

## Pneumonia

### What Is Pneumonia?

Pneumonia is an infection of the lungs. Many different organisms cause pneumonia. Most community-acquired pneumonias are caused by common bacteria and viruses. Pneumonia caused by more unusual organisms can occur, depending on a person's exposure and other underlying medical illnesses. Pneumonia is often acquired by inhaling infected particles or by aspiration ("swallowing" into the lungs). This means that fluids can be introduced into the lungs when you swallow or if you have severe reflux from the esophagus in which the stomach contents can be introduced into the airways. Bacteria can occasionally spread through the bloodstream to infect other parts of the body. Some people may be at a higher risk of developing pneumonia. These include people with chronic heart or lung disease, diabetes, immune suppression (which can occur with long term or high dose steroid use or if you are on other immune suppressive medications), the elderly and people with alcoholism.



### What Are the Symptoms of Pneumonia?

Typical symptoms of pneumonia include a cough (with or without sputum), chest pain, rapid breathing and shortness of breath. Other symptoms of pneumonia often include fever, sweats, headache, muscle aches, fatigue and weakness.

Symptoms of bacterial pneumonias often begin quickly, with a cough that is productive of green or rust colored sputum, fever (often with chills) and pain along the chest wall. Infections caused by mycoplasma and viruses typically develop more slowly, often after a few days of flu-like symptoms. They can create a hacking or barking cough, a headache and pain under the breastbone.

### How is Pneumonia Diagnosed?

To diagnose pneumonia, the health care provider begins with a thorough medical history and physical exam. The health care provider may order tests to help diagnose pneumonia. Chest X-rays can often

be used find out if a person has pneumonia. A CT scan may also be ordered. Blood and urine tests and sputum tests are very helpful to find out the cause of pneumonia. A biopsy (taking a lung tissue sample) may be done in severe or more stubborn cases.

## What Is the Treatment?

The key to successful treatment is prompt medical care. The treatment will depend on how severe the symptoms are and the type of organism causing the infection. Antibiotics are used in bacterial infections. Antiviral medications may be used for treatment of pneumonia caused from influenza. Inhaled quick-relief medicine is used at times to keep the airways open, especially for those people who have asthma or bronchitis. If severe pneumonia is present, a person may need to stay in the hospital. Additional treatment may include rest, fluids, oxygen and techniques to help bring up the sputum.

## What Is Preventive Therapy?

Pneumococcal bacteria is one common cause of bacterial pneumonia. Two vaccines are available to help prevent this type of pneumonia. They are recommended for adults over 65 years of age; very young children; or anyone ages 2 through 64 with certain chronic health problems, a weakened immune system or who smokes. Discuss the need for these vaccines with your health care provider.

A yearly flu vaccine is helpful in decreasing pneumonia caused by influenza and bacterial pneumonia that can sometimes follow influenza. Ask your health care provider about what vaccines are best for you.

Other preventive measures include good medical control of chronic lung and sinus problems, good hand-washing and avoiding smoke. If you smoke, ask your doctor about ways to give up smoking.

## How Long Does Pneumonia Last?

Pneumonia can last a short or long time. Its length depends upon the organism involved, the general health of the person, and how promptly a person gets medical care. Some people may be hospitalized, while others continue their routine without being aware that they are infected. Certain people may have to limit their work or school schedule for a short time. Your health care provider can help you define any limits on work or other activities. It is important to remember that infection (especially from viruses) may lead to a cough that lasts for 6 – 8 weeks after the infection clears. You may want to talk with your health care provider about how long your symptoms may last.

## Are There Complications from Pneumonia?

Complications from pneumonia may occur. Bacterial infections may follow viral pneumonia. This may require that antibiotics be added or altered to treat the new organism. Rarely, a lung abscess may result from pneumonia. If excess fluid builds up in the sac around the lungs (pleural effusion), it may need to be drained. Low blood sodium (hyponatremia) can also be a complication of bacterial pneumonia. Children are prone to this. In these cases, a person may need to be hospitalized for IV (intravenous) fluids. A bloodstream infection, septic shock and respiratory failure requiring admission to an intensive care unit can occur in the most severe cases. Many complications from pneumonia can be prevented by **prompt** medical care.

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