



CDC Immunization Update

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Disclosures

- **Andrew Kroger has not had any financial relationships with any ineligible companies.**
- **Andrew Kroger will discuss off-label CDC guidelines for influenza vaccines.**
- **The use of trade names is for identification purposes only and does not imply endorsement by the Advisory Committee on Immunization Practices (ACIP) or CDC.**

Disclosures

- **The recommendations to be discussed are primarily those of the Advisory Committee on Immunization Practices (ACIP).**
 - Composed of 15 experts in clinical medicine and public health
 - Provides guidance on use of vaccines and other biologic products to CDC, and the U.S. Public Health Service

ACIP Meeting Information
ACIP holds three regular meetings each year. Learn about upcoming meetings and view materials.
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General Committee-Related Information
View ACIP's charter, as well as policies and procedures that guide the work group.

ACIP Committee Members
See ACIP's current list of voting, ex officio, and non-voting liaison members.

ACIP Work Groups
Workgroups prepare information on topics for presentation, discussion, deliberation, and vote.

Next meeting: February 26-27, 2025

Overview

- **Schedule overview**
- **RSV immunization**
- **Influenza vaccine**
- **MMR vaccine**
- **Pneumococcal vaccine**
- **Meningococcal B vaccine**

Immunization Schedule Overview

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

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

Vaccine and other immunizing agents	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs	
Respiratory syncytial virus (RSV-mAb [nirsevimab])	1 dose depending on maternal RSV vaccination status, See Notes					1 dose (8 through 19 months), See Notes												
Hepatitis B (HepB)	1 st dose	← 2 nd dose →		← 3 rd dose →														
Rotavirus (RV): RV 1 (2-dose series), RV5 (3-dose series)			1 st dose	2 nd dose	See Notes													
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)			1 st dose	2 nd dose	3 rd dose	← 4 th dose →					5 th dose							
Haemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes		← 3 rd or 4 th dose, See Notes →											
Pneumococcal conjugate (PCV15, PCV20)			1 st dose	2 nd dose	3 rd dose	← 4 th dose →												
Inactivated poliovirus (IPV <18 yrs)			1 st dose	2 nd dose	← 3 rd dose →							4 th dose					See Notes	
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)	1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)																	
Influenza (IIV4)	Annual vaccination 1 or 2 doses										Annual vaccination 1 dose only							
Influenza (LAIV4)											Annual vaccination 1 or 2 doses			Annual vaccination 1 dose only				
Measles, mumps, rubella (MMR)					See Notes		← 1 st dose →					2 nd dose						
Varicella (VAR)						← 1 st dose →					2 nd dose							
Hepatitis A (HepA)					See Notes		2-dose series, See Notes											
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)												1 dose						
Human papillomavirus (HPV)													See Notes					
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2yrs)				See Notes											1 st dose	2 nd dose		
Meningococcal B (MenB-4C, MenB-FHbp)														See Notes				
Respiratory syncytial virus vaccine (RSV [Abrysvo])															Seasonal administration during pregnancy, See Notes			
Dengue (DEN4CYD; 9–16 yrs)														Seropositive in endemic dengue areas (See Notes)				
Mpox																		

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

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

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

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

 Recommended for all age-eligible children who lack documentation of a complete vaccination series
 Not recommended for all children, but is recommended for some children based on increased risk for or severe outcomes from disease
 Recommended for all age-eligible children, and additional doses may be necessary based on medical condition or other indications. See Notes.
 Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction
 Contraindicated or not recommended *Vaccinate after pregnancy, if indicated
 No Guidance/ Not Applicable

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

b. Severe Combined Immunodeficiency

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

Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2024

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)	1 dose annually			
Influenza live, attenuated (LAIV4)	1 dose 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 dose Td/Tdap for wound management (see notes)			
	1 dose Tdap, then Td or Tdap booster every 10 years			
Measles, mumps, rubella (MMR)	1 or 2 doses depending on indication (if born in 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	
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 doses depending 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 doses depending on indication			
Mpox				

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of immunity

Recommended vaccination for adults with an additional risk factor or another indication

Recommended vaccination based on shared clinical decision-making

No recommendation/ 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.

