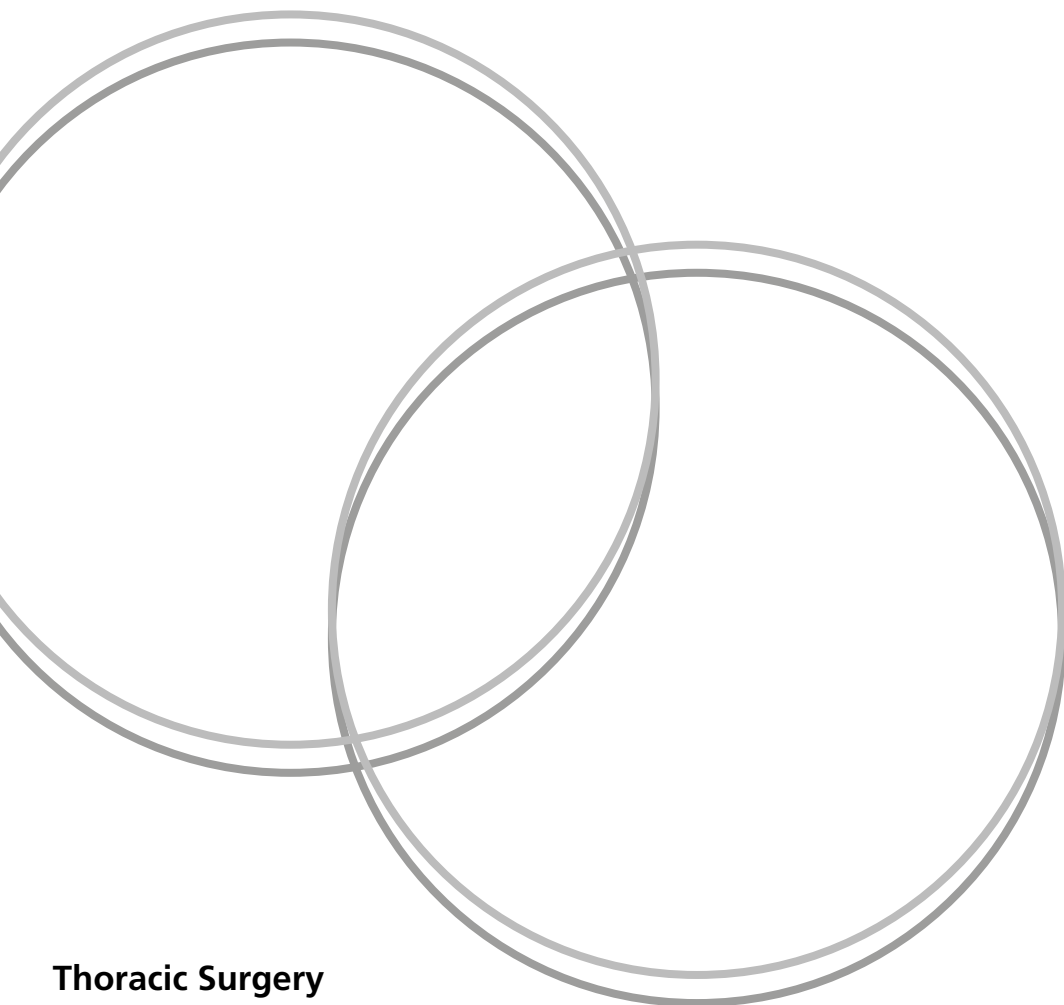


# Lung or Pleural Biopsy

**Information for patients**



**Thoracic Surgery**

# **Welcome to the Oxford Heart and Lung Centre**

The information in this booklet will help to prepare you for coming into hospital for your lung operation. It will help to remind you about the explanations and information the medical or nursing staff will give you. We hope it will be a useful and helpful guide. If you need any extra information, speak to the pre-admission nurses or the Advanced Nurse Practitioner.

