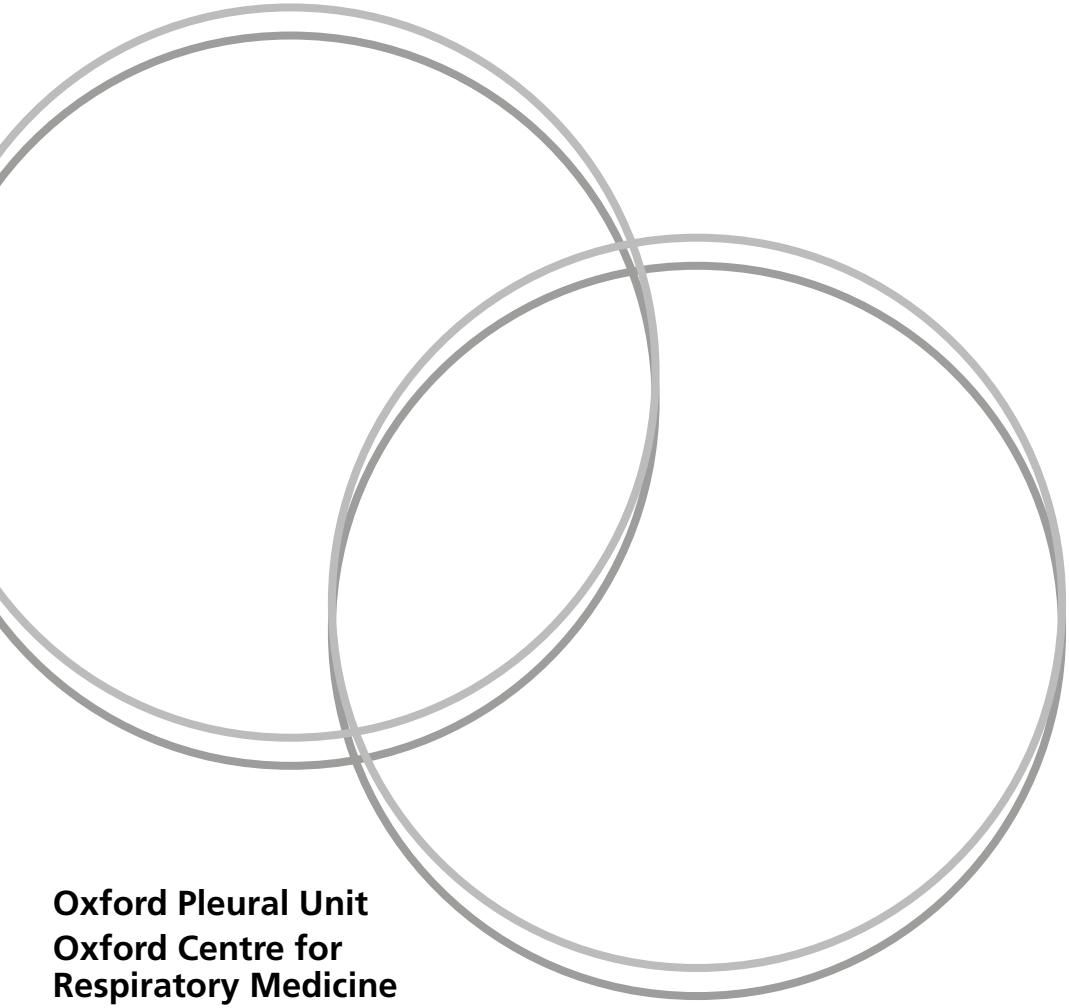
Oxford University Hospitals
NHS Foundation Trust

Ambulatory management of Pneumothorax

Information for patients



Oxford Pleural Unit
Oxford Centre for Respiratory Medicine

Important reminders about your ambulatory drainage device

- Wear loose-fitting clothes over the device.
- Keep the dressing and device dry. Do not bathe, swim or immerse the device.
- Stay active, but avoid strenuous exercise, heavy lifting and contact sports.
- Carry and position the device as shown by the clinical team.
- Do not clamp, disconnect, adjust or block the drainage system.
- Contact the team if the dressing loosens, the device moves or fluid leaks.
- Seek urgent help if your pain or breathlessness worsens.
- Call 999 if you are severely breathless, feel faint, collapse or deteriorate rapidly.

