



HBV

HEPATITIS B FACT SHEET

CHRONIC HEPATITIS B: PREVALENCE AND ETIOLOGY

Chronic hepatitis B is a serious global health problem.¹ It is the 10th leading cause of death in the world.² Caused by the hepatitis B virus (HBV), which attacks liver cells, chronic HBV can lead to liver scarring (cirrhosis), liver cancer, liver failure, and ultimately death.⁴

When a person is first infected with HBV, they are said to have an acute infection.⁵ If the infection persists for more than six months, it is then classified as chronic (lifelong) infection.⁵ Many patients with chronic hepatitis B experience no symptoms, while others may experience jaundice, fatigue, abdominal pain, loss of appetite, nausea, vomiting and joint pain.⁶

Chronic HBV, which globally affects approximately 350 million people, is responsible for up to 1.2 million deaths worldwide each year.^{1,2} Between 15 and 25 percent of those chronically infected will die from complications of chronic liver diseases such as cirrhosis and liver cancer.⁶ Up to 80 percent of the world's primary liver cancer, which is currently the fifth most frequent cancer worldwide, is associated with chronic HBV.³

HBV is widespread in Asia and sub-Saharan Africa, with 8 to 10 percent of the population being chronically infected.¹ High rates of HBV infection are also found in the Amazon basin in South America and the southern parts of Eastern and Central Europe. In the Middle East and Indian sub-continent, about 5 percent of the population suffers from chronic HBV infection.¹

Chronic hepatitis B is less common in Western Europe and North America, where less than 1 percent of the population is chronically infected.¹ However, immigration trends are changing the geographic distribution of chronic HBV infection in these regions, which can result in rates of chronic infection in certain ethnicities that closely reflect

the rates of the region of ethnic origin.⁷ For example, there are approximately 1.25 million people with chronic HBV infection in the United States⁶, and Asian Americans and Pacific Islanders account for more than half of the persons with this infection.⁸

TRANSMISSION OF HBV: A HIGHLY INFECTIOUS DISEASE

Many people may not know that HBV is highly infectious – 50 to 100 times more infectious than the AIDS virus (HIV).¹ In highly endemic areas, many people become infected when they are infants or young children. Frequently, transmission of HBV occurs during the birthing process when the virus is passed on from the mother (who is often unaware that she is a carrier and has chronic hepatitis B) to her child.^{1,9}

Other principal ways that the virus is transmitted include blood transfusions¹, sharing or reusing needles for injection¹ or tattoos⁶, and unprotected sex.⁴ This horizontal transmission of the virus is the primary mode of transmission in Eastern countries.¹ According to the Centers for Disease Control, HBV is not spread through food or water, sharing eating utensils, breast feeding, hugging, kissing, coughing, sneezing or by casual contact.³

Vaccines are available for the prevention of hepatitis B. Although 147 countries worldwide have implemented routine HBV immunization programs as of 2003,¹⁰ a small percentage of healthy children who receive the vaccine fail to develop protective antibodies to HBV.⁷ Also important to remember is that it has not been demonstrated that the vaccine is effective in the more than 350 million people who already carry the hepatitis B virus.

HBV FACTS:

- Chronic hepatitis B is the 10th leading cause of death in the world.²
- Up to 1.2 million people die annually from HBV-related chronic liver disease.²
- Chronic HBV affects about 350 million people worldwide.¹
- In the United States, there are approximately 1.25 million people with chronic HBV infection.⁶ Asian and Pacific Islander Americans make up more than half of this number.³
- HBV is 50 to 100 times more infectious than the AIDS virus (HIV).¹
- HBV is widespread in Africa, Asia, the Amazon Basin in South America, and Eastern and Central Europe.¹
- One out of four chronic hepatitis B virus carriers will die from liver cancer or cirrhosis.⁶
- 90 percent of infants infected during the first year of life develop chronic hepatitis B infection.¹
- 30 to 50 percent of children infected between 1 and 4 years of age develop chronic hepatitis B infection.¹

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Young children who become infected with HBV are the most likely to develop chronic infection.¹ About 90 percent of infants infected during the first year of life and 30 to 50 percent of children infected between 1 and 4 years of age develop chronic infection.¹ The risk of death from HBV-related liver cancer or cirrhosis is approximately 25 percent for persons who become chronically infected during childhood.¹

THE DANGER OF HBV LIES IN ITS SILENT TRANSMISSION AND PROGRESSION

Many persons chronically infected with HBV have no symptoms. Such individuals may also have normal or fluctuating liver function test results and often feel healthy, which means that the infection often goes undetected. HBV generally causes only mild or non-specific symptoms so many people may not realize they are infected until the disease is far advanced and the risk of cirrhosis and/or liver cancer is much higher.¹¹

HIGH VIRUS LEVELS INCREASE RISK FOR SERIOUS CONSEQUENCES

Persistently high levels of the hepatitis B virus in the body are also associated with disease progression and increase the risk for developing the serious long-term consequences of the disease such as liver scarring (cirrhosis), liver cancer, liver failure and ultimately, death.^{11,12,13} Therefore, measuring viral load is an important tool for monitoring disease progression.¹⁵

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