



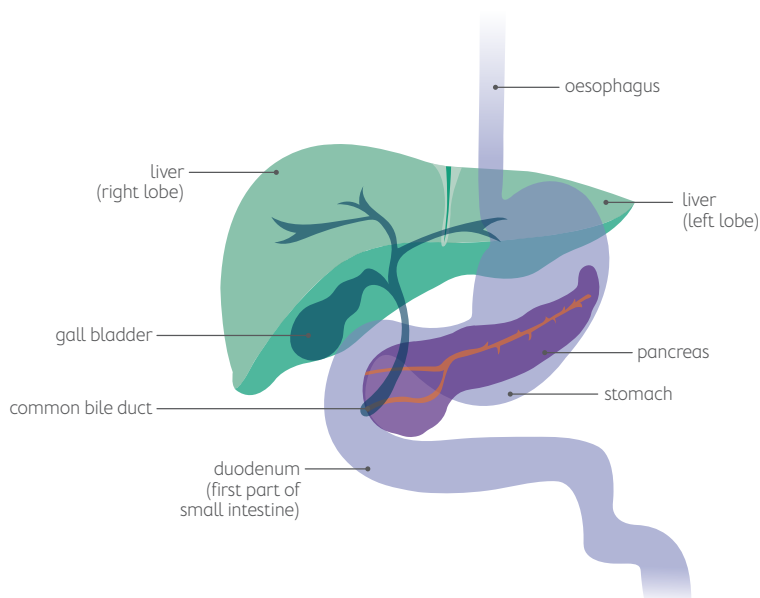
What is liver cancer?

The liver is an organ that sits in the upper right part of your abdomen, above your stomach. The liver is an important organ that helps digest food, cleans the blood and produces substances needed for various body functions.

Liver cancer is a disease where abnormal cells grow in the liver. The information in this factsheet focuses on primary liver cancer, which is cancer that begins in the liver.

Types of primary liver cancer include:

- **hepatocellular carcinoma** (or HCC or hepatoma), which starts in the main type of cells in the liver, called hepatocytes; this is the most common type of liver cancer
- **angiosarcoma**, a very rare type of liver cancer, which starts in the cells that line the walls of the liver's blood vessels
- **fibrolamellar carcinoma**, a very rare type of liver cancer, which develops from the tissues lining the liver.



Symptoms

Liver cancer often has no symptoms in its early stages, which makes it hard to detect. As the disease progresses, common symptoms may include:

- discomfort or pain in the right side of the upper abdomen
- feeling sick (nausea) with loss of appetite
- yellowing of the skin and eyes due to bile duct obstruction (jaundice)
- dark urine and/or pale stools
- itchy skin
- unexplained extreme tiredness (fatigue)
- unexplained weight loss
- fever
- a swollen abdomen caused by a build-up of fluid (ascites).

Causes and risk factors

Several factors can increase the risk of developing liver cancer, including:

- long-term (chronic) infection with hepatitis B or hepatitis C virus – these viruses damage the liver and cause scarring (cirrhosis) and are the biggest risk factor for liver cancer
- smoking tobacco – significantly raises the risk
- heavy alcohol use – significantly raises the risk
- obesity
- type 2 diabetes
- exposure to certain chemicals
- a build-up of fat in your liver (called MAFLD or MASLD) – this condition can lead to liver scarring (cirrhosis), which increases the risk of developing liver cancer
- the body storing too much iron (haemochromatosis)
- deficiency of the protein alpha 1-antitrypsin (AAT).

Diagnosis

Doctors use several methods to diagnose liver cancer, including the following.

Blood tests

You will have blood tests as part of the initial set of tests and during ongoing checks. Tests can measure how well the liver is functioning and check for substances that might indicate cancer.

Ultrasound

Ultrasound scans use soundwaves to create a picture of the inside of the body. A clinician will pass a probe over your abdomen and look at images of your liver, pancreas, gallbladder and bile ducts.

Computed tomography (CT) scan

A CT scan uses X-rays to build a 3-dimensional picture of your liver and the organs around it. It is also usual to scan your chest and pelvic area to check for any signs of cancer outside the liver.

Magnetic resonance imaging (MRI)

An MRI scan uses magnets and radio waves to build a detailed cross-sectional picture of the liver and surrounding areas.

Biopsy

A biopsy takes a small sample of liver tissue for examination under a microscope. Tissue samples can be taken through your skin with local anaesthetic and guided by CT.