## What is a lung or pleural biopsy?

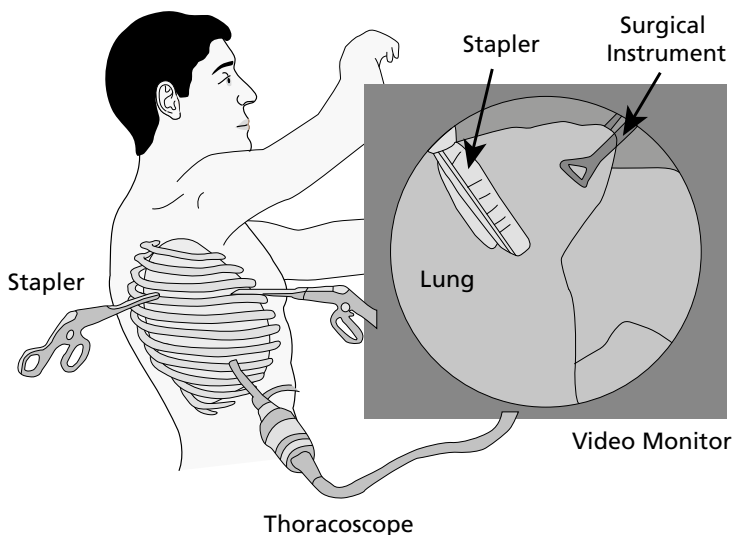
A biopsy is a procedure to collect samples of tissue for analysis by a pathologist or other specialist. The doctor who referred you for the biopsy will have discussed with you the reasons why you need a biopsy.

The surgeon will carry out the biopsy whilst you are under a general anaesthetic (you will be asleep). The surgeon makes two or three small cuts (each about 2cm wide) in the side of your chest. They then use a thoracoscope (small video camera) to take a look inside your chest. They will take small biopsies from areas of your lung or pleura (the pleura are the membranes which surround the lungs).

After the procedure a chest drain may be left in to drain any air and fluid left in your chest from the surgery.

Occasionally, the surgeon won't be able to use the thoracoscope to look inside your chest. This means they will need to make an incision (cut) in the side of your chest. This will be about 4cms long and is called an open lung or pleural biopsy.

### *Carrying out the biopsy using a thoracoscope*



## What kind of assessment will happen before my operation?

Before your operation you will be invited to come to the pre-admission clinic. This is run by the pre-admission nurses. At this clinic you will be assessed by:

- A **doctor or a physicians associate**, who will examine you and ask you questions about your previous medical history. The doctor will explain the operation or examination and why it is necessary, including the risks involved.
- The **pre-admission nurse** will ask you questions about your daily activities and about any support that you may need when you go home. The nurse will take your blood pressure, heart rate, weight and height. They will also give you an opportunity to ask any questions you might have about your admission.
- An **anaesthetist** may see you to explain how they will look after you during your operation and answer any questions you may have about having an anaesthetic.

# What tests will I have before my operation

Before your operation we will arrange tests to assess your health and fitness for surgery. The tests you need will depend on any other health issues you may have. Some of these tests will be done at the pre-admission clinic.

**Blood Tests** – These can tell us your general state of health and fitness for surgery.

**Chest X-Ray** – These images help us to look at your heart and lungs.

**Electrocardiogram (ECG)** – This machine measures the electrical activity of your heartbeat and muscle function.

**Spirometry** – This is a simple breathing test during which you will be asked to blow into a machine. It tests how much air you can breathe in, as well as the way you breathe in and out.

**Lung function tests** – These look in more detail at lung capacity (how much air you can hold in your lungs) and assess how well your lungs are working. You will need to spend up to an hour in the lung function laboratory for these tests.

**Ultrasound** – This scan uses sound waves to create an image of the inside of your body. It is frequently used to pinpoint any fluid which might be in your lung.

**Magnetic Resonance Imaging (MRI) scan or Computed Tomography (CT) scan** – These scans give a 3-dimensional picture of your body. Both these scans are painless but may make you feel claustrophobic, as you have to lie still whilst the scanner moves you in and out of a large circular machine. However, the radiology staff will reassure you throughout the procedure.

