

Liver surgery

Regional HPB Unit



Patient information leaflet

This booklet has been given to you by your doctor or nurse specialist to help explain your surgery and rehabilitation.

The Hepato-Pancreatico-Biliary (HPB) Nurse Specialists work alongside the doctors and nurses on the wards and in the outpatient department. Their role is to offer you, and those close to you, support, care and information throughout your treatment. Contact numbers will be given to you and are available on the back of this booklet.

The reason why surgery is necessary is to remove an abnormality in your liver.

There can be many reasons for the abnormality, but your doctor will explain the precise reason for your operation at your consultation.

Why do I need to come to Royal Surrey?

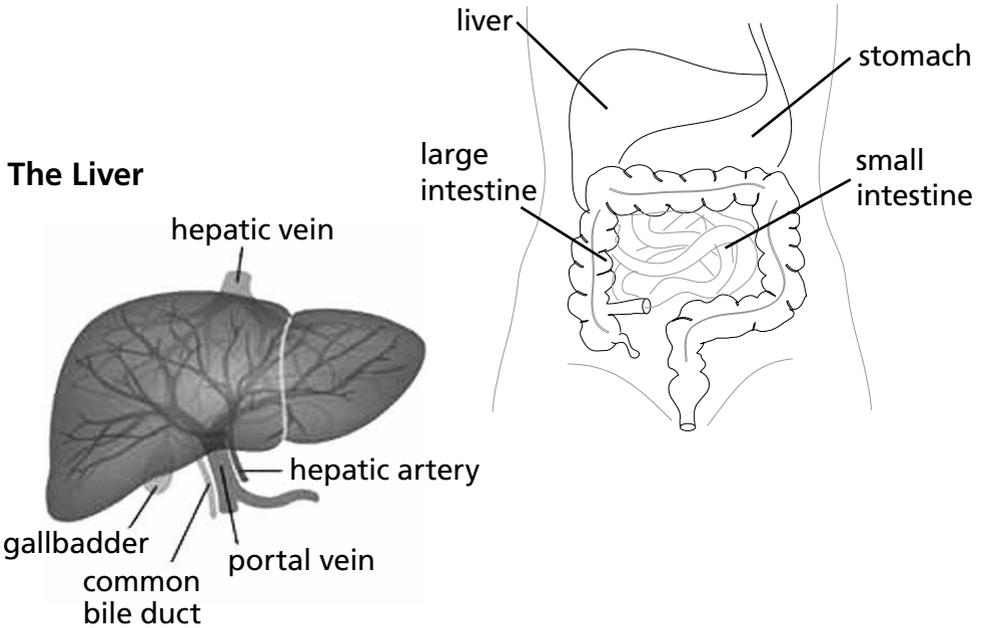
Liver surgery is a highly specialist operation.

Specialist surgery of this nature should be carried out in hospitals that perform many of these operations each year and have specialist expertise. This in turn produces the best outcomes for patients.

Therefore you have been referred to a Specialist Liver surgeon at Royal Surrey County Hospital.

What is the Liver?

The liver is a large organ that sits under the rib cage to the right hand side of your abdomen. It is the largest organ in the body and has a very rich blood supply.



Some of the liver's major functions include:

- Processing absorbed food products from the gut.
- Storing vitamins, sugar and iron to help give your body energy.
- Controlling the production and removal of cholesterol.
- Clearing the body of waste products, drugs and other poisonous substances.
- Making clotting factors to stop excess bleeding.
- Producing immune factors and removes bacteria from the blood stream to combat infection.
- Releasing a substance called "bile" to help digest food and absorb important nutrients.

When the liver has broken down harmful substances, they are excreted into the bile or blood. Bile by-products enter the intestine and ultimately leave the body in the faeces. Blood by-products are filtered out by the kidneys and leave the body in the form of urine.

Diagnostic test

Before you see the liver surgeon you will probably have had more than one diagnostic test. Often we may need to perform additional scans and tests that may be necessary to plan your surgery.

These may include the following:-

CT scan (CAT scan)

A CT scanner is shaped like a doughnut and you will be required to lie on a couch that will move you through the machine. This test uses a rotating x-ray beam to create a series of pictures of the body from many different angles.

Sometimes you will be asked to swallow a dye or the dye may be injected into a vein to enhance the x-ray pictures.

CT scans take about half an hour and are painless.

MRI scan (Magnetic Resonance Imaging)

This is a scan which often gives us the most accurate information when planning your liver surgery, and we generally prefer the scan to be performed at Royal Surrey.

This is a scan that uses magnetism to build up a picture of the organs inside the body. It is completely painless, rather noisy and takes approximately half an hour. Prior to the scan you will be injected with a special dye to help make the pictures clearer.

You should tell the doctor if you have a pacemaker or any metal parts inside your body such as joint replacements or surgical clips. This may mean you can not have this type of scan.

CT-PET scan (Positron Emission Tomography)

This is a test that is **ONLY** used for patients with cancer. You will have a small injection which contains a tiny dose of radioactive material, into your arm an hour before the scan. You will lie on a couch which moves through a ring containing sensors to pick up the signals from the radioactive material. This scan takes about 30 minutes.

This investigation is often combined with another CT scan that will produce highly accurate images of the cancer. It can also tell us if cancer has spread to other organs. This test is completely painless.

Blood tests

Blood tests are taken to check your general health.

What does the operation involve?

Your surgeon will discuss with you what the operation involves and which part of the liver is to be removed. The liver is a remarkable organ that has the ability to regenerate following surgery. The objective of surgery is to remove all of the abnormality in the liver, whilst leaving sufficient, good quality, liver behind. It is possible to remove up to 70% of your liver and for you to make full recovery. It may also be necessary to remove the gall bladder, depending on which area of the liver is removed.

Often the operation will start with a look inside the abdominal cavity with a camera via keyhole surgery to ensure there is no additional disease that previous scans were unable to diagnose. Once this is felt to be clear you would proceed to having a cut on your abdomen. The cut (or incision) is made just below the ribcage on your right.

A further scan of your liver using ultrasound is usually performed at this point to further evaluate the abnormality.

At this point removal of the diseased liver tissue is performed.

What are the alternatives to this operation?

The surgeon would have discussed:

- any alternatives to surgery
- if there are no alternatives
- what the consequences would be if you elect not to have surgery.

What are the risks and benefits of the operation

Benefits

Depending on the reasons you require surgery, the aim of the operation is to cure your disease, or relieve your symptoms. This cannot be guaranteed however and, if your surgery is for cancer, other treatments may be offered to you following the results of the operation.

Risks

With any major operation there are risks. These can be general or specific and it is important that you are informed of them.

General risks

These are risks that anyone having a general anaesthetic is exposed to.

They include chest infection, heart attack, stroke and blood clots.

Specific risks

These are related to the operation itself. They include wound infection, bile leak, bleeding and liver insufficiency (difficulty in your liver recovering from the surgery). On most occasions these complications are easily managed and may add a few days to your stay in hospital. Obviously, a more significant complication can take longer. Sometimes you may need a procedure to correct the complication. You will be kept informed of your progress every day.

Please do not be alarmed at these risks as they only happen in a minority of cases, and are usually very straight forward to manage.

What can I expect before the operation?

You will have an appointment to see a nurse before admission to hospital. This appointment will take place in a pre-assessment clinic and will last about an hour. You will be examined and some routine tests may include blood tests, chest x-ray and a tracing of your heart rate (ECG). This assessment will determine your fitness for surgery and allow us to assess if you need further tests.

This is an ideal opportunity to ask further questions about the operation.

Please feel free to ask to see your nurse specialist at this point if you would find it useful.

It is usual to be admitted the day before your operation. You will be given anti-embolism stockings to wear during and after the operation.

These encourage the blood to flow smoothly in your legs and prevent blood clots forming. This is a risk when you are not able to walk very far after the operation. The nurses will give you an injection daily which thins the blood and also helps to prevent the clots. These will be continued for 28 days after your operation, so we would recommend that you continue this at home for that period. People usually inject this medicine themselves, the nurse on the ward will discuss this with you during your admission as soon as you are ready.

The anaesthetist will discuss your general anaesthetic and methods of pain relief used after the operation. The types of pain relief commonly used are an 'epidural' which is a tube in your back to numb the nerves. If this is not proving effective enough or you are unable to have an epidural for some reason, a PCA pump (patient controlled analgesia) is used. This will involve you having a tube going into your arm which has a button for you to press. This will give a certain amount of painkiller each time you press the button, but it is set up so that you can't give yourself too much. There is a specialist pain team that will review you regularly on the ward following your operation.

What can I expect after the operation?

You will have the following:-

- A dressing on your abdomen
- A line in your neck to help to monitor the fluids being replaced after your operation and enabling us to give other medication
- A tube in your bladder called a catheter
- Sometimes it may be necessary for a tube to be placed to drain the abdomen for a few days
- Epidural or Patient controlled Analgesia (PCA) for pain relief
- You will feel very thirsty at first
- You may well be looked after in the Intensive Care Department (ITU) for the first 12–24 hours

After the operation it is normal for you to be able to start drinking and eating quite soon, and nearly always by the following morning.

Once you are feeling better on the ward you will usually be able to eat as normal.

We aim for you to be as comfortable as possible. Some discomfort is to be expected, but please discuss it with the doctors and nurses if your pain is not under control as this could delay your recovery.

When will I know the results of my operation?

We are able to give you some feedback on how the operation went whilst you are in hospital, although further tests are required. The part of the liver that has been removed is sent to the laboratory for detailed analysis. These tests tell the doctors more about the abnormality and will determine if further treatment is needed. These tests can take 2-3 weeks to be completed and the doctors will discuss the results with you at your next outpatients appointment.

If you do not understand what you have been told please ask the doctors and nurses to explain it again.

How long will I be in hospital?

You will be discharged from hospital around 3–4 days after the operation. This can vary with individuals and the doctors will be able to tell you more as you progress. If you have wound stitches/clips, these are removed 14 days after your surgery. You will be given a letter explaining this and asked to make an appointment with the Practice Nurse at your GP surgery.

Returning home

Day to day activities

Everyone's recovery occurs at different rates and is dependent on their illness and surgery. However, when you get home it is important that you keep active and don't take to your bed. Aim to do a little walking each day and increase the amount daily so you are back to your normal activities 4-6 weeks after your operation. Listen to your body; it will tell you when it needs to rest.

Work

It is advised to take at least 2-4 weeks off work. The nature of your occupation will determine how soon you can return. It may be wise initially to go back part-time until you have regained your strength.

You will have an appointment to see your surgeon around this time and should wait for this before resuming work. If you need a sick certificate the ward can issue you one for the time spent in hospital. Your GP can then give you one for after this period.

Diet

It may be a while before you get your appetite back and instead of eating 3 meals a day it may be easier to have small and more frequent meals. Choose your favourite foods during this time as you will find this easier to manage.

Driving

You should wait at least 4 weeks before starting to drive again. It will depend on your ability to perform an emergency stop without it hurting, how comfortable it is to wear a seat belt and how tired you feel. It is advised to notify your insurance company that you have had an operation.

What follow-up care will I need?

You will be seen 4-6 weeks following the operation in the outpatient department of the hospital.

The results of the laboratory tests will determine whether you will need further treatment.

If your operation was for cancer, further treatment may be needed in the form of chemotherapy. You may have had this before the operation and already met the oncologist (consultant who specialises in this treatment). The nurse specialist will be able to give you more information.

Who can help?

During your hospital stay you will have met your HPB Nurse Specialist who is available to provide information and give support to you and your family. Please remember that following your discharge home from hospital the Nurse Specialist is still available to support you. If at any point you have any questions or concerns please telephone them.

They can be contacted Monday–Friday, (8am–5pm) on telephone: **01483 402779**

Outside office hours, or in an emergency, it is possible to get advice from the nursing staff on Frensham Ward at the Royal Surrey County Hospital, telephone: **01483 571122 ext 4090**.

Additional support/information available

Macmillan Cancer Support

- www.macmillan.org.uk

The Fountain Centre (RSCH)

- Telephone: 01483 406618
www.fountaincancersupport.com

Contact details

For further information or advice, contact the HPB Nurse Specialists on **01483 402779**, Monday–Friday, 8am–5pm.

Other contact numbers

RSCH	01483 571122
Frensham Ward	ext 4090
Prof N Karanjia's secretary	ext 4552
Mr T Worthington's secretary	ext 6507
Miss A. Riga & Mr R Kumar's secretary	ext 6518

PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–3.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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Future review date: October 2021

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