NHS
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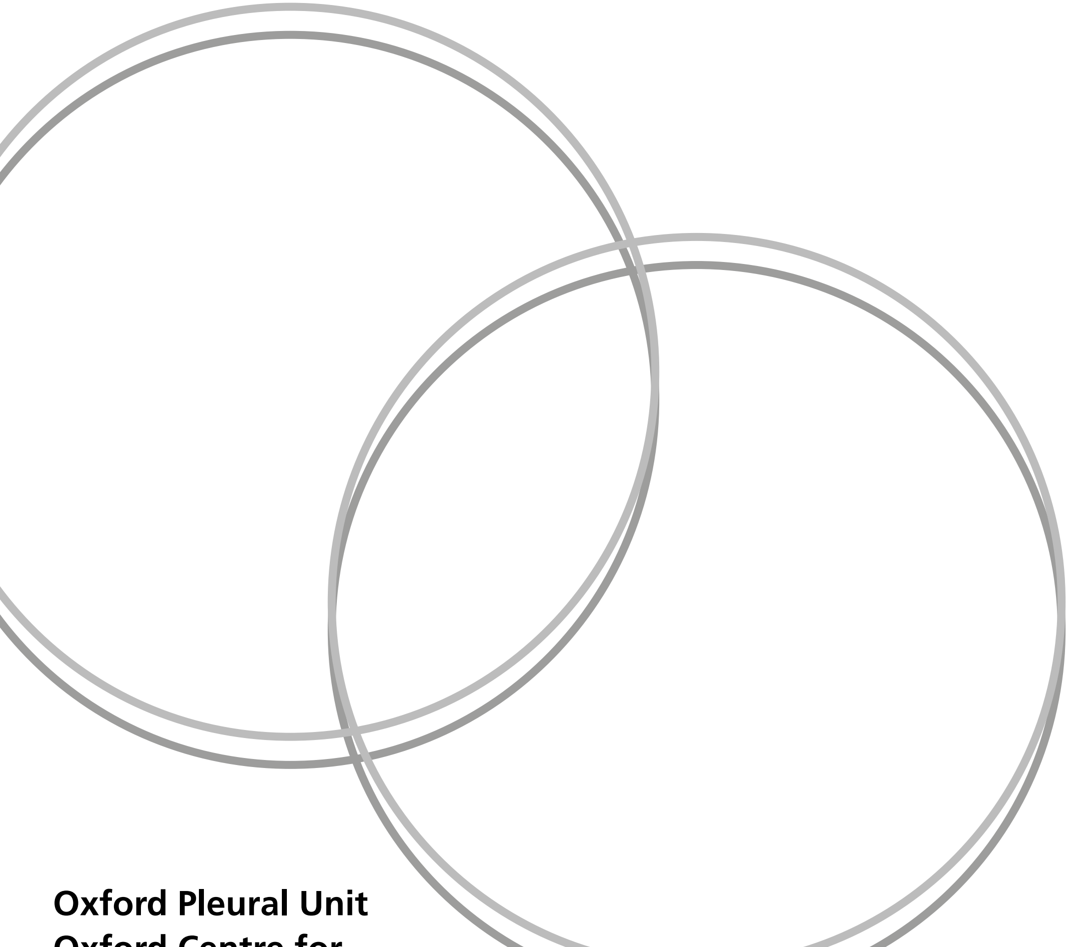
Ambulatory Management of Pneumothorax

