

Having a sample of tissue taken from your liver via the neck (transjugular liver biopsy)

Department of Radiology

Information for Patients

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Introduction

Please read your appointment letter carefully to check which hospital your appointment is at. This leaflet tells you about the procedure. Please read it carefully as it has important information and instructions on how to get ready.

If you are having this procedure as an outpatient you should have been sent 2 appointments with this leaflet.

1st appointment is for a pre-assessment meeting. Please bring a list of your medicines with you to this meeting. At this meeting you will have some tests including an up-to-date blood test. This is so that everything is suitable and ready for your biopsy procedure which you will have on a different day. After reading this leaflet, if you have any questions, write them down to remind you to what to ask when you come to the pre-assessment meeting.

2nd appointment will be on a different day. It is for your biopsy procedure.

What is a transjugular liver biopsy?

Your doctor wants you to have a piece (biopsy) of your liver tissue taken to send to be looked at under a microscope. This is to help them with your diagnosis and treatment. Most liver biopsies are taken directly from the liver with a needle through the skin. In your case, your doctor has decided that a transjugular biopsy is needed. This may be because of the difficulties with blood clotting, fluid in the tummy (abdomen) or because of the shape of your liver.

Transjugular means this is done through the jugular vein in the side of your neck. The doctor will direct a small tube (catheter) from here into the veins inside the liver, guided by an X-ray camera. They will inject a clear liquid that shows up on X-rays (contrast liquid) to take pictures of your liver veins. This is to make sure the biopsy is taken in the right place.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals
To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

Important information about blood thinners

If you are taking medicine that thins the blood (anticoagulants or antiplatelets) it may need to be stopped or replaced with a different one for a few days.

Please call the radiology department for advice as soon as possible. The phone number to call is on your appointment letter and at the end of this leaflet. You will be asked what blood thinning medicine you are taking, how much you take (the dose), and what you are taking it for.

Common examples of these drugs include aspirin, warfarin, clopidogrel (Plavix®), apixiban (Eliquis), edoxaban (Lixiana), rivaroxaban (Xarelto), ticagrelor (Brilinta), dalteparin and heparin. If you are having dalteparin or heparin injections, these will need to be stopped for 24 hours before your procedure.

You may have already been given instructions on blood thinners by the doctor who referred you for this procedure. Please still call the radiology department so we can check this.

How do I get ready for the procedure?

Take all your usual morning medication unless you were asked to stop taking them at your pre-assessment meeting.

Eating and drinking instructions:

6 hours before your procedure:

- **Do not eat (except your medicines) for 6 hours** before the procedure, unless you have been told different. This lowers the risk of you feeling sick (nausea) or being sick (vomiting) during the procedure. It also means it will be safer to give you medicines like sedation and any other treatment that may be needed if you get any complications.
- It is important that you carry on drinking clear fluids until 2 hours before your appointment time. This helps your kidneys to keep working well and helps your recovery after your procedure.

2 hours before your procedure

- **Stop drinking 2 hours** before your procedure. This lowers the risk of you being sick and makes the procedure safer.

When you come for your procedure:

- Bring all your usual medication with you.
- Bring an overnight bag with things like toiletries and slippers. You may wish to bring a book or magazine to read. You will be in the hospital for most of the day and maybe overnight.

When we are ready for you, you will be taken on your hospital bed to the radiology department for your procedure

- A nurse will talk to you and check your details

- Please tell the nurse if:
 - **If you are allergic to iodine or rubber (latex)**, or have any other allergies to anything including medications, skin cleaning liquids or foods
 - If you have asthma
 - **If you have had a reaction in the past to a contrast liquid injected into a vein (intravenous contrast)**, the dye used for kidney X-rays and CT scanning and X-rays of your heart and blood vessels
 - **If you are on kidney (renal) dialysis or have any problems with your kidneys**
 - **If you have diabetes**
 - **If there is any chance that you may be pregnant**
- You will be asked to take off some of your clothes and put on a hospital gown.
- A small needle (cannula) will be put into a vein in you arm so you can be given medication if needed.

Who will be doing the procedure?

- A doctor who specialises in imaging and X-ray treatments (an interventional radiologist) will do the procedure.
- There will be a radiographer who will move and control the special X-ray equipment.
- There will also be a nurse and maybe a healthcare assistant to work with the radiologist and care for you.
- As we are a teaching hospital a student may also be in the room. If you do not want this, you can ask that a student is not in the room when you have your procedure.

Asking for your permission (consent)

The doctor who referred you should have talked to you about the reasons for this procedure and any other options.

