Washington State Department of HEALTH

CURRENT VACCINE RECOMMENDATIONS AND PREVENTING VACCINE ADMINISTRATION ERRORS

November 21, 2024

Before We Start

- All participants will be muted for the presentation.
- You may ask questions using the Q&A box, and questions will be answered at the end of the presentation.
- To turn on closed captioning, click the "CC" button at the bottom of your screen and select "Show Subtitle."
- Continuing education is available for nurses, medical assistants, and pharmacists/pharmacy techs.
- If you're watching in a group setting and wish to claim CE credit, please make sure you register for the webinar and complete the evaluation as an individual.
- You can find more information here: Current Vaccine Recommendations & Preventing Vaccine Administration Errors | Washington State Department of Health

Continuing Education

- This nursing continuing professional development activity was approved by Montana Nurses Association, an accredited approver with distinction by the American Nurses Credentialing Center's Commission on Accreditation. Upon successful completion of this activity, 1.0 contact hours will be awarded.
- This program has been granted prior approval by the American Association of Medical Assistants (AAMA) for 1.0 administrative continuing education unit.
- This knowledge activity was approved by the Washington State Pharmacy Association for 1.0 contact hours. The Washington State Pharmacy Association is accredited by the Accreditation Council for Pharmacy Education as a Provider of continuing pharmacy education.

BIO Statement

Dr. Eva Meekins is a Nurse Educator within the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention (CDC).

- Traveling faculty trainers within the Health Education and Communication Branch (HECB)
- Delivered presentations on topics ranging from immunization updates to several vaccine-preventable disease topics featured in the iconic Pink Book course.
- Involved in developing training courses and promoting learning activities with colleagues in the Vaccines for Children Program.

Current Vaccine Recommendations & Preventing Vaccine Administration Errors

Washington Department of Health

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Nurse Educator
Immunization Services Division

Current as of November 21, 2024

Disclosures

- **Dr. Eva Meekins is a federal government employee with no financial or conflict of interest with the manufacturers of any product named in this presentation.**
- **Dr. Eva Meekins may discuss off-label use of influenza vaccines in accordance with Advisory Committee on Immunization Practices (ACIP) recommendations.**
- **The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or the Centers for Disease Control and Prevention (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

Next meeting: February 26-27, 2025

Advisory Committee on Immunization Practices (ACIP) | ACIP | CDC

Outline

- **Overview of Immunization Schedules**
- **Fall and Winter Viral Respiratory Season Updates**
  - COVID-19, Respiratory Syncytial Virus (RSV), and Influenza
- **ACIP Updates**
  - Pneumococcal Vaccine Recommendations
  - Meningococcal Serogroup B (MenB) Vaccine Update
- **Preventing Vaccine Administration Errors**
  - Preparation and Administration
- **Resources for Health Care Professionals**

Overview of Immunization Schedules

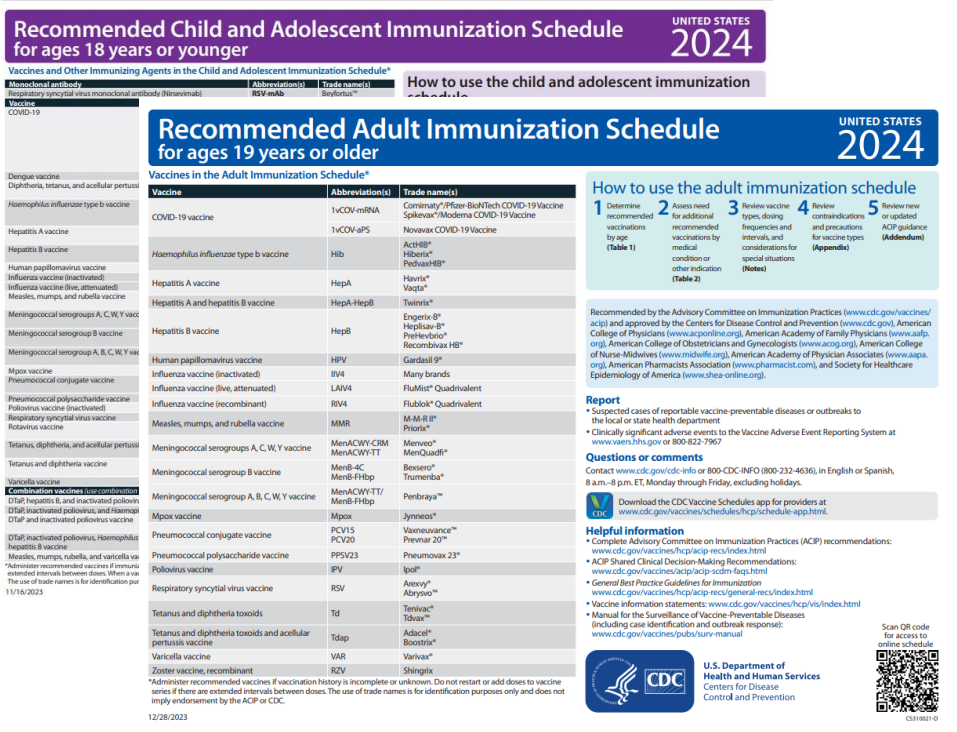
Immunization Schedules: Overview

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.



Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger — UNITED STATES 2024

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

How to use the child and adolescent immunization schedule

Recommended Adult Immunization Schedule for ages 19 years or older — UNITED STATES 2024

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	HepA	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	HepA-HepB	Twinrix®
Hepatitis B vaccine	HepB	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	Mpox	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.

12/28/2023

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 (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)

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-scrm-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

Scan QR code for access to online schedule

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

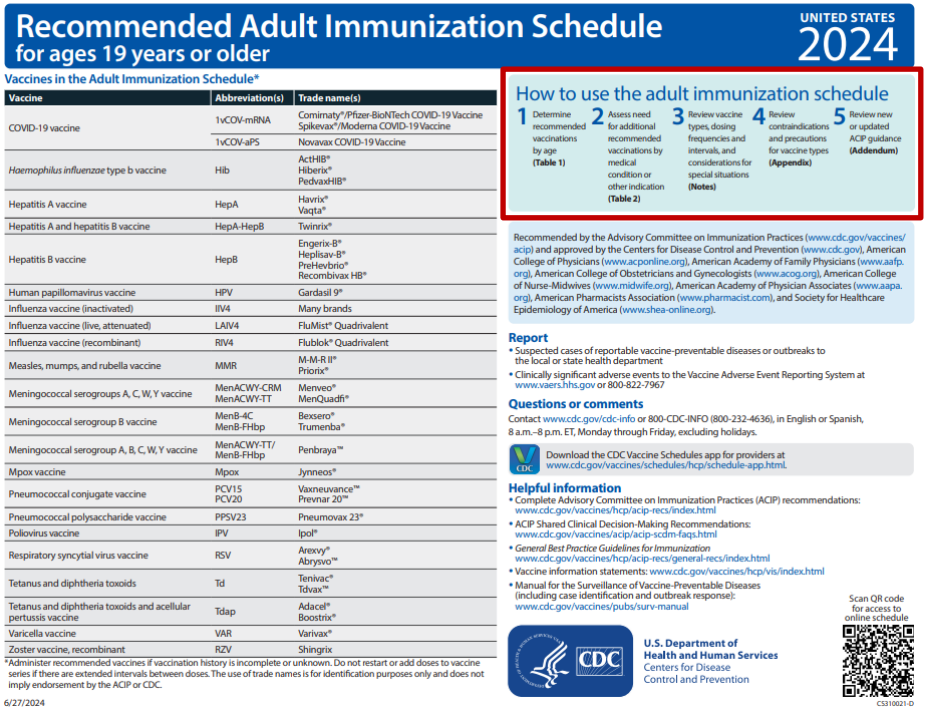
CS310021-D

[Immunization Schedules | Vaccines & Immunizations | CDC]

How to Use the Immunization Schedule

Sections

- Cover Page
- Table 1: Age-based
- Table 2: Medical indication
- Vaccination notes
- Appendix: Contraindications and Precautions
- Addendum: Updates after schedule is published



Recommended Adult Immunization Schedule
for ages 19 years or older
UNITED STATES 2024

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	HepA	Havrix® Vaqta®
Hepatitis A and hepatitis B vaccine	HepA-HepB	Twinrix®
Hepatitis B vaccine	HepB	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	Mpox	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.

6/27/2024

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 **(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)**

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).

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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* www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html
- Vaccine information statements: www.cdc.gov/vaccines/hcp/vis/index.html
- Manual for the Surveillance of Vaccine-Preventable Diseases (including case identification and outbreak response): www.cdc.gov/vaccines/pubs/surv-manual

Scan QR code for access to online schedule

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

CS310021-D

[Adult Immunization Schedule by Age (Addendum updated June 27, 2024) | Vaccines & Immunizations | CDC]

Fall and Winter Viral Respiratory Season

COVID-19, RSV, and Influenza

Who should get 2024–2025 COVID-19, 2024–2025 Influenza, and RSV immunizations?

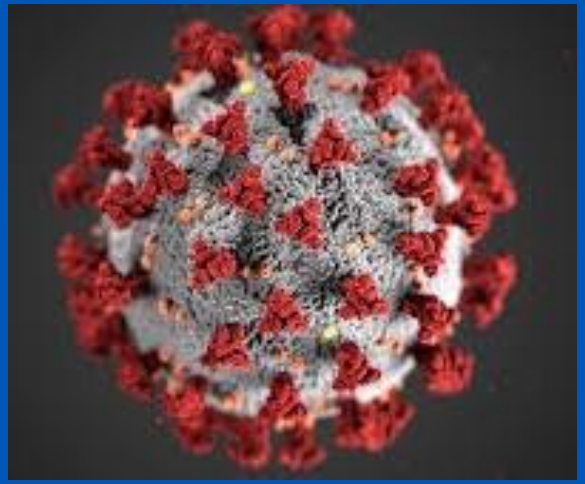
	2024–2025 COVID-19[1]	2024–2025 Influenza[2]	RSV[3]
Infants & Children	**6 months – 17 years** Some children 6 months through 4 years may need multiple doses	**6 months – 17 years** Some children 6 months through 8 years may need two doses ≥4 weeks apart	**All infants <8 months* and children 8 through 19 months with risk factors should get nirsevimab** Typically, October through March, *if birthing parent not vaccinated with maternal RSV vaccine
Pregnant People	**All**	**All**	**32–36 weeks gestation should get RSV vaccine (Pfizer, Abrysvo only)** Typically, September–January
Adults 18–59 yrs	**All**	**All**	See pregnant people
Adults ≥60 yrs	**All** Two doses recommended for adults ≥65 yrs, 6 months apart	**All** High-dose, recombinant, or adjuvanted preferred for ≥65 yrs, if available	**All adults ≥75 yrs and adults 60 through 74 years with risk factors should get a single dose of RSV vaccine at this time.**

