



Diagnostic Imaging

Percutaneous CT Guided Lung Biopsy

What is a Percutaneous CT Guided Lung Biopsy?

'Percutaneous' means through the skin.

A 'Biopsy' is the method of taking a small piece of tissue out of the body using only a tiny incision (or cut) using a special needle. A pathologist, an expert in examining tissue samples, can then look at it under a microscope.

Why do I need a lung biopsy?

You may have had an x-ray, ultrasound scan, MRI or a CT scan which will have shown that there is an area of abnormal tissue within your lung or the surrounding tissues. It is not always possible to determine the cause of these abnormalities on scans alone. The simplest way to make a diagnosis is to take a tissue sample for a pathologist to examine.

Who has made the decision?

The Consultant in charge of your case and a Radiologist will have discussed your case and feel this is the best way of making the diagnosis and planning your treatment. You will also have the opportunity to ask questions and if, after discussion with your doctors, you do not want the procedure carried out, you can decide against it.

Who will be performing the lung biopsy?

A doctor called a Radiologist who has been specially trained in using x-ray and scanning equipment to place the biopsy needle accurately into the abnormal tissue will perform the biopsy, assisted by a radiographer and an assistant.

Where will the biopsy take place?

In the x-ray department in the CT scanning room.

Is there any preparation?

Your referring consultant should have advised you to stop taking Aspirin, Clopidogrel and Warfarin or other blood thinning drugs, before the biopsy, even if you are normally prescribed them. These types of drugs affect blood clotting and you will require blood tests prior to the biopsy.

Please contact the Radiology Nurses for further advice if you have NOT been instructed to do so.

Let your doctor know if you have any allergies. If you have previously reacted to intravenous contrast medium, the dye used for kidney x-rays and CT scanning, you must tell us.

Special instructions before the procedure

You may have a light meal four hours before the procedure and drink clear fluid up to 2 hours before the procedure.

Clear fluid = water, clear squash/apple juice, black tea/coffee, clear herbal teas.

You should continue to take your regular medication as usual **EXCEPT** Warfarin, Aspirin and Clopidogrel or other blood thinning drugs. If you have stopped drinking prior to the biopsy, you should take your medication with small sips of water.

What happens during the biopsy?

You will be asked to change into an x-ray gown. The radiologist will explain the procedure to you before asking you to sign the consent form. You may then be attached to a monitor to record your blood pressure, pulse etc.

You will be asked to lie on an x-ray table. We will then scan you to find the best position for the biopsy. The radiologist will clean the skin with antiseptic to help avoid infection. We will keep everything as sterile as possible; you may have part of your body covered with a sterile towel. The skin and deeper tissues will be anaesthetised with a local anaesthetic; this will sting briefly before the tissues go numb. The Radiologist will make a tiny cut, and then insert the biopsy needle. We will continue to scan you to ensure that we have achieved the best position before taking some samples of the abnormal tissue. A small plaster will be placed over the biopsy site at the end.

How long will it take?

Every patient's situation is different, and it is not always easy to predict how difficult the procedure will be. The biopsy may take about 30 minutes.

What happens afterwards?

You will be taken to your ward on a bed or trolley. Nursing staff will monitor your blood pressure, pulse, wound site etc. You will generally stay in bed for a few hours, until you have recovered.

If you are well enough, you may be allowed home later that day, or you may need to stay overnight.

You must:

- Have a responsible adult to collect you, as you cannot drive home or travel on public transport
- Have someone to stay with you for the first night just in case your wound bleeds or you feel unwell
- Have access to a telephone.

After care advice:

- The next day you may have a bath or shower, removing any plasters
- Refrain from work, exercise or heavy lifting for TWO days following your biopsy.

Please contact your GP (Home Doctor) if:

- There is any unusual redness, swelling or bleeding at the biopsy site
- Your temperature is 38° (100.4F) or greater
- You experience difficulty in breathing
- You start to bring up blood whilst coughing
- You experience pain that is not relieved with Paracetamol.

Follow-Up

You will not get the results of your biopsy before you leave as it takes a few days to do all the necessary tests on the biopsy specimen. Your referring consultant or a member of their team will see you in clinic approximately two to four weeks after the procedure.

What are the risks and complications?

Normally a percutaneous lung biopsy is a safe procedure, but there are some risks and complications which can arise as with any medical treatment.

There is usually a very little bleeding, which stops quickly. Bleeding internally into the lung can occur and may result in you coughing up blood-stained sputum. It is possible that air can get into the space around the lung. This generally does not cause any real problems, but if it causes the lung to collapse and makes you short of breath, the air will need to be drained, either with a small needle or a drainage tube.

The most usual complication is pain after the procedure as described earlier, which may take several hours to settle.

Occasionally, despite taking every possible care, the piece of tissue obtained is not from the affected area, or it may not be enough for the Pathologist to make a definite diagnosis. In these cases, it may be necessary to do another biopsy.

Finally

We hope that you have found this leaflet useful. If you have any questions or are worried about anything, please contact your family doctor (GP) or:

Radiology Sister (01305) 255276

Make sure that you are satisfied you have received enough information about the procedure before you sign the consent form.

About this leaflet:

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If you have feedback regarding the accuracy of the information contained in this leaflet, or if you would like a list of references used to develop this leaflet, please email pals@dchft.nhs.uk



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Information Leaflet: Percutaneous CT Guided Lung Biopsy

Getting feedback from our patients is important. Your answers can help us to monitor the information we give you, to ensure it always meets a high and consistent standard.

Could you please take a few moments to complete this form; all responses are in confidence. Thank you; your time is very much appreciated.

Did you find this booklet useful?

Yes ☐No ☐

Did it contain the type of information you wanted?

Yes ☐No ☐

Would you have liked more or less information?

Yes ☐

No ☐

Is there anything else you would like to know?

Yes ☐No ☐

If yes, please tell us:

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Your comments:

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Please return this completed form to:

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