

About Pneumococcal Infection and Disease

Pneumococcal disease is a term used for a wide range of infections caused by bacteria called *Streptococcus pneumoniae* (pneumococcus).

Ear and sinus infections are examples of mild infections these bacteria can cause. The following types of pneumococcal disease can be very serious, even deadly:

- **Pneumonia** (lung infection)
- **Bacteremia** (bloodstream infection)
- **Meningitis** (infection of the lining of the brain and spinal cord)

Invasive pneumococcal disease (IPD) means the bacteria invade parts of the body, such as blood, that are normally free from germs. These infections typically have more severe outcomes and can be difficult to treat and manage.

Pneumococcal disease is common in young children, but older adults are at greatest risk of serious illness and death. Vaccines are an effective, recommended intervention strategy to prevent the risk of infection and complications of pneumococcal disease.

Pneumococcal Vaccination

- CDC recommends pneumococcal vaccination for children younger than 5 years and all adults 50 years or older.
- CDC also recommends pneumococcal vaccination for children 5-18 years and adults 19-49 years of age at increased risk for pneumococcal disease. [see risk factors below]

2025 Available FDA Approved Pneumococcal Vaccines

Vaccine Name	Vaccine Type	Dose/Administration
Capvaxive (PCV21)	Pneumococcal 21-valent conjugate vaccine	0.5 mL, intramuscular injection
Prevnar 20 (PCV20)	Pneumococcal 20-valent conjugate vaccine	0.5 mL, intramuscular injection
Vaxneuvance (PCV15)	Pneumococcal 15-valent conjugate vaccine	0.5 mL, intramuscular injection
Pneumovax 23 (PPSV23)	Pneumococcal polysaccharide vaccine	0.5 mL, intramuscular or subcutaneous injection

Did You Know?

Pneumococcal Vaccination

Adult Vaccination Schedule per CDC

CDC recommends **PCV15**, **PCV20**, or **PCV21** for adults who never received a PCV and are

- Ages 50 years or older
- Ages 19 through 49 years with certain risk conditions

If **PCV15** is used, it should be followed by a dose of **PPSV23** one year later, if needed.

Adults who received an earlier PCV (PCV7 or PCV13) should discuss with a vaccine provider. Most of these individuals will be recommended to be given one dose of **PCV20** or **PCV21** at least 1 year after the previous PCV7 or PCV13 dose.

For older adults who may have already received PCV13 or PPSV23

Adults 65 years or older have the option to get **PCV20** or **PCV21**, or to not get additional pneumococcal vaccines. They can get PCV20 or PCV21 if they've already received one or **both** of the following:

- PCV13 (but not PCV15 or PCV20) at any age
- PPSV23 at or after the age of 65 years

These adults can talk with a vaccine provider and decide based on their risk factors, whether or not to get vaccinated (i.e., receive PCV20 or PCV21).

Adverse Reactions

Serious adverse reactions to pneumococcal vaccines are uncommon. Mild type reactions to vaccine administration described below may occur and typically resolve on their own within 1-2 days.

PCV15, PCV20, or PCV21	PPSV23
<ul style="list-style-type: none">— Redness, swelling, pain, or tenderness at vaccination site— Fever or chills— Loss of appetite— Feeling tired— Headache— Muscle aches or joint pain	<ul style="list-style-type: none">— Redness or pain at vaccination site— Feeling tired— Fever— Muscle aches

Did You Know?

Pneumococcal Vaccination

Allergies, reactions: review with your vaccine provider

Talk with a vaccine provider about your vaccination history and a specific vaccine's ingredients. The below scenarios are considered contraindications to pneumococcal vaccines.

Someone should not get **PCV15**, **PCV20**, or **PCV21** if they:

- Had a life-threatening allergic reaction after any type of PCV
- Had a life-threatening allergic reaction to any vaccine containing diphtheria toxoid
 - DTaP is an example
- Have a severe allergy to any part of these vaccines

Someone should not get **PPSV23** if they:

- Are younger than 2 years old
- Had a life-threatening allergic reaction after getting PPSV23
- Have a severe allergy to any part of PPSV23

Heightened Risk Factors for Pneumococcal Disease

Certain age groups, race and ethnicity groups, children in group care settings, and the following medical conditions have been identified by the CDC as risk factors for developing severe Pneumococcal disease, and may benefit from vaccination:

Alcoholism	HIV infection
Cerebrospinal fluid (CSF) leak	Hodgkin disease
Chronic heart, liver, or lung disease (i.e. COPD, asthma, emphysema)	Iatrogenic immunosuppression
Chronic renal failure	Leukemia
Cigarette smoking	Lymphoma
Cochlear implant	Multiple myeloma
Congenital or acquired asplenia	Nephrotic syndrome
Congenital or acquired immunodeficiencies	Sickle cell disease or other hemoglobinopathies
Diabetes mellitus	Solid organ transplant
Generalized malignancy	

For more information regarding pneumococcal infection and how risk factors for developing severe pneumococcal disease, please visit: <https://www.cdc.gov/pneumococcal/causes/index.html#cdc-causes-risk-risk-factors>

Did You Know?

Pneumococcal Vaccination

Additional Notes for Pneumococcal Vaccination

- The guidelines and vaccine products for pneumococcal vaccines have been changing over the years and it is very common for eligible persons to not have completed the current recommended schedule. If a person has had pneumococcal vaccines in the past, it is important to assess their history and determine if they need additional vaccines to complete their pneumococcal vaccinations.
- These determinations can be made by utilizing the CDC PneumoRecs VaxAdvisor app / website. This tool can be used to determine the need for additional vaccinations based on information regarding age, vaccine history and pertinent medical conditions. To access this tool, please visit: <https://www2a.cdc.gov/vaccines/m/pneumo/pneumo.html> or
- Download "PneumoRecs VaxAdvisor" free for [iOS](#) and [Android](#) devices.



- CDC Recommendation Webpage: <https://www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/>