

### **What is hepatitis B?**

Hepatitis B (formerly known as serum hepatitis) is a liver disease caused by the hepatitis B virus (HBV). The disease is fairly common; about 50 acute cases and 600 chronic/unspecified cases are reported in Wisconsin each year.

### **Who is most likely to get hepatitis B?**

- Injection drug users
- Healthcare workers
- Men who have sex with men
- Heterosexuals with multiple partners
- Hemodialysis patients
- Sexual/household contacts of infected people
- Infants born to infected mothers
- Infants/children of immigrants from HBV-endemic countries

### **How is the virus spread?**

HBV is spread by contact with blood, serum, semen, vaginal fluids and, rarely, saliva. Direct contact with infected body fluids; usually by needle stick injury, sharing needles, or sexual contact, is necessary for spread. HBV is not spread by casual contact or by respiratory droplets.

### **What are the signs and symptoms of hepatitis B?**

The signs and symptoms of hepatitis B include fatigue, poor appetite, nausea, vomiting, abdominal discomfort and sometimes joint pain or rash. Later, urine may become dark and jaundice (a yellowing of the skin and whites of the eyes) may appear. Many people do not have typical signs and symptoms of hepatitis; only 10% of children and 30-50% of adults develop jaundice.

### **When do symptoms appear?**

Symptoms usually appear 2-3 months after exposure (range: 1½-6 months).

### **How long can a person spread the virus?**

HBV is present in blood and other body fluids several weeks before symptoms appear and usually persists for about 3 months. However, the likelihood of complete recovery with elimination of the virus from the body depends on the age when infection occurs.

Chronic infection occurs in 80-90% of infants infected during the first year of life, in 30-50% of children infected between 1-4 years of age and in 5-10% of people infected after 6 years of age. People with chronic hepatitis B may infect others and 15-25% may die prematurely of either cirrhosis or liver cancer.

## **What is the treatment for hepatitis B?**

Hepatitis B infected persons should be evaluated by their doctor for liver disease. There are no medications available for recently acquired (acute) HBV infection. Hepatitis B vaccine is available for the prevention of HBV infection. There are antiviral drugs available for the treatment of chronic HBV infection. Currently five drugs are used for the treatment of persons with chronic hepatitis B. These drugs include adefovir dipivoxil, interferon alfa-2b, pegylated interferon alfa 2-a, lamivudine and entecavir. Additional anti-virals are under development.

## **What precautions should a person with acute or chronic hepatitis B take?**

The person should follow standard hygienic practices to protect close contacts from blood and other body fluids. The infected person must not share razors, toothbrushes, needles, or any other object that may have become contaminated with blood. Use of latex condoms during sexual activity may reduce transmission of HBV among homosexuals and heterosexuals. The infected person must not donate blood and should inform dental and medical care providers so that proper precautions can be followed.

## **How can hepatitis B be prevented?**

Hepatitis B can be prevented either before or right after exposure to the virus. To prevent disease before exposure, hepatitis B vaccine is recommended for all infants and children <19 years of age, people in high risk occupations (e.g., healthcare workers) and people with a high risk behavior (e.g., injection drug use or multiple sexual partners). Susceptible sexual and household contacts of people with chronic hepatitis B should also be immunized and the sexual partners should be tested for immunity after they complete the 3-dose series.

To prevent disease after exposure, hepatitis B immune globulin (HBIG) is given along with hepatitis B vaccine.

- Infants of infected mothers. Because these infants are exposed to the virus during labor and delivery, all pregnant women should be screened for hepatitis B prenatally. Infants of women who test positive should receive HBIG and the first dose of hepatitis B vaccine within 12 hours of birth. The infant should receive the remaining doses of hepatitis B vaccine at 1-2 months and 6 months of age.
- Sex partners of a person with acute hepatitis B should be given HBIG within 2 weeks of the last sexual contact.
- Household contacts of a person with acute hepatitis B do not need HBIG unless they have had a blood exposure to the case within the past 2 weeks. Questions about preventing hepatitis B after other types of exposures should be directed to your physician or local health department.