

Hepatitis B Basic Information

- All medically stable infants weighing $\geq 2,000$ grams are recommended to receive the hepatitis B vaccine within the first 24 hours following birth.
- Progress toward hepatitis B elimination has stalled. Since 2012, the rate of reported acute hepatitis B cases has ranged from 0.9 to 1.1 per 100,000 population.
- New hepatitis B infections are highest among people aged 30-49 years because many people at risk in this group have not been vaccinated as recommended.

Topics on this page: [What Is Hepatitis B?](#) | [How Many People Have Hepatitis B?](#) | [Who Is Most Affected?](#) | [HIV and HBV Coinfection](#) | [How Is Hepatitis B Transmitted?](#) | [HBV Prevention](#) | [Testing](#) | [Treatment](#) | [Help Raise Awareness About Hepatitis B](#) | [Learn More About Hepatitis B](#)


What Is Hepatitis B?

Hepatitis B is a liver infection caused by the hepatitis B virus (HBV). HBV infection causes inflammation of the liver. When the liver is inflamed or damaged, its function can be affected.

- The best way to prevent HBV infection is by getting vaccinated. Safe and effective vaccines are available and covered as a preventive service by most health plans.
- Hepatitis B is transmitted when blood, semen, or another body fluid from a person infected with HBV enters the body of someone who is not infected. This can happen through sexual contact; sharing needles, syringes, or other drug-injection equipment; or from mother to baby at birth.
- For some people, HBV infection is an acute, or short-term, illness; for others, it can become a long-term, chronic infection. Risk for chronic infection is related to age at infection: approximately 90% of infected infants become chronically infected, compared with 2-6% of adults.
- Chronic hepatitis B can lead to cirrhosis, liver cancer, liver failure, and premature death.
- Hepatitis B is diagnosed with a simple blood test that can detect HBV infection years before symptoms develop and the virus has caused liver damage.
- There is no cure for hepatitis B, but there are several FDA-approved medications that treat HBV infection. People with chronic hepatitis B should be monitored regularly for signs of liver disease and evaluated for possible treatment.

How Many People Have Hepatitis B?

In the United States, an estimated 862,000 people were chronically infected with HBV in 2016. New cases of HBV infection in the United States had been decreasing until 2012. Since that time, reported cases of acute hepatitis B have been fluctuating around 3,000 cases per year. In 2018, 3,322 cases of acute hepatitis B were reported; however, because of low case detection and reporting, the Centers for Disease Control and Prevention (CDC) estimates that there were 21,600 acute hepatitis B infections. New HBV infections are likely linked to the ongoing opioid crisis in the United States.

Globally, HBV is the most common blood-borne infection with an estimated 257 million people infected according to the [World Health Organization](#) .

Who Is Most Affected?

In the United States, rates of new HBV infections are highest among adults aged 40-49 years, reflecting low hepatitis B vaccination coverage among adults at risk. The most common risk factor among people with new HBV infections is injecting drugs, related to the opioid crisis.

The highest rates of chronic hepatitis B infection in the United States occur among foreign-born individuals, especially people born in Asia, the Pacific Islands, and Africa. Approximately 70% of cases in the United States are among people who were born outside of the United States. CDC developed this [map of the geographic distribution of hepatitis B around the world - PDF - PDF](#). Other groups who have higher rates of chronic HBV infection include people who inject drugs and men who have sex with men.

HIV and HBV Coinfection

About 2% of people with HIV in the United States are coinfecting with HBV; both infections have similar routes of transmission. People with HIV are at greater risk for complications and death from HBV infection. All people with HIV are recommended to be tested for HBV, and if susceptible, are further recommended to receive the hepatitis B vaccination or, if chronically infected, evaluated for treatment to prevent liver disease and liver cancer. For more information about HIV and HBV coinfection, visit HIV.gov's pages about [hepatitis B and HIV coinfection](#).

How Is Hepatitis B Transmitted?

Hepatitis B is spread in several distinct ways: sexual contact; sharing needles, syringes, or other drug-injection equipment; or from mother-to-child at birth.

In the United States, in 2018, injection drug use was the most common risk factor reported among people with an acute HBV infection, followed by having multiple sex partners. Less commonly reported risk factors included accidental needle sticks, surgery, transfusions, and household contact with a person with HBV infection. In the United States, healthcare-related transmission of HBV is rare.

