

Hepatitis B Fact Sheet

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



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HBV: Testing Positive for Hepatitis B, Now What?

Testing positive for hepatitis B can be scary, but there is information that can help you manage your health and well-being, and there is an online support group to help you understand this infection and the available treatments.

Take the time to learn about hepatitis B to make the right decisions for yourself. Don't make any snap decisions. In fact, you shouldn't make any important decisions right away – you may still be in shock. There may be some days when you feel balanced and ready to take steps towards a healthier life, and other days when you don't want to deal with your hepatitis – this is normal.

You doctor should get your medical history, find out if there is a family history of hepatitis B or liver disease and cancer, and conduct a complete physical examination.

This fact sheet explores what testing positive means, and what you can do about it. Don't panic – the knowledge you now have will help you make healthy decisions. It's important to educate yourself and to find a doctor who is knowledgeable about hepatitis B.

Your doctor probably ordered a lab test performed on your blood sample to see if you have any signs of a current or past hepatitis B virus (HBV) infection. The lab test generally looks for two key antigens, or proteins, that make up the virus:

Hepatitis B surface antigen (HBsAg):

This antigen covers the virus. When you test positive for this, it means you are currently infected. If you test positive for surface antibodies (HBsAb), it means your immune system has successfully fought the infection. This antibody is also present if you have been immunized against hepatitis B.

Hepatitis B “e” antigen (HBeAg):

This antigen is often present when the virus is reproducing rapidly.

If you have the “e” antibody (HBeAb), it means that your immune system has cleared this antigen, but you need surface antibodies in order to completely clear or vanquish the infection.

Once you have been diagnosed, your doctor should take the following steps in order to carefully



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monitor your health and determine if you need treatment:

- Your doctor should get your medical history, find out if there is a family history of hepatitis B or liver disease and cancer, and conduct a complete physical examination.
- Your doctor will order a blood sample and a laboratory will analyze it for signs of liver damage by measuring ALT levels (which become elevated when liver cells are damaged), complete blood counts with platelets, prothrombin time, and other liver-related tests.
- The lab will also look for the antigens that make up the hepatitis B virus, and also antibodies, which fight the antigens, to see what stage of infection you are at. The lab will also look at HBV DNA (viral load), the viral particles found in your blood.
- The doctor may also test for other viruses that infect the liver, such as hepatitis C and D, and also HIV infection to make sure there is no coinfection occurring.
- In order to rule out liver cancer, doctors will also test your blood for alpha fetoprotein (AFP), which may become elevated when liver tumors are present. Doctors may also order an ultrasound of your liver. A liver biopsy, during which a small sliver of liver tissue is extracted with a needle, may be recommended depending on the liver test results.

Suggested follow-Ups

Patients who don't immediately require treatment, who are HBeAg-positive, have HBV DNA levels of 20,000 international units/mL (20,000 IU/mL) or less, and normal ALTs:

- Your ALT levels should be checked every three to six months, and more often if ALT becomes elevated.
- If ALT levels are between twice and four-times normal, they should be rechecked every one to three months, and then a liver biopsy should be considered if you are age 40 or older and your ALT continues to be borderline or mildly elevated over a period of time. Treatment should be considered if the biopsy reveals moderate to severe inflammation or significant fibrosis.
- If your ALT levels are twice normal for three to six months, you are HBeAg-positive, and your HBV DNA exceeds 20,000 IU/mL, a liver biopsy and treatment should be considered.
- Liver cancer screening should also be considered.

Follow-up for patients who are HBeAg-negative, have tested positive for the "e" antibody, have normal ALT levels, and HBV DNA levels less than 2,000 IU/mL:

- Have your ALT levels tested every three months for one year, if they remain persistently normal, ALT levels should then be

checked every six to 12 months.

- If ALT levels are slightly elevated to twice normal, the doctor should check HBV DNA levels, and exclude other causes of liver disease. Consider a liver biopsy if ALT remains borderline or mildly elevated on serial tests or if HBV DNA persistently is at or exceeds 20,000 IU/mL. Your doctor should consider treatment if a biopsy shows moderate/severe inflammation or significant fibrosis.
- And, your doctor should screen for liver cancer regularly.

These recommendations are based on the American Association for the Study of Liver Diseases *Practice Guidelines for Hepatitis B*, issued September 2009.

If your doctor does not test you as frequently as these guidelines recommend, you may want to print out the AASLD practice guidelines for hepatitis B, found at: http://www.hbvadvocate.org/hepatitis/factsheets_pdf/AASLD%20HBV%20Practice%20Guidelines%202009.pdf, and present them to your physician.

Disclosure: Telling others you have hepatitis B

You may be wondering how to tell others that you have tested positive for hepatitis B. First, you don't have to tell anyone until you are ready; however, it is important to tell your healthcare provider (who will keep it confidential) because

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having hepatitis C may influence the medications and tests you get.

There are two main reasons to tell others:

- To get support for yourself
- Because you think they should get tested for hepatitis B.

Think about whom you want to tell, why you want to tell them, how you will tell them, and when and where you will tell them.

Make sure you have support by first telling someone who will be there for you.

Preventing transmission to others

While it is important to take care of yourself, you may also have questions about how to make sure you don't transmit HBV to someone else. HBV is transmitted through direct blood contact – someone else has to get your blood or body secretions directly into their blood through sex or sharing a needle, a razor, nail clippers, a toothbrush, or anything that may have your blood on it. HBV has been found to survive outside the body in dried blood for several

days. Even when blood is present, there also has to be an opening for the blood to get into the other person's body. HBV is also transmitted from a mother to her baby during pregnancy or birth. You cannot transmit HBV through hugging, kissing, sharing eating or drinking utensils, or sharing a bathroom. It is very important that family and household members and sexual partners are immediately immunized against hepatitis B, and that you practice safer sex to prevent transmitting the infection.

Getting support

If you have hepatitis B, you are not alone. There are approximately 2 million others in the U.S. with HBV. Some people like to join support groups to learn more about HBV and feel supported by others going through some of the same experiences. Others like to talk with people on the Internet who also have hepatitis B. Talk with people who care about you. Ask them for their support. You can join an email hepatitis B support list at <http://www.hblist.net>.

Commonly Used Terms

AFP (alpha fetoprotein): a protein, measurable in the blood, that is often (but not always) elevated in people with liver cancer.

ALT (alanine aminotransferase): an enzyme released into the bloodstream when membranes of liver cells break down. ALT levels are usually (but not always) elevated when there is inflammation or damage in the liver.

HBV Antigens: substances such as the hepatitis B virus or different proteins of the virus. There are three HBV antigens – surface antigen (HBsAg), “e” antigen (HBeAg) and core antigen (HBcAg).

HBV Antibodies: substances produced by the body when it encounters the hepatitis B virus. There are three HBV antibodies – surface antibody (HBsAb), “e” antibody (HBeAb) and core antibody (HBcAb).

HBV DNA: the genetic blueprint of the virus, also called HBV viral load.

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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 • HIVandHepatitis.com

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