
Pleurisy

Summary

- The pleura are the thin membranes that line the inner wall of the chest and form the outside covering around the lungs.
 - Pleurisy is a condition whereby inflammation of the pleura causes the membranes to rub and grate against each other.
 - Common causes of pleurisy include bacterial and viral infections which can lead to pneumonia.
 - Other causes of pleurisy include a pulmonary embolus, cancer and trauma to the chest wall.
 - Some causes of chest pain are dangerous and potentially life-threatening, so it is important to ask your doctor to assess any chest pain that worries you.
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Each of your lungs is covered by a thin membrane called the visceral pleura. The inner wall of your chest is lined by a similar thin membrane called the parietal pleura. In healthy people, the visceral and parietal pleura are separated by a thin layer of fluid. This fluid allows the lungs to slide across one another easily as the lungs expand and contract during breathing.

Pleurisy is a condition whereby inflammation of the pleura leads to a loss of the smooth sliding movement between the pleura. This is commonly caused by an infection of the respiratory tract.

Inflammation of the pleura causes pain, which is made worse by deep breathing and coughing. Sometimes, the inflammation can cause a build-up of the fluid between the two membranes. This is known as a pleural effusion.

Treatment options for pleurisy include addressing the underlying cause and taking medications such as anti-inflammatory medications, antibiotics and pain medications.

Symptoms of pleurisy

The symptoms of pleurisy may include:

- pain in the chest, which may be:
 - sharp or stabbing in nature
 - aggravated by taking a deep breath in, coughing or moving around
 - felt in the muscles of the chest
- persistent cough
- breathing difficulties
- generally feeling unwell
- fever.

Your risk of getting pleurisy is higher if you have recently had an infection of the respiratory tract.

Causes of pleurisy

Causes of pleurisy include:

- viral infection
 - bacterial infection
 - **pneumonia** (an infection of the lungs)
 - **tuberculosis**
 - trauma to the chest wall
 - connective tissue disorders such as rheumatoid arthritis and lupus erythematosus
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- pulmonary embolus (blood clot)
- cancer.

Pleural effusion and pleurisy

In a person with pleurisy, inflammation can trigger a build-up of fluid between the two membranes. This fluid build up is referred to as a pleural effusion. This can be caused by an overproduction of fluid by one membrane or by the failure of the other membrane to drain the fluid properly.

Pleural effusion may ease the symptoms of pleurisy, since the fluid stops the membranes from grating against each other. However, the build up of fluid around the lungs can cause compression of the lungs and can lead to breathing difficulties, such as shortness of breath or rapid breathing. The lack of oxygen may turn areas such as the mouth and fingertips blue (cyanosis).

Apart from pleurisy, other causes of a pleural effusion include cancer, protein deficiencies and some types of heart disease.

Diagnosis of pleurisy

Diagnosing pleurisy involves a number of tests, including:

- physical examination – using a stethoscope, the doctor can hear the pleura rubbing against each other. Other breath-sound abnormalities that suggest pleurisy include rattling or crackling
- blood tests – to determine whether the cause is viral or bacterial
- chest x-rays and other imaging – including CT scans or ultrasound scans
- thoracentesis – doctors remove and examine a small sample of pleural fluid
- bronchoscopy – doctors insert a thin tube with a camera into the person's windpipe to examine the airways.

Treatment for pleurisy

Treatment for pleurisy may include:

- treating the underlying cause – for example, treatment for tuberculosis
- anti-inflammatory medications
- other medications to manage the pain
- antibiotics for a bacterial infection
- draining off the excess fluid – in the case of a pleural effusion
- medications to stop the fluid from building up again.

Prevention of pleurisy

Bacterial pleurisy is often caused by pneumonia which is an infection of the lungs. The infection of the airways and lungs can then spread to include the pleura.

There is a vaccine against one of the most common organisms that causes pneumonia. It is recommended that people who are at risk of pneumonia be immunised, including young children, older people over the age of 65, people with chronic medical conditions (such as diabetes) and people with reduced immunity.

Apart from vaccination, treating any infection of the respiratory tract promptly can also reduce the risk of developing pleurisy.

Where to get help

- **Your GP (doctor)**
- **NURSE-ON-CALL** Tel. **1300 60 60 24** – for expert health information and advice (24 hours, 7 days)
- **Lung Foundation Australia** Tel **1800 654 301**

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