Introduction

You have developed a pneumothorax, which means that air has collected in the space around your lung. This leaflet explains ambulatory treatment, which allows suitable patients who need drainage of a pneumothorax to continue their treatment at home using a small portable drainage device.

What is a pneumothorax?

A pneumothorax occurs when air collects in the space between the lung and the chest wall, causing the lung to partially or completely collapse.

For more information about the causes, symptoms and general treatment of pneumothorax, please read our leaflet 'Pneumothorax'.

What is ambulatory treatment?

Ambulatory treatment aims to avoid or reduce the time you need to spend in hospital. A small tube is inserted into your chest and connected to a portable device that allows air to leave while preventing it from returning.

Ambulatory treatment is not suitable for everyone. Your clinical team will consider your symptoms, general health, whether you have underlying lung disease, your home circumstances and whether you can return reliably for regular review.

If you are clinically stable after the device has been inserted and your repeat chest X-ray is satisfactory, you may be able to go home with the device in place. You will need to return regularly for assessment until the air leak has stopped and the lung has re-expanded.

Occasionally, the device may become blocked or displaced, the pneumothorax may worsen, or the air leak may continue. You may then need another procedure or admission to hospital.

How is ambulatory treatment given?

Ambulatory treatment uses a small portable drainage device that allows air to leave the chest while preventing it from returning. The type of device used will depend on your pneumothorax and your individual circumstances.

Integrated ambulatory device

A Rocket Pleural Vent (Figure 1a) may be inserted at the front or side of your chest. The skin is cleaned and numbed with a local anaesthetic injection before a small plastic tube is inserted into the space around the lung. The tube and one-way valve form a single device, which is secured with an adhesive dressing.

Chest drain with a portable drainage device

Alternatively, a small chest drain may be inserted through the chest wall under local anaesthetic. It is secured with a stitch and dressing and connected to a portable drainage device,

such as a Sinapi XS100 (Figure 1b) or an Atrium Express Mini 500 mobile dry-seal chest drain (Figure 1c).

These devices allow air—and sometimes a small amount of fluid—to drain while your lung heals. Your clinical team will explain which device you have and show you how to look after it.

Portable drainage device attached to an existing chest drain

If you have already had a chest drain as part of your treatment in hospital, it may be connected to a portable drainage device so that suitable patients can continue treatment at home. The exact device used will depend on your clinical needs and availability.

The Sinapi XS100 allows air and a small amount of fluid to drain while preventing air from returning to the chest. If a larger amount of fluid is anticipated, an Atrium Express Mini 500 mobile dry-seal chest drain may be used instead. Your clinical team will explain how to carry and position your device.

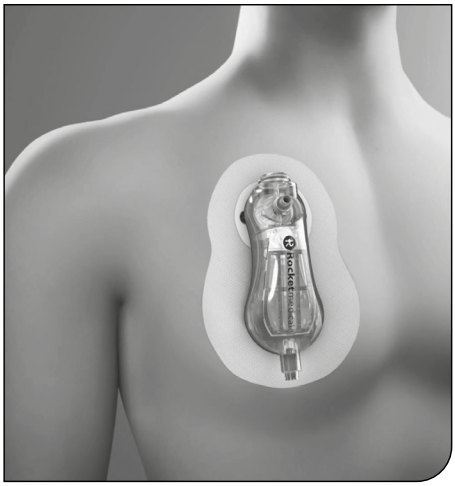


Figure 1 (a) Rocket Pleural Vent with integrated one-way valve.



Figure 1c. Atrium Express Mini 500 mobile dry-seal chest drain.

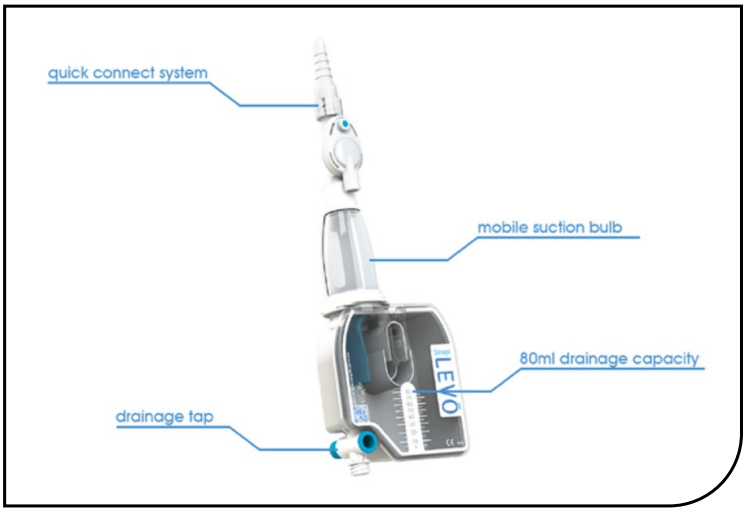


Figure 1b. Sinapi XS100 portable drainage device.

