg*
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 inj	ections when appropriate)	Al and a second s
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine	DTaP-IPV/Hib	Pentacel [®]
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix®
		Quadracel*
DTaP, inactivated poliovirus, Haemophilus influenzae type b, and hepatitis B vaccine	DTaP-IPV-Hib- HepB	Vaxelis*
Measles, mumps, rubella, and varicella vaccine	MMRV	ProQuad*
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*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 schedul		hild and a	adolesce	nt immun	ization
1	2	3	4	5	6
Determine recommended vaccine by age (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 o updated ACIP guidance (Addendum)

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Report

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- Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or 800-822-7967

Questions or comments

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Helpful information

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- 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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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 ³⁴
Vaccine	Abbreviation(s)	Trade name(s)
COVID-19	1vCOV-mRNA	Comirnaty®/Pfizer- BioNTech COVID-19 Vaccine Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia*
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel* Infanrix*
Haemophilus Influenzae type b vaccine	Hib (PRP-T)	ActHIB* Hiberix*
· · · · · · · · · · · · · · · · · · ·	Hib (PRP-OMP)	PedvaxHIB*
Hepatitis A vaccine	НерА	Havrix* Vaqta*
Hepatitis B vaccine	НерВ	Engerix-B* Recombivax HB*
Human papillomavirus vaccine	HPV	Gardasil 9*
Influenza vaccine (inactivated)	IIV4	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	lynneos ^e
Pneumococcal conjugate vaccine	PCV15	Vaxneuvance™
	PCV20	Prevnar 20*
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine (inactivated)	IPV	Ipol ^e
Respiratory syncytial virus vaccine	RSV	Abrysvo*
Rotavirus vaccine	RV1	Rotarix®
	RV5	RotaTeg*
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 in	and the second sec	
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine		Pentacel [®]
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix* Ouadracel*
DTaP, inactivated poliovirus, Haemophilus influenzae type b, and hepatitis B vaccine	DTaP-IPV-Hib- HepB	Vaxelis
Measles, mumps, rubella, and varicella vaccine	MMRV	ProOuad*

medsles, mumps, rubella, and varicella vaccine	IVIIVIPLV	PTUQUdu
*Administer recommended vaccines if immunization history is incomplete extended intervals between doses. When a vaccine is not administered at		
The use of trade names is for identification purposes only and does not in	nply endorsement by the ACIE	P or CDC.
11/26/2022		

1	2	3	4	5	6
Determine recommended vaccine by age (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 o updated ACIP guidance (Addendum)

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Report

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Vaccine information statements:

www.cdc.gov/vaccines/hcp/vis/index.html

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

Monocional antibody	Abbreviation(s)	Trade name(s)
Respiratory syncytial virus monoclonal antibody (Nirsevimab)	RSV-mAb	Beyfortus ³⁸
Vaccine	Abbreviation(s)	Trade name(s)
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	1vCOV-aPS	Novavax COVID-19 Vaccine
Dengue vaccine	DEN4CYD	Dengvaxia*
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel* Infanrix*
Haemophilus influenzae type b vaccine	Hib (PRP-T) Hib (PRP-OMP)	ActHIB* Hiberix* PedvaxHIB*
Hepatitis A vaccine	HepA	Havrix* Vagta*
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Human papillomavirus vaccine	HPV	Gardasil 9*
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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	Мрох	Jynneos*
Pneumococcal conjugate vaccine	PCV15	Vaxneuvance™
	PCV20	Prevnar 20*
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine (inactivated)	IPV	Ipol*
Respiratory syncytial virus vaccine	RSV	Abrysvo [™]
Rotavirus vaccine	RV1	Rotarix®
Tetanus, diphtheria, and acellular pertussis vaccine	RV5 Tdap	RotaTeq* Adacel*
Tetanus and diphtheria vaccine	тd	Boostrix* Tenivac* Tdvax**
to deally second as	VAD	
Varicella vaccine: Combination vaccines (use combination vaccines instead of separate inj	VAR	Varivax*
On one of the second	DTaP-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and Haemophilus influenzae type b vaccine	DTaP-IPV/Hib DTaP-IPV	Pentacel* Kiorix*
DTaP and inactivated poliovirus vaccine		Quadrace!"
DTaP, inactivated poliovirus, Haemophilus influenzae type b, and hepatitis B vaccine	DTaP-IPV-Hib- HepB	Vaxelis"
and the second second second second second second second second		The second se

Measles, mumps, rubella, and varicella vaccine

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MMRV

ProQuad*

How to use the child and adolescent immunization schedule 3 5 4 6 Determine Assess need **Review** Review Review new or Determine recommended recommended for additional vaccine types. contraindications updated ACIP vaccine by age interval for catch- recommended and precautions guidance frequencies, (Table 1) for vaccine types (Addendum) up vaccination vaccines intervals and (Table 2) by medical considerations (Appendix) condition or for special other indication situations (Table 3) (Notes)

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 ACIP Shared Clinical Decision-Making Recommendations:
 www.cdc.gov/vaccines/hcp/acjp-scdm-faqs.html
 General Best Practice Guidelines for Immunization (including contraindications and precautions):
 www.cdc.gov/vaccines/hcp/acjp-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):
 for
 www.cdc.gov/vaccines/pubs/surv-manual
 onlir

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



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Deleted the following vaccines because they are no longer recommended or distributed in the U.S.

- 1. Bivalent mRNA COVID-19 vaccines
- 2. Diphtheria, Tetanus vaccine (DT)
- 3. 13-valent pneumococcal conjugate vaccine (PCV13)
- 4. MenACWY-D (Menactra)

19

Table 1

Child Immunization Schedule by Age

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 yr		
Respiratory syncytial virus (RSV-mAb [Nirsevimab])			ending on i tion status,			1 dose (8	through 19	9 months), S	ee 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 c	lose>			5 th dose							
Haemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes		data diama di see no see n	* dose Notes											
Pneumococcal conjugate (PCV15, PCV20)			1ª dose	2 nd dose	3 rd dose		∢ 4 th c	dose 🕨											
Inactivated poliovirus (IPV <18 yrs)			1ª dose	2 nd dose	•		3 rd dose		>			4 th dose					Ser Not		
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)								1 or r	nore doses	of updated (2023-2024	Formula) va	ccine (See	Notes)					
Influenza (IIV4)								Annual vac	cination 1 o	r 2 doses				Annu	al vaccinatio	on 1 dose on	у		
Influenza (LAIV4)												ial vaccinati or 2 doses	on	Annual vaccination 1 dose only					
Measles, mumps, rubella (MMR)					Seel	Notes	∢ 1*c	iose•				2 nd dose							
Varicella (VAR)							∢ 1° c	ioseÞ				2 nd dose							
Hepatitis A (HepA)					Seel	Notes		2-dose serie	is, See Note	s									
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)														1 dose					
Human papillomavirus (HPV)														See Notes					
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2years)								See Notes						1ª dose		2 nd dose			
Meningococcal B (MenB-4C, MenB-FHbp)													L		See No	otes			
Respiratory syncytial virus vaccine (RSV [Abrysvo])																ministration ncy, See Note			
Dengue (DEN4CYD; 9-16 yrs)															itive in ende ireas (See N				
Мрох																			
Range of recommended ages for all children	Range of re for catch-u	ecommend ip vaccinati				mmended ag h-risk groups			nended vao in in this ag			commende shared clini				recomment tapplicable			

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).

	. en avses,		terr up ser	cours (res	and any -												
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 1	17-18
Respiratory syncytial virus RSV-mAb (Nirsevimab])			ending on r tion status, !			1 dose (8	8 through 1	9 months), S	ee Notes								
lepatitis B (HepB)	1ª dose	∢ 2 nd	dose>		4		3 rd dose -		>								
otavirus (RV): RV1 (2-dose series), V5 (3-dose series)			1 st dose	2 nd dose	See Notes												
iphtheria, tetanus, acellular pertussis DTaP <7 yrs)			1 st dose	2 nd dose	3 rd dose			∢ 4 th c	oseÞ			5 th dose					
aemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes		3 rd or 4 See	I th dose, Notes									
neumococcal conjugate PCV15, PCV20)			1ª dose	2 nd dose	3 rd dose		∢ 4 th	dose>									
nactivated poliovirus IPV <18 yrs)			1ª dose	2 nd dose	4		3 rd dose -		>			4 th dose					Z
OVID-19 (1vCOV-mRNA, 1vCOV-aPS)								1 or r	nore doses	of updated (2023-2024	Formula) va	ccine (See l	Notes)			
nfluenza (IIV4)		Annual vaccination 1 or 2 doses Annual vaccination 1 dose only															
- • • • • • • • • • • • • • • • • • • •				Annual vaccination 1 dose Annual vaccination 1 dose									on 1 dose on	ly			
leasles, mumps, rubella (MMR)					Seel	Notes	<1 ^a	doseÞ				2 nd dose					
aricella (VAR)							∢ 1 [#]	doseÞ				2 nd dose					
epatitis A (HepA)					Seel	Notes		2-dose serie	s, See Note	5							
etanus, diphtheria, acellular pertussis īdap ≥7 yrs)														1 dose			
uman papillomavirus (HPV)														See Notes			
leningococcal (MenACWY-CRM ≥2 mos, lenACWY-TT ≥2years)								See Notes						1ª dose		2 nd dose	
Meningococcal B MenB-4C, MenB-FHbp)													L		See No	tes	
espiratory syncytial virus vaccine ISV [Abrysvo])																ministration ncy, See Note	es.
engue (DEN4CYD; 9-16 yrs)															itive in ende areas (See No		
lpox																	
Range of recommended	Range of r	ecommend	led ages	Rar	nge of recor	nmended a	ges 📔	Recomm	nended vac	cination	Re	commende	d vaccinatio	on based	No	recommend	lation

ed No recommend ng not applicable

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 yı
Respiratory syncytial virus (RSV-mAb [Nirsevimab])			ending on r tion status, s			1 dose (8	3 through 19	9 months), S	ee Notes								
Hepatitis B (HepB)	1ª dose	∢ 2 nd	dose>		4		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 ^{et} dose	2 nd dose	3 rd dose			∢ 4 th c	loseÞ			5 th dose					
Haemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes		data and a see 1	n dose, Notes									
Pneumococcal conjugate (PCV15, PCV20)			1ª dose	2 nd dose	3 rd dose		∢ 4 th (dose									
Inactivated poliovirus (IPV <18 yrs)			1ª dose	2 nd dose	4		3 rd dose		>			4 th dose					Se Not
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)								1 or r	nore doses	of updated	(2023–2024	Formula) va	ccine (See 1	lotes)			
Influenza (IIV4)								Annual vac	cination 1 o	or 2 doses				Annu	al vaccinati	on 1 dose on	ly
nfluenza (LAIV4)						Annual vaccination 1 or 2 doses				on Or	Annual vaccination 1 dose only						
Measles, mumps, rubella (MMR)				See Notes 4													
Varicella (VAR)							∢ 1" o	dose•				2 nd dose					
Hepatitis A (HepA)					Seel	Notes		2-dose serie	es, See Note	25							
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)														1 dose			
Human papillomavirus (HPV)														See Notes			
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2years)								See Notes						1ª dose		2 nd dose	
Meningococcal B (MenB-4C, MenB-FHbp)													L		See N	otes	
Respiratory syncytial virus vaccine (RSV [Abrysvo])																Iministration ancy, See Not	
Dengue (DEN4CYD; 9-16 yrs)															itive in end areas (See N		
Мрох																	
Range of recommended ages for all children		ecommend up vaccinati				nmended ag			nended va			commende shared clin				o recommen ot applicable	

23

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 yı
Respiratory syncytial virus (RSV-mAb [Nirsevimab])			ending on r tion status, !			1 dose (8	8 through 1	9 months), S	ee Notes								
Hepatitis B (HepB)	1ª 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 d	oseÞ			5 th dose					
Haemophilus influenzae type b (Hib)			1ª dose	2 nd dose	See Notes		<a>3rd or 4 See	n dose, Notes									
Pneumococcal conjugate (PCV15, PCV20)			1ª dose	2 nd dose	3 rd dose		∢ 4 th	dose									
Inactivated poliovirus (IPV <18 yrs)			1 st dose	2 nd dose	4		3 rd dose -					4 th dose					Se Not
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)								1 or r	nore doses	of updated ((2023–2024	Formula) vad	cine (See N	lotes)			
Influenza (IIV4) 07								Annual vac	cination 1 c	or 2 doses			Or	Annu	al vaccinati	on 1 dose on	ly
Influenza (LAIV4)		Annual vaccination 1 or 2 doses Annual vaccination 1 dose only										nly					
Measles, mumps, rubella (MMR)					Seel	Notes	∢ 1º	dose>				2 nd dose					
Varicella (VAR)							<1°	dose•				2 nd dose					
Hepatitis A (HepA)					Seel	Notes		2-dose serie	s, See Note	s							
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)														1 dose			
Human papillomavirus (HPV)														See Notes			
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2years)								See Notes						1ª dose		2 rd dose	
Meningococcal B (MenB-4C, MenB-FHbp)													L		See N	otes	
Respiratory syncytial virus vaccine (RSV [Abrysvo])																Iministration ancy, See Not	
Dengue (DEN4CYD; 9-16 yrs)															itive in end areas (See N		
Мрох																	
Range of recommended ages for all children		ecommend Ip vaccinati				nmended ag n-risk groups			nended vao in in this ag			commended shared clinic				o recommen ot applicable	

Table 2Catch-up Immunization Schedule

Table 2

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		
/accine	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
lepatitis B	Birth	4 weeks	8 weeks and at least 16 weeks after first dose minimum age for the final dose is 24 weeks		
lotavirus	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	5 months A fifth dose is not neces f the fourth dose was administered at age 4 yo older and at least 6 mor ofter dose 3
laemophilus influenzae ype 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 ^s 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*, Hiberix*), 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 1st 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.	
neumococcal 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 ^e birthday 8 weeks (as final dose for healthy children) if first dose was administered at the 1 ^e 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.	
nactivated 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)	
Aeasles, mumps, rubella	12 months	4 weeks			
aricella	12 months	3 months			
enatitis A	12 months	6 months			
leningococcal ACWY	2 months MenACWY-CRM 2 years MenACWY-TT	8 weeks	See Notes	See Notes	
			Children and adolescents age 7 through 18 years		
Aningococcal 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° birthday 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td was administered at or after the 1° birthday	6 months if first dose of DTaP/DT was administered before the 1 st birthday	
luman papillomavirus	9 years	Routine dosing intervals are recommended.			
epatitis A	N/A	6 months			
epatitis B	N/A	4 weeks	8 weeks and at least 16 weeks after first dose		
activated policivirus	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.	
Aeasles, mumps, rubella	N/A	4 weeks			
aricella	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		
-					

Table 3

Immunization by Medical Indication

Table 3: Immunization by medical indication

- Revised the legend definitions to improve clarity of the recommendations
- Harmonized changes with the adult schedule

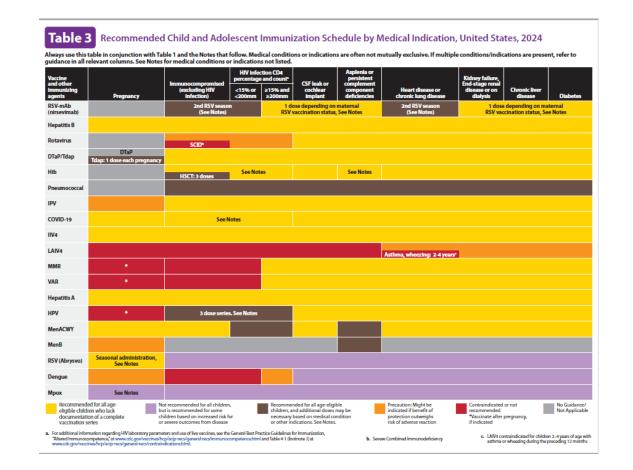
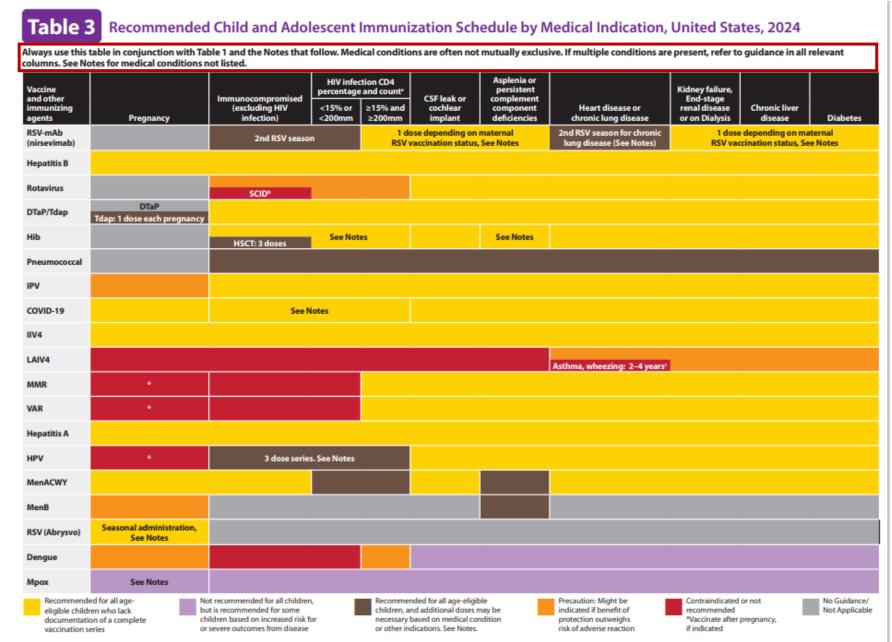


Table 3: New Legend Definitions

Recommended for all ageeligible 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.zdc.gov/vaccines/hcp/acp-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at www.zdc.gov/vaccines/hcp/acp-recs/contraindcations.html.

b. Severe Combined Immunodeficiency

c. LAW4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

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.

/accine				tion CD4 and count ^a	CCT hash a	Asplenia or persistent		Kidney failure,		
and other mmunizing agents	Pregnancy	Immunocompromised (excluding HIV infection)	<15% or <200mm	≥15% and ≥200mm	CSF leak or cochlear implant	complement component deficiencies	Heart disease or chronic lung disease	End-stage renal disease or on Dialysis	Chronic liver disease	Diabetes
RSV-mAb nirsevimab)		2nd RSV seaso	n		se depending on accination status,		2nd RSV season for chronic lung disease (See Notes)		epending on ma nation status, Se	
lepatitis B										
Rotavirus		SCID ⁶								
DTaP/Tdap	Tdap: 1 dose each pregnancy									
lib		HSCT: 3 doses	See Not	es		See Notes				
Pneumococcal										
PV										
COVID-19		See N	otes							
IV4										
AIV4							Asthma, wheezing: 2–4 years			
MMR	•									
/AR	•									
Hepatitis A										
HPV	•	3 dose series	s. See Notes							
MenACWY										
MenB										
RSV (Abrysvo)	Seasonal administration, See Notes									
Dengue										
Ирох	See Notes									
Recommende eligible childre documentatio vaccination se	n who lack bu n of a complete chi	t recommended for all children t is recommended for some ldren based on increased risk fo severe outcomes from disease		children, an necessary b	ded for all age-eligit ad additional doses n based on medical con dications. See Notes.	nay be	Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction	Contraindicated or recommended "Vaccinate after pre if indicated		No Guidance Not Applical

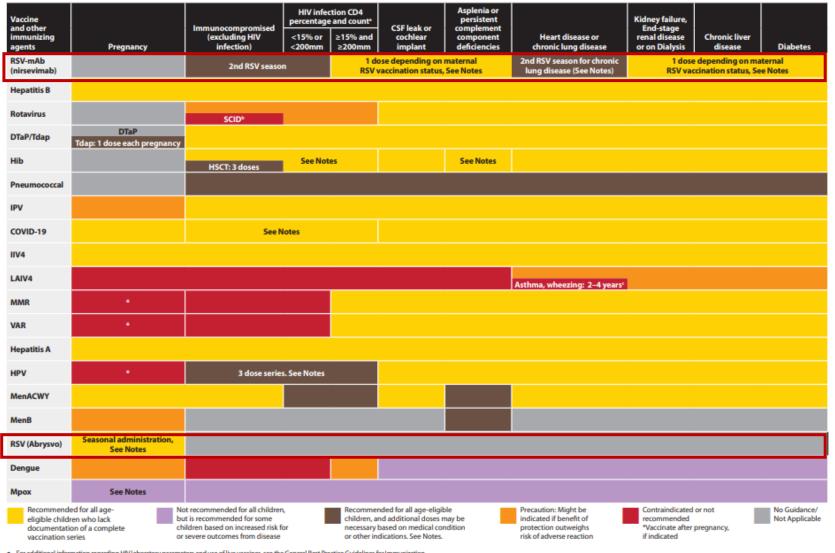
a. For additional information regarding HIV laboratory parameters and use of live vaccines, see the General Best Practice Guidelines for Immunization, "Altered Immunocompetence," at www.zdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at www.zdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html.

c. LAW4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

b. Severe Combined Immunodeficiency

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.



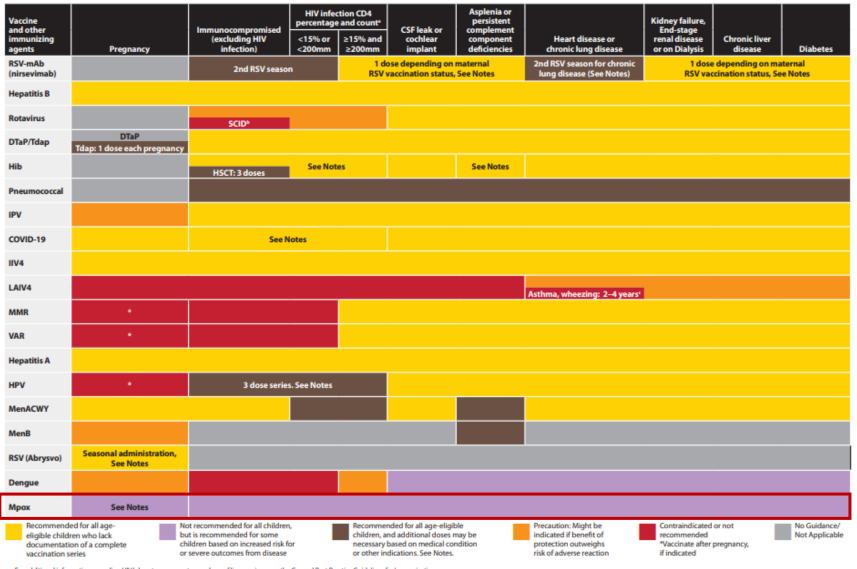
a. For additional information regarding HVI laboratory parameters and use of live vaccines, see the General Best Practice Guidelines for Immunization, "Altered Immunocompetence," at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/inst.html.

 b. Severe Combined Immunodeficiency
 c. LAV4 contraindicated for chill asthma or wheeping during the

c. LAV4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

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.