Information for patients



Oxford Pleural Unit
Oxford Centre for Respiratory Medicine

Important reminders about ambulatory pneumothorax drainage devices

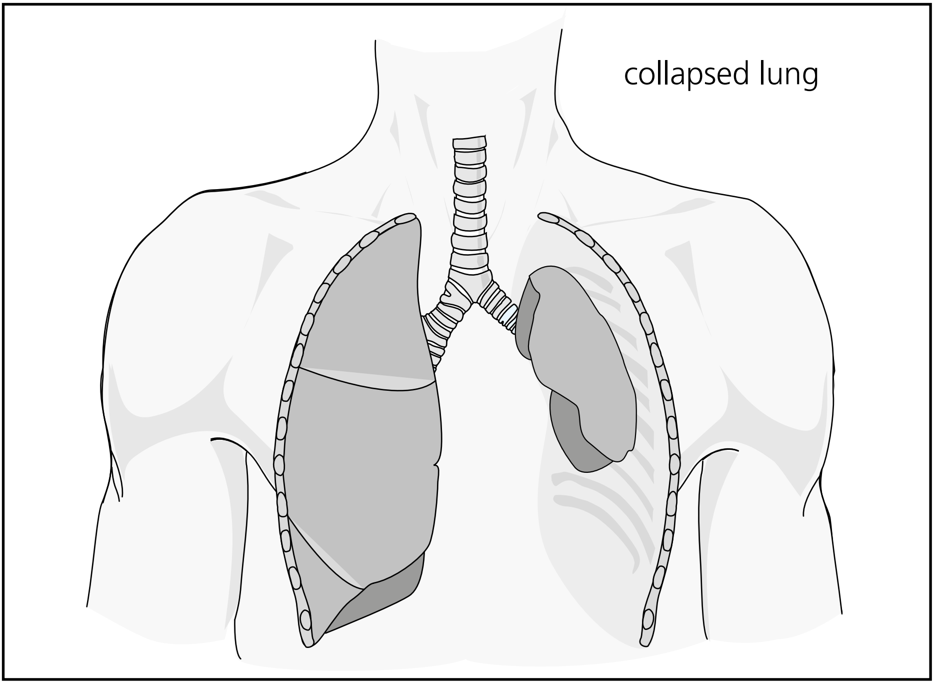
- Wear loose fitting clothes over the top.
- Do not have a bath or immerse the device in water.
- You can remain active but should avoid heavy exertion or lifting.
- If you experience mild discomfort or pain, take regular painkillers (paracetamol and/or ibuprofen) and let the clinical team know.
- Never try to block any of the drainage holes with any material
- The adhesive dressing is very sticky and should not come off. If it does become unstuck, let the clinical team know. Do not place tape or plasters over the device as it could block the drainage holes.
- Occasionally, fluid can accumulate within the device. This might be slightly blood-stained. This is normal and can be removed using a syringe on the port at the bottom of the device. We will show you how to do this.
- If you experience significant worsening of your symptoms (such as breathlessness or pain), please contact the clinical team (see Contacts) in office hours or attend the Emergency Department.

Introduction

You have developed a pneumothorax (air in the cavity around the lung). This leaflet gives you information about the condition, and lets you know about a pathway to manage patients as outpatients (ambulatory) to avoid hospital admission.

What is a pneumothorax?

A pneumothorax occurs when air enters between the linings of the lung and the inside of the chest wall. This causes the lung to collapse away from the chest wall.



Why did I get a pneumothorax?

A pneumothorax can happen for a variety of reasons. When this occurs without warning, it is called a **spontaneous pneumothorax** and is fairly common.

- When this occurs in patients with otherwise healthy lungs (often younger people, particularly taller men), it is called a **primary spontaneous pneumothorax**. It is probably caused by an unusually thin area of lung lining. These areas can suddenly leak air causing a pneumothorax.
- Patients with underlying lung disease can develop a pneumothorax due to lung disease. This is called a **secondary spontaneous pneumothorax**.

An **iatrogenic pneumothorax** may occur after a procedure such as after a lung operation, lung biopsy or during pacemaker insertion.

What are the symptoms of pneumothorax?

Most patients experience a sharp chest pain (called pleuritic), which is worse when breathing. Some people are breathlessness. Patients may have minimal symptoms.

What treatment will I have?

Not everyone with a pneumothorax needs treatment. If you do not have many symptoms and the pneumothorax is small (on chest X-ray), then you may be able to go home and be followed up in clinic. The lung will usually slowly re-inflate by itself over several weeks.

If you do need treatment, then you will have a procedure to try to re-inflate the lung. There are several options and your doctor will discuss these with you. Not all options are suitable for every patient:

1. **Treatment using an all-in-one ambulatory device**
   An all-in-one device (such as the Rocket Pleural Vent, shown in the picture below) may be inserted. This will involve numbing an area on the front of your chest (using a local anaesthetic injection). The small plastic tube (catheter) will then be inserted and the device secured to the front of your chest. This device has holes on the sides to let the air out but not back into the chest. If you are feeling well after insertion of this device, you may be able to be discharged home with this in place.

Rocket Pleural Vent integrated pleural aspiration catheter with one-way valve

2. Treatment using pleural aspiration and/or chest tube

Further details of pleural aspiration/chest tube treatment are described in another Patient Information Leaflet called 'Pneumothorax'.

