

What is perinatal hepatitis B?

Hepatitis B is a viral infection of the liver caused by the hepatitis B virus. Hepatitis B can lead to lifelong (chronic) infection and can cause serious liver damage (cirrhosis or liver cancer) and death. The perinatal period is the time around the birth of an infant, usually five months before and one month after the birth. When hepatitis B is transmitted from a mother to the infant during birth, the infant has perinatal hepatitis B.

Who is at risk for perinatal hepatitis B?

Infants born to mothers with hepatitis B may contract the virus. Women born in certain areas of the world where hepatitis B is more common are more likely to have hepatitis B. Women at greater risk for getting hepatitis B include:

- Women with multiple sex partners or sexually transmitted disease(s)
- Sexual contacts of infected people
- Injection drug users
- Household contacts of chronically infected people
- Health-care and public safety workers who have contact with infected blood
- Hemodialysis patients

What are the symptoms of hepatitis B?

About 30 percent of people who are infected with hepatitis B have no signs or symptoms. Adults and teens are more likely to have symptoms than are young children. Symptoms may include tiredness, loss of appetite, nausea, abdominal discomfort, vomiting, joint pain, rash, dark urine or jaundice (i.e., yellowing of skin or whites of eyes). Young children may show few or no signs or symptoms. Some people, mostly adults, recover fully, but some carry the virus in their blood for a lifetime. Age at the time of infection is a major factor in progression to chronic (lifelong) infection. More than 90 percent of infants infected perinatally will develop chronic infections.

How soon do symptoms appear?

Symptoms may appear six weeks to six months after exposure, but usually appear within 60 to 90 days.

How is perinatal hepatitis B spread?

Hepatitis B virus can be found in the blood of an infected person. Perinatal hepatitis B is passed from a mother with hepatitis B to the infant during birth. Early preventative measures can prevent up to 95 percent of hepatitis B transmission from mother to infant. An infant born to a woman with hepatitis B has a 70 to 90 percent chance of contracting hepatitis B.

A woman with hepatitis B who breastfeeds her infant does not increase the infant's chance of contracting the disease.

When and for how long is a person able to spread the disease?

The virus can be found in blood and other body fluids weeks before symptoms appear. The virus generally persists in the blood several months after symptoms begin. Some infected people may become long-term carriers of the virus and may remain contagious for the course of their lifetime. More than 90 percent of infected infants become long-term carriers.

How is a person diagnosed?

A health care professional can make a positive diagnosis using several blood tests.

What is the treatment?

There are no special medicines or antibiotics that can be used to treat a person once hepatitis B symptoms appear. For children with chronic infection, an antiviral may reduce the amount of hepatitis B virus in their body.

Does past infection make a person immune?

Yes. However, the person is still at risk for other hepatitis infections (such as A and C).

Should children or others be excluded from child care, school, work or other activities if they have hepatitis B?

A child with known hepatitis B should be excluded if he or she exhibits any of the following:

- Weeping sores that cannot be covered
- Biting or scratching behavior
- A bleeding problem
- Generalized dermatitis that may produce wounds or weepy tissue fluids
- Unable to participate in routine activities, needs more care than can be provided by staff, or meets other exclusion criteria, such as fever with behavioral change

The child can be readmitted to a group setting when skin sores are dry or covered, when the child is cleared to return by a health professional, or when the child is able to participate in activities.

What can be done to prevent perinatal hepatitis B?

All pregnant women should be tested for hepatitis B early in pregnancy. Hepatitis B testing should be done at the time of admission to the hospital for delivery for women who:

- Were not tested earlier in pregnancy
- Participated in injection drug use
- Had more than one sex partner in the previous six months
- Had a hepatitis B-positive sex partner
- Had an evaluation or treatment for a sexually transmitted diseases
- Have clinical hepatitis

Every infant, regardless of the mother's hepatitis B status, should receive a dose of hepatitis B vaccine before they leave the hospital. The hepatitis B vaccine needs to be given within 12 hours of birth, along with hepatitis B immunoglobulin (HBIG) to infants born to women with hepatitis B. HBIG contains antibodies to hepatitis B,

which help prevent the infant from getting the disease. Two more doses of the hepatitis B vaccine will be needed for full protection; the first dose at 1 to 2 months and the second at 6 months.

After infants who were born to hepatitis B-positive mothers have received all three doses of hepatitis B vaccine, testing should be done to make sure the child is protected against hepatitis B and that the child has not contracted the disease. This testing should be done between ages 9 to 12 months.

Additional Information:

Additional information is available at www.ndhealth.gov/disease or by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resource:

American Academy of Pediatrics. [Hepatitis B]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015: 400-423.

Centers for Disease Control and Prevention: www.cdc.gov/hepatitis/hbv/perinatalxmtn.htm.