VACCINE	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 disease; alcoholism ^a	Diabetes	Healthcare Personnel ^b
			<15% or <200mm ³	≥15% and ≥200mm ³							
COVID-19		See Notes									
IIV4 or RIV4	1 dose annually										
LAIV4					1 dose annually if age 19–49 years		1 dose annually if age 19–49 years				
RSV	Seasonal administration. See Notes	See Notes					See Notes				
Tdap or Td	Tdap: 1 dose each pregnancy	1 dose Tdap, then Td or Tdap booster every 10 years									
MMR	*										
VAR	*			See Notes							
RZV		See Notes									
HPV	*	3 dose series if indicated									
Pneumococcal											
HepA											
Hep B	See Notes									Age ≥ 60 years	
MenACWY											
MenB											
Hib		HSCT: 3 doses ^c					Asplenia: 1 dose				
Mpox	See Notes				See Notes						See Notes

 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

a. Precaution for LAIV4 does not apply to alcoholism.

b. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations.

c. Hematopoietic stem cell transplant.

Immunization for Prevention of Severe RSV Disease in Infants

Nirsevimab Recommendations for Infants and Children



- **One dose for infants younger than 8 months born during or entering their first RSV season (most infants do not need this if the mother received vaccine in pregnancy)**



- Dose should be administered October through March, ideally during the birth hospitalization

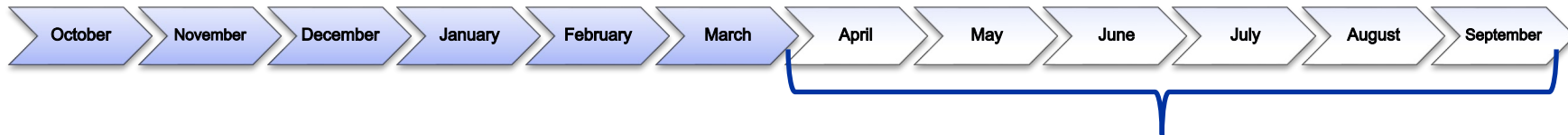


- **One dose for children ages 8 through 19 months who are at increased risk of severe RSV disease and entering their second RSV season**

Age ranges represent the infant's or child's age at the time of immunization.

Nirsevimab Timing by Birth Month: 1st RSV season

Infants born October through March are recommended to receive nirsevimab, within one week of birth, ideally during birth hospitalization



Infants born April through September are recommended to receive nirsevimab from October through March, ideally shortly before the RSV season begins

Ages 8 through 19 Months at *Increased Risk* for Severe RSV Disease and *Entering Second RSV Season*



Entering 2nd RSV season
with increased risk

- **Chronic lung disease of prematurity**
 - who required medical support during the 6-month period before the start of the second RSV season
- **Severe immunocompromise**
- **Cystic fibrosis who either have manifestation of:**
 - Severe lung disease (hospitalization in first year of life) or persistent abnormalities on chest imaging
 - Weight-for-length less than the 10th percentile
- **American Indian or Alaska Native**

Nirsevimab Contraindications and Precautions

- **Contraindication:**
 - Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to an immunization component
- **Precaution:**
 - Moderate or severe acute illness with or without fever

Caution with thrombocytopenia, any coagulation disorder, or on anticoagulation therapy.

RSV Vaccination for Pregnant People

- **Recommended for pregnant people during 32 through 36 weeks gestation, using seasonal administration, to prevent RSV lower respiratory tract infection in infants**
 - One dose of Pfizer’s bivalent RSVpreF Abrysvo vaccine. *This is the only RSV vaccine approved for use in pregnant people.*
 - Recommended for use during September through January in most of the continental U.S.*
- **If a pregnant person has already received RSV vaccine during any previous pregnancy, CDC does not recommend another dose of RSV vaccine during subsequent pregnancies.**

*In jurisdictions with RSV seasonality that differs from most of the continental United States, including Alaska, southern Florida, Guam, Hawaii, Puerto Rico, U.S.-affiliated Pacific Islands, and U.S. Virgin Islands, providers should follow state, local, or territorial guidance on timing of maternal RSV vaccination.

Pfizer Abrysvo RSV Vaccine Contraindications and Precautions

- **Contraindication:**
 - Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- **Precaution:**
 - Moderate or severe acute illness with or without fever

Immunization for Prevention of Severe RSV Disease in Older Adults

RSV Vaccine Recommendations for Older Adults Ages 60 Years and Older



- **CDC recommends a single dose of RSV vaccine for:**
 - All adults ages 75 years old and older
 - Adults ages 60 through 74 years who are at increased risk of severe RSV disease
- **Adults who have previously received RSV vaccine should not receive another dose.**
- **Most benefit if administered in late summer or early fall**

