

## Liver Lesions and Liver Cancer

Liver lesions are commonly detected conditions that often raise concern for patients. Most liver lesions are benign and harmless, while liver cancer can often be treated effectively when diagnosed early. This guide explains the causes, symptoms, diagnosis, and treatment options for liver lesions and liver cancer.

### WHAT ARE LIVER LESIONS?

A liver lesion is an abnormal area of tissue found within the liver, commonly detected on imaging such as ultrasound, CT scan, or MRI. Liver lesions are very common, and the majority are benign (non-cancerous).

Common benign liver lesions include:

- Liver cysts
- Liver haemangiomas
- Focal nodular hyperplasia (FNH)
- Hepatocellular adenomas

Most benign liver lesions do not cause symptoms, do not become cancerous, and often require no treatment.

### WHAT IS LIVER CANCER?

Liver cancer refers to malignant tumours that originate in the liver or spread to the liver from other organs. Liver cancer that originate in the liver are termed primary liver cancer, whilst secondary liver cancer spreads to the liver from another organ such as the bowel, pancreas, breast, or lung. The distinction is critical because treatment strategies differ completely.

#### Hepatocellular carcinoma (HCC)

This is the most common primary liver cancer, accounting for around 75–85% of cases. It arises from hepatocytes (the main liver cells) and is strongly associated with underlying liver disease, including cirrhosis, chronic hepatitis B or C, fatty liver disease (MASLD/NASH), or alcohol-related liver disease. Management is multi-faceted and includes surgery, transplantation, or local therapies when found early, along with management of the underlying liver disease in conjunction with a liver specialist (hepatologist).

#### Intrahepatic cholangiocarcinoma (ICC)

This type of cancer arises from the bile ducts within the liver. It is less common than HCC, and may occur with or without cirrhosis (de novo). Risk factors include chronic bile duct inflammation, primary sclerosing cholangitis and liver fluke exposure (in endemic regions). Cholangiocarcinoma typically presents on imaging as a mass-forming lesion. Management often involves surgery, locally directed therapies and systemic therapy.

#### Secondary liver cancers (Liver Metastases)

Secondary (metastatic) liver cancer occurs when cancer spreads to the liver from another organ, most commonly bowel, pancreatic, breast, or lung cancer. Management is based on the primary cancer type, extent of liver involvement, patient health and overall liver function. Treatment options may include systemic chemotherapy or immunotherapy, liver-directed treatments, and in selected cases liver surgery, and will also address treatment of the site of origin eg bowel surgery. Outcomes are optimised when care is delivered through a multidisciplinary liver and cancer specialist team.

#### Fibrolamellar hepatocellular carcinoma

This is a rare subtype of HCC that occurs in younger patients and usually arises in non-cirrhotic livers. They often present as a large solitary tumour, and prognosis can be better than conventional HCC if surgically resectable.



## SYMPTOMS AND SIGNS OF LIVER LESIONS AND LIVER CANCER

Many liver lesions and early liver cancers cause no symptoms. As the condition progresses, symptoms may include:

- Persistent right upper abdominal pain
- Unexplained weight loss
- Loss of appetite or early fullness
- Fatigue or weakness
- Abdominal swelling (ascites)
- Yellowing of the skin or eyes (jaundice)

Symptoms often appear late, which is why surveillance and early diagnosis are important.



## HOW ARE LIVER LESIONS DIAGNOSED?

Liver lesions are usually diagnosed using imaging and blood tests (liver function tests and tumour markers)

Imaging tests include:

- Ultrasound of the liver
- Contrast-enhanced CT scan
- MRI of the liver (most accurate for characterising lesions)
- PET scan (assesses for spread of disease)

A biopsy is occasionally required if imaging findings are unclear.



## TREATMENT OPTIONS FOR LIVER LESIONS AND LIVER CANCER

Treatment depends on whether the lesion is benign or cancerous, its size and location, extent of spread, liver function, and overall health. Benign liver lesions usually require no treatment and may only need periodic monitoring.

Liver cancer treatment options may include:

- Liver surgery (resection)
- Liver transplantation
- Local treatments such as ablation, embolization or radiotherapy
- Systemic chemotherapy or immunotherapy

Management is best provided through a multidisciplinary liver specialist team.



## WHEN SHOULD YOU SEE A SPECIALIST?

Referral to a liver specialist or liver surgeon is recommended if a liver lesion is detected, symptoms develop, or liver cancer is suspected. Early specialist assessment improves outcomes.



## KEY TAKE-HOME MESSAGE

Most liver lesions are benign and not dangerous. Liver cancer can often be treated effectively when detected early. Accurate diagnosis and specialist-led care are essential for the best outcomes.