



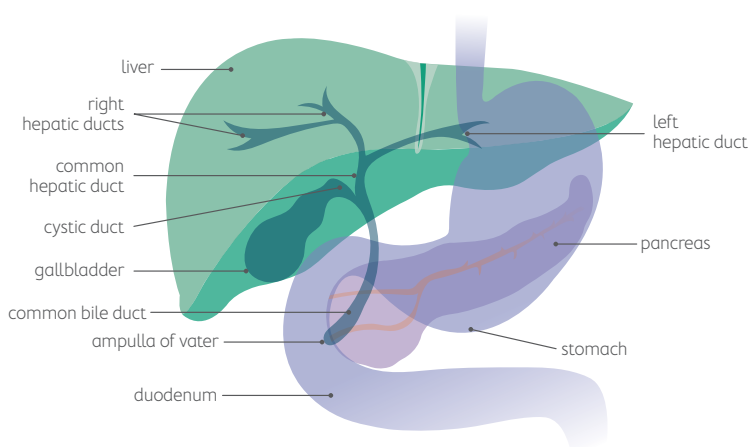
What is biliary cancer?

The gallbladder and bile ducts form the biliary system, which is part of the digestive system. Bile is made in the liver and is important for digesting fats from our diet. The bile ducts carry bile from the liver to the gallbladder, which stores bile until it is needed.

Biliary cancer is cancer that develops in either a bile duct or in the gallbladder.

There are 2 types of biliary cancer:

1. **cholangiocarcinoma**, a cancer that occurs in bile ducts, either inside the liver (intra-hepatic) or outside the liver (extra-hepatic)
2. **gallbladder cancer**, which starts in the gallbladder.



Symptoms

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

- yellowing of the skin and eyes due to bile duct obstruction (jaundice)
- itchy skin
- dark urine
- light-coloured stools – may appear pale or clay-coloured
- discomfort in the upper abdomen or right side of the ribs
- unexplained weight loss
- unexplained fatigue
- feeling sick (nausea) with loss of appetite.

If you experience these symptoms, it's important to see your doctor.

Causes and risk factors

Most biliary cancers develop with no obvious cause, but some factors are known to increase the risk. They include:

- primary sclerosing cholangitis (a disease that damages the bile ducts)
- chronic liver disease (e.g. cirrhosis)
- obesity
- diabetes
- ageing – most biliary cancers occur in people over 65 years
- exposure to certain chemicals (e.g. asbestos)
- having other gallbladder and bile duct problems, such as choledochal cysts, gallbladder polyps or a hardened (calcified) gallbladder
- family history of gallbladder cancer or bile duct cancer, particularly in a parent, sibling or child (first-degree relatives) – the increase in risk is small.

Diagnosis

Diagnosing biliary cancer can be challenging. Doctors may use several methods to diagnose it, including the following.

Blood tests

Tests may check liver function and levels of substances like bilirubin or cancer markers.

Ultrasound

Ultrasound scans use soundwaves to create a picture of the inside of your 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, bile ducts, gallbladder and the organs surrounding them. It is also usual to scan your chest and pelvic area to check for any signs of cancer outside the biliary system.

Magnetic resonance imaging (MRI)

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

Endoscopic retrograde cholangio-pancreatography (ERCP)

An endoscope is used to guide a catheter into the bile duct; this is done to insert a small amount of dye. The X-ray images show blockages or narrowing of the duct(s) that might be caused by the cancer. ERCP may also be used to put a thin plastic or metal tube (stent) into the blocked duct to keep it open.

Biopsy

A biopsy takes a small sample of gallbladder or bile duct tissue for examination under a microscope. It can be taken during an ERCP or through your skin with local anaesthetic and guided by CT.

A biopsy may not be performed in certain cases when surgical removal 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.

The table outlines staging for biliary cancer.

Stage	Where cancer is found	
	Gallbladder cancer	Bile duct cancer
1	Tumours are found only in the inner layers of the tissues lining the gallbladder.	Tumours are small and found only in one area of a bile duct.
2	Tumours have grown through the gallbladder wall but have not spread outside the area.	Tumours have grown into nearby tissues.
3	Tumours may have grown through the gallbladder wall and spread to nearby tissues and/or lymph nodes.	Tumours are larger and may have grown into the surrounding tissues and to nearby lymph nodes.
4	For gallbladder and bile duct cancer, cancer has spread to other parts of the body. This is known as 'advanced cancer.'	

Treatment

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

Surgery

The primary treatment for localised biliary cancer is surgery to remove the tumour. This may involve:

- **resection** – removing part of the bile duct and nearby tissues, or
- **cholecystectomy** – removing the gallbladder in cases of gallbladder cancer.

Chemotherapy

Drugs are used to kill cancer cells or stop their growth. This can be done before surgery to shrink tumours or after surgery to eliminate any remaining cells. It is often the main treatment for advanced cancer.

Radiation therapy

Radiation therapy uses high-energy X-rays to destroy cancer cells. It can be used alone or in combination with other treatments.

Immunotherapy

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

Targeted therapy

These drugs target specific characteristics of cancer cells. For example, some may target specific genetic mutations found in certain tumours.





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 biliary cancer

A diagnosis of biliary cancer can be overwhelming. Here are some tips for coping.

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 can 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 are 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 of biliary cancer

While there is no guaranteed way to prevent biliary cancer, some lifestyle choices may help reduce risk. They include:

- having regular check-ups – if you have risk factors, talk to your doctor about monitoring and preventive measures
- quitting smoking – if you smoke, seek help to stop
- maintaining a healthy weight – aim for a balanced diet and regular exercise
- avoiding harmful substances – reduce exposure to chemicals and toxins.