Adults Ages 60–74 at Increased Risk for Severe RSV Disease Should Receive a Single Dose of RSV Vaccine



Chronic lung or respiratory disease



Neurological or neuromuscular conditions (causing impaired airway clearance or respiratory muscle weakness)



Moderate or severe immunocompromise



Chronic cardiovascular disease



Residence in a nursing home



End-stage renal disease



Chronic liver disease



Other factors that a provider determines would increase risk of severe disease due to viral respiratory infection



Diabetes mellitus complicated by end-organ damage or requiring treatment with insulin or SGLT2 inhibitor



Chronic hematologic conditions



Severe obesity (body mass index ≥ 40 kg/m²)

*SGLT2=sodium-glucose co-transporter-2

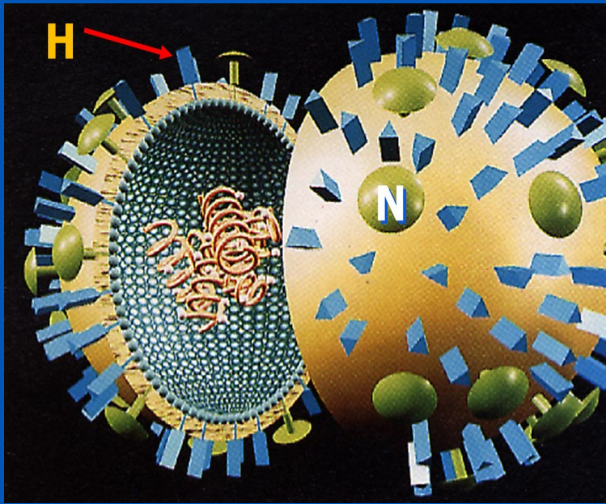
RSV Vaccines for Adults Ages 60 Years and Older

- **There are three RSV vaccine products approved for use in older adults:**
 - GSK Arexvy (RSVpreF3)
 - Pfizer Abrysvo (RSVpreF)
 - Moderna mResvia (mRNA-1345)
- **There is no preferential recommendation.**
 - Give whichever vaccine is available.

GSK Arexvy and Moderna mResvia RSV vaccines should not be administered to pregnant people.

Contraindications and Precautions to RSV Vaccines in Older Adults

- **Products:** Moderna mResvia, Pfizer Abrysvo, GSK Arexvy
- **Contraindication:**
 - Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- **Precaution:**
 - Moderate or severe acute illness with or without fever



Influenza Vaccine

Transition to Only Trivalent Vaccines in 2024–2025

- **Quadrivalent influenza vaccines had been available since 2013–2014.**
- **In March 2024, FDA’s Vaccines and Related Biological Products Advisory Committee (VRBPAC) recommended that all 2024–2025 influenza vaccines be trivalent vaccines.**
 - One influenza A(H1N1), one influenza A(H3N2), and one influenza B/Victoria-lineage vaccine virus
 - Influenza B/Yamagata-lineage viruses have not been detected in global virologic surveillance since March 2020.
- **In June 2024, ACIP recommendations included this decision.**

High-dose, Adjuvanted, or Recombinant Influenza Vaccines Preferentially Recommended for Persons 65 Years of Age and Older

- **Includes the following vaccines:**
 - Fluzone High-Dose (HD-IIV), Flud adjuvanted (aIIV), and Flublok recombinant (RIV)
 - No preference among these three
- **Persons 65 years of age and older do not mount as strong of an immune response, and these three vaccines might be more effective than other influenza vaccines.**
- **If none of the three are available, vaccinate with another age-appropriate influenza vaccine.**

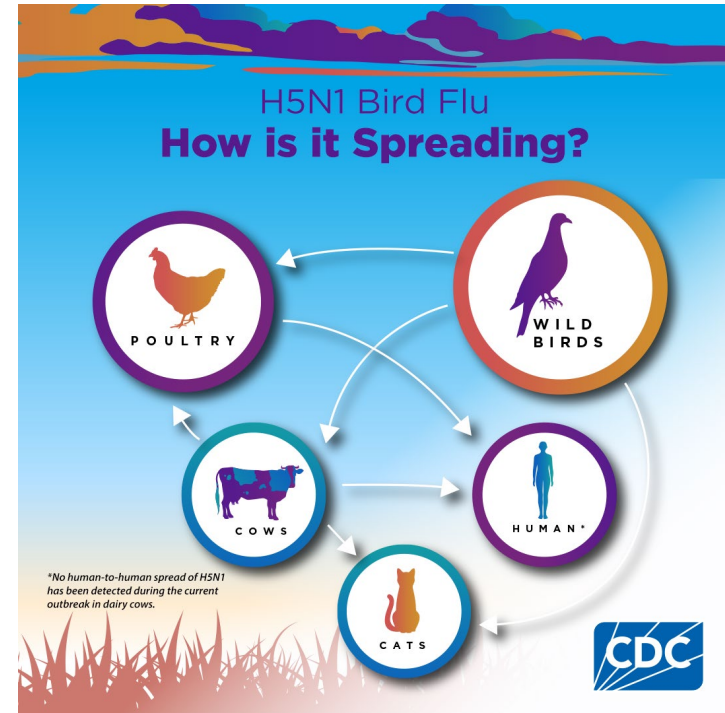
Vaccine Options for Solid Organ Transplant Recipients on Immunosuppressive Therapy

