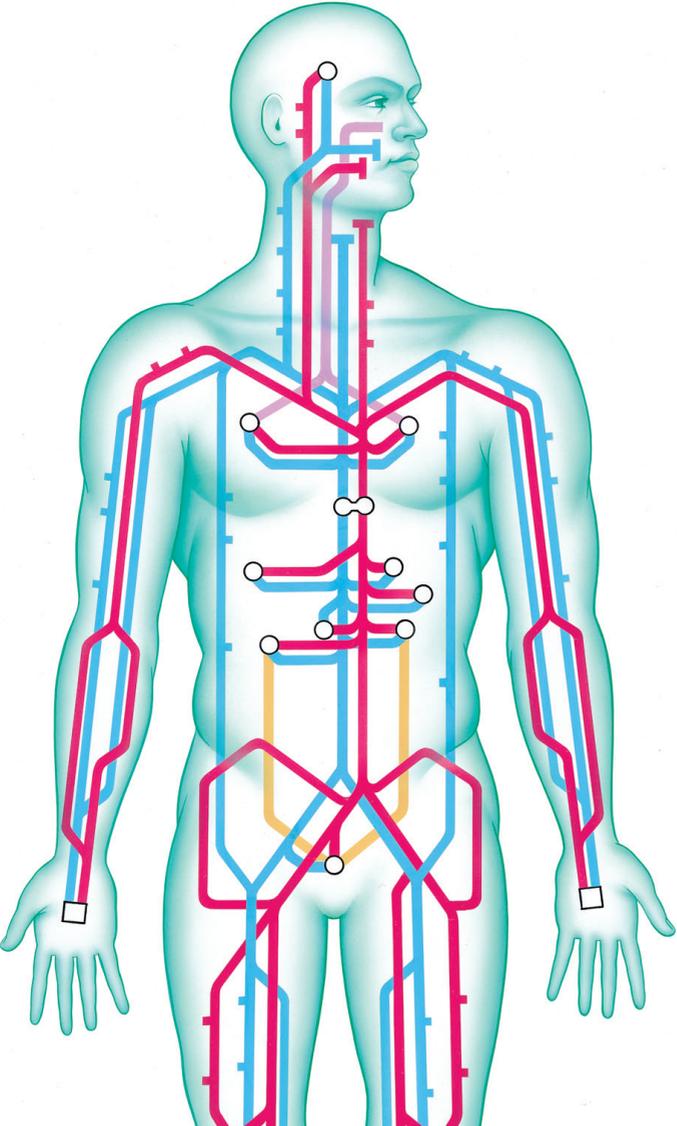


PERCUTANEOUS LUNG BIOPSY



**MEDICAL IMAGING**  
*INFORMATION FOR PATIENTS*

## **Introduction**

This booklet tells you about the procedure known as percutaneous lung biopsy, explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussion.

If you are having the biopsy done as a pre-planned procedure, you should have plenty of time to discuss the matter with your consultant and the radiologist who will be doing the biopsy, and perhaps even your own GP. If you need the biopsy done as a relative emergency, there may be less time for discussion, but nevertheless you should have had sufficient explanation before you sign the consent form to the procedure.

## **What is a percutaneous biopsy?**

Percutaneous (this word means 'through the skin') biopsy is a procedure whereby a small piece of tissue is taken out of your body, by means of a needle, using only a tiny incision, so that it can be examined under a microscope. This examination is done by a pathologist, who is an expert in making diagnoses from tissue samples.

## **Why do I need a percutaneous biopsy?**

Other tests that you have probably had performed, such as an ultrasound scan or a CT scan, will have shown that there is an area of abnormal tissue inside your body. It is not always possible to say from these scans what the abnormality is due to, and the simplest way of finding out is by taking a tiny piece of the tissue away for a pathologist to examine.

## **Who has made the decision?**

The consultant in charge of your case and the radiologist who will be doing the biopsy will have discussed the matter, and feel that this is the best thing to do. However, you will have the opportunity to have your opinion taken into account and if, after discussion with your doctors, you do not want the procedure carried out, then you can decide against it.

