FEBRUARY 6, 2024

About Pneumococcal Disease

KEY POINTS

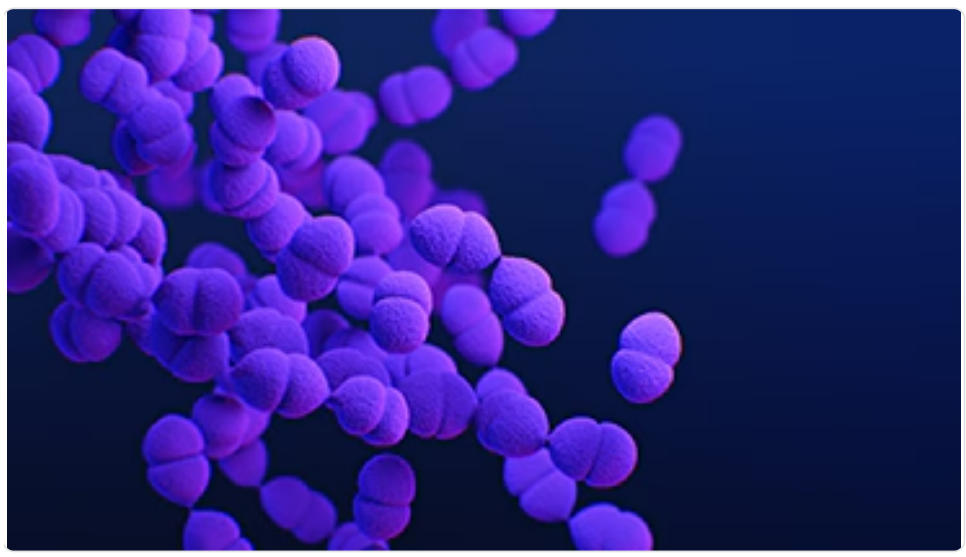
- Pneumococcal disease is a serious bacterial infection caused by *Streptococcus pneumoniae*.
- Anyone can get pneumococcal disease, but certain people are at increased risk.
- Keeping up to date with recommended vaccines is the best protection against pneumococcal disease.

MORE INFORMATION

For Everyone | Health Care Providers | Public Health

What it is

Pneumococcal disease is a name for any infection caused by bacteria called *Streptococcus pneumoniae*, or pneumococcus.



This image of *Streptococcus pneumoniae* was computer generated.

Types

S. pneumoniae bacteria can cause many types of infections, including:

- Pneumonia (lung infection)
- Meningitis (infection of the lining of the brain and spinal cord)
- Bacteremia (bloodstream infection)
- Otitis media (middle ear infection)
- Sinusitis (sinus infection)

Symptoms

Symptoms and complications depend on the part of the body that's infected.

Keep Reading:
Symptoms and Complications

Risk factors

Anyone can get pneumococcal disease, but some people are at increased risk.

Keep Reading:
Risk Factors

How it spreads

People spread pneumococcal bacteria to others through **direct contact with respiratory secretions**, like saliva or mucus.

Keep Reading:
Causes and Spread

Prevention

People can get pneumococcal disease **more than once**.

Healthcare providers generally don't prescribe antibiotics after exposure to help prevent someone from getting a pneumococcal infection.

However, there are steps people can take to help protect themselves.

Vaccination

Vaccination is the **best way to prevent** pneumococcal disease. CDC recommends pneumococcal vaccination for

- All children younger than 5 years old
- People 5 through 64 years old with certain risk conditions
- Adults 65 years or older

Keep Reading:
Pneumococcal Vaccination

Testing and diagnosis

Serious infections

If healthcare providers suspect meningitis or a bloodstream infection, they will collect samples of **cerebrospinal fluid or blood**. Cerebrospinal fluid is the fluid that surrounds the brain and spinal cord.

They then send the samples to a laboratory for testing. Growing the bacteria in a laboratory helps identify the specific type of bacteria causing the infection. Laboratories may also use molecular detection methods to test for these bacteria in samples. Knowing the cause helps healthcare providers choose the right treatment, including which antibiotic will work best.

Healthcare providers can use a **urine test** to help make a diagnosis of pneumococcal pneumonia in adults.

Mild infections

Healthcare providers usually diagnose ear and sinus infections based on a **history and physical exam** findings that support pneumococcal infection.

Treatment

Healthcare providers use **antibiotics** to treat pneumococcal disease. However, some pneumococcal bacteria have become resistant to certain antibiotics used to treat these infections. Antibiotic testing shows which antibiotics will be most successful at treating the infection.

Keep Reading:
Antibiotic-resistant *S. pneumoniae*

Resources and tools

Pneumococcal-specific resources

Pneumococcal vaccines for children

Pneumococcal disease in adults and the vaccines to prevent it

General resources

Be Antibiotics Aware

Meningitis

Pneumonia

SOURCES

CONTENT SOURCE:

National Center for Immunization and Respiratory Diseases; Division of Bacterial Diseases