

# Ultrasound guided liver biopsy

Information for patients

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Please bring this booklet and  
signed consent form with you

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## Your appointment

**You will be having the liver biopsy as a:** (please tick)

- day case  
 in-patient

**An appointment for your liver biopsy has been made at the:** (please tick)

- John Radcliffe Hospital  
 Churchill Hospital

Day and date: .....

Time: .....

The appointment will be in: (please tick)

The **Radiology Day Case Unit** at:

- the Churchill Hospital  
 the John Radcliffe Hospital  
 Ward 5F, John Radcliffe Hospital

If this appointment time is not convenient for you or if you are unable to keep your appointment please telephone:

- the ultrasound department on **01865 221 615** (for day case biopsies at the John Radcliffe)
- the ultrasound department on **01865 235 732** (for day case biopsies at the Churchill)
- or ward 5F on **01865 221 185** (for in-patient biopsies)

This will help staff to arrange another date and time for you to come and to give your appointment to someone else.

## Introduction

You have been advised by your hospital doctor to have a liver biopsy. Your doctor should have explained to you the reason for the liver biopsy.

We need to have your formal consent before we can carry out this examination. This booklet has been written to explain how the examination is carried out and what the risks are. This should help you to make an informed decision about whether you are happy to agree to the examination.

If there is anything you do not understand or you wish to discuss further but still wish to come to the appointment, do not sign the form. Instead, bring it with you and, if you are happy to, you can sign it after you have spoken to one of our doctors.

The consent form is at the front of this booklet.

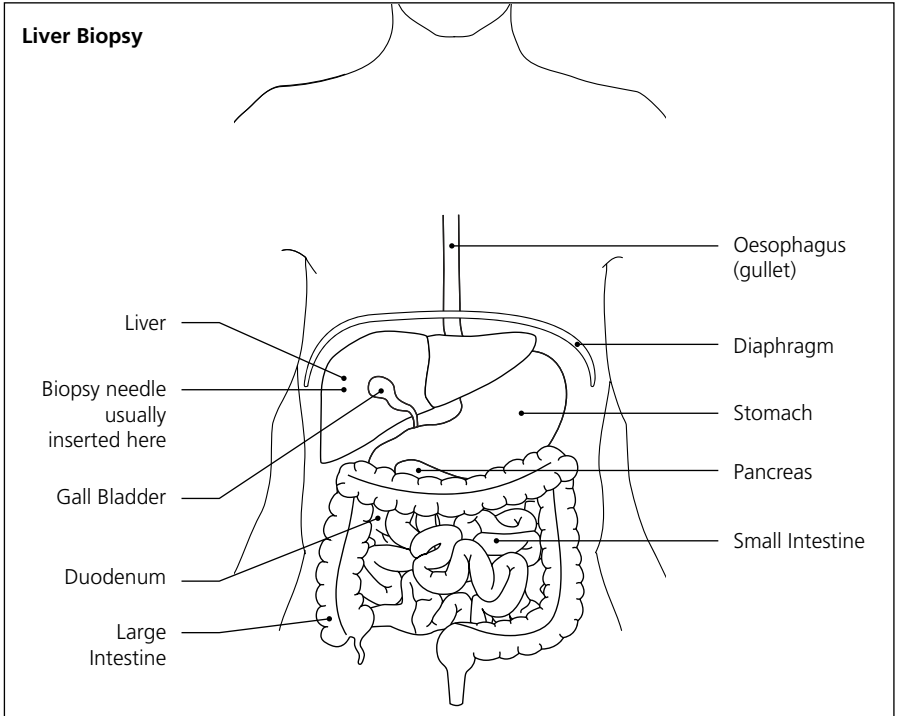
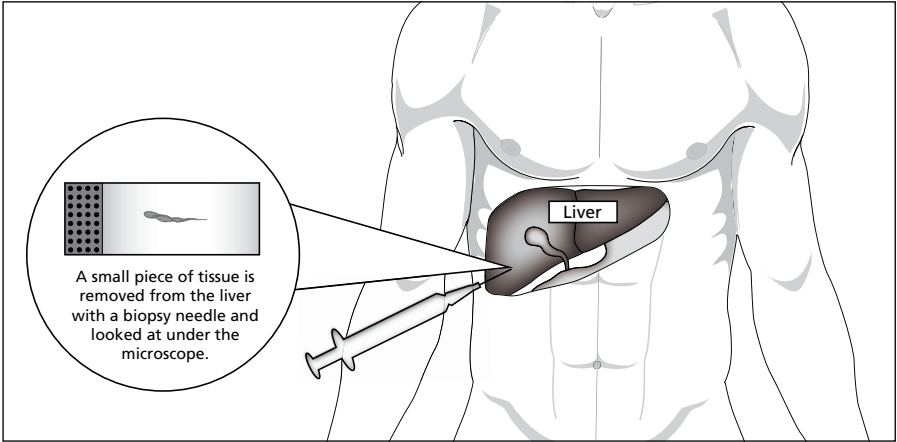
The consent form is a legal document – please read it carefully. Once you have read and understood all the information, including the risk of complications, and you agree to have the examination, please sign and date the consent form.

There is a carbon copy of the consent form underneath, allowing you to keep a copy for your records. Please complete the form while it is still attached to this booklet.

**Please bring both this booklet and the consent form with you to your appointment.**

# What is a liver biopsy?

A liver biopsy is a procedure to remove a small piece of the liver so it can be examined with a microscope for signs of damage or disease.



## Why do I need a liver biopsy?

There are many causes of liver disease and it is sometimes difficult to diagnose a condition based on symptoms and simple blood tests. Often the only way to diagnose a liver disease and find out how advanced it is (by the amount of liver scarring) is to perform a liver biopsy.

A liver biopsy is also used to find the cause of a lump in the liver. This may have been found on computerised tomography (CT) and magnetic resonance imaging (MRI) scans during investigations. The biopsy will find the cause of the lump in 8 out of 10 cases.

## What are the alternatives?

Computerised tomography (CT) and magnetic resonance imaging (MRI) scans can provide a picture of the liver but often can only detect advanced cirrhosis (damage). They cannot identify the cause of the liver scarring.

Specific blood tests and newer scans (such as a fibroscan) may help in assessing the degree of liver scarring. However, they cannot identify the cause of the scarring and are not as accurate as a liver biopsy in finding scarring.

## How long will I be in the hospital?

The biopsy is usually done as a day case in the Radiology (X-ray) department. It takes between 30 minutes and 1 hour. However, you should expect to be in the department for the whole day. This is because the Radiology department also deals with emergencies. These can take priority over people with scheduled appointments.

If you live a distance from the hospital or there is no one to stay with you overnight after the biopsy, you may be admitted

overnight to the gastroenterology/liver ward (5F) at the John Radcliffe Hospital. You will be asked to go to this ward before the biopsy.

Please leave all valuables at home. The hospital cannot accept responsibility for these items. You can continue to wear your wedding ring but it may be covered with a small piece of sticking plaster during the procedure.

## Preparation

### **Blood tests**

You will be asked to have a blood sample taken the week before the biopsy is due to be carried out. This is to check your blood's ability to clot (platelet count and clotting). The blood sample can be taken at your GP's surgery. This is a routine precaution and is to ensure the liver biopsy can be carried out safely with minimal risks.

### **Eating and drinking**

You must not eat anything for 6 hours before your liver biopsy. You'll be able to have a few sips of water up to 2 hours before your test.

### **What about my medicines?**

You should continue to take any routine medicines. However you must not take aspirin, dabigatran or clopidogrel for 2 weeks before the procedure. Please bring a list of your medications with you to your appointment.

### **Anticoagulants (blood thinning tablets)**

Tablets such as warfarin must be stopped 5 days before the procedure. You will need your clotting checked the day before the procedure.

If you are concerned about stopping these medications please speak to your GP.

## What happens when I arrive at the Radiology Day Case Unit?

When you arrive you will be met by a nurse who will ask you a few questions about your medical condition and any past surgery or illness. If you have not had a blood test in the last 5 days we will take a blood sample to check your clotting. The nurse will record your heart rate and blood pressure and, if you are diabetic, also your blood glucose.

The nurse will also make sure you understand the examination. You will be able to ask any further questions or raise any concerns you may have. The nurse will ask you for your signed consent form. If you have not already signed the consent form the doctor will be able to answer any questions you still have or talk with you about any concerns before the biopsy.

## What happens during the liver biopsy?

The liver biopsy is done in the Radiology department by a radiology doctor (radiologist).

You will be asked to lie on your back during the biopsy.

The biopsy is usually taken either from a place between your lower ribs on your right side or from the part of your abdomen (tummy) just below your right ribs.

An ultrasound will be performed to find the correct place to insert the biopsy needle. This involves moving a probe over the area of your liver to pass sound waves through the skin – these then bounce back to provide an image of your internal organs.

A local anaesthetic will be used to numb your skin and liver lining. This will be done by injecting the anaesthetic into your skin using a needle.

When the local anaesthetic has started to work (the area goes



numb) the biopsy will be taken. The biopsy needle is a thin tube which is inserted through your numb skin. You may be asked hold your breath for a few seconds while the needle is inserted and the biopsy is being taken.

Once the needle is inserted it is withdrawn quickly, removing a very small, thin sample of liver tissue (2-4cm long).

The liver sample is sent for analysis under a microscope in our laboratories.

## What are the risks and complications?

Fortunately, side effects are usually rare. Sometimes you will notice occasional discomfort at the site of the biopsy for a few weeks, particularly when you are moving around. Liver biopsy is a safe procedure with few complications.

## Problems which can occur are:

### **Bleeding**

There is a small risk of bleeding. This occurs in less than 1 in 100 cases. If there is any bleeding it will usually happen in the first few hours after the biopsy. This is why you are monitored for 4-6 hours afterwards. Bleeding usually settles within this time. It is rare for a blood transfusion to be needed. Very occasionally another procedure may be needed which uses a small tube placed in the artery in the groin (angiogram) to block a bleeding blood vessel in the liver. Rarely an operation may be required.

### **Pneumothorax**

This can occur in 1 in 500 patients. This is when a small hole is accidentally made in the lining of the lungs which allows a tiny amount of air to pass between the lung and chest wall. This can cause you to feel breathless. Usually no treatment is needed and the air is gradually absorbed by the lung lining. Occasionally the air needs removing with a needle (aspiration).

## **Bile leak**

This occurs in less than 1 in 1000 cases. This is as a result of the biopsy needle damaging a small bile duct in the liver. This can lead to abdominal pain but this normally settles with pain relief over 2 to 3 days.

If you have any problems after your biopsy which you feel may be related to the procedure, please inform your GP or hospital staff at once. An operation may be necessary to treat a complication, but this is very rare. If you have any worries about this please do not hesitate to discuss possible complications or risks with hospital staff before your liver biopsy.

## After the biopsy

If the biopsy has been performed from the right side you will be asked to then lie on your right side so the weight of your body presses on the wound. This is to help the wound to clot and heal.

You will be moved to the recovery area (day case liver biopsies) or back to the ward (inpatient liver biopsies). You will need to remain in bed on your side or back for 6 hours after the procedure. It is a good idea to take a book to read or personal radio/iPod to listen to. While you are lying on your side or back you will be regularly monitored (pulse and blood pressure) to detect any complications.

## Going home

After 4-6 hours you can usually go home with someone to accompany you. You should not drive yourself or travel on your own. You must have someone to stay with you overnight. You should be able to carry on with your normal activities the next day.

### **After going home**

If you have any problems with pain after the procedure you should contact your own GP surgery or ring ward 5F on 01865 221 185.

The liver biopsy sample is sent to the pathologist who will examine it under the microscope and produce a report. This is usually in the form of a description and a number, which is the measure of any inflammation and/or scarring (fibrosis) seen in the sample. This may take about two weeks. You will receive a letter about the results and an appointment to discuss your results in the liver clinic or by your referring consultant.

## Useful telephone numbers

### **Main Hospital Switchboard**

01865 741 166

### **Radiology, Level 1 Reception (John Radcliffe)**

01865 220 800

### **Radiology secretary (booking)**

John Radcliffe 01865 221 615

Churchill 01865 235 732

### **Secretary to Hepatologists**

Dr Collier 01865 228 750

Dr Cobbold 01865 228 746 or 228 748

**Ward 5F** 01865 221 185

### **Hepatology Clinical Nurse Specialists**

01865 222 057

If you need an interpreter or need a document in another language, large print, Braille or audio version, please call

**01865 221473** or email **PALSJR@ouh.nhs.uk**

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