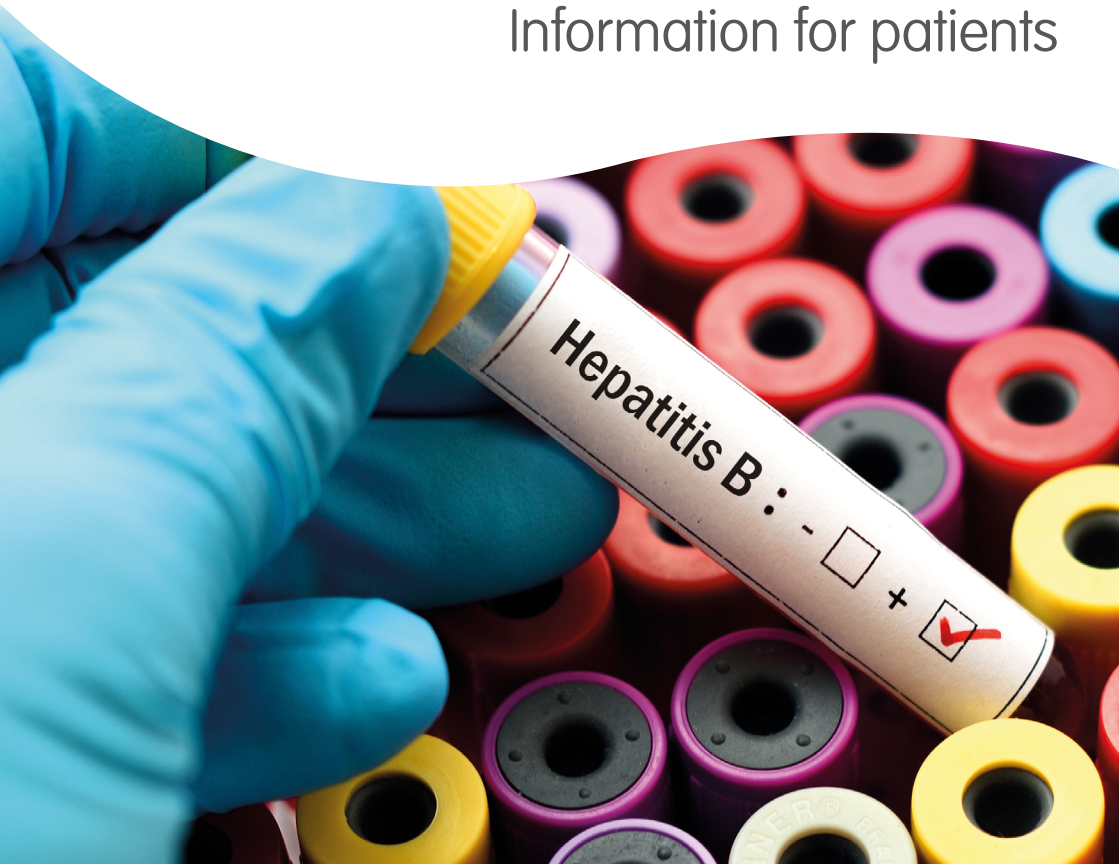


Chronic hepatitis B virus (HBV)

Information for patients



This leaflet explains chronic hepatitis B virus (HBV), including how you may have become infected, the main symptoms and how it is treated. If you have any questions or concerns, please do not hesitate to speak to the doctors or nurses caring for you.

What is HBV?

HBV is a virus that infects your liver and is found in your blood. Some people's immune systems are able to clear HBV, but in some people it remains. If you have HBV infection for more than six months, we call it chronic hepatitis B or chronic HBV.

Acute vs chronic hepatitis B

HBV is often called a 'silent' disease because you may have no symptoms even if you have been infected for many years and it may still cause damage leading to scarring of your liver (cirrhosis). This in turn can cause liver failure and liver cancer (hepatocellular carcinoma).

When a person is first infected with the HBV, it is called an 'acute infection' (or a new infection). Most healthy adults that are infected do not have any symptoms and are able to get rid of the virus without any problems. Some adults are unable to get rid of the virus after six months and they are referred to as having a 'chronic infection.'

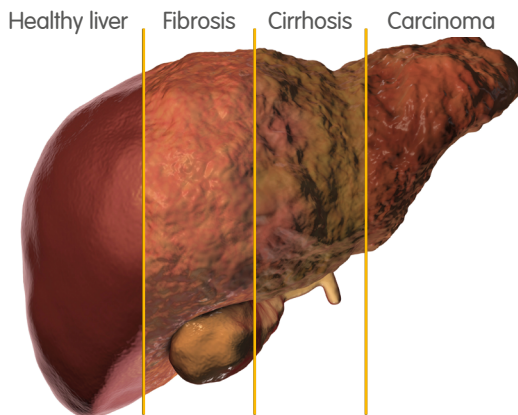
The risk of developing chronic hepatitis B is directly related to the age at which a person is first exposed to the hepatitis B. The younger a person is when they are first infected, the greater the risk of developing a chronic hepatitis B:

- More than 90% of infants that are infected will develop chronic hepatitis B
- Up to 50% of young children between one and five years who are infected will develop chronic hepatitis B
- 95% of healthy adults 19 years and older who are infected will recover and only 5% will develop chronic hepatitis B
- About 240 million people in the world have chronic hepatitis B. About 30% of individuals with chronic hepatitis B get HBV-related health problems.

Why is your liver important?

The liver is the largest solid organ in the body and is located under your rib cage on the upper right side. It is a vital organ that performs many essential functions:

- It processes everything that goes into your body
- Turns nutrients into energy your body can use
- Removes harmful substances from your blood.