## **Who will be doing the percutaneous biopsy?**

A specially-trained doctor called a Radiologist. Radiologists have special expertise in the use of X-ray equipment and also in interpreting the images produced. They need to look at these images while carrying out the biopsy.

### **Where will the biopsy take place?**

Usually in the X-ray department, either in the CT scanning room, or else in a 'special procedures' room, using an ultrasound machine. Occasionally, biopsies are performed using an ordinary X-ray machine.

### **How do I prepare for a percutaneous biopsy?**

You will need to be an inpatient in the hospital. You will probably have had some blood tests done as an outpatient or on the ward, to check that you do not have an increased risk of bleeding. You will be asked to put on a hospital gown.

If you have any allergies, you must let your doctor know. If you have previously reacted to intravenous contrast medium (the dye used for kidney X-rays and CT scans), you must also tell your doctor about this.

### **What actually happens during a percutaneous biopsy?**

You will lie on your bed or on the scanning table, in the position that the radiologist has decided is most suitable. You may need to have a needle put into a vein in your arm, so that the radiologist can give you a sedative or painkillers.

The radiologist will keep everything as sterile as possible, and may wear operating gloves. Your skin will be cleaned with an antiseptic solution, and you may have some of your body covered with a theatre towel. The radiographer will use the CT scanner or ultrasound machine to decide on the most suitable point for inserting the biopsy needle. Then your skin will be anaesthetised with local anaesthetic and the biopsy needle will be inserted into the abnormal tissue.

While the first part of the procedure may seem to take some time, actually doing the biopsy does not take very long at all, and the needle may be in and out so quickly that you barely notice it.

### **Will it hurt?**

When the local anaesthetic is injected, it will sting at first, but this soon wears off and the skin and deeper tissues should then feel numb. Later, you may be aware of the needle passing into your body which can feel unusual or uncomfortable. There will be a nurse or another member of the clinical staff standing next to you and looking after you. If the procedure does become painful, they will be able to arrange for you to have some painkillers through the needle in your arm.

### How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. Normally, the procedure will be over in about 30 minutes, but you may be in the X-ray department for about an hour altogether.

### What happens afterwards?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. You will normally stay in bed for a few hours, until you have recovered. If you have had a lung biopsy, you may have a chest X-ray performed at some stage.

### What happens next?

All being well, you will be allowed home either on the same day, or perhaps the next. Do not expect to get the result of the biopsy before you leave, as it always takes a few days for the pathologist to do all the necessary tests on the biopsy specimen.

### Are there any risks or complications?

Percutaneous biopsy is a very safe procedure, but there are some risks and complications that can arise.

If you are having a lung biopsy, it is possible for air to enter the space around the lung, resulting in a partial collapse of the lung (Pneumothorax). This usually does not cause a major problem and the lung heals itself but if it should cause the lung to collapse completely, we may need to consider measures to re-expand the lung, either by means of a needle or a small tube, inserted through the skin. Occasionally there may be a slight bleed in the lung causing you to cough up blood, this usually heals itself. Unfortunately, not all biopsies are successful. This may be because, despite taking every possible care, the piece of tissue that has been obtained is normal tissue, rather than abnormal. Alternatively, although a piece of abnormal tissue has been successfully obtained, it may not be large enough to enable the pathologist to make a definite diagnosis.

Despite these possible complications, percutaneous biopsy is normally considered very safe, and is designed to save you from having a bigger procedure.

## Finally...

Some of your questions should have been answered by this booklet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you.

Do please satisfy yourself that you have received enough information about the procedure, before you sign the consent form.

Percutaneous biopsy is considered a very safe procedure, designed to save you having a larger operation. As with all operative procedures, some slight risks and complications are involved, and although it is difficult to say exactly how often these occur, they are normally minor in nature and happen only rarely.

If you require any further information about your procedure please contact (01302) 366666 and ask for bleep 1495.