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.rdc.gov/vaccines/hcp/acp-recs/general-recs/Immunocompetence.html and Table 4-1 (footnote J) at www.rdc.gov/vaccines/hcp/acp-recs/general-recs/contraindications.html.

- b. Severe Combined Immunodeficiency
 c. LAV4 contraindic asthma or wheeei
- c. LAW4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

Notes

Notes

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

For vaccination recommendations for persons ages 19 years or older, see the Recommended Adult Immunization Schedule, 2024.

Additional information

- For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥4 months are determined by calendar months.
- Within a number range (e.g., 12–18), a dash (–) should be read as "through."
- Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid 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 Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/vaccines/hcp/ acip-recs/general-recs/timing.html.
- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/.
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/hcp/acip-recs/ general-recs/immunocompetence.html, and Immunization in Special Clinical Circumstances (In: Kimberlin DW, Barnett ED, Lynfield Ruth, Sawyer MH, eds. Red Book: 2021–2024 Report of the Committee on Infectious Diseases. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021:72–86).
- For information about vaccination in the setting of a vaccinepreventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the child and adolescent vaccine schedule are covered by VICP except dengue, PPSV23, RSV, Mpox and COVID-19 vaccines. Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/vaccinecompensation or www.hrsa.gov/cicp.

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 Pfize Picture to do the dot of the dot

Special situations

Persons who are moderately or severely immunocompromised**

Age 6 months-4 years • Unvaccinated:

- 3-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, 11 weeks.
- Previously vaccinated* with 1 dose of any Moderna:
 2-dose series of updated (2023–2024 Formula) Moderna at
 0, 4 weeks (minimum interval between previous Moderna and dose 1: 4 weeks).
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after the most recent dose.
- Previously vaccinated* with 3 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 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:

- 3-dose series of updated (2023–2024 Formula) Moderna

loderna at 0, 4, 8 weeks

The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the child and adolescent vaccine schedule are covered by VICP except dengue, PPSV23, **RSV**, Mpox, and COVID-19 vaccines. Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/vaccinecompensation or www.hrsa.gov/cicp.



es Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United

For vaccination recommendations for persons ages

Routine vaccination

Persons **NOT** moderately or severely immunocompromised

 Outlines vaccination series by age group and number of previous COVID-19 doses

> see Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/vaccines/hcp/ acip-recs/general-recs/timing.html.

- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/.
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/hcp/acip-recs/ general-recs/immunocompetence.html, and Immunization in Special Clinical Circumstances (In: Kimberlin DW, Barnett ED, Lynfield Ruth, Sawyer MH, eds. Red Book: 2021–2024 Report of the Committee on Infectious Diseases. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021:72–86).
- For information about vaccination in the setting of a vaccinepreventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the child and adolescent vaccine schedule are covered by VICP except dengue, PPSV23, RSV, Mpox and COVID-19 vaccines. Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/vaccinecompensation or www.hrsa.gov/cicp.

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.

Special situations Persons who are moderately of

Age 6 months-4 years

Unvaccinated:

- 3-dose series of updated (20
- 0, 4, 8 weeks
- 3-dose series of updated (20
- BioNTech at 0, 3, 11 weeks.

Previously vaccinated* with 2-dose series of updated (202)

0, 4 weeks (minimum interval between previous Moderna and dose 1:4 weeks).

- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after the most recent dose.
- Previously vaccinated* with 3 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 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:

- 3-dose series of updated (2023–2024 Formula) Moderna at 0, 4, 8 weeks
- 3-dose series updated (2023–2024 Formula) Pfizer-BioNTech at 0, 3, 7 weeks.
- Previously vaccinated* with 1 dose of any Moderna:
 2-dose series of updated (2023–2024 Formula) Moderna at
 0, 4 weeks (minimum interval between previous Moderna and dose 1: 4 weeks).
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 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, 4 weeks (minimum interval between previous Pfizer-BioNTech and dose 1: 3 weeks)
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of 2023–2024 Pfizer-BioNTech at least 4 weeks after the most recent dose.

severely immunocompromised
Outlines vaccination series by age group and number of previous COVID-19 doses

Persons who **ARE** moderately or

Special situations

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

 Previously vaccinated* with 3 or more doses of any 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:

- 3-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, 7 weeks
- 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3 weeks
- Previously vaccinated* with 1 dose of any Moderna: 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks).
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 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, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 4 weeks after the most recent dose.
- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- Previously vaccinated* with 1 or more doses of Janssen or Novavax or with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.

There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Administer an age-appropriate COVID-19 vaccine product for each dose. For information about transition from age 4 years to age 5 years or age 11 years to age 12 years during COVID-19 vaccination series, see Tables 1 and 2 at www.cdc.gov/vaccines/ covid-19/clinical-considerations/interim-considerations-us. html#covid-vaccines. Current COVID-19 schedule and dosage formulation available at www.cdc.gov/covidschedule. For more information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergency-preparedness-andresponse/coronavirus-disease-2019-covid-19/covid-19-vaccine:

*Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023–2024 formulation.

**Note: Persons who are moderately or severely

immunocompromised have the option to receive one additional dose of updated (2023–2024 Formula) COVID-19 vaccine at least 2 months following the last recommended updated (2023–2024 Formula) COVID-19 vaccine dose. Further additional updated (2023–2024 Formula) COVID-19 vaccine dose(s) may be administered, informed by the clinical judgement of a healthcare provider and personal preference and circumstances. Any further additional doses should be administered at least 2 months after the last updated (2023–2024 Formula) COVID-19 vaccine dose. Moderately or severely immunocompromised children 6 months–4 years of age should receive homologous updated (2023–2024 Formula) mRNA vaccine dose(s) if they receive additional doses.

(minimum age: 9 years)

Routine vaccination

Age 9 To years living in areas with endemic deligue AND have laboratory confirmation of previous deligue infection 3 dose series administered at 0.6, and 12 months

Endemic areas include Puerto Rico, American Samoa, US Virgin Islands, Federated States of Micronesia, Republic of Massnall Islands, and the Republic of Palau. For updated guidance on dongue endemic areas and pre-vaccination laboratory testing see www.cdc.gov/nemics/2011/ 01/00621 https://doi.org/10.006.01.w.and/www.cdc.gov/dengos/ vaccine/hcp/index.html

Jongue vaccine should not be administered to children raveling to driviting endemic dengal areas.

iphtheria, tetanus, and pertussis (DTaP) accination (minimum age: 6 weeks (4 years ir Kinrix* or Quadracel*))

outine vaccination

5 dose series (3 dose primary series at age 2, 4, and 6 months followed by a booster doses at ages 15, 18 months and 4-6 years *Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023–2024 formulation.

laemophilus influenzae type b vaccination minimum age: 6 weeks)

outine vaccination

4 ye

- ActHIB*, Hiberix*, Pentacel*, or Vaxelis*: 4 dose series (3 dose primary series at age 2.4, and 6 months, followed by a booster dose* at age 12.15 months)
- Wavels' is not recommended for use as a booster dose. A different Hib-containing vaccine should be used for the booster dose.
- PedvaxHIB": 3 dose series (2 dose primary series at age 2 and 4 months, followed by a booster dose at age 12–15, months)

Catch-up vaccination

Dose 1 at age 7-11 months: Administer dose 2 at least 4 weeks later and dose 3 (final dose) at age12-15 months or 8 weeks after dose 2 (whichever is later)

Dose 1 at age 12–14 months: Administer dose 2 (final dose) at least 8 weeks after dose 1

Dose 1 before age 12 months and dose 2 before age 15 months: Administer dose 3 (final dose) at least 8 weeks after dose 2.

- 2 doses of PedvaxHIB: before age 12 months: Administer dose 3 (final dose) at age12, 59 months and at least 8 weeks after dose 2.
- 1 dose administered at age 15 months or older: No further doses needed

Unvaccinated at age 15-59 months: Administer 1 dosc.

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

Human papillomavirus vaccination (minimum age: 9 years)

Routine and catch-up vaccination

- HPV vaccination routinely recommended at age 11–12 years (can start at age 9 years) and catch-up HPV vaccination recommended for all persons through age 18 years if not adequately vaccinated
- * 2- or 3-dose series depending on age at initial vaccination:
- Age 9-14 years at initial vaccination: 2-dose series at 0, 6-12 months (minimum interval: 5 months; repeat dose if administered too soon)
- Age 15 years or older at initial vaccination: 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5 months; repeat dose if administered too soon)

 No additional dose recommended when any HPV vaccine series of any valency has been completed using recommended dosing intervals.

Special situations

 Immunocompromising conditions, including HIV infection: 3-dose series, even for those who initiate vaccination at age 9 through 14 years.

History of sexual abuse or assault: Start at age 9 years

 Pregnancy: Pregnancy testing not needed before vaccination; HPV vaccination not recommended until after pregnancy; no intervention needed if vaccinated while pregnant

Routine and catch-up vaccination No additional dose recommended when any HPV vaccine series of any valency has been completed using recommended dosing intervals.

Deleted bullet on interrupted HPV schedule

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

Special situations

- Revaccination is not generally recommended for persons with a normal immune status who were vaccinated as infants children, adolescents, or adolts.
- Post-vaccination serology testing and revaccination of anti-HBs < 10mlU/mL) is recommended for certain populations, including;
- Infants born to HBsAg positive mothers
- Persons who are predialysis or on maintenance dialysis -
- Other immunocompromised persons
- gov vaccineship with receivate specific heplichtml.

Note: Heplisay B and Prefilevitino are not recommended in oregnancy due to lack of safety data in pregnant persons

Human papiliomavirus vaccination (minimum age: 9 years)

Routine and catch-up vaccination

- HPV vaccination routinely recommended at age 11–12 years (can start at age 9 years) and catch up HPV vaccination recommended for all persons through age 18 years if not adequately vaccinated
- 2 or 3 dose series depending on age at initial vaccination: Age 9-14 years at initial vaccination: 2 dose series at 0, 6 12 months (minimum interval: 5 months: repeat dose if administered too soor)
- Age 15 years or older at initial vaccination: 3-doec tenss at 0, 1, 2-months, 6-months (minimum intervals) dose 1 to dose 2: 4-weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5-months; repeat dose if administered too soon)
- No additional dose recommended when any HPV vacche series of any valency has been completed using recommended dosing intervals.

Special situations

- Immunocompromising conditions, including HIV infection: 1 dose series, even for those who initiate vaccination at age 9 through 14 years.
- History of sexual abuse or assault: Start at age 9 years
- Pregnancy: Prognancy Testing not needed before vaccination: HPV vaccination not recommended until after pregnancy; ho intervention needed if vaccinated while pregnant.

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.

Measles, mumps, and rubella vaccination minimum age: 12 months for routine vaccinatio

Routine vaccinatio

- 2 dose series at age 12–15 months, age 4–6 years.
 MMR or MMRR or to be selected and
- Note: For dose 1 in children age 12-47 months, it is recommended to administer MMR and varicella vaccine

separately. MMRV* may be used if parents or carego express a preference.

Catch-up vaccination

- Drivaccinated children and adolescents: 2 dose series at least 4 weeks apart*
- The maximum age for use of MMRV* is 12 years

cial situations

nternational travel

Infants age 6-11 months: 1 dose before departure: revaconate with 2 dose series at age 12-15 months (12 months for children in high risk areas) and dose 2 as early as 4 weeks later."

Unvaccinated children age 12 months or older: 2 dose series at least 4 weeks apart before departure

in murrips outbreak sottings, for information about additional desits of MMR including 3rd dose of MMRI, see revealed agov/minior/valures/6//www.mu/6/01a/.htm

Note: If MMRV is used, the minimum interval between MMRV doses in 3 months

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

Routine vaccination

2 dose series at age 11–12 years: To years

atch-up vaccinatio

Age 1.1.15 years: I dose now and beoster at age 16-18 years

Added information for vaccinating persons with a history of egg allergy.

Dose T at age 2 months: 4 dose series (additional 3 doses at age 4, 6, and 12 months)

Dose 1 at age 3.6 months: 3. or 4 dose series idose 2 land dose 3 if applicable) at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)

Dose 1 at age 7. 23 months: 2 dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months) Dose 1 at age 24 months or older; 2 dose series of best 9 months or older; 2 dose series

· MenQuadfi*

Dose 1 at age 24 months or olders2 dose series at leas 8 weeks apart

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

Special situation:

Revaccination is not generally recommended for persons: with a normal immone status who were vaccinated as infants, children, adolescents, or adults.

- Post-vaccination serology testing and revaccination of anti-HBs < 10mIU/mL) is recommended for certain pepulations, including:
- infants born to HBsAg positive mothers
- Persons who are preclatysis or on maintenance dratysis -Other immunocompromised pursons
- For detailed revaccination recommendations, see www.cdc. gov_vaccines.http://gov.vaccispecific/hepb.html.

Note: Hepleav B and Prefleviting are not recommended in pregnancy due to lack of safety data in pregnant persons

Human papillomavirus vaccination (minimum age: 9 years)

Routine and catch-up vaccination

- HPV vaccination routinely recommended at age 11–12 years (can start at age 9 years) and catch up HPV vaccination recommended for all persons through age 18 years if not adequately vaccinated
- 2 or 3 dose series depending on age at initial vaccination: Age 9-14 years at initial vaccination: 2 dose series at 0, 6-12 months (minimum interval:5 months: repeat dose if administered too soon)
- Age 15 years or older at initial vaccination: 3 dose tenes at 0, 1, 2 months, 6 months minimum intervals: dose 1 to dose 2; 4 weeks / dose 2 to dose 3; 12 weeks / dose 1 to dos 3; 5 months: repeat dose if administered too soon)
- No additional dose recommended when any HPV vacane series of any valency has been completed using recommended dosing intervals.

Special situations

- Immunocompromising conditions, including HIV infection: 3 dose series, even for those who initiate vaccination at age 9 through 14 years.
- History of sexual abuse or assault: Start at age 9 years
- Pregnancy: Pregnancy testing not needed before vaccination: HPV vaccination not recommended until after pregnancy; no intervention needed if vaccinated while pregnant.

nfluenza vaccination

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

Routine vaccination

Use any influenza vacurie appropriate for age and health status annually:

Age 6 months - 8 years who have received fewer than 2 influenza vacune dokes before July 1, 2023, or whose influenza vacunation history is unknown: 2 dokes, separate by at least 4 weeks. Administer doke 2 even if the child tem 9 years between receipt of doke 1 and doke 2.

Age 6 months-8 years who have received at least 2 influenza vaccino dotes before July 1, 2023; 1 close Age 9 years or older: 1 close

 For the 2013-2024 season, see www.cdc.gov/mmwn/ volumes/72/mm/20241.html

 For the 2024-25 season, see the 2024-25 ACIP influenzal vaccine recommendations.

Special situations

Close contacts (e.g., household contacts) of severely immunosuppressed persons who require a protected environment: should not receive EAIV4. If EARV4 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 influenzavaccine legg based and non-egg based appropriate for age and health status.

Measles, mumps, and rubella vaccination (minimum age: 12 months for routine vaccination)

Routine vaccination

2-dose series at age 12–15 months, age 4–6 years
 MMR or MMRV^{*} may be administered

Note: For dose 1 in children age 12–47 months, it is recommended to administer MMR and varicella vaccines separately. MMRV* may be used if parents or caregivers express a preference.

Catch-up vaccination

- Unvaccinated children and adolescents: 2-dose series at least 4 weeks apart*
- The maximum age for use of MMRV* is 12 years.

Special situations

International travel

 Infants age 6–11 months: 1 dose before departure; revaccinate with 2-dose series at age 12–15 months (12 months for children in high-risk areas) and dose 2 as early as 4 weeks later.*

 Unvaccinated children age 12 months or older: 2-dose series at least 4 weeks apart before departure*

 In mumps outbreak settings, for information about additional doses of MMR (including 3rd dose of MMR), see www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm
 *Note: If MMRV is used, the minimum interval between MMR doses is 3 months

Aeningococcal serogroup A, C, W, Y vaccination minimum age: 2 months (MenACWY-CRM, Menv Yyears [MenACWY-TT, MenQuadfi]), 10 years MenACWY-TT/MenB-FHbp, Penbrayaj)

Routine vaccination

2 dose series at age 11–12 years: 16 year

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

Special situations

Anatomic or functional asplenia (including sickle cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use:

Menveo?*

Dose 1 at age 2 months: 4 dose series (additional 3 doses at age 4, 6, and 12 months)

Dose 1 at age 3-6 months: 3- or 4-dbie series (dose 2land dose 3 if applicable) at least 8 weeks after previous dose until a dose is received at age 7 months or older fellowed by an additional dose at least 12 weeks later and after age 12 months)

Dose 1 at age 7: 23 months: 2 dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months) Dose 1 at age 24 months or older: 2 dose series at least 8 weeks apart

+ MenQuadfi*

Done 1 at age 24 months or older-2 dose series at least 8 weeks apart Moved information on minimal doses between MMRV to clarify this also applies to Special situations.

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

- recommended for all persons through age 18 years if not

Deleted MenACWY-D (Menactra) recommendations from all sections. Added MenABCWY (Penbraya)

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

Special situations

Anatomic or functional asplenia (including sickle cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use:

Menveo[®]*

 Dose 1 at age 2 months: 4-dose series (additional 3 doses) at age 4, 6, and 12 months)

Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)

Dose 1 at age 7–23 months: 2-dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months)

Dose 1 at age 24 months or older: 2-dose series at least 8 weeks apart

MenQuadfi[®]

 Dose 1 at age 24 months or older: 2-dose series at least 8 weeks apart

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

Travel to countries with hyperendemic or epidemic meningococcal disease, including countries in the African meningitis belt or during the Hajj (www.cdc.gov/travel/):

- Children less than age 24 months:
- Menveo** (age 2–23 months)
- Dose 1 at age 2 months: 4-dose series (additional 3 doses at age 4, 6, and 12 months)
- Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)
- Dose 1 at age 7–23 months: 2-dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months)
- Children age 2 years or older: 1 dose Menveo^{**} or MenQuadfi^{*}

First-year college students who live in residential housing (if not previously vaccinated at age 16 years or older) or military recruits:

• 1 dose Menveo** or MenQuadfi*

Adolescent vaccination of children who received MenACWY prior to age 10 years:

- Children for whom boosters are recommended because of an ongoing increased risk of meningococcal disease (e.g., those with complement component deficiency, HIV, or asplenia): Follow the booster schedule for persons at increased risk.
- Children for whom boosters are not recommended (e.g., a healthy child who received a single dose for travel to a country where meningococcal disease is endemic): Administer MenACWY according to the recommended adolescent schedule with dose 1 at age 11–12 years and dose 2 at age 16 years.

*Menveo has two formulations: lyophilized and liquid. The liquid formulation should not be used before age 10 years. See www. cdc.gov/vaccines/vpd/mening/downloads/menveo-single-vialpresentation.pdf.

Note: For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm.

Children age 10 years or older may receive a single dose of Penbraya[™] as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day (see "Meningococcal serogroup B vaccination" section below for more information). ieningococcal serogroup 8 vaccination ninimum age: 10 years [MenB-4C, Bexsero*; ien8-FHbp, Trumenba*; MenACWY-TT/MenB-FHbp enbraya**])

iared clinical decision-making

idolescents not at increased risk age 16–23 years preferred age 16–18 years) based on shared limit at the usen making:

Bexsero*: 2 dose series at least 1 month agant

Trumenba*: 2 dose series at least 6 months apart (if dose a is administered varier than 6 months, administer a 34 dose at least 4 months after dose 21

additional information on shared climical decision making MenB: see www.edc.ubervaccines hup/admit/devinloads job aid admit mening to shared climical decision making.pdf

secial situations

atomic or functional asplenia (including sickle cell lease), persistent complement component deficiency, mplement inhibitor (e.g., eculizumab, ravulizumab) use

lexsero1: 2 dose series at least 1 month apart

rumenba*: 3 dose series at 0, 1, 2,6 months (if dose 2 (as administered at least 6 months after dose 1, dose 3 or needed: if dose 3 is administered earlier than 4 months free dose 2, a 41 dose should be administered at least months after dose 31

ite: Bexsero* and Trumenba* are not interchangeable: chame product should be used for all doses in a series.

r Mon8 booster dose recommendations for groups listed der "Soucial situations" and in an outbreak setting and ditional meningococcal vaccination information, see wwcdc.gov/mmw/vocunes/69/in/m6909a1.html.

Idren age 10 years or older may receive a date of Pentiraya" an alternative to separate administration of MervACWY and in8 when both vaccines would be given on the same clinic y. For age (eligible children not at increased usic if Pentiraya' ised for dose 1 Meriß, Meriß Fribp (Trumenba) should be ministered for dose 2 Meriß. For age eligible children at iteased risk of meningdoccal disease, Penibraya'' may be ed for additional MeriACWY and Meriß doses (including

pox vaccination inimum age: 18 years Dynned

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 earther

Sex at a commercial sex venue

Sec in association with a large public event in a geographic area where Motox transmission is occurring

Persons who are sexual partners of the persons described above

Persons who anticipate exponencing any of the situations described above

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

For distanced information: see: www.coc.gov/vacunes/acip/ meetings-downloads/slides-2023-10-25-26/94 MPDX Ray 508(pcf)

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

Routine vaccination with PC\

+ 4 dose series at 2.4, 6, 12-15 months

Catch-up vaccination with PC

 Healthy children ages 2: 4 years with any incomplete* PCV supecified PCV

For other catch up guidance, see Table 2

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

Added information for use of MenABCWY in children ages 10 years and older.