You have been referred to a hospital doctor or a doctor who specialises in imaging and X-ray treatments (a radiologist) for this procedure. They will confirm that you understand why the procedure is being done, the potential risks and the chances of success.

You will sign a consent form to confirm this. **You should feel that you have had enough explanation before you sign the consent form.**

If after talking to the hospital doctor or radiologist you do not want to have the procedure then you can decide against it at any time.

If the radiologist feels that your condition has changed they will talk to you about whether the procedure is still needed. They may then ask you to return to your referring doctor for review.

What happens during the procedure?

- The procedure will usually take place in the Radiology Department.
- You will lie flat on your back on the X-ray table.
- Please try not to move during the procedure. If you feel uncomfortable or need help, please tell the nurse so they can help you.
- A blood pressure cuff (strap) will be put on your arm. A small peg will be put on your finger. Some special stickers will be put on your chest or back. These will all be attached to a monitoring machine to check your blood pressure, your heart rate and your heart health.
- You may be given a sedative to help you feel more relaxed. You may also be given painkillers. These are given to you through the cannula in your arm.
- You may be given oxygen. If this happens you will have an oxygen mask or oxygen tube over your nose.
- The radiologist will do an ultrasound scan of your neck to see the veins. The jugular vein on the right side is used in most transjugular liver biopsies cases. Sometimes we have to use the left side if the right jugular vein is blocked or too small.
- The side of your neck will be cleaned with antiseptic fluid. It will be covered by a sterile towel.
- The skin and deeper tissues over the vein will be numbed with local anaesthetic. When the local anaesthetic is injected it will sting to start with, but this soon wears off and the skin and deeper tissues should then feel numb.
- A thin needle will be put into the vein in your neck. The radiologist will use an ultrasound machine to check it is going into the vein.
- The thin needle will be used to help guide a small tube (catheter) about the size of a piece of spaghetti into the neck vein. You may feel some discomfort in your neck when the tube is put in.
- The doctor will inject contrast liquid to show up your veins on the X-ray pictures. You may feel a warm sensation in your body. This is normal and wears off quickly.
- They will then use the X-ray camera to help direct the catheter through your veins into position inside your liver. You may be asked to hold your breath and keep still while X-ray pictures are taken. They will then take a biopsy sample. Up to 3 biopsy samples may be taken.
- You may feel a dull ache in your right shoulder when the catheter is in your liver. This goes away when the catheter is taken out.
- You may feel discomfort or a sharp pinching pain in your tummy (abdomen) when the biopsy is taken. This should only last 1 or 2 seconds.
- If you have too much pain please tell the nurse so they can help and give you more pain killers.
- At the end of the procedure, the catheter will be taken out. The radiologist will press on your neck for 5 to 10 minutes to stop any bleeding.

How long will it take?

The procedure usually takes about 60 minutes (1 hour).

What happens after the procedure and when I go home?

- If you were admitted to a hospital ward before the procedure you will be taken back to the ward in your bed. You must stay in bed for at least 6 hours. Usually, patients stay in hospital overnight until at least the next day.
- If you are having your procedure as a day-case you will stay in the bed in the radiology department for most of the day. You can go home when the doctor and nurses are sure you are well enough. **You will need a responsible adult to drive you back home and stay with you for the next 24 hours.**
- The nurse will check your pulse and blood pressure regularly. They may also check your temperature. This is to make sure there are no problems.
- You can eat and drink normally after 2 hours as long as you are fully recovered from the sedative.
- You will have a small puncture wound and may have a bruise on your neck. This should heal within a few days leaving only a very small mark.
- **Do not lift heavy items or do any strenuous exercise for 2 days (48 hours).**

What should I do if my neck starts bleeding?

- The small needle puncture site in your neck usually stops bleeding as soon as you sit up after the procedure.
- If you have any serious pain or any sign of bleeding anywhere after the procedure, please tell the doctor or nurse straight away.
- It is unusual for your wound to start bleeding again. If it does, press on the wound firmly and call for medical help. If you have left the hospital or are at home, call 999 for help.
- Sometimes a pressure bandage is needed for a few hours, particularly if there is a problem with blood clotting.

What should I do if I get pain at home after the procedure?

If you have any pain at home you can take your usual mild painkiller. If your usual painkiller is aspirin, it is recommended that you use a different painkiller. If this does not help, please speak to your GP or call the NHS helpline on 111.

