



Introduction

Liver Basics

The liver is the largest organ in the human body. About the size of a football, it is located in the upper right part of the abdomen.

We can't live without a functioning liver. It's the body's filter and warehouse. Almost all cells and tissues in the body depend on the liver. When something goes wrong with the liver, it can have an effect on almost every system the body.

The liver removes toxins and waste products from the bloodstream and stores important nutrients such as vitamins and minerals. The liver also plays a role in managing sugar and fat metabolism and hormone levels. In addition, it controls blood-clotting factors, which prevent excessive bleeding.

Hepatitis is a general term that means inflammation of the liver. The Greek word hepa refers to the liver, and itis means inflammation. Hepatitis has several possible causes, including:

- Microorganisms, including viruses
- Fatty Liver disease
- Toxins and chemicals, including alcohol
- Autoimmune disease, in which the immune system attacks the body.

There are five major viruses that infect liver cells called hepatocytes: [hepatitis A virus](#) (HAV), [hepatitis B virus](#) (HBV), [hepatitis C virus](#) (HCV), hepatitis D or delta virus (HDV) and hepatitis E virus (HEV). Hepatitis A and E cause acute infection that typically resolves on its own. Hepatitis B and C can cause chronic, or lifelong, infection. Hepatitis D only affects people who also have hepatitis B.

[Fatty liver disease](#) is a growing cause of advanced liver disease worldwide. This includes metabolic dysfunction-associated steatotic liver disease (MASLD), formerly known as non-alcoholic fatty liver disease (NAFLD), and metabolic dysfunction-associated steatohepatitis (MASH), formerly non-alcoholic steatohepatitis (NASH). As the [new names](#) suggest, they are associated with obesity, type 2 diabetes and other metabolic abnormalities,

The immune system's response to viral infections, liver fat buildup, heavy alcohol use and other causes of liver damage can trigger inflammation and fibrosis, or development of scar tissue as the liver tries to repair itself.

Over time, more and more normal liver tissue may be replaced by scar tissue, obstructing the flow of blood through the liver and affecting its structure and function. This is called [cirrhosis](#). Liver damage increases the risk for [liver cancer](#) and the need for a [liver transplant](#).

As with many diseases, we've come a long way in understanding liver disease. Hepatitis A and B can be prevented with vaccines. Antiviral medications can suppress HBV replication, though they seldom result in a cure. There is no vaccine for hepatitis C, but direct-acting antivirals taken for two or three months can cure most people.

Fatty liver disease has traditionally been managed with lifestyle changes, such as diet, exercise and weight loss, but the first medication was approved in 2024 and many others are in development. Medicine is also making progress in treating [alcohol-related liver disease](#), [autoimmune hepatitis](#), and [primary biliary cholangitis](#) (PBC).

Last Reviewed: June 5, 2023