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

Travel to countries with hyperendemic or epidemic meningococcal disease, including countries in the Africar meningitis belt or during the Hajj (www.tcc.gov/lovel/);

Children less than age 24 months

Menveo** (age 2-23 months

Dose 1 at age 2 months: 4 dose series ladditional 3 doses a age 4, 6, and 12 months

Dose 1 at age 3.6 months: 3. or 4 dose series (dose 2 (and dose 3.1 applicable) at least 8 weeks after previous dose until a dose is received at age 7 months or older. followed by an additional dose at least 12 weeks later and after age 12 months)

Dose 1 at age 7-23 months: 2 dose series (dose 2 at least 12 works after dose 1 and after age 12 months)

 Children age 2 years or older: 1 dose Merveo** or MenQuadfi*

First-year college students who live in residential housin (if not previously vaccinated at age 16 years or older) or military recruits:

1 dose Menveo^{**} or MenQuadh^{**}

Adolescent vaccination of children who received MenACW' prior to age 10 years:

- Children for whom boosters are recommended because of an ongoing increased risk of meningocoscial disease re.g., those with complement component deficiency. HIV, or aspleman Follow the booster schedule for persons at increased risk.
- Children for whom boosters are not recommended to g, a healthy child who received a single dose for travel to a country where meningococcal disease is endemici: Administer MenACWY according to the recommended adalescent schedule with dose 1 at age 11–12 years and dose 2 at age 16 years.

Menves has two formulations: lyaphilized and liquid. The liqui formulation should not be used before age 10 years. See www. cdc.gov encores yadmening downloads menero single vid presentation and.

Note: For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting and additional meningecoccal vaccination informati see revered: gov miner volumes c9/refrest09a1.htm.

Children age 10 years or older may receive a single dose of Peobraya'" as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day (see "Meningococcal serogroup B vaccination" section below for more information). Meningococcal serogroup B vaccination (minimum age: 10 years [MenB-4C, Bexsero*; MenB-FHbp, Trumenba*; MenACWY-TT/MenB-FHbp, Penbraya[™]])

Shared clinical decision-making

 Adolescents not at increased risk age 16–23 years (preferred age 16–18 years) based on shared clinical decision-making:

Bexsero[®]: 2-dose series at least 1 month apart

 - Trumenba®: 2-dose series at least 6 months apart (if dose 2 is administered earlier than 6 months, administer a 3rd dose at least 4 months after dose 2)

For additional information on shared clinical decision-making for MenB, see www.cdc.gov/vaccines/hcp/admin/downloads/ isd-job-aid-scdm-mening-b-shared-clinical-decision-making.pdf

Special situations

Anatomic or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use:

Bexsero[®]: 2-dose series at least 1 month apart

 Trumenba®: 3-dose series at 0, 1–2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 3 not needed; if dose 3 is administered earlier than 4 months after dose 2, a 4th dose should be administered at least 4 months after dose 3)

Note: Bexsero[®] and Trumenba[®] are not interchangeable; the same product should be used for all doses in a series.

For MenB **booster dose recommendations** for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm.

Children age 10 years or older may receive a dose of Penbraya[™] as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day. For age-eligible children not at increased risk, if Penbraya[™] is used for dose 1 MenB, MenB-FHbp (Trumenba) should be administered for dose 2 MenB. For age-eligible children at increased risk of meningococcal disease, Penbraya[™] may be used for additional MenACWY and MenB doses (including booster doses) if both would be given on the same clinic day **and** at least 6 months have elapsed since most recent Penbraya[™] dose. **ipox vaccination** ninimum age: 18 years Dynne

Special situations

Age 18 years and at risk for Mpox Infection: 2 dose strict 28 days apart.

isk factors for Mpox infection include:

ersons who are gay, bisecual, and other MSM, transgendo

nonbinary people who in the past 6 months have had.

A new diagnosis of at least 1 sexually transmitted disease.

More than 1 sex partne

Added a link to more information on shared clinical decision-making for MenB vaccination

egnant persons. Pregnant persons with any risk factor scribed above may receive lymness.

ar detailed information: see: www.coc.gov/wccmesraup revtings.downloads/Urdes_2023-10-25-26/04_MEOX_Ray_508.pdf

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 Columnia to a column t

Added information for use of MenABCWY in children ages 10 years and older.

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

ravel to co leningoco

Special situations

 Age 18 years and at risk for Mpox infection: 2-dose series, 28 days apart.
 <u>Risk factors for Mpox infection include:</u>

First-year college students who live in residentia (if not previously vaccinated at age 16 years or of with our seconds.

 1 dose Menveo1* or MenQuadh1 Adolescent vaccination of children prior to age 10 years;

Children for whom boosters are re of an ongoing increased risk of mentelg, those with complement comp or asplenian. Follow the booster schi increased risk.

Children for whom boosters are not recommende

(e.g., a heatiny child who received a single dose for bavel to a country whore meningococcal disease is endemict: Administer ManACWY according to the recommended adolescent schedule with dose 1 at age 11–12 years and dose 2 at age 16 years.

Menves has two formulations: haphilized and liquid. The liquid formulation should not be used before age 10 years. See www. «dc.qum vincenus ypdrinening/dawniaads-menves single-nal presentation.gdf.

Note: For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information see anyw odc poy immerciolumes (8) in modQa1.htm.

Children age 10 years or older may receive a single dose of Penbraya" as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day (see "Meningococcal serogroup B vaccination" section below for more information.

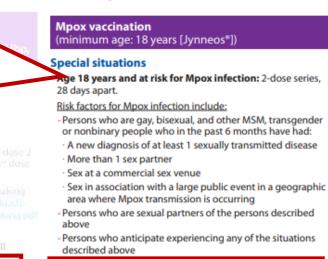
sing Special situations or Anatomic or functional asplenia (including

Added bullet on use of Jynneos in pregnant persons

Note: Bexsero* and Trumenba* are not interchangeable: the same product should be used for all doses in a series.

For MonB booster dose recommendations for groups listed under "Special situations" and in an outbreak setting and additional menungococcal vaccination information, see www.cdc.gov.mmaarvolumes(69 in mt909a1 htm.

Children age 10 years or older may receive a dose of Pentiraya as an alternative to separate administration of MerACWY and Men8 when both vaccines would be given on the same clinic day. For age eligible duildren not at increased usis of Pentiraya is used for dose 1 Men8, Men8 FPIbp (Trumenbas should be administered for dose 2 Men8. For age eligible children at increased risk of meningdoccal disease, Penbraya¹¹ may be used for additional MenACWY and Men8 doses (including buoster doses) if both would be given on the same clinic day and at least 6 months have elapsed since most recent. Penbraya¹¹ dose.



 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

Pneumococcal vaccination (minimum age: 6 weeks [PCV15], [PCV 20]; 2 year [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 sines: 1 dose PCV

«For other satch up guidance, see Table 2.

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

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

Travel to countries with hyperendemic or epidemic meningococcal disease, including countries in the African meningitis belt or during the Hajj (www.tclc.gov/fuwli);

Children less than age 24 months

Menveo" (age 2-23 months)

Dose 1 at age 2 months: 4 dose series ladditional 3 doses at age 4, 6, and 12 months!

Dose 1 at age 3 6 months: 3 or 4 dose series (dose 2 fand dose 3 if applicable) at least 8 weeks after previous dose until a dose is received at age 7 months or older. followed by an additional dose at least 12 weeks later and after age 12 months)

Dose 1 at age 7/23 months: 2 dose series (dose 2 at least 12 works after dose 1 and after age 12 menths)

 Children age 2 years or older: 1 dose Merweo" or MenDuad61

First year college students who live in residential housin (if not previously vaccinated at age 16 years or older) or military recruits:

1 dose Menveo^{**} or MenQuadf

Adolescent vaccination of children who received MenACWY prior to age 10 years:

 Children for whom boosters are recommended because of an ongoing increased risk of meningocoscial disease re.g. those with complement component deficiency. HIV, or asplenia if follow the booster schedule for persons at increased risk.

 Children for whom boosters are not recommended beig, a healthy child who received a single dose for travel to a country whore meningococcal disease is endemict: Administer ManACWY according to the recommended adbiescent schedule with dose 1 at age 11–12 years and dose 2 at age 16 years.

Menveo has two formulations: hophilized and liquid. The liquid formulation should not be used before one 10 years. See www. sds.non-wheeney and menung itawalaids menveo single-add presentation pdf.

Note: For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination informatio see reveved clock minimized and the reveal of the setting set reveved clock minimized and the setting of the setting set reveved clock minimized and setting setting setting set reveved clock and setting setting setting setting set reveved clock setting setting setting setting set revealed setting setting setting setting setting setting and setting sett

Children age 10 years or order may receive a single dose of Penbraya" as an alternative to separate administration of MonACWY and Mon8 when both vaccines would be given on the same dimic day (see "Mening) costal sengitup B vaccination" section below for more information. Meningococcal serogroup B vaccination minimum age: 10 years [MenB-4C, Bexsero"; MenB-FHbp, Trumenba"; MenACWY-TT/MenB-FHbj Penbrava""])

Shared clinical decision-making

Adolescents not at increased risk age 10–23 years (preferred age 16–18 years) based on shared climical decision making:

Bexsero*: 2 dose series at least 1 month again

Trumenba*: 2: dose series at least 6 months apart (if dose 2 is administered earlier than 6 months, administer a 3st dose at least 4 months after dose 2!

For additional information on shared clinical decision making for Men8, see www.cdc.goe.vacunes/hop/admin/dewnloads (sd-jop-aid-admi-mening-b_shared-clinica) decision making po

Special situations

Anatomic or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement infibitor (e.g., eculizumab, ravulizumab) use

Bexsero*: 2 dose senes at least 4 month apar

 Trumenba*: 1 dose series at 0, 1 (2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 1 not needed; if dose 3 is administered earlier than 4 month after dose 2, a 4 (dose should be administered at least 4 months after dose 3)

Note: Bexsero* and Trumenba* are not interchangeable: the same product should be used for all doses in a series.

For MonB booster dose recommendations for groups lister under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see www.cdc.goo.mmw/votunes/69.mmt/909a1.html.

Children age 10 years or older may receive a date of Pentiray as an alternative to separate administration of MenACWY an Men8 when both vaccines would be given on the same climiday. For age, cligible children not at increased risk, if Pentirais used for dole 1 Men8. Men8. For age, eligible children at increased risk of meningococcal disease, Penbraya'' may be used for additional MenACWY and Men8 doles including booster doles i if both would be given on the same climic day and at least 6 months have elapsed since most recent. Penbraya'' dole.

//pox vaccination minimum age: 18 years [Jynneos*])

Special situations

Age 18 years and at risk for Mpox infection: 2 dose sprice.
 28 days apart.

Risk factors for Mpox infection include:

Persons who are gay, bisecual, and other MSM, transgender or nonbinary people who in the past-5 months have had:

A new diagnosis of at least 1 sexually transmitted disease. More than 1 sex partner

Sex at a commercial sex venue

Sec in association with a large public event in a geographic area where Mpox transmission is occurring

Persons who are sexual partners of the persons describedabove

Persons who anticipate experiencing any of the situations described above

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

For detailed information: see: www.co.gov/vacines/acip/ meetings/downloads/lindes/2023-10/25/26/04 MPOX Ray 508 bdf

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 ndicated if they have received 4 doses of PCV13 or PCV15 or another age appropriate complete PCV series.

Special situations

Children and adolescents with cerebrospinal fluid leak; chronic heart disease; chronic kidney disease (excluding maintenance dialysis and nephrotic syndrome); chronic liver disease; chronic lung disease (including moderate persistent or severe persistent asthma); cochlear implant; or diabetes mellitus:

Age 2–5 years

- Any incomplete* PCV series with:
- 3 PCV doses: 1 dose PCV (at least 8 weeks after the most recent PCV dose)
- Less than 3 PCV doses: 2 doses PCV (at least 8 weeks after the most recent dose and administered at least 8 weeks apart)
- Completed recommended PCV series but have not received PPSV23
- Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
- Not previously received PCV20: administer 1 dose PCV20 OR 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.

Age 6–18 years

- Not previously received any dose of PCV13, PCV15, or PCV20: administer 1 dose of PCV15 or PCV20. If PCV15 is used and no previous receipt of PPSV23, administer 1 dose of PPSV23 at least 8 weeks after the PCV15 dose.**
- Received PCV before age 6 years but have not received PPSV23
- Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
- Not previously received PCV20: 1 dose PCV20 OR 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.
- Received PCV13 only at or after age 6 years: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose.
- Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6 years: no further doses of any PCV or PPSV23 indicated.

Children and adolescents on maintenance dialysis, or with immunocompromising conditions such as nephrotic syndrome; congenital or acquired asplenia or splenic dysfunction; congenital or acquired immunodeficiencies; diseases and conditions treated with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, Hodgkin disease, and solid organ transplant; HIV infection; or sickle cell disease or other hemoglobinopathies:

Added the following medical conditions Age 2–5 year Any in

- Chronic kidney disease (excluding maintenance dialysis and ٠ nephrotic syndrome)
- Chronic liver disease ٠
- Chronic lung disease (including moderate persistent or severe ٠ persistent asthma)

1 dose PPS dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.

Age 6–18 years

- Less than 3

most recen

Completed

Previously

or PPSV23

Not previou

PPSV23

 Not previously received any dose of PCV13, PCV15, or PCV20: administer 1 dose of PCV15 or 1 dose of PCV20. If PCV15 is used and no previous receipt of PPSV23, administer 1 dose of PPSV23 at least 8 weeks after the PCV15 dose.**

 Received PCV before age 6 years but have not received PPSV23

 Previously received at least 1 dose of PCV20: no additional dose of PCV or PPSV23

 Not previously received PCV20: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV dose. If PPSV23 is used, administer either PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.

 Received PCV13 only at or after age 6 years: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.

 Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6 years: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose and at least 5 years after dose 1 PPSV23.

*Incomplete series = Not having received all doses in either the recommended series or an age-appropriate catch-up series. See Table 2 in ACIP pneumococcal recommendations at stacks.cdc.gov/view/cdc/133252

**When both PCV15 and PPSV23 are indicated, administer all doses of PCV15 first. PCV15 and PPSV23 should not be administered during the same visit.

For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app, which can be downloaded here: www.cdc.gov/vaccines/vpd/pneumo/hcp/pneumoapp.html

Notes Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2024

Special situations

Children and adolescents with cerebrospinal fluid leak; chronic heart disease; chronic kidney disease (excluding maintenance dialysis and nephrotic syndrome); chronic liver disease; chronic lung disease (including moderate persistent or severe persistent asthma); cochlear implant or diabetes mellitus:

Age 2-5 years

- Any incomplete* PCV series with
- 3 PCV doses 1 dose PCV (at least 8 weeks after the most recent PCV dose)
- Less than 3 PCV doses: 2 doses PCV (at least 8 weeks a the most recent dose and administered at least 8 week apart)
- Completed recommended PCV series by PPSV23
- Previously received at least 1 dose of P or PPSV23 doses needed
- Not previously received PCV20: administ 1 dose PP5V23 administer at least 8 we recent PCV dose.

Age 6-18 years

- Not previously received any dose of PC administer 1 dose of PCV15 or PCV20. If previous receipt of PPSV23, administer least 8 weeks after the PCV15 dose.**
- Received PCV before age 6 years but h PPSV23
- Previously received at least 1 dose of PCV20: no further PC or PPSV23 doses needed
- Not previously received PCV20: administer 1 dose PCV20 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.

•

Received PCV13 only at of PCV20 OR 1 dose PP5V23 recent PCV13 dose.

- Received 1 dose PCV13 at years: no further doses of
- Children and adolescents with immunocompromisi syndrome; congenital or dysfunction; congenital o diseases and conditions t drugs or radiation therap neoplasms, leukemias, ly solid organ transplant; H or other hemoglobinopat

Age 2-5 years

- Any incomplete* PCV series
- 3 PCV doses: 1 dose PCV (at least 8 weeks after the most recent PCV dose)
- Less than 3 PCV doses: 2 doses PCV (at least 8 weeks after the most recent dose and administered at least 8 weeks apart)
- Completed recommended PCV series but have not received PPSV23
- Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
- -Not previously received PCV20: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV

Catch-up vaccination

Added information for persons age 18 years known or suspected to be unvaccinated or incompletely vaccinated.

> Received PCV13 only at or after age 6 years: administer 1 dos PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23
> Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6

Special situations

Revised to include recommendations for persons age 18 years at increased risk of 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 aged 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 or a 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_%20 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.
- For other catch-up guidance, see Table 2.

Special situations

- Adolescents aged 18 years at increased risk of exposure to poliovirus and completed primary series*: may administer one lifetime IPV booster
- *Note: Complete primary series consist of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

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

Special situations

 Adolescents aged 18 years at increased risk of exposure to poliovirus and completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consist of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see: www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html

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-fags.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-fags.html)

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

Special situations

 Ages 8–19 months with chronic lung disease of prematurity requiring medical support (e.g., chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) any time during the 6-month period before the start of the second RSV season; severe immunocompromise: cystic fibrosis with either weight for length <10th percentile or manifestation of severe lung disease (e.g., previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable)**:

- 1 dose nirsevimab shortly before start of second RSV

Routine vaccination

For infants younger than age 8 months

and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/childfags.html

*Note: While the timing of the onset and duration of RSV season may vary, nirsevimab may be administered October through March in most of the continental United States. 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. Although optimal timing of administration is just before the start of the RSV season, nirsevimab may also be administered during the RSV season to infants and children who are age-eligible.

**Note: Nirsevimab can be administered to children who are eligible to receive palivizumab. Children who have received nirsevimab should not receive palivizumab for the same RSV season.

For further guidance, see www.cdc.gov/mmwr/volumes/72/ wr/mm7234a4.htm and www.cdc.gov/vaccines/vpd/rsv/hcp/ child-fags.html



Recommended Child and Adolescent Immunization Sche

Special situations

 Adolescents aged 18 years at increased risk of exposure to poliovirus and completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consist of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see: www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html

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-fags.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.

Special situations

 Ages 8–19 months with chronic prematurity requiring medical s chronic corticosteroid therapy, c supplemental oxygen) any time period before the start of the se

immunocompromise; cystic fibrosis with either weight for length <10th percentile or manifestation of severe lung disease (e.g., previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable)**:

- 1 dose nirsevimab shortly before start of second RSV season*
- Ages 8–19 months who are American Indian or Alaska Native:
- 1 dose nirsevimab shortly before start of second RSV season*

Age-eligible and undergoing cardiac surgery with cardiopulmonary bypass**: 1 additional dose of nirsevimab after surgery. For additional details see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/childfaqs.html

*Note: While the timing of the onset and duration of RSV season may vary, nirsevimab may be administered October through March in most of the continental United States. 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. Although optimal timing of administration is just before the start of the RSV season, nirsevimab may also be administered during the RSV season to infants and children who are age-eligible.

**Note: Nirsevimab can be administered to children who are eligible to receive palivizumab. Children who have received nirsevimab should not receive palivizumab for the same RSV season.

For further guidance, see www.cdc.gov/mmwr/volumes/72/ wr/mm7234a4.htm and www.cdc.gov/vaccines/vpd/rsv/hcp/ child-faqs.html

Special Situations

For children aged 8-19 months and age-eligible children undergoing certain cardia surgey

rough 36 weeks and 6 days rugh January in most of the

States, 2024

dminister RSV vaccine regardless of previous RSV infection. Either maternal RSV vaccination or infant immunization with ninsevimab (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 fater pregnances,

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

Rotavirus vaccination (minimum age: 6 weeks)

Routine vaccination

Rotarix*: 2-dose series at age 2 and 4 months

RotaTeg*: 3 dose series at age 2.4, and 6 months

If any dose in the series is either RotaTeq® or unknown, default to 3 dose series.

Catch-up vaccination

Do not start the series on or after age 15 weeks. If days
 The maximum age for the final dose is 8 months. If days:
 For other catch up ourdance, see Table 2.



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

Special situations

 Adolescents aged 18 years at increased risk of exposure to poliovirus and completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consist of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see: www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html

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-fags.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.

Special situations

 Ages 8–19 months with chronic lung disease of prematurity requiring medical support (e.g., chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) any time during the 6-month period before the start of the second RSV season; severe immunocompromise; cystic fibrosis with either weight for length <10th percentile or manifestation of severe lung disease (e.g., previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable)**:

 1 dose nirsevimab shortly before start of second RSV season*

Ages 8–19 months who are American Indian or Alaska Native:

- 1 dose nirsevimab shortly before start of second RSV season*
- Age-eligible and undergoing cardiac surgery with cardiopulmonary bypass**: 1 additional dose of nirsevimab after surgery. For additional details see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/childfaqs.html

*Note: While the timing of the onset and duration of RSV season may vary, nirsevimab may be administered October through March in most of the continental United States. 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. Although optimal timing of administration is just before the start of the RSV season to infants and children who are age-eligible.

**Note: Nirsevimab can be administered to children who are eligible to receive palivizumab. Children who have received nirsevimab should not receive palivizumab for the same RSV season.

or further guidance, see www.cdc.gov/mmwr/volumes/72/ vr/mm7234a4.htm and www.cdc.gov/vaccines/vpd/rsv/hcp/ hild-faqs.html

Respiratory syncytial virus vaccinatio (RSV (Abrysvo^m))

outine 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 ninsevimab (RSV monoclonal antibody) is recommended to prevent respiratory syncytial virus lower respiratory tract infection infants.

All other pregnant persons: RSV vaccine not recommended.

There is conently no ACIP recommendation for RSV vaccination in subsequent prognancies. No data are available to inform whether additional doves are needed in fator prognances.

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

Added note on timing of nirsevimab administration.

Added note on use of nirsevimab in children who are eligible to receive palivizumab.

atch-up vaccination

•

Bo not start the series on or after age 15 weeks, 0 days.

The maximum age for the final close is 8 months. 0 days.

