



# Pneumonectomy (lung removal)

**i** Important information for patients undergoing lung surgery.

## About this booklet

The purpose of this booklet is to provide information and advice for individuals who may require a pneumonectomy (lung removal) procedure.

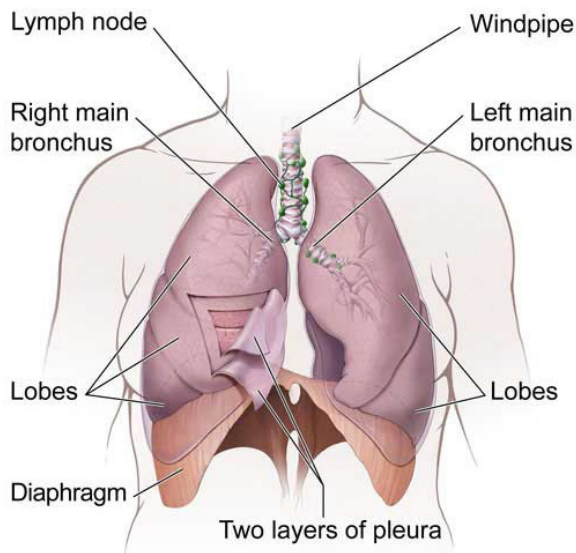
**Following this operation, patients are able to manage well with one lung.**

## What happens during a pneumonectomy?

A pneumonectomy is the removal of a full lung usually through an incision called a thoracotomy.

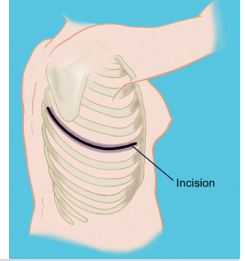
If you require a pneumonectomy, your operation will be performed under general anaesthetic; this means you will not be awake during the procedure.

Your surgeon will take samples of the lymph nodes (glands) that lie in the centre of the chest near the lungs. The parts of the lung which are removed will be sent to the laboratory for testing along with the lymph nodes.



## What is a thoracotomy?

A Thoracotomy is performed via an incision in your side, towards your back. This allows the surgeon to access the area.



## Before surgery

Your anaesthetist will discuss the risks and benefits of anaesthesia as well as any possible side effects and complications. A possible side effect may be nausea and vomiting; medication to treat these symptoms can be given if needed.

## After surgery

Once the operation is finished, a drain tube will be placed in the chest cavity for a short time to remove fluid or air. The drain will usually stay in place for approximately 24 hours.

When a chest drain is in place you may feel some discomfort in your chest; some patients may experience a slight burning sensation and might require medicine to help with your discomfort. Please do not wait until your pain is severe to ask for pain relief, the team are happy to help throughout your journey and provide you with any support you need to ensure you are as comfortable as possible.

## Management of pain after surgery

While some discomfort should be expected, we aim to reduce your pain to a level that you can cope with, allowing you to get back on your feet and achieve your physiotherapy goals.

After an operation on your chest, effective pain relief is very important as it allows you to breathe deeply and cough without too much discomfort. Being able cough and clear your phlegm following your operation is essential to avoid chest infections and other complications during your recovery. Having the right balance of medication is important for reducing side effects such as drowsiness, nausea and light headedness.

Your Anaesthetist will discuss techniques and methods which would be best suited to you.

There are two main techniques used for pain relief following thoracic surgery:

**Paravertebral block:** this technique involves the surgeon placing either one or two fine plastic catheters in your back, close to the nerves, supplying relief to the chest at your operation site. These will be connected to a local anaesthetic infusion; this will aim to reduce the pain messages coming from the nerves around your operation site. This will stay in place for one to three days. Along with this you may have an Intravenous Patient Controlled Analgesia Pump (IV PCA). This will usually be a morphine pump with a Patient Handset, allowing you to deliver a dose of pain relief when you need it. To ensure you receive the appropriate amount of pain relief, the device has a built in safeguard. In some cases, tablets may be administered.

**Epidural analgesia:** this involves an injection of local anaesthetic into your back. A fine plastic catheter is left in place to administer an infusion during the first few days after your operation. Part of this infusion may be under your control to enable you to remain comfortable by pressing your own Patient Handset, delivering a dose of pain relief directly as you need it. As this technique uses local anaesthetic, it often causes areas of numbness in the chest; this is normal.

**If your pain is not under control, please let a member of the team know immediately.**

## Mobility

Walking is a very important part of your recovery; it helps to:

- increase circulation;
- encourage deep breathing; and
- increase your strength and stamina.

A member of the team will usually get you up and walking the first day following your operation; while some patients may be able to walk independently the day after surgery, you may continue to require assistance until you can manage your drain safely. If you are unable to walk, marching on the spot will be encouraged.

The amount of walking you undertake will be gradually increased over the following days. Once you are able to walk on your own, try to have a walk every hour. Your physiotherapist will also make sure you can manage a flight of stairs before you go home.

## Positioning

It is very important that you **do not** lie on your **non-operated** side for at least six weeks, as this could lead to damage to your good lung and increase the risk of infection.

## Breathing exercises

The following breathing exercises will help with your recovery:

- Place your hands on your tummy.
- Take a deep breath in, you should feel your tummy rise under your hands and you may be asked to hold your breath for three seconds.
- Breathe out slowly.
- Repeat the above steps three times.

## Huffing

- A huff is a short sharp breath out to help you to cough and clear phlegm more easily. Take a medium breath in and huff out as if you are steaming up a mirror.
- Support your wound with a clean towel.
- Give three sharp huffs.
- Followed by three coughs

## Incentive Spirometer

You will be given a device called an “incentive spirometer” by your physiotherapist following surgery.

An incentive spirometer is a device which can be used to help keep your remaining lung healthy following a pneumonectomy.



1. Sit as upright as possible;
2. Hold the device in an upright position;
3. Place the mouthpiece in your mouth and seal your lips around it;
4. Breathe in slowly through your mouth. The white piston should rise up the column aiming for the volume indicated (this will be set by your physiotherapist). The orange indicator should float in the outlined area at the side of the device;
5. Hold your breath for a count of three then exhale slowly; and
6. Rest for a few seconds and repeat steps 1-5 for three sets of three breaths every hour.

**Please ensure you take this home with you. The volumes can indicate how healthy your lung is. If you see a significant drop in volumes from your normal please see your GP as this could be a sign of infection.**

## Notes

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the paper.

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