

HEPATITIS B, Acute and Chronic: Notes about the Disease

Hepatitis B is a contagious liver disease that is caused by the Hepatitis B virus (HBV). Hepatitis B infections pose a major public health problem in the United States and, along with Hepatitis C infections, are a major cause of chronic liver disease and the need for liver transplantation. The U.S. Centers for Disease Control and Prevention estimates that 800,000 to 1.4 million people in the United States are living with chronic HBV.¹

HBV is transmitted through infected blood or body fluids. Common modes of transmission include sharing or using nonsterilized needles or syringes, unprotected sexual contact with an infected person, perinatal exposure to an infected mother, close household contact with an infected person, and nosocomial exposure. The Hepatitis B virus is quite virulent and can survive in the environment for up to a week.

Hepatitis B infections can be either acute or chronic. The acute form is a short-term illness that occurs within the first six months after exposure to the Hepatitis B virus. Persons infected with Hepatitis B may show no signs of clinical illness. In those with illness, onset may be insidious and include anorexia, nausea, vomiting, and abdominal discomfort. Fever may be mild or absent.² The illness can persist beyond six months and become chronic. The likelihood of developing chronic disease depends on a person's age at the time of infection. Approximately 2-6% of acutely infected older children and adults will develop chronic infection, whereas more than 90% of infants infected perinatally will develop chronic HBV infection.³ For this reason, North Carolina law requires that all newborns receive Hepatitis B vaccination.

Effective Hepatitis B vaccines have been available since 1982. Immunity against HBV infection persists for at least 15 years after successful immunization.⁴ The Advisory Committee on Immunization Practices recommends that the following persons be vaccinated against Hepatitis B: all infants, beginning at birth; susceptible sex partners of infected persons; persons seeking treatment for a sexually transmitted disease; men who have sex with men; injection drug users; susceptible household contacts; healthcare and public safety workers at risk for exposure to infected blood; persons with HIV infection; persons with chronic liver disease; and persons with end-stage renal disease.⁵

No specific treatment is available for acute Hepatitis B. Two major groups of antiviral treatments are used in the treatment of chronic Hepatitis B, although these medications have significant side effects that require close and careful monitoring by a skilled healthcare professional.

1. IOM (Institute of Medicine). 2010. *Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C*. Washington, DC: The National Academies Press.
2. American Public Health Association, *Control of Communicable Diseases Manual*, 19th ed., pp 284-293.
3. American Academy of Pediatrics, *Red Book, 2009 Report of the Committee on Infectious Diseases*, pp.337-356.
4. American Public Health Association, *Control of Communicable Diseases Manual*, 19th ed., pp 284-293.
5. Centers for Disease Control and Prevention, *Hepatitis B information for Health Professionals*, www.cdc.gov/hepatitis.