

# **HEPATITIS-B**

## **Description**

Hepatitis B is caused by the hepatitis B virus (HBV). The clinical manifestations of Hepatitis B infection range in severity from no symptoms to fully developed Hepatitis. Signs and symptoms of Hepatitis B may include fever, malaise, anorexia, nausea, and abdominal discomfort, followed within a few days by jaundice.

## **Occurrence**

Hepatitis B is transmitted through activities that involve contact with blood or blood-derived fluids. Such activities can include:

- unprotected sex with an Hepatitis B -infected partner;
- shared needles used for injection of illegal drugs;
- work in health-care fields (medical, dental, laboratory, or other) that entails direct exposure to human blood;
- receiving blood transfusions that have not been screened for Hepatitis B;
- having dental, medical, or cosmetic (e.g., tattooing or body piercing) procedures with needles or other equipment that are contaminated with Hepatitis B.

In addition, open skin lesions, such as those due to impetigo, scabies, or scratched insect bites, can play a role in Hepatitis B transmission if direct exposure to wound exudates from Hepatitis B infected persons occurs.

The prevalence of chronic Hepatitis B infection is low (<2%) in the general population in Northern and Western Europe, North America, Australia, New Zealand, Mexico, and Southern South America. In the United States and many other developed countries, children and adolescents are routinely vaccinated against Hepatitis B. The highest incidence of disease is in younger adults, and most Hepatitis B infections are acquired through unprotected sex with Hepatitis B-infected partners or through shared needles used for injection drug use.

## **Risk for Travelers**

The risk of Hepatitis B infection for international travelers is generally low, except for certain travelers in countries where the prevalence of chronic Hepatitis B infection is high or intermediate. Those countries include:

- South Central and Southwest Asia, Israel, Japan, Eastern and Southern Europe, Russia, most areas surrounding the Amazon River basin, Honduras, and Guatemala (infection rate is intermediate)
- All socioeconomic groups in certain areas of Africa; Southeast Asia, including China, Korea, Indonesia, and the Philippines; the Middle East, except Israel; South and Western Pacific islands; the interior Amazon River basin; and certain parts of Haiti and the Dominican Republic. (infection rate is high)

When seeking medical or dental care, travelers should be advised to be alert to

- The use of medical, surgical, and dental equipment that has not been adequately sterilized or disinfected.
  - Travelers should be advised to consider the health risks in deciding to get a tattoo or body piercing in areas where adequate sterilization or disinfection procedures might not be available or practiced.
- Reuse of contaminated equipment.
  - Hepatitis B can be transmitted if tools are not sterile or if the tattoo artist or piercer does not follow other proper infection-control procedures (e.g., washing hands, using latex gloves, and cleaning and disinfecting surfaces and instruments).
- Unsafe injecting practices (e.g., reuse of disposable needles and syringes).

Ideally, vaccination should begin at least 6 months before travel so the full vaccine series can be completed before travel. Because some protection is provided by one or two doses, the vaccine series should be started, even if it cannot be completed before travel departure. Optimal protection, however, is not conferred until after the final vaccine dose. There is no interference between hepatitis B vaccine and other simultaneously administered vaccine(s).

## Clinical Presentation

The incubation period of hepatitis B averages 120 days. Symptoms such as malaise and anorexia may precede jaundice by 1-2 weeks. Clinical symptoms and signs include nausea, vomiting, abdominal pain, and jaundice. Skin rashes, joint pains, and arthritis may occur. Acute Hepatitis B infection causes long-term infection in 30%-90% of persons infected as infants or children and in 6%-10% of adolescents and adults. Chronic infection can lead to chronic liver disease, liver scarring (cirrhosis), and liver cancer.

## Vaccine

Hepatitis B vaccination is currently recommended for all U.S. residents who work in health-care fields (medical, dental, laboratory, or other) that involve potential exposure to human blood. All unvaccinated United States children and adolescents should receive hepatitis B vaccine. In addition, unvaccinated persons who have indications for hepatitis B vaccination independent of travel should be vaccinated, such as men who have sex with men, injection drug users, and heterosexuals who have recently had a sexually transmitted disease or have had more than one partner in the previous 6 months.

## Vaccine Adverse Reactions

Hepatitis B vaccines have been shown to be very safe for persons of all ages. The most frequently reported adverse reactions occurring within 3-5 days were soreness or pain at the injection site and headache.

## Precautions and Contraindications

These vaccines should not be administered to persons with a history of hypersensitivity to any vaccine component, including yeast. Limited data indicate that there is no apparent risk of adverse events to the developing fetus when Hepatitis B vaccine is administered to pregnant women. Hepatitis B infection affecting a pregnant woman can result in serious disease for the mother and chronic infection for the newborn. Neither pregnancy nor lactation should be considered a reason not to vaccinate.

For more information on the Hepatitis B vaccine, please contact Carroll County Public Health/St. Anthony Home Health Agency at 712-794-5279 or 1-800-684-3020.  
or visit <http://wwwn.cdc.gov/travel/default.aspx>

**Need to find your old immunization record and don't know where to start? Follow this link for helpful tips:** <http://www.vaccineinformation.org/topics/oldrecords.asp>

References include:

Centers for Disease Control and Prevention. Travelers Health: Yellow Book. Chapter 4. Available at <http://wwwn.cdc.gov/travel/yellowBookCh4-HepB.aspx>