



Liver cancer

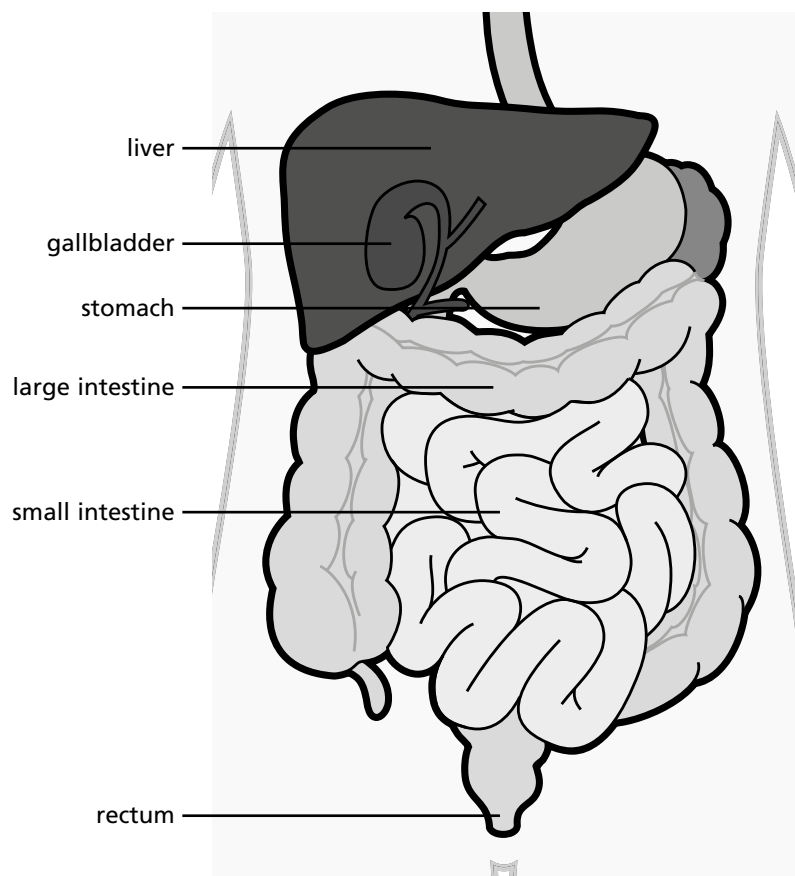
This information sheet from Great Ormond Street Hospital explains the causes, symptoms and treatment of liver cancer and where to get help.

Liver cancer is rare in children and teenagers. The condition comes when cancer cells form in the tissues of the liver. The liver is one of the largest and most complex organs in the body. It has many important functions including cleaning the blood, aiding digestion and storing energy. Liver cancer can affect the functions performed by the liver.

Primary liver cancer is when the cancer starts to grow in the liver. Secondary liver cancer is when it has spread from another organ.

There are two main types of primary childhood liver cancer:

- Hepatoblastoma, which usually affects children under three years old.
- Hepatocellular carcinoma, which is found in older children and teenagers.



What causes liver cancer?

The liver is one of the largest and most complex organs in the body. It has many important functions including:

- Cleaning the blood by removing toxins and other harmful substances.
- Making bile, which helps aid digestion by breaking down fats from foods.
- Storing the body's supply of glycogen (sugar) to be used for energy.

Each cell in the body has information controlling cell growth. The information is read by the DNA found in each cell. A mutation is a change in the information. This can cause the cell to continue growing when it should stop. This means the cells can reproduce uncontrollably causing a tumour. This is cancer.



The causes of liver cancer are generally unknown. Liver cancer can affect the functions performed by the liver. Liver cancer can affect anyone.

What are the signs and symptoms of liver cancer?

Most children do not present with any symptoms except for a large tummy or a lump that a parent, friend or doctor has felt.

How is liver cancer normally diagnosed?

The doctor will examine a child for signs of their general health.

A blood test will check the liver function which is usually normal. The blood test will also check for high levels of alpha-fetoprotein (AFP). This is a protein produced by liver cells. If the level in the blood is raised then this can indicate liver cancer.

An ultrasound can show if there is a tumour in the liver. A biopsy is when a small piece of tissue is removed from the liver. This is always done under general anaesthetic. It can then be looked at under a microscope.

CT scans and MRI scans help to determine if the cancer has spread to other parts of the body, such as the lungs.

A doctor will also need to determine the stage of the liver cancer. There are four main stages in liver which we call PRETEXT which means PRE Treatment EXTent of disease:

- Pretext I – cancer is a single tumour affecting one quadrant of the liver.
- Pretext II – cancer is a single tumour, bigger than pretext I. The cancer is affecting two quadrants of the liver.
- Pretext III – cancer is a single tumour, bigger than pretext II. The cancer is affecting three quadrants of the liver.
- Pretext IV – cancer has affected the entire liver or there is more than one tumour and a liver transplant may be necessary.

Additional letters like E for Extension are used to show if there is any tumour outside of the liver or M for Metastatic disease which is tumour that has spread through the blood system usually to the lungs.

How is liver cancer normally treated?

Successful treatment for liver cancer is more likely when the cancer is picked up early.

Treatment depends on a number of factors. These include:

- The specific type of liver cancer
- The size of the tumour
- Whether it has spread to other parts of the body
- Whether the tumour can be removed by surgery



Treatment will involve chemotherapy. This will aim to shrink the tumour. Surgery will then remove any remaining tumour. Chemotherapy will continue after surgery.

Chemotherapy can cause side-effects such as nausea, vomiting, hair loss and tiredness. The child's doctor will discuss this with you before treatment begins. It is important to remember that the side-effects last only as long as the treatment.

Sometimes side effects can appear later in life and the child will have a slightly increased risk of developing another type of cancer.

What happens next?

Liver cancer can often be cured if it is caught early and if the tumour is small and can be removed by surgery.

Sometimes the cancer can come back, either in the liver or somewhere else. Your child will have regular blood tests to monitor their AFP levels.

Further help and advice

Talk to the child's doctor or health visitor.

Contact Macmillan Cancer Support on 0808 808 00 00 or visit their website at www.macmillan.org.uk

Notes

Compiled by the GOSH web team in collaboration with the Child and Family Information Group

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