

R05 Liver Biopsy

Expires end of June 2022

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They can offer non-clinical confidential advice and support if you have any concerns.

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What is a liver biopsy?

A liver biopsy involves removing small pieces of tissue from your liver using a needle.

Your doctor has suggested a liver biopsy. However, it is your decision to go ahead with the procedure or not. This document will give you information about the benefits and risks to help you to make an informed decision.

If you have any questions that this document does not answer, it is important that you ask your doctor or the healthcare team. Once all your questions have been answered and you feel ready to go ahead with the procedure, you will be asked to sign the informed consent form. This is the final step in the decision-making process. However, you can still change your mind at any point.

What are the benefits of a liver biopsy?

Your liver carries out many important functions, including producing bile to help you to digest food and cleaning your blood of drugs and chemicals. Your doctor is concerned that there may be a problem with your liver. You will already have had a blood test and a scan. Your doctor will tell you which of the following problems is most likely in your case.

- Inflammation (hepatitis) – This is usually caused by an infection.
- Cirrhosis – A condition where normal liver tissue gets damaged and is replaced by scar tissue.
- A tumour – A liver tumour may be benign (a growth that does not spread to other areas of your body) or a cancer.

The tissue that your doctor removes will be examined under a microscope to help make the diagnosis or help your doctor to recommend the best treatment for you. If a problem is found, the healthcare team will discuss the appropriate treatment with you.

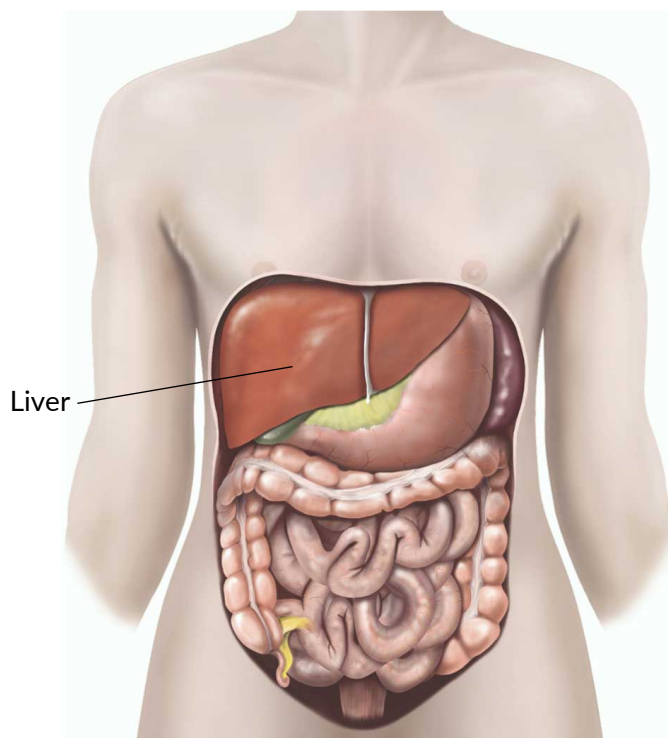
If the biopsy is normal, the healthcare team will reassure you.

Are there any alternatives to a liver biopsy?

A blood test or ultrasound scan may show that you have a problem. Specialised scans can tell your doctor how serious it is. However, a biopsy will help to find out exactly what is causing the problem and will help your doctor to recommend the best treatment for you.

What will happen if I decide not to have a liver biopsy?

Your doctor may not be able to confirm what the problem is or recommend the best treatment for you. If you decide not to have a liver biopsy, you should discuss this carefully with your doctor.



The position of the liver

What does the procedure involve?

Before the procedure

If you are female, the healthcare team may ask you to have a pregnancy test because x-rays may be harmful to unborn babies. Sometimes the test does not show an early-stage pregnancy so let the healthcare team know if you could be pregnant.

The healthcare team will carry out a number of checks to make sure you have the procedure you came in for. You can help by confirming to your doctor and the healthcare team your name and the procedure you are having.

The healthcare team will ask you to sign the consent form once you have read this document and they have answered your questions.

Do not eat in the 2 hours before the procedure. The healthcare team will take a blood sample from you to check that your blood clots normally.

Your doctor may give you antibiotics or other medication. They will discuss this with you.

In the treatment room

A liver biopsy usually takes less than 30 minutes.

Your doctor may offer you a sedative or painkiller which they can give you through a small needle in your arm or the back of your hand. If you have the sedative you will be able to ask and answer questions but you will feel relaxed.

The healthcare team will monitor your oxygen levels and heart rate using a finger or toe clip. If you need oxygen, they will give it to you through a mask or small tube under your nostrils. They will also monitor your blood pressure using a device that is strapped to your arm.

Your doctor will inject local anaesthetic into the area where the needle will be inserted. This stings for a moment but will make the area numb, allowing your doctor to perform the procedure without causing too much discomfort.

The two commonly-used techniques are ultrasound-guided liver biopsy and transjugular liver biopsy.

Ultrasound-guided liver biopsy

Your doctor will ask you to lie on your back, with your right elbow out to the side and your right hand under your head. It is important that you keep as still as possible during the procedure.

Your doctor will make a small cut on the skin on your right side, usually between your lower ribs. They will insert the needle through the cut and into your liver to remove a small piece of tissue. They will often use an ultrasound scan to guide them while they perform the biopsy.

Your doctor will remove the needle and cover the cut with a small plaster.

Transjugular liver biopsy

Your doctor will ask you to lie on your back. It is important that you keep as still as possible during the procedure.

Your doctor will make a small cut on your skin on the right side of your neck and then insert a catheter (tube) into your jugular vein. They will use x-rays to help them guide the tube through your veins.

When the tube reaches your liver, your doctor will pass a needle down the tube and into your liver. They will pass a special liquid through the catheter to check that the needle is in the right position. Your doctor will ask you to hold your breath while they remove a small piece of tissue.

Your doctor will remove the needle and catheter and press gently on the side of your neck to close the cut.

What should I do about my medication?

Make sure your healthcare team knows about all the medication you take and follow their advice. This includes all blood-thinning medication as well as herbal and complementary remedies, dietary supplements, and medication you can buy over the counter.

What complications can happen?

The healthcare team will try to reduce the risk of complications.

Any numbers which relate to risk are from studies of people who have had this procedure. Your doctor may be able to tell you if the risk of a complication is higher or lower for you.

Some complications can be serious and can even cause death (risk: less than 1 in 1,000).

You should ask your doctor if there is anything you do not understand.

The possible complications of a liver biopsy are listed below.

- Bleeding, which usually stops on its own. Sometimes bleeding can be heavy and you may

need a blood transfusion or further treatment (risk: less than 1 in 140 for a blood transfusion).

- Inflammation of the lining of your abdomen (peritonitis), if bile leaks from the biopsy site (risk: less than 1 in 1,000). You may need surgery to stop the leak.
- Making a hole in nearby structures with the needle. This does not usually cause any serious problems but you may need further treatment.
- Allergic reaction to the equipment, materials or medication. The healthcare team is trained to detect and treat any reactions that might happen. Let your doctor know if you have any allergies or if you have reacted to any medication or tests in the past.
- Infection. You may need treatment with antibiotics. Let your doctor know if you get a high temperature or feel unwell.

Covid-19

Coming into hospital increases your risk of catching or passing on Covid-19 (coronavirus) as you will be around more people than usual. This risk increases further if the procedure involves your nose or throat. Practise social distancing, hand washing and wear a face covering when required.

Consequences of this procedure

- Pain. The local anaesthetic and painkillers should help to keep you comfortable. If you have any pain during the procedure, let your doctor know. It is common to have some discomfort or a dull pain in your shoulders and back, which can usually be controlled with simple painkillers such as paracetamol.

How soon will I recover?

After the procedure you will be transferred to the recovery area where you can rest. You will be allowed to eat and drink after about 30 minutes.

You may need to lie on your right side for 2 hours and then flat on your back. This reduces the risk of bleeding from the biopsy site by placing pressure on your liver.

The healthcare team will check you regularly for any signs of bleeding, usually for 6 hours.

You should be able to go home the same day. However, your doctor may recommend that you stay a little longer.

If you had sedation and you do go home the same day:

- a responsible adult should take you home in a car or taxi and stay with you for at least 24 hours;
- you should be near a telephone in case of an emergency;
- do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination; and
- do not sign legal documents or drink alcohol for at least 24 hours.

If possible, make sure you are within an hour's drive of the hospital in case any complications happen.

Ask your healthcare team if you need to do a Covid-19 test when you get home.

If you develop a fever, have difficulty breathing, chills, dizziness, tenderness or severe pain at the site of the biopsy or in your chest, shoulder or stomach, contact the hospital.

If you take blood-thinning medication, your doctor will tell you when you can start taking it again. Do not take aspirin for the first week.

You should be able to return to work the next day unless you are told otherwise. Do not do strenuous exercise for 1 to 2 days.

Results from the biopsy should be available within 1 to 2 weeks. The healthcare team may arrange for you to come back to the clinic for these results. The healthcare team will discuss with you any treatment or follow-up you need.

Lifestyle changes

If you smoke, stopping smoking will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

Summary

A liver biopsy is usually a safe and effective way of finding out if there is a problem with your liver. However, complications can happen. You need to know about them to help you to make an informed decision about the procedure. Knowing about them will also help to detect and treat any problems early.

Keep this information document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatments options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

Acknowledgements

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