If you had sedation please also follow the advice below:

For 12 hours:

- you must have a responsible adult with you

For 24 hours:

- you should have 24 hours off work
- you should not be responsible for dependent children or adults in your care. You should have another adult to look after them
- eat small meals. You may still feel sick after the sedation. Avoid large meals
- do not drink alcohol
- do not drive a car (vehicle) or ride a bicycle
- do not use any machinery or sharp tools
- do not do anything needing skill or judgement
- do not make important decisions or sign any documents
- do not climb ladders

Are there any risks or complications?

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The possibility of these happening is different for each person. We will talk to you about your risks before you sign the consent form.

- **Minor complications:** The risk of a minor complication is about 6 in 100 patients (6%). Most of these complications are bruising or bleeding in your neck, or fever.
- **Bruising:** 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 puts on a pressure bandage.
- **Severe pain:** The risk of severe pain is between 1 to 3 in every 100 patients (1% to 3%). The risk of abdominal pain is 10 in every 100 patients (10%).
- **Major complications:** The risk of a major complication is about 6 in 1000 patients (0.6%). Major complications can be bruising or bleeding in the liver, bleeding into the abdomen or irregular heartbeats.
- **Bleeding:** Any biopsy carries a small risk of bleeding internally. This procedure is designed to lower the risk of bleeding compared to a standard liver biopsy. If there is any serious bleeding then further procedures, blood transfusion or an operation may be needed. If you have any unexpected pain or signs of bleeding anywhere please tell the doctor or nurse (even if you have already been discharged from hospital).

- **Irregular heart beats:** Sometimes the tube passing through the heart towards the liver can cause irregular heartbeats. This usually returns to normal within a few seconds. The risk is less than 5 in 100 patients (less than 5%).
- **Risk of death:** There is a risk of death after a transjugular liver biopsy. This rate is about 1 in every 1000 patients (0.1%).
- **Reaction to contrast liquid:** Some patients may be allergic to the contrast liquid and may have symptoms such as feeling or being sick (nausea or vomiting), or a rash. If you get any of these symptoms at the hospital, tell the doctor, nurse or other staff looking after you. If you develop symptoms at home you should contact your GP or call 111.
- **Injury:** A biopsy may happen to an area not intended. This is called a non-target biopsy. This could cause injury to the area of the body affected.
- **There is a small risk that the biopsy will not get a good sample for testing:** In some cases a repeat procedure or a different procedure can be done. If this happens your doctor will talk to you about the options.
- **Feeling light-headed (faint) or fainting** (vasovagal reaction) - you may feel light-headed, dizzy or faint for 1 day after the procedure. This may happen when you sit up or stand up quickly or after you have been sitting or standing for a long time. If this happens, sit down or lay down for a while until this feeling goes. There is a risk you could faint if you do too much too soon.

What are the risks from exposure to radiation in this procedure?

The main risk from exposure to X-rays is a higher risk of getting a cancer in the future. This risk is thought to be very small.

We are all exposed to natural background radiation every day of our lives. This comes from the sun, the food we eat, and the ground. Each test that uses X-rays gives a dose on top of this natural background radiation.

The risks of radiation are slightly higher for an unborn child. We must ask all patients age 10 to 15 years registered female and all patients aged 16 to 55 years about their periods and/or possibility of being pregnant.

The benefits of having this test are likely to outweigh any possible risks. The risks of not having the test could be greater. We try to keep your exposure to X-rays as low as possible.

How do I get my results?

We will send your liver sample to the laboratory.

Your doctor who wanted you to have the biopsy will tell you the results as soon as they can.

Some early findings may be available the next day, but the full results usually take a few more days. You will be able to come back to the outpatient clinic to talk about your results if needed.

What if I need to talk to someone?



If you have any questions or concerns, or cannot make the appointment:

Please call the Radiology department on **0116 258 8765** and select **option 7**. Monday to Friday 9am to 5pm, but not on bank holidays.

Any questions?

Before you procedure:

If you have any questions about the procedure, write them down to remind you when you come to the hospital.

At the end of your pre-assessment meeting we will give you an information sheet. It will include a contact phone number in case you have any further questions when you get home.

When you are on the ward you can ask the nurse, or the doctor who referred you for the procedure.

When you are in the X-ray room you can ask the radiologist doing the procedure.

After your procedure:

We will do our best to make your visit as comfortable and stress free as possible.

If you have any problems after the procedure, speak to your radiology nurse or to the staff on your ward.

When you go home you will be given a phone number to call if you have any questions or problems.

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل
જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।

Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

Previous reference:

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk