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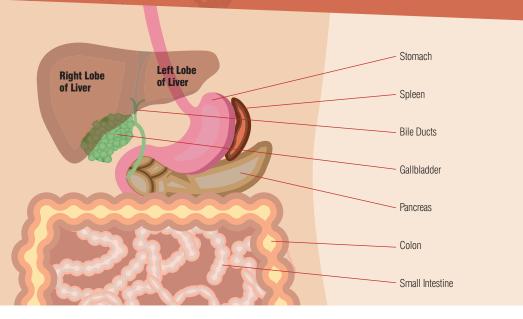




LIVER CANCER

The liver is the largest organ in the body. It lies under the lower part of the rib cage on the right hand side of the body but it stretches across the middle about as far as the left nipple (see figure).

When the liver gets larger, which can often happen when it is diseased, your GP may be able to feel its lower edge below the rib cage and he might ask you to take a deep breath, which can make the liver easier to feel.



WHAT DOES THE LIVER DO?

The liver performs many important functions in the body. It produces bile, which is not only needed to digest certain foods, but also helps to absorb several important vitamins. It is helpful to think of the liver as a 'factory', which manufactures many important proteins and other chemical substances that the body needs to work normally. The liver helps regulate the energy and fluid stores in the body, and also processes many of the body's waste products (or toxins) to render them harmless.

WHAT TYPES OF LIVER CANCER ARE THERE?

Some cancers begin in the cells of the liver itself – this is called primary liver cancer¹. More commonly, cancers start in cells in other organs of the body but then spread to the liver – this is called secondary liver cancer. Your doctor may use the term 'liver metastasis' (which is another way of saying that cancer has spread to the liver). It is possible for several cancer deposits (metastases) to occur in the liver². There is more than one sort of primary liver cancer. One such type starts within the cells, which make up most of the liver tissue – this is known as a hepatoma, or sometimes hepatocellular carcinoma (HCC for short). This is the most common type of primary liver cancer. Another type begins in the cells, which line the tubes (or ducts) that carry the bile out of the liver – this bile duct cancer is known as a cholangiocarcinoma.

Hepatomas usually occur in people who have an underlying liver disease, such as scarring of the liver (also known as cirrhosis) and can be a complication of hepatitis. There is no association between cirrhosis and the development of cholangiocarcinoma.

However, in the UK, secondary liver cancer is about 30 times more common³ than these primary liver cancers.

Secondary cancer occurs in people who have a primary cancer, which has begun elsewhere. The usual sites in the body where primary tumours develop before spreading to the liver include the lung, breast, large bowel, stomach and pancreas. Cancer cells usually spread to the liver from the primary tumour through the bloodstream.

Other, much less common, types of cancers can occur in the liver. These grow at different speeds. Your GP will explain if you have one of these sorts of tumour.

Liver cancer is the 18th most common cancer4 in the UK with more men being affected than woman. The incidence of it increases with age, with around nice out of ten cases occurring in those over the age of 55⁴. The lifetime risk of developing liver cancer is around one in 120 for men and one in 215 for woman.⁵

HOW WILL I KNOW WHICH TYPE of liver cancer I have?

It can sometimes be difficult to tell which type of liver cancer a patient has developed. Your GP may need to investigate whether you suffered from an underlying cause of liver disease, which you may not have even been aware of, which makes primary liver cancer more likely.

Your GP will wish to examine you and arrange further blood tests or scans which might be necessary to find out if there is any sign of a cancer elsewhere that has spread to the liver, causing secondary liver cancer. Sometimes the picture that the doctor gets from scans of your liver is so clear-cut that they can be sure of the problem. However, they may recommend taking a biopsy (or small sample) of tissue either from the liver itself or from where the cancer is suspected to have originally arisen.

Taking a biopsy is a routine procedure, which is either painless or causes only slight discomfort. By examining this sample in detail, your doctor can often find out precisely which type of cancer is present in the liver. Sometimes the appearances of the tumour in detailed body scans can give enough information for your doctor to make decisions regarding treatment.

WHY HAVE I DEVELOPED LIVER CANCER?

Primary liver cancer

Primary liver cancer usually occurs in a liver in which cirrhosis (or scarring) has developed. There are several different causes of cirrhosis. In the UK, excessive alcohol consumption is the commonest cause of liver cirrhosis and this is a condition that has increased dramatically in recent years. Long term infection (hepatitis) with certain viruses (for example hepatitis B or C virus), or a rare condition which leads to increased iron deposited deposits in the liver can also result in liver cirrhosis, increasing the risk of primary liver cancer⁶. Patients known to have liver cirrhosis who are at increased risk of liver cancer will often have screening blood tests and liver scans in an attempt to detect any signs of cancer at an early stage of its development.

Secondary (metastatic) liver cancer

In general, the more advanced the primary cancer becomes, the more likely it is to have spread to the liver. Conversely, if cancer can be detected at an early stage when it has not yet spread, the prospects of being cured are greater.

BUT WHY DO PEOPLE DEVELOP CANCER IN THE FIRST PLACE?

Usually we just don't know. Cancer is one of the most common causes of death in the UK⁷, and most people know a family member or friend affected by the disease. The risk of cancer can be increased in families with certain inherited genes, by the way we live or the food we eat. Some dyes and chemicals are associated with liver cancer. Regular exercise, eating plenty of fruit and vegetables and not smoking are ways in which we can reduce the risk of developing cancer, but not prevent it. However, even the most health conscious can still develop cancer. This is why research into the causes and types of liver and other cancers is vital to improving our understanding and treatment of the disease.

There are certain risk factors that have been shown to increase the risk of developing liver cancer such as liver cirrhosis, alcohol abuse and hepatitis C.

WHAT SYMPTOMS WILL I HAVE?

Cancer in the liver may not cause any symptoms and can be picked up incidentally. It might have been discovered because your doctor performed some blood tests to see how well the liver was working, or an abnormal area may have been observed during a scan. Liver cancer can cause discomfort or pain in the upper part of the abdomen. Some patients may feel sick or can be generally unwell⁸. Others may lose their appetite. Liver cancer can cause jaundice. If the liver is enlarged, you might notice a lump in the upper part of the abdomen, or under the rib cage on the right hand side.

WHAT IS THE TREATMENT?

This depends on the type of cancer that you have and how much of the liver is affected by the cancer.

Primary liver cancer

If you develop a small hepatoma and the function of the remaining liver is good enough, it may be possible to remove the cancer by an operation.

If the liver cirrhosis is more advanced, the stress of an operation even to remove a small cancer may be too much. Liver transplantation to remove your liver containing the cancer and replacing it with a healthy donor liver is an option, but is a major operation. Patients need to be carefully assessed, and be fit enough in other regards to be considered for liver transplantation.

Other available treatments for hepatomas are the injection of medicines, or internal placement of an instrument releasing damaging sound waves (called 'radio frequency ablation' or 'RFA'⁹), directly into the cancers to kill the cancer cells. Radiofrequency ablation works by passing electrical currents in the range of radiofrequency waves between the needle electrode and grounding pads placed on the patient's skin. The blood vessels to the area of the liver containing the cancer can also be injected with chemotherapy drugs to try to kill the cancer cells, or with substances that block the blood vessels and starve the cancer of its blood supply.

Cholangiocarcinomas¹⁰ often cause narrowing or blockage of the main bile ducts, causing jaundice. The blockage can be relieved by placing a plastic or metal tube (known as a 'stent') through the narrowing. This is usually done with an endoscope - a flexible tube passed through the mouth. Occasionally surgery can be performed to remove the cancer depending on where in the liver the cancer is and the general heath of the patient. Newer treatments are being developed using medicine to make cancer cells extremely sensitive to light, which is then directed onto the cancers during an endoscopy test.

Secondary liver cancer²

Treatment of secondary (metastatic) liver cancer often depends on where the cancer started. In some patients with spread to the liver from bowel cancer, both the bowel cancer and the secondary liver cancer can be removed by an operation in an attempt to cure the cancer. This depends on the size and number of cancers present, and in which part of the liver the cancer spread is located.

Most other types of secondary cancers in the liver cannot be removed or cured by surgery. These are usually treated with drugs (chemotherapy) to slow down the growth of cancer cells. This may also relieve discomfort by shrinking larger cancers, which are pressing on the capsule surrounding the liver. Many types of chemotherapy treatments are available, often given as an outpatient procedure, and your GP may refer you to see a consultant who specialises in chemotherapy (an oncologist).