For other catch up guidance, see Table 2

Added link to nirsevimab frequently asked questions webpage

Appendix

Contraindications and Precautions

Appendix

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

Guide to Contraindications and Precautions to Commonly Used Vaccines

Adapted from Table 4-1 in Advisory Committee on Immunization Practices (ACIP) General Best Practice Guidelines for Immunization: Contraindication and Precautions, Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2023–24 Influenza Season | MMWR (cdc.gov), Contraindications and Precautions for COVID-19 Vaccination, and Contraindications and Precautions for JYNNEOS Vaccination

Vaccines and other Immunizing Agents	Contraindicated or Not Recommended ¹	Precautions ²
COVID-19 mRNA vaccines [Pfizer-BioNTech, Moderna]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of an mRNA COVID-19 vaccine⁴ 	 Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of an mRNA COVID-19 vaccine⁴; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of an mRNA COVID-19 vaccine Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or severe acute illness, with or without fever
COVID-19 protein subunit vaccine [Novavax]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Novavax COVID-19 vaccine⁴ 	 Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of Novavax COVID-19 vaccine⁴; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of a Novavax COVID-19 vaccine Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or source acute illeres with or without fever
Influenza, egg-based, inactivated injectable (IIV4)	 Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) 	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Moderate or severe acute illness with or without fever
Influenza, cell culture-based inactivated injectable (cclIV4) [Flucelvax Quadrivalent]	 Severe allergic reaction (e.g., anaphylaxis) to any cclIV of any valency, or to any component³ of cclIV4 	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, RIV, or LAIV of any valency. If using ccIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, recombinant injectable (RIV4) [Flublok Quadrivalent]	• Severe allergic reaction (e.g., anaphylaxis) to any RIV of any valency, or to any component ³ of RIV4	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, ccIIV, or LAIV of any valency. If using RIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, live attenuated (LAIV4) [Flumist Quadrivalent]	 Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component¹ (excluding egg) Children age 2-4 years with a history of asthma or wheezing Anatomic or functional asplenia Immunocompromised due to any cause including, but not limited to, medications and HIV infection Close contacts or caregivers of severely immunosuppressed persons who require a protected environment Pregnancy Cochlear implant Active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, ear or any other cranial CSF leak Children and adolescents receiving aspirin or salicylate-containing medications Received influenza antiviral medications oseltamivir or zanamivir within the previous 48 hours, peramivir within the previous 5 days, or baloxavir within the previous 17 days 	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Asthma in persons age 5 years old or older Persons with underlying medical conditions other than those listed under contraindications that might predispose to complications after wild-type influenza virus infection, e.g., chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus) Moderate or severe acute illness with or without fever

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.

2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.

3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. See Package inserts for U.S.-licensed vaccines.

4. See package inserts and FDA EUA fact sheets for a full list of vaccine ingredients. mRNA COVID-19 vaccines contain polyethylene glycol (PEG).

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

Vaccines and other		
Immunizing Agents	Contraindicated or Not Recommended'	Precautions ²
Dengue (DEN4CYD)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Lack of laboratory confirmation of a previous Dengue infection 	Pregnancy HV infection without evidence of severe immunosuppression Moderate or severe acute illness with or without fever
 For DTaP only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP 		Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus-toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; efer Vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine; For DTaP only: Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized Moderate or severe acute illness with or without fever
Haemophilus influenzae type b (Hib)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component¹ Less than age 6 weeks 	Moderate or severe acute illness with or without fever
Hepatitis A (HepA)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including neomycin 	Moderate or severe acute illness with or without fever
Hepatitis B (HepB)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including yeast Pregnancy: Heplisav-B and PreHevbrio are not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated⁴. 	Moderate or severe acute illness with or without fever
Hepatitis A-Hepatitis B vaccine (HepA-HepB) [Twinrix]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component¹ including neomycin and yeast 	Moderate or severe acute illness with or without fever
Human papillomavirus (HPV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a Pregnancy: HPV vaccination not recommended. 	Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR) Measles, mumps, rubella, and varicella (MMRV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	 Recent (<11 months) receipt of antibody-containing blood product (specific interval depends on product History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing Moderate or severe acute illness with or without fever For MMRV only: Personal or family (i.e., sibling or parent) history of seizures of any etiology
Meningococcal ACWY (MenACWY) MenACWY-CRM [Menveo] MenACWY-TT [MenQuadfi]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For Men ACWY-CRM only: severe allergic reaction to any diphtheria toxoid—or CRM197—containing vaccine For MenACWY-TI only: severe allergic reaction to a tetanus toxoid-containing vaccine 	For MenACWY-CRM only: Preterm birth if less than age 9 months Moderate or severe acute illness with or without fever
Meningococcal B (MenB) MenB-4C [Bexsero] MenB-FHbp [Trumenba]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component¹ 	Pregnancy For MenB-4C only: Latex sensitivity Moderate or severe acute illness with or without fever
Meningococcal ABCWY (Men ACWV/TT (Men R-Eldon) (Depterson)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component⁴ Severe allergic reaction to a tetramy trend containing vaccine 	Moderate or severe acute illness, with or without fever
Mpox [Jynneos]	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^a	Moderate or severe acute illness, with or without fever
Pheumococcai conjugate (PCV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component¹ Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid-containing vaccine or its component³ 	Moderate or severe acute liness with or without rever
Pneumococcal polysaccharide (PPSV23)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a 	Moderate or severe acute illness with or without fever
Poliovirus vaccine, inactivated (IPV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component¹ 	Pregnancy Moderate or severe acute illness with or without fever
RSV monoclonal antibody (RSV-mAb)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component⁶ 	Moderate or severe acute illness with or without fever
Respiratory syncytial virus vaccine (RSV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ 	Moderate or severe acute illness with or without fever
Rotavirus (RV) RV1 [Rotarix] RV5 [RotaTeq]	Severe allergic reaction (e.g., anaphyliaxis) after a previous dose or to a vaccine component ¹ Severe combined immunodeficiency (SCID) History of intussusception	Vitered immunocompetence other than SCID Chronic gastrointestinal disease RVI only: Spina bifida or bladder exstrophy Moderate or severe acute illness with or without fever
Tetanus, diphtheria, and acellular pertussis (Tdap) Tetanus, diphtheria (Td)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component¹ For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP; DTaP; or Tdap 	Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid-containing vaccin History of Arthux-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine For Tdap only: Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized Moderate or severe acute illness with or without fever
Varicella (VAR)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component⁸ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	 Recent (<11 months) receipt of antibody-containing blood product (specific interval depends on product Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoir use of these antiviral drugs for 14 days after vaccination) Use of aspirin or aspirin-containing products Moderate or severe acute illness with or without fever If using MMRV, see MMR/MMRV for additional precautions

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html
2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html
3. Vaccination providers should check FDA-approved prectribing information for the most complete and updated information, including contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at
www.fda.gov/vaccines-blood-biologics/approved-precos/general-recs/contraindicated with Heplisav-B or PreHevbrio while pregnant, please visit heplisavbpregnancyregistry.com or www.prehevbrio.com/#safety.
5. Full prescribing information for BEYFORTUS (nirsevimab-alip) www.accessdata.fda.gov/drugsaffda_docs/label/2023/761328s000lbl.pdf

Addendum

New ACIP recommendations

Addendum Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States

In addition to the recommendations presented in the previous sections of this immunization schedule, ACIP has approved the following recommendations by majority vote since October 26, 2023. The following recommendations have been adopted by the CDC Director and are now official. Links are provided if these recommendations have been published in *Morbidity and Mortality Weekly Report (MMWR)*.

Vaccines Recommendations

Effective Date of Recommendation*

No new vaccines or vaccine recommendations to report

2024 Updates to Adult Immunization Schedule



Vaccines in the Adult Immunization Schedule*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty*/Pfizer-BioNTech COVID-19 Vaccine Spikevax*/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Haemophilus influenzae type b vaccine	Hib	ActHIB° Hiberix° PedvaxHIB°
Hepatitis A vaccine	НерА	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	НерА-НерВ	Twinrix [®]
Hepatitis B vaccine	НерВ	Engerix-B° Heplisav-B° PreHevbrio° Recombivax HB°
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/ MenB-FHbp	Penbraya™
Mpox vaccine	Мрох	Jynneos®
Pneumococcal conjugate vaccine	PCV15 PCV20	Vaxneuvance™ Prevnar 20™
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23°
Poliovirus vaccine	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Varicella vaccine	VAR	Varivax®
Zoster vaccine, recombinant	RZV	Shingrix

*Administer recommended vaccines if vaccination history is incomplete or unknown. Do not restart or add doses to vaccine series if there are extended intervals between doses. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

How to use the adult immunization schedule

1	Determine recommended vaccinations by age (Table 1)	2 Assess need for additional recommended vaccinations by medical condition or other indication	Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)	Review contraindications and precautions for vaccine types (Appendix)	5	Review new or updated ACIP guidance (Addendum)
		(Table 2)	(Notes)			

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 College of Physicians (www.acponline.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), American Pharmacists Association (www.pharmacist.com), and Society for Healthcare Epidemiology of America (www.shea-online.org).

Report

 Suspected cases of reportable vaccine-preventable diseases or outbreaks to the local or state health department

 Clinically significant adverse events to the Vaccine Adverse Event Reporting System 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 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



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





Vaccines in the Adult Immunization Schedule*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty®/Pfizer-BioNTech COVID-19 Vaccine Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Haemophilus influenzae type b vaccine	Hib	ActHIB° Hiberix° PedvaxHIB°
Hepatitis A vaccine	НерА	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	НерА-НерВ	Twinrix [®]
Hepatitis B vaccine	НерВ	Engerix-B° Heplisav-B° PreHevbrio® Recombivax HB®
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWT-TT/ MenB-FHbp	Penbraya™
Mpox vaccine	Мрох	Jynneos®
Pneumococcal conjugate vaccine	PCV15 PCV20	vaxneuvance Prevnar 20™
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23°
Poliovirus vaccine	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac ^ø Tdvax™
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Varicella vaccine	VAR	Varivax®

*Administer recommended vaccines if vaccination history is incomplete or unknown. Do not restart or add doses to vaccine series if there are extended intervals between doses. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

How to use the adult immunization schedule

Determine recommended vaccinations by age (Table 1) Table 1 Assess need for additional recommended vaccinations by medical condition or other indication (Table 2)	Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)	Review Contraindications and precautions for vaccine types (Appendix)	Review new or updated ACIP guidance (Addendum)
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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 College of Physicians (www.acponline.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), American Pharmacists Association (www.pharmacist.com), and Society for Healthcare Epidemiology of America (www.shea-online.org).

Report

 Suspected cases of reportable vaccine-preventable diseases or outbreaks to the local or state health department

 Clinically significant adverse events to the Vaccine Adverse Event Reporting System 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
- 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



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





Vaccines in the Adult Immunization Schedule*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty®/Pfizer-BioNTech COVID-19 Vaccine Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Haemophilus influenzae type b vaccine	Hib	ActHIB° Hiberix® PedvaxHIB°
Hepatitis A vaccine	НерА	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	НерА-НерВ	Twinrix®
Hepatitis B vaccine	НерВ	Engerix-B° Heplisav-B° PreHevbrio° Recombivax HB°
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/ MenB-FHbp	Penbraya™
Mpox vaccine	Мрох	Jynneos®
Pneumococcal conjugate vaccine	PCV15 PCV20	Vaxneuvance™ Prevnar 20™
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23°
Poliovirus vaccine	IPV	lpol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Varicella vaccine	VAR	Varivax®
Zoster vaccine, recombinant	RZV	Shingrix

*Administer recommended vaccines if vaccination history is incomplete or unknown. Do not restart or add doses to vaccine series if there are extended intervals between doses. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

Deleted the following vaccines because they are no longer recommended or distributed in the U.S.

- 1. Bivalent mRNA COVID-19 vaccines
- 2. MenACWY-D (Menactra)

Table One

Adult Immunization Schedule by Age

Vaccine	19–26 years	27–49 years		50–64 years	≥65 years
COVID-19		1 or more do	ses of up	dated (2023-2024 Formula) vaccine (See N	lotes)
Influenza inactivated (IIV4) or Influenza recombinant (RIV4) Influenza live, attenuated	1 dose	annually	dose ar	nually	
(LAIV4) Respiratory Syncytial Virus (RSV)		during pregnancy. See Notes.			≥60 years
Tetanus, diphtheria, pertussis (Tdap or Td)				dap for wound management (see notes ap booster every 10 years)
Measles, mumps, rubella (MMR)		1 or 2 doses de (if born	pending	on indication	For healthcare personnel, see notes
Varicella (VAR)		2 doses (if born in 1980 or later) 2 doses			25
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (see notes) 2 doses			loses	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years			
Pneumococcal (PCV15, PCV20, PPSV23)					See Notes See Notes
Hepatitis A (HepA)		2, 3, or 4 doses depending on vaccine			
Hepatitis B (HepB)		2, 3, or 4 dos	es depen	ding on vaccine or condition	
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication, see notes for booster recommendations				
Meningococcal B (MenB)	19 through 23 years 2 or 3 doses depending on vaccine and indication, see notes for booster recommendations				
Haemophilus influenzae type b (Hib)		1 or 3 dose	s depen	ding on indication	
Мрох					
Recommended vaccination for adults lack documentation of vaccination, or		Recommended vaccination for adults w additional risk factor or another indicati		Recommended vaccination based of clinical decision-making	No recommendation/ Not applicable

Vaccine	19–26 years	27-49 years		50–64 years	≥65 years
COVID-19		1 or more do	ses of up	dated (2023-2024 Formula) vaccine (See N	otes)
Influenza inactivated (IIV4) or Influenza recombinant (RIV4) Influenza live, attenuated (LAIV4)	1 dose annually or 1 dose annually				
Respiratory Syncytial Virus (RSV)	Seasonal administration	during pregnancy. See Notes.			≥60 years
Tetanus, diphtheria, pertussis (Tdap or Td)				dap for wound management (see notes) ap booster every 10 years	
Measles, mumps, rubella (MMR)		1 or 2 doses de (if born i			For healthcare personnel, see notes
Varicella (VAR)	2 doses (if born in 1980 or later) 2 doses			5	
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (see notes) 2 doses				oses
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition 27 through 45 years				
Pneumococcal (PCV15, PCV20, PPSV23)					See Notes See Notes
Hepatitis A (HepA)	2, 3, or 4 doses depending on vaccine				
Hepatitis B (HepB)		2, 3, or 4 dose	s depen	ding on vaccine or condition	
Meningococcal A, C, W, Y (MenACWY)		1 or 2 doses depending on indic	ation, s	ee notes for booster recommendations	
Meningococcal B (MenB)	19 through 23 years				
Haemophilus influenzae type b (Hib)		1 or 3 dose	s depen	ding on indication	
Мрох					
Recommended vaccination for adults v lack documentation of vaccination, or l		Recommended vaccination for adults w additional risk factor or another indication		Recommended vaccination based o clinical decision-making	n shared No recommendation/ Not applicable

Vaccine	19–26 years	27-49 years	5	0-64 years	≥65 years
COVID-19	1 or more doses of updated (2023-2024 Formula) vaccine (See Notes)				
Influenza inactivated (IIV4) or Influenza recombinant (RIV4) Influenza live, attenuated	1 dose annually or				
(LAIV4)	1 do:	se annually			
Respiratory Syncytial Virus (RSV)	Seasonal administration	during pregnancy. See Notes.			≥60 years
Tetanus, diphtheria, pertussis (Tdap or Td)		1 dose Tdap each pregnancy; 1 d	ose Td/Tdap for wound Td or Tdap booster eve		
Measles, mumps, rubella (MMR)		1 or 2 doses de	pending on indication n 1957 or later)		For healthcare personnel, see notes
Varicella (VAR)	2 doses (if born in 1980 or later) 2 doses				
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (see notes) 2 doses			ies	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years			
Pneumococcal (PCV15, PCV20, PPSV23)]	See Notes See Notes
Hepatitis A (HepA)		2, 3, or 4 do	oses depending on vac	cine	
Hepatitis B (HepB)		2, 3, or 4 dose	es depending on vaccin	e or condition	
Meningococcal A, C, W, Y (MenACWY)		1 or 2 doses depending on indic	ation, see notes for bo	oster recommendations	
Meningococcal B (MenB)	19 through 23 years				
Haemophilus influenzae type b (Hib)	1 or 3 doses depending on indication				
Мрох					
Recommended vaccination for adults lack documentation of vaccination, or		Recommended vaccination for adults wi additional risk factor or another indication		mended vaccination based on I decision-making	shared No recommendation/ Not applicable

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Vaccine	19–26 years	27–49 years		50-	-64 years	≥65 years
COVID-19	1 or more doses of updated (2023-2024 Formula) vaccine (See Notes)					
Influenza inactivated (IIV4) or Influenza recombinant (RIV4) Influenza live, attenuated	1 dose annually 01					
LAIV4) Respiratory Syncytial Virus RSV)		during pregnancy. See Notes.				≥60 years
Tetanus, diphtheria, pertussis Tdap or Td)		1 dose Tdap each pregnancy; 1 d 1 dose Tdap, then				
Measles, mumps, rubella (MMR)		1 or 2 doses de (if born i	ending	on indication		For healthcare personnel, see notes
Varicella (VAR)	2 doses (if born in 1980 or later)			2 doses		
Zoster recombinant RZV)	2 doses for immunocompromising conditions (see notes) 2 dos			ses		
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years				
Pneumococcal (PCV15, PCV20, PPSV23)						See Notes See Notes
Hepatitis A (HepA)	2, 3, or 4 doses depending on vaccine					
Hepatitis B HepB)		2, 3, or 4 dose	s depen	ding on vaccine	or condition	
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication, see notes for booster recommendations					
Meningococcal B (MenB)	2 or 3 doses depending on vaccine and indication, see notes for booster recommendations					
Haemophilus influenzae type b (Hib)	1 or 3 doses depending on indication					
Мрох						
Recommended vaccination for adults lack documentation of vaccination, or		Recommended vaccination for adults wi additional risk factor or another indicatio			ended vaccination based on lecision-making	shared No recommendation/ Not applicable

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Table 2

The Medical Indications Table



Vaccines in the Adult Immunization Schedule*

Vaccine	Abbreviation(s)	Trade name(s)
COVID-19 vaccine	1vCOV-mRNA	Comirnaty®/Pfizer-BioNTech COVID-19 Vaccin Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Haemophilus influenzae type b vaccine	Hib	ActHIB* Hiberix* PedvaxHIB*
Hepatitis A vaccine	НерА	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	НерА-НерВ	Twinrix [®]
Hepatitis B vaccine	НерВ	Engerix-B° Heplisav-B° PreHevbrio° Recombivax HB°
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV4	Many brands
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Influenza vaccine (recombinant)	RIV4	Flublok® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-CRM MenACWY-TT	Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	MenACWY-TT/ MenB-FHbp	Penbraya™
Mpox vaccine	Мрох	Jynneos*
Pneumococcal conjugate vaccine	PCV15 PCV20	Vaxneuvance™ Prevnar 20™
Pneumococcal polysaccharide vaccine	PPSV23	Pneumovax 23°
Poliovirus vaccine	IPV	Ipol®
Respiratory syncytial virus vaccine	RSV	Arexvy® Abrysvo™
Tetanus and diphtheria toxoids	Td	Tenivac® Tdvax™
Tetanus and diphtheria toxoids and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Varicella vaccine	VAR	Varivax®
Zoster vaccine, recombinant	RZV	Shingrix

*Administer recommended vaccines if vaccination history is incomplete or unknown. Do not restart or add doses to vaccine series if there are extended intervals between doses. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

How to use the adult immunization schedule

Determine recommended vaccinations by age 4 vaccinations (Table 1) 4 vaccinations by age 4 vaccinations by age 4 vaccinations by age 4 vaccinations age 4 vaccinatio	3 Review vaccine types, dosing frequencies and intervals, and considerations for special situations (Notes)
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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 College of Physicians (www.acponline.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), American Pharmacists Association (www.pharmacist.com), and Society for Healthcare Epidemiology of America (www.shea-online.org).

Report

 Suspected cases of reportable vaccine-preventable diseases or outbreaks to the local or state health department

 Clinically significant adverse events to the Vaccine Adverse Event Reporting System at www.vaers.hhs.gov or 800-822-7967

Ouestions 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. CDC

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-fags.html General Best Practice Guidelines for Immunization 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



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



Table 2: Immunization by Medical Indication

- Revised the legend definitions to improve clarity of the recommendations
- Harmonized changes with the child schedule

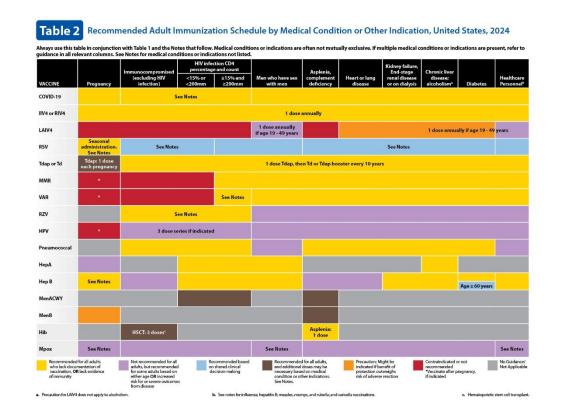


Table 2: New Legend Definitions

Recommended for all adults who lack documentation of vaccination, **OR** lack evidence of immunity Not recommended for all adults, but recommended for some adults based on either age **OR** increased risk for or severe outcomes from disease Recommended based on shared clinical decision-making Recommended for all adults, 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

Table 2Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2024

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

		Immunocompromised		ction CD4 e and count		Asplenia,		Kidney failure, End-stage	e, Chronic liver				
VACCINE	Pregnancy	(excluding HIV infection)	<15% or <200mm	≥15% and ≥200mm	Men who have sex with men	complement deficiency	Heart or lung disease	renal disease or on dialysis	disease; alcoholismª	Diabetes	Healthcare Personnel ^b		
COVID-19		S	ee Notes										
IIV4 or RIV4					1 dose annually								
LAIV4			1 dose annually if age 19 - 49 years	1 dose annually if age 19 - 49									
RSV	Seasonal administration. See Notes See Notes				See Notes								
ldap or Td	Tdap: 1 dose each pregnancy				1 dose Tdap, the	n Td or Tdap bo	oster every 10 year	's					
MMR	*												
VAR	×			See Notes									
RZV		See Notes											
HPV	¥	3 dose se	ries if indicated	I									
Pneumococcal													
НерА								~					
Нер В	See Notes									Age ≥ 60 years			
MenACWY													
MenB													
Hib		HSCT: 3 doses ^c				Asplenia: 1 dose							
Мрох	See Notes				See Notes						See Notes		
Recommendee who lack docu vaccination, O of immunity		Not recommended for all adults, but recommendec for some adults based on either age OR increased risk for or severe outcome from disease	l on de	commended based shared clinical ecision-making	Recommended and additional necessary base condition or ot See Notes.	doses may be d on medical	Precaution: M indicated if be protection ou risk of adverse	enefit of tweighs	Contraindicated or recommended *Vaccinate after p if indicated		No Guidance/ Not Applicabl		

a. Precaution for LAIV4 does not apply to alcoholism.

Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2024

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

VACCINE	Pregnancy	Immunocompromised (excluding HIV infection)		ection CD4 Je and count	Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver disease; alcoholismª			
			<15% or <200mm	≥15% and ≥200mm						Diabetes	Healthcare Personnel ^ь	
COVID-19		s										
IIV4 or RIV4					1 dose annually							
LAIV4			1 dose annually if age 19 - 49 years				1 dose annua	lly if age 19 - 49) years			
RSV	Seasonal administration. See Notes	See Note:		See Notes								
Tdap or Td	Tdap: 1 dose each pregnancy				1 dose Tdap, the	en Td or Tdap bo	oster every 10 year	s				
MMR	*											
VAR	*			See Notes								
RZV		s	ee Notes									
HPV	*	3 dose se	eries if indicated	I								
Pneumococcal												
НерА												
Нер В	See Notes									Age≥60 years	1	
MenACWY									_			
MenB												
Hib		HSCT: 3 doses ^c				Asplenia: 1 dose						
Мрох	See Notes				See Notes						See Notes	
Recommender who lack docu vaccination, O of immunity		Not recommended for all adults, but recommender for some adults based on either age OR increased risk for or severe outcome from disease	l on de	commended based shared clinical ecision-making	Recommendee and additional necessary base condition or ot See Notes.	doses may be	Precaution: M indicated if be protection ou risk of adverse	nefit of tweighs	Contraindicated o recommended *Vaccinate after pr if indicated		No Guidance/ Not Applicable	

Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2024

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

	Pregnancy	Immunocompromised (excluding HIV infection)		ction CD4 e and count	Men who have sex with men	Asplenia,		Kidney failure, End-stage	Chronic liver			
VACCINE			<15% or <200mm	≥15% and ≥200mm		complement deficiency	Heart or lung disease	renal disease or on dialysis	disease; alcoholismª	Diabetes	Healthcare Personnel ^b	
COVID-19		S	iee Notes									
IIV4 or RIV4					1 dose annually							
LAIV4	3				1 dose annually if age 19 - 49 years				1 dose annua	ally if age 19 - 49	9 years	
RSV	Seasonal administration. See Notes	See Note			See Notes							
Tdap or Td	Tdap: 1 dose each pregnancy				1 dose Tdap, the	n Td or Tdap bo	oster every 10 year	s				
MMR	*											
VAR	*			See Notes								
RZV		S	iee Notes									
нру	*	3 dose s	eries if indicated	ı								
Pneumococcal												
НерА												
Hep B	See Notes									Age ≥ 60 years		
MenACWY												
MenB												
Hib		HSCT: 3 doses ^c				Asplenia: 1 dose						
Мрох	See Notes				See Notes						See Notes	
Recommendee who lack docu vaccination, O of immunity		Not recommended for al adults, but recommende for some adults based or either age OR increased risk for or severe outcom from disease	d on de	commended based a shared clinical ecision-making	Recommendee and additional necessary base condition or ot See Notes.	doses may be	Precaution: M indicated if be protection ou risk of adverse	enefit of tweighs	Contraindicated o recommended *Vaccinate after p if indicated		No Guidance/ Not Applicable	

a. Precaution for LAIV4 does not apply to alcoholism.

Table 2 Recommended Adult Immunization Schedule by Medical Condition or Other Indication, United States, 2024

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

	Pregnancy	Immunocompromised (excluding HIV infection)		HIV infection CD4 percentage and count	Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver		
VACCINE			<15% or <200mm	≥15% and ≥200mm					disease; alcoholismª	Diabetes	Healthcare Personnel ^b
COVID-19		s	ee Notes								
IIV4 or RIV4					1 dose	annually					
LAIV4					1 dose annually if age 19 - 49 years				1 dose annua	ally if age 19 - 49	years
RSV	Seasonal administration. See Notes	See Note:	5					See Notes			
Tdap or Td	Tdap: 1 dose each pregnancy				1 dose Tdap, the	n Td or Tdap bo	oster every 10 year	s			
MMR	*										
VAR	*			See Notes							
RZV		See Notes									
HPV	*	3 dose se	eries if indicated	ı							
Pneumococcal											
НерА											
Нер В	See Notes									Age ≥ 60 years	
MenACWY							-				
MenB											
Hib		HSCT: 3 doses ^c				Asplenia: 1 dose					
Мрох	See Notes				See Notes						See Notes
Recommended who lack docu vaccination, O of immunity		Not recommended for all adults, but recommender for some adults based on either age OR increased risk for or severe outcome from disease	d on de	commended based shared clinical ecision-making	Recommendee and additional necessary base condition or ot See Notes.	doses may be	Precaution: Mi indicated if be protection out risk of adverse	nefit of tweighs	Contraindicated of recommended *Vaccinate after p if indicated		No Guidance/ Not Applicable

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

For vaccination recommendations for persons ages 18 years or younger, see the Recommended Child and Adolescent Immunization Schedule, 2024: www.cdc.gov/ vaccines/schedules/hcp/child-adolescent.html

Additional Information

- For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥4 months are determined by calendar months.
- Within a number range (e.g., 12–18), a dash (–) should be read as "through."
- Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated. The repeat dose should be spaced after the invalid dose by the recommended minimum interval. For further details, see Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/ vaccines/hcp/acip-recs/general-recs/timing.html.
- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/.
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/ hcp/acip-recs/general-recs/immunocompetence.html
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, Mpox, and COVID-19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa. gov/vaccinecompensation or www.hrsa.gov/cicp.

COVID-19 vaccination

Routine vaccination

Age 19 years or older

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

Special situations

Persons who are moderately or severely immunocompromised**

Unvaccinated:

- 3-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, 7 weeks
- 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3 weeks
- Previously vaccinated* with 1 dose of any Moderna: 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks)
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after most recent dose.
- Previously vaccinated* with 1 dose of any Pfizer-BioNTech: 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of updated (2023–2024 Formula)
 Pfizer-BioNTech at least 4 weeks after most recent dose.

- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- Previously vaccinated* with 1 or more doses of Janssen or Novavax with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine:
 1 dose of any updated (2023–2024 Formula) of COVID-19 vaccine at least 8 weeks after the most recent dose.

There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Current COVID-19 vaccine information available at www.cdc.gov/covidschedule. For information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergencypreparedness-and-response/coronavirus-disease-2019covid-19/covid-19-vaccines.

*Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023-2024 formulation.

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

For vaccination recommendations for persons ages 18 years or younger, see the Recommended Child and Adolescent Immunization Schedule, 2024: www.cdc.gov/ vaccines/schedules/hcp/child-adolescent.html

Additional Information

- For calculating intervals between doses, 4 weeks = 28 days. Intervals of \geq 4 months are determined by calendar months.
- Within a number range (e.g., 12–18), a dash (–) should be read as "through."
- Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥ 5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated. The repeat dose should be spaced after the invalid dose by the inmunocompromised** recommended minimum interval. For further details, see Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in General Best Practice Guidelines for Immunization at www.cdc.gov/ vaccines/hcp/acip-recs/general-recs/timing.html.
- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/.
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/ hcp/acip-recs/general-recs/immunocompetence.html
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.

 The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, Mpox, and COVID-19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP).For more information, see www.hrsa. gov/vaccinecompensation or www.hrsa.gov/cicp.

- ge 19 years or older

Previously vaccinated* with 1 or more doses of any

ersons who are moderately or severely

Previously v

BioNTec

Previously v

BioNTech: 1

Previously vaccinated* with 1 dose of any Aoderna: 2-dose series of updated (2023–2024)

- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated
- Previously vaccinated* with 1 or more doses of Janssen or Novavax with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine:

*Note: Previously vaccinated is defined as having

**Note: Persons who are moderately or severely

The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, Mpox, and COVID-19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/vaccinecompensation or www.hrsa.gov/cicp.



Routine vaccination

Persons **NOT** moderately or severely immunocompromised

- Outlines vaccination series by previous COVID-19 vaccination history.
 - Within a number range (e.g., 12–18), a dash (–) should be read as "through."
 - Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated. The repeat dose should be spaced after the invalid dose by th recommended minimum interval. For further detail see Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/ vaccines/hcp/acip-recs/general-recs/timing.html.
 - Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/
 - For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practic Guidelines for Immunization at www.cdc.gov/vaccines hcp/acip-recs/general-recs/immunocompetence.htm
 - For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
 - The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, and COVID-19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). COVID-19 vaccines that are authorized or approved by the FDA are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/ vaccinecompensation or www.hrsa.gov/cicp.

COVID-19 vaccination

Routine vaccination

- Age 19 years or older
- 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 1 or more doses of any COVID-19 vaccine: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine administered at least 8 weeks after the most recent COVID-19 vaccine dose.

Special situations

Persons who are moderately or severely immunocompromised**

- Unvaccinated:
- 3-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, 7 weeks
- 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3 weeks
- Previously vaccinated* with 1 dose of any Moderna: 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks)
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after most recent dose.
- Previously vaccinated* with 1 dose of any Pfizer-BioNTech: 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 4 weeks after most recent dose.

- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- Previously vaccinated* with 1 or more doses of Janssen or Novavax with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine:
 1 dose of any updated (2023–2024 Formula) of COVID-19 vaccine at least 8 weeks after the most recent dose.
- There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Current COVID-19 vaccine information available at www.cdc.gov/covidschedule. For information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergencypreparedness-and-response/coronavirus-disease-2019covid-19/covid-19-vaccines.

*Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023-2024 formulation.

es Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024

For vaccination recommendations for persons ages 18 years or younger, see the Recommended Child and Adolescent Immunization Schedule, 2024: www.cdc.gov/ vaccines/schedules/hcp/child-adolescent.html

Additional Information

For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥4 months are determined by calendar months.

Within a number range (e.g., 12–18), a dash (–) should be read as "through"

Special situations

Persons who ARE moderately or severely immunocompromised

 Outlines vaccination series by previous COVID-19 vaccination history.

> and intervals between vaccine doses, in *General bes* Practice Guidelines for Immunization at www.cdc.gov vaccines/hcp/acip-recs/general-recs/timing.html.

- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary an secondary immunodeficiencies, in General Best Practic Guidelines for Immunization at www.cdc.gov/vaccines hcp/acip-recs/general-recs/immunocompetence.htm
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, and COVID-19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). COVID-19 vaccines that are authorized or approved by the FDA are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/ vaccinecompensation or www.hrsa.gov/cicp.

COVID-19 vaccination

Routine vaccination

- Age 19 years or older
- 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 1 or more doses of any COVID-19 vaccine: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine administered at least 8 weeks after the most recent COVID-19 vaccine dose.

Special situations

Persons who are moderately or severely mmunocompromised**

- Unvaccinated:
- 3-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, 7 weeks
- 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3 weeks
- Previously vaccinated* with 1 dose of any Moderna: 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks)
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after most recent dose.
- Previously vaccinated* with 1 dose of any Pfizer-BioNTech: 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 4 weeks after most recent dose.

- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- Previously vaccinated* with 1 or more doses of Janssen or Novavax with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine:
 1 dose of any updated (2023–2024 Formula) of COVID-19 vaccine at least 8 weeks after the most recent dose.
- There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Current COVID-19 vaccine information available at www.cdc.gov/covidschedule. For information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergencypreparedness-and-response/coronavirus-disease-2019covid-19/covid-19-vaccines.

*Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023-2024 formulation.

Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024

For vaccination recommendations for persons ages 18 years or younger, see the Recommended Child and Adolescent Immunization Schedule, 2024: www.cdc.gov/ vaccines/schedules/hcp/child-adolescent.html

Additional Information

- For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥4 months are determined by calendar months.
- Within a number range (e.g., 12–18), a dash (–) should be read as "through."
- Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated. The repeat dose should be spaced after the invalid dose by the recommended minimum interval. For further details see Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/ vaccines/hcp/acip-recs/general-recs/timing.html.
- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in *General Best Practic Guidelines for Immunization* at www.cdc.gov/vaccines. hcp/acip-recs/general-recs/immunocompetence.htm
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the adult immunization schedule except PPSV23, RSV, RZV, and COVID-19 vaccines are covered by the National Vaccine Injury Compensation Program (VICP). COVID-19 vaccines that are authorized or approved by the FDA are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/ vaccinecompensation or www.hrsa.gov/cicp.

COVID-19 vaccination

Routine vaccination

- Age 19 years or older
- 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 1 or more doses of any COVID-19 vaccine: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine administered at least 8 weeks after the most recent COVID-19 vaccine dose.

Special situations

Persons who are moderately or severely immunocompromised**

- Unvaccinated:
- 3-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, 7 weeks
- 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3 weeks
- Previously vaccinated* with 1 dose of any Moderna: 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks)
- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after most recent dose.
- Previously vaccinated* with 1 dose of any Pfizer-BioNTech: 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 4 weeks after most recent dose.

- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- Previously vaccinated* with 1 or more doses of Janssen or Novavax with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine:
 1 dose of any updated (2023–2024 Formula) of COVID-19 vaccine at least 8 weeks after the most recent dose.

There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Current COVID-19 vaccine information available at www.cdc.gov/covidschedule. For information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergencypreparedness-and-response/coronavirus-disease-2019covid-19/covid-19-vaccines.

*Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023-2024 formulation.

Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024

COVID-19 vaccination

Routine vaccination

- Age 19 years or older
- Unvaccinated:

*Note: Previously vaccinated is defined as having

- -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 1 or more doses of any COVID-19 vaccine: 1 dose of any updated (2023-2024 Formula) COVID-19 vaccine administered at least 8 weeks after the most recent COVID-19 vaccine dose.

received any Original monovalent or bivalent

COVID-19 vaccine (Janssen, Moderna, Novavax,

Pfizer-BioNTech) prior to the updated 2023–2024 formulation.

Previously vaccinated with r dose of any Moderna: 2-dose series of updated (2023–2024) Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks)

Pfizer-

- Previously vaccinated* with 2 doses of any Moderna: 1 dose of updated (2023-2024 Formula) Moderna at least 4 weeks after most recent dose.
- Previously vaccinated* with 1 dose of any Pfizer-BioNTech: 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- Previously vaccinated* with 2 doses of any Pfizer-BioNTech: 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 4 weeks after most recent dose.

- Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech: 1 dose of any updated (2023-2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- Previously vaccinated* with 1 or more doses of Janssen or Novavax with or without dose(s) of any **Original monovalent or bivalent COVID-19 vaccine:** 1 dose of any updated (2023-2024 Formula) of COVID-19 vaccine at least 8 weeks after the most recent dose.

There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Current COVID-19 vaccine information available at www.cdc.gov/covidschedule. For information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergencypreparedness-and-response/coronavirus-disease-2019covid-19/covid-19-vaccines.

*Note: Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023-2024 formulation.

S Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Pregnan

Hepatit

laemophilus influenzae type b vaccination

Special situations

- Anatomical or functional asplenia (including sickle cell disease): 1 dose if previously did not receive Hib vaccine; if elective splenectomy, 1 dose preferably at least 14 days before splenectomy.
- Hematopoietic stem cell transplant (HSCT): 3-dose series 4 weeks apart starting 6–12 months after successful transplant, regardless of Hib vaccination history.

Hepatitis A vaccination

Routine vaccination

Any person who is not fully vaccinated and request vaccination (identification of risk factor not required) 2-dose series HepA (Havrix 6–12 months apart or Vaqta 6–18 months apart [minimum interval: 6 months]) or 3-dose series HepA-HepB (Twinrix at 0,

1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 5 months])

Special situations

Any person who is not fully vaccinated and who is a risk for hepatitis A virus infection: 2-dose series Hep A

or 3-dose series HepA-HepB as above. Risk factors for hepatitis A virus infection include:

- Chronic liver disease (e.g., persons with hepatitis B, hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice the upper limit of normal)

HIV infection

Men who have sex with men

with hepatitis A virus infection

 Injection or noninjection drug use
 Persons experiencing homelessness
 Work with hepatitis A virus in research laboratory or with nonhuman primates **Travel in countries with high or intermediate endemic hepatitis A** (HepA-HepB [Twinrix] may be administered on an accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months)

Close, personal contact with international adoptee (e.g., household or regular babysitting) in first 60 day after arrival from country with high or intermediate endemic hepatitis A (administer dose 1 as soon as adoption is planned, at least 2 weeks before adoptee's arrival)

- Age 60 years or older without known risk factors for hepatitis B virus infection may receive a HepB vaccine series.
- Age 60 years or older with known risk factors for hepatitis B virus infection should receive a HepB vaccine series.
- Any adult age 60 years of age or older who requests HepB vaccination should receive a HepB vaccine series.
- Risk factors for hepatitis B virus infection include:

Routine vaccination
Revised the description to align with ACIP policy

) level mal f hepatitis ins, sexuall

Age 19 through 59 years: complete a 2- or 3- or 4-dose series

2-dose series only applies when 2 doses of Heplisav-B* are used at least 4 weeks apart

3-dose series Engerix-B, PreHevbrio*, or Recombivax HB at 0, 1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 8 weeks / dose 1 to dose 3: 16 weeks])

3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: dose 1 to dose 2:
4 weeks / dose 2 to dose 3: 5 months])
4-dose series HepA-HepB (Twinrix) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed

by a booster dose at 12 months

*Note: Heplisav-B and PreHevbrio are not recommended in pregnancy due to lack of safety data n pregnant persons. men who have sex with mer

- Current or recent injection drug use
- Percutaneous or mucosal risk for exposure to blood e.g., household contacts of HBsAgpositive persons, residents and staff of facilities for developmentally disabled persons, health care and public safety personnel with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids; persons on maintenance dialysis (including in-center or home hemodialysis and peritoneal dialysis), persons who are predialysis, and patients with diabetes*

Incarceration

Travel in countries with high or intermediate endemic hepatitis B

*Age 60 years or older with diabetes: Based on shared clinical decision making, 2-, 3-, or 4-dose series as above.

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Haemophilus influenzae type b vaccination

Special situations

- Anatomical or functional asplenia (including sickle cell disease): 1 dose if previously did not receive Hib vaccine; if elective splenectomy, 1 dose preferably at least 14 days before splenectomy.
- Hematopoietic stem cell transplant (HSCT): 3-dose series 4 weeks apart starting 6–12 months after successful transplant, regardless of Hib vaccination history.

Hepatitis A vaccination

Routine vaccinatior

Any person who is not fully vaccinated and requests vaccination (identification of risk factor not required): 2-dose series HepA (Havrix 6–12 months apart or Vaqta 6–18 months apart [minimum interval: 6 months]) or 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: dose 1 to dose 2:4 weeks / dose 2 to dose 3:5 months])

Special situations

- Any person who is not fully vaccinated and who is at risk for hepatitis A virus infection: 2-dose series HepA or 3-dose series HepA-HepB as above. Risk factors for hepatitis A virus infection include:
- Chronic liver disease (e.g., persons with hepatitis B, hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice the upper limit of normal)

HIV infection

- Men who have sex with me
- Injection or noninjection drug use
 Persons experiencing homelessness
 Work with hepatitis A virus in research laboratory or with nonhuman primates with hepatitis A virus infection

Travel in countries with high or intermediate endemic hepatitis A (HepA-HepB [Twinrix] may be administered on an accelerated schedule of

Routine vaccinationAdded new bullet

adoptee's arrival)

- Pregnancy if at risk for infection or severe outcome from infection during pregnancy
- Settings for exposure, including health care setting targeting services to injection or noninjection drug users or group homes and nonresidential day care facilities for developmentally disabled persons (individual risk factor screening not required)

Hepatitis B vaccination

Routine vaccination

- Age 19 through 59 years: complete a 2- or 3- or 4-dose series
- 2-dose series only applies when 2 doses of Heplisav-B* are used at least 4 weeks apart
- 3-dose series Engerix-B, PreHevbrio*, or Recombivax HB at 0, 1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 8 weeks / dose 1 to dose 3: 16 weeks])
- 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 5 months])
- 4-dose series HepA-HepB (Twinrix) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months
- *Note: Heplisav-B and PreHevbrio are not recommended in pregnancy due to lack of safety data in pregnant persons.

- Age 60 years or older without known risk factors for hepatitis B virus infection may receive a HepB vaccine series.
- Age 60 years or older with known risk factors for hepatitis B virus infection should receive a HepB vaccine series.
- Any adult age 60 years of age or older who requests HepB vaccination should receive a HepB vaccine series.
- Risk factors for hepatitis B virus infection include:
 Chronic liver disease e.g., persons with hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase (ALT) or aspartate aminotransferase (AST) level greater than twice the upper limit of normal
 HIV infection
- **Sexual exposure risk** e.g., sex partners of hepatitis B surface antigen (HBsAg)-positive persons, sexually active persons not in mutually monogamous relationships, persons seeking evaluation or treatment for a sexually transmitted infection, men who have sex with men
- Current or recent injection drug use
- **Percutaneous or mucosal risk for exposure to blood** e.g., household contacts of HBsAg-
- positive persons, residents and staff of facilities for developmentally disabled persons, health care and public safety personnel with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids; persons on maintenance dialysis (including in-center or home hemodialysis and peritoneal dialysis), persons who are predialysis, and patients with diabetes*

Incarceration

- Travel in countries with high or intermediate endemic hepatitis B
- *Age 60 years or older with diabetes: Based on shared clinical decision making, 2-, 3-, or 4-dose series as above.

S Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Haemophilus influenzae type b vaccination

Special situations

- Anatomical or functional asplenia (including sickle cell disease): 1 dose if previously did not receive Hib vaccine; if elective splenectomy, 1 dose preferably at least 14 days before splenectomy.
- Hematopoietic stem cell transplant (HSCT): 3-dose series 4 weeks apart starting 6–12 months after successful transplant, regardless of Hib vaccination history.