- **A new influenza vaccine recommendation beginning in 2024-2025**
- **High-dose or adjuvanted influenza vaccines are acceptable options for solid organ transplant recipients aged 18 through 64 years who are receiving immunosuppressive medication regimens.**
 - No preference over other age-appropriate IIVs or RIV
 - This is an off-label ACIP recommendation.
- **Persons who receive solid organ transplants on immunosuppressive therapy mount a lower immune response to vaccination; the high-dose or adjuvanted influenza vaccines might induce a better immune response.**

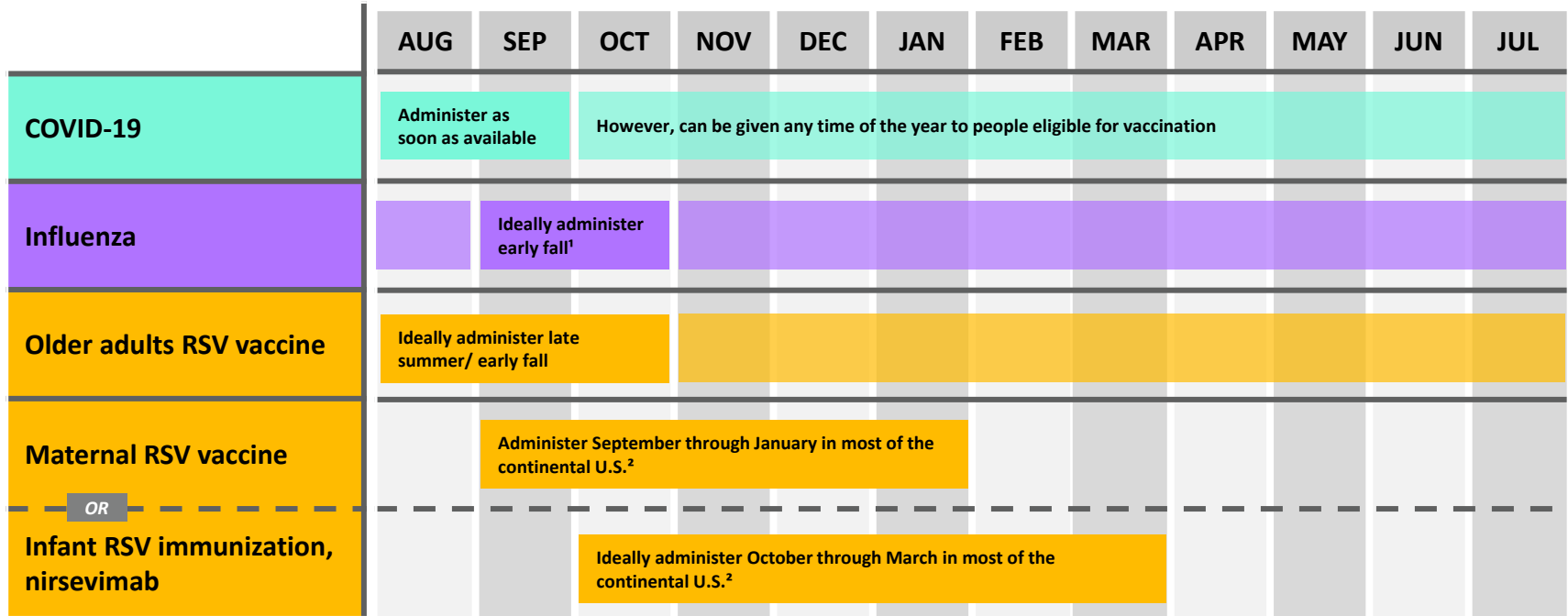
H5N1 Bird Flu: Current Situation

WHAT TO KNOW

- H5 bird flu is widespread in wild birds worldwide and is causing outbreaks in poultry and U.S. dairy cows with several recent human cases in U.S. dairy and poultry workers.
- While the current public health risk is low, CDC is watching the situation carefully and working with states to monitor people with animal exposures.
- CDC is using its flu surveillance systems to monitor for H5 bird flu activity in people.



