Overview

- You have been seen in the Emergency Department and found to have a pneumothorax.
- A pneumothorax is air that is trapped between a lung and the chest wall. The air usually gets there either from the lungs or, if you have an injury, through the wound.
- Typically, it causes a sudden sharp, stabbing pain on one side of the chest. The pain is usually made worse by breathing in (inspiration) and you may become breathless. Generally, the larger the pneumothorax, the more breathless you are.
- Some people such as those with chronic lung conditions may be prone to developing this condition.
- A chest x-ray can confirm if you have a pneumothorax. You have been investigated and, if needed, treated to reduce the trapped air. You should have an appointment to come back for a further chest x-ray to ensure the resolution of the pneumothorax.
- You should not fly till you have had a normal chest x-ray showing resolution of the pneumothorax and ideally seven days flight free afterwards.
- You should not dive without consultation with a cardiothoracic doctor.

Discharge advice

- Until you have the 'all clear' from your doctor:
  - Do not fly.
  - Do not go to remote places where access to medical care is limited.
- Scuba diving is not advisable following a pneumothorax.
- Stop smoking if you are a smoker.
- Some people do have repeated episodes of pneumothorax, if this is the case, then various procedures can be offered to aim to prevent this.

Seek immediate medical attention (call 999) if you:

- suddenly feel more breathless;
- have increasing pain.

- For general medical advice please use the NHS website, the NHS 111 service, walk-in-centres, or your GP.

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NHS
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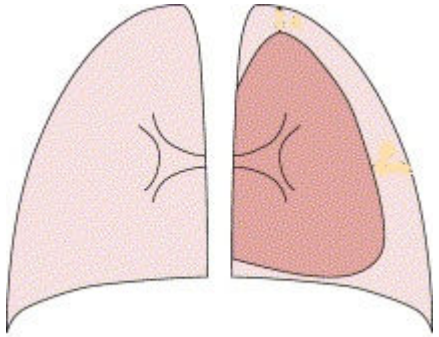
Pneumothorax

Advice for patients seen in the Emergency Department



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Pneumothorax - primary

- A primary spontaneous pneumothorax is one that develops for no apparent reason in an otherwise healthy person.
- It is often due to a tiny tear of an outer part of the lung - usually near the top of the lung. The tear may occur at the site of a tiny pocket of tissue (bleb or bulla) on the edge of a lung where the lining is weaker than normal. Air then escapes from the lung but gets trapped between the lung and chest wall.
- It is more common in tall thin people, men, if you are under 40, and in those who smoke. About 3 in 10 people who have a primary spontaneous pneumothorax have one or more recurrences at some time in the future. If a recurrence does occur it is usually on the same side and usually occurs within three years of the first one.

Pneumothorax - secondary

- A secondary spontaneous pneumothorax develops as a complication (a secondary event) of an existing lung disease. This is more likely to occur if the lung disease weakens the edge of the lung in some way.
- So, for example, a pneumothorax may develop as a complication of chronic obstructive airways disease (COPD) - especially where lung bullae have developed in this disease.
- Other lung diseases that may be complicated by a pneumothorax include: pneumonia, tuberculosis, sarcoidosis, cystic fibrosis, lung cancer, and idiopathic pulmonary fibrosis.
- An injury to the chest can cause a pneumothorax. For example, a car crash or a stab wound to the chest. Surgical operations to the chest may also cause a pneumothorax.

What happens?

- In most cases of spontaneous pneumothorax, the pressure of the air that leaks out of the lung and the air inside the lung equalises.
- The amount of air that leaks (the size of the pneumothorax) varies. Often it is quite small and the lung collapses a little. Sometimes it can be large and the whole lung collapses. If you are otherwise fit and well, this is not too serious, as the other lung can cope until the pneumothorax goes. If you have a lung disease, a pneumothorax may worsen any existing breathing difficulty.
- The small tear that caused the leak usually heals within a few days. The trapped air is gradually absorbed into the bloodstream and the lung gradually expands back to its original size.
- Symptoms may last as little as 1-3 days in cases of primary spontaneous pneumothorax. However, symptoms and problems may persist longer, especially with an underlying lung disease.

Treatment

- You may not need any treatment if you have a small pneumothorax. A small pneumothorax is likely to clear over a few days. You may need painkillers for a few days if the pain is bad.

Needle aspiration

- Aspirating (removing) the trapped air is sometimes needed. This may be needed if there is a larger pneumothorax or if you have other lung or breathing problems.
- The common method of removing the air is to insert a very thin tube through the chest wall with the aid of a needle. The air is sucked out with a syringe and 3-way tap. This is repeated until most of the air of the pneumothorax is removed. You may then be able to be discharged home with possible clinic follow up.

Chest drain

- Sometimes, a larger tube is inserted through the chest wall to remove a large pneumothorax or if aspiration fails. This is more commonly needed for cases of secondary spontaneous pneumothorax when there is underlying lung disease. Commonly, the tube is left in place for a few days to allow the lung tissue that has torn to heal and you will stay in hospital.