

# 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:*

## Preventing Mother-to-Child Infection

Pregnant women who are infected with the hepatitis B virus (HBV) often infect their newborns because of the HBV present in their blood and body fluids. About 40 percent of infants born to HBV-infected mothers in the United States become infected unless they are immediately vaccinated and treated with the hepatitis B antibodies called immune globulin (HBIG).

Nearly all infants infected at birth develop chronic or long-term hepatitis B because their immune systems do not recognize and fight the infection. Years or even decades may pass before their immune systems begin fighting the infection.

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The good news is that the combination of HBIG and immunization administered within 12 hours of birth prevents infection in about 97% of births. However, when women have high viral loads (HBV DNA levels exceeding 1 million international units per milliliter or IU/mL), the combination of a vaccine and HBIG often isn't enough to prevent infection. For example, if a woman's viral load exceeds 10 million IU/mL, the chances her newborn will be infected despite immunization and HBIG increases to 9%.

Recently, doctors have come up with a way to reduce this infection risk in women with high viral loads to zero. They treat these HBV-infected women with antivirals during the last few months of the pregnancy.

Antivirals are highly effective in stopping the virus from reproducing, and they appear to pose no risk to the baby. Doctors have used many of these same antivirals in HIV-infected pregnant women for decades

and they know these drugs pose no risk to the developing fetus.

Recent studies show that treating HBV-infected women who have viral loads exceeding 1 million IU/mL reduces the risk of infecting their newborns to zero.

The U.S. Food and Drug Administration has not yet approved these drugs for use in pregnant women, but increasingly doctors are using them "off-label" to prevent infection because they have a proven track record of being very safe and effective.

Currently, experts recommend that doctors use the antivirals telbivudine (Tyzeka) or tenofovir (Viread) in pregnant women. Research shows these two drugs are the safest and most powerful drugs to use to prevent mother-to-child infection.

If you are pregnant or considering



[www.hbvadvocate.org](http://www.hbvadvocate.org)

**Preventing Mother-to-Child Infection**

becoming pregnant and have a high viral load, you may want to talk to your doctors about receiving antiviral treatment during your pregnancy to reduce the risk of infection to your baby.

Sometimes, women become pregnant while they are taking antivirals. In that situation, doctors may recommend they continue to take the antiviral throughout the pregnancy because stopping treatment could result in serious liver damage from a resurgence of HBV. In other cases, if it is safe, doctors may suggest the woman stop taking antivirals until the third trimester of her pregnancy.

If a woman is considering getting pregnant and she has a high viral load, or is currently taking an antiviral, doctors recommend that she get a liver biopsy to evaluate the health of her liver. This information could help determine if antiviral treatment should continue, or is needed, during her pregnancy.

When it is time to give birth, infected mothers should make sure that health care workers know about their HBV infection so their newborns will be immediately immunized and treated with HBIG.

To be fully protected, it is very important that babies receive all three hepatitis B immunization shots. The second shot is administered two months after the first, and the third is administered about four months later.

HBV-infected mothers can safely breastfeed their infants, according to the CDC. While the surface antigen – the outer coating of the virus – is found in breast milk, there are no intact viruses in breast milk that can infect infants. Studies have shown that breastfed infants who are immunized immediately after birth are not at increased risk of HBV infection when compared to infants who were not breast-fed.

Routine immunization of newborns has been very successful in the United States, and has reduced HBV infections by two-thirds during the past decade. CDC officials say the overall number of hepatitis B cases dropped 67 percent between 1990 and 2002, with the greatest decrease – 89 percent – in the newborn-to-19-year-old age group.

*Source:* [www.ncbi.nlm.nih.gov/pubmed/?term=vertical+transmission+of+hepatitis+B+virus%3A+challenges+and+solutions](http://www.ncbi.nlm.nih.gov/pubmed/?term=vertical+transmission+of+hepatitis+B+virus%3A+challenges+and+solutions)

## **For more information about hepatitis B immunization, visit the following websites**

**Centers for Disease Control and Prevention website on hepatitis B immunization of infants & children:**

<http://www.cdc.gov/hepatitis/HBV/VaccChildren.htm>

**Centers for Disease Control and Prevention website on hepatitis B immunization of adults:**

<http://www.cdc.gov/hepatitis/HBV/VaccAdults.htm>

**Immunization Action Coalition provides extensive information on all childhood immunizations, including hepatitis B.**

<http://www.immunize.org>

**National Network for Immunization Safety provides up-to-date, science-based information about immunization.**

<http://www.immunizationinfo.org>

**American Academy of Pediatrics, an organization of 57,000 pediatricians, issues recommendations to ensure childhood health and safety.**

<http://www.aap.org>

**For more information about hepatitis B, visit the following websites.**

**Hepatitis B Foundation:**

<http://www.hepb.org>

**HIVandHepatitis.com**

<http://hivandhepatitis.com/>

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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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