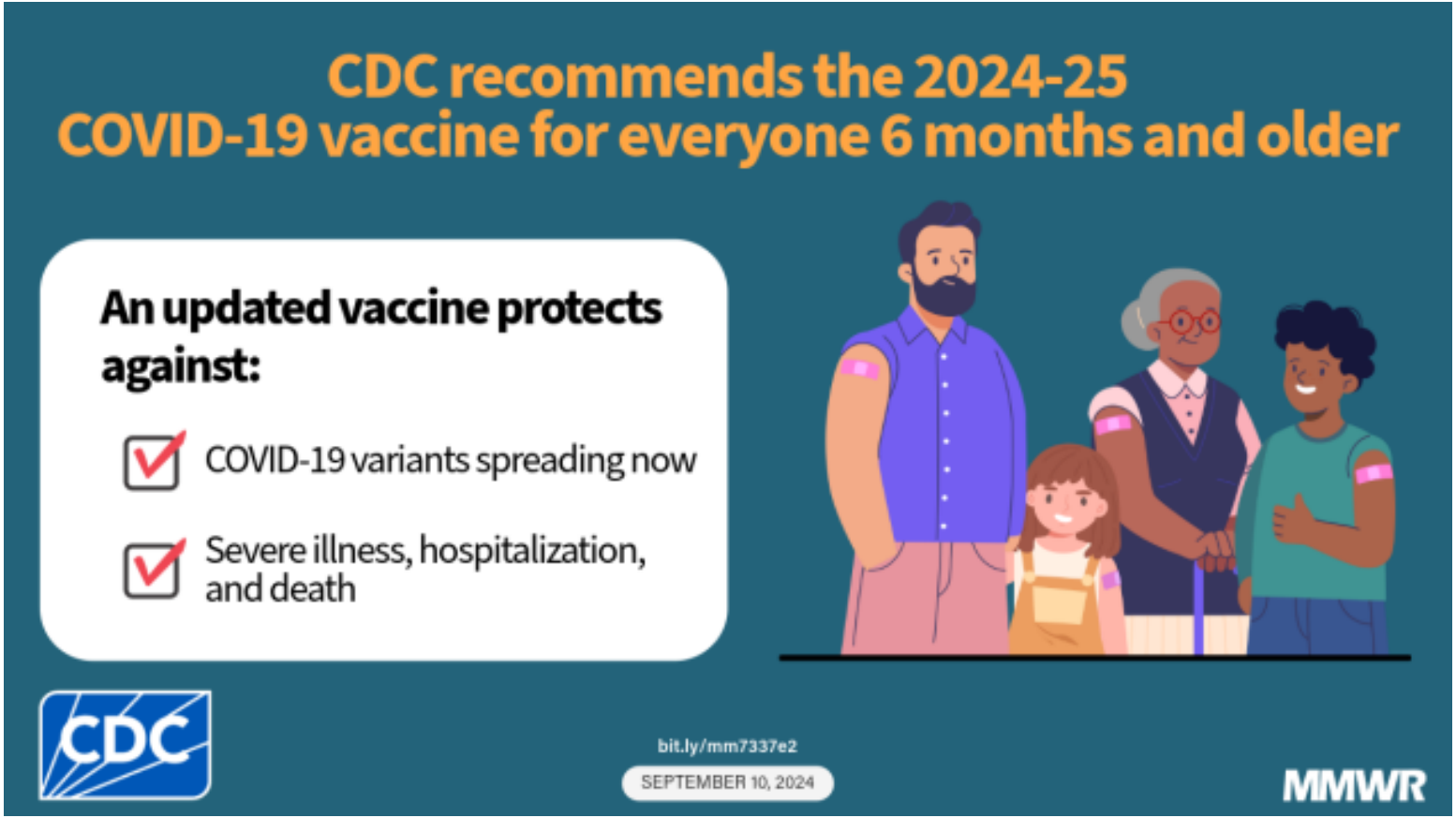
[1] People ages 6 months and older with moderate or severe immunocompromise should get 2 doses of 2024-2025 COVID-19 vaccine 6 months (minimum interval 2 months) apart and may also get additional doses of COVID-19 vaccine under shared clinical decision-making. If previously unvaccinated or receiving initial vaccination series, more doses may be needed.

[2] Solid organ transplant recipients ages 18 through 64 years on immunosuppressive medications may get high-dose or adjuvanted flu vaccine, if available, without a preference over other age-appropriate inactivated or recombinant influenza vaccines.

[3] All infants should be protected by either maternal RSV vaccine or nirsevimab, Both are not needed for most infants. For infants born during October through March, nirsevimab should be administered in the first week of life—ideally during the birth hospitalization.

COVID-19





Use of COVID-19 Vaccines for Persons Aged ≥6 Months: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–2025 | MMWR (cdc.gov)

2024–25 COVID-19 mRNA Vaccines

- **Omicron JN.1-lineage, KP.2 strain**
- **Vaccine recipient generates the antigen**

Vaccine	Ages	Authorization or Approval
Moderna	6 months–11 years	Emergency Use Authorization
Spikevax	12 years and older	FDA-approved/Licensed
Pfizer-BioNTech	6 months–11 years	Emergency Use Authorization
Comirnaty	12 years and older	FDA-approved/Licensed

Interim Clinical Considerations for Use of COVID-19 Vaccines | CDC, COVID-19 Vaccine Basics | COVID-19 | CDC

2024-2025 COVID-19 Adjuvanted Protein Subunit Vaccine (Novavax)

- **Omicron JN.1-lineage, JN.1 strain**
- **Authorized for use in persons ages 12 years and older under Emergency Use Authorization (EUA)**

Interim Clinical Considerations for Use of COVID-19 Vaccines | CDC

New COVID-19 Vaccine Recommendations for Persons 65 Years of Age and Older

COVID-19 Vaccines

In addition to previously recommended 2024-2025 vaccination:

- ACIP recommends **a second dose*** of 2024-2025 COVID-19 for adults ages 65 years and older
- ACIP recommends **a second dose**** of 2024-2025 COVID-19 vaccine for people ages 6 months-64 years who are moderately or severely immunocompromised
- ACIP recommends **additional doses (i.e., 3 or more doses)** of 2024-2025 COVID-19 vaccine for people ages 6 months and older who are moderately or severely immunocompromised under ***shared clinical decision making***

*If previously unvaccinated and receiving Novavax, 2 doses are recommended as initial vaccination series followed by a third dose of any age-appropriate 2024-2025 COVID-19 vaccine 6 months (minimum interval 2 months) after second dose

**If previously unvaccinated or receiving initial vaccination series, at least 2 doses of 2024-2025 vaccine are recommended, and depending on vaccination history more may be needed. This additional 2024-2025 vaccine dose is recommended 6 months (minimum interval 2 months) after completion of initial vaccination series.

These recommendations were adopted by the CDC Director on October 23, 2024 and are now official.

ACIP Recommendations | ACIP | CDC

New COVID-19 Vaccine Recommendations for People Who Are Moderately or Severely Immunocompromised

COVID-19 Vaccines

In addition to previously recommended 2024-2025 vaccination:

- ACIP recommends **a second dose*** of 2024-2025 COVID-19 for adults ages 65 years and older
- ACIP recommends **a second dose**** of 2024-2025 COVID-19 vaccine for people ages 6 months-64 years who are moderately or severely immunocompromised
- ACIP recommends **additional doses (i.e., 3 or more doses)** of 2024-2025 COVID-19 vaccine for people ages 6 months and older who are moderately or severely immunocompromised under ***shared clinical decision making***

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These recommendations were adopted by the CDC Director on October 23, 2024 and are now official.

ACIP Recommendations | ACIP | CDC

Product Interchangeability (1)

- **All children ages 6 months–4 years should receive all vaccine doses from the same manufacturer.**
- **People ages 5 years and older who are moderately or severely immunocompromised should receive a recommended series using vaccines from the same manufacturer.**
  - Additional doses may be any age-appropriate product.
- **People ages 12 years and older who received a first dose of 2024–25 Novavax COVID-19 Vaccine should complete the 2-dose series with Novavax vaccine.**
  - If more than 8 weeks have elapsed since the 1st dose, any 2024–25 COVID-19 vaccine may be administered.

Clinical Guidance for COVID-19 Vaccination | CDC

Product Interchangeability (2)

- **COVID-19 vaccine doses from the same manufacturer should be administered whenever recommended.**
- **In the following circumstances, an age-appropriate COVID-19 vaccine from a different manufacturer may be administered:**
  - Same vaccine not available at the time of the clinic visit
  - Previous dose not known
  - Person otherwise would not complete the primary series
  - Person starts but is unable to complete a primary series with the same COVID-19 vaccine because of a contraindication

Clinical Guidance for COVID-19 Vaccination | CDC

People With Prior SARS-CoV-2 Infection

- **People who recently had a SARS-CoV-2 infection may consider delaying COVID-19 vaccination by 3 months from symptom onset or positive test (if the infection was asymptomatic).**
  - Studies have shown that increased time between infection and vaccination might result in an improved immune response to vaccination.
  - Low risk of reinfection has generally been observed in the months following infection.
- **Other individual factors such as risk of severe disease and COVID-19 community levels should be considered when determining whether to delay a COVID-19 vaccination after infection.**

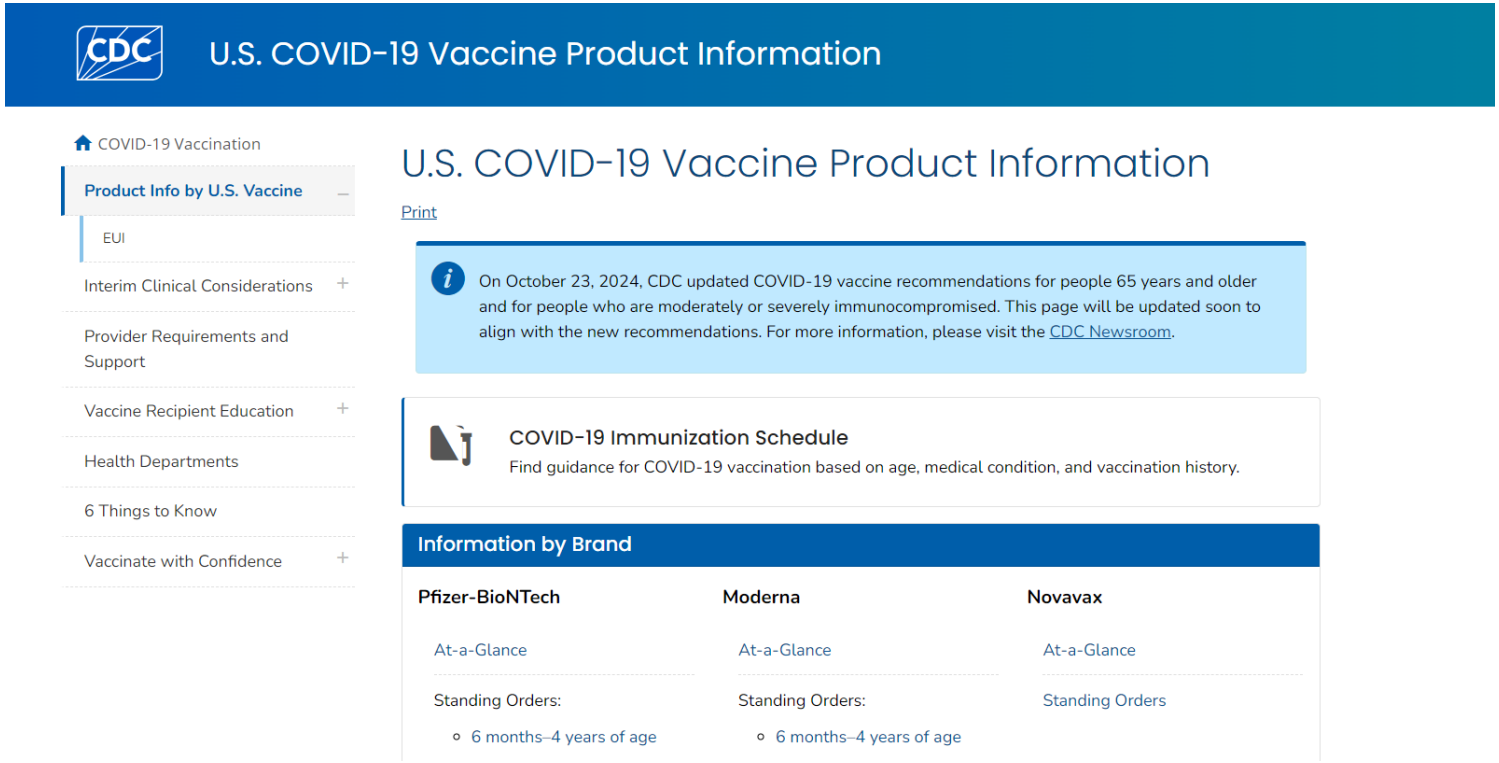
Clinical Guidance for COVID-19 Vaccination | CDC

