

Hepatitis B in the WHO European Region

Hepatitis B is an infectious disease that attacks the liver and affects the lives of 14 million people in the WHO European Region. It is caused by the hepatitis B virus (HBV) and can cause acute and chronic infection leading to severe complications, including cirrhosis (liver scarring), liver cancer in 20–30% of patients, and death.

Children under 6 years of age who become infected do not usually show symptoms of acute hepatitis but are most likely to develop chronic infection. By contrast, HBV infection in adults more often results in acute hepatitis, with a small subset of people developing acute liver failure, which can lead to death.

Chronic infection may not show symptoms for a long time, sometimes for decades. Most people find that they have hepatitis B only after developing advanced disease. Between 20 and 30% of adults who are chronically infected will develop cirrhosis and/or liver cancer.

Hepatitis B is still a public health problem in the Region. Recent estimates indicate that there 19,000 new cases each year and 43,000 deaths each year due to complications resulting from infection.

HBV can be found in less than 0.1% of people in some countries in western, northern and central Europe, while in certain countries in eastern Europe and central Asia the figure can be as high as 6–8%.

Modes of transmission

HBV is transmitted through contact with the blood, semen or other body fluids of an infected person. In endemic areas, it is often transmitted from mother to child at birth (perinatal transmission), or through horizontal transmission (exposure to infected blood), especially from an infected child to an uninfected child during the first 5 years of life. Between 80–90% of infants infected during the first 5 years of life develop chronic infection.

Transmission also occurs through unprotected sex and reuse of needles, syringes and other equipment in health-care settings or among people who inject drugs.

When infection prevention and control measures are not fully implemented, hepatitis B can also be transmitted through medical and dental procedures, tattooing, piercing, sharing personal hygiene items, razors, and manicure and pedicure material contaminated with infected blood. Hepatitis B is an important hazard for health workers.

HBV is not spread through breastmilk, food or water or by casual contact such as hugging, kissing or sharing food or drink with an infected person.

Key facts on hepatitis B

- Hepatitis B is a preventable viral infection that damages the liver and causes cirrhosis, liver cancer and death.
- Hepatitis B virus is transmitted through contact with the blood, semen or other body fluids of an infected person. Infection at birth or early childhood often results in chronic infection.
- Most people are unaware of their HBV infection and find out about it when the disease is already advanced.
- Hepatitis B can be successfully treated. Treatment is usually lifelong.
- Prevention of hepatitis B is key. A safe and effective vaccine is available, providing lifelong protection. All children, as well as adults who are at risk of infection, should be vaccinated.
- It is possible to eliminate hepatitis B as a public health threat by 2030.

Key facts on hepatitis B

- In the WHO European Region, hepatitis B affects the lives of 14 million people living with the infection and causes 43,000 deaths every year.
- By 2021, 50 of the 53 countries in the Region were expected to have conducted universal childhood hepatitis B vaccination.
- Most of the people living with hepatitis B in the Region are adults born before the hepatitis B vaccine became available in the 1990s.
- In line with the Sustainable Development Goals, countries in the Region have committed to:
 - eliminate viral hepatitis as a public health threat by 2030;
 - achieve universal access to testing, and
 - ensure that people living with chronic hepatitis have access to care and affordable and effective treatment.

| Prevention

With 95% effectiveness, the hepatitis B vaccine is the cornerstone of prevention of HBV infection and the consequences of chronic infection, including cirrhosis, liver cancer and death.

WHO recommends that all infants receive the hepatitis B vaccine as soon as possible after birth, preferably within 24 hours.

- Universal hepatitis B vaccination programmes for infants, with the first dose at birth, have been highly effective in reducing the incidence and prevalence of hepatitis B.
- These programmes have considerably reduced HBV infections among vaccinated infants to an estimated regional prevalence of 0.4% among children aged under 5 years. In many countries of eastern Europe and central Asia the number of new infections saw a more than tenfold decrease after vaccination was introduced.
- Vaccination is also recommended for adults who are at high risk for HBV infection, including:
 - people who frequently require blood or blood products, dialysis patients, and recipients of solid organ transplantations;
 - people in closed settings, including people in prisons;
 - people who use drugs;
 - household and sexual contacts of people with chronic HBV infection;
 - people with multiple sexual partners;
 - people living with HIV; and
 - health-care workers and others who may be exposed to blood and blood products through their work.

Other preventive measures against HBV transmission include implementing blood safety strategies (quality-assured screening of all donated blood and blood components used for transfusion), safe injection practices and elimination of unnecessary and unsafe injections, and safer sex practices.

Infection prevention and control in health-care settings, including blood and injection safety, have improved significantly in the WHO European Region over recent decades. Transmission of HBV associated with health care may, however, continue to play an important role in some Member States, particularly in eastern Europe and central Asia.

| Testing and treatment

Testing is important to diagnose hepatitis B and treat it if needed. All people at risk of HBV infection should be offered testing. Those most at risk of chronic HBV infection in the WHO European Region are people who might have been infected before the introduction of vaccination programmes and those born in countries where hepatitis B is common.

They should seek testing and be offered immunization or treatment according to need.

Since 2019, WHO has recommended that testing for hepatitis B should be offered to all pregnant women, alongside testing for HIV and syphilis.

There is no specific treatment for acute hepatitis B, and only supportive care is used in symptomatic cases. Chronic HBV infection can be treated with medicines taken orally. WHO recommends tenofovir or entecavir for the treatment of chronic hepatitis B. While some of those infected will not require treatment, all should be regularly checked.

| Impact of COVID-19 on continuity of services

Since the start of the COVID-19 pandemic in early 2020, many countries have reported considerable disruption or decline in essential health services, including those responsible for the viral hepatitis response.

It is important that viral hepatitis prevention, diagnosis and treatment services continue to be fully operational during the pandemic. Interruption of these necessary health services is harmful to the health of patients, their close family members and friends and to the progress achieved so far in tackling the disease.

| WHO response

The WHO Regional Office for Europe provides technical support to Member States in planning and strengthening their national response to viral hepatitis, including with awareness-raising, surveillance, prevention, strengthening of laboratory capacity and provision of guidance on testing and treatment. The Regional Office also supports regional partnerships.

The first Action plan for the health sector response to viral hepatitis in the WHO European Region adopted by all Member States of the Region in 2016 identifies priority actions for countries in the Region along the continuum of viral hepatitis services and sets regional targets and milestones for the elimination of hepatitis B as a public health threat by 2030.

The new Regional Action Plans for Ending AIDS and the Epidemics of Viral Hepatitis and Sexually Transmitted Infections 2022–2030 will be submitted for consideration and adoption at the 72nd session of the Regional Committee for Europe. The Plans will align the responses to the diseases and contribute to bring out the potential of primary health care through multilevel care and delivery networks and move the universal health coverage agenda forward by improving access to health services without financial hardship.

Member States in the Region have committed themselves to work towards halting the transmission of new viral hepatitis infections, making testing accessible and ensuring that all people living with chronic hepatitis have access to care as well as affordable and effective treatment.

More information

<https://www.who.int/europe/health-topics/hepatitis>
www.who.int/hepatitis