Hepatitis A vaccination

Routine vaccinatior

Any person who is not fully vaccinated and requests vaccination (identification of risk factor not required): 2-dose series HepA (Havrix 6–12 months apart or Vaqta 6–18 months apart [minimum interval: 6 months]) or 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 5 months])

Special situations

- Any person who is not fully vaccinated and who is at risk for hepatitis A virus infection: 2-dose series HepA or 3-dose series HepA-HepB as above. Risk factors for hepatitis A virus infection include:
- Chronic liver disease (e.g., persons with hepatitis B, hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase [ALT] or aspartate aminotransferase [AST] level greater than twice the upper limit of normal)

HIV infection

- Men who have sex with me
- Injection or noninjection drug use
 Persons experiencing homelessness
 Work with hepatitis A virus in research laboratory or with nonhuman primates with hepatitis A virus infection

- Travel in countries with high or intermediate endemic hepatitis A (HepA-HepB [Twinrix] may be administered on an accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months)
- Close, personal contact with international adoptee (e.g., household or regular babysitting) in first 60 day after arrival from country with high or intermediate endemic hepatitis A (administer dose 1 as soon as adoption is planned, at least 2 weeks before adoptee's arrival)
- Pregnancy if at risk for infection or severe outcome from infection during pregnancy
- Settings for exposure, including health care setting targeting services to injection or noninjection drug users or group homes and nonresidential day care facilities for developmentally disabled persons (individual risk factor screening not required)

Hepatitis B vaccination

Routine vaccination

- Age 19 through 59 years: complete a 2- or 3- or 4-dose series
- 2-dose series only applies when 2 doses of Heplisav-B* are used at least 4 weeks apart
- 3-dose series Engerix-B, PreHevbrio*, or Recombivax HB at 0, 1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 8 weeks / dose 1 to dose 3: 16 weeks])
- 3-dose series HepA-HepB (Twinrix at 0, 1, 6 months [minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 5 months])
- 4-dose series HepA-HepB (Twinrix) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months

***Note:** Heplisav-B and PreHevbrio are not recommended in pregnancy due to lack of safety data in pregnant persons.

- Age 60 years or older without known risk factors for hepatitis B virus infection may receive a HepB vaccine series.
- Age 60 years or older with known risk factors for hepatitis B virus infection should receive a HepB vaccine series.
- Any adult age 60 years of age or older who requests HepB vaccination should receive a HepB vaccine series.
- Risk factors for hepatitis B virus infection include:
 Chronic liver disease e.g., persons with hepatitis C, cirrhosis, fatty liver disease, alcoholic liver disease, autoimmune hepatitis, alanine aminotransferase (ALT) or aspartate aminotransferase (AST) level greater than twice the upper limit of normal
 HIV infection
- Sexual exposure risk e.g., sex partners of hepatitis B surface antigen (HBsAg)-positive persons, sexually active persons not in mutually monogamous relationships, persons seeking evaluation or treatment for a sexually transmitted infection, men who have sex with men
- Current or recent injection drug use
- Percutaneous or mucosal risk for exposure
- to blood e.g., household contacts of HBsAgpositive persons, residents and staff of facilities for developmentally disabled persons, health care and public safety personnel with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids; persons on maintenance dialysis (including in-center or home hemodialysis and peritoneal dialysis), persons who are predialysis, and patients with diabetes*

Incarceration

 Travel in countries with high or intermediate endemic hepatitis B

*Age 60 years or older with diabetes: Based on shared clinical decision making, 2-, 3-, or 4-dose series as above.

S Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Special situations

Patients on dialysis: complete a 3- or 4-dose series
-3-dose series Recombivax HB at 0, 1, 6 months (Note: Use Dialysis Formulation 1 mL = 40 mcg)
-4-dose series Engerix-B at 0, 1, 2, and 6 months (Note: Use 2 mL dose instead of the normal adult dose of 1 mL)

Human papillomavirus vaccination

Routine vaccination

 All persons up through age 26 years: 2- or 3-dose series depending on age at initial vaccination or condition

 Age 9–14 years at initial vaccination and received 1 dose or 2 doses less than 5 months apart: 1 additional dose

- Age 9–14 years at initial vaccination and received 2 doses at least 5 months apart: HPV vaccination series complete, no additional dose needed

- Age 15 years or older at initial vaccination: 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5 months; repeat dose if administered too soon)

No additional dose recommended when any HPV vaccine series of any valency has been completed using the recommended dosing intervals.

Shared clinical decision-making

• Adults age 27–45 years: Based on shared clinical decision-making, complete a 2-dose series (if initiated age 9-14 years) or 3-dose series (if initiated ≥15 years)

For additional information on shared clinical decisionmaking for HPV; see www.cdc.gov/vaccines/hcp/admin/ downloads/isd-job-aid-scdm-hpv-shared-clinicaldecision-making-hpv.pdf

Special situation

- Age ranges recommended above for routine and catch-up vaccination or shared clinical decisionmaking also apply in special situations
 Immunocompromising conditions, including HIV infection: 3-dose series, even for those who initiate vaccination at age 9 through 14 years.
- **Pregnancy:** Pregnancy testing is not needed before vaccination. HPV vaccination is not recommended until after pregnancy. No intervention needed if inadvertently vaccinated while pregnant.

Influenza vaccinatio

Routine vaccination

Close co

workers

- Age 19 years or older: 1 dose any influenza vaccine appropriate for age and health status annually. - Age 65 years or older: Any one of quadrivalent
- high-dose inactivated influenza vaccine (HD-IV4), quadrivalent recombinant influenza vaccine RIV4), or quadrivalent adjuvanted inactivated

Measles, mumps, and rubella vaccinatior

Routine vaccinatio

- No evidence of immunity to measles, mumps, or rubella: 1 dose
- Evidence of immunity: Born before 1957 (except for health care personnel, see below), documentation of receipt of MMR vaccine, laboratory evidence of immunity or disease (diagnosis of disease without laboratory confirmation is not evidence of immunity)

Special situations

- **Pregnancy with no evidence of immunity to rubella:** MMR contraindicated during pregnancy; after pregnancy (before discharge from health care facility), 1 dose
- Nonpregnant persons of childbearing age with no evidence of immunity to rubella: 1 dose
- HIV infection with CD4 percentages ≥15% and CD4 count ≥200 cells/mm³ for at least 6 months and no evidence of immunity to measles, mumps, or

Routine vaccination

- No additional dose recommended when any HPV vaccine series of any valency has been completed using recommended dosing intervals.
 - Deleted bullet on interrupted HPV schedule

persons for 7 days after vaccination.

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

additional doses of MMR (including 3rd dose of MMR), see www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm

S Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Special situations

 Patients on dialysis: complete a 3- or 4-dose series
 -3-dose series Recombivax HB at 0, 1, 6 months (Note: Use Dialysis Formulation 1 mL = 40 mcg)
 -4-dose series Engerix-B at 0, 1, 2, and 6 months (Note: Use 2 mL dose instead of the normal adult dose of 1 mL)

Human papillomavirus vaccination

Routine vaccination

- All persons up through age 26 years: 2- or 3-dose series depending on age at initial vaccination or condition
- Age 9–14 years at initial vaccination and received 1 dose or 2 doses less than 5 months apart:
 1 additional dose
- Age 9–14 years at initial vaccination and received 2 doses at least 5 months apart: HPV vaccination series complete, no additional dose needed
 Age 15 years or older at initial vaccination: 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5 months; repeat dose if administered too soon)
- No additional dose recommended when any HPV vaccine series of any valency has been completed using the recommended dosing intervals.

Shared clinical decision-making

 Adults age 27–45 years: Based on shared clinical decision-making, complete a 2-dose series (if initiated age 9-14 years) or 3-dose series (if initiated ≥15 years)

For additional information on shared clinical decisionmaking for HPV; see www.cdc.gov/vaccines/hcp/admin/ downloads/isd-job-aid-scdm-hpv-shared-clinicaldecision-making-hpv.pdf

Special situation

- Age ranges recommended above for routine and catch-up vaccination or shared clinical decisionmaking also apply in special situations
 Immunocompromising conditions, including HIV infection: 3-dose series, even for those who initiate vaccination at age 9 through 14 years.
- **Pregnancy:** Pregnancy testing is not needed before vaccination. HPV vaccination is not recommended until after pregnancy. No intervention needed if inadvertently vaccinated while pregnant.

Influenza vaccination

Routine vaccination

- **Age 19 years or older:** 1 dose any influenza vaccine appropriate for age and health status annually.
- **Age 65 years or older:** Any one of quadrivalent high-dose inactivated influenza vaccine (HD-IIV4), quadrivalent recombinant influenza vaccine (RIV4), or quadrivalent adjuvanted inactivated influenza vaccine (aIIV4) is preferred. If none of these three vaccines are available, then any other ageappropriate influenza vaccine should be used.

 For the 2023–2024 season, see www.cdc.gov/mmwr/ volumes/72/rr/rr7202a1.htm

• For the 2024–2025 season, see the 2024–2025 ACIP influenza vaccine recommendations.

Special situations

• Close contacts (e.g., caregivers, healthcare workers) of severely immunosuppressed persons who require a protected environment: should not receive LAIV4. If LAIV4 is given, they should avoid contact with/caring 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.

leasles, mumps, and rubella vaccination

Routine vaccinatio

- No evidence of immunity to measles, mumps, or rubella: 1 dose
- Evidence of immunity: Born before 1957 (except for health care personnel, see below), documentation of receipt of MMR vaccine, laboratory evidence of immunity or disease (diagnosis of disease without laboratory confirmation is not evidence of immunity)

Special situation

- **Pregnancy with no evidence of immunity to rubella:** MMR contraindicated during pregnancy; after pregnancy (before discharge from health care facility), 1 dose
- Nonpregnant persons of childbearing age with no evidence of immunity to rubella: 1 dose
- HIV infection with CD4 percentages ≥15% and CD4 count ≥200 cells/mm³ for at least 6 months and no evidence of immunity to measles, mumps, or rubella: 2-dose series at least 4 weeks apart; MMR contraindicated for HIV infection with CD4 percentage
 <15% or CD4 count <200 cells/mm³
- Severe immunocompromising conditions: MMR contraindicated
- Students in postsecondary educational institutions, international travelers, and household or close, personal contacts of immunocompromised persons with no evidence of immunity to measles, mumps, or rubella: 2-dose series at least 4 weeks apart if previously did not receive any doses of MMR or 1 dose if previously received 1 dose MMR
- In mumps outbreak settings, for information about additional doses of MMR (including 3rd dose of MMR), see www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm

Born before 1957 with no evidence of immunity to measles, mumps, or rubella: Consider 2-dose

Born in 1957 or later with no evidence of immunity to measles, mumps, or rubella: 2-dose series at

Meningococcal vaccination

Special situations for MenACWY

- Anatomical or functional asplenia (including sickle) cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use: 2-dose series MenACWY (Menveo or MenQuadfi) at least 8 weeks apart and revaccinate every 5 years if risk remains
- Travel in countries with hyperendemic or epidemic meningococcal disease, or microbiologists routinely exposed to Neisseria meninaitidis: 1 dose MenACWY (Menveo or MenQuadfi) and revaccinate every 5 years if risk remains
- First-year college students who live in residential housing (if not previously vaccinated at age 16 years or older) or military recruits: 1 dose MenACWY (Menveo or MenQuadfi)
- For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting (e.g., in community or organizational settings, or among men who have sex with men) and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm

Shared clinical decision-making for MenB

 Adolescents and young adults age 16–23 years (age 16–18 years preferred) not at increased risk for meningococcal disease: Based on shared clinical decision-making, 2-dose series MenB-4C (Bexsero) at least 1 month apart or 2-dose series MenB-FHbp (Trumenba) at 0, 6 months (if dose 2 was administered less than 6 months after dose 1, administer dose 3 at least 4 months after dose 2); MenB-4C and MenB-FHbp are not interchangeable (use same product for all doses in series).

For additional information on shared clinical decisionmaking for MenB, see www.cdc.gov/vaccines/hcp/ admin/downloads/isd-job-aid-scdm-mening-b-sharedclinical-decision-making.pdf

Special situations for Men

 Anatomical or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use, or microbiologists routinely exposed to Neisseria meningitidis:

2-dose primary series MenB-4C (Bexsero) at least 1 month apart or 3-dose primary series MenB-FHbp (Trumenba) at 0, 1–2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 3 not needed; if dose 3 is administered earlier than 4 months after dose 2, a fourth dose should be administered at least 4 months after dose 3); MenB-4C and MenB-FHbp are not interchangeable (use same product for all doses in series); 1 dose MenB booster 1 year after primary series and revaccinate every 2-3 years if risk remains.

 Pregnancy: Delay MenB until after pregnancy unless at increased risk and vaccination benefits outweigh potential risks.

 For MenB booster dose recommendations for groups listed under "Special situations" and in an outbreak setting (e.g., in community or organizational settings and among men who have sex with men) and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm

Note: MenB vaccines may be administered simultaneously with MenACWY vaccines if indicated, but at a different anatomic site, if feasible.

Adults may receive a single dose of Penbraya as an

MenB w Added a link to more information on shared clinical decision-making for MenB should I at increa vaccination may be (includi

the same clinic day and at least 6 months have elapsed since most recent Penbraya dose. since most recent Penbraya dose

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Any person at risk for Mpox infection: 2-dose series,

Risk factors for Mpox infection include:

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

· Health care personnel

Born before 1957 with no evidence of immunity to measles, mumps, or rubella: Consider 2-dose series at least 4 weeks apart for protection against measles or mumps or 1 dose for protection against

Shared clinical decision-making for MenB

• Adolescents and young adults age 16–23 years (age 16–18 years preferred) not at increased risk for meningococcal disease: Based on shared clinical decision-making, 2-dose series MenB-4C (Bexsero) at least 1 month apart or 2-dose series MenB-FHbp

> se 2 was administered administer dose 3

Added information for use of MenABCWY in adults

red clinical decisionpv/vaccines/hcp/ lm-mening-b-shared-

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cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use: 2-dose series MenACWY (Menveo or MenQuadfi) at least 8 weeks apart and revaccinate every 5 years if risk remains

- Travel in countries with hyperendemic or epidemic meningococcal disease, or microbiologists routinely exposed to *Neisseria meningitidis*: 1 dose MenACWY (Menveo or MenQuadfi) and revaccinate every 5 years if risk remains
- First-year college students who live in residential housing (if not previously vaccinated at age 16 years or older) or military recruits: 1 dose MenACWY (Menveo or MenQuadfi)
- For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting (e.g., in community or organizational settings, or among men who have sex with men) and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rrr/rr6909a1.htm

Special situations for MenB

- Anatomical or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use, or microbiologists routinely exposed to Neisseria meningitidis:
- 2-dose primary series MenB-4C (Bexsero) at least 1 month apart or 3-dose primary series MenB-FHbp (Trumenba) at 0, 1–2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 3 not needed; if dose 3 is administered earlier than 4 months after dose 2, a fourth dose should be administered at least 4 months after dose 3); MenB-4C and MenB-FHbp are not interchangeable (use same product for all doses in series); 1 dose MenB booster 1 year after primary series and revaccinate every 2–3 years if risk remains.
- Pregnancy: Delay MenB until after pregnancy unless at increased risk and vaccination benefits outweigh potential risks.

• For MenB **booster dose recommendations** for groups listed under "Special situations" and in an outbreak setting (e.g., in community or organizational settings and among men who have sex with men) and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm

Note: MenB vaccines may be administered simultaneously with MenACWY vaccines if indicated, but at a different anatomic site, if feasible.

Adults may receive a single dose of Penbraya as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day. For adults not at increased risk, if Penbraya is used for dose 1 MenB, MenB-FHbp (Trumenba) should be administered for dose 2 MenB. For adults at increased risk of meningococcal disease, Penbraya may be used for additional MenACWY and MenB doses (including booster doses) if both would be given on the same clinic day **and** at least 6 months have elapsed since most recent Penbraya dose.

Mpox vaccinatio

Special situations

• Any person 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

Health care personnel:

Born before 1957 with no evidence of immunity to measles, mumps, or rubella: Consider 2-dose series at least 4 weeks apart for protection against measles or mumps or 1 dose for protection against rubella

Born in 1957 or later with no evidence of immunity to measles, mumps, or rubella: 2-dose series at least 4 weeks apart for protection against measles or mumps or at least 1 dose for protection against rubella

Meningococcal vaccination

Travel

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Special situations for MenACW

 Anatomical or functional asplenia (including sickle cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use: 2-dose series MenACWY (Menveo or MenQuadfi) at least 8 weeks

Shared clinical decision-making for MenB

Adolescents and young adults age 16–23 years (age 16–18 years preferred) not at increased risk for meningococcal disease: Based on shared clinical decision-making, 2-dose series MenB-4C (Bexsero) at least 1 month apart or 2-dose series MenB-FHbp (Trumenba) at 0, 6 months (if dose 2 was administered less than 6 months after dose 1, administer dose 3 at least 4 months after dose 2); MenB-4C and MenB-FHbp are not interchangeable (use same product for all doses in series).

For additional information on shared clinical decisionmaking for MenB, see www.cdc.gov/vaccines/hcp/ admin/downloads/isd-job-aid-scdm-mening-b-shared clinical-decision-making.pdf

Special situations for MenB

 Anatomical or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab,

Special situations

• Any persons at risk for Mpox infection: 2-dose series, 28 days apart.

MenACWY (Menveo or MenQuadh)

 For MenACWY booster dose recommendations for groups listed under "Special situations" and in an outbreak setting (e.g., in community or organizational settings, or among men who have sex with men) and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm ise same product for all doses in series); 1 dose MenB ooster 1 year after primary series and revaccinate very 2–3 years if risk remains.

onths

 Pregnancy: Delay MenB until after pregnancy unless at increased risk and vaccination benefits outweigh potential risks. For MenB booster dose recommendations for groups listed under "Special situations" and in an outbreak setting (e.g., in community or organizational settings and among men who have sex with men) and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/tr/rr6909a1.htm

Note: MenB vaccines may be administered simultaneously with MenACWY vaccines if indicated, but at a different anatomic site, if feasible.

Adults may receive a single dose of Penbraya as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day. For adults not at increased risk, if Penbraya is used for dose 1 MenB, MenB-FHbp (Trumenba) should be administered for dose 2 MenB. For adults at increased risk of meningococcal disease, Penbraya may be used for additional MenACWY and MenB doses (including booster doses) if both would be given on the same clinic day **and** at least 6 months have elapsed since most recent Penbraya dose.

Mpox vaccination

Special situations

• Any person 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.

• Healthcare personnel: Except in rare circumstances (e.g. no available personal protective equipment), healthcare personnel who do not have any of the sexual risk factors described above should not receive Jynneos.

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

Pneumococcal vaccination

Routine vaccination

• Age 65 years or older who have:

Not previously received a dose of PCV13, PCV15, or PCV20 or whose previous vaccination history is unknown: 1 dose PCV15 OR 1 dose PCV20. If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum

immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).

Previously received only PCV7: follow the recommendation above.

Previously received only PCV13: 1 dose PCV20 OR 1 dose PPSV23.

If PCV20 is selected, administer at least 1 year after the last PCV13 dose.

If PPSV23 is selected, administer at least 1 year after the last PCV13 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).

Previously received only PPSV23: 1 dose PCV15 OR 1 dose PCV20. Administer either PCV15 or PCV20 at least 1 year after the last PPSV23 dose.

If PCV15 is used, no additional PPSV23 doses are recommended.

Previously received both PCV13 and PPSV23 but NO PPSV23 was received at age 65 years or older: 1 dose PCV20 OR 1 dose PPSV23.

 If PCV20 is selected, administer at least 5 years after the last pneumococcal vaccine dose.
 If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/

pneumo-vaccine-timing.p

Previously received both PCV13 and PPSV23, AND PPSV23 was received at age 65 years or older: Based on shared clinical decision-making, 1 dose of PCV20 at least 5 years after the last pneumococcal vaccine dose.

 For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app, which can be downloaded here: www.cdc. gov/vaccines/vpd/pneumo/hcp/pneumoapp.html.
 Special situations

• Age 19–64 years with certain underlying medical conditions or other risk factors** who have:

 Not previously received a PCV13, PCV15, or PCV20 or whose previous vaccination history is unknown:
 1 dose PCV15 OR 1 dose PCV20.

If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).

Previously received only PCV7: follow the recommendation above.

Previously received only PCV13: 1 dose PCV20 OR 1 dose PPSV23.

If PCV20 is selected, administer at least 1 year after the PCV13 dose.

If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/ pneumo-vaccine-timing.pdf

Previously received only PPSV23: 1 dose PCV15 OR 1 dose PCV20. Administer either PCV15 or PCV20 at least 1 year after the last PPSV23 dose.

- If PCV15 is used, no additional PPSV23 doses are recommended.
- **Previously received PCV13 and 1 dose of PPSV23:** 1 dose PCV20 OR 1 dose PPSV23.

If PCV20 is selected, administer at least 5 years after the last pneumococcal vaccine dose.

If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/ pneumo-vaccine-timing.pdf

• For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app which can be downloaded here: www.cdc. gov/vaccines/vpd/pneumo/hcp/pneumoapp.html

*Note: Immunocompromising conditions include chronic renal failure, nephrotic syndrome, immunodeficiencies, iatrogenic immunosuppression, generalized malignancy, HIV infection, Hodgkin disease, leukemia, lymphoma, multiple myeloma, solid organ transplant, congenital or acquired asplenia, or sickle cell disease or other hemoglobinopathies.

**Note: Underlying medical conditions or other risk factors include alcoholism, chronic heart/liver/ lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, CSF leak, diabetes mellitus, generalized malignancy, HIV infection, Hodgkin disease, immunodeficiencies, iatrogenic immunosuppression, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, solid organ transplant, or sickle cell disease or other hemoglobinopathies.

Poliovirus vaccination

Routine vaccination

 Adults 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 adults who were born and raised in the United States can assume they were vaccinated against polio as children.

- 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.
- Healthcare personnel: Except in rare circumstances (e.g. no available personal protective equipment), healthcare personnel who do not have any of the sexual risk factors described above should not receive Jynneos.

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

Pneumococcal vaccination

Routine vaccination

- Age 65 years or older who have:
- Not previously received a dose of PCV13, PCV15, or PCV20 or whose previous vaccination history is unknown: 1 dose PCV15 OR 1 dose PCV20.
- If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).
- **Previously received only PCV7:** follow the recommendation above.
- Previously received only PCV13: 1 dose PCV20 OR 1 dose PPSV23.
- If PCV20 is selected, administer at least 1 year after the last PCV13 dose.
- If PPSV23 is selected, administer at least 1 year after the last PCV13 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).
- **Previously received only PPSV23:** 1 dose PCV15 OR 1 dose PCV20. Administer either PCV15 or PCV20 at least 1 year after the last PPSV23 dose.
- · If PCV15 is used, no additional PPSV23 doses are recommended.