## What are the risks of lung or pleural biopsy surgery?

Any operation which involves having a general anaesthetic carries with it a risk of complications. Your surgeon will discuss with you the common risks and also any specific risks that relate to you, before you are asked to sign that you are happy to have the operation (give your consent).

Make the most of this opportunity to discuss any questions or worries you might have. You need to feel confident that you understand what the operation involves, as well as the risks, before you sign the consent form.

## Who will look after me during my hospital stay?

You will be under the care of a Consultant Thoracic Surgeon, who is assisted by two other doctors; a Registrar and a Senior House Officer.

**Nursing staff** are all fully qualified and many have specialist cardiothoracic qualifications. This means they specialise in the care and treatment of people with heart and lung problems.

The **Matron** manages the Cardiothoracic Unit. A **Sister** is responsible for the cardiothoracic ward.

**Anaesthetists** are fully qualified doctors who will put you to sleep for your operation. They monitor your condition very carefully throughout your operation and make sure that you have enough pain relief during your recovery period.

**Physiotherapists** will visit you after your operation. They will help you keep your lungs clear and will help to get you moving after your operation. This will speed up your recovery and get you back to a level of activity which allows you to go home.

**Physicians associates** have undertaken specialist training enabling them to work with the medical team, they work under the supervision of a doctor.

**Occupational Therapists** are available to give you advice and information about going back to your daily activities after your surgery. They can also give you some useful items of equipment to use at home, if you need them.

A **Dietitian** is available to give you advice and information on what to eat and drink.

A **Pharmacist** will visit the ward each day to monitor your medication and give you advice on your medicines.

## **What happens on the day of my operation?**

When you come to the pre-admission clinic, the nurse will give you instructions about when you should stop eating and drinking before your operation. You will also be given an antiseptic lotion, mouthwash and nasal cream and instructions on how to use them before your admission. You will be told what time to arrive at theatre direct admissions (TDA) on the day of surgery.

When you arrive, you will be asked to change into a clean hospital gown and you will be fitted with surgical stockings. These will help prevent blood clots forming during the operation.

## **Before the operation**

The nurse or operating department practitioner (ODP) will check some important details with you such as your name, date of birth, and any allergies you may have. They will also confirm that you have signed your consent form.

When it is time for your operation you will be taken to the anaesthetic room. We will help you to move onto a trolley and the nurses will then connect you to heart and pulse monitors. Your anaesthetist will insert a small needle in your arm to give you drugs to make you go to sleep.

Throughout the operation the anaesthetist will be looking after you and will give you medication to keep you asleep and relieve pain.

## **What happens after my operation?**

When the operation is over you will be woken up. You will be transferred to the recovery ward where specially trained nurses will look after you, make sure you have good pain relief and that you are breathing well. You will be given oxygen through a face mask to help you recover.

Once the medical team and recovery nurses are happy that you have made a good recovery from your anaesthetic you will be transferred to the cardiothoracic ward (CTW).

## **Pain relief**

We will give you pain medication tablets every four to six hours. Your nurse will assess your pain with you using a scale of 0 to 3 [0=no pain, 3=severe pain]. It is important that you are comfortable enough to take a deep breath and cough. Please tell us if you start to feel any pain so we can make changes to your medication if needed.

Throughout your recovery an anaesthetist will be available to give you advice about pain, sickness or any other problems that may arise.



