

Pneumococcal Disease in Adults and the Vaccines to Prevent It



Pneumococcal disease in adults can range from mild to serious, and can sometimes be deadly. Two vaccines provide protection against this disease. Talk to your doctor to see if they recommend these or any other vaccines for you.

What is pneumococcal disease?

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

- Ear infections
- Sinus infections
- Pneumonia (lung infection)
- Bacteremia (bloodstream infection)
- Meningitis (infection of the covering of the brain and spinal cord)
- Sepsis (the body's extreme response to an infection)

What are the symptoms of pneumococcal disease?

Symptoms depend on the part of the body the bacteria are affecting.

For **sinus and ear infections**, symptoms are usually relatively mild, such as:

- Cough
- Ear pain
- Fever
- Sore throat

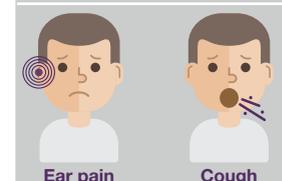
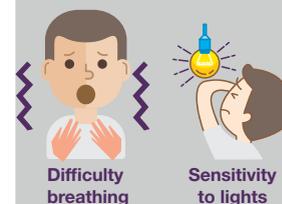
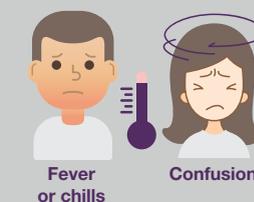
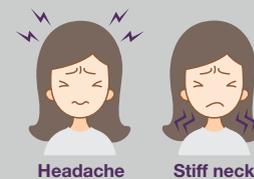
For **pneumonia, bloodstream infections, meningitis, and sepsis**, you can also have more severe symptoms, including:

- Fever or chills
- Headache
- Cough
- Stiff neck
- Rapid or difficult breathing
- Increased pain when looking at bright lights
- Chest pain
- Confusion or low alertness

How do doctors diagnose and treat pneumococcal disease?

Early diagnosis and treatment are very important for serious pneumococcal infections. Diagnosis depends on which type of infection a doctor thinks a patient may have. For meningitis or bloodstream infections, doctors will collect samples of cerebrospinal fluid or blood and send them to a laboratory for testing. Doctors can also use a urine test to diagnose some cases of pneumonia. For illnesses like ear and sinus infections, doctors usually diagnose them based on history, symptoms, and a physical exam. Doctors can treat pneumococcal disease with antibiotics.

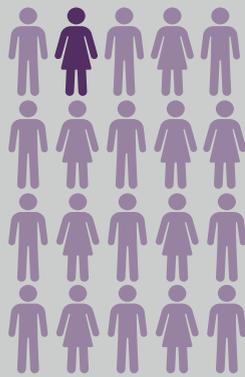
Symptoms



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

Is pneumococcal disease serious?

Pneumococcal disease is most often mild. However, it can cause serious disease and lifelong disabilities such as hearing loss and brain damage. Pneumococcal disease can also be life threatening:



1 in 20
Pneumococcal pneumonia kills about 1 in 20 older adults who get it



1 in 6
Pneumococcal bloodstream infection kills about 1 in 6 older adults who get it



1 in 6
Pneumococcal meningitis kills about 1 in 6 older adults who get it

How does pneumococcal disease spread?

Pneumococcal bacteria spread from person to person through coughing, sneezing, and close contact. People can carry the bacteria in their nose and throat without being sick and spread the bacteria to others.

Which adults are at increased risk for pneumococcal disease?

Some adults are at increased risk for pneumococcal disease, including those who:

- Are 65 years or older
- Use alcohol excessively
- Smoke cigarettes
- Have certain medical conditions including:
 - » Chronic illnesses of the heart, liver, or kidney
 - » Chronic illnesses of the lung (including chronic obstructive lung disease, emphysema, and asthma)
 - » Diabetes
 - » Conditions that weaken the immune system (HIV/AIDS, cancer, or damaged/absent spleen)
 - » Cochlear implants (an electronic device that allows some people to hear)
 - » Cerebrospinal fluid leak (a health problem where fluid surrounding and protecting the brain and spinal cord leaks)

Which vaccines help prevent pneumococcal disease in adults?

There are two vaccines used in the United States to help prevent pneumococcal disease: PCV13 and PPSV23. In addition, getting an influenza (flu) vaccine every year can help because having flu can increase your chances of getting pneumococcal disease.

PCV13

The pneumococcal conjugate vaccine (PCV13 or Prevnar 13[®]) protects against 13 types of pneumococcal bacteria. CDC recommends PCV13 for adults with an immunocompromising condition, cerebrospinal fluid leak, or cochlear implant. Adults 65 years or older also can discuss and decide, with their vaccine provider, to receive PCV13.

PPSV23

The pneumococcal polysaccharide vaccine (PPSV23 or Pneumovax[®]) protects against 23 types of pneumococcal bacteria. CDC recommends PPSV23 for all adults 65 years or older and for adults 19 through 64 years old with an immunocompromising condition, cerebrospinal fluid leak, cochlear implant, or certain medical conditions. It is also recommended for adults 19 through 64 years old who smoke cigarettes.

What are the risks of pneumococcal vaccination?

Pneumococcal vaccines are safe, but side effects can occur. Adults receiving PCV13 and PPSV23 have reported mild side effects such as redness, pain, and swelling at the injection site. Mild fever, fatigue, headache, chills, or muscle pain have also been reported. Life-threatening allergic reactions from either vaccine are rare.

www.cdc.gov/pneumococcal