Timing and Administration of COVID-19, Influenza, and RSV Immunizations

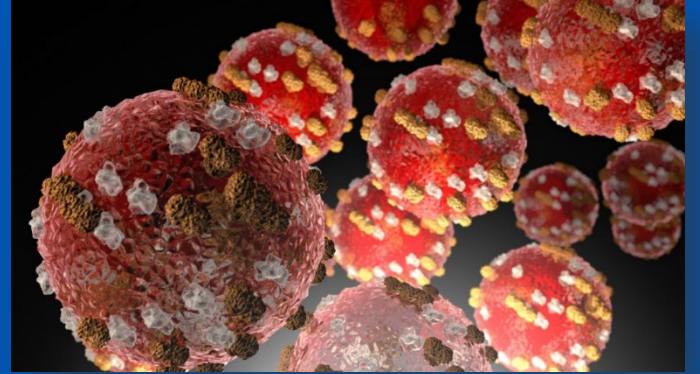


From: [Provider Toolkit: Preparing Patients for the Fall and Winter Virus Season | Respiratory Illnesses | CDC](#)

¹ For most persons influenza vaccination should ideally be offered during September or October. Children who need 2 doses of influenza vaccine should receive their first dose as soon as possible (including during July and August). One dose of influenza vaccine can be considered for pregnant people in their third trimester during July and August. ² In jurisdictions with RSV seasonality that differs from most of the continental United States, including Alaska, southern Florida, Guam, Hawaii, Puerto Rico, U.S.-affiliated Pacific Islands, and U.S. Virgin Islands, providers should follow state, local, or territorial guidance. However, nirsevimab may be administered outside of routine seasonal administration (ie., October through March) based on local RSV activity and other special circumstances.

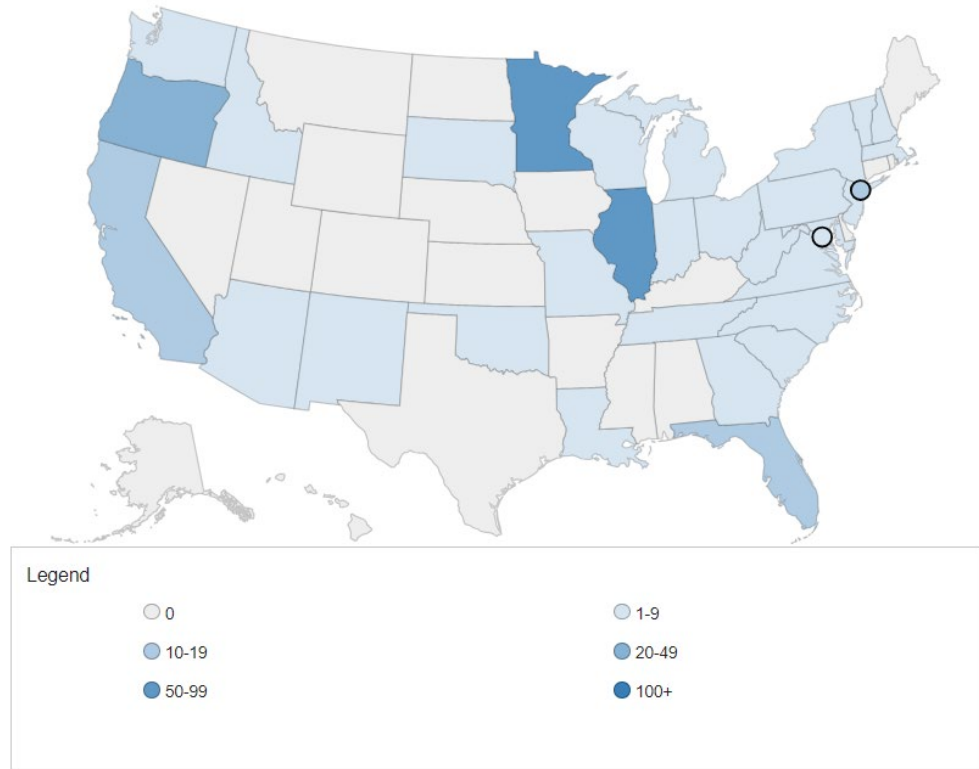
Measles 2024 Update

Vaccine-Preventable Disease



So Far This Year...

