

Hepatocellular carcinoma

A 'silent killer'



Liver cancer is the **6th most common cancer** in the world¹

and **hepatocellular carcinoma (HCC)** accounts for **90%** of primary liver cancer cases.²



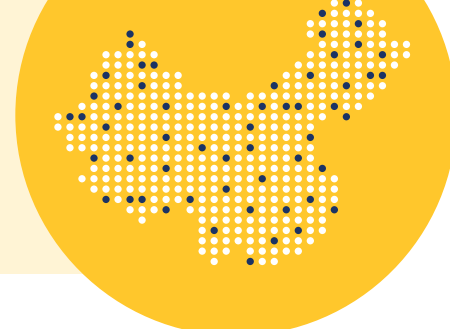
Globally, in 2020 **over 815,000**

people were diagnosed with HCC,^{1,2} about 40% of which were in late stages of the disease.³

Risk factors of HCC

Almost 50% of all cases

are diagnosed in **China**,^{1,4} in large part due to the prevalence of hepatitis B and C.⁵

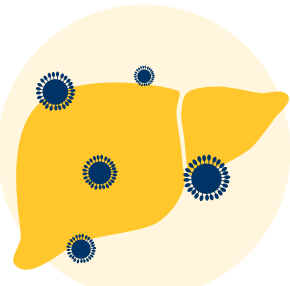


In **recent years**, the incidence and number of deaths from liver cancer has increased around the world.^{6,7}

In the US, this increase is faster than any other cancer, having more than tripled since 1980, which in part is due to the rising prevalence of **fatty foods and obesity**, a factor that is increasing the risk globally.⁶⁻⁹



Risk factors include:^{2,10}



Hepatitis B and C virus



Fatty foods and obesity



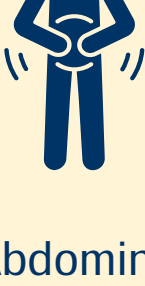
Alcohol



Aflatoxin (a carcinogenic mould found in contaminated food, especially rice)

Signs and symptoms

HCC often doesn't show symptoms until the advanced stages of the disease,² but some people may experience:¹⁰



Abdominal pain or tenderness



Easy bruising or bleeding



Enlarged abdomen



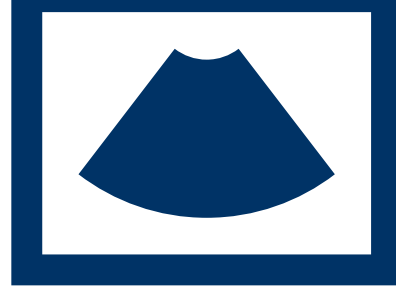
Unexplained weight loss



Jaundice

Screening and diagnosis

Surveillance programmes are associated with improved survival.¹¹



People at high-risk of developing liver cancer may undergo ultrasound examinations, which can be sensitive enough to detect small masses on the liver,¹² or blood tests for protein levels (AFP).¹³



If liver cancer is suspected, other methods of diagnosis are:^{10,13}

- Abdominal CT scan
- Abdominal MRI scan
- Liver biopsy



Current treatment landscape

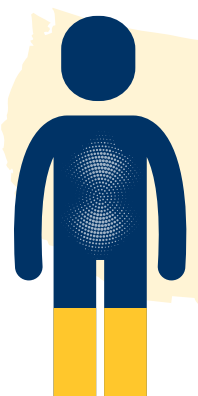
There are limited treatments available for people across all stages of liver cancer, and even less if diagnosed at the advanced stage.¹³

In fact, **less than 50%**

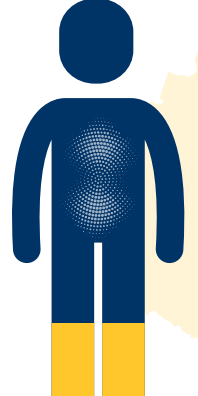
of people diagnosed with advanced HCC will survive more than a year after diagnosis.¹¹



Recent studies show:



Less than 30% of people diagnosed with HCC in the US received any treatment at all¹¹



Only 20% of people with HCC in China are diagnosed in early stages, when curative treatments are still an option¹⁴

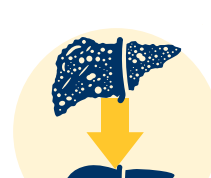
Treatments currently available across different stages of the disease include:¹³



Surgery to remove masses



Radiation



Liver transplant



Transarterial chemoembolisation



Chemotherapy



Tyrosine kinase inhibitors



Immunotherapies

Future perspectives for people with HCC



Despite the high prevalence of HCC, people with the disease still have few options and a low survival rate.^{6,11}

Recently, immune checkpoint inhibitors, which target the PD-L1 and PD-1 proteins, have been approved and more are being explored for people with HCC.¹⁵



References

- World Health Organization. Globocan 2020 – Liver cancer factsheet. [Internet; cited 2021 November 08] Available from: <http://gco.iarc.fr/today/data/factsheets/cancers/11-Liver-fact-sheet.pdf>.
- Llovet JM, et al. Hepatocellular carcinoma. Nat Rev Dis Primers. 2016;2:16018.
- Dimitroulis D et al. From diagnosis to treatment of hepatocellular carcinoma: An epidemic problem for both developed and developing world. World J Gastroenterol. 2017;23(29):5282-5294.
- World Health Organisation. Globocan 2020 – China cancer factsheet. [Internet; cited 2021 November 08] Available from: <https://gco.iarc.fr/today/data/factsheets/populations/160-china-fact-sheets.pdf>.
- Tanaka M, et al. Hepatitis B and C virus infection and hepatocellular carcinoma in China: a review of epidemiology and control measures. J Epidemiol. 2011;21(6):401-416.
- Petrick JL, et al. International trends in hepatocellular carcinoma incidence, 1978–2012. Cancer Epidemiology. 2019;147(2):317-330.
- Pimpin L, et al. Burden of liver disease in Europe: Epidemiology and analysis of risk factors to identify prevention policies. J Hepatol. 2018;69:718-735.
- American Cancer Society – Cancer Facts & Figures 2020. [Internet; cited 2021 November 08] Available from: <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2020/cancer-facts-and-figures-2020.pdf>
- World Health Organization – Obesity and overweight. [Internet; cited 2021 November 08] Available from: <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>.
- Medline. Liver cancer – hepatocellular carcinoma [Internet; cited 2021 November 08]. Available from: <https://medlineplus.gov/ency/article/000280.htm>.
- Giannini EG, et al. Prognosis of untreated hepatocellular carcinoma. Hepatology. 2015;61(1):184-190.
- Medscape. Hepatocellular carcinoma imaging. [Internet; cited 2021 November 08]. Available from: <https://emedicine.medscape.com/article/369226-overview>.
- Marrero JA, et al. Diagnosis, staging, and management of hepatocellular carcinoma: 2018 practice guidance by the American Association for the Study of Liver Diseases. Hepatology. 2018;68(2):723-750.
- Wu Q, Qin SK. Features and treatment options of Chinese hepatocellular carcinoma. Chin Clin Oncol. 2013;2(4):38.
- Okusaka T, Ikeda M. Immunotherapy for hepatocellular carcinoma: current status and future perspectives. BMJ ESMO Open. 2018;3:e000455.