CT-Guided chest biopsy
Information for patients
What is a chest biopsy?

A chest biopsy is a procedure to take a sample of tissue. A CT scan is used to obtain an image of your chest. The image is then used to guide a fine needle to the right place in your chest and collect small pieces of tissue. The tissue is sent to the laboratory to be analysed.

What are the benefits?

Other tests that you may have had, such as a chest x-ray or CT scan, have shown an abnormality in your chest. The doctors looking after you have decided that you should have a lung biopsy in order to help them to diagnose your condition and to decide on the most suitable treatment for you.

What are the risks?

Chest biopsy is generally considered a safe procedure, but there are two small risks.

1. There is a small risk of bleeding and you may even cough up a small quantity of blood; this happens to about 1 patient in 30.

2. Sometimes a small amount of air can get into the space around the lung. It may make it painful to breathe, but generally does not cause any real problems and you will still be able to go home the same day.

Occasionally a larger amount of air can become trapped; this is simply treated by putting a small plastic tube (called a chest drain) into your chest. This allows all the trapped air to escape. If you have this problem you would need to stay overnight in hospital.
Despite these small risks your doctor has decided to refer you for this examination. This is because they feel that the benefits of having the biopsy outweigh the risks of having it done.

The doctor performing the biopsy will discuss the specific risks with you before asking your permission to perform the biopsy.

**Who has made the decision for me to have a biopsy?**

The consultant in charge of your case has referred you to the radiologist.

**Who will be doing the biopsy?**

A radiologist will take the biopsy. Radiographers operate the scanner and health care assistants will help both the radiologists and radiographers.

**Can I bring a relative or friend?**

Yes, but for reasons of safety they will not be able to go with you into the CT scan room except in very special circumstances.

**What should I do to prepare for the procedure?**

Please do not eat for 6 hours before your procedure. You may drink water up to 2 hours before your appointment. Unless we tell you otherwise, continue to take your regular medication as usual, with a small amount of water.
What does the procedure involve?

When your biopsy is due to start, a member of staff will show you into the scan room where you will meet the doctor. The doctor will explain how the biopsy will be performed and the risks involved. The doctor will then ask you to sign the consent form to give your permission for the biopsy to go ahead.

The doctor will also ask if you will allow the biopsy sample to be stored so that it may be used for research. This may benefit other patients in the future. The biopsy will be performed in the same way whether you answer yes or no. If you have any questions or concerns, please ask the doctor.

We will ask you to change into a hospital gown and to lie on the CT table, either on your front or your back. The doctor will then perform the scan to find the abnormality seen on your chest x-ray.

When the abnormality has been found, the doctor will clean your skin and use a small needle to inject local anaesthetic to numb the area.

During the biopsy procedure the doctor may ask you to hold your breath for a few seconds. If you find this difficult, just do the best you can. Two or three tissue samples will be taken to give the doctors looking at the specimen as much information as possible.

The biopsy procedure takes between 30 minutes to an hour.
Does it hurt?

Most biopsies do not hurt. Some people feel a scratch and stinging sensation when the local anaesthetic is injected, but the skin should then become numb. After this you will be aware of some pushing or sensations of pressure, but not pain. If it is painful more local anaesthetic can be injected.

Your skin will stay numb for between 30 minutes and a few hours. It will then wear off. This can make the area feel you like you have ‘pins and needles’.

What happens after the procedure?

The biopsy site will be ‘dressed’ with a small bandage or plaster. If the puncture site (where the needle was put in) is still bleeding when you take this dressing off, please re-cover it with a plaster.

After the biopsy you will be asked to rest for 4 hours. You will be transferred to a bed and taken to a ward or observation area. It is very important to rest quietly in bed to minimise the risk of a complication.

Over the next 4 hours you will have x-rays taken to check your lungs for any side effects of the biopsy.

If the x-rays show that everything is fine and you feel well, you will then be allowed to go home.
What happens when I go home?

We advise you not to drive after the procedure. A relative or friend should accompany you home and stay with you until the next day.

You should not go home on public transport after this procedure. You will need to be taken home by car or taxi. This will be more comfortable for you and also quicker for you to return to the hospital if there are any complications on the journey home.

When you go home you may eat and drink normally. You should rest until the next day.

We will give you an information sheet to take home with you which explains what to do and who to contact if you have any problems after the procedure.

When do I get the results?

The results of your biopsy will be available a week later and your doctor will see you in clinic with the results.

The biopsy will provide a diagnosis in about 9 out of every 10 patients.
How to contact us

If you have any questions or concerns, please contact the radiology department using the telephone number at the top of your appointment letter.

Further information

More patient information is available on the following websites:

www.impactscan.org/patientguide.htm
www.ouh.nhs.uk
www.nhsdirect.nhs.uk
www.goingfora.com
If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call 01865 221 473 or email PALSJR@ouh.nhs.uk

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Oxford University Hospitals NHS Trust
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www.ouh.nhs.uk/patient-guide/leaflets/library.aspx