- As of October 17, 2024, a Total of **269** Measles Cases Were Reported by 32 Jurisdictions.



MMR-containing Vaccines

Vaccine Product	Component(s)	Age Indication
M-M-R II	MMR	12 months and older
Priorix	MMR	12 months and older
ProQuad (MMRV)	MMR, Varicella	12 months through 12 years

Prevention Strategies: Children


MMR vaccine is the best and safest protection against measles.

- **Ensure children are current on MMR vaccine.**
Routine vaccination schedule includes:
 - Dose 1: 12–15 months of age
 - Dose 2: 4–6 years of age
- **Assess vaccination status before international travel.**
 - Age 6–11 months: 1 dose of MMR
 - Age 12 months and older:
2 doses separated by at least 4 weeks



Prevention Strategies: Adults

MMR vaccine is the best and safest protection against measles.

- **Ensure adults are up-to-date or have acceptable evidence of immunity. Routine recommendations for adults are:**
 - Health care personnel
 - International travelers
 - Household/close contacts of immunocompromised persons
 - College and other post-high school students
- **All other adults**  **1 dose**
- **No serologic testing after vaccination is recommended**

2 doses
separated by
at least 4
weeks



Summary: Adult MMR Vaccination Special Situations

- Administer 2 doses separated by at least 4 weeks to previously unvaccinated:



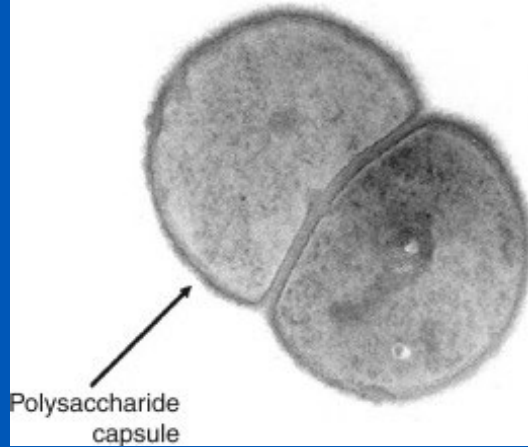
- Students in postsecondary educational institutions



- International travelers
- Household or close contacts of immunocompromised persons with no evidence of immunity

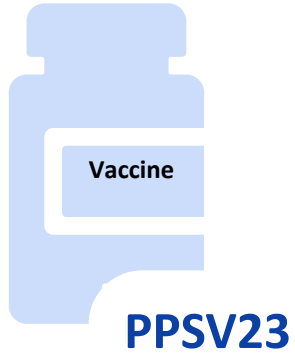


- Health care personnel with no evidence of immunity
 - Born before 1957 = Consider
 - Born after 1957 = Administer

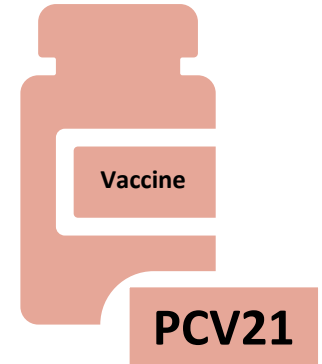
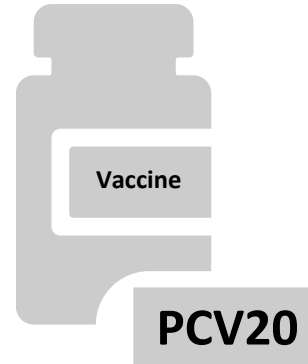
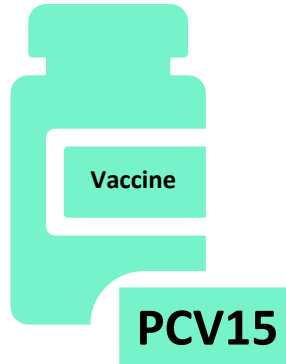


Pneumococcal Vaccine Recommendations

Pneumococcal Vaccine Products



Polysaccharide Vaccine



Conjugate Vaccine

CDC Recommends Lowering the Age for Pneumococcal Vaccination from 65 to 50 Years Old

October 23, 2024 - Today, CDC Director Mandy Cohen endorsed the CDC Advisory Committee on Immunization Practices' (ACIP) recommendation for lowering the age for pneumococcal vaccination from 65 to 50 years old.

