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# You are not alone!

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## Information for young adults who are chronically infected with hepatitis B virus

### *We want to be of help to you . . .*

Young adults face new decisions and challenges nearly every day. You may be considering college, looking for a job, deciding whether to marry or remain single, thinking about moving out on your own or remaining in your parents' home. As a person chronically infected with the hepatitis B virus, one of your challenges is to be responsible to yourself and to those around you.

You will feel better about yourself when you are informed about hepatitis B. By educating yourself about hepatitis B, you are taking responsibility for yourself and safeguarding others—important steps toward independence and adulthood.

The two of us in our separate practices have counseled over one thousand teens with chronic hepatitis B virus infection. We believe the information you find in this article will provide you with the guidance you need. We want to be of help to you.

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## What is hepatitis B?

First of all, know you are not alone. You are joined by more than one million people who are chronically infected with hepatitis B virus within the United States and another 350 million people throughout the world. In 2006, about 32,000 people developed new HBV infections in the United States.

Hepatitis B virus (HBV) is similar to the viruses that cause the common cold. However, unlike cold viruses that infect the cells of your nose and throat, HBV infects the cells of your liver. Although the virus lives in the liver cells, it is not the virus itself that causes harm to your liver. It is your own immune system, in its effort to destroy HBV, that injures your liver.

As the hepatitis B virus reproduces itself within the cells of your liver, HBV particles are released into your blood and your blood becomes infectious. Just one teaspoon of your blood can have up to one trillion particles of HBV! This is why it is so easy to pass HBV infection to others who come in contact with your blood.

HBV, however, is not the only virus that can infect a person for life and cause long-term infection. Chickenpox, for example, remains in the body after the childhood illness occurs and can reappear in later life as shingles.

## How did I get infected with hepatitis B?

In populations around the world with moderate or high rates of HBV infection (for example, Asians, Pacific Islanders, Africans, Eastern Europeans, Russians, Alaskan Natives, Canadian or Greenland Eskimos), transmission occurs almost entirely during early childhood. In these populations, the most common way HBV is spread is from mother to baby during birth.

If you are chronically infected with HBV and were born in a country with a moderate or high rate of HBV infection (as noted above), chances are your mother was infected with HBV and you came in contact with her infected blood as you passed through the birth canal. HBV infection may also be passed from mother to baby during the early weeks of life or at any time during childhood. It can also be passed to children from other infected family members or siblings.

There are many other ways people can get infected, too. About one-third of people with HBV do not know how they got the infection, and many of them never will unless they get a simple blood test.

## Will I be able to get rid of my HBV infection?

Most children infected at birth or as newborns are unable to fight off HBV infection. However, the majority of children who get HBV when they are older (one year of age or older) recover from the infection.

An individual who does not fight off the infection during a six-month period is said to be chronically infected with HBV.

As a person who has chronic HBV, you will likely be infected for decades or for life. Usually people with chronic HBV feel healthy. Some people will have evidence of active infection which may include physical symptoms, changes in liver function tests, or liver biopsy findings. However, it is important for everyone who is chronically infected with HBV to be under the care of a health professional and be checked regularly for the development of serious liver problems. When you have questions about your health, contact your nurse, your doctor, or your local health aide.

## What are the symptoms of chronic hepatitis B infection?

Many people chronically infected with HBV have never had symptoms, particularly if they became infected as newborns. The only way to know for sure if a person has HBV infection is by a simple blood test.

If you were infected as an older child or young adult, you may have experienced:

- nausea, fever, muscle aches, extreme tiredness
- yellowing of the skin and the whites of the eyes (jaundice)
- dark-colored urine and/or light-colored stools
- bloated and tender belly

## Can other people get hepatitis B infection from me?

Yes. HBV is found in your blood, semen, vaginal secretions, and to a lesser extent in saliva, tears, and sweat. Some of the ways that HBV can be passed from you to other people include:

- contact with your blood through open wounds, cuts, or scrapes.
- sharing personal care items such as tooth brushes, razors, nail clippers, hair scissors, or washcloths. (Any of these items might be contaminated with small amounts of blood.)
- sharing instruments for tattooing, ear piercing, or body piercing.
- a needle stick or sharing needles for drugs like heroin.
- sexual contact (vaginal and anal).
- during childbirth.

## What is the best way to protect others from HBV?

Today, HBV infections can be prevented with hepatitis B vaccine. Unfortunately, the vaccine will not help you because you are already infected. But this is still good news for you because it means that many of your friends will have been vaccinated and thus are safe from accidental infections from you. It also means that, should you choose to marry and/or have children, your spouse and children can receive vaccine to prevent their developing infection with HBV.

It is now recommended that all children 0–18 years of age receive this safe and effective vaccine. Most infants receive this vaccine at birth. Children and teens who were not vaccinated at birth receive this vaccine during routine visits to their doctor or from their school nurse. Transmission of HBV has decreased sharply due to the high number of children, teenagers, and adults receiving three shots of hepatitis B vaccine.

