

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) frequently 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 receive hepatitis B antibodies, according to the Centers for Disease Control and Prevention (CDC).

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.

Routine immunization of newborns has been very successful in the United States, and has reduced HBV infections by two-thirds during the past decade.

According to researchers, infants born to mothers who test positive for both the hepatitis B surface (HBsAg) and “e” (HBeAg) antigens and have a high viral load (HBV DNA) are at greatest risk of perinatal (occurring at birth) infection. But there is good news for HBV-infected women who are pregnant or planning to become pregnant. When a baby is born, if hepatitis B immune globulin (HBIG) and the first dose of the hepatitis B vaccine are administered within 12 hours of birth, the baby’s risk of infection drops to only 5 to 15 percent. HBIG contains antibodies to HBV that offer immediate but short-lived protection against infection. But even if a baby does not receive HBIG, the vaccine alone is very effective in protecting against infection.

Another way to prevent perinatal infection is lowering a pregnant woman’s viral load by treating her with antivirals during the third trimester of pregnancy. Doctors have used antivirals, which block viral reproduction, safely in pregnant women for many years to prevent transmission of HIV to newborns.

While the U.S. Food and Drug Administration has not approved this treatment for HBV-infected women, increasingly doctors are using it because it has been proven safe in HIV-infected women, and because it helps prevent perinatal infection when women have high viral loads, or when they’ve given birth to an HBV-infected child in the past.

If you are pregnant, have a high viral load and are HBeAg-positive, you may want to talk to your doctor about antiviral treatment during the third trimester of



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pregnancy to decrease the risk of infecting your newborn.

Doctors recommend lamivudine (Epivir-HBV), telbivudine (Tyzeka) or tenofovir (Viread), for pregnant women with high viral load. These antivirals appear to cause no harm to the developing fetus.

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 breast-fed 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.

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 • HIVandHepatitis.com

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