Lowering the age for pneumococcal vaccination gives more adults the opportunity to protect themselves from pneumococcal disease at the age when risk of infection substantially increases. Pneumococcal bacteria can cause serious illnesses, including pneumonia, meningitis, and bloodstream infections, and older adults are at increased risk for pneumococcal disease.

Adults 50 years or older should talk with a healthcare provider to make sure they're up to date with pneumococcal vaccination. Now is a great time to get vaccinated against pneumococcal disease in preparation for the winter respiratory season.

Pneumococcal Vaccine Recommendations for Adults (1)

Adults 50 years or older

Routine vaccination

Administer PCV15, PCV20, or PCV21 for all adults 50 years or older

- Who have never received any pneumococcal conjugate vaccine
- Whose previous vaccination history is unknown

Pneumococcal Vaccine Recommendations for Adults (2)

- **Risk-based vaccination for ages 19 through 49 years**
 - PCV15 (+PPSV23) or PCV20 or PCV21 recommended

Conditions with Risk-Based Pneumococcal Vaccine Recommendations: Adults

- **Alcoholism**
- **Currently smoking cigarettes**
- **Chronic heart or lung disease**
Includes congestive heart failure, cardiomyopathies, chronic obstructive pulmonary disease, emphysema, and asthma.
- **Diabetes**
- **Chronic liver disease** (including cirrhosis)
- **Cerebrospinal fluid leak**
- **Cochlear implant**
- **Immunocompromising conditions**
- Includes congenital or acquired immunodeficiencies, Hodgkin Disease, lymphoma, leukemia, multiple myeloma, generalized malignancy, congenital or acquired asplenia, and other cancers if on immunosuppressive therapy; HIV infection; chronic renal failure; nephrotic syndrome; organ transplant; and immunosuppressive medications, including chemotherapy and high-dose corticosteroid treatment.

Serotypes in Pneumococcal Vaccine Products for Adults: PCV21 Approved for Use in Adults

	1	3	4	5	6 A	6 B	7 F	9 V	1 4	1 8 C	1 9 A	1 9 F	2 3 F	2 2 F	3 3 F	8	1 0 A	1 1 A	1 2 F	1 5 B	2	9 N	1 7 F	2 0	1 5 A	1 5 C	1 6 F	2 3 A	2 3 B	2 4 F	3 1	3 5 B			
PCV15																																			
PCV20																																			
PPSV23																																			
PCV21																																			

- **21-valent pneumococcal conjugate vaccine (PCV21): Capvaxive**
- **FDA-approved in June 2024 for adults aged 18 years or older**

ACIP Recommendations Published Sept. 12, 2024

Morbidity and Mortality Weekly Report

Use of 21-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024

Miwako Kobayashi, MD¹; Andrew J. Leidner, PhD²; Ryan Gierke, MPH¹; Jennifer L. Farrar, MPH¹; Rebecca L. Morgan, PhD³; Doug Campos-Outcalt, MD⁴; Robert Schechter, MD⁵; Katherine A. Poehling, MD⁶; Sarah S. Long, MD⁷; Jamie Loehr, MD⁸; Adam L. Cohen, MD¹

- **On June 27, 2024, ACIP recommended a single dose of PCV21 as an option for adults aged 19 years and older for whom PCV is currently recommended.**

Pneumococcal Vaccine Timing for Adults (1)

Adults ≥50 years old Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥1 year [†] → PPSV23 [‡]
PPSV23 only at any age	→ ≥1 year → PCV20 or PCV21	→ ≥1 year → PCV15
PCV13 only at any age	→ ≥1 year → PCV20 or PCV21	NO OPTION B
PCV13 at any age & PPSV23 at <50 yrs	→ ≥5 years → PCV20 or PCV21	

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

[†] If PPSV23 is not available, PCV20 or PCV21 may be used

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

[§] 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

Shared clinical decision-making for those who already completed the series with PCV13 and PPSV23

Prior vaccines	Shared clinical decision-making option for adults ≥65 years old	
Complete series: PCV13 at any age & PPSV23 at ≥65 yrs	→ ≥5 years → PCV20 or PCV21	Together, with the patient, vaccine providers may choose to administer PCV20 or PCV21 to adults ≥65 years old who have already received PCV13 (but not PCV15, PCV20, or PCV21) at any age and PPSV23 at or after the age of 65 years old.

