

# Hepatitis B Fact Sheet

A Publication of the Hepatitis C Support Project



a series of fact sheets written by experts in the field of liver disease

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## Hepatitis B: The Basics

### What Is Hepatitis?

Hepatitis is an inflammation of the liver. “Hepa” refers to the liver and “titis” means inflammation. Hepatitis can be caused by toxins, drugs, too much alcohol, or a variety of viruses. Viruses that infect the liver are called hepatitis viruses. Each virus is unique and is identified by a letter of the alphabet, in the order of its discovery. Hepatitis B infection can cause either a short-term (acute) infection or a long-term or lifelong (chronic) infection. When newborns are born to HBV-infected mothers, they face a 90 percent risk of developing a chronic HBV infection. But when adults are infected, only 5 percent develop chronic infection – most experience a brief, acute

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**The hepatitis B virus (HBV), the second hepatitis virus identified by researchers, has infected one in 20 Americans.**

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infection. Most people who experience acute hepatitis B do not feel sick or have much liver damage, but people who develop chronic HBV infection can develop serious liver damage especially after years or decades of infection.

### What Are the Symptoms?

Up to 70 percent of people infected with HBV, especially children, experience no symptoms. The most common symptoms are jaundice (yellowing of the skin or the whites of the eyes), fatigue, stomach discomfort and abdominal pain, fever, loss of appetite, nausea and joint pain.

### What Are the Tests for Hepatitis B?

A health care provider will take a blood sample to test for HBV antigens, the proteins that make up the virus, and for HBV antibodies that the immune system creates to attack the antigens. These include the surface antigen (HBsAg), which makes up the covering of the virus, and the “e” antigen (HBeAg). When a person does develop surface antibodies, it means he or she has cleared the virus and is no longer infected or able to infect

others. Doctors also test blood for HBV DNA, to assess viral load – the quantity or number of viruses in the blood – and for certain liver enzymes that are released into the bloodstream when liver cells die as a result of the infection.

### Transmission and Prevention

HBV is spread mainly through exposure to infected blood and bodily fluids, especially during childbirth or during sex, or when syringes are shared. This virus is so hardy, it can live in dried blood on tabletops or in syringes for up to seven days. There is a safe and effective vaccine that can protect people against hepatitis B.

The following guidelines will prevent the transmission of hepatitis B:

- Get immunized immediately, and make sure sexual partners are immunized.
- Practice safer sex and use a latex condom because semen and vaginal fluids transmit HBV.



**Hepatitis B: The Basics**

- Don't share needles or works (cookers, cottons, ties, water, etc.). Use needle exchange.
- Don't share personal items such as razors, nail clippers, toothbrushes, or pierced earrings.
- Make sure tattoo and body piercing equipment is sterilized – use only new needles and separate ink pots
- Cover open sores or wounds with bandages.
- Immunize all newborns within 12 hours of birth.

**Health Tips:**

- See a healthcare provider for regular check-ups.
- Eat a healthy and balanced diet.
- Rest when fatigued.
- Exercise regularly.
- Get immunized against hepatitis A, which is another viral infection of the liver.
- Avoid alcohol.
- Be careful when using over-the-counter drugs such as Tylenol (acetaminophen) and Advil (ibuprofen), which in excess can harm the liver.
- Do not mix alcohol, drugs, or herbs.
- Try not to worry too much.

**What about Treatment?**

Most people with hepatitis B lead normal, healthy lives. About 15 to 25 percent of people with chronic HBV infections develop liver disease, such as liver scarring or cirrhosis, often after many years or decades of infection. About 25 percent of people with cirrhosis may develop liver cancer.

Doctors generally treat people if they show signs of liver damage – elevated ALTs (liver enzymes), a high viral load, or those who have normal ALT levels but have had the infection for many decades and have moderately high viral load. It is important for people to educate themselves and talk to health care providers about what they can do to stay healthy. The medications approved by the U.S. Food and Drug Administration to treat hepatitis B include:

- Pegylated interferon (Brand name Pegasys), which helps boost the immune system to suppress HBV, is injected once a week for six to 12 months. Doctors recommend this as a first treatment choice if patients have elevated ALT levels, and if they have HBV genotype or strain A or B.
- Antivirals, which interfere with the HBV replication process. An-

tivirals that are recommended for a patient's "first" treatment include tenofovir (Viread) and entecavir (Baraclude) for patients who test either positive or negative for the hepatitis B "e" antigen. Those two antivirals are the most potent, and they have the lowest rate of viral resistance. Lamivudine (Epivir-HBV) is not considered a good first-line treatment choice because it quickly causes viral resistance. Other antivirals, such as telbivudine (Tyzeka) and adefovir (Hepsera), cause lower rates of resistance. These antiviral drugs come in pill form.

**Getting Support**

It is important that people get the information and support they need. The only adult support group for hepatitis B on the Internet is at [www.hblist.net](http://www.hblist.net). Many adults and families from the United States, Canada and around the world participate in this well-supervised list. All those affected by or concerned about hepatitis B are invited to join.

Information about hepatitis B in children is available at the Parents of Kids with Infectious Diseases (PKIDs) website at [www.pkids.org](http://www.pkids.org).

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The information in this fact sheet is designed to help you understand and manage HBV and is not intended as medical advice. All persons with HBV should consult a medical practitioner for diagnosis and treatment of HBV.

For more information about hepatitis B, visit the following websites.  
**Hepatitis B Foundation: [www.hepb.org](http://www.hepb.org) • [HIVandHepatitis.com](http://HIVandHepatitis.com)**

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