

## **Hepatitis B (Viral hepatitis B)**

Hepatitis B virus (HBV) causes inflammation of the liver. The infection is most commonly transmitted by exposure to infected blood and by sexual contact with an infected person, but can also be passed from an infected mother to her new-born baby. Vaccination can protect against infection.

### **Epidemiological characteristics**

Hepatitis B is widespread worldwide and is a major public health problem. Globally, an estimated 296 million people were living with chronic HBV infection in 2019. In 2019, around 820,000 people died from the consequences of hepatitis B (cirrhosis and primary liver cancer).

### **The cause and the course of the infection**

Hepatitis B is a viral infectious disease that affects the liver. HBV infection can manifest as acute and chronic hepatitis (inflammation of the liver), cirrhosis and liver cancer, all of which can be fatal. However, often the virus does not cause acute inflammation and the infection continues for many years or even for the rest of life without health problems. Therefore, most infected people are not aware that they are possible carriers of the virus to others. In this case, only a random laboratory test (e.g. during a blood donation drive or during pregnancy) will show infection. A person who has HBV in the blood for at least 6 months is a chronic carrier of the virus, which remains in the body for years and decades.

### **Proof of infection**

If the patient has a typical course of the disease, the infection is easily identified and confirmed by blood tests. In those without signs of infection, it is detected incidentally (e.g. during blood donation drives or blood screening of pregnant women). Approximately 10% of HBV survivors remain persistent carriers of HBsAg. This means that they are infectious for life and can infect other people. Most chronically infected people are healthy HBV carriers with no signs of liver disease. In the rest, the disease progresses as mild inflammation or as rapidly progressive inflammation leading to severe liver damage.

### **Incubation period**

The incubation period (the time from infection to the onset of acute disease) is 4 to 28 weeks.

### **Transmission**

Hepatitis B virus is found in the blood, saliva, sperm, vaginal secretions, urine and milk of a breastfeeding mother. Infection occurs at exposure to infected blood or other body fluids. The most common mode of transmission is sexual contact with an infected person. Today, transmission through blood and blood components, which used to be common, is very rare in Slovenia. All blood collected in blood donation campaigns is tested for the virus. Hepatitis B is spread among intravenous drug users by sharing contaminated needles and syringes. Similarly, infection can be transmitted by tattooing or

using contaminated objects to pierce the skin if they are not sterilised. Transmission from an infected mother to her baby during pregnancy is also possible. Antiviral treatment is sometimes needed for the mother towards the end of pregnancy, and all new-borns of infected mothers are vaccinated immediately after birth.

### **Prevention of infection**

An effective vaccine is available to prevent hepatitis B virus infection. In Slovenia, vaccination is compulsory for all pre-school children. Hepatitis B vaccination is also given when medically or epidemiologically indicated. A person who is a chronic carrier cannot be a blood donor. If they have sex with more than one partner, they must be aware of the responsibility they have to infect others. That is why it is a good idea to use a condom when having sex. Of all known contraceptives, only the condom protects against sexually transmitted diseases, not just unwanted pregnancy.

### **Susceptibility for infection**

Anyone who has not had hepatitis B or has been successfully protected by vaccination is susceptible to hepatitis B.

### **Symptoms and sign of the disease**

The patient has worse appetite, is tired, complains of nausea, has a headache, fever. May have diarrhoea or be constipated. The urine may be dark and the stools light coloured. Some people have itchy skin. These symptoms are present in a small number of infected people, as most people who become infected with the virus recover without signs and symptoms. Hepatitis B usually leaves behind lasting immunity. However, in some people, the virus can remain inside the liver cells. With severe immunodeficiency, it is possible for hepatitis B to reappear.

### **Infectiousness**

People with hepatitis B virus in their blood are infectious.

### **Treatment**

Acute hepatitis B is mostly treated symptomatically (supportive care), with antiviral drugs introduced if the disease is more severe. In the most severe form of the disease, complete liver failure requires transplantation. Antiviral drugs can be used to treat chronic forms of hepatitis B. Antiviral drugs can be used to treat chronic forms of hepatitis B. Treatment is usually long-term and some people may develop drug-resistant strains. For those infected with hepatitis B virus, normal activities are allowed. However, it is important to be aware that the liver, which is the main detoxifying organ, is damaged and some caution is needed when consuming fatty foods and alcohol, which can put additional strain on liver function.

Data and information on Hepatitis B in Europe can be found on the European Centre for Disease Prevention and Control (ECDC) website at the [following link](#).