

Ultrasound Guided Liver Biopsy

Patient Information



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Please read through this leaflet carefully as soon as possible. Do not leave it to just before your appointment as this may cause problems preparing for your test.

What is a liver biopsy?

A liver biopsy is a procedure to take a small sample of tissue from your liver. It is usually performed as a day case, and we do not routinely admit patients after the procedure.

Why do I need a liver biopsy?

Your doctor will have discussed this with you or written to you about the need for a liver biopsy.

This test may be carried out for several reasons. Common indications include:

- Your symptoms, blood tests and scans (ultrasound, CT or MR scans) suggest you
 have liver disease. However, sometimes it is not possible to tell what the cause is
 based on these tests alone.
- There appears to be a *lump* in your liver which has been seen on previous scans and a sample of tissue is needed to identify what it is.
- To assess the amount of scarring (known as fibrosis) in the liver due to certain diseases.
- To assess the stage or progression of a known liver condition.

By obtaining a sample of the liver tissue, it can be analysed in the pathology laboratory for more information.

Sometimes it is not safe to carry out a liver biopsy if your blood tests show that the blood is too 'thin' or if there is fluid around the liver (ascites). These problems would need to be corrected before a biopsy can be performed and your doctor will advise on how this needs to be done.

What will happen on the day of your test?

A liver biopsy is usually performed on a day case basis. In some circumstances, you may be asked to stay overnight in hospital for observation. When your biopsy is due to start, a member of staff will show you into the ultrasound room where you will meet the doctor. The biopsy is performed by a radiologist (a doctor who specialises in interpreting scans and x-rays).

The doctor will explain the biopsy procedure: 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, which may benefit other patients in the future. The biopsy will be performed in the same way whether you agree to this or not. If you have any questions or concerns, please ask the doctor.

How is the procedure performed?

You will be asked to change into a hospital gown and lie on a bed in the ultrasound room. The doctor will spread some gel on your skin and use the ultrasound probe to decide the best position from which to take the tissue sample. This will usually be on the right hand side of the abdomen and below or between the lower ribs.

The doctor will clean the 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. You are not sedated for the procedure. The biopsy needle will be inserted through the skin into your liver and a sample will be collected. During the biopsy procedure, the doctor may ask you to hold your breath for a few seconds, as the liver moves slightly when you breathe.

Two or three tissue samples may be taken to ensure that the specimens provide as much information as possible.

The biopsy procedure takes approximately 30 minutes.

What are the risks?

The doctor performing the biopsy will discuss the risks with you before asking your permission to perform the biopsy. There is a small (1 in 300) risk that the liver biopsy can cause bleeding, but this is usually self-limiting and very rarely requires blood transfusions. It is possible that the needle can hit other structures in your abdomen, but this risk (1 in 300) is minimised by using the ultrasound to guide the needle. Very rarely, an operation may be needed if this were to occur. Serious complications are rare, and the risk of death is approximately 1 in 10,000.

Are there any alternatives?

There are no good alternatives to liver biopsy in most situations when the diagnosis is not clear. If the only information which is required from the liver biopsy is the amount of scarring in your liver, specific blood tests or a special test known as a Fibroscan can sometimes be performed. However, these tests may be less reliable than a liver biopsy. Your doctor will have considered the possibility of alternatives before suggesting that you have a liver biopsy. If you have any questions regarding this, please discuss them with your doctor.

How do I prepare for the liver biopsy?

If you are taking drugs to "thin" your blood, these will need to be stopped prior to your procedure. If you are taking any of the following tablets, please let your doctor know straight away:

- Warfarin or Acenocoumoral (Sinthrome®)
- Clopidogrel (Plavix®) or Dipyridamole (Persantin® or Asasantin®)
- Ticagrelor (Briliique®) or Prasugrel (Efient®)
- Dabigatran or Pradaxa®, Apixaban or Eliquis®, Rivaroxaban or Xarelto®, Edoxaban or Lixiana®

You will be asked to have some blood tests taken a few days before your procedure.

On the day of your liver biopsy, please do not eat for 4 hours before the procedure. Take any regular medication you may be taking with a small amount of water **except for the drugs mentioned above.**

Does it hurt?

You should only feel minor discomfort during the biopsy. Some people do have some discomfort at the site of the biopsy for the first 24-48 hours after the procedure, but this is usually relieved by simple painkillers such as paracetamol.

What happens after the procedure?

After the biopsy you will be taken on your bed to a ward, usually the Programmed Investigations Unit (PIU). You will be asked to rest in bed for 6 hours and may occasionally be asked to stay overnight on the ward.

The nursing staff looking after you on the ward will regularly check your pulse and blood pressure, and make sure you feel fine. Please ask for painkillers if you experience any pain after the biopsy.

What happens when I go home?

When you go home you may eat and drink normally. We will give you an information sheet to take with you.

If you experience severe pain, fever, nausea, or signs of bleeding, you should seek medical advice immediately. You can contact the PIU during working hours on 01942 822941. Outside these hours, you should attend the nearest Accident & Emergency department.

When will I be told the results?

The samples that are obtained from the liver biopsy are then examined by a pathologist (a doctor who identifies diseases by studying cells and tissues) using a microscope and various special techniques. This may take 2 weeks or more depending on the complexity of the tests required.

The result will then be forwarded to your consultant for review. Your consultant will contact you or arrange to see you in clinic to discuss the findings.

Unfortunately, a liver biopsy may not provide enough information to make a definitive diagnosis every time, but it is successful in about 80 out of 100 patients (80%).

References

Guidelines on the use of liver biopsy in clinical practice from the British Society of Gastroenterology, the Royal College of Radiologists, and the Royal College of Pathology 2020.

Comments, Compliments or Complaints

The Patient Relations/Patient Advice and Liaison Service (PALS) Department provides confidential on the spot advice, information and support to patients, relatives, friends, and carers.

Contact Us

Tel: 01942 822376 (Monday to Friday 9am until 4pm)

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Ask 3 Questions

Become more involved in decisions about your healthcare. You may be asked to make choices about your treatment. To begin with, try to make sure you get the answers to three key questions:

- 1. What are my options?
- 2. What are the positives and negatives of each option for me?
- 3. How do I get support to help me make a decision that is right for me?



How We Use Your Information

For details on how we collect, use, and store the information we hold about you, please see patient information leaflet, Ref. **Corp 006** How we use your information, this can be found on the Patient Information Leaflets page on the Trust website, see details on the front cover.

This leaflet is also available in audio, large print, Braille, and other languages upon request. For more information, please ask in the department/ward.

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