What will happen after the device is inserted?

You will usually be monitored for 1–2 hours and have a repeat chest X-ray. You may be able to go home if:

- your symptoms and clinical observations are stable;
- you do not need oxygen or other breathing support;
- your chest X-ray is satisfactory;
- you feel able to manage the device at home; and
- you can return reliably for regular review.

Before you leave, we will explain how to look after the device, provide contact details and arrange your next review. This is usually the following day and then every 2–3 days in the Pleural Intervention List, Main Theatres, although the frequency may vary.

At each review, the clinical team will assess your symptoms, check the device and arrange a chest X-ray when needed to see whether the lung has re-expanded. The device can usually be removed once the air leak has stopped and the lung remains satisfactorily expanded.

If the lung has not fully re-expanded or air is still leaking, the device may remain in place and you may return home for further review. Occasionally, you may need admission to hospital, a different drainage procedure or referral to the thoracic surgical team.

How should I look after the device?

- You can remain active and are encouraged to walk around, but avoid strenuous exercise, heavy lifting and contact sports while the device is in place.
- Wear loose-fitting clothing over the device and take care not to pull or catch the tubing.
- Keep the dressing clean and dry. Do not have a bath, swim or immerse the device in water. Your clinical team will advise whether and how you may shower.
- Carry and position the drainage device exactly as shown by the clinical team.
- Do not clamp, disconnect or adjust the device yourself.
- Do not cover or block any drainage holes, valves or vents with tape, plasters or other material.
- If the dressing becomes loose, the device moves, or the tubing becomes kinked or disconnected, contact the clinical team promptly.
- A small amount of clear or slightly blood-stained fluid may collect in the device. Do not try to remove this yourself unless the clinical team has specifically shown you how. Contact the team if the amount increases, becomes bright red or you are concerned.
- You may take paracetamol and/or ibuprofen for discomfort if these are normally safe for you. Let the clinical team know if pain is worsening or not controlled.

When should I seek urgent help?

Contact the clinical team promptly if:

- your chest pain or breathlessness is worsening;
- the device moves, becomes disconnected or appears damaged;
- the dressing becomes loose or fluid is leaking around it;
- the tubing becomes kinked or blocked;
- the amount of fluid increases significantly or becomes bright red;
- you develop a fever or feel generally unwell; or
- you have any other concerns about the device.

During office hours, use the contact details at the end of this leaflet. Outside these hours, contact the Osler Respiratory Unit or attend the Emergency Department.

Call 999 immediately if you become severely breathless, feel faint, collapse or deteriorate rapidly.

What happens when the device is removed?

The device can usually be removed once the air leak has stopped and the lung remains satisfactorily expanded. Before removing a chest drain, the clinical team may temporarily clamp it and arrange a further chest X-ray to make sure the lung remains expanded.

Removal is usually quick. A dressing will be placed over the site and you will be told how long to keep it in place. You may have another chest X-ray after removal.

If the air leak continues or the lung does not remain expanded, you may need the device for longer, a different drainage procedure, admission to hospital or assessment by the thoracic surgical team.

For advice about recovery, exercise, flying, diving, smoking, recurrence and follow-up, please read our leaflet 'Pneumothorax'.

Contacts

If you have any questions or concerns, please contact:

Pleural Specialist Nurse
Tel: **07769 285354**

(Monday to Friday, 8am–5pm)

Pleural Medical Team
Tel: **01865 741 166** and ask for bleep **8112**

Email: **pleural.unit@ouh.nhs.uk**

(Monday to Friday 9am–5pm)

Outside these hours, call the hospital switchboard:

Tel: **01865 741 166** and ask for the Osler Respiratory Unit.

In an emergency or if your symptoms are worsening, attend the Emergency Department. Call 999 if you are severely breathless, feel faint, collapse or deteriorate rapidly.

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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