## What else can I do to protect others from hepatitis B?

Even though many people are vaccinated, you still need to do the following things:

- Don't share anything that could have your blood, semen, vaginal secretions, or saliva on it such as needles, razors, toothbrushes, wash cloths, or pierced earrings.
- Bandage all cuts and open sores with a clean, dry dressing.
- Wrap soiled bandages or sanitary napkins completely and dispose of them safely.
- Clean up your blood spills with a solution of one part household bleach to 100 parts water.

## What about kissing?

While regular kissing and French kissing have not caused any known transmission of hepatitis B, because this virus is found in saliva, there is a potential for infection with French kissing. Make sure your partner is vaccinated.

## If I have a sex partner, how do I protect him or her?

Currently 30 percent of HBV infections in the United States are sexually transmitted, and they primarily occur in adults ages 25–44. Most new HBV infections in young adults are found in individuals who are not immunized with hepatitis B vaccine and who have had sexual contact with a person who has HBV.

If you are sexually active, responsible measures in your sexuality would include the practice of safer sex. This protects you from other sexually transmitted diseases and protects your partner from your HBV infection. If you choose to have sex, you should do the following:

- Use a condom correctly every time you have sex or have your partner use a condom. The condom must be in place before any contact between penis and vagina or penis and anus.
- Advise your sexual partner to be vaccinated with hepatitis B vaccine.
- Use a dental dam if practicing oral sex.
- Remember that illicit drugs and alcohol can cloud your judgment and lead you to forget to protect your partner from HBV (and yourself from further health problems).
- Abstinence is also a choice.

## **Make sure you get good health care and yearly check ups!**

Your chances of staying healthy start by getting good health care from a physician knowledgeable about HBV infection. This may be your family doctor, pediatrician, or internist. But, if these individuals feel your case is more complicated, they may send you to see a specialist, such as a gastroenterologist or hepatologist. You will need yearly check ups to make sure you are healthy.

Drugs and alcohol can damage your liver so you should always avoid illicit drugs and all forms of alcohol. Many over-the-counter and prescription drugs can cause problems for your liver so be sure to check with your doctor or pharmacist before you use them. We also recommend that you be vaccinated against the hepatitis A virus.

So remember:

- Get good health care.
- Avoid all illicit drugs and alcohol and check with your health professional before using any medications.
- Get vaccinated against the hepatitis A virus.

## **What do I need to do to protect myself from liver cancer?**

If you got HBV infection as an infant there is a 25% chance that you will develop symptoms of liver disease. However, the likelihood that you will develop liver cancer is extremely small.

Many doctors screen their HBV patients regularly for signs of liver cancer and your doctor's recommendations should be based on the condition of your liver. If you do not have scarring of the liver (cirrhosis), some doctors would test your blood once a year for alpha-fetoprotein (AFP), a test which may detect liver cancer early when it can be removed. They might also do a liver ultrasound or liver magnetic resonance imaging (MRI) — safe, painless ways to look for cancer in the liver, or a liver biopsy to check the health of your liver.

If you have cirrhosis, many doctors would do these same tests twice a year, as it is more common for cancer to develop in cirrhotic livers. Unfortunately, there is no test that guarantees finding tumors early enough to prevent spreading.

## **Is there a cure for hepatitis B?**

There is no cure at present but there is treatment for chronic HBV infection.

Alpha-interferon has been studied for many years and was licensed for treatment of chronic HBV infection in 1992. In 2005, FDA approved Peginterferon alfa-2a for the treatment of chronic HBV infection. Both of these medications are injectable. We know interferon therapy helps some people, but not everyone.

Oral antiviral medications are licensed and may be recommended by your doctor if your hepatitis B infection is causing active injury to your liver. They do not cure hepatitis B, but in some people

they reduce the injury that is occurring in the liver. There is very active research to evaluate new medicines to treat HBV. If you are interested in a medical evaluation for therapy, or if you have other questions related to your hepatitis B infection, we highly recommend an appointment with your physician.

## **Seek the help and support you need!**

Your health decisions as a person with chronic HBV infection are important ones. You can make healthy choices and be in control of your own body by keeping informed about hepatitis B. We encourage you to seek out the help and support you need.

- **Centers for Disease Control and Prevention**  
[www.cdc.gov/hepatitis](http://www.cdc.gov/hepatitis)  
(800) 232-4636
- **Immunization Action Coalition**  
[www.immunize.org](http://www.immunize.org)  
(651) 647-9009
- **American Liver Foundation**  
[www.liverfoundation.org](http://www.liverfoundation.org)  
(212) 668-1000
- **Hepatitis B Foundation**  
[www.hepb.org](http://www.hepb.org)  
(215) 489-4900
- **Hepatitis Foundation International**  
[www.hepfi.org](http://www.hepfi.org)  
(800) 891-0707
- **Parents of Kids with Infectious Diseases (PKIDS)**  
[www.pkids.org](http://www.pkids.org)  
(877) 557-5437 (55-PKIDS)