How HBV is transmitted

Hepatitis B can be transmitted by:

- A mother to her new born baby, particularly in countries where the infection is common – all pregnant women in the UK are offered screening for hepatitis B. Babies of infected mothers are vaccinated immediately after birth to help prevent infection
- Injecting drugs and sharing needles and other drug equipment, such as spoons and filters
- Having sex with an infected person without using a condom
- Having a tattoo, body piercing, or medical or dental treatment in an unhygienic environment with unsterilised equipment
- Having a blood transfusion in a country where blood is not tested for hepatitis B – all blood donations in the UK are now tested for the infection
- Sharing toothbrushes or razors contaminated with infected blood
- The skin being accidentally punctured by a used needle (needle stick injury) – this is mainly a risk for healthcare workers
- The blood of someone with hepatitis B getting into an open wound, cut or scratch – in rare cases, being bitten by someone with hepatitis B can also spread the infection

Hepatitis B is not transmitted by kissing, holding hands, hugging, coughing, sneezing or sharing crockery and utensils.



Who's most at risk of hepatitis B

People at highest risk of hepatitis B include:

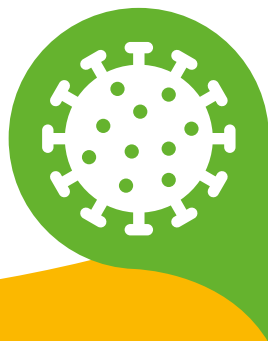
- People born or brought up in a country where the infection is common
- Babies born to mothers infected with hepatitis B
- People who have ever injected drugs
- People who have had unprotected sex with someone from a country where hepatitis B is common, men who have sex with men, multiple sexual partners and commercial sex workers
- Close contacts, such as family members, or someone with acute or chronic hepatitis B

The risk of getting hepatitis B for travellers going to places where the infection is common is generally considered to be low if these activities are avoided.

High-risk areas

Hepatitis B is found throughout the world, but is particularly common in:

- Sub-Saharan Africa
- East and southeast Asia
- The Pacific Islands
- Parts of South America
- Southern parts of eastern and central Europe
- The Middle East
- The Indian subcontinent



How can I stop other people from getting HBV?

HBV is a preventable disease. You can still hug and kiss, share knives, forks, spoons and cups. You can stop other people from getting HBV by:

- Getting your close family members and sexual partners tested and then vaccinated if they do not have HBV
- Not sharing needles, razors or toothbrushes
- Making sure you cover any cuts with plasters or bandages
- Clean any drops of your blood from surfaces immediately and carefully using a disinfecting wipe (Clinell) or a solution made out of one part bleach to nine parts cool water
- Using condoms – they are effective but not 100%, so it's important that your sexual partners are vaccinated.

How to prevent spreading the virus:

- It is mainly transmitted by direct contact with the bodily fluids of an infected person – this can be blood to blood contact (sharing of drug using equipment), sexual contact or mother-to-child (vertical) transmission (during birth).
- There is a vaccination available which protects against hepatitis B, but it only works if you do not already have HBV.
- The vaccination can be given to new born babies to protect them from mother-to-child transmission. Breastfeeding is possible for mothers with hepatitis B.
- If you have hepatitis B it is important that family members, sexual partners and household contacts are tested and vaccinated to prevent them from getting it.
- If you have hepatitis B it is important you take precautions such as using condoms with sexual partners and not sharing razors, needles or nail clippers or anything else that could cause unintentional cuts or bleeding with anyone else.
- Hepatitis B is found in saliva but it is not transmitted to others by sharing household items such as cups, knives and forks.

What are the symptoms of HBV?

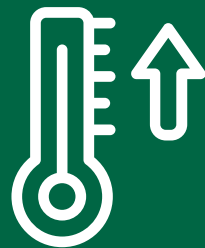
The majority of adults develop symptoms when they first get HBV, that is, during the acute HBV infection, but young children do not tend to develop any symptoms. In chronic HBV while most will not have any symptoms, symptoms will develop if there is cirrhosis.

Generally, symptoms appear three months after getting HBV, but they can appear any time between six weeks and six months. Symptoms usually last for a few weeks, but can last up to six months. Most people infected as adults recover fully, even if their signs and symptoms are severe.

Some people who go on to develop chronic HBV have ongoing symptoms similar to acute HBV, but most people with chronic hepatitis B remain symptom free (silent) for 20 or 30 years.

Symptoms can vary, but when they occur, may include:

- Fever
- Dark urine
- Joint pain
- Weakness and fatigue
- Loss of appetite
- Nausea and vomiting
- Abdominal pain near the liver
- Jaundice (yellowing of the skin and whites of the eyes)



How is HBV diagnosed?

Blood tests to diagnose & monitor HBV

Hepatitis B surface antigen (HBsAg)	A protein that's a marker of active infection – we also measure the level (quantitative HBsAg) as a marker of whether your body might be clearing HBV.
Hepatitis B core antibody (HBcAb)	A protein that's a marker of ever having had HBV (is it positive if you have active HBV and stays positive if you clear HBV).
Hepatitis B surface antibody (HBsAb)	A protein that's a measure of immunity (either from clearing an infection or from being vaccinated).
Antibody to hepatitis B core antigen immunoglobulin M (anti-HBc IgM)	A protein that's a measure of an acute infection.
Hepatitis B e-antigen (HBeAg)	A marker of very active infection.
Antibody to HBeAg (anti-HBe)	A protein that's reducing infectivity.