- Previously received both PCV13 and PPSV23 but NO PPSV23 was received at age 65 years or older: 1 dose PCV20 OR 1 dose PPSV23.
- If PCV20 is selected, administer at least 5 years after the last pneumococcal vaccine dose.
- If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/ pneumo-vaccine-timing.pdf.
- Previously received both PCV13 and PPSV23, AND PPSV23 was received at age 65 years or older: Based on shared clinical decision-making, 1 dose of PCV20 at least 5 years after the last pneumococcal vaccine dose.
- For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app, which can be downloaded here: www.cdc. gov/vaccines/vpd/pneumo/hcp/pneumoapp.html.
 Special situations
- Age 19–64 years with certain underlying medical conditions or other risk factors** who have:
- Not previously received a PCV13, PCV15, or PCV20 or whose previous vaccination history is unknown: 1 dose PCV15 OR 1 dose PCV20.
- If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).
- **Previously received only PCV7:** follow the recommendation above.
- Previously received only PCV13: 1 dose PCV20 OR 1 dose PPSV23.
- If PCV20 is selected, administer at least 1 year after the PCV13 dose.
- If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/ pneumo-vaccine-timing.pdf
- Previously received only PPSV23: 1 dose PCV15 OR 1 dose PCV20. Administer either PCV15 or PCV20 at least 1 year after the last PPSV23 dose.

- If PCV15 is used, no additional PPSV23 doses are recommended.
- Previously received PCV13 and 1 dose of PPSV23: 1 dose PCV20 OR 1 dose PPSV23.
- If PCV20 is selected, administer at least 5 years after the last pneumococcal vaccine dose.
- If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/ pneumo-vaccine-timing.pdf
- For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app which can be downloaded here: www.cdc. gov/vaccines/vpd/pneumo/hcp/pneumoapp.html

*Note: Immunocompromising conditions include chronic renal failure, nephrotic syndrome, immunodeficiencies, iatrogenic immunosuppression, generalized malignancy, HIV infection, Hodgkin disease, leukemia, lymphoma, multiple myeloma, solid organ transplant, congenital or acquired asplenia, or sickle cell disease or other hemoglobinopathies.

****Note:** Underlying medical conditions or other risk factors include alcoholism, chronic heart/liver/ lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, CSF leak, diabetes mellitus, generalized malignancy, HIV infection, Hodgkin disease, immunodeficiencies, iatrogenic immunosuppression, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, solid organ transplant, or sickle cell disease or other hemoglobinopathies.

Poliovirus vaccination

Routine vaccination

Adults 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 adults who were born and raised in the United States can assume they were vaccinated against polio as children.

- **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.
- Healthcare personnel: Except in rare circumstances (e.g. no available personal protective equipment), healthcare personnel who do not have any of the sexual risk factors described above should not receive Jynneos.

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

Pneumococcal vaccination

Routine vaccination

- Age 65 years or older who have:
- Not previously received a dose of PCV13, PCV15, or PCV20 or whose previous vaccination history is unknown: 1 dose PCV15 OR 1 dose PCV20.
- If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with an immunocompromising condition,* cochlear implant, or cerebrospinal fluid leak).
- **Previously received only PCV7:** follow the recommendation above.
- Previously received only PCV13: 1 dose 1 1 dose PPSV23.
- If PCV20 is selected, administer at least the last PCV13 dose.
- If PPSV23 is selected, administer at least the last PCV13 dose (may use minimum i 8 weeks for adults with an immunocomp condition,* cochlear implant, or cerebros
- fluid leak). **Previously received only PPSV23:** 1 dose PCV15 OR 1 dose PCV20. Administer either PCV15 or PCV20 at
- If PCV15 is used, no additional PPSV23 doses are recommended.

Previously received both PCV13 and PPSV23 but NO PPSV23 was received at age 65 years or older: 1 dose PCV20 OR 1 dose PPSV23.

 If PCV20 is selected, administer at least 5 years after the last pneumococcal vaccine dose.
 If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/

pneumo-vaccine-timing.pd

- **Previously received both PCV13 and PPSV23, AND PPSV23 was received at age 65 years or older:** Based on shared clinical decision-making, 1 dose of PCV20 at least 5 years after the last pneumococcal vaccine dose.
- For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app, which can be downloaded here: www.cdc. gov/vaccines/vpd/pneumo/hcp/pneumoapp.html.
 Special situations
- Age 19–64 years with certain underlying medical conditions or other risk factors** who have:
- Not previously received a PCV13, PCV15, or PCV20 or whose previous vaccination history is unknown: 1 dose PCV15 OR 1 dose PCV20.

If PCV15 is used, administer 1 dose PPSV23 at least 1 year after the PCV15 dose (may use minimum interval of 8 weeks for adults with

Routine vaccination

Revised based on new recommendation

the PCV13 dose.

If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads pneumo-vaccine-timing.pdf

Previously received only PPSV23: 1 dose PCV15 OR 1 dose PCV20. Administer either PCV15 or PCV20 at least 1 year after the last PPSV23 dose.

- If PCV15 is used, no additional PPSV23 doses are recommended.
- **Previously received PCV13 and 1 dose of PPSV23:** 1 dose PCV20 OR 1 dose PPSV23.
- If PCV20 is selected, administer at least 5 years after the last pneumococcal vaccine dose.
- If PPSV23 is selected, see dosing schedule at www.cdc.gov/vaccines/vpd/pneumo/downloads/ pneumo-vaccine-timing.pdf
- For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app which can be downloaded here: www.cdc. gov/vaccines/vpd/pneumo/hcp/pneumoapp.html

*Note: Immunocompromising conditions include chronic renal failure, nephrotic syndrome, immunodeficiencies, iatrogenic immunosuppression, generalized malignancy, HIV infection, Hodgkin disease, leukemia, lymphoma, multiple myeloma, solid organ transplant, congenital or acquired asplenia, or sickle cell disease or other hemoglobinopathies.

**Note: Underlying medical conditions or other risk factors include alcoholism, chronic heart/liver/ lung disease, chronic renal failure, cigarette smoking, cochlear implant, congenital or acquired asplenia, CSF leak, diabetes mellitus, generalized malignancy, HIV infection, Hodgkin disease, immunodeficiencies, iatrogenic immunosuppression, leukemia, lymphoma, multiple myeloma, nephrotic syndrome, solid organ transplant, or sickle cell disease or other hemoglobinopathies.

Poliovirus vaccination

Routine vaccination

• Adults 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 adults who were born and raised in the United States can assume they were vaccinated against polio as children.



Special situations

 Adults at increased risk of exposure to poliovirus who completed primary series*: may administer one lifetime IPV booster

***Note:** Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see: www.cdc.gov/vaccines/ vpd/polio/hcp/recommendations.html

Respiratory syncytial virus vaccination

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.

Special situations

 Age 60 years or older: Based on shared clinical decision-making, 1 dose RSV vaccine (Arexvy* or Abrysvo™). Persons most likely to benefit from vaccination are those considered to be at increased risk for severe RSV disease.** For additional information on shared clinical decision-making for RSV in older adults, see www.cdc.gov/vaccines/vpd/rsv/ downloads/provider-iob-aid-for-older-adults-508.pdf

For further guidance, see www.cdc.gov/mmwr/ volumes/72/wr/mm7229a4.htm *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. Refer to the 2024 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

****Note:** Adults age 60 years or older who are at increased risk for severe RSV disease include those with chronic medical conditions such as lung diseases (e.g., chronic obstructive pulmonary disease, asthma), cardiovascular diseases (e.g., congestive heart failure, coronary artery disease), neurologic or neuromuscular conditions, kidney disorders, liver disorders, hematologic disorders, diabetes mellitus, and moderate or severe immune compromise (either attributable to a medical condition or receipt of immunosuppressive medications or treatment); those who are considered to be frail; those of advanced age; those who reside in nursing homes or other long-term care facilities; and those with other underlying medical conditions or factors that a health care provider determines might increase the risk of severe respiratory disease.

Tetanus, diphtheria, and pertussis vaccination

Routine vaccination

• Previously did not receive Tdap at or after age 11 years*: 1 dose Tdap, then Td or Tdap every 10 years

- Previously did not receive primary vaccination series for tetanus, diphtheria, or pertussis: 1 dose Tdap followed by 1 dose Td or Tdap at least 4 weeks later, and a third dose of Td or Tdap 6–12 months later (Tdap is preferred as first dose and can be substituted for any
- Pregnancy: 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36.

• Wound management: Persons with 3 or more doses of tetanus-toxoid-containing vaccine: For clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoidcontaining vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant woman, use Tdap. For detailed information, see www.cdc.gov/mmwr/ volumes/69/wr/mm6903a5.htm

*Note: Tdap administered at age 10 years may be counted as the adolescent dose recommended at age 11-12 years

Varicella vaccinatio

Routine vaccination

- No evidence of immunity to varicella: 2-dose series 4–8 weeks apart if previously did not receive varicellacontaining vaccine (VAR or MMRV [measles-mumpsrubella-varicella vaccine] for children); if previously received 1 dose varicella-containing vaccine, 1 dose at least 4 weeks after first dose.
- **Evidence of immunity:** U.S.-born before 1980 (except for pregnant persons and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease.

Special situations

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Special situations

 Adults at increased risk of exposure to poliovirus who completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see: www.cdc.gov/vaccine vpd/polio/hcp/recommendations.html

Respiratory syncytial virus vaccination

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.

Special situations

 Age 60 years or older: Based on shared clinical decision-making, 1 dose RSV vaccine (Arexvy® or Abrysvo™). Persons most likely to benefit from vaccination are those considered to be at increased risk for severe RSV disease.** For additional information on shared clinical decision-making for RSV in older adults, see www.cdc.gov/vaccines/vpd/rsv/ downloads/provider-job-aid-for-older-adults-508.pdf

For further guidance, see www.cdc.gov/mmwr/ volumes/72/wr/mm7229a4.htm *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. Refer to the 2024 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

**Note: Adults age 60 years or older who are at increased risk for severe RSV disease include those with chronic medical conditions such as lung diseases (e.g., chronic obstructive pulmonary disease, asthma), cardiovascular diseases (e.g., congestive heart failure, coronary artery disease), neurologic or neuromuscular conditions, kidney disorders, liver disorders, hematologic disorders, diabetes mellitus, and moderate or severe immune compromise (either attributable to a medical condition or receipt of immunosuppressive medications or treatment); those who are considered to be frail; those of advanced age; those who reside in nursing homes or other long-term care facilities; and those with other underlying medical conditions or factors that a health care provider determines might increase the risk of severe respiratory disease.

Tetanus, diphtheria, and pertussis vaccination

Routine vaccination

Previously did not receive Tdap at or after age
 11 years*: 1 dose Tdap, then Td or Tdap every 10 years

• Previously did not receive primary vaccination series for tetanus, diphtheria, or pertussis: 1 dose Tdap followed by 1 dose Td or Tdap at least 4 weeks later, and a third dose of Td or Tdap 6–12 months later (Tdap is preferred as first dose and can be substituted for any Td dose), Td or Tdap every 10 years thereafter.

• Pregnancy: 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36.

Wound management: Persons with 3 or more doses of tetanus-toxoid-containing vaccine: For clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoidcontaining vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant woman, use Tdap. For detailed information, see www.cdc.gov/mmwr/ volumes/69/wr/mm6903a5.htm

*Note: Tdap administered at age 10 years may be counted as the adolescent dose recommended at age 11-12 years

No evidence of immunity to varicella: 2-dose series 4–8 weeks apart if previously did not receive varicella containing vaccine (VAR or MMRV [measles-mumps-rubella-varicella vaccine] for children); if previously

eceived 1 dose varicella-containing vaccine, 1 dose at east 4 weeks after first dose. **Evidence of immunity:** U.S.-born before 1980

Evidence of immunity: U.S.-born before 1980 (except for pregnant persons and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease.

Special situations

S Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Special situations

 Adults at increased risk of exposure to poliovirus who completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) i any combination.

For detailed information, see: www.cdc.gov/vaccines vpd/polio/hcp/recommendations.html

Respiratory syncytial virus vaccination

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.

Special situations

 Age 60 years or older: Based on shared clinical decision-making, 1 dose RSV vaccine (Arexvy® or Abrysvo™). Persons most likely to benefit from vaccination are those considered to be at increased risk for severe RSV disease.** For additional information on shared clinical decision-making for RSV in older adults, see www.cdc.gov/vaccines/vpd/rsv/ downloads/provider-job-aid-for-older-adults-508.pdf

For further guidance, see www.cdc.gov/mmwr/ volumes/72/wr/mm7229a4.htm *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. Refer to the 2024 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

**Note: Adults age 60 years or older who are at increased risk for severe RSV disease include those with chronic medical conditions such as lung diseases (e.g., chronic obstructive pulmonary disease, asthma), cardiovascular diseases (e.g., congestive heart failure, coronary artery disease), neurologic or neuromuscular conditions, kidney disorders, liver disorders, hematologic disorders, diabetes mellitus, and moderate or severe immune compromise (either attributable to a medical condition or receipt of immunosuppressive medications or treatment); those who are considered to be frail; those of advanced age; those who reside in nursing homes or other long-term care facilities; and those with other underlying medical conditions or factors that a health care provider determines might increase the risk of severe respiratory disease.

Tetanus, diphtheria, and pertussis vaccination

Routine vaccination

Previously did not receive Tdap at or after age
 11 years*: 1 dose Tdap, then Td or Tdap every 10 years
 Special situations

• Previously did not receive primary vaccination series for tetanus, diphtheria, or pertussis: 1 dose Tdap followed by 1 dose Td or Tdap at least 4 weeks later, and a third dose of Td or Tdap 6–12 months later (Tdap is preferred as first dose and can be substituted for any Td dose), Td or Tdap every 10 years thereafter.

• Pregnancy: 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36.

Wound management: Persons with 3 or more doses of tetanus-toxoid-containing vaccine: For clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoidcontaining vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant woman, use Tdap. For detailed information, see www.cdc.gov/mmwr/ volumes/69/wr/mm6903a5.htm

*Note: Tdap administered at age 10 years may be counted as the adolescent dose recommended at age 11-12 years

• No evidence of immunity to varicella: 2-dose series 4–8 weeks apart if previously did not receive varicellacontaining vaccine (VAR or MMRV [measles-mumpsrubella-varicella vaccine] for children); if previously received 1 dose varicella-containing vaccine, 1 dose at least 4 weeks after first dose.

Evidence of immunity: U.S.-born before 1980 (except for pregnant persons and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease.

Special situations

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Special situations

 Adults at increased risk of exposure to poliovirus who completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) i any combination.

For detailed information, see: www.cdc.gov/vaccine: vpd/polio/hcp/recommendations.html

Respiratory syncytial virus vaccination

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.

Special situations

 Age 60 years or older: Based on shared clinical decision-making, 1 dose RSV vaccine (Arexvy[®] or Abrysvo[™]). Persons most likely to benefit from vaccination are those considered to be at increased risk for severe RSV disease.** For additional information on shared clinical decision-making for RSV in older adults, see www.cdc.gov/vaccines/vpd/rsv/ downloads/provider-job-aid-for-older-adults-508.pdf

For further guidance, see www.cdc.gov/mmwr/ volumes/72/wr/mm7229a4.htm *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. Refer to the 2024 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

**Note: Adults age 60 years or older who are at increased risk for severe RSV disease include those with chronic medical conditions such as lung diseases (e.g., chronic obstructive pulmonary disease, asthma), cardiovascular diseases (e.g., congestive heart failure, coronary artery disease), neurologic or neuromuscular conditions, kidney disorders, liver disorders, hematologic disorders, diabetes mellitus, and moderate or severe immune compromise (either attributable to a medical condition or receipt of immunosuppressive medications or treatment); those who are considered to be frail; those of advanced age; those who reside in nursing homes or other long-term care facilities; and those with other underlying medical conditions or factors that a health care provider determines might increase the risk of severe respiratory disease.

Tetanus, diphtheria, and pertussis vaccination

Routine vaccination

 Previously did not receive Tdap at or after age 11 years*: 1 dose Tdap, then Td or Tdap every 10 years
 Special situations

Previously did not receive primary vaccination series for tetanus, diphtheria, or pertussis: 1 dose Tdap followed by 1 dose Td or Tdap at least 4 weeks later, and a third dose of Td or Tdap 6–12 months later (Tdap is preferred as first dose and can be substituted for any Td dose), Td or Tdap every 10 years thereafter.

• **Pregnancy:** 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36.

Wound management: Persons with 3 or more doses of tetanus-toxoid-containing vaccine: For clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoidcontaining vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant woman, use Tdap. For detailed information, see www.cdc.gov/mmwr/ volumes/69/wr/mm6903a5.htm

Note: Tdap administered at age 10 years may be counted as the adolescent dose recommended at age 1-12 years

aricella vaccination

outine vaccination

No evidence of immunity to varicella: 2-dose series 4–8 weeks apart if previously did not receive varicellacontaining vaccine (VAR or MMRV [measles-mumpsrubella-varicella vaccine] for children); if previously received 1 dose varicella-containing vaccine, 1 dose at least 4 weeks after first dose.

Evidence of immunity: U.S.-born before 1980 (except for pregnant persons and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease.

Special situations

Special situations

 Adults at increased risk of exposure to poliovirus who completed primary series*: may administer one lifetime IPV booster

*Note: Complete primary series consists of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see: www.cdc.gov/vaccines/ vpd/polio/hcp/recommendations.html

Respiratory syncytial virus vaccination

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.

Special situations

 Age 60 years or older: Based on shared clinical decision-making, 1 dose RSV vaccine (Arexvy* or Abrysvo™). Persons most likely to benefit from vaccination are those considered to be at increased risk for severe RSV disease.** For additional information on shared clinical decision-making for RSV in older adults, see www.cdc.gov/vaccines/vpd/rsv/ downloads/provider-iob-aid-for-older-adults-508.pdf

For further guidance, see www.cdc.gov/mmwr/ volumes/72/wr/mm7229a4.htm *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. Refer to the 2024 Child and Adolescent Immunization Schedule for considerations regarding nirsevimab administration to infants.

**Note: Adults age 60 years or older who are at increased risk for severe RSV disease include those with chronic medical conditions such as lung diseases (e.g., chronic obstructive pulmonary disease, asthma), cardiovascular diseases (e.g., congestive heart failure, coronary artery disease), neurologic or neuromuscular conditions, kidney disorders, liver disorders, hematologic disorders, diabetes mellitus, and moderat or severe immune compromise (either attributable to a medical condition or receipt of immunosuppressive medications or treatment): those who are considered

to be frail; those of advanced age; those who reside in nursing homes or other long-term care facilities; and those with other underlying medical conditions or factors that a health care provider determines might increase the risk of severe respiratory disease.

Tetanus, diphtheria, and pertussis vaccination

Routine vaccination

• Previously did not receive Tdap at or after age 11 years*: 1 dose Tdap, then Td or Tdap every 10 years

Special situations

- Previously did not receive primary vaccination series for tetanus, diphtheria, or pertussis: 1 dose Tdap followed by 1 dose Td or Tdap at least 4 weeks later, and a third dose of Td or Tdap 6–12 months later (Tdap is preferred as first dose and can be substituted for any Td dose), Td or Tdap every 10 years thereafter.
- **Pregnancy:** 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36.

• Wound management: Persons with 3 or more doses of tetanus-toxoid-containing vaccine: For clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoidcontaining vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant woman, use Tdap. For detailed information, see www.cdc.gov/mmwr/ volumes/69/wr/mm6903a5.htm

*Note: Tdap administered at age 10 years may be counted as the adolescent dose recommended at age 11-12 years

Varicella vaccinatio

Routine vaccination

- No evidence of immunity to varicella: 2-dose series 4–8 weeks apart if previously did not receive varicellacontaining vaccine (VAR or MMRV [measles-mumpsrubella-varicella vaccine] for children); if previously received 1 dose varicella-containing vaccine, 1 dose at least 4 weeks after first dose.
- **Evidence of immunity:** U.S.-born before 1980 (except for pregnant persons and health care personnel [see below]), documentation of 2 doses varicella-containing vaccine at least 4 weeks apart, diagnosis or verification of history of varicella or herpes zoster by a health care provider, laboratory evidence of immunity or disease.

Special situations

Appendix



Contraindications and Precautions to Commonly Used Vaccines

Adapted from Table 4-1 in Advisory Committee on Immunization Practices (ACIP) General Best Practice Guidelines for Immunization: Contraindication and Precautions, Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2023–24 Influenza Season | MMWR (cdc.gov), Contraindications and Precautions for COVID-19 Vaccination, and Contraindications and Precautions for Jynneos Vaccination

Vaccines and Other Immunizing Agents	Contraindicated or Not Recommended ¹	Precautions ²
COVID-19 mRNA vaccines [Pfizer-BioNTech, Moderna]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of an mRNA COVID-19 vaccine⁴ 	 Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of an mRNA COVID-19 vaccine⁴; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of an mRNA COVID-19 vaccine Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or severe acute illness, with or without fever
COVID-19 protein subunit vaccine [Novavax]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Novavax COVID-19 vaccine⁴ 	 Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of Novavax COVID-19 vaccine⁴; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of a Novavax COVID-19 vaccine Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or severe acute illness, with or without fever
Influenza, egg-based, inactivated injectable (IIV4)	 Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) 	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Moderate or severe acute illness with or without fever
Influenza, cell culture-based inactivated injectable (ccllV4) [Flucelvax Quadrivalent]	 Severe allergic reaction (e.g., anaphylaxis) to any ccllV of any valency, or to any component³ of ccllV4 	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, RIV, or LAIV of any valency. If using cclV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, recombinant injectable (RIV4) [Flublok Quadrivalent]	• Severe allergic reaction (e.g., anaphylaxis) to any RIV of any valency, or to any component ³ of RIV4	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, ccIIV, or LAIV of any valency. If using RIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, live attenuated (LAIV4) [Flumist Quadrivalent]	 Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) Anatomic or functional asplenia Immunocompromised due to any cause including, but not limited to, medications and HIV infection Close contacts or caregivers of severely immunosuppressed persons who require a protected environment Pregnancy Cochlear implant Active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, ear, or any other cranial CSF leak Received influenza antiviral medications oseltamivir or zanamivir within the previous 48 hours, peramivir within the previous 5 days, or baloxavir within the previous 17 days. 	 Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Asthma in persons aged 5 years or older Persons with underlying medical conditions (other than those listed under contraindications) that might predispose to complications after wild-type influenza virus infection [e.g., chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)] Moderate or severe acute illness with or without fever

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.

