



Oxford University Hospitals
NHS Foundation Trust

Ultrasound-guided chest biopsy

Information for patients



What is an ultrasound chest biopsy?

A chest biopsy is a procedure to take a sample of tissue from your chest. A very thin biopsy needle is inserted through your skin to the area where the sample needs to be collected.

The ultrasound scanner is a non-invasive method of producing detailed images of the body, it uses high frequency sound waves which reflect back off your internal organs to make an image of your chest on the screen. The image is then used to guide a fine needle to the right place in your chest and collect small pieces of tissue. The sample or 'biopsy' is sent to the laboratory to be analysed.

What are the benefits?

Other tests that you may have had, such as chest x-rays or CT scans, have shown an abnormality in your chest. The doctors looking after you have decided that you should have a chest biopsy to help them to find out what the abnormality might be and why it is there. They will then be able 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 will 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.

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.

If you are pregnant or suspect that you may be pregnant, you should notify your doctor.

Can I bring a relative or friend?

Yes, but they will usually be asked to wait outside the ultrasound room during the actual procedure.

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 the biopsy procedure, how it 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 may also ask if you would 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 ultrasound bed, either on your front, or your back. The doctor will spread some gel on your skin and use the ultrasound probe 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. This will cause some stinging at first but should not be too uncomfortable.

The biopsy needle will be inserted through your skin into the abnormal area and a sample will be collected.

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 whilst the needle is inserted, to give the doctors looking at the specimen as much information as possible.

The ultrasound and biopsy will generally take approximately 30 minutes, however it does vary and you may be in the Radiology Department for around one hour or more, and you may need to wait both before and after the examination.

Does it hurt?

You will only feel a small scratch or discomfort during the biopsy, usually when the local anaesthetic is injected.

What happens after the procedure?

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 about a week later and your doctor will see you in clinic to tell you what they say.

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 number on your appointment letter.

Further patient information

More patient information is available on the following websites:

www.impactscan.org/patientguide.htm

www.ouh.nhs.uk

www.ouh.nhs.uk/services/departments/radiology

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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October 2024
Review: October 2027
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