

Department of Radiology

Why do we recommend that you have a lung biopsy?

Tests show that there is a problem with your lungs. Your Consultant has asked us to perform a biopsy of the abnormal area. This is the best way to obtain a diagnosis in your particular case, as we can take a small sample which can be analysed under the microscope by a pathologist. The best treatment can then be arranged.

What happens before the biopsy?

- **If you are on any treatment to “thin the blood” it is very important to let us know.** This treatment must be stopped temporarily so that we can perform the biopsy safely.
- You should let us know if you are taking any treatment for diabetes.
- Most other medicines and tablets can be taken normally.
- You will have a blood test to make sure your blood clots normally.
- You may have a light breakfast before the biopsy – some tea and toast for example.
- You should be able to go home later the same day, but you should bring an overnight bag, in case you have to stay in hospital afterwards.
 - If you are a female aged between 12 and 55, your procedure should be carried out within the first 10 days after your period starts. If this appointment falls outside the first 10 days, please contact our office on 01603 286081 to re-arrange your appointment. However, if you have an IUCD (coil) fitted, or have been on the contraceptive pill for three months you can ignore this advice.

What does the biopsy involve?

- Your biopsy will be performed by a Radiologist.
- The Radiologist will determine the best approach using a CT or ultrasound machine for guidance.
- You may be asked to lie on your front or back, depending on the site of the abnormality. The skin is cleaned with antiseptic and local anaesthetic is then injected into the skin. This usually stings for a minute or two before the skin goes numb. A small needle is then passed through this numb patch into the abnormal area and small samples of tissue are taken.
- Sometimes it is necessary to perform the biopsy two or three times to obtain enough tissue. Sometimes it is painful as the needle goes through the layer around the lung (pleura) - this usually wears off quite quickly. You may have some pain or dull ache after the local anaesthetic has worn off. This is easily controlled with simple painkillers (e.g., paracetamol).

- The whole procedure will take between 20 and 45 minutes, but the actual biopsy takes only a minute or two.

What are the risks of having a lung biopsy?

Mild complications

It is common to have a bruise up to the size of a 50p around the needle biopsy site; this will disappear naturally within 2/3 days. The plaster can be removed after 24 hours.

More serious complications

A puncture of the lung resulting in a small air leak (or pneumothorax) can occur when biopsies are taken. This can cause a sharp pain in the chest and some breathlessness. The risk of this is about 1 in 3 patients. However, in most cases the air leak is very minor and heals up itself without the need for further intervention. Occasionally, (around 1 in 20 procedures) a larger pneumothorax occurs and you may need to stay in hospital and have a chest drain (a thin tube) inserted in between two ribs under local anaesthetic to remove any air leaking from the lung.

Slight bleeding may occur from the lung when biopsies are taken. Some people cough up a little blood during or shortly after the procedure.

Very serious complications

Internal bleeding requiring an operation to stop it is very rare (1 in 1000 procedures). Very rarely air can leak into the blood circulation following a lung needle biopsy, a complication called "air-embolism". If this occurs it can cause chest pain or serious problems like a heart attack, stroke, or even death. The risk of this complication occurring is 1 in 3,000 procedures.

Death as a result of the procedure is extremely uncommon. The risk of this complication occurring is one in 5000 procedures.

Is the biopsy always successful?

In more than 90% of cases, enough tissue is obtained. Sometimes the doctor analysing the tissue (Pathologist) may find it difficult to make a precise diagnosis on the small sample of tissue.

What happens after the biopsy?

- We will check your pulse and blood pressure and perform a chest X-ray about 2 hours after the procedure. If the chest X-ray does not show any significant complication and you are feeling well, then you can go home.
- Someone else should drive you home. You should be able to drive again the next day.
- There should be someone to stay with you overnight.
- It is rare to have any delayed side effects after the biopsy, but if you suddenly become short of breath or develop severe chest pain you should contact the nursing station on Hethel Ward; Telephone number: 01603 286449.
- You can usually go back to work the day after the biopsy.

- We do not advise you to fly in an aircraft for 6 weeks after the biopsy.
- The results of your biopsy will usually be sent to your hospital consultant within 7 days.

Accessing Radiology:

How to find us:	<p>To access Radiology for your appointment, please follow sign to the Urgent Care Centre/Minors (Emergency Department) in front of Carpark G. On entering, turn immediately left and follow signs to the CT/MR Reception. Please note the change in location, which is likely to be different from your previous visits to Radiology.</p> <p>You can find more information at: www.nnuh.nhs.uk</p>
Hospital transport:	If you are eligible for hospital transport, please telephone 0333 240 4100
Contact details:	<p>Telephone: 01603 286081 Monday to Friday 9am – 4pm Email: nnu-tr.ct@nhs.net Website: http://www.nnuh.nhs.uk/departments/radiology-nnuh</p>