2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.

Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. See Package inserts for U.S.-licensed vaccines.
 See package inserts and FDA EUA fact sheets for a full list of vaccine ingredients. mRNA COVID-19 vaccines contain polyethylene glycol (PEG).

Appendix

Recommended Adult Immunization Schedule for Ages 19 Years or Older, United States, 2024

Vaccine	Contraindicated or Not Recommended ¹	Precautions ²
<i>laemophilus influenzae</i> type b (Hib)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a 	Moderate or severe acute illness with or without fever
lepatitis A (HepA)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including neomycin 	Moderate or severe acute illness with or without fever
Hepatitis B (HepB)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a including yeast Pregnancy: Heplisav-B and PreHevbrio are not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated⁴ 	Moderate or severe acute illness with or without fever
lepatitis A-Hepatitis B vaccine HepA-HepB) Twinrix]	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³ including neomycin and yeast	Moderate or severe acute illness with or without fever
Human papillomavirus (HPV)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a Pregnancy: HPV vaccination not recommended 	Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	 Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product) History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testin Moderate or severe acute illness with or without fever
Meningococcal ACWY (MenACWY) (MenACWY-CRM) [Menveo] (MenACWY-TT) [MenQuadfī]	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component^a For MenACWY-CRM only: severe allergic reaction to any diphtheria toxoid–or CRM197–containing vaccine For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine 	Moderate or severe acute illness with or without fever
Meningococcal B (MenB) MenB-4C [Bexsero] MenB-FHbp [Trumenba]	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^a	Pregnancy For MenB-4C only: Latex sensitivity Moderate or severe acute illness with or without fever
Meningococcal ABCWY (MenACWY-TT/MenB-EHbp) [Penbrava]	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^a Severe allergic reaction to a tataput toxoid containing vaccine	Moderate or severe acute illness, with or without fever
Mpox [Jynneos]	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^a	Moderate or severe acute illness, with or without fever
PCV15, PCV20)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose on to a vaccine component³ Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid–containing vaccine or to its vaccine component³ 	Moderate of severe acute limess with or without lever
Pneumococcal polysaccharide (PPSV23)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^a	Moderate or severe acute illness with or without fever
Poliovirus vaccine, inactivated (IPV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ³	Pregnancy Modents or covers acute illness with or without fever
Respiratory syncytial virus vaccine (RSV)	Severe allergic reaction (e.g., anaphylaxis) to a vaccine component	Moderate or severe acute illness with or without fever
etanus, diprimeria, and aceitular	Severe allergic reaction (e.g., anaphylaxis) after a previous close or to a vaccine component	Guinain-barre syncrome (GDS) within o weeks after a previous dose of tetanus-
pertussis (Tdap) Tetanus, diphtheria (Td)	 For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap 	 toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine Moderate or severe acute illness with or without fever For Tdap only: Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized
Varicella (VAR)	 Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product) Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccinatio Use of aspirin or aspirin-containing products Moderate or severe acute illness with or without fever
Zoster recombinant vaccine (RZV)	Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component ^a	Moderate or severe acute illness with or without fever Current herpes zoster infection

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html

2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html

3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at www.fda. gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states.

4. For information on the pregnancy exposure registries for persons who were inadvertently vaccinated with Heplisav-B or PreHevbrio while pregnant, please visit heplisavbpregnancyregistry.com/ or www.prehevbrio.com/#safety.

Addendum

In addition to the recommendations presented in the previous sections of this immunization schedule, ACIP has approved the following recommendations by majority vote since October 26, 2023. The following recommendations have been adopted by the CDC Director and are now official. Links are provided if these recommendations have been published in *Morbidity and Mortality Weekly Report (MMWR)*.

Vaccines	Recommendations	Effective Date of Recommendation*
No new vaccines or vaccine recommendations to report		

Job-aids for Immunization schedule

Vaccine Catch-Up Guidance

CDC has developed catch-up guidance job aids to assist healthcare providers in interpreting Table 2 in the child and adolescent immunization schedule.

- <u>Pneumococcal Conjugate Vaccine (PCV) Catch-Up</u> <u>Guidance for Children 4 Months through 4 Years of</u> <u>Age</u> [3 pages]
- *Haemophilus influenzae* type b-Containing Vaccines Catch-Up Guidance for Children 4 Months through 4 Years of Age
 - <u>Hib vaccine products: ActHIB, Pentacel, Hiberix,</u> or unknown [3 pages]
 - Hib vaccine products: PedvaxHIB vaccine only
 [2 pages]
- <u>Diphtheria-, Tetanus-, and Pertussis-Containing</u> <u>Vaccines Catch-Up Guidance for Children 4 Months</u> <u>through 6 Years of Age</u> [2 pages]

- Inactivated Polio Vaccine (IPV) [2 pages]
- <u>Tetanus-, Diphtheria-, and Pertussis-Containing</u>
 <u>Vaccines Catch-Up Guidance for Children 7 through</u>
 <u>9 Years of Age</u> [2 pages]
- <u>Tetanus-, Diphtheria-, and Pertussis-Containing</u>
 <u>Vaccines Catch-Up Guidance for Children 10 through</u>
 <u>18 Years of Age</u>

https://www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html#guidance

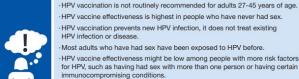
Job-aids for Immunization schedule



Shared clinical decision-making (SCDM) is recommended regarding Human papillomavirus (HPV) vaccination for persons 27-45 year of age. Shared clinical decision-making recommendations are intended to be flexible and should be informed by the characteristics, values, and preferences of the individual patient and the clinical discretion of the healthcare provider.

HPV vaccination does not need to be discussed with most adults in this age group. If you do decide to discuss HPV vaccination with an adult patient:

several decades



HPV infection or disease. Most adults who have had sex have been exposed to HPV before. HPV vaccine effectiveness might be low among people with more risk factors for HPV, such as having had sex with more than one person or having certain

Most HPV infections clear on their own within a year or two, but persistent

infections can lead to development of precancers or cancers, usually after

Remember:

At any age, having a new sex partner is a risk factor for getting a new HPV infection. However, this is only one possible consideration for SCDM.

Adults with more HPV risk factors (for example, multiple previous sex partners or certain immunocompromising conditions) might have been infected with HPV in the past, so might have a lower chance of getting a new HPV infection in the future.

Adults with fewer HPV risk factors (for example, few or no previous sex partners) might not have been infected with HPV in the past, so might have a higher chance of getting a new HPV infection from a new sex partner in the future.



If you and your previously unvaccinated adult patient decide to initiate HPV vaccination, offer a 3-dose series of HPV vaccine at 0, 2, and 6 months.

HPV vaccination is safe, unless a patient had a severe allergic reaction after a previous dose or to a vaccine component.

Additional Information Supplemental information and guidance for vaccination providers regarding use of 9-valent HPV: www.cdc.gov/hpv/downloads/9vhpv-guidance.pdf CDC Adult Immunization Schedule:



Vaccination The determination on whether to vaccinate a patient 16-23 years of age who is not at increased risk

for meningococcal disease with a MenB vaccine is based on a shared clinical decision-making process between a patient and their health care provider. However, all adolescents and young adults at increased risk because of a serogroup B meningococcal disease outbreak or certain medical conditions should receive a MenB vaccine. Shared clinical decision-making recommendations are intended to be flexible and informed by the characteristics, values, and preferences of the individual patient and the clinical discretion of the health care provider.

Consider discussing MenB vaccination with patients 16 through 23 years of age who are not at increased risk for meningococcal disease:



MenB vaccine is not routinely recommended for all adolescents in this age group. . The vaccine series provides short-term protection against most strains of serogroup B meningococcal bacteria circulating in the United States.

Consider:



lf you

vaccinate:

Serogroup B meningococcal disease is an uncommon but deadly disease. In recent years, between 20 and 50 cases occurred in 16 to 23 year olds in the United States each year ·A low risk of exposure or infection does not mean a person cannot get a MenB

vaccine. It is just one potentially important consideration in shared clinical decision-making.

College students are at increased risk, especially those who are freshmen, attend a four-year university, live in on-campus housing, or participate in sororities and fraternities.

Serogroup B vaccines are safe and effective, but only offer short-term protection (1 to 2 years) to those who get vaccinated.

Since these patients are not at increased risk of serogroup B disease, administer: -2-dose series of MenB-4C at least 1 month apart, or -2-dose series of MenB-FHbp at 0, 6 months

MenB-4C and MenB-FHbp are not interchangeable MenB vaccines are safe and effective for this population unless a patient -Had a severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a

vaccine component -Is pregnant; vaccine should be delayed unless the patient is at increased risk and the benefits of vaccination outweigh the potential risks

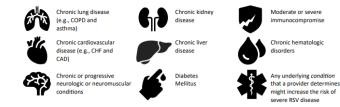
Shared Clinical Decision-Making (SCDM) **RSV Vaccination for** Adults 60 Years and Older

• Respiratory syncytial virus (RSV) is a cause of severe respiratory illness across the lifespan. Each year in the United States, RSV leads to approximately 60,000-160,000 hospitalizations and 6,000-10,000 deaths among adults 65 years and older

· Adults 60 years of age and older now have the option to receive one dose of RSV vaccine based on a SCDM process between a patient and their health care provider.

 Consider multiple factors when discussing RSV vaccination with your patients. SCDM recommendations are optional and are informed by whether the patient has any risk factors for severe RSV disease; a patient's risk of exposure to RSV; a patient's preferences for RSV vaccination; and the clinical discretion of the health care provider.

Underlying medical conditions associated with increased risk for severe RSV disease include:



Other factors associated with increased risk for severe RSV disease include



Residence in a nursing home or other long-term care

Any underlying factor a provider determines might increase the risk of severe RSV disease

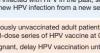
Other points to consider

 Serious neurologic conditions, including Guillain-Barré syndrome (GBS), have been reported after RSV vaccination in clinical trials. However, it is unclear whether the vaccine caused these events.

 Persons with history of severe allergic reaction (e.g., anaphylaxis) to any component of RSV vaccine should not receive the vaccine.



- RSV Vaccination for Adults 60 Years and Older (cdc.gov) •
- Shared Clinical Decision-Making: Meningococcal B Vaccination (cdc.gov)
- Shared Clinical Decision-Making: HPV Vaccination for Adults Aged 27-45 Years (cdc.gov



If your patient is pregnant, delay HPV vaccination until after pregnancy.

Pneumococcal vaccination resources



Pneumococcal Vaccine Timing for Adults

Make sure your patients are up to date with pneumococcal vaccination.

Adults ≥65 years old Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20	PCV15 ≥1 year ^t PPSV23
PPSV23 only at any age	≥1 year PCV20	≥1 year PCV15
PCV13 only at any age	≥1 year PCV20	≥1 yeari PPSV23
PCV13 at any age & PPSV23 at <65 yrs	≥5 years PCV20	25 years PPSV23

* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines

[†] Consider minimum interval (8 weeks) for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak (CSF) leak

⁵ For adults with an immunocompromising condition, cochlear implant, or CSF leak, the minimum interval for PPSV23 is ≥8 weeks since last PCV13 dose and ≥5 years since last PPSV23 dose; for others, the minimum interval for PPSV23 is ≥1 year since last PCV13 dose and ≥5 years since last PPSV23 dose

PneumoRecs VaxAdvisor: Vaccine Provider App | CDC

Pneumococcal Vaccine Timing for Adults greater than or equal to 65 years (cdc.gov)

- Healthcare Providers: RSV Immunization for Children 19 Months and Younger | CDC
- Healthcare Providers: RSV Vaccination for Pregnant People | CDC
- Healthcare Providers: RSV Vaccination for Adults 60 Years of Age and Over <u>CDC</u>
- Frequently Asked Questions About RSV Immunization with Monoclonal Antibody for Children 19 Months and Younger | CDC
- Frequently Asked Questions About RSV Vaccine for Pregnant People |
 <u>CDC</u>
- Frequently Asked Questions About RSV Vaccine for Adults | CDC



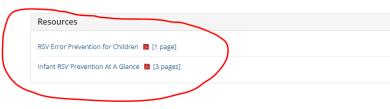
Administration with Vaccine Products

Nirsevimab can be administered without regard to timing of routine childhood vaccines. This includes simultaneous administration (i.e., same clinic day) with vaccine products. No interval between nirsevimab and live vaccines (such as MMR and Varicella) is necessary.

Nirsevimab is not expected to interfere with the immune response to vaccine products. There is limited experience with administering nirsevimab with vaccine products. In clinical trials, when nirsevimab was given concomitantly with routine childhood vaccines, the safety and reactogenicity profile of the co-administered regimen was similar to the childhood vaccines given alone.

References

- Jones JM, Fleming-Dutra KE, Prill MM, et al. Use of Nirsevimab for the Prevention of Respiratory Syncytial Virus Disease Among Infants and Young Children: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023. MMWR Morb Mortal Wkly Rep 2023;72:920-925. DOI: <u>http://dx.doi.org/10.15585/mmwr.mm7234a4</u> [2].
- Food and Drug Administration. Beyfortus (nirsevimab-alip) product label. Silver Spring, MD: US Department of Health and Human Services, Food and Drug Administration;
 2023. <u>https://www.accessdata.fda.gov/drugsatfda_docs/label/2023/761328s000lbl.pdf</u>
- Food and Drug Administration: FDA Approves First Vaccine for Pregnant Individuals to Prevent RSV in Infants. Press Release. Silver Spring, MD: US Department of Health and Human Services. Food and Drug Administrations; 2023. https://www.fda.gov/news-events/press-announcements/fda-approves-first-vaccine-pregnant-individuals-prevent-rsvinfants [2]
- Hamid S, Winn A, Parikh R, et al. Seasonality of Respiratory Syncytial Virus United States, 2017-2023. MMWR Morb Mortal Wkly Rep. 2023 Apr 7;72(14):355-361. doi: 10.15585/mmwr.mm7214a1
- <u>CDC RSV Surveillance & Research</u>



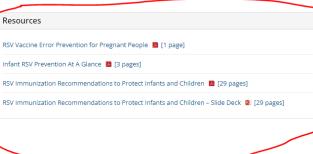
Administration with other vaccines

Pregnant people can receive RSV, Tdap, COVID-19, and influenza vaccines at the same clinic visit when the vaccines are recommended. CDC's <u>general best practice guidelines for immunization</u> indicate that age-appropriate vaccinations can be given at the same visit, unless there is a specific reason not to.

References and Resources

- 1. Food and Drug Administration: FDA Approves First Vaccine for Pregnant Individuals to Prevent RSV in Infants. Press Release. Silver Spring. MD: US Department of Health and Human Services. Food and Drug Administrations; 2023. https://www.fda.gov/news-events/press-announcements/fda-approves-first-vaccine-pregnant-individuals-prevent-rsvinfants [2]
- 2. Food and Drug Administration. ABRYSVO package insert. Silver Springs, MD: US Department of Health and Human Services, Food and Drug Administrations; 2023. <u>https://www.fda.gov/media/168889/download?attachment</u>
- Kampmann B, Madhi SA, Munjal I, et al. Bivalent Prefusion F Vaccine in Pregnancy to Prevent RSV Illness in Infants. N Engl J Med. 2023 Apr 20; 388(1):1451–1464. doi:10.1056/NEJMoa2216480.
- Hamid S, Winn A, Parikh R, et al. Seasonality of Respiratory Syncytial Virus United States, 2017-2023. MMWR Morb Mortal Wkly Rep. 2023 Apr 7;72(14):355-361. doi: 10.15585/mmwr.mm7214a1





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Healthcare Providers: RSV Immunization for Children 19 Months and Younger | CDC Healthcare Providers: RSV Vaccination for Pregnant People | CDC Healthcare Providers: RSV Vaccination for Adults 60 Years of Age and Over | CDC

Respiratory Syncytial Virus vaccines (RSV) Options for Infant RSV Prevention At-a-Glance

Two immunization products are available for the prevention of severe Respiratory Syncytial Virus (RSV) disease in infants: maternal RSV vaccine and infant RSV monoclonal antibody. All infants should be protected against severe RSV disease through use of one of these products.

Either maternal RSV vaccination or use of RSV monoclonal antibody in the infant is recommended. Administration of both products is not needed for most infants.

Maternal RSV vaccination: Use ONLY Pfizer RSVPreF vaccine (trade name Abrysvo™)

Maternal RSV Vaccine

RSVPreF vaccine (trade name Abrysvo[™]) is recommended for people during weeks 32 through 36 of pregnancy, using seasonal administration, to prevent severe RSV disease in infants. In clinical trials, there was a small increase in the number of preterm birth events in vaccinated pregnant people after vaccination. It is not clear if this is a true safety problem related to RSV vaccine or if this occurred for reasons unrelated to vaccination.

Infant RSV Monoclonal Antibody

RSV monoclonal antibody (generic name nirsevimab, trade name Beyfortus™) is recommended for the following:

- Infants less than 8 months of age born during or entering their first RSV season if:
 - o Mother did not receive maternal RSV vaccine or it is unknown if mother received RSV vaccine
 - OR
 - Infant was born less than 14 days after maternal RSV vaccination[†]

In rare circumstances, nirsevimab may be considered for infants born to mothers vaccinated 14 or more days before birth when the health care provider believes the potential incremental benefit is warranted. These situations include, but are not limited to:

- Infants born to mothers who might not have mounted an adequate immune response to vaccination (e.g., people with immunocompromising conditions)
- Infants born to mothers who have conditions associated with reduced transplacental antibody transfer (e.g., people living with HIV infection)
- Infants who might have experienced loss of maternal antibodies, such as those who have undergone cardiopulmonary bypass of extracorporeal membrane oxygenation (ECMO)
- * Infants with substantial increased risk for severe RSV disease (e.g., hemodynamically significant congenital heart disease, intensive care admission with the requirement for oxygen at hospital discharge)
- Some infants and children aged 8 through 19 months who are at increased risk of severe RSV disease entering their second RSV season.
 - ^o American Indian/Alaska Native children
 - ° Children with chronic lung disease of prematurity who require medical support during the six months before the start of

https://www.cdc.gov/vaccines/vpd/rsv/hcp/child.html

Only Administer Nirsevimab (Beyfortus, Sanofi) to Young Children



Administer nirsevimab (Beyfortus) preventive antibody to:

- Infants younger than 8 months
- Certain children 8–19 months



Do NOT administer RSV vaccine to infants and young children

Respiratory Syncytial Virus Vaccine ABRYSVO" ents (provides a single dose



Give ABRYSVO (Pfizer) to pregnant people 32-36 weeks' gestation, and to adults 60 years and older based on shared clinical decision making.

Give AREXVY (GSK) to adults 60 and older based on shared clinical decision making. Do not give to pregnant people.

Strategies to Help Prevent Vaccine Administration Errors



Order and stock vaccine products that fit best with your patient population.



 If both nirsevimab (Beyfortus) and one or both RSV vaccines are stocked, label each storage bin with correct indications.



· Educate staff on recommendations. If more than 1 product is stocked, train staff about the differences in preparation, indications, and dosage.



 Follow medication administration best practices – read and check the product label at least 3 times and ask another staff member to confirm that it is the correct product for the patient.

CDC Clinical Resources

For Healthcare Professionals: RSV (Respiratory Syncytial Virus) | CDC

Only Administer Abrysvo (Pfizer) Vaccine to Pregnant People



Two respiratory syncytial virus (RSV) vaccine products are available for use in the United States.



Strategies to Help Prevent Errors



 Order and stock vaccine products that fit best with your patient population. Avoid stocking both products, if possible.



 If both RSV vaccine products are stocked, label the Arexvy (GSK) vaccine "Do NOT administer to pregnant people."



 Educate staff on vaccine recommendations. If both RSV products are stocked, train staff about the differences in preparation and indications.



 Follow medication administration best practices – read and check the vaccine product label at least 3 times and ask another staff member to confirm that it is the correct vaccine product for the patient.



 If referring pregnant people to another vaccine provider, tell the provider to administer Abrysvo (Pfizer) vaccine and to confirm the vaccine product prior to administration.

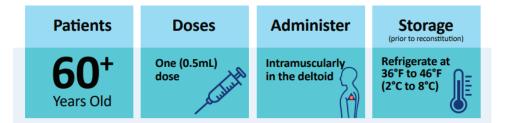
CDC Clinical Resources

Healthcare Providers: RSV Vaccination for Pregnant People | CDC RSV Vaccine Information Statement | CDC

Respiratory Syncytial Virus vaccines (RSV) Fact Sheet for Healthcare Providers

CDC recommends that adults ages 60 years and older may receive a single dose of RSV vaccine using shared clinical decision-making (SCDM).

If you vaccinate, either approved RSV vaccine (Abrysvo™ or Arexvy®) can be used.



How do shared clinical decision-making recommendations (SCDM) differ from routine, catch-up, and risk-based immunization recommendations?

- SCDM vaccination recommendations are individually based rather than population based and informed by a decision process between the health care provider and the patient.
- Consider multiple factors when discussing RSV vaccination with your patients. The decision to vaccinate is
 informed by whether the patient has any risk factors for severe RSV disease, a patient's risk of exposure to
 RSV, a patient's preferences for RSV vaccination, and the <u>clinical discretion</u> of the health care provider.

About RSV vaccines

- Abrysvo is a recombinant stabilized prefusion F protein vaccine approved for the prevention of lower respiratory tract disease (LRTD) caused by RSV in individuals ages 60 years and older.
- Arexvy is an adjuvanted recombinant stabilized prefusion glycoprotein F vaccine approved for the prevention of lower respiratory tract disease (LRTD) caused by RSV in individuals ages 60 years and older.

Materials to share with patients

- Easy-to-read schedule for adults
 - <u>https://www.cdc.gov/vaccines/schedules/downloads/adult/adults-</u> <u>schedule-easy-read.pdf</u>
 - <u>https://www.cdc.gov/vaccines/schedules/downloads/adult/adults-</u> <u>schedule-easy-read-es.pdf</u>
- Parent-friendly schedules
 - <u>https://www.cdc.gov/vaccines/schedules/easy-to-read/child-easyread.html</u>
 - <u>https://www.cdc.gov/vaccines/schedules/easy-to-read/adolescent-easyread.html</u>
- Vaccine Assessment Tool Vaccine assessment tool/quiz
 - <u>https://www2.cdc.gov/vaccines/childquiz/</u>
 - <u>https://www2.cdc.gov/nip/adultimmsched/</u>



Thank You! Questions?

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