Pneumococcal Vaccine Timing for Adults (2)

Adults 19–49 years old with specified immunocompromising conditions
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥8 weeks → PPSV23 [†]
PPSV23 only	≥1 year → PCV20 or PCV21	≥1 year → PCV15
PCV13 only	≥1 year → PCV20 or PCV21	NO OPTION B
PCV13 and 1 dose of PPSV23	≥5 years → PCV20 or PCV21	
PCV13 and 2 doses of PPSV23	≥5 years → PCV20 or PCV21	No vaccines recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 50 years old.
Immunocompromising conditions	<ul style="list-style-type: none"> • Chronic renal failure • Congenital or acquired asplenia • Congenital or acquired immunodeficiency[‡] • Generalized malignancy 	<ul style="list-style-type: none"> • HIV infection • Hodgkin disease • Iatrogenic immunosuppression[‡] • Leukemia • Lymphoma

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

[†] If PPSV23 is not available, PCV20 or PCV21 may be used

[‡] The minimum interval for PPSV23 is ≥8 weeks since last PCV13 dose and ≥5 years since last PPSV23 dose

[§] Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease)

[¶] Includes diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy

Pneumococcal Vaccine Timing for Adults (3)

Adults 19–49 years old with a cochlear implant or cerebrospinal fluid leak Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥ 8 weeks → PPSV23 [†]
PPSV23 only	≥ 1 year → PCV20 or PCV21	≥ 1 year → PCV15
PCV13 only	≥ 1 year → PCV20 or PCV21	NO OPTION B
PCV13 and 1 dose of PPSV23	≥ 5 years → PCV20 or PCV21	No vaccines recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 50 years old.

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

[†] If PPSV23 is not available, PCV20 or PCV21 may be used

Pneumococcal Vaccine Timing for Adults (4)

Adults 19–49 years old with chronic health conditions Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥ 1 year → PPSV23†
PPSV23 only	→ ≥ 1 year → PCV20 or PCV21	→ ≥ 1 year → PCV15
PCV13† only	→ ≥ 1 year → PCV20 or PCV21	NO OPTION B
PCV13† and PPSV23	No vaccines are recommended at this time. Review pneumococcal vaccine recommendations again when your patient turns 50 years old.	
Chronic health conditions	<ul style="list-style-type: none"> • Alcoholism • Chronic heart disease, including congestive heart failure and cardiomyopathies • Chronic liver disease 	<ul style="list-style-type: none"> • Chronic lung disease, including chronic obstructive pulmonary disease, emphysema, and asthma • Cigarette smoking • Diabetes mellitus

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

† If PPSV23 is not available, PCV20 or PCV21 may be used

‡ Adults with chronic medical conditions were previously not recommended to receive PCV13

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Pneumococcal Vaccine Recommendations

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PneumoRecs VaxAdvisor

Tool to help determine which pneumococcal vaccines children and adults need.

Get Started

Enter a patient's age, pneumococcal vaccination history, and underlying medical conditions. Move through this tool to create customized pneumococcal vaccination recommendations.

Page last reviewed: September 12, 2024

Content source: National Center for Immunization and Respiratory Diseases



SEPTEMBER 12, 2024

PneumoRecs VaxAdvisor App for Vaccine Providers

KEY POINTS

- Use PneumoRecs VaxAdvisor to quickly and easily determine which pneumococcal vaccines a patient needs and when.
- Mobile and web versions are available and free to use.
- The PneumoRecs VaxAdvisor app was updated on September 12, 2024, to reflect CDC's updated adult pneumococcal vaccination recommendations.

PneumoRecs
VaxAdvisor

Mobile for iOS and Android

Get the app

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ACIP Meeting October 24, 2024: Meningococcal Serogroup B Vaccine (Bexsero) Schedule Vote

Meningococcal Vaccines

ACIP recommends MenB-4C (Bexsero®) be administered as a 2-dose series at 0 and 6 months when given to healthy adolescents and young adults aged 16–23 years based on shared clinical decision-making for the prevention of serogroup B meningococcal disease

ACIP recommends MenB-4C (Bexsero®) be administered as a 3-dose series at 0, 1–2, and 6 months when given to persons aged ≥ 10 years at increased risk for serogroup B meningococcal disease (i.e., persons with anatomic or functional asplenia, complement component deficiencies, or complement inhibitor use; microbiologists routinely exposed to *N. meningitidis* isolates; and persons at increased risk during an outbreak)

These recommendations were adopted by the CDC Director on October 24, 2024 and are now official.

Thank You

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.