A biopsy may not be performed in certain cases when surgery is planned upfront.

In cases when surgery is not planned at the beginning, you will need to have a biopsy before starting chemotherapy or taking part in a clinical trial.

Staging

Once diagnosed, you may have further tests to determine how far the cancer has spread. This is called staging, and your doctors will use the results to advise on treatment.

There are different ways to stage primary liver cancer. In Australia, the common staging systems are the:

- Child–Pugh score
- Barcelona Clinic Liver Cancer (BCLC) system.

These are outlined in the next 2 tables.

Child–Pugh score

Stage	Amount of damage to the liver
A	The liver has some damage but is working well.
B	The liver is working moderately well.
C	The liver is very damaged and is not working well.

Barcelona Clinic Liver Cancer (BCLC) system

Stage	Location and size/spread of cancer, and wellbeing	Equivalent Child–Pugh score
0	Very early liver cancer. There is only one tumour and it is less than 2 cm across. You feel well and are fully active.	A
A	Early liver cancer. There is only one tumour and it is greater than 2 cm across, or there are up to 3 tumours and they are all less than 3 cm across. You feel well and are fully active.	A or B
B	Intermediate liver cancer. There are multiple tumours in the liver. You feel well and are fully active.	A or B
C	Advanced liver cancer. The tumour has grown into one of the main blood vessels of the liver, or it has spread to the lymph nodes or other organs. You do not feel well and are less active.	A or B
D	End-stage liver cancer. The tumour has grown into one of the main blood vessels of the liver, or it has spread to the lymph nodes or other organs. You do not feel well and are unable to look after yourself.	C





Treatment

Treatment depends on the stage of cancer, and your overall health and preferences. Common treatment options include the following.

Surgery

Surgery that removes part of your liver is called a liver resection or hepatectomy. The amount of liver that is removed depends on the size and location of the cancer. This is most effective for early-stage liver cancer.

Liver transplant

If your tumour has not spread to other parts of your body but your liver is damaged, you may be offered a liver transplant. This is when the whole liver is removed and replaced with a healthy liver from another person.

Trans-arterial chemo-embolisation (TACE)

For liver cancer that has not spread, the most common type of chemotherapy is TACE. This delivers high doses of chemotherapy straight into the tumour.

Tumour ablation

If your tumours are less than 3 cm across and you can't have surgery or are waiting for a liver transplant, you may have a tumour ablation. Ablation destroys the tumour without removing it. The most common type of ablation is thermal ablation.

Immunotherapy

Immunotherapy treatments help the body's immune system fight cancer.

Clinical trials

Clinical trials allow new treatments to be tested and offer access to potentially more effective therapies than otherwise available.

Ask your doctor if there is a trial that could work for you.

Living with liver cancer

A diagnosis of liver cancer can be overwhelming. Here are some ways to cope.

Stay informed

Learn about your condition and treatment options. Knowledge can empower you.

Pain management

Talk to your healthcare team about managing pain and other symptoms.

Nutritional support

Engage with a dietitian, who can help with diet-related side effects and maintaining weight.

Many people find that relieving dietary-related symptoms makes the biggest difference to how they feel.

Physical wellbeing

You will feel physical effects from the cancer and its treatment. Physical activity help with symptoms. The amount of exercise you can tolerate will depend on how you feel and whether you are having treatment or recovering from it.

An exercise physiologist or physiotherapist can assist you in staying active.

Emotional wellbeing

Seek support, talk to friends and family or attend support groups. A cancer counselling service can support you and provide different strategies to help you cope. Simple relaxation techniques can help, such as deep breathing or listening to soothing music – both easy things to do at home.

Practical support

Accept offers of help and ask for help if you need it.

It is important to deal with work or financial situations so that they don't become an extra source of stress.

Talk to your employer about taking sick leave, reducing your hours or working from home. Ask about any financial help or benefits you may be entitled to.

Reducing risk

While not all cases of liver cancer can be prevented, some lifestyle choices may reduce risk. They include:

- having regular check-ups – regular visits to the doctor can help monitor liver health, especially for those at risk
- being vaccinated – getting vaccinated against hepatitis can help prevent liver cancer
- limiting alcohol – reducing alcohol intake can protect liver health
- maintaining a healthy weight – this can lower your risk of developing liver problems
- quitting smoking – if you smoke, seek help to stop.