Pleurisy

Pleurisy is due to inflammation of the pleura next to the lung. It is most often caused by viral infection. In these cases the pain can be severe, but soon goes. Various other lung disorders can also cause a 'pleuritic pain' similar to pleurisy. A pleuritic pain is a chest pain which is typically sharp and 'stabbing' in a part of the chest. The pain is usually made worse when you breathe in or cough.

What is the pleura?

The pleura is a thin membrane with two layers. One layer lines the inside of the chest wall. The other layer covers the lungs.

Between the two layers of pleura (the pleural cavity) is a tiny amount of fluid. This acts like lubricating oil between the lungs and the chest wall as they move when you breathe.

What is pleurisy?

Pleurisy means inflammation of the pleura. Pleurisy, or other problems that affect the pleura, can cause a 'pleuritic' chest pain. This is usually a sharp stabbing pain.

You may feel a pleuritic chest pain anywhere in the chest depending on the site of the inflammation, or problem with the pleura. The pain is made worse by breathing in, or coughing, as this causes the two parts of the inflamed pleura to rub over each other.

You may have other symptoms, depending on the cause of the pleurisy.

What are the causes of pleurisy

A viral infection
This is probably the most common cause. An infection can cause some inflammation in part of the pleura, which causes the pain. If you have 'viral pleurisy' you are not usually very ill. You may also have a cough, cold, fever, or flu-like symptoms caused by the virus. However, the pleuritic pain can be quite severe. The immune system will usually clear a viral infection. The pain typically lasts a few days, and then goes as the virus clears away and the inflammation settles.

Other causes of pleurisy and pleuritic pain
There are other more serious causes of pleuritic pain, but these are much less common than viral pleurisy. Anything that causes inflammation or damage at the edge of the lung next to the pleura can cause pleuritic pain. For example, pneumonia, blood clots in the lung (pulmonary embolism), chest injuries, a collapsed lung (pneumothorax), tumours of the lung, and inflammation associated with some forms of arthritis. All these conditions are likely to have other symptoms, and the pleuritic pain is just part of the problem.

See a doctor if any of the following occur with a pleuritic chest pain:

- Pain that develops slowly over several days or weeks.
- Pain that does not ease and go after a few days.
• Breathlessness (shortness of breath) or other breathing difficulties.
• Coughing up blood.
• Any other symptom that you are unsure of, or cannot explain.

Do I need any tests?

The most important thing when diagnosing the cause of a pleuritic pain is for a doctor to talk to you about your symptoms and to examine you. Most of the causes of the more serious causes of pleuritic pain will have other symptoms apart from the pain, as mentioned above. A doctor’s examination may also show up some signs which may point to the cause.

A doctor may arrange tests such as a chest X-ray if you develop pleuritic pain and the cause is not clear. A chest X-ray is normal in the common ‘viral pleurisy’ but may show up abnormalities when there are some other causes of the pain. Other tests are sometimes done if a serious cause is suspected and the chest X-ray is not conclusive.

What is the treatment for pleurisy?

If you have a viral pleurisy, take painkillers regularly until the pain eases. Your doctor may prescribe stronger painkillers if the pain is severe.

If you have other causes of pleuritic pain (such as pneumonia, pulmonary embolism, etc), the treatment depends on the cause.

References

• Kass SM, Williams PM, Reamy BV; Pleurisy. Am Fam Physician. 2007 May 1;75(9):1357-64. [abstract]