Coadministration

- **Routine administration of all age-appropriate doses of vaccines simultaneously is recommended as best practice for people for whom no specific contraindications exist at the time of the health care visit.**
- **COVID-19 vaccine may be administered at the same clinic visit as other routinely recommended vaccines.**

ACIP General Best Practice Guidelines for Immunization | CDC
Clinical Guidance for COVID-19 Vaccination | CDC

Where to Find COVID-19 Vaccine Product Information



U.S. COVID-19 Vaccine Product Information | CDC

Prevention of Severe RSV Disease

Older Adults and Infants

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**

Use of Respiratory Syncytial Virus Vaccines in Adults Aged ≥60 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2024 | MMWR (cdc.gov), Healthcare Providers: RSV Vaccination for Adults 60 Years of Age and Over | CDC

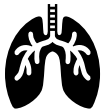
RSV Vaccines for Adults Ages 60 Years and Older

- **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.

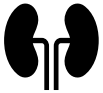
Use of Respiratory Syncytial Virus Vaccines in Adults Aged ≥60 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2024 | MMWR (cdc.gov)

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



Chronic lung or respiratory disease

Chronic cardiovascular disease



End-stage renal disease

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

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

Chronic liver disease

Chronic hematologic conditions

Severe obesity (body mass index ≥40 kg/m^2)

Moderate or severe immunocompromise

Residence in a nursing home

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

*SGLT2=sodium-glucose co-transporter-2

Use of Respiratory Syncytial Virus Vaccines in Adults Aged ≥60 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2024 | MMWR (cdc.gov)

Choose One Product to Prevent Severe RSV in Infants

Infant RSV monoclonal antibody
-nirsevimab (Sanofi)

- or -

Maternal RSV vaccination
-Abrysvo (Pfizer)

Both products are typically NOT needed for most infants.

Maternal RSV Vaccination–Abrysvo

- **Pfizer's bivalent RSV prefusion (RSVpreF) vaccine**
- **Induces active immune response against RSV in the pregnant person**
- **Antibodies are transferred transplacentally to fetus**
  - To protect infants from birth through 6 months of age from lower respiratory tract disease (LRTD) and severe LRTD

Package Insert - ABRYSVO (STN 125769); RSV Vaccine Guidance for Pregnant People | RSV | CDC

RSV Vaccination for Pregnant People

- **Recommended during 32 through 36 weeks gestation, 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.

Use of the Pfizer Respiratory Syncytial Virus Vaccine During Pregnancy for the Prevention of Respiratory Syncytial Virus–Associated Lower Respiratory Tract Disease in Infants: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023 | MMWR (cdc.gov)

Nirsevimab (Beyfortus)

- **Monoclonal antibody**
- **Immunization, but not a vaccine**
- **Provides passive immunity**
- **“Ready-made” supply of antibodies**

Nirsevimab Prescribing Information (fda.gov)
Chapter 1: Principles of Vaccination | Pink Book | CDC
Healthcare Providers: RSV Immunization for Infants and Young Children | CDC

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.

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 (cdc.gov)

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

Use of the Pfizer Respiratory Syncytial Virus Vaccine During Pregnancy for the Prevention of Respiratory Syncytial Virus–Associated Lower Respiratory Tract Disease in Infants: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023 | MMWR (cdc.gov)

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

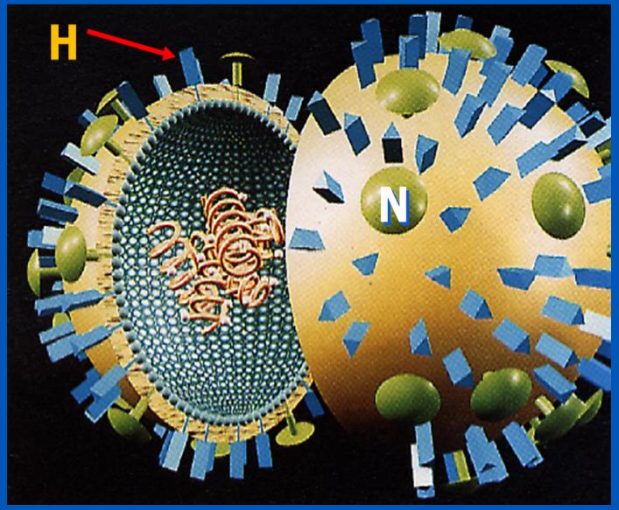
- **Chronic lung disease of prematurity**
  - who required medical support during the 6-month period before the start of the second RSV season
- **Severe immunocompromise**
- **Cystic fibrosis who either have manifestation of:**
  - Severe lung disease (hospitalization in first year of life) or persistent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

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 (cdc.gov)

Nirsevimab Dosage

RSV Season	Body Weight the Day of Immunization	Number of Injections	Recommended Total Dosage
1st Season	Less than 5 kg	**One 50 mg** prefilled syringe - **purple plunger rod**	0.5 mL (50 mg)
1st Season	5 kg and greater	**One 100 mg** prefilled syringe - **light blue plunger rod**	1 mL (100 mg)
2nd Season	N/A	**Two 100 mg** prefilled syringes - **light blue plunger rod**	2 mL (200 mg total)

Nirsevimab Prescribing Information (fda.gov)



Influenza

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.**

Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–25 Influenza Season | MMWR (cdc.gov)

Groups Recommended for Vaccination

- **Routine annual influenza vaccination is recommended for <u>all persons 6 months of age or older</u> with no contraindications.**
- **Influenza vaccination particularly important for:**
  - People 6 months of age and older who are at risk of complications and severe illness
  - Contacts and caregivers of people at risk of complications and severe illness
  - Contacts and caregivers of infants younger than 6 months
  - People who are or will be pregnant during the influenza season.

Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–25 Influenza Season | MMWR (cdc.gov)

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), Fluad adjuvanted (aIIV), and Flublok recombinant (RIV)
  - No preference among the 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.**

Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–25 Influenza Season | MMWR (cdc.gov)

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.**

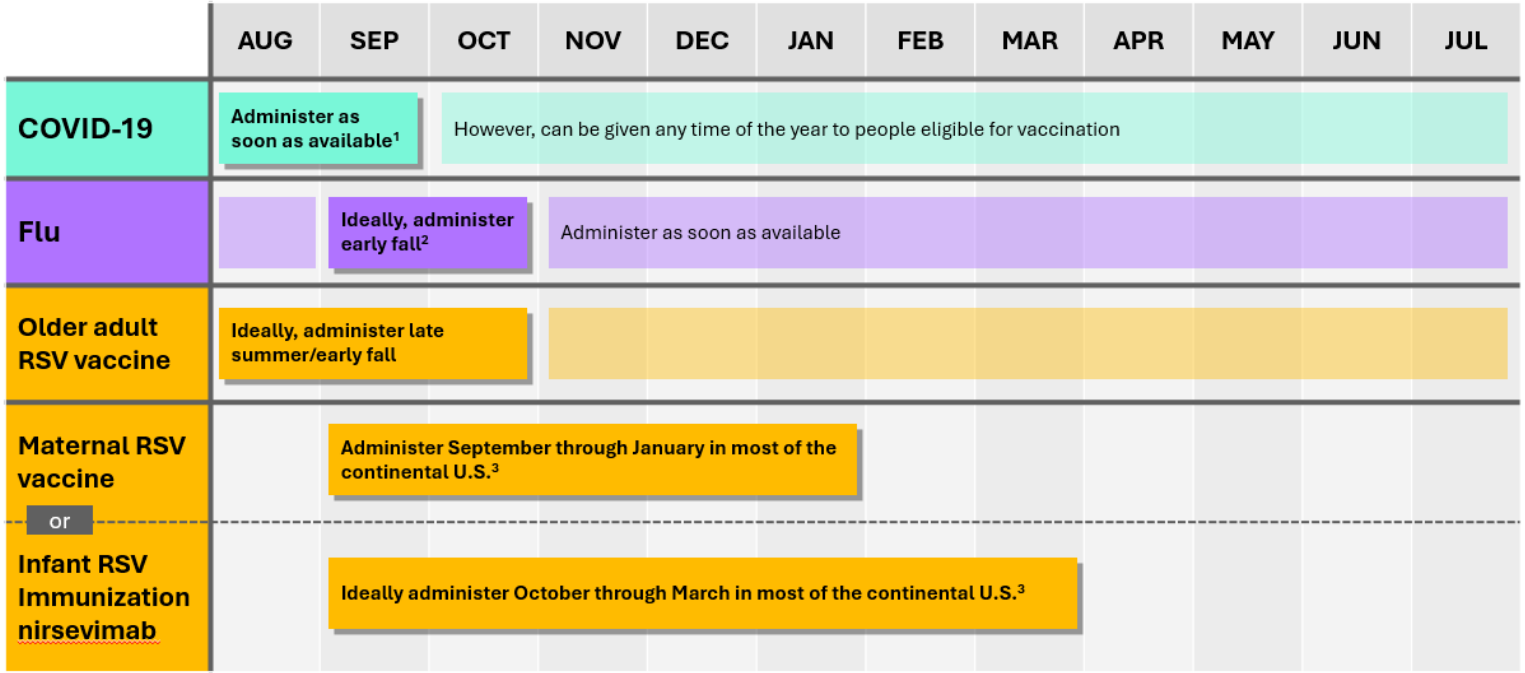
Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–25 Influenza Season | MMWR (cdc.gov)

Coadministration of Influenza and Other Vaccines

- **IIV3s and RIV3 can be administered with other inactivated or live vaccines.**
- **LAIV3 can be administered simultaneously with other live or inactivated vaccines.**
  - *Reminder*: allow at least 4 weeks between doses when two or more live vaccines are given non-simultaneously.
- **Limited data regarding coadministration with newer nonaluminum adjuvanted vaccines**
  - If aIIV is indicated, another non-adjuvanted influenza vaccine may be considered, but do not delay if a specific vaccine is not available.

