CONDITION

Hepatitis B

Hepatitis B is a viral infection that can inflame the liver and sometimes cause lasting liver damage.

WHAT IT IS
Viral infection causing liver inflammation

BODY SYSTEM
Liver and digestive system

MAIN SYMPTOMS
Often none, fatigue, nausea, jaundice

WHAT CAUSES IT
Infection with hepatitis B virus

HOW IT IS DIAGNOSED
Hepatitis B blood tests and viral DNA testing

MAIN TREATMENT
Monitoring and antiviral medicines

CAN IT BE CURED?
Sometimes - acute infection often clears

IS IT AN EMERGENCY?
Sometimes - confusion or severe jaundice

LONG-TERM OUTLOOK
Often manageable, but liver damage can develop

Overview

Hepatitis B is a liver condition caused by the hepatitis B virus, or HBV. It can be short term, called acute hepatitis B, or last for years, called chronic hepatitis B.

Many people have no symptoms. This means the infection may be found only through routine blood tests, screening during pregnancy, or testing after a possible exposure.

Most adults who develop acute hepatitis B clear the virus without long-term infection. Babies and young children are much more likely to develop chronic hepatitis B after infection because their immune systems are less able to clear it.

Chronic hepatitis B can remain quiet for years. In some people, ongoing inflammation gradually scars the liver. Severe scarring is called cirrhosis. Chronic infection also increases the risk of

liver cancer, including in some people who do not have cirrhosis.

Testing matters because monitoring and treatment can reduce these risks. Vaccination can prevent hepatitis B, but it does not treat an infection that is already present.

Symptoms

Acute hepatitis B may cause no symptoms. When symptoms occur, they can appear weeks or months after exposure and may include:

Symptoms may last for several weeks. Tiredness can continue after other symptoms improve.

Chronic hepatitis B is often symptom-free for many years. Symptoms are more likely if significant liver inflammation or scarring develops. These may include ongoing tiredness, abdominal swelling, swollen ankles, easy bruising, itching, or jaundice.

These symptoms can have many causes. They do not confirm hepatitis B without blood testing.

- Tiredness, fever, or a general unwell feeling
- Poor appetite, nausea, vomiting, or pain in the upper abdomen
- Dark urine and unusually pale bowel movements
- Joint pain
- Jaundice, which means yellowing of the skin or whites of the eyes

Causes and risk factors

Hepatitis B is caused by infection with HBV. The virus is carried in blood and certain body fluids.

It can pass from one person to another through:

HBV can survive outside the body long enough for blood-contaminated objects to remain a risk, even when blood is not visible.

Hepatitis B is not spread through coughing, sneezing, hugging, sharing food or utensils, or ordinary social contact. It is not usually spread through breastfeeding, provided the baby receives recommended protection after birth. Cracked or bleeding nipples may require individual advice.

The risk of chronic infection is strongly linked to age at infection. Infection around birth or during early childhood is much more likely to persist than infection acquired during adulthood.

- Birth, from a pregnant parent with hepatitis B to the baby
- Vaginal or anal sex without a barrier method
- Shared needles, syringes, or other drug-injection equipment
- Needlestick injuries or contact with infected blood
- Shared razors, toothbrushes, or equipment that may carry small amounts of blood
- Tattooing, piercing, or medical procedures performed with equipment that was not properly sterilised

Diagnosis

Blood tests confirm hepatitis B. A commonly used initial group of tests includes:

An IgM core antibody test can help identify a recent acute infection. Results need to be interpreted together because no single result explains every situation.

If HBsAg remains present for at least six months, the infection is considered chronic. HBV DNA testing measures how much virus is in the blood. This is often called the viral load.

Other tests assess liver health. They may include liver enzymes such as ALT, blood counts, and tests of the liver's ability to make proteins. Ultrasound or a non-invasive stiffness scan may look for scarring. A liver biopsy, which removes a small tissue sample, is now needed only in selected situations.

People with chronic hepatitis B may also be tested for hepatitis C, hepatitis D, and HIV because these infections can affect care.

- Hepatitis B surface antigen, or HBsAg: usually means the virus is currently present
- Hepatitis B surface antibody, or anti-HBs: may show protection from vaccination or past infection
- Total hepatitis B core antibody, or anti-HBc: shows previous or current natural infection and does not appear after vaccination alone

Treatment and management

Acute hepatitis B usually receives supportive care rather than antiviral treatment. This may include rest as needed, enough fluids, and treatment for nausea or discomfort. Severe acute liver inflammation requires hospital care, but this is uncommon.

Avoid starting supplements, herbal remedies, or over-the-counter medicines without checking

whether they are safe for your liver. Some products can cause additional liver injury. Alcohol can also add to liver damage, so avoiding it is generally advised when hepatitis is active.

Chronic hepatitis B does not always need immediate antiviral treatment. Regular monitoring may be appropriate when the virus is less active and there is little evidence of liver injury.

Treatment decisions are based on several factors, including:

Oral antiviral medicines such as tenofovir or entecavir can suppress the virus and lower the risk of cirrhosis and liver cancer. They usually control HBV rather than remove it completely. Treatment may therefore continue for years or, in some cases, indefinitely.

Pegylated interferon is an injection that stimulates the immune response. It is used for selected people because it has more side effects and is not suitable in every situation.

During pregnancy, antiviral treatment may be recommended when the viral load is high to reduce transmission during birth. A baby born to someone with hepatitis B should receive hepatitis B vaccine promptly after birth. Hepatitis B immune globulin, which provides ready-made antibodies, is also recommended in many settings.

