

Pneumococcal Disease, Invasive

What is Pneumococcal Disease?

Pneumococcal disease is an infection caused by a type of bacteria called *Streptococcus pneumoniae*. These bacteria are commonly found in the nose and throat of healthy adults and children but do not cause infections most of the time. However, when infection occurs, it is most commonly found in your ear, sinuses, lungs, lining of the brain and spinal cord, and blood. Pneumococcal infections occur more frequently in the winter months.

When the bacteria invade the blood, lungs or lining of the brain and spinal cord, it is called “invasive” pneumococcal disease (IPD). This can then develop into pneumonia (lung infections), meningitis (brain/spinal cord infection) or a bacteremia (blood infection).

Pneumococcal disease can cause death, long term health issues such as brain damage, hearing loss or loss of a limb.

Who is at risk?

Anyone can become infected. Invasive Pneumococcal disease is more common in the very young, the elderly and certain specific high risk groups such as those without a functioning spleen, a weakened immune system, chronic heart, lung or kidney disease. Other high risk persons include alcoholics, diabetics and people who smoke. Children with cochlear implants have higher risk of pneumococcal meningitis.

How is Pneumococcal disease spread?

The bacteria are spread from person to person through:

- droplets in the air from coughing or sneezing.
- the saliva of an infected person (kissing, sharing drinks or cigarettes)
- contact with items soiled with nose or throat secretions from an infected person (e.g. children sharing toys)

Symptoms of Pneumococcal Disease:

The bacteria can cause different symptoms depending on the part of the body infected.

Symptoms may develop 1-3 days after exposure occurs.

- Pneumococcal pneumonia (lung infection) symptoms include sudden onset of high fever, shaking/chills, chest pain difficulty breathing, increase heart rate and a cough with “rusty” colored sputum. In the elderly, onset may be less sudden, with fever, shortness of breath or altered mental status. Infants and younger children may have fever, vomiting, and seizures.
- Pneumococcal meningitis (brain and spinal cord infections) symptoms include headache, high fever, stiff neck, vomiting, mental confusion and disorientation, and sensitivity to light. Small children may also have irritability, poor appetite and drowsiness. There is usually not a rash present. A person with pneumococcal meningitis does not pass it on to others.

- Pneumococcal bacteremia (blood infection) symptoms include a high fever, muscle aches and pains, lack of energy and drowsiness.

How is Pneumococcal Disease treated?

Middle ear infections often resolve without antibiotics. People with serious or invasive infections need to take antibiotics (orally or thru IV) to kill the bacteria. Unfortunately, in rare situations, antibiotic treatment isn't always enough to prevent permanent damage.

How can Pneumococcal Disease be prevented?

There are 90+ different variations (serotypes) of the bacteria. Some are more common in certain geographical areas and within age groups. There are different types of vaccinations available to prevent pneumococcal disease. Vaccination should be offered to all persons at risk of pneumococcal disease. For more information, please see the Pneumococcal Vaccine information sheets available at www.tbdhu.com and also discuss your need for this vaccination with your health care provider.

Also, remember to practice good hand hygiene, cover your nose and mouth with a tissue when you cough or sneeze and dispose of your tissue in a waste basket.

This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns

**For further information contact the Infectious Disease Program at 625-8318
or toll free 1-888-294-6630, ext. 8318.**