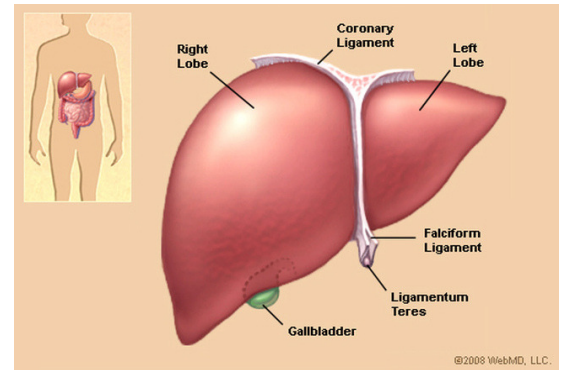


Hepatitis B and Your Liver

Your liver is one of your body's most important organs. It cleans toxins from your body and helps you digest food and absorb nutrients. The hepatitis B virus lives in your liver and can cause damage. It is important for people with hepatitis to understand their liver and how to protect it.

What does my liver look like?

The liver is the largest organ inside the body. In an adult, it is about the size of a football and weighs close to three pounds. It is located behind the ribs in the upper right-hand portion of the abdomen. Shaped like a triangle, the liver is dark reddish-brown and consists of two main lobes. There are over 300 billion specialized cells in the liver that are connected by a well-organized system of bile ducts and blood vessels called the biliary system.



How important is my liver?

The liver is such an important organ that we can survive only one or two days if it shuts down—if the liver fails, your body will fail, too. Fortunately, the liver can function even when up to 75% of it is diseased or removed. This is because it has the amazing ability to create new liver tissue from healthy liver cells.

What does my liver do?

If your body was an automobile, your liver would be considered the engine. It does hundreds of vital things to make sure everything runs smoothly. Some of the most important functions of the liver include:

- Stores vitamins, sugar and iron to help give your body energy.
- Controls the production and removal of cholesterol.
- Clears your blood of waste products, drugs, and other poisonous substances.
- Makes clotting factors to stop excessive bleeding after cuts or injuries.
- Makes immune factors and removes bacteria from the blood to fight infection.
- Releases a substance called “bile” to help digest food and absorb nutrients.

What is “hepatitis” and how does it affect my liver?

The medical term “hepatitis” means “inflammation of the liver.” Chronic inflammation of the liver may result in liver damage or failure if left untreated. “Hepatitis” can be caused by many different things - drinking too much alcohol, injury, autoimmune disorders, an adverse reaction to a drug, herbal treatment, or supplement, or a virus such as the hepatitis B virus.

What is hepatitis B?

Hepatitis B is the most common serious liver infection in the world. It is caused by the hepatitis B virus (HBV), which attacks liver cells and can lead to cirrhosis, liver cancer, or liver failure. Studies show risk may be reduced if a hepatitis B infection is detected early and properly managed. The virus is transmitted through infected blood and bodily fluids, and can occur through direct blood-to-blood contact, unprotected sex, illegal drug use, and from an infected woman to her newborn due to blood exchange during pregnancy or childbirth.

Most adults are able to fight off an HBV infection and clear the virus from their blood within 6 months. However, approximately 10% of healthy adults, 30-50% of children, and 90% of babies will not be able to get rid of the virus and will develop a chronic HBV infection. Chronically infected people can pass the virus on to others and are at increased risk for liver problems later in life. Yet, hepatitis B can be prevented with a safe and effective vaccine. For the 296 million people worldwide who are chronically infected with HBV, or have recovered from a past, acute infection, the vaccine is of no use. However, there are effective treatments for those who live with chronic hepatitis B and promising drugs still being tested.

How can the hepatitis B virus damage my liver?

A healthy liver is soft and flexible. With a chronic hepatitis B infection, however, the liver is constantly under attack by the virus and eventually it can become hardened over time. Some of the changes and liver damage that can occur are described below:

Fibrosis: After becoming inflamed, the liver tries to repair itself by forming tiny scars. This scarring, called "fibrosis," makes it difficult for the liver to do its job. As damage continues, many scars form and begin to join together, leading to the next stage, cirrhosis.

Cirrhosis: With a chronic HBV infection, large areas of the liver can become permanently scarred and nodules may form. Blood cannot flow freely through scarred liver tissue. This causes the liver to begin to shrink and become hard.

Liver Failure: If cirrhosis becomes very severe, liver failure can occur. This means the liver is unable to filter wastes, toxins, and drugs from the blood. It can no longer produce the clotting factors necessary to stop bleeding. Liver failure can lead to death.

Liver Cancer: Cirrhosis can sometimes set the stage for liver cancer. One explanation for this is that damage to liver cells may alter the genes inside the cells in such a way that they can become cancerous. People living with chronic hepatitis B infections are at higher risk for developing liver cancer (even without cirrhosis) and must be tested once or twice a year for early detection. Early detection saves lives!

What should I do if I am chronically infected with hepatitis B?

Individuals who test positive for the hepatitis B virus for more than six months are diagnosed as being chronically infected. A chronic hepatitis B infection places people at greater risk for liver problems later in life, so they need to be seen by a liver specialist or a doctor knowledgeable about hepatitis B on a regular basis (usually once or twice a year). To find a physician in your area who is familiar with hepatitis B, please check the Hepatitis B Foundation's Liver Specialist Directory on our website at www.hepb.org/liverspecialist.



The Hepatitis B Foundation is a national nonprofit organization dedicated to finding a cure and improving the quality of life for those affected by hepatitis B worldwide.

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