

# Spontaneous Pneumothorax

## Information for patients



### What is a pneumothorax?

A pneumothorax occurs when air gets in between the lung and the chest wall (ribcage). The air usually originates from the lung and leaks out due to a small tear on the outside of the lung. A pneumothorax may get better without treatment or it may need treatment. Pneumothorax affects slightly more men than women and occurs in about 1 in every 5000 people.

### What are the causes of a pneumothorax?

#### Primary Spontaneous Pneumothorax (PSP)

This is the most common type of pneumothorax. It occurs most commonly in young, healthy adults. It is due to a tiny tear in the outer part of the lung. The cause of the tear is not always clear but is most likely due to an area of weakness (like a small blister or a thinner area of lung tissue) which occurs during lung development.

#### Secondary Spontaneous Pneumothorax (SSP)

This means the pneumothorax develops as a complication of an existing lung disease. It is more likely to occur if the lung disease weakens the outer edge of the lung. It is most common in people who have chronic obstructive pulmonary disease (COPD) but can occur in other lung diseases.

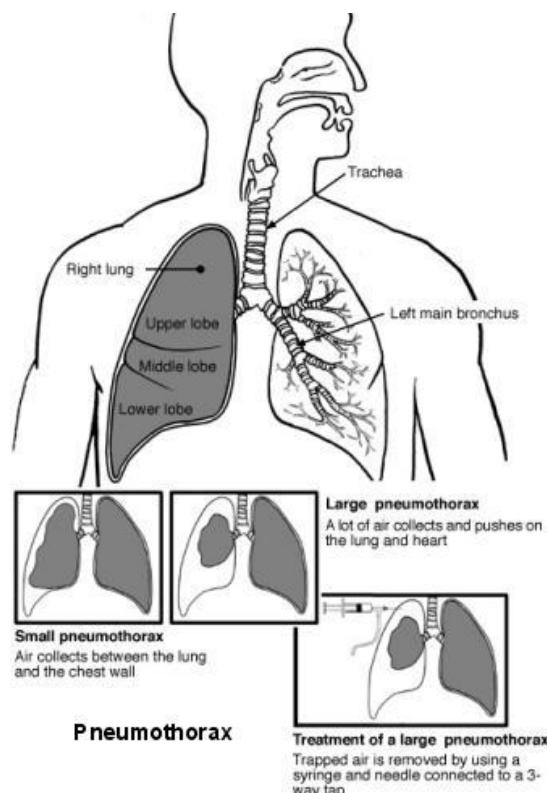
#### Pneumothorax as a complication of a procedure

Pneumothorax may occur as a complication of a procedure. Procedures that can (rarely) cause this include CT-guided lung biopsy, pacemaker insertion and central line insertion.

### What are the symptoms of a pneumothorax?

The most common symptom is chest pain (sharp and stabbing in nature) which suddenly develops on one side of the chest. The pain is usually made worse by breathing in. Some people feel the pain at their shoulder or shoulder blade. Shortness of breath is also common. As a general rule the larger the pneumothorax the worse the breathlessness is. You may have other symptoms if you have an underlying lung disease which has caused the pneumothorax.

A chest X-ray confirms the presence of a pneumothorax. Occasionally, patients will also have a CT scan of their chest.



## What is the management of a pneumothorax?

Pneumothorax may heal without treatment over a few days. The area where the air-leak occurred needs to heal and then air can be gradually re-absorbed by the body.

In a pneumothorax causing breathlessness, the air may need to be removed to relieve the symptoms. This is performed in hospital with a needle and syringe, special drainage catheter (which may be left in place for outpatient management), or by inserting a drainage tube into the chest to remove the air— this is called a chest drain. All procedures are performed under local anaesthetic (the area will be numbed and you will be awake during the procedure).

For patients who suffer repeated episodes of spontaneous pneumothorax, a surgical procedure may be advised to prevent further occurrences.

If you do not need a chest drain, you may be looked after as an outpatient rather than being admitted to hospital. If this is the case, it is important to note the advice below on when to return to hospital.

## What should I do after I go home and what should I expect?

It can take anything from a few days to a few weeks for the lung to return to normal. It is normal to have some ongoing breathlessness or chest pain following a pneumothorax. Take simple over-the-counter pain relief such as ibuprofen and paracetamol as needed (do not exceed the recommended dosage) but you should return to hospital if your symptoms are worsening. You will be seen by a doctor until the pneumothorax has completely resolved. You can return to normal activities, but you should avoid heavy lifting or exertion that causes you to strain. If your job involves these you may be entitled to sick leave whilst you recover.

**Flying:** Air travel must be avoided until at least 1 week after the lung has fully re-expanded (as seen on chest X-ray). This is an absolute minimum and is really to allow people who have suffered a pneumothorax abroad to return home. If your journey is not essential, it is often more sensible to delay air travel for a month after a pneumothorax.

**Diving:** Scuba diving must be avoided unless a surgical procedure has been performed on both sides of the chest.

## When should I seek further medical advice?

It is normal for your symptoms to take time to improve. However, you should urgently seek medical attention if you develop any new symptoms, such as severe chest pain or worsening breathlessness. If you develop these symptoms, you should attend Accident and Emergency (A&E).

After a pneumothorax has resolved, there is a risk that it may happen again (this occurs in about 1 in 3 people). If you smoke, you are at a much greater risk. Stopping smoking reduces the risk of another pneumothorax by four times and is strongly advised. If you discover that other people in your family have suffered a pneumothorax this is important information for your treating physician.

## Useful resource:

British Lung Foundation: <https://www.blf.org.uk/support-for-you/pneumothorax>