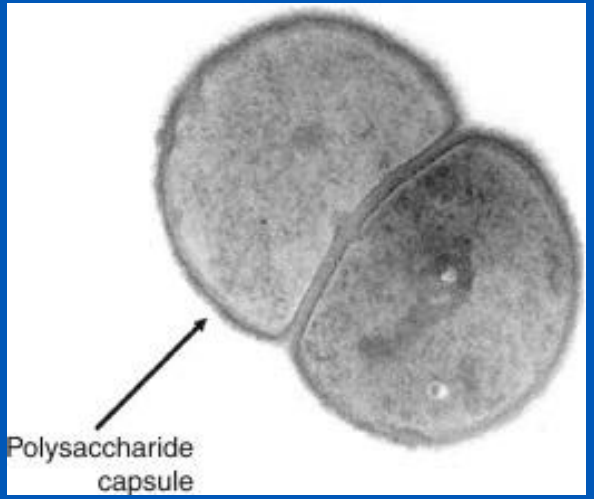
Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024–25 Influenza Season | MMWR (cdc.gov)

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



[1]People ages 65 years and older and people with moderate or severe immunocompromise should get 2 doses of 2024-2025 COVID-19 vaccine 6 months (minimum interval 2 months) apart.
[2]Children who need 2 doses should receive their first dose as soon as possible (including during July and August). One dose of flu vaccine can be considered for pregnant people in their third trimester during July and August.
[3]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. For infants born during October through March, nirsevimab should be administered in the first week of life—ideally during the birth hospitalization.

From: Respiratory Illnesses: Information for Health Care Providers | Respiratory Illnesses | CDC



Pneumococcal Vaccine Recommendations

ACIP Recommendations Published September 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, MD[1]; Andrew J. Leidner, PhD[2]; Ryan Gierke, MPH[1]; Jennifer L. Farrar, MPH[1]; Rebecca L. Morgan, PhD[3]; Doug Campos-Outcalt, MD[4]; Robert Schechter, MD[5]; Katherine A. Poehling, MD[6]; Sarah S. Long, MD[7]; Jamie Loehr, MD[8]; Adam L. Cohen, MD[1]

- **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.**

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

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.

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

Pneumococcal Vaccine Recommendations for Adults (1)

- **Routine vaccination for adults 50 years and older**
  - Administer PCV15 (+PPSV23) or PCV20 or PCV21 for all adults 50 years or older
    - Who never received any pneumococcal conjugate vaccine
    - Whose previous vaccination history is unknown

Pneumococcal Vaccine Recommendations | Pneumococcal | CDC

Pneumococcal Vaccine Recommendations for Adults (2)

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

Summary of Risk-based Pneumococcal Vaccination Recommendations | Pneumococcal | CDC, Use of 21-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024 | MMWR (cdc.gov)

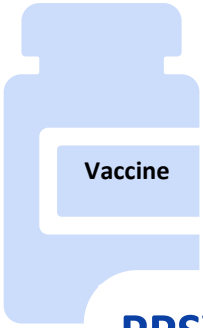
Conditions with Risk-Based Pneumococcal Vaccine Recommendations: Adults

- **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.

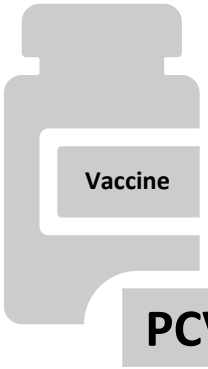
Pneumococcal Vaccine for Adults Aged ≥19 Years: Recommendations of the Advisory Committee on Immunization Practices, United States, 2023 | MMWR (cdc.gov)

Pneumococcal Vaccine Products

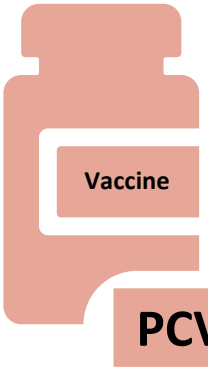


PPSV23

PCV15



PCV20



PCV21

Polysaccharide Vaccine

Conjugate Vaccine

ACIP Recommendations: Pneumococcal Vaccine | ACIP Recommendations | CDC

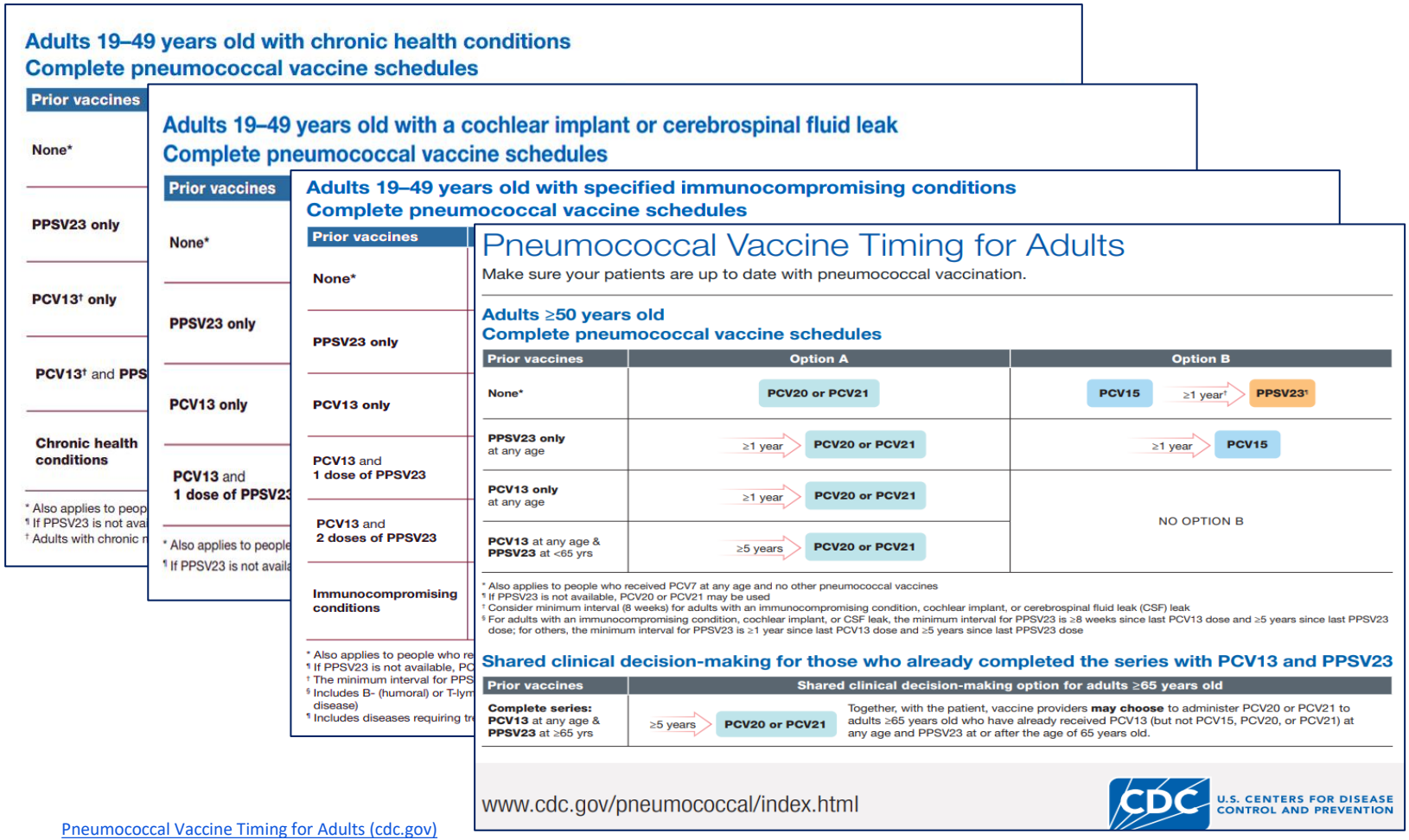
Serotypes in Pneumococcal Vaccine Products: PCV21 Approved for Use in Adults

	1	3	4	5	6A	6B	7F	9V	14	18C	19A	19F	23F	22F	33F	8	10A	11A	12F	15B	2	9N	17F	20	15A	15C	16F	23A	23B	24F	31	35B
PCV15																																
PCV20																																
PPSV23																																
PCV21																																

- 21-valent pneumococcal conjugate vaccine (PCV21): Capvaxive™
- FDA-approved in June 2024 for adults aged 18 years or older
- ACIP recommended for adults aged 19 years and older years with risk-based indications and adults aged 50 years and older

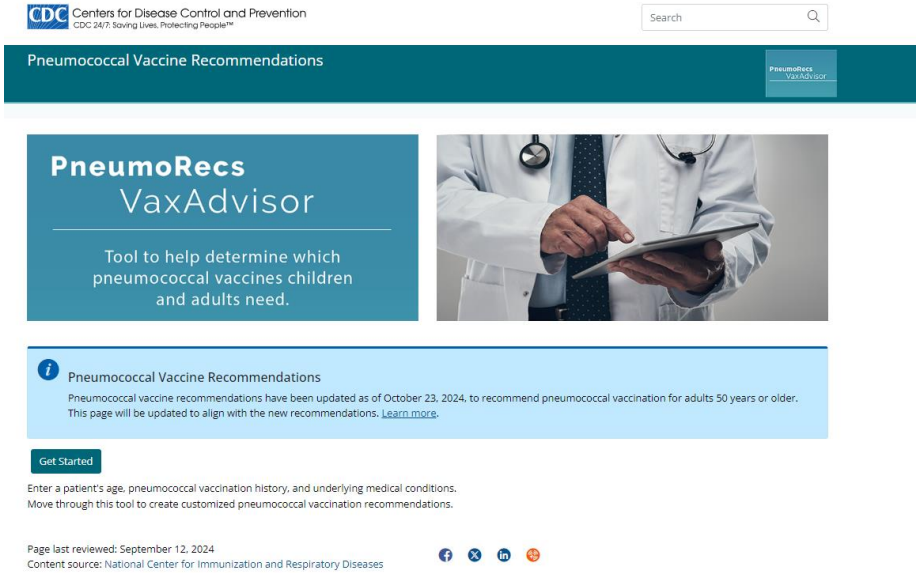
Pneumococcal Vaccine Recommendations | Pneumococcal | CDC

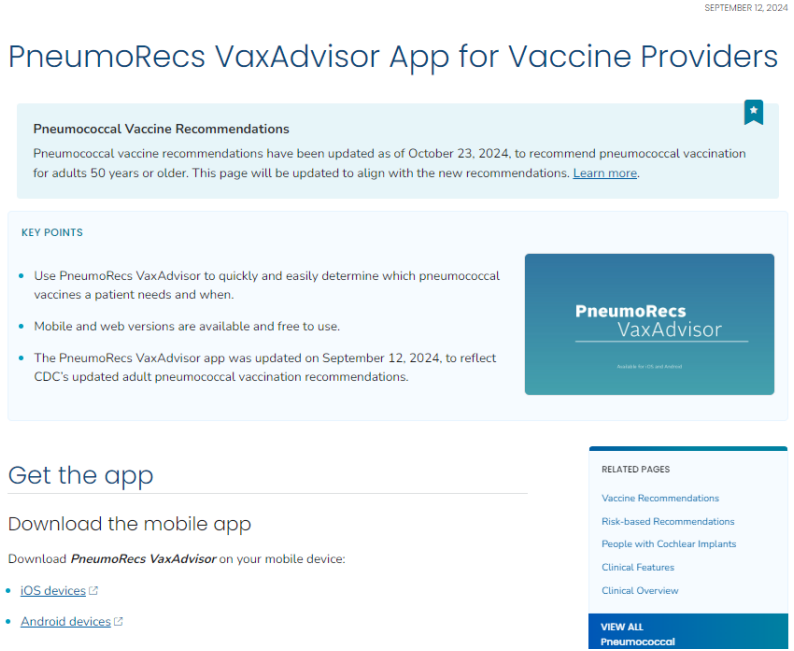
Summary of Risk-based Pneumococcal Vaccination Recommendations | Pneumococcal | CDC



Pneumococcal Vaccine Timing for Adults (cdc.gov)

PneumoRecs VaxAdvisor





PneumoRecs VaxAdvisor (cdc.gov)

PneumoRecs VaxAdvisor App for Vaccine Providers | Pneumococcal | CDC

Meningococcal Serogroup B Vaccine

2024 Update

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.