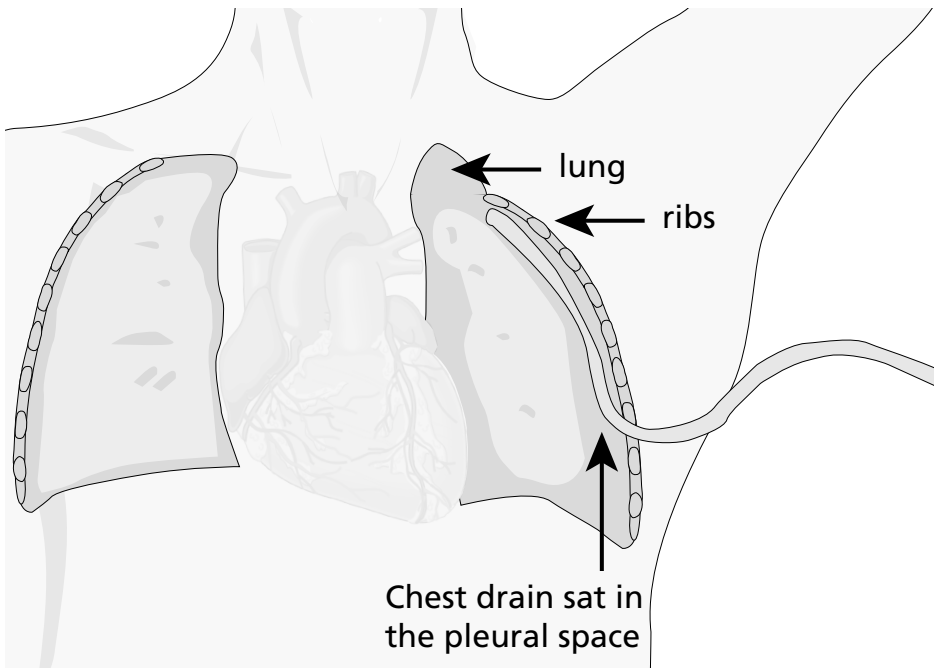
## Chest drains

Chest drains are sometimes necessary after a lung or pleural biopsy. Their job is to remove any fluid and air which can collect in the chest cavity.

The drain is a one way system that draws fluid and air out, and stops it from going back into the chest. The chest drain is a tube with one end in your chest cavity and the other attached to a chest drain pump. The tube is held in place by a stitch. The drain pump controls the amount of suction applied to the drain and measures how much air is leaking out. The amount of suction applied to your chest drains may be changed as you recover from your operation.

You can help to open your lungs back up by moving or walking around and by deep breathing and coughing.

Chest drains are usually removed when the doctors are happy that they are no longer required.



## How do I look after my chest drains?

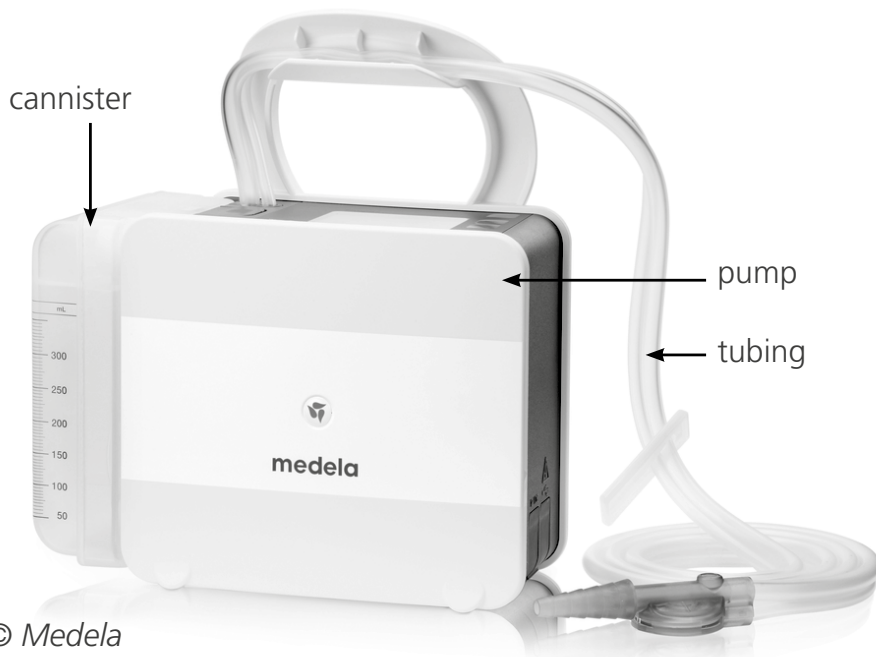
Try not to pull on the tubing as this may cause pain or discomfort. Try to avoid bending and folding the tubing, as this slows down drainage.

