

LIVER CANCER FACTS

TYPES OF LIVER CANCER

Hepatocellular Carcinoma (HCC) is the most common form of liver cancer, accounting for up to 90% of cancer cases. HCC starts in the hepatocyte cells, which are the main functional cells in the liver. HCC is the third-leading cause of cancer deaths in the world. Most of the information in this Fact Sheet will be related to HCC.

Intrahepatic cholangiocarcinoma (ICC) is the second most common form of liver cancer. ICC is a cancer of the bile ducts, which are the tubes connecting the liver, gall bladder and small intestine.

Less common liver cancers include Angiosarcoma, Hepatoblastoma and Hemangiosarcoma. Cancer can also spread to the liver from elsewhere in the body.

SCREENING

Screening for HCC is typically done through either ultrasound, CT scan or alpha-fetoprotein (AFP) tumor markers in the blood. Somewhat due to lack of symptoms, evidence has shown that too few patients are being screened for liver cancer, leading to late detection of the disease and limiting treatment options.

STAGING

Liver cancer is usually staged through physical examination, biopsy or imaging tests. Staging is important in determining treatment options. There are a variety of staging systems. A simple way to understanding staging is to use three categories:

- Local: one or more tumors confined to the liver
- Regional: one or more tumors have spread to the nearby lymph nodes
- Distant: the cancer has spread beyond the liver

TREATMENTS

Transplant is the ultimate treatment for HCC but there are other options that either provide a bridge to a transplant, offer solutions to those who cannot be transplanted or avoid transplant. These treatments can sometimes be used in combination and include:

- Ablation
- Chemotherapy
- Drug Therapy
- Embolization
- Immunotherapy
- Radiation therapy
- Surgery

See the reverse side for a description of these treatments.

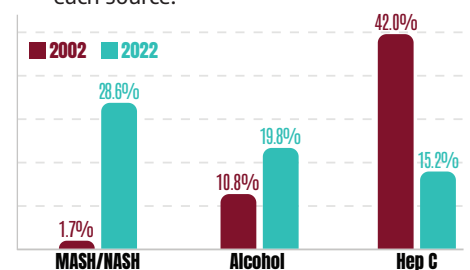


THE NUMBERS

- Liver cancer is the **14th most common cancer in the world**, but is **6th in terms of number of deaths**
- **42,000 cases** of liver cancer and **30,000 deaths** were projected in the US for 2024
- **Men are twice as likely** as females to develop liver cancer
- **HCC cases have tripled and deaths have doubled** since 1980 and are expected to continue to rapidly grow
- **More than one-third** of patients with HCC related to fatty liver do not have cirrhosis
- **Fewer than one-third** of those at risk for liver cancer are routinely screened

- Among common cancers, only pancreatic cancer has a lower **5-year survival rate** than liver cancer. Per the American Cancer Society, the **overall survival rate for liver cancer is 22%** but differs by the stage at detection:
 - Local: **34%**
 - Regional: **12%**
 - Distant: **3%**
- Per the National Cancer Institute, there are differences by ethnicity (measured in incidence rates per **100k people**)
 - American Indian & Alaska Natives: **21.2**
 - Hispanic: **15.3**
 - Asian & Pacific Islanders: **12.5**
 - Non-Hispanic Black: **10.8**
 - Caucasian: **7.7**

- An analysis of patients who have had liver transplants shows that NASH/MASH has surpassed Hepatitis C as the leading cause of HCC. The incidence of both NASH/MASH and Alcohol has grown tremendously. The following chart shows the percentage of transplants for HCC attributable to each source.



Source: "Clinical Gastroenterology and Hepatology", 2024; 22:197-199



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LIVER CANCER TREATMENTS

ABLATION destroys tumors without surgery and is most effective with tumors no larger than 3 cm across. Types of ablation include heating the tumor through high frequency current (**radiofrequency ablation**) or **microwave ablation**, freezing the tumor using a thin metal probe (**cryoblation**) or injecting concentrated alcohol into the tumor (**ethanol ablation**)

CHEMOTHERAPY is an option sometimes considered when other therapies have not been effective and involves injecting drugs into the body through a vein or an artery. It is considered by many to be the least effective treatment option. It is sometimes combined with immunotherapy. Combinations of drugs are often used.

DRUG THERAPY has been an area of recent advancement. Certain drugs work by finding and targeting cancer cells. Depending on the drug, they may stop cancer cells from growing or kill the cancer cells. Some are administered through IV and others are in pill or liquid forms. The most common drugs used are **bevacizumab, cabozantinib, lenvatinib, ramucirumab, regorafenib and sorafenib**

EMBOLIZATION is a procedure that injects substances into an artery to the liver in order to block or reduce blood flow to the tumor. It is used in patients with tumors too large to be treated with ablation or which cannot be removed by surgery. The most common types of embolization are Trans-arterial chemoembolization (**TACE**) and trans-arterial embolization (**TAE**).

IMMUNOTHERAPY improves the patient's immune system to fight the disease by using substances made by the body or manufactured to boost, direct or restore the body's natural defense against cancer. Drugs most commonly used are **atezolizumab, nivolumab and pembrolizumab**.

RADIATION THERAPY uses high-energy rays to kill cancer cells or stop their growth. Types of radiation therapy include **conformal radiation therapy, stereotactic body radiation therapy and proton beam radiation therapy**.

SURGERY (often called **resection**) can be used to remove the tumor if cancer is detected early, the patient has good liver function and a single tumor that has not grown into blood vessels. This is best option if cancer is detected early.

For more information on liver cancer,
visit the websites maintained by the following organizations:

American Cancer Society ([cancer.org](https://www.cancer.org))

National Cancer Institute ([cancer.gov](https://www.cancer.gov))

Global Liver Institute ([livercentral.org](https://www.livercentral.org))

Blue Faery: The Adrienne Wilson Liver Cancer Association ([bluefaery.org](https://www.bluefaery.org))

