

Information about having a
Percutaneous Lung Biopsy

What is a Percutaneous Lung Biopsy?

Percutaneous means 'through the skin'. A biopsy is a means of taking a small piece of tissue out of the body through a small puncture site.

A special needle is put in through the skin over the lung to remove the small piece of tissue. The examination of a sample of lung tissue under the microscope will assist your doctor in making a diagnosis.

Who will do it?

A specially trained doctor called a Radiologist will take the tissue sample.

Where will it be done?

Usually in the X-ray department – in the CT room.

When can I discuss the procedure?

You can discuss this with your ward doctor, at the clinic, and with the Radiologist before the procedure.

Consent

We will ask you to sign a consent form before the procedure. Please make sure that you ask any questions you may have. This is to make sure you know what we plan to do, other treatments, and any risks or complication of the procedure. Then we will ask you to sign the consent form.

What preparation is required before procedure?

Routine blood tests will be taken. You will not be allowed to eat for 4 hours before the procedure but you may be allowed to drink small amounts of water. You will be required to wear a hospital gown.

What happens during the procedure?

You will lie down on the X-ray table on either your back or your stomach, depending on the area of the lung to be biopsied. As this is a sterile procedure, the radiologist will clean the skin with antiseptic and inject local anaesthetic. This will sting briefly before the tissues go numb. A small incision (cut) will be made and a biopsy needle inserted to take a tissue sample.

The radiologist will use the X-ray equipment to guide the needle to the exact position for biopsy. Therefore you may require to go through the CT scanner several times.

Will I have any discomfort?

Some people feel momentary discomfort as the needle enters the lung.

You may also feel slight discomfort after the biopsy has been taken. This is common and you will be offered painkillers to relieve this discomfort. Do let the nursing staff on the ward know.

How long will it take?

This can vary for a number of reasons however expect to be in the X-ray department for about one hour. Removing the tissue sample takes only a few minutes.

What happens afterwards?

You may return to the ward or you may remain in the X-ray department. Your pulse and blood pressure will be monitored regularly. Sometimes another chest X-ray is taken after a few hours.

Are there any risks?

Percutaneous lung biopsy is a safe procedure but as with any medical treatment some risks and complication can arise.

Occasionally, the lung can collapse (pneumothorax). A small pneumothorax can resolve itself; a larger pneumothorax may require a chest drain and admission to hospital.

Sometimes patients may cough up blood. This happens in about 1 in 10 cases. This usually settles, however a larger bleed (rare) may require another radiological procedure or surgery and may mean you have to stay in hospital.

There is a small risk of death from a lung biopsy, occurring in 1 out of 667 (0.15%) cases (British Thoracic Society, 2003). Over the past five years, Glasgow has experienced one such critical incident with this technique.