

Hepatic, pancreatic and biliary service

Liver resection for the surgical treatment of cancer

The aim of this leaflet is to provide you with information that has been designed to help you to understand your operation and what to expect.

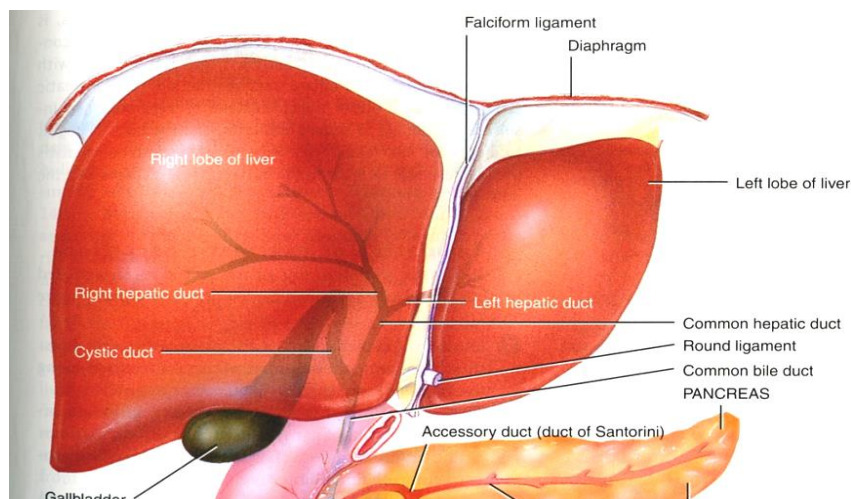
We hope it will assist in reducing any anxiety you may have, answer some of your questions and offer some practical advice.

It is by no means intended to be comprehensive. Everyone responds differently to treatment and also requires varying amounts of information.

Throughout your illness you will have access to a Hepato, Pancreatic & Biliary (HPB) Nurse Specialist for support and advice.

What is the Liver?

The liver is the largest solid organ in the body divided into two lobes and lies in the right upper area the abdomen. It is one of the few organs that has the ability to re grow (regenerate)



What are its functions in the body?

The liver helps control more than 500 chemical reactions, these include:

- breaking down and storing food products / minerals and vitamins
- getting rid of the waste products
- utilising food to provide energy
- producing bile which helps in digesting fats
- production of hormones and various proteins (such as those that control blood clotting),
- processing the breakdown of red blood cells

What treatments are available for liver cancer?

The alternative treatments available depend very much on the sort of liver tumour that you have. It is possible to shrink tumours without an operation.

These techniques are called:-

- TACE (Trans Arterial Chemo-embolisation) where chemotherapy drugs are injected into your liver)
- Percutaneous ethanol injection (where pure alcohol is injected into the tumour)
- Radio-frequency ablation (RFA) Imaging techniques are used to guide a probe into the tumour and high frequency electrical currents are then passed through, creating heat that destroys the cancer cells. This technique can also be used at the time of surgery. There is a possibility that this can be performed percutaneously (through the skin) without the need of a large surgical incision.
- Chemotherapy (drug treatment) via a “drip” into a vein in your hand or arm, or in some cases, tablets, is also a possibility. This treatment can be used before surgery to try and reduce the disease in the liver and in some cases may be recommended after surgery.
- If it is possible for your liver tumour(s) to be removed surgically, then this is the treatment with the best chance of success.
- A combination of treatments may also be used.

What is a liver resection?

Surgery can be performed through an abdominal cut (incision) or in a few cases keyhole surgery may be an option. The surgeon will make the decision on what is best for you.

Your consultant will decide the best way to proceed. This is a major and complex operation to remove part of your liver and can include removing the gall bladder. It may take between 4-6 hours to complete. In some cases, the bile duct would need to be connected to the bowel. It is possible to remove up to 75% of your liver, as the liver has a remarkable ability to regenerate (regrow).

If at the time of surgery it is found that there is more liver disease or tumour deposits outside of the liver, than the surgeon may not continue with the planned surgery.

What happens before surgery?

Once surgery has been agreed as the favoured option, you will be asked to attend a pre assessment clinic. Here a nurse will ask you questions about previous medical problems, your social circumstances as well as checking your blood pressure, pulse. You will also have some routine tests carried out such as bloods, respiratory function, and heart recording (ECG) and heart echocardiogram (ultrasound scan). Once all these tests are completed you will then see the pre-assessment nurse and the anaesthetist in clinic 6.

You will normally be admitted on the day of surgery. In some cases for medical reasons you may need to be admitted the night before to one of the surgical wards. Once admitted a doctor will complete all relevant documentation and any further tests that may be required will be carried out.

You will also be asked to give your written consent to allow the doctors to operate and this is the time when you should ask questions about the type of surgery and the risks involved. As with any surgery there are certain risks, some risks are associated with the anaesthetic, some with the type of surgery and some with the recovery.

Some of the identified risks with this type of surgery are:

- Liver failure
- Chest infection
- Bleeding
- Infection
- Blood clots
- Bile leak (20%) The liver can leak bile from where it has been cut

You may want to discuss these risks further with the doctor when he explains the planned surgery and asks you to give your written consent to proceed.

Four hours before surgery your dietary and fluid intake will be restricted and the nursing staff will ensure you are aware of what you are allowed. This may be changed as directed by the doctors. In some instances the consultant may require you to take bowel prep prior to surgery.

What happens during the operation?

During the operation the surgeon will make quite a large cut (incision) across your abdomen. He will then check that everything appears to be as expected from your radiology scans. The part of your liver containing the tumour(s) will then be removed. This takes some time because a lot of blood flows through the liver and so care is needed to cut through the tissue without causing too much bleeding. After the tumours have been removed a glue-like substance is usually poured or sprayed onto the liver to help prevent bleeding after the operation. Everything is carefully checked and then the incision is closed with several layers of stitching.

