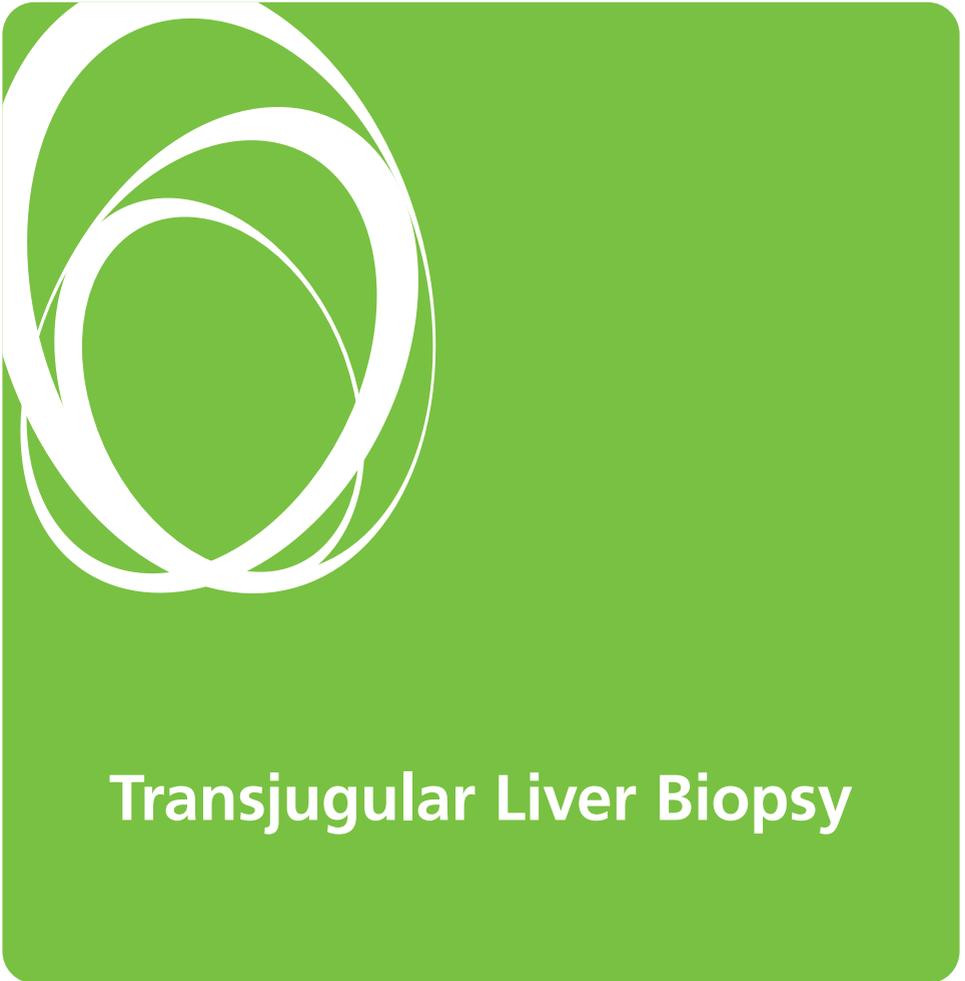




**University Hospitals Birmingham**  
NHS Foundation Trust



# Transjugular Liver Biopsy

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## Introduction, benefits and alternatives

Your doctors would like to take a small piece of your liver tissue (a biopsy) to be examined under the microscope. This is to help them with your diagnosis and treatment. Your doctors will discuss the reason for your liver biopsy with you. Most liver biopsies are taken directly from the liver through the right side, but because of the difficulties with your blood clotting, ascites (fluid in the abdomen) or because of the shape of your liver, a different approach is needed, because the standard method would be more risky than usual.

The transjugular biopsy may be combined with measuring pressures inside the veins or another procedure which requires us to put a tube inside the veins. If that is planned in your case, the other procedures will be discussed with you by the doctors.

The biopsy is performed in the X-ray department by a radiologist (specialist X-ray doctor).

The approach is through a vein in the neck – usually the right side. The radiologist will direct a small tube (a catheter) from here into the veins inside the liver using an X-ray camera.

Generally you will be seen in a pre-screening clinic before the procedure to have your bloods checked, MRSA screening and complete a health screening questionnaire.