- HBV DNA level and liver enzyme results
- The amount of liver inflammation or scarring
- Age, pregnancy, and other health conditions
- Family history of cirrhosis or liver cancer
- Previous treatment and the type of hepatitis B virus activity

Complications

Most people with acute hepatitis B recover without lasting liver damage. Rarely, acute infection causes rapid loss of liver function. This is called acute liver failure and requires emergency hospital treatment.

Possible complications of chronic hepatitis B include:

A hepatitis D infection can occur only in someone who also has hepatitis B. It can cause more severe liver inflammation, so testing may be offered based on location and risk factors.

Regular follow-up is intended to find changes before symptoms appear. Some people need liver ultrasound screening for cancer at set intervals, based on factors such as age, cirrhosis, family history, and region of origin.

- Fibrosis: gradual formation of scar tissue in the liver

- Cirrhosis: extensive scarring that changes the liver's structure and function
- Liver failure: inability of the liver to carry out essential tasks
- Portal hypertension: increased pressure in veins that carry blood through the liver
- Liver cancer: especially hepatocellular carcinoma, the most common primary liver cancer

Prevention

Hepatitis B can often be prevented with vaccination. The vaccine cannot cause hepatitis B because it does not contain live HBV.

Vaccination is routinely given to babies in many countries. It is also recommended for unvaccinated people with increased exposure risk and, in some countries, for all adults who have not previously been vaccinated.

Other ways to reduce transmission include:

After a recent exposure, prompt medical assessment is important. Vaccination, and sometimes hepatitis B immune globulin, can reduce the chance of infection when given soon enough.

During pregnancy, hepatitis B screening allows the birth team to plan protection for the baby. Correctly timed newborn vaccination is a central part of preventing lifelong infection.

- Use condoms or other barriers until a partner is confirmed to be protected
- Do not share needles, syringes, razors, toothbrushes, or blood-testing equipment
- Use licensed tattoo and piercing services with sterile equipment
- Cover open cuts and clean blood spills safely
- Do not donate blood, organs, semen, or eggs while infected
- Make sure household and sexual contacts are offered testing and vaccination

Living with it and what to expect

Acute hepatitis B often improves over weeks to months. Follow-up blood tests show whether the infection has cleared and whether protective antibodies have developed. Until clearance is confirmed, precautions are needed to avoid passing the virus to others.

Chronic hepatitis B has several possible phases. Viral activity and liver inflammation can rise or fall over time, even if you feel well. A result that is reassuring today does not always predict

future activity, which is why long-term monitoring matters.

Follow-up may include blood tests every few months or at longer intervals, depending on viral activity, treatment, and liver health. Imaging may be added for people who need liver cancer surveillance.

Antiviral treatment can often keep the viral load very low. Some people eventually lose HBsAg, sometimes described as a functional cure, but this is not common with current treatments. Stopping medication without specialist guidance can cause the virus to become active again and may lead to serious liver inflammation.

Most people with well-monitored hepatitis B continue work, exercise, relationships, and family life. Everyday contact does not spread the virus. Telling sexual and household contacts allows them to be tested and vaccinated without creating unnecessary restrictions.

HBV can reactivate when the immune system is suppressed. Before chemotherapy, organ transplantation, or strong immune-suppressing treatment, tell the healthcare team about any current or past hepatitis B test result.

When to get medical help

Arrange routine medical care if you think you may have been exposed, were born in a region where hepatitis B is common, have a household or sexual contact with HBV, or have never had recommended screening. Testing is worthwhile even when you feel well.

Seek prompt medical advice if you develop jaundice, dark urine, persistent vomiting, or worsening upper abdominal pain. You should also arrange review if known hepatitis B is accompanied by new swelling, easy bruising, unexplained weight loss, or increasing tiredness.

Get emergency help for:

These signs can indicate major liver dysfunction or internal bleeding and should not wait for a routine appointment.

- New confusion, extreme drowsiness, or unusual behaviour
- Vomiting blood or passing black, tar-like bowel movements
- Fainting, severe weakness, or difficulty staying awake
- Rapidly increasing abdominal swelling or breathing difficulty
- Severe jaundice with repeated vomiting or confusion

Common questions

Can hepatitis B be cured?

Acute hepatitis B often clears naturally, particularly when acquired in adulthood. Chronic hepatitis B is usually controlled rather than completely removed. Antiviral treatment can suppress the virus and greatly reduce liver damage. A small number of people achieve loss of HBsAg, known as a functional cure.

Can I catch hepatitis B from kissing or sharing food?

Ordinary kissing, hugging, sharing food, coughing, and sneezing do not usually spread hepatitis B. The virus spreads mainly through infected blood, sexual fluids, and during birth. Avoid sharing objects such as razors or toothbrushes because they may contain tiny amounts of blood.

Can I have hepatitis B without knowing it?

Yes. Both acute and chronic hepatitis B can cause no noticeable symptoms. A blood test is the only reliable way to know your status.

Can someone with hepatitis B have a baby safely?

Yes. Screening during pregnancy, antiviral treatment when appropriate, and prompt protection for the newborn can greatly reduce transmission. The maternity and liver care teams can coordinate this plan.

Can I drink alcohol if I have hepatitis B?

Alcohol can add to liver injury. Avoiding alcohol is the safest approach when liver inflammation or scarring is present. Your healthcare team can explain how your liver results affect this advice and help if stopping alcohol is difficult.

Do I need treatment if I feel well?

Not everyone with chronic hepatitis B needs medicine immediately, but everyone needs an appropriate assessment. Viral activity and liver damage can change without symptoms. Regular blood tests, and sometimes liver scans, show whether monitoring or treatment is needed.

Sources

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