If the tubing comes out of your body or off the pump, ask for help immediately. Your nurse will need to reconnect the tubing to the pump.

If the tube comes out of your body we will close the hole with a stitch and then assess you to see whether you need to have another drain put in. However, the drain is stitched in place so this is very unlikely to happen.

If the drain either comes off the pump or out of your chest, you may need a chest X-ray. This is to check the drains are working correctly.

### *Drain pump*



## **Exercise**

Exercise is a vital part of your preparation for surgery and your recovery afterwards.

When you have had lung surgery you need to work hard to help your lungs re-expand and recover from the operation. Exercise and physiotherapy is the only way to do this. This will be hard at first as you will feel breathless and tired, but will become easier as you recover. Exercise can help with breathing and pain, so is a vital part of your recovery.

You should try to exercise 2-3 times a day for about 10 minutes or until you feel out of breath.

Every day we have a set quiet time between 1-3pm. Please take advantage of this and have a rest on your bed, as you may feel more tired as usual.

## **What can I eat?**

You will need more calories (energy) from your diet to help your body heal and regain strength. It is common after an operation to lose your appetite and you may not wish to eat large meals. Most people find that eating 'little and often' is best.

Your nurse can give you high calorie drinks to supplement your meals if necessary.

For more expert advice we can refer you to our dietitian.

## **When will I be able to go home?**

You will be discharged from hospital when we are happy that you are recovering well. This is often after the chest drains are removed.

If you are making good progress but your chest drain needs to stay in, we can attach a drain that is safe for use outside the hospital. We can then discharge you home. We will give you specific instructions and training on the care of the drain. You will have an appointment to see the Advanced Nurse Practitioner in Thoracic Surgery at the chest drain clinic after you return home.

When you return home you must make sure there is someone responsible with you for the first few days, to look after you. If you live alone you could arrange to stay with a relative. If this is not possible, please tell us when you come to the pre-admission clinic so that arrangements can be made to give you some help at home.

Please arrange for someone to collect you from hospital and take you home. You will need to go home in either a car or taxi. This will be more comfortable for you, and also quicker for you to return to the hospital if there are any complications on the journey home.

### **When you leave the ward we will give you:**

- a supply of medication, which your nurse will explain to you, and a written plan of when to take your tablets
- a letter for your GP
- an appointment for stitch removal/wound check and letter for the practice nurse at your GP surgery.

You may be told about your follow-up appointment before you go home, but a date will also be sent to you in the post. This may be with the surgeon or with the doctor who referred you for the biopsy.

## **Signs and symptoms to look out for**

If you have any of the following problems please see your GP or contact the Advanced Nurse Practitioner (contact details are at the end of the leaflet):

- continued problems with constipation despite taking regular laxatives and eating a high fibre diet
- an increase in the amount of pain you have, despite taking regular painkillers
- your wound becoming redder than before, swollen, warm to touch or leaking fluid
- any part of your wound coming apart
- your breathlessness becoming worse and you or your family are concerned.

## Contacts

If you have any question or concerns please contact one of the numbers below:

### **Advanced Nurse Practitioner, Thoracic Surgery**

Tel: **01865 572 653**

Tel: **01865 741 166** and ask for bleep 1184 (if urgent)

### **Macmillan Advanced Nurse and Therapist Practitioners**

Tel: **01865 223 874**

Tel **01865 741 166** and ask for bleep 8113 (if urgent)

### **Cardiothoracic Ward**

Tel: **01865 572 662**

Co-ordinator

Tel: **01865 741 166** and ask for bleep 1971



## 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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Oxford University Hospitals NHS Foundation Trust

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