

Hepatitis B Information for Healthcare Workers

What You Need To Know

What is Hepatitis B?

Hepatitis B is the most common serious liver infection in the world. It is caused by the hepatitis B virus (HBV), which attacks liver cells and can lead to cirrhosis (scarring), liver failure, or liver cancer. Most healthy people who are infected as adults are able to fight off the infection and clear the virus from their blood. This may take up to 6 months, and they are infectious during this time. Unfortunately, infants and young children are at the greatest risk of developing chronic (lifelong) infection if they are exposed to HBV. These people need further evaluation by a liver specialist or doctor knowledgeable about hepatitis B.

Am I at risk for a hepatitis B infection?

Health care workers who come into contact with human blood, blood products, or potentially infectious bodily fluids are at an increased risk for exposure to the hepatitis B virus.

How can I protect myself as a health care worker?

The Centers for Disease Control and Prevention (CDC) recommends that all health care workers, emergency personnel, and other individuals who are exposed to blood or bodily fluids on the job should be vaccinated against hepatitis B. The vaccine is given in 3 doses over a 6 month period (0, 1, and 6 months). It is recommended that health care workers have their hepatitis B surface antibody (HBsAb) level tested 4-6 weeks after completion of the series to make sure that they have built up protection against HBV. Once a blood test shows that a health care worker is protected, the CDC does not recommend routine antibody testing or vaccine boosters. However, each health care institution may have its own hepatitis B vaccine protocol. If a person does not develop the protective antibodies after completion of the vaccine series, then the entire series should be repeated (with antibody testing 4-6 weeks after completion of the additional second series).

What if I am exposed to the virus?

For unvaccinated individuals who think they have been exposed to hepatitis B, it is recommended that they speak to their doctor about "post-exposure prophylaxis" as soon as possible. If the source of the exposure is known to be positive for hepatitis B, then the exposed person should receive the first dose of the vaccine and one dose of Hepatitis B immune globulin (HBIG) as soon as possible (within 24 hours if possible). After that, the remaining 2 doses of the vaccine can be given 1 and 6 months after the first dose. About 1-2 months after the vaccine series is completed, it is a good idea to get tested to determine whether the person developed protective antibodies. If the hepatitis B status of the source is unknown and the exposed person is unvaccinated, it is recommended that they begin the hepatitis B vaccine series as soon as possible.

The Hepatitis B Panel includes the following 3 tests:

1. **Hepatitis B Surface Antigen (HBsAg)** – The "surface antigen" is part of the hepatitis B virus that is found in the blood of someone who is infected. If this test is positive or "reactive," then the hepatitis B virus is present.
2. **Hepatitis B Surface Antibody (HBsAb or anti-HBs)** – This tests for the presence of protective antibodies against the hepatitis B virus. This blood test should be positive if the protective antibodies are produced in response to either vaccination or recovery from a past HBV infection.
3. **Hepatitis B Core Antibody (HBcAb or anti-HBc)** – This antibody does not provide any protection, but only refers to a part of the virus itself. A positive test result may indicate whether a person has been exposed to the hepatitis B virus or not. This test can only be interpreted with the above 2 test results.

INTERPRETING YOUR HEPATITIS B TEST PANEL

Interpretation and Action Needed	HBsAg	HBsAb (anti-HBs)	HBcAb (anti-HBc)
Not Immune - Get Vaccinated Has not been infected, but still at risk for possible hepatitis B infection. Get the vaccine.	-	-	-
Immune - You are Protected Surface antibodies present due to natural infection. Has recovered from a prior hepatitis B infection. Cannot infect others.	-	+	+
Immune - You are Protected Has been vaccinated. Does not have the virus. No vaccine is needed.	-	+	-
Infected - Need More Testing Positive surface antigen (HBsAg), which means hepatitis B virus is present. Can spread the virus to others. Find a doctor who knows about hepatitis B for more tests and care.	+	-	+
Could be Infected - Need More Testing Different interpretations are possible. Person might be infected, susceptible, or have a resolved infection.	-	-	+

When you get the results of the 3-part hepatitis B blood panel, make sure you request a written copy so you fully understand what tests were ordered and the actual results of each. Also, be sure to have your doctor clearly explain the results to you so you fully understand your situation. visit our website at www.hepb.org/patients/your_blood_tests for more information about your hepatitis B blood tests.

For additional information, please visit the following resources:

- **Vaccination Procedures:**
 - "Immunization of Health Care Workers," MMWR, 1997, volume 46, No. RR-18
www.cdc.gov/mmwr/preview/mmwrhtml/00050577.htm
 - "Guidelines for infection control in health care personnel," CDC, 1998
www.cdc.gov/ncidod/hip/guide/InfectControl98.pdf
 - "Immunization and Health Care Workers," Immunization Action Coalition (IAC)
www.immunize.org/hcw/index.htm
- **Exposure Procedures:**
 - "US Public Health Service Guidelines for the Management of Occupational Exposure to HBV, HCV, and HIV," MMWR, June 2001, volume 50(RR11)
www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm
 - HBV-Infected Health Care Workers – "Recommendations for Preventing Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Patients During Exposure-Prone Invasive Procedures," MMWR, July 12, 1991, volume 40(RR08);1-9
www.cdc.gov/mmwr/preview/mmwrhtml/00014845.htm



The Hepatitis B Foundation is a national nonprofit organization dedicated to finding a cure and improving the quality of life for those affected by hepatitis B worldwide.

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