Mother-to-child transmission of HBV is especially concerning, because it is preventable. An estimated 25,000 infants are born to mothers diagnosed with HBV each year in the United States, and approximately 1,000 mothers transmit HBV to their infants. Without appropriate medical care and vaccinations, 90% of

HBV-infected newborns will develop chronic infection, remaining infected throughout their lives. Up to 25% of people infected at birth will die prematurely of HBV-related causes. For this reason, the standard of care for pregnant women includes an HBV test during each pregnancy so that the appropriate steps can be taken to prevent HBV-positive mothers from transmitting the disease to her infant.

Globally, mother-to-child transmission and inadequate infection control in health care settings represent significant modes of viral hepatitis transmission. That is why immigrants from many countries are recommended to be tested for HBV as well as hepatitis C virus (HCV).

Hepatitis B Prevention

Hepatitis B is a vaccine-preventable disease. The hepatitis B vaccine is safe and effective. To receive protection against hepatitis B, universal hepatitis B vaccination within 24 hours of birth for all medically stable infants weighing $\geq 2,000$ grams, followed by completion of the series is recommended. In children, three doses are required to complete the vaccine series. A newly approved hepatitis B vaccine for adults requires only two doses given over 30 days, which increases protection among adults more rapidly with fewer medical visits. There is also a combination vaccine that protects people from both hepatitis A and hepatitis B. The combined vaccine is usually given as 3 shots over a 6-month period. These tools may support increased vaccination in settings such as jails, prisons, and substance use disorder prevention and treatment programs.

Immunization programs for infants and adolescents that started in 1991 have resulted in substantial declines in the incidence of HBV infection in young people. Find out if you should get the hepatitis B vaccine. The hepatitis B vaccine is a covered preventive service for those for whom it is recommended under many health plans.

Hepatitis B can also be prevented by avoiding contact with contaminated blood and unprotected sexual exposure. Using condoms has also been shown to reduce the chance of sexually transmitted infections.

Mother-to-child HBV transmission can be prevented by identifying pregnant women who are chronically infected and providing the infant with hepatitis B vaccine and hepatitis B immunoglobulin at birth. Recently updated guidelines also recommend that pregnant women with chronic HBV be referred to a specialist and considered for HBV treatment to further reduce the chance of transmitting the virus.

Testing

The CDC estimates that 68% of people with chronic hepatitis B are unaware of their infection. The only way to find out if you have hepatitis B is to get tested. All it takes is a simple blood test. Hepatitis B testing is a covered preventive service under many health plans.

Being aware of your hepatitis B status is important because treatments are available that reduce the chance of developing liver disease and liver cancer. If you are diagnosed with hepatitis B, you can also protect your family members by getting them vaccinated.

The following populations are recommended to be tested:

- People born in countries with an HBV prevalence of $\geq 2\%$
- People born in the United States not vaccinated as infants whose parents were born in regions with high rates of HBV infections (HBsAg prevalence $\geq 8\%$)
- Men who have sex with men
- People who inject drugs
- People with HIV
- Household and sexual contacts of HBV-infected people
- People requiring immunosuppressive therapy
- People with end-stage renal disease (including hemodialysis patients)
- Blood and tissue donors
- People with elevated alanine aminotransferase levels (≥ 19 IU/L for women and ≥ 30 IU/L for men)
- Pregnant women
- Infants born to HBV-infected mothers

Treatment

There are several antiviral treatments available for chronic hepatitis B. Everyone with chronic hepatitis B should be linked to care, considered for treatment, and regularly checked for liver damage and liver cancer. Hepatitis B treatments reduce the amount of virus in the body and reduce the chance of developing serious liver disease and liver cancer. There is no cure for hepatitis B and treatment is recommended to continue for years if not for life. Research is ongoing for more effective treatments and a cure for HBV.

Take action! [These online tools help consumers understand and locate recommended hepatitis B and hepatitis C preventive and screening services.](#)

Help Raise Awareness About Hepatitis B

[Know Hepatitis B](#) – CDC's Hepatitis B Education Campaign for Asian Americans, Pacific Islanders, and others at risk

Learn More About Hepatitis B

Centers for Disease Control and Prevention, Division of Viral Hepatitis

- [Hepatitis B information](#)

National Institutes of Health

- [What do I need to know about Hepatitis B](#)
- [What Asians and Pacific Islanders need to know about Hepatitis B](#)

HHS Office of Women's Health

- Archived webinar, ["What every Woman Needs to Know about Hepatitis B and C"](#)

[Find additional learning opportunities for both the public and healthcare providers.](#)

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[HHS Hosts Hepatitis B Town Hall Meeting on World Hepatitis Day.](#)



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