ACIP Recommendations | ACIP | CDC

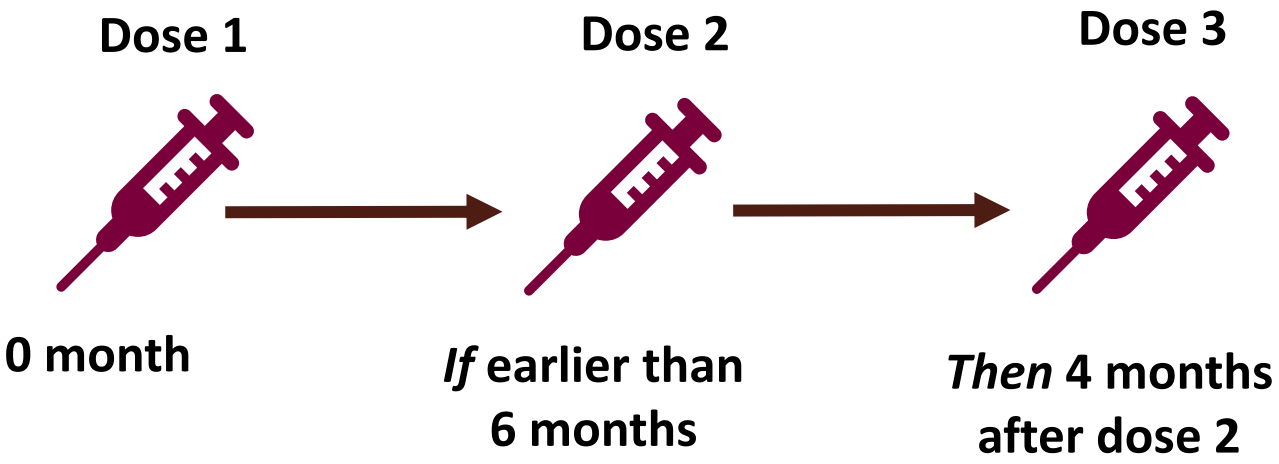
Routine MenB Recommendations for Adolescents: Dose Intervals (1)

MenB-FHbp (Trumenba) or MenB-4C (Bexsero)

Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020 | MMWR (cdc.gov), Meningococcal Vaccine Recommendations | Meningococcal | CDC, ACIP Recommendations | ACIP | CDC

Routine MenB Recommendations for Adolescents: Dose Intervals (2)

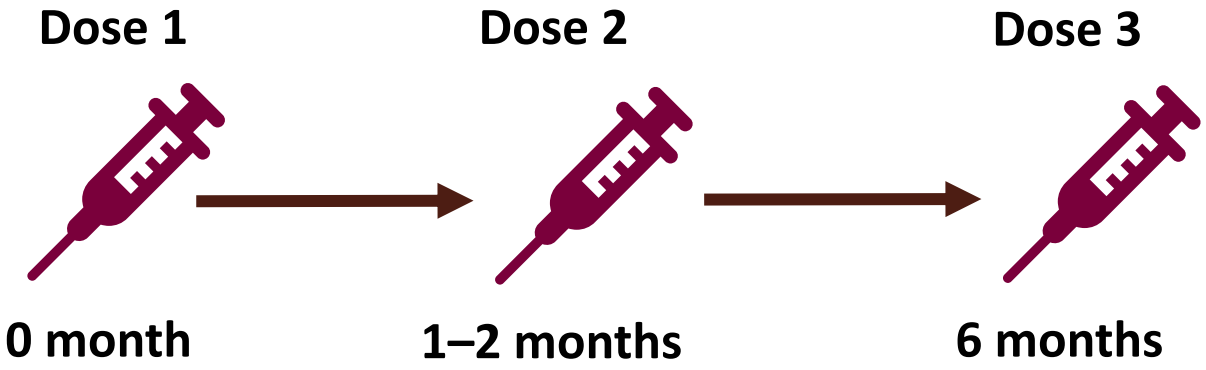
MenB-FHbp (Trumenba) or MenB-4C (Bexsero)



Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020 | MMWR (cdc.gov),
Introduction to MenB-4C (Bexsero) Interval and Dosing Label Change (Oct 24, 2024)

Routine MenB Recommendations for Adolescents: Dose Intervals if Rapid Protection Is Desired*

MenB-FHbp (Trumenba) or MenB-4C (Bexsero)



* For example, for students starting college in less than 6 months.

Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020 | MMWR (cdc.gov)
Meningococcal Vaccine Recommendations | Meningococcal | CDC, Introduction to MenB-4C (Bexsero) Interval and Dosing Label Change (Oct 24, 2024)

MenB Vaccination Schedule for Persons at *Increased Risk*

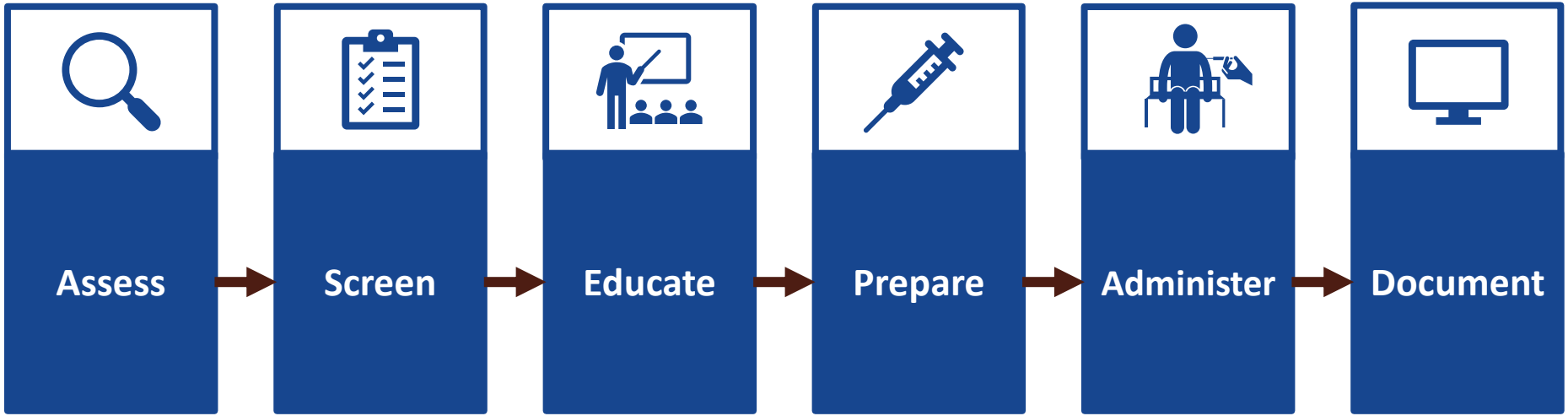
- **MenB-4C (Bexsero) or MenB-FHbp (Trumenba): 3-dose series at 0, 1–2, 6 months**
  - If dose 2 administered at least 6 months after dose 1, dose 3 not needed
  - If dose 3 administered earlier than 4 months after dose 2, a 4th dose should be given at least 4 months after dose 3

Meningococcal Vaccine Recommendations | Meningococcal | CDC, Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020 | MMWR (cdc.gov)
Introduction to MenB-4C (Bexsero) Interval and Dosing Label Change (Oct 24, 2024)

