



Facts At-A-Glance

- ❑ The liver is one of the body's largest organs. It removes harmful substances from the blood, makes bile to help digest fat, and stores sugar and fat.
- ❑ Cancer that starts in the liver is called primary liver cancer. Cancer that spreads to the liver from another organ is called metastatic liver cancer.
- ❑ About 18,000 Americans get primary liver cancer each year, and the number is increasing.
- ❑ Primary liver cancer is about twice as common in men than in women.
- ❑ The biggest risk factors for primary liver cancer are other liver diseases (mainly cirrhosis and chronic hepatitis B) and obesity.
- ❑ People with an increased risk of liver cancer can take steps to prevent it or discover it early by working closely with a doctor who specializes in liver disease.
- ❑ Unless liver cancer is discovered early, treatment options are limited.

At the American Liver Foundation,
we are committed to liver health
and we are here to help you.
Contact us!



Your Liver. Your Life.

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For more information or to find a local chapter near you,
visit www.liverfoundation.org.
National HelpLine 800-GO-LIVER (800-465-4837)

The American Liver Foundation is the nation's leading nonprofit organization promoting liver health and disease prevention. We provide research, education, and advocacy for those affected by liver-related diseases, including hepatitis.

This brochure has been reviewed by Robert G. Gish, MD, Chief, Division of Hepatology and Complex GI, California Pacific Medical Center.

The information contained in this brochure is provided for information only and does not constitute medical advice. The American Liver Foundation recommends that you consult your physician before pursuing any course of treatment.

Liver Cancer

What You Need to Know —

Important information for people who have liver cancer
or are at increased risk.



Your Liver. Your Life.

What causes liver cancer?

There are several risk factors that increase the likelihood someone will get liver cancer.

- ❑ Cirrhosis, or scarring, can lead to liver cancer. Over 80 percent of liver cancer cases are linked to cirrhosis. In the United States, hepatitis C and alcohol abuse are the leading causes of cirrhosis.
- ❑ Long-term infection with hepatitis B and C are linked to liver cancer because they often lead to cirrhosis. Hepatitis B can lead to liver cancer without cirrhosis.
- ❑ Smoking is another probable risk factor, especially among people who abuse alcohol and have cirrhosis.
- ❑ Obesity also appears to be linked to primary liver cancer.
- ❑ Less common risk factors include abuse of anabolic steroids, or male hormones, for strength conditioning; exposure to arsenic in drinking water; and exposure to certain chemicals in the plastics industry.

What are the symptoms of liver cancer?

Often there are no symptoms of liver cancer until the later stages. This is why early detection is difficult. When symptoms do occur, they may include fatigue, pain on the right side of the upper abdomen or around the right shoulder blade, nausea, loss of appetite, feeling full after a small meal, unexplained weight loss and jaundice (yellowing of the eyes and the skin).

If you have one or more risk factors for liver cancer and any of these symptoms, you should see your doctor immediately.

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How is liver cancer diagnosed?

Liver cancer may be discovered in a routine checkup if the doctor feels hard lumps in the abdomen, or incidentally by imaging studies. To confirm a diagnosis of liver cancer, doctors would use blood tests; ultrasound; computer tomography (CT) scans; and magnetic resonance imaging, or MRI. Doctors may find it necessary to do a biopsy, where a small sample of liver tissue is removed with a needle and then examined for cancer cells.

How is liver cancer treated?

Transplant: For some patients a liver transplant may be an option, but only if the cancer has not spread to other organs and a suitable liver can be found.

Surgery: In cases where the cancer has been found early and the liver is otherwise healthy, or has only early-stage cirrhosis, doctors will remove the portion of the liver where the tumor is located, a process called surgical resection.

Cryosurgery (also called cryotherapy): This is the use of extreme cold produced by liquid nitrogen (or argon gas) to destroy abnormal tissue.

Ablation: Some liver tumors can be destroyed by processes called ablation. Radio frequency ablation kills liver tumors by heating them to high temperatures with microwave probes. Another ablation technique destroys tumors by injecting them with ethanol, a form of alcohol.

Chemotherapy: Although chemotherapy cannot cure liver cancer, a new technique called transarterial chemoembolization may help prolong life for liver cancer patients. In this procedure, chemotherapy drugs are injected into the blood vessels that feed the tumors. This delivers a high dose of chemotherapy to the tumor while decreasing the flow of blood that feeds the tumor.

Radiation therapy: In some cases, doctors may try to reduce the size or slow the growth of liver cancer with radiation, or high-energy x-rays. Traditional radiation therapy also destroys healthy liver tissue, so doctors are experimenting with new techniques that deliver the radiation with higher precision.

What is the outlook for patients with liver cancer?

A successful liver transplant will effectively cure liver cancer, but it is an option for a small percentage of patients. Surgical resections are successful in only about one out of three cases. However, scientists are experimenting with several promising new drugs and therapies that could help prolong the lives of people with liver cancer.

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What is the best way to prevent liver cancer?

There are steps that you can take to reduce the risk of getting liver cancer or to discover it at an early stage, through screening. These steps are especially important if you already have liver disease.

- ❑ If you have been diagnosed with cirrhosis or chronic liver disease, you should be under the care of a doctor who specializes in liver disease. See your doctor regularly and follow all recommendations for treatment, vaccinations and cancer screenings.
- ❑ If someone close to you has hepatitis, talk to your doctor about prevention, including vaccination options. Take steps to prevent exposure to hepatitis B and C.
- ❑ Talk to your doctor about liver health, hepatitis vaccinations and liver cancer screening. This is especially important if you are also a former or current drinker or smoker, or if you are significantly overweight.

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What should you do if you have liver cancer?

Scientists are conducting clinical trials, or treatment studies, to determine the effectiveness of new therapies for liver cancer. Ask your doctor if participating in a clinical trial is an option for you.

Support organizations, both in your community and online, can be a valuable resource for patients and their families:

The American Liver Foundation's local chapters may be able to direct you to a support group in your area. To find the Foundation chapter in your area, call **1-800-GO-LIVER** or visit us online at **www.liverfoundation.org**.

CancerCare is a national nonprofit organization that provides free professional support services to anyone affected by cancer. More information can be found at **www.cancercares.org**.

An online liver cancer support group can be found at **<http://listserv.acor.org/archives/liver-onc.html>**.

The Official Patient's Sourcebook on Adult Primary Liver Cancer, by Icon Health Publications, is a comprehensive reference book that includes information on support organizations.