

# Ultrasound-guided Liver biopsy

## Radiology Department

### Patient Information Leaflet

#### Introduction

This leaflet tells you about the procedure known as an ultrasound-guided liver biopsy. It tells you what the procedure involves, what the benefits and risks are and what you need to do when you get home.

It is not meant to replace discussion between you and your doctor, but as a guide to be used along with what is discussed. If you are unsure of anything, please ask the doctors and nurses caring for you.

#### What is an ultrasound-guided liver biopsy?

It is a procedure to remove a small piece of tissue from your liver so that it can be examined using a microscope for signs of damage or disease.

Ultrasound uses sound waves to create images of the internal tissues and organs in the body. Ultrasound images are displayed on a video monitor and are used by the radiologist to make sure they take the tissue from the correct area of your liver.

#### Why do I need a liver biopsy?

Other tests you have had, such as blood tests, a CT scan or an ultrasound scan may have shown a possible problem with your liver. It is not possible from these tests to identify what the problem is.

The best way to find out is to remove a small piece of tissue from the abnormal area in the liver, using a special needle, so it can be examined using a microscope. This will give your doctor the information they need to diagnose your condition.

Your doctor will discuss this with you in more detail.

### **What are the benefits?**

A biopsy is the best way for us to get a tissue sample from the abnormal area in the liver. Looking at the sample using a microscope will give us a lot more information about what is causing your symptoms and the best way to treat them.

### **What are the risks?**

Risks of the procedure are rare, but it is important that you are aware of them. The risks are:

**Pain at the biopsy site** – this is the most frequent risk of ultrasound-guided liver biopsy once the local anaesthetic has worn off. About two in every 10 patients will get this. This is usually eased with painkillers (always read the label; do not exceed the recommended dose).

**Infection** – there is a small risk that the biopsy site may become infected.

**Bleeding** – in a small number of cases there may be some bleeding from the biopsy site. Occasionally, the bleeding is more severe. In a few cases, this may need a blood transfusion and/or an operation to deal with it.

**Bile leak** – a rare risk is for the biopsy needle to damage a small bile duct in the liver. This can cause bile to leak from the liver internally and may cause pain in the area. Usually this settles in two to three days. You can take pain relief to ease it (always read the label; do not exceed the recommended dose).

There is a 1 in 500 (0.2%) risk of death from having this biopsy.

## **What are the alternatives?**

CT scans, MRI scans and blood tests are useful, but they cannot give your doctor the detailed information they need to diagnose your condition. However, it is your choice as to whether you have this test.

If you have any concerns, please speak to your nurse or doctor.

## **Who will carry out the biopsy?**

The biopsy will be taken by a radiologist who is a doctor that specialises in using X-rays and scans. The biopsy will be performed in the ultrasound section of the X-ray department.

## **How do I prepare for the biopsy?**

Before the biopsy you will need to have a blood test to check that you do not have an increased risk of bleeding during or after the procedure.

## **What about my medications?**

We may ask you to stop taking medications that affect blood clotting for a few days before and after the procedure. These may include blood thinners such as aspirin, clopidogrel, dabigatran and rivaroxaban.

If you are taking warfarin, you should tell your doctor as soon as possible. You will need to stop taking it for a few days before the biopsy and possibly have a different kind of treatment instead.

## **What happens before the biopsy?**

In the ultrasound department, the radiologist will explain the biopsy procedure to you. This will include an explanation of any possible risks of the procedure. They will answer any questions you may have.

If you are happy to go ahead, you will need to sign a consent form, giving your permission for the biopsy to be taken. You should tell the radiologist if you have any allergies and confirm that you are not taking warfarin.

If you have any questions about the procedure, you can ask the radiologist at this time.

## What happens during the procedure?

- We will ask you to change into a gown.
- You will need to lie on your back on a bed.
- The biopsy is a sterile procedure and so the radiologist will wear gloves.
- The radiologist will clean your skin in the area with antiseptic and put a sheet over your stomach area.
- An ultrasound scan will be used to find the exact area in your liver where the biopsy needs to be taken.
- To numb the area, we will inject a local anaesthetic into the skin. This will sting at first, but then the area will go numb.
- Once the skin is numb, the radiologist will insert the biopsy needle into your liver. The biopsy needle is a thin tube. You should not feel any pain; however, you may feel some pressure as the doctor pushes on the needle.
- The radiologist may ask you to hold your breath for about five to 10 seconds when the needle is pushed in and the liver sample (biopsy) is taken out. This is a very small piece of tissue.
- The radiologist may take several samples, if necessary.

## How long will it take?

The procedure takes approximately 20 minutes from start to finish. After the biopsy, you will need to lie flat on a bed for up to six hours to reduce the risk of bleeding. During this time, we will monitor your blood pressure frequently.

When you have recovered, you can go home.

## What happens afterwards?

Most patients recover from a biopsy in one to two days. You should avoid intense activity, exercise or heavy lifting during this time. You may be sore around the biopsy site for a few days.

## **You should seek advice from your GP if:**

- You have bleeding from the biopsy site
- The biopsy site becomes red, angry looking or swollen
- You develop a fever or high temperature
- The biopsy site is still painful three days after the procedure and painkillers do not help

## **When will I get the results?**

It takes up to seven working days for the biopsy sample to be analysed. Once the results are available, they will be reviewed by your doctor. The doctor may need to discuss your results with a number of other specialist doctors, to determine what treatment is required.

Once the results are available, the nurse or doctor who you saw at hospital will arrange an appointment with you to discuss your results.

## **Can I find out more?**

The following website has more information on having a biopsy:  
NHS Choices

<http://www.nhs.uk/conditions/biopsy/pages/introduction.aspx>

## **Finally**

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

## **Contact:**

Department of Radiology  
Russells's Hall Hospital  
West Wing  
Ground Floor  
Pensnett Road  
Dudley  
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DY1 2HQ

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Department details here

Russell's Hall Hospital switchboard number: 01384 456111

**This leaflet can be downloaded or printed from:**

<http://dudleygroup.nhs.uk/services-and-wards/>

If you have any feedback on this patient information leaflet, please email [dgft.patient.information@nhs.net](mailto:dgft.patient.information@nhs.net)

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

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