What happens after surgery?

- The surgery will take approximately six hours. Immediately after surgery your recovery will be carefully monitored in the Critical Care Area (ward 10 at the time of writing). This is located on the first floor.
Telephone 024 7696 6556 after 4.00pm

Patient Information

- When you come around after your operation you will have some tubes attached to you. The type and number will vary depending on your operation
- You will need wear an oxygen mask initially for the first few days
- A tube will have been inserted into one of your main veins to give you fluid while you cannot eat and drink
- A tube that passes through your nose and into your stomach. This allows us to drain off digestive juices in your stomach that might make you feel uncomfortable or sick and is normally removed the day after surgery
- Near to the site of operation (your wound), you may find one or two drainage tubes (drains) that go under the skin. These drain off fluid to prevent swelling
- A catheter, a fine tube will have been placed into your bladder to collect your urine into a bag. This means we are able to monitor the amount of urine you are producing
- As you recover your drains and tubes will be removed as directed by the doctor

Will it be painful?

The amount of pain felt is varied and very individual but we will work with you to ensure that pain is kept to the minimum. It is important you tell the nursing staff if you have pain, or discomfort or if there is any change in the amount of pain felt.

There are several ways of reducing pain and these include:

- Epidurals which are used in the Critical Care Area
- Patient Controlled Analgesia (this should be explained to you before surgery)
- Simple painkillers can be given in the form of suppositories and once you are able to drink another alternative is a tablet

When can I get out of bed?

We will encourage you to get and out of bed up as soon as possible (usually the next day) and initially you will need assistance to do this.

Patient Information

You will also be visited by the physiotherapist who will give advice on moving about and breathing exercises. It is important to do these exercises as they help reduce the risk of blood clots and chest infections after surgery, plus the sooner you become mobile the better for your recovery.

When can I eat after the operation?

Each patient is an individual and your doctors will monitor your progress and advise you when to start drinking again, however this is generally the same evening of surgery or the following day. In most cases you will be able to start eating a light diet the following day.

Will there be any side effects?

There is a risk of liver failure which could cause you to become yellow. If your tumour(s) are large or dispersed within the liver then a large part of your liver may have to be removed. This will leave your body with a much smaller amount of liver. As explained earlier, in time this liver will re-grow to take the place of the liver that has been removed. However, in the short term after the operation your smaller liver may struggle to do all that it is meant to. The symptoms of this can be jaundice (your skin becomes yellow) and a build up of fluid in your abdomen. These problems will usually settle down after a week or two.

In a very small number of patients this may be associated with other organs not functioning properly, such as low blood pressure, pneumonia and kidney failure.

The liver plays an important role in controlling how sugar is stored in your body. For the first 48 hours we will need to check your blood sugar every six hours to ensure your liver is working normally

What happens when I go home?

You will be able to go home between 5 and 7 days after your operation. Your recovery will continue on discharge.

Lots of rest, combined with gentle exercise and a healthy diet are the key factors for a good recovery. Do not forget that liver surgery is a major operation and it will take time for you to recover fully.

Patient Information

If your clips/stitches have not been removed by that time, the ward nurses will arrange for either the district nurse or your GP (home doctor) practice nurse to do them.

The nursing staff will discuss with you and your family the arrangements for going home. Any support you need to assist you at home will be identified before you are discharged and will be provided by the appropriate agency.

Your GP in your area will be notified on your discharge. If you have any worries you should contact him/her or alternatively contact the ward staff or HPB Nurse who will do their best to advise you.

When can I drive?

Because the surgery has involved an incision (cut) into the large stomach muscles you **must not lift** any heavy objects or drive a car until you have had a chance to fully heal. **This will be at least six weeks.**

It is recommended that you check with your insurers, as many policies **will not cover you to drive** in this period, and some extend this until you have been back to the Out patient Department to see the consultant.

Check list of do's and don'ts

Do

- Check your wound daily. If it is hot, red or oozing contact your GP as you may have an infection.
- Take regular, gentle exercise and wear your support stockings until reasonably mobile
- Eat a well-balanced, nutritious diet.
- See your GP if you are worried about your progress.
- Attend all outpatient appointments that you are sent
- Give yourself time to recover

Don't

- Use perfumed soap, talc or body lotions on your wounds until they are completely healed

Patient Information

- Lift anything heavy

Long term follow up care

The HPB Nurse Specialist will telephone you within four days of your discharge to offer advice and support and answer any questions you may have at this time.

You will be seen by the Nurse Specialist in clinic within three weeks of discharge to ensure you are progressing satisfactorily. Further follow-ups will continue at 6 monthly intervals or sooner if required. There is a possibility you will require bloods and scans every 6 months the aim would be to do these between appointments and will be requested at the time of attending the out patients clinic.

You may find you will also require further follow ups with your cancer specialist (oncologist) and this would be requested from your first follow up appointment after your surgery.

Where possible we aim to refer you back to your local hospital for follow-up care.

If you have any problems at any time appointments are always available at the Outpatient clinics or with your Clinical Nurse Specialist.

Contact details are 024 7696 5618

When you have read this leaflet, if you have any queries or there is something you would like explained in more detail please ask any of the medical or nursing staff looking after you.

Who can I contact with any queries or concerns?

Hospital 024 7696 4000

Nurse specialist 024 7696 5618

Patient Information

Sources of information

Cancer Information Centre

024 7696 6052

0808 800 1234

British Liver Trust

www.britishlivertrust.org.uk

01425 463 0807

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 5618 and we will do our best to meet your needs.

The Trust operates a smoke free policy

Document History

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