As well as seeing consultants in the hospital, your GP will be informed of your condition and will be happy to review you to ensure your symptoms are well controlled. Specialist nurses who work in hospitals and the community trained in the care of patients who have cancer (such as Macmillan nurses), are there to discuss any aspect of your condition or treatment with you.

HOW WILL I KNOW I AM GETTING THE RIGHT TREATMENT?

Each patient found to have liver cancer is discussed at a special meeting where a team of experts, which include physicians, surgeons, radiologists (doctors who specialise in cancer scans), pathologists (doctors trained to examine specimens of cancer tissue) and oncologists (cancer treatment doctors) consider the best options for treatment. Sometimes, you may be offered the opportunity to enter a clinical trial when newer, potentially better treatments, are being compared to established treatments. but full information will be given by your doctors if these opportunities arise. Without these important trials, we will not know how to improve the outcome for patients in the future.

WILL MY DOCTOR TELL ME ABOUT HOW LONG I MIGHT HAVE TO LIVE?

As already discussed, there are various different treatments that are used to reduce the size of liver cancer. However, cancers within the liver can be difficult to cure as many are diagnosed alongside long-term liver problems such as cirrhosis. Patients often ask how this condition will affect their chances of survival, and this can be a very difficult question to answer for any particular individual. Some people prefer to know all the facts about their condition and how it is going to affect their life. Others choose not to ask particular questions. Once the type of liver cancer that you have is known, it is worth appreciating that your doctor will be pleased to discuss any aspect of your illness that you choose.

If you have any questions about your own treatment, don't be afraid to ask your doctor or the nurse who is looking after you. It often helps to make a list of questions for your doctor and to take a close friend or relative with you. Two pairs of ears can be better than one and you may value the support.

WHAT RESEARCH IS NEEDED IN LIVER CANCER?

As the number of people affected by primary liver cancer is rapidly increasing, and a large proportion of all patients with cancer will have secondary spread to the liver, it is crucial that further research is performed. In order to understand how to prevent these cancers, we need more understanding of why and how they develop. There is real demand for new effective treatments for liver cancers to be developed to improve the quality and duration of life for those diagnosed with liver cancer.

USEFUL WEBSITES:

Our information section has information on other digestive diseases and cancers.

CancerHelp UK is a free information service about cancer and cancer care for people with cancer and their families. It is hosted by Cancer Research UK and the information can be found at www.cancerhelp.cancerresearchuk.org

This has information to help you and your family understand what could happen at each stage of your experience of cancer, and to help you access further information and support. Another useful website is **www.macmillan.org.uk**, which can give you more information about liver cancer and how to get involved in support groups for other patients.

YOU CAN HELP COMBAT GUT AND LIVER DISEASE BY MAKING A DONATION.

Conditions that affect the gut, the liver and the pancreas (collectively known as digestive diseases) are widespread but little known. They can cause significant health problems for people who live with them and, sadly, they are a factor in 1 in 8 UK deaths. Core is the only national charity working to change this by fighting all digestive diseases. As a charity, Core:

- Supports important medical research that looks for cures and for ways of improving the lives of patients;
- Provides evidence-based information that enables patients and families to understand and control their condition;
- Works to raise awareness of these conditions, their symptoms and impact.

THERE ARE MANY WAYS YOU CAN SUPPORT OUR WORK NOW:

- Call us on **020 7486 0341**
- Text CORE14 plus your donation amount to 70070
- Complete the form overleaf and return it to us
- Donate via our website at
 www.corecharity.org.uk

You can find more information about digestive diseases and about Core's work by visiting our website at **www.corecharity.org.uk** or by calling **020 7486 0341** during office hours.

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- 3. www.liver.ca/liver-disease/types/liver-cancer.aspx
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- 6. www.nhs.uk/Conditions/Cirrhosis/Pages/Causes.aspx
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- 8. www.macmillan.org.uk/Cancerinformation/Cancertypes/Liver/ Symptomsdiagnosis/Symptoms.aspx
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This leaflet was published by Core in 2014 and will be reviewed during 2016. If you are reading this after 2016 some of the information may be out of date. This leaflet was written under the direction of our Medical Director and has been subject to both lay and professional review.

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Please contact us if you believe any information in this leaflet is in error.

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