Briefly, this involves a **pleural aspiration**, a procedure to try to draw the pneumothorax air off using a small temporary plastic tube (catheter). This works in ~50% of patients. If this does not successfully re-inflate the lung then you will usually need another procedure to place a tube (chest drain) to let the rest of the air out, and to be admitted to hospital until your pneumothorax has re-inflated and the lung repairs itself. This may take 2-5 days overall. Occasionally, we connect the chest drain to a one-way valve such as the Atrium Pneumostat device (another ambulatory device) and can consider discharge with this in place while the lung heals.

Atrium Pneumostat one-way valve, which is then attached to chest drain

What will happen to me?

If we use an ambulatory device, you will be observed for 1 to 2 hours during which time we will repeat a chest X-ray to make sure that the lung has started to re-inflate. If so, and you are happy with the device, you will be discharged home.

You will be reviewed the day after discharge with the device in place, and then every 2 to 3 days in the Ambulatory Assessment Unit (AAU).

At each review, you will be seen by the medical team. They will check whether your lung has re-inflated (by looking at a repeat chest x-ray) and see if the air has stopped leaking from your lung.

When the lung stops leaking and is re-inflated, the device will be removed.

If the lung has not fully re-inflated or there is ongoing air leak, the device will remain in place, you will go home and we will review you again in a few days.

What can I do with the device in place?

With an ambulatory device in place, please observe the following advice;

- **Wear loose fitting clothes over the top.**
- **Do not have a bath or immerse the device in water.**
- **You can remain active but should avoid heavy exertion or lifting.**
- **If you experience mild discomfort or pain, take regular painkillers (paracetamol and/or ibuprofen) and let the clinical team know.**
- **Never try to block any of the drainage holes with any material**
- **The adhesive dressing is very sticky and should not come off. If it does become unstuck, let the clinical team know. Do not place tape or plasters over the device as it could block the drainage holes.**
- **Occasionally, fluid can accumulate within the device. This might be slightly blood-stained. This is normal and can be removed using a syringe on the port at the bottom of the device. We will show you how to do this.**
- **If you experience significant worsening of your symptoms (such as breathlessness or pain), please contact the clinical team (see Contacts) in office hours or attend the Emergency Department.**

Will I need to have surgery?

If your lung has not re-inflated or air is still leaking out after several reviews, you may need an operation to fix it. This is relatively uncommon.

During surgery under general anaesthetic, the thoracic surgical team perform a keyhole operation to find the air leak, re-inflate the lung and perform a procedure to stop the pneumothorax happening again (pleurodesis). Further information can be found in the Patient Information Leaflet called ‘Surgery for Pneumothorax’

Patients who have had two or more episodes of spontaneous pneumothorax (recurrence) can also be referred for surgery to prevent a further recurrence, usually electively (at a later date) after you have seen the thoracic surgical team as an outpatient.

What are my chances of recurrence?

Some patients have a further episode of spontaneous pneumothorax, often months to years after their first spontaneous pneumothorax. The chance of this depends mainly on whether you have a pre-existing lung problem.

Over 5 years, recurrence occurs in approximately;

- 20-25% of people with otherwise normal lungs (primary spontaneous pneumothorax).
- 30-40% of people with lung disease (secondary spontaneous pneumothorax).

What do I do after my pneumothorax?

When you have completed your treatment, you need to be aware of the following advice:

- You must **never SCUBA dive** unless your pneumothorax has been repaired by surgery. If a repeat pneumothorax occurs while diving, it is likely to be life-threatening.
- You should **not fly in an airplane for at least 7 days** after your pneumothorax has fully resolved.
- You should **avoid very heavy exertion / exercise** for the first few days.
- If you have any symptoms of worsening chest pain or breathlessness suggesting the pneumothorax may have come back, you should **return to the Emergency Department**.
- **Stop smoking**. If you are a smoker, you are at a much higher risk of your pneumothorax coming back.

You will receive a follow-up appointment to be seen in clinic about 2-4 weeks after your pneumothorax treatment is complete. If your symptoms come back before this, please seek medical attention.

Contacts

If you have any question or concerns, please contact:

Non-urgent queries during office hours

Pleural Medical team

Tel: **01865 741 166** and ask for bleep 8112

Email: **pleural.unit@nhs.net** or
ouh-tr.pneumothorax@nhs.net

(Monday to Friday)

Pleural Specialist Nurse

Tel: **07769 285354**
(Monday to Thursday)

Ambulatory Assessment Unit

Tel: **01865 221 812**
(Monday to Friday 0800-2100, Saturday/Sunday 0900-1900).

Outside these hours call the Hospital switchboard
Tel: **01865 741 166** and ask for the On-call Respiratory doctor.

In an emergency or with worsening symptoms, attend the Emergency Department.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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