

Your guide to having a Chest Biopsy in the Radiology Department

Information for patients requiring a chest biopsy.

This information leaflet has been produced to give you general information, and hopes to answer most of your questions when requiring a chest biopsy. It is not intended to replace the discussion between you and your healthcare team, but may act as a starting point for discussion. If after reading it you have concerns or require further explanation, please discuss this with a member of the healthcare team.

Why do I need a chest biopsy and what does it involve?

Your previous x-ray or scan has shown a shadow or a lump that needs further investigation.

A chest biopsy involves taking a small piece of tissue, or a sample of cells, from the abnormal area. The sample may be taken from the lung, from the pleura (tissue surrounding the lungs), or from the lymph nodes that sit between the lungs.

The sample will be examined by a specialist under the microscope in the pathology laboratory. The result will help to make a diagnosis and then plan your treatment. It takes up to 7 days for the result to be available.

What will happen before the test?

The doctor will explain why the biopsy is needed, explain the procedure and any possible risks, and then ask you to sign a consent form. A blood test will be taken to check that your blood is clotting normally.

The doctor will also mention other tests that might be suitable for you, depending on your general fitness, what other tests you have already had, and the exact location of the abnormality in the chest.

This could mean a bronchoscopy (flexible tube passed into the lungs through the nose or mouth) or referral to a chest surgeon (so that a piece of the tissue can be removed in an operation under general anaesthetic).

On the day of your biopsy you will be admitted to hospital.

You may eat and drink as normal.

A small plastic tube (cannula) will be put into a vein in your hand or arm in case we need to give you any medication during the process of taking the biopsy.

What about my tablets and medicines?

Most medicines can be taken as normal.

Please contact the radiology pre-assessment nurses on the telephone number shown at the end of this leaflet if you have any of the following.

If you take treatment for diabetes (tablets or insulin).

If you take tablets that affect blood clotting (aspirin, clopidogrel, dabigatran, dipyridamole, or warfarin).

If you have any allergies.

How will the biopsy be done?

The biopsy is performed in the radiology department by a specialist called a radiologist.

There will be a qualified radiology nurse to support you throughout the procedure.

You will be asked to lie in a suitable comfortable position.

You will be scanned with ultrasound or CT to find the best site to take the biopsy.

An injection of local anaesthetic will numb or freeze the area.

The radiologist will pass a needle through the skin, check with a scan that it is in the right place, and then use the needle to get a sample of cells or a small piece of tissue. It may be necessary to pass the needle more than once to be certain of getting a good sample.

It is important to listen carefully to the instructions that the radiologist gives you, especially about when to hold your breath. It is important that the radiologist has your full co-operation throughout the test.

After the procedure you will need to rest in bed on the ward for two to four hours. The nurses on the ward will regularly check your blood pressure and pulse.

How long will I be in hospital?

Most patients go home the same day. You will need to have someone with you overnight after the procedure. If there are complications, you may be asked to stay in hospital overnight.

Is there a risk in having this biopsy?

There are risks with tests of this kind, but serious complications are rare.

Pneumothorax is a leak of air into the space around the lung, causing the lung to partially collapse. This is common (about 1 in 5) and in most cases does not cause a problem. Less often (about 1 in 20) the air leak is large enough to make you feel short of breath, and then a small tube has to be inserted between the ribs, to allow the air to drain.

Bleeding into the lung could cause you to cough up blood (about 1 in 20). Bleeding into the space around the lung is less common (about 1 in 70). Serious bleeding is uncommon and a blood transfusion is needed rarely.

There is a small chance of fatal complications such as severe bleeding or cardiac arrest (about 1 in 700).

There is a very small chance that air bubbles could enter the circulation and cause a stroke or a heart attack (about 1 in 3500).

There is a very small chance that the needle could spread tumour cells into the chest wall (for lung tumours, about 1 in 8000).

You may have a chest x-ray taken about one to two hours after the biopsy, to check for complications. The radiologist will let you know if this is needed after your biopsy.

Is the procedure painful?

Local anaesthetic is usually effective in numbing the area.

If you do feel pain during the procedure, then tell the radiologist or radiology nurse. The radiologist can then consider altering the position of the needle, if it seems that the needle has touched a rib or a nerve. The radiologist will also check whether the needle has caused a pneumothorax (air leak). In most cases, a little more local anaesthetic is all that is needed for the procedure to continue smoothly.

After the procedure, the numbness from the local anaesthetic will wear off by about two hours. Some patients feel mild pain at this time, and may need a painkiller like paracetamol. Moderate or severe pain would be unusual, and you should tell the ward nurse if you have concerns, because there might be a complication such as pneumothorax (air leak).

What happens if the test is unsuccessful?

Sometimes it is not possible to obtain a tissue sample due to one or more of the following reasons. The needle could cause a complication before taking the tissue sample. Some patients find it difficult to keep still in the required position or to follow the breathing instructions. Sometimes a rib or a shoulder blade simply gets in the way.

Sometimes the tissue sample is not sufficient for a reliable diagnosis.

In such cases, your consultant will contact you to discuss other options.

What happens if I become unwell after leaving hospital?

Complications are rare after leaving hospital, but can happen up to 48 hours after the procedure.

Watch out for symptoms such as chest pain, shortness of breath, or bleeding.

If you become unwell or have concerns, then call for an emergency ambulance to bring you back to hospital.

Can I drive after the biopsy?

Someone else must drive you home after the test. You will be able to drive the next day if you feel well.

When can I go back to work?

You should be able to go back to work the day after the biopsy, but if you have concerns about this then please discuss with your consultant.

How soon after the biopsy can I fly?

You should not fly for six weeks because there is still small risk of developing a pneumothorax (air leak) at lower atmospheric pressure.

When will I get the test results?

Every effort will be made to give you an appointment to return for your results before you leave the hospital. This will usually be about a week after the biopsy.

What if I have any further questions?

Having tests and investigations can cause a lot of worry and anxiety.

Remember that your doctors and nurses are here to help you.

If you have any special needs or questions or concerns, don't be afraid to get in touch.

Lung cancer nurse specialists can be contacted on 0191 445 2881 Mon-Fri 9am to 5pm

Radiology pre-assessment nurses can be contacted on 0191 445 3260 Mon-Fri 9am to 5pm

Data Protection

Any personal information is kept confidential. There may be occasions where your information needs to be shared with other care professionals to ensure you receive the best care possible.

In order to assist us improve the services available your information may be used for clinical audit, research, teaching and anonymised for National NHS Reviews. Further information is available in the leaflet Disclosure of Confidential Information IL137, via Gateshead Health NHS Foundation Trust website or the PALS Service.

This leaflet can be made available in other languages and formats upon request

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