



What is hepatocellular carcinoma (HCC)?

Hepatocellular carcinoma is the most common type of liver cancer. The exact cause of HCC is unknown. Viruses, such as hepatitis B and hepatitis C, have been shown to increase the risk of HCC.

What are the risk factors for HCC?

Some factors that are associated with increased risk of HCC include the following:

- Cirrhosis (or *scarring of the liver tissue*)
- Infection with hepatitis B virus or hepatitis C virus
- Older age
- Male gender
- Advanced liver disease
- Alcohol use

What are the symptoms of HCC?

Symptoms are not always present. If you have liver disease and any of the following symptoms, talk with your health care provider right away:

- A hard or sensitive lump just below your ribs on the right side
- Pain in the upper part of your stomach on the right side
- Pain near your right shoulder blade
- Yellowing of the skin, eyes, or mucous membranes (called *jaundice*)

How will my health care provider know if I have HCC?

Health care providers screen patients with liver disease, especially those who have cirrhosis, for HCC. Your health care provider will know if you have HCC based on the following:

- A physical exam
- A liver biopsy
- Blood tests
- X-rays, such as ultrasound, CAT scan, or MRI



What is the treatment for HCC?

The type of treatment depends on how early the cancer is caught. Surgery to remove the cancer offers the best chance for a cure. However, surgery may not be right for everyone. Other treatments include the following:

- ◆ **Liver transplant**
replacing a diseased liver with all or part of a healthy liver
- ◆ **Systemic chemotherapy**
medicine given generally to destroy the tumor and stop the tumor from growing or spreading
- ◆ **Intra-arterial embolization**
the blockage of blood flow and nutrients to the tumor by creating a barrier in the hepatic artery

- ◆ **Intra-arterial chemotherapy**
medicine given locally through the hepatic artery to destroy the tumor
- ◆ **Cryosurgery**
the freezing of the tumor to stop its growth
- ◆ **Percutaneous ethanol injection (PEI)**
an injection of alcohol into the tumor to stop its growth
- ◆ **Radio frequency thermal ablation**
the use of heat from lasers and high frequency radio waves to destroy the tumor

Who can I contact for more information?

Call your local VA medical center and visit the Veterans Affairs Hepatitis C Web site at <http://www.hepatitis.va.gov/>

Contact the Centers for Disease Control and Prevention (CDC) Hepatitis Toll-Free Information Line at 1-888-4 HEPCCDC (1-888-443-7232) and visit the Web site at <http://www.cdc.gov/ncidod/diseases/hepatitis>

How can I prevent HCC?

The best way to prevent HCC is to protect yourself from hepatitis B and hepatitis C. If you already have hepatitis B or hepatitis C, learn how to keep your liver healthy. Here are some suggestions:

- If you have hepatitis C, get vaccinated against hepatitis B.
- If you have hepatitis B, learn how to prevent hepatitis C.
- Avoid alcohol or drugs.
- Keep your liver appointments.
- Ask your health care provider about screening for HCC.
- Avoid medicines that may damage your liver.
- Talk with your VA health care provider about treatments for hepatitis B and hepatitis C.

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