

Pneumonia

Pneumonia is an infection of the lungs. It is usually caused by bacteria, but may be caused by viruses or other infectious organisms, such as fungi. The infection may be mild or life-threatening.

It causes high fever, cough (dry or wet), chest pain, tiredness and difficulty breathing or shortness of breath.

A diagnosis can often be made based on your symptoms and what your doctor finds when they examine you, but a chest X-ray may be necessary. Treatment depends on the cause and severity of the illness and usually involves antibiotics. Most people get better in a couple of weeks.

Causes

Most lung infections are caused by bacteria. These are spread when infected people cough or sneeze: the infected particles are breathed into the lungs. Common bacteria include *Streptococcus pneumoniae* and *Mycoplasma pneumoniae*. However, viruses such as influenza and fungi such as *Aspergillus fumigatus* can also cause pneumonia.

Pneumonia is classified in three ways: community-acquired pneumonia, hospital-acquired pneumonia, and aspiration pneumonia.

As the names suggest, community-acquired pneumonia is contracted in everyday life while hospital-acquired is contracted in a hospital, dialysis clinic, nursing home, or other healthcare facility. Aspiration pneumonia occurs when food or saliva is inhaled into the lungs. This can happen in people who have difficulty swallowing.

Some people are more likely to get pneumonia than others. These include:

- ▶ Smokers
- ▶ People with chronic obstructive pulmonary disease (COPD)
- ▶ People with a weakened immune system
- ▶ People who have had a recent cold, bronchitis, or influenza infection.
- ▶ Older people, especially those living in nursing homes.

Symptoms

Common symptoms of pneumonia include high fever, cough, and chest pain. With 'typical' pneumonia, the cough brings up sputum or mucus. However, in 'atypical' pneumonia, the cough is dry. Typical and atypical pneumonias are caused by

different sorts of bacteria, and the antibiotic choices are different. Less commonly, there is blood in the sputum. Other symptoms can include aches and pains and tiredness.

With severe infections, people become short of breath and older people may become confused.

In babies, the only symptoms may be rapid breathing and difficulty feeding.

Diagnosis

Often doctors can hear crackling sounds in the chest that confirm a diagnosis of pneumonia. If there is any doubt, a chest x-ray is ordered. If your doctor thinks it is important to find out the exact cause of the infection, they may also order:

- ▶ **A sputum culture.** A sample of sputum is sent to a laboratory to see what germs are present and to find out which are the most appropriate antibiotics.
- ▶ **A nasopharyngeal swab.** A thin wire is passed through the nose to the back of the throat. Material scraped from here can be tested for germs, especially viruses and whooping cough.
- ▶ **Blood tests** for antibodies made by the body to fight the infection.
- ▶ **Urine tests** for proteins made by the germ.
- ▶ **Blood cultures.** Samples of blood from three different veins are collected and sent to a laboratory for testing. This is usually only done in people who are very ill.

Treatment

The mainstay of treatment for bacterial pneumonia is antibiotics. Fungal infections are treated with antifungals (such as amphotericin for aspergillosis) and some viral infections are treatable with antivirals (such as oseltamivir for influenza).

The initial choice of antibiotics depends on:

- ▶ Whether you have community-acquired pneumonia, hospital-acquired pneumonia, or aspiration pneumonia.
- ▶ How severe your infection is.
- ▶ What germs caused pneumonia in you in the past, if that information is available.
- ▶ Whether you have other illnesses, or are on medications, that can affect your lungs and immune system, such as COPD or steroids.

Often, more than one antibiotic is

prescribed. If testing identifies which germ is causing the pneumonia and what medications the germ is affected by, the treatment may change.

Your doctor may also recommend paracetamol to reduce pain and fever. It is important to drink plenty of fluids and to get plenty of rest. Don't take cough medicines without talking to your doctor first.

Most people can be treated at home. However, sometimes it is necessary to go to hospital. This is more often the case if:

- ▶ The infection is severe, as measured by your doctor on a pneumonia severity score.
- ▶ You have another serious medical problem, such as heart failure.
- ▶ You are short of breath.
- ▶ You can't care for yourself at home.
- ▶ You are very old or very young.
- ▶ You are not getting better despite taking antibiotics.

People who are very ill may need to be treated in an intensive care unit.

Prevention

The risk of pneumonia can be reduced by:

- ▶ Washing your hands.
- ▶ Getting a flu shot each autumn.
- ▶ Stopping smoking.

The National Health and Medical Research Council recommends pneumococcal immunisation for conditions that increases risk of developing pneumonia. These conditions include impaired immunity, as well as chronic heart disease, kidney and diabetes. People with these at-risk conditions are eligible to receive pneumococcal immunisation on the PBS.

It is also recommended that Aboriginal and Torres Strait Islanders aged over 50 and everyone aged over 65 should get vaccinated against pneumococcal disease. The Australian National Immunisation Program has also listed pneumococcal immunisation as part of the immunisation schedule for children.

Your doctor will be able to provide more detailed information on the risks and benefits with pneumonia vaccination.

ItsMyHealth.com.au