Preventing Vaccine Administration Errors

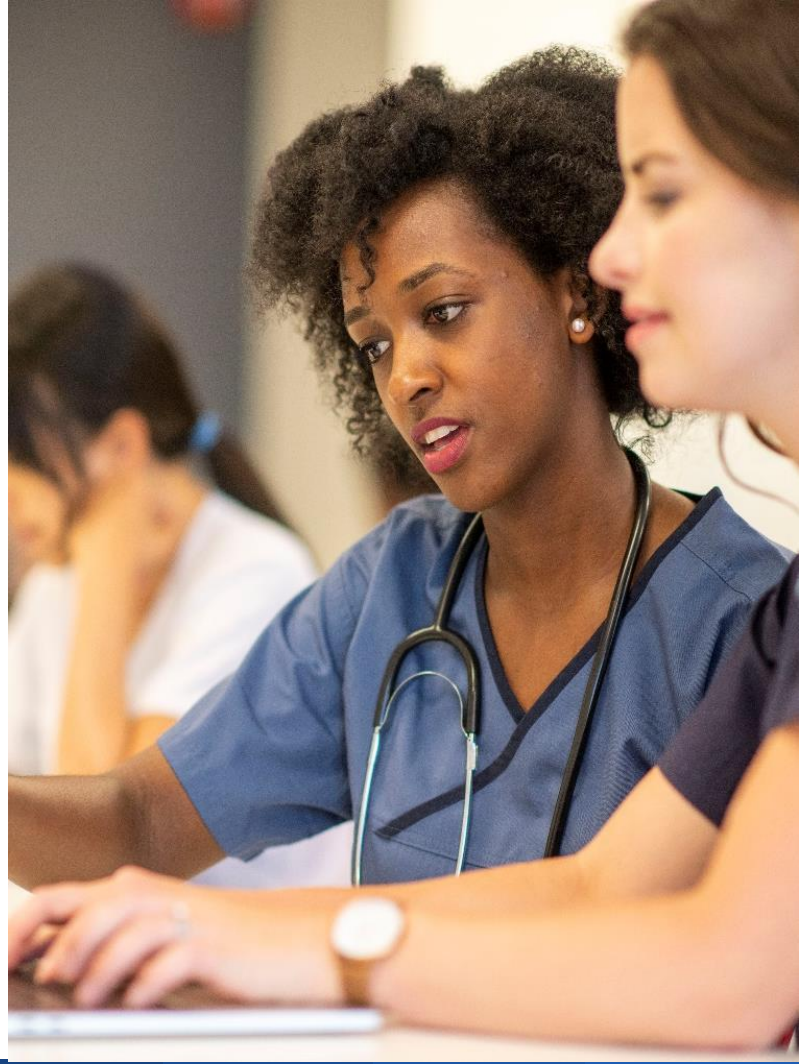
Vaccine Preparation and Administration

Vaccine Administration



Before Administering Vaccines

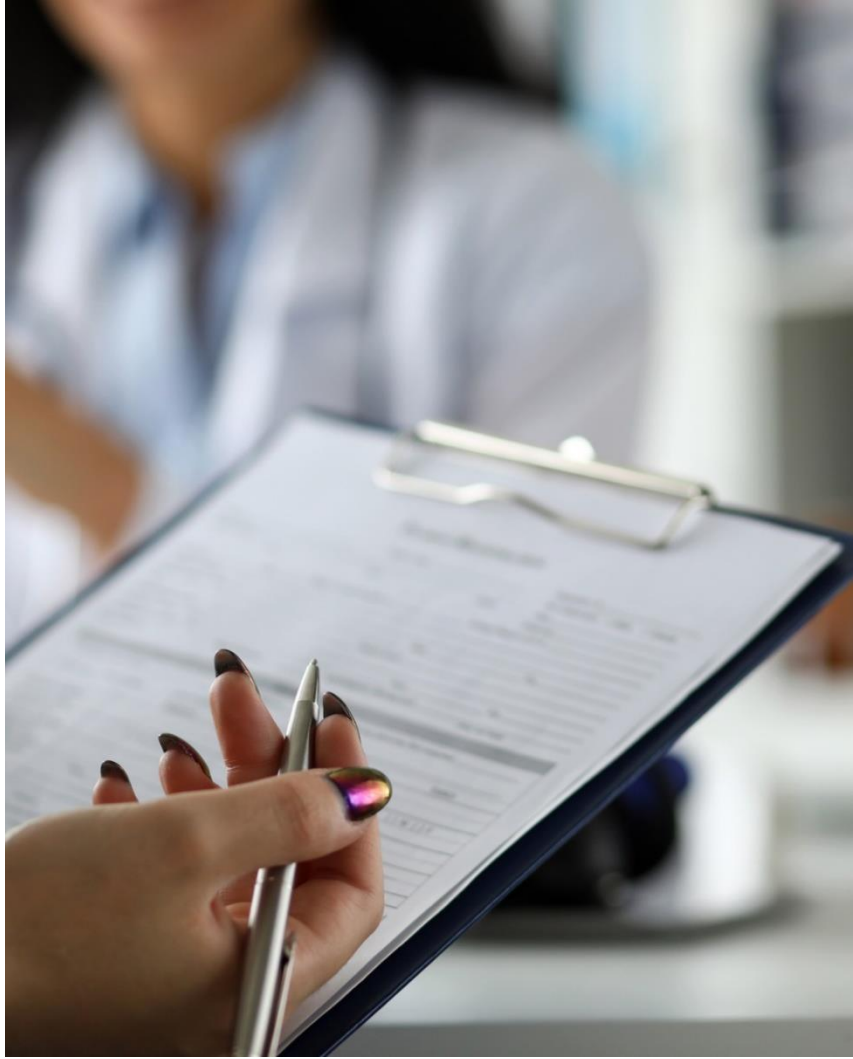
- **Review the immunization history and determine needed vaccines.**
- **Use recommended schedule based on the current age of the patient.**



Vaccines & Immunizations | Vaccines & Immunizations | CDC

Screening for Contraindications and Precautions

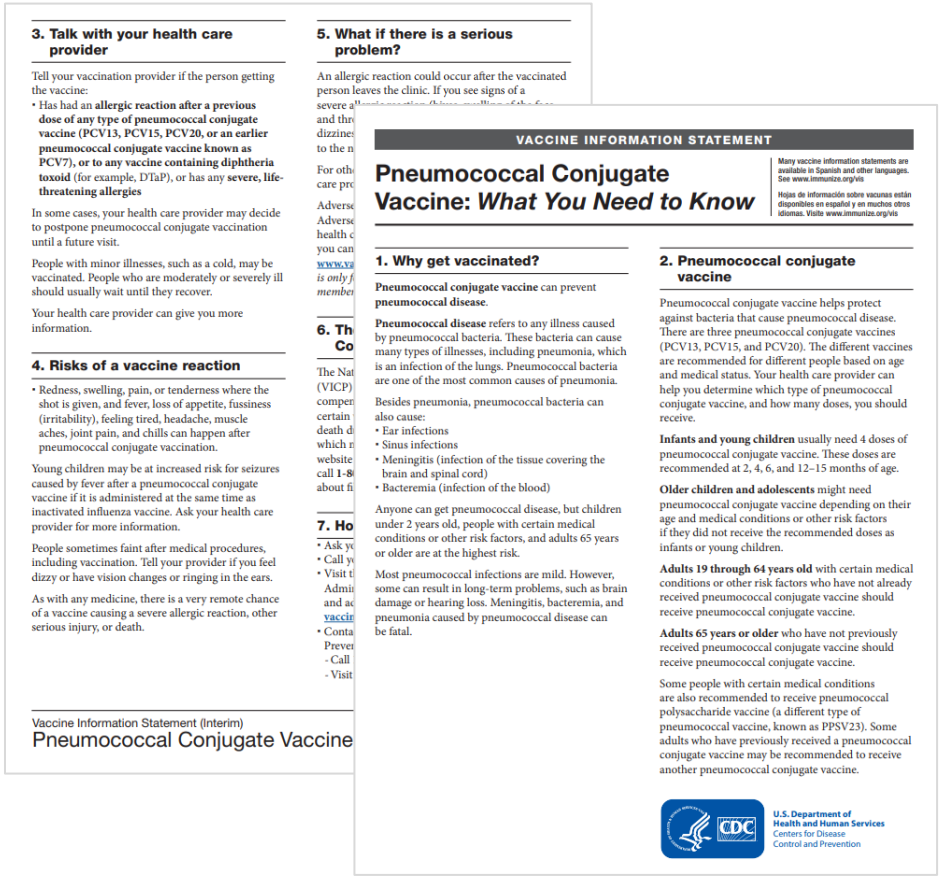
- **Screen for contraindications and precautions every time a vaccine is given.**
- **Provide after-care instructions.**



Screening Checklists about Vaccine Contraindications and Precautions (immunize.org)

Educating Patients and Parents

- **Use Vaccine Information Statements (VIS) and other reliable resources to discuss:**
  - Benefits and risks of vaccination
  - Risks of vaccine-preventable disease risks



3. Talk with your health care provider

Tell your vaccination provider if the person getting the vaccine:

- Has had an **allergic reaction after a previous dose of any type of pneumococcal conjugate vaccine (PCV13, PCV15, PCV20, or an earlier pneumococcal conjugate vaccine known as PCV7), or to any vaccine containing diphtheria toxoid** (for example, DTaP), or has any **severe, life-threatening allergies**

In some cases, your health care provider may decide to postpone pneumococcal conjugate vaccination until a future visit.

People with minor illnesses, such as a cold, may be vaccinated. People who are moderately or severely ill should usually wait until they recover.

Your health care provider can give you more information.

4. Risks of a vaccine reaction

- Redness, swelling, pain, or tenderness where the shot is given, and fever, loss of appetite, fussiness (irritability), feeling tired, headache, muscle aches, joint pain, and chills can happen after pneumococcal conjugate vaccination.

Young children may be at increased risk for seizures caused by fever after a pneumococcal conjugate vaccine if it is administered at the same time as inactivated influenza vaccine. Ask your health care provider for more information.

People sometimes faint after medical procedures, including vaccination. Tell your provider if you feel dizzy or have vision changes or ringing in the ears.

As with any medicine, there is a very remote chance of a vaccine causing a severe allergic reaction, other serious injury, or death.

5. What if there is a serious problem?

An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a

Vaccine Information Statement (Interim)
Pneumococcal Conjugate Vaccine

VACCINE INFORMATION STATEMENT

Pneumococcal Conjugate Vaccine: *What You Need to Know*

Many vaccine information statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1. Why get vaccinated?

Pneumococcal conjugate vaccine can prevent **pneumococcal disease**.

Pneumococcal disease refers to any illness caused by pneumococcal bacteria. These bacteria can cause many types of illnesses, including pneumonia, which is an infection of the lungs. Pneumococcal bacteria are one of the most common causes of pneumonia.

Besides pneumonia, pneumococcal bacteria can also cause:

- Ear infections
- Sinus infections
- Meningitis (infection of the tissue covering the brain and spinal cord)
- Bacteremia (infection of the blood)

Anyone can get pneumococcal disease, but children under 2 years old, people with certain medical conditions or other risk factors, and adults 65 years or older are at the highest risk.

Most pneumococcal infections are mild. However, some can result in long-term problems, such as brain damage or hearing loss. Meningitis, bacteremia, and pneumonia caused by pneumococcal disease can be fatal.

2. Pneumococcal conjugate vaccine

Pneumococcal conjugate vaccine helps protect against bacteria that cause pneumococcal disease. There are three pneumococcal conjugate vaccines (PCV13, PCV15, and PCV20). The different vaccines are recommended for different people based on age and medical status. Your health care provider can help you determine which type of pneumococcal conjugate vaccine, and how many doses, you should receive.

Infants and young children usually need 4 doses of pneumococcal conjugate vaccine. These doses are recommended at 2, 4, 6, and 12–15 months of age.

Older children and adolescents might need pneumococcal conjugate vaccine depending on their age and medical conditions or other risk factors if they did not receive the recommended doses as infants or young children.

Adults 19 through 64 years old with certain medical conditions or other risk factors who have not already received pneumococcal conjugate vaccine should receive pneumococcal conjugate vaccine.

Adults 65 years or older who have not previously received pneumococcal conjugate vaccine should receive pneumococcal conjugate vaccine.

Some people with certain medical conditions are also recommended to receive pneumococcal polysaccharide vaccine (a different type of pneumococcal vaccine, known as PPSV23). Some adults who have previously received a pneumococcal conjugate vaccine may be recommended to receive another pneumococcal conjugate vaccine.

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

Vaccine Information Statement | Current VISs | CDC

Prevent Preparation and Administration Errors

- **Designate the medication preparation a "Do Not Disturb" or no interruption zone.**
- **Prepare vaccine for one patient at a time.**
- **Do not administer vaccines prepared by someone else.**
- **Triple check your work – even ask a coworker to check the vaccines – before administering.**

Chapter 6: Vaccine Administration | Pink Book | CDC
Vaccine Administration: Preventing Vaccine Administration Errors

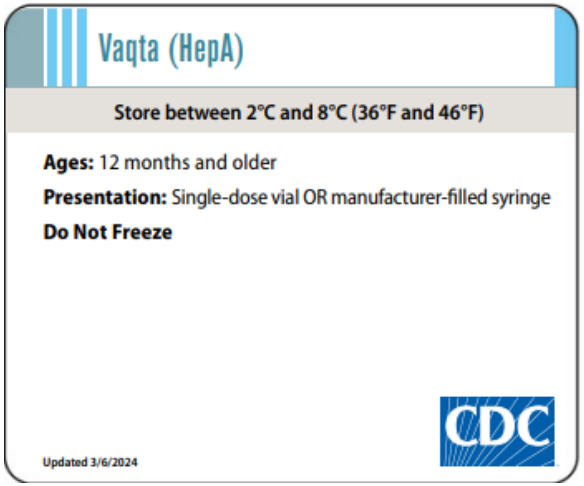
Before Preparing Vaccine, ALWAYS Check:

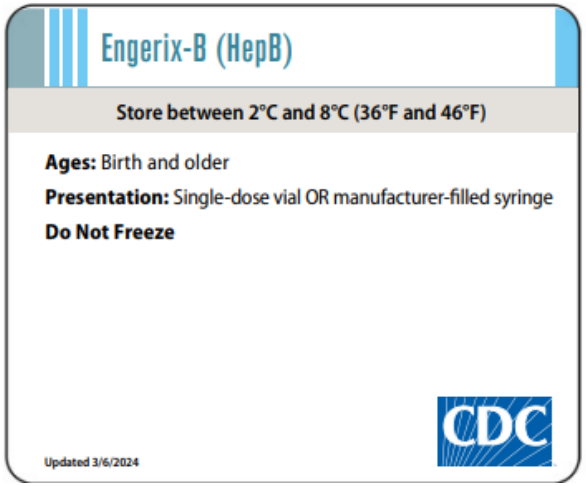
1. Label or
Package Insert

Chapter 6: Vaccine Administration | Pink Book | CDC

Choosing the Correct Vaccine

- **Vaccine with different manufacturers and presentations can have different indications.**
- **Vaccine abbreviations can be confusing.**





Chapter 6: Vaccine Administration | Pink Book | CDC

Vaccine Labels: Storage and Beyond-Use Date Tracking (cdc.gov)

Before Preparing Vaccine, ALWAYS Check:

1. Label or Package Insert

2. Expiration Date

Chapter 6: Vaccine Administration | Pink Book | CDC

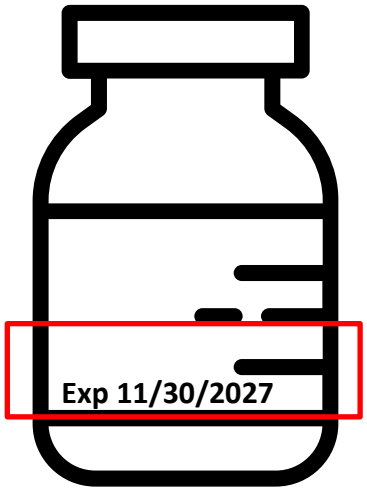
Expiration Date

- **All products have an expiration date.**
- **Provides confidence that the vaccine will meet the applicable standards of strength, quality, and purity throughout its shelf-life.**
- **The expiration date is:**
  - Determined by the manufacturer
  - The final day that the vaccine can be administered

Expiration Dates - Questions and Answers | FDA

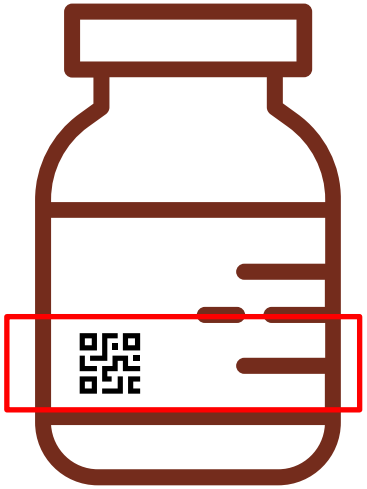
Vaccine Storage and Handling | Vaccines & Immunizations | CDC

Where to Find the Expiration Date



Month, day, and year of expiration

Month and year of expiration



QR Code, website, or phone number

Vaccine Storage and Handling | Vaccines & Immunizations | CDC

Knowledge Check

The expiration date on the vial label indicates the vaccine expires on 8/27. This vaccine should NOT be used after:

A. August 1, 2027

B. August 31, 2027

C. August 23, 2027

Answer

The expiration date on the vial label indicates the vaccine expires on 8/27. This vaccine should NOT be used after:

A. August 1, 2027

B. August 31, 2027

C. August 23, 2027

Before Preparing Vaccine, ALWAYS Check:

Label or Package Insert

Expiration Date

Beyond-Use Date (BUD)

Chapter 6: Vaccine Administration | Pink Book | CDC

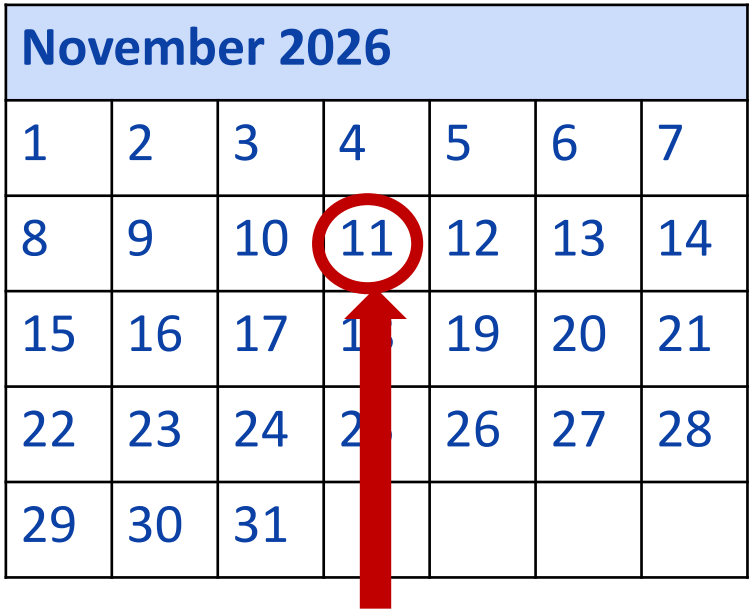
What is a Beyond-Use Date/Time (BUD)?

- **The last date or time that a vaccine can be safely used after it has been moved between storage temperatures or prepared for patient use.**
- **Only some vaccines have a BUD.**
- **A BUD may apply when a product is:**
  - Moved between different storage temperatures
  - Prepared for administration.
    - Examples: A vaccine is reconstituted, or a multidose vial is first punctured.

Vaccine Storage and Handling | Vaccines & Immunizations | CDC

How Is the BUD Calculated?

Day 0: Punctured vial



Day 28: From puncture

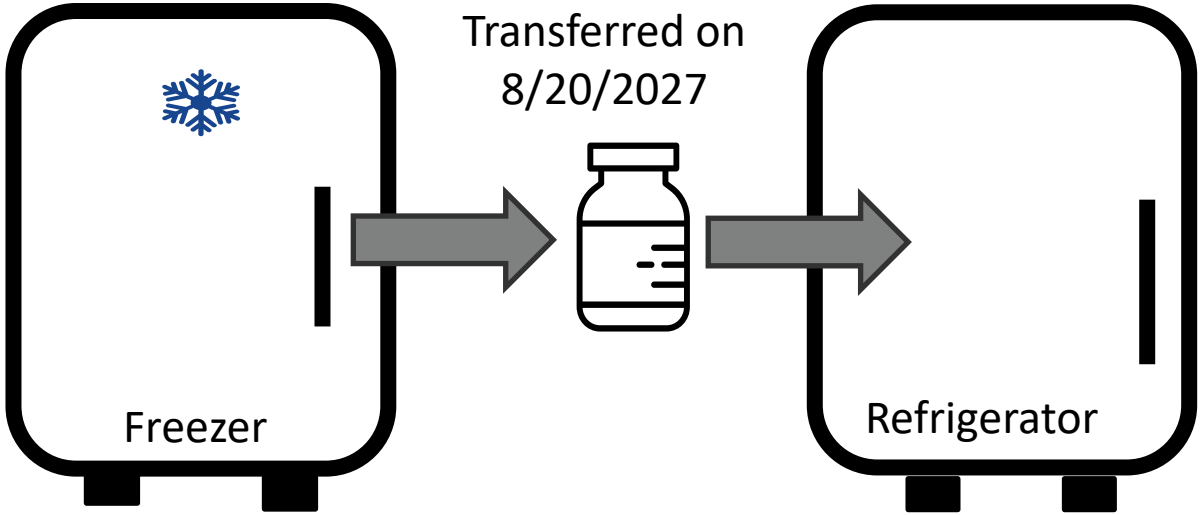
BUD Information

- **The designated timeframe is not the same and varies from product to product.**
- **Date or time is calculated by the provider using the manufacturer's guidance.**
- **Specific information regarding the BUD and how it is calculated can be found in the vaccine's package insert or Emergency Use Authorization (EUA) Fact Sheet.**

- **Replaces but does not extend the expiration date; always use the earlier date.**

Vaccine Storage and Handling | Vaccines & Immunizations | CDC

BUD Versus Expiration Date

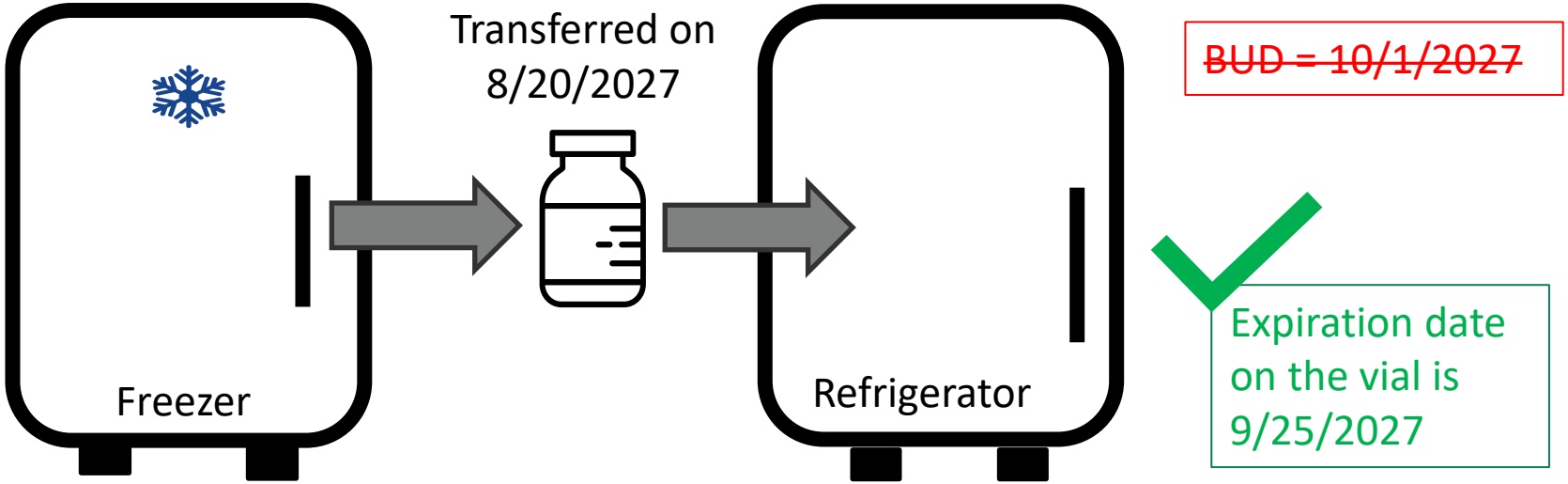


BUD = 10/1/2027

Expiration date on the vial is 9/25/2027

Package insert indicates the vaccine may be stored for up to 6 weeks in the refrigerator

BUD Versus Expiration Date

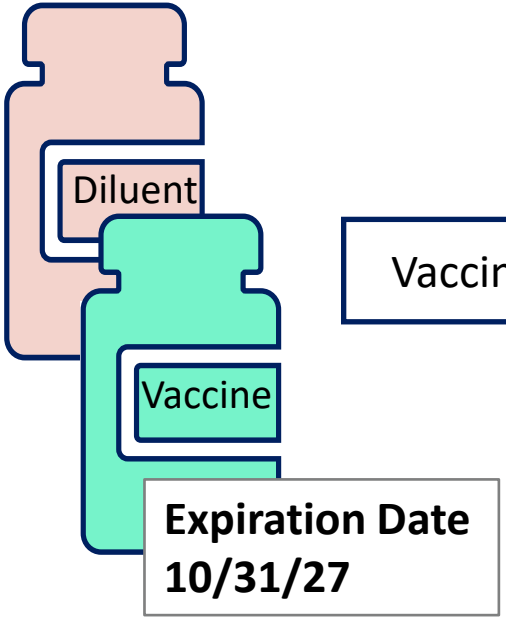


~~BUD = 10/1/2027~~

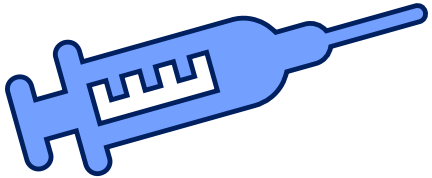
Expiration date on the vial is 9/25/2027

Package insert indicates the vaccine maybe stored for up to 6 weeks in the refrigerator

Reconstituted Vaccines: BUD Versus Expiration Date



Vaccine and Diluent Mixed



BUD Guidance: Use within 12 hours after mixing, which is 7 PM today

BUD and Vaccine in a Multidose Vial

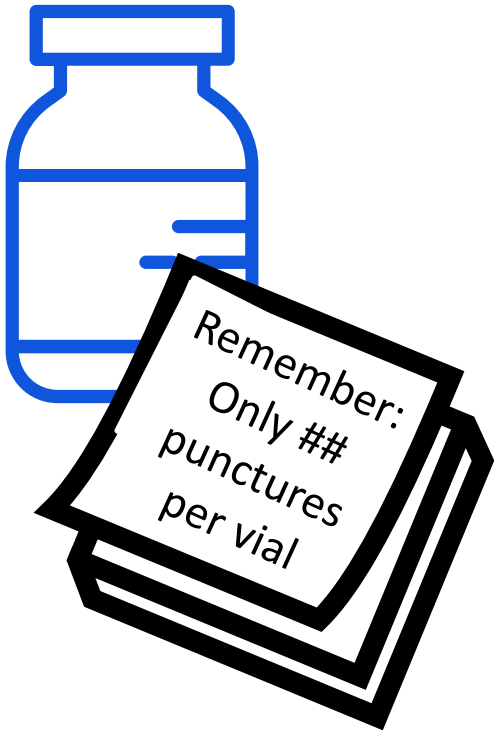
- **Some multidose vials have a specified time frame within which they should be used after the vial is first punctured.**
- **BUDs can vary from hours to days.**

Don’t administer vaccine after the BUD!

Vaccine Storage and Handling | Vaccines & Immunizations | CDC

Additional Considerations for Multidose Vials

- **Some manufacturers have a maximum number of**
  - Doses that can be withdrawn
  - Punctures to the vial stopper
- **Discard vial and any remaining vaccine when the indicated number of punctures/doses has been met.**



Chapter 6: Vaccine Administration | Pink Book | CDC

Knowledge Check

You are preparing a vaccine for administration and in the process, you learn:

- Expiration date = 8/2027
- BUD is 6 hours after the vial is first punctured, which was 9:00 am today.

It's 5:00 pm. Can you administer this vaccine?

A. Yes

B. No

Answer

You are preparing a vaccine for administration and in the process, you learn:

- Expiration date = 8/2027
- BUD is 6 hours after the vial is first punctured, which was 9:00 am today.

It's 5:00 pm. Can you administer this vaccine?

A. Yes

B. No

Prevent Vaccine Mix-Ups Using Storage and Handling Strategies

- Circle or highlight important information on the packaging.
- Separate vaccines into individual bins or containers.
- Store look/sound alike vaccine is different areas of the storage unit.
- Use color-coded identification labels on vaccine storage containers.
- Consider using “name-alert” or “look-alike” stickers on packaging or where vaccines are stored.

Chapter 6: Vaccine Administration | Pink Book | CDC
Vaccine Administration: Preventing Vaccine Administration Errors

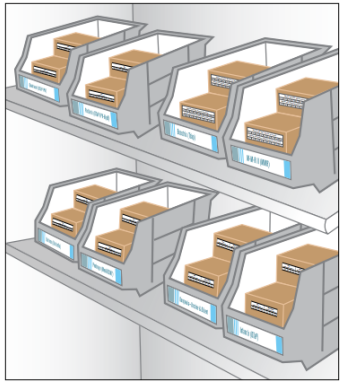
Vaccine Labels

Storage and Beyond-Use Date Tracking Labels

Proper storage and handling practices play a very important role in the safety and efficacy of vaccines in protecting individuals and communities from vaccine-preventable diseases.

CDC recommends providers follow vaccine storage and handling best practices outlined in CDC's Vaccine Storage and Handling Toolkit, including:

- Store each type of vaccine or diluent, if applicable, in its original packaging and in a separate container or bin within the storage unit.
- Use storage labels to help staff easily identify vaccines. The following labels are examples that may be used to help organize vaccines.
- Label shelves and containers to clearly identify where each vaccine and diluent, if applicable, is stored.
- Store vaccines and diluents with similar packaging or names or with pediatric and adult formulations on different shelves.
- If possible, color-code labels (e.g., one color for pediatric and another for adult vaccines).



Please note, these labels follow manufacturer guidance for storing vaccines. The labels follow manufacturer guidance regarding age and other indications unless the Advisory Committee on Immunization Practices (ACIP) recommendations differ from manufacturer guidance. If ACIP recommendations differ from manufacturer guidance, the labels follow ACIP recommendations (e.g., Arexvy RSV vaccine (GSK) is FDA approved for persons 50 – 59 years at high risk and adults 60 years and older. However, ACIP recommends this vaccine for adults 60-74 years at high risk and all adults 75 years and older).

Arexvy (RSV - GSK)

Store between 2°C and 8°C (36°F and 46°F)

Ages/Indications: 75 years and older; 60–74 years at increased risk of severe RSV

Presentation: Single-dose vial lyophilized antigen component and single-dose vial adjuvant suspension component

Protect From Light

Do Not Freeze

Beyond Use Time: If not used immediately after reconstitution, store between 2°C and 8°C (36°F and 46°F) or up to 25°C (77°F) for up to 4 hours

Updated 9/18/2024

Abrysvo (RSV - Pfizer)

Store between 2°C and 8°C (36°F and 46°F)

Ages/Indications: 75 years and older; 60–74 years at increased risk of severe RSV; Pregnant people at 32–36 weeks gestation

Presentation: Single-dose vial lyophilized vaccine and manufacturer-filled syringe or vial diluent; or single-dose Act-O-Vial

Do Not Freeze

Beyond Use Time: If not used immediately after reconstitution, store between 15°C and 30°C (59°F and 86°F) for up to 4 hours

Updated 9/18/2024

mResvia (RSV - Moderna)

Store between -40°C and -15°C (-40°F and 5°F)

Ages/Indications: 75 years and older; 60–74 years at increased risk of severe RSV

Presentation: Manufacturer-filled syringe (MFS)

Protect From Light

Beyond Use Time: Store MFS between:

- 2°C and 8°C (36°F and 46°F) for up to 30 days
- 8°C and 25°C (46°F and 77°F) for up to 24 hours

Do not refreeze once thawed

Updated 9/18/2024

mResvia (RSV - Moderna)

Beyond Use Label
Store between 2°C and 8°C (36°F and 46°F)
for up to 30 days

Lot Number(s): _____

Today's Date: _____/_____/_____

Beyond Use Date: _____/_____/_____

Updated 9/18/2024

Vaccine Labels: Storage and Beyond-Use Date Tracking

Pre-Drawing Vaccines in Syringes

- **Pre-drawing vaccines is not recommended because of:**
  - Uncertainty of vaccine stability in syringes
  - Risk of contamination
  - Increased potential for vaccine administration errors
  - Vaccine wastage
- **Best practice: Use manufacturer-filled syringes whenever possible.**

Vaccine Storage and Handling Toolkit
Chapter 6: Vaccine Administration | Pink Book | CDC

Pre-Drawing Vaccines Considerations

- **But *if* pre-drawing vaccine(s) is necessary, the cold chain should be maintained at all times.**
  - Review the manufacturer's storage and handling guidance.
  - Determine if the vaccines should be used within a specified-time frame (BUD).
  - Ensure staff are aware of storage and handling guidance.

Vaccine Storage and Handling Toolkit

Chapter 6: Vaccine Administration | Pink Book | CDC

After Vaccine Administration Errors

What Do You Think?

We inadvertently administered Arexvy (GSK), which is the wrong RSV vaccine product, to a pregnant patient. What should we do?

A. Readminister another dose using the correct product–Pfizer's Abrysvo.
B. Do not administer any additional RSV vaccine.
C. Administer nirsevimab to the infant for RSV protection.
D. Both B and C

Answer

We inadvertently administered Arexvy (GSK), which is the wrong RSV vaccine product, to a pregnant patient. What should we do?

A. Readminister using the correct product–Pfizer's Abrysvo.

B. Do not administer any additional RSV vaccine.

C. Administer nirsevimab to the infant for RSV prevention.

D. Both B and C

Healthcare Providers: RSV Vaccination for Pregnant People | CDC

Implement Prevention Strategies

- **Potential strategies to help prevent this error include:**
  - Order and stock vaccine products that fit best with your patient population. Avoid stocking more than 1 product, if possible.
    - Label the Arexvy (GSK) & mResvia (Moderna) vaccine “Do NOT administer to pregnant people.”
  - Educate staff on vaccine recommendations. If more than 1 RSV product is 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 patient and the provider to administer Abrysvo (Pfizer) vaccine.

Healthcare Providers: RSV Vaccination for Pregnant People | CDC

After Any Vaccine Administration Error

- **Inform the recipient of the vaccine administration error.**
- **Health care providers are encouraged to report this event to the Vaccine Adverse Event Reporting System (VAERS), even if there is no adverse health event associated with the error.**
- **Determine how the error occurred and implement strategies to prevent it from happening again.**

Chapter 6: Vaccine Administration | Pink Book | CDC
Vaccine Adverse Event Reporting System (VAERS)

Reporting Adverse Events

- **Report Adverse events to the Vaccine Adverse Event Reporting System (VAERS)**
  - Report online at https://vaers.hhs.gov/index.html
  - Report by phone 1-800-822-7967
- **Vaccine administration errors can also be reported to VAERS.**

Vaccine Adverse Event Reporting System (VAERS) (hhs.gov)

Vaccination Resources for Health Care Professionals

CDC Clinical Resources

- **www.cdc.gov/vaccines/**
  - Advisory Committee on Immunization Practices (ACIP) Vaccine Recommendations and Guidelines
  - Recommended Immunization Schedules
  - Vaccine Storage and Handling Toolkit
  - Vaccine Information Statements

Training Material

Thank You From Atlanta!

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

Obtaining Continuing Education

- Continuing education credit is available for nurses, medical assistants, and pharmacists/pharmacy techs
- There is no cost for CEs
- Expiration date is 2/21/25
- Successful completion of this continuing education activity includes the following:
  - Attending the entire live webinar or watching the webinar recording, and completing the evaluation
  - **On the evaluation, please specify which type of continuing education you wish to obtain**
- **Please note:** CE certificates are NOT generated after evaluation completion—CE certificates will be sent by DOH via email within a few weeks after evaluation completion
- If you have any questions about CEs, contact Trang Kuss at trang.kuss@doh.wa.gov

Continuing Education

The evaluation link is:

https://www.surveymonkey.com/r/H8CW62N

The link will be posted in the Q/A panel within the webinar and can also be found on our webinar web page:

https://doh.wa.gov/you-and-your-family/immunization/immunization-training/current-vaccine-recommendations-preventing-vaccine-administration-errors-november-21-2024

Or go to www.doh.wa.gov and search for 'immunization training'

Questions?

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email civil.rights@doh.wa.gov.