## Preparation

After the procedure has been explained and your questions answered, you will be asked to sign a consent form.

Your blood will be tested for clotting and platelet count. If these are very abnormal your doctors may give you a transfusion of platelets or plasma.

You should have nothing to eat for 4 hours prior to the procedure. However, you can drink clear fluids. You will need to check with the nursing or medical staff whether or not to take your medicines. You may be given antibiotics before the procedure to reduce any risk of infection especially if you have ascites (excess fluid) or if you have had a liver transplant. You will need a needle in a vein in your arm if you wish to have sedation. Most people have a small amount of sedation / relaxant for this procedure, but it is not essential for everyone.

As X-rays will be used you will need to inform your doctor if there is any possibility you may be pregnant. Please also tell us if you have any allergies.

## The procedure

You will be taken to the X-ray department and transferred onto the X-ray table. Monitoring wires will be attached to your chest and finger to check on your pulse. If you wish, you may have an injection to relax and sedate you. You will not necessarily go to sleep. You will be given a mask to breathe oxygen.

You will be asked to turn your head slightly to the left. The right side of your neck will be cleaned with antiseptic fluid and will be covered by a sterile towel. The radiologist will do an ultrasound scan of your neck to see the veins before giving you an injection of local anaesthetic in the neck which may sting for a minute or two. The right side is used in most cases but sometimes we have to use the left side if the right jugular vein is blocked or too small.

After the local anaesthetic has been given, a needle and then a small tube will be inserted into the jugular vein and the X-ray camera will be brought over your body. The radiologist will then direct the tube through the veins and the heart into position inside the liver veins and perform the biopsy procedure.

The procedure usually takes between 10–30 minutes. If other tests are being performed, the examination may take longer. You may feel some discomfort in the neck when the tube is inserted and in the abdomen (tummy) when the biopsy is taken.

## After the procedure

All the tubes will be removed and the radiologist or nurse will press on the place where the needle was inserted. You will be taken back to the ward in your bed. You must stay in bed for at least six hours. The nurse will check your pulse and blood pressure regularly while you are on the ward. You can eat and drink normally as soon as you are awake. You may be allowed to go home on the same day if there is someone to take you or you may be asked to stay in hospital at least until the following day. You should not drive or operate machinery within 36 hours of being given sedation. You may have a bruise on the neck. This should heal up within a few days leaving only a very small scar.

If you have any serious pain or any sign of bleeding anywhere after the procedure you should tell the doctor or nurse straight away.

## Liver biopsy report

The liver sample is sent to the laboratory. Your doctors will tell you the findings as soon as they can. Preliminary reports are sometimes available the next day but often the analysis takes a few more days. If required you will be able to come back to the outpatients clinic to discuss your results.

## Risks

We have performed about 50 to 100 transjugular liver biopsies at the Queen Elizabeth Hospital every year, with very few serious problems.

A small bruise in the neck is common but not usually serious. Sometimes if the blood clotting is very abnormal there may be some bleeding from the puncture site. This usually stops easily if the nurse presses on it or applies a pressure bandage.

Any biopsy carries a small risk of bleeding internally. Very rarely there is bleeding from a vein or artery within the neck or chest or from the liver itself as a result of the procedure. This procedure is designed to minimise the risk of bleeding compared to the standard liver biopsy. However, if you have any unexpected pain or signs of bleeding anywhere, please inform the doctor or nurse even if you have already been discharged from the hospital.

Sometimes the tube passing through the heart towards the liver can cause irregular heartbeat. This usually returns to normal within a few seconds.

Any complications that you suffer will be treated quickly and as fully as possible. If there is any serious bleeding then further procedures, blood transfusions or an operation may be advised.

There is a small risk that the biopsy will fail to gain an adequate sample for diagnosis. In some cases a repeat procedure or an alternative procedure can overcome this. If this happens, your doctors will discuss the options with you.

## Contact Numbers

Imaging / Radiology Department	<b>0121 371 4283</b>
Liver Outpatients Department	<b>0121 371 4414</b>
Ambulatory Care	<b>0121 371 3100</b>
Ward 726	<b>0121 371 7303/ 0121 627 7304</b>
Liver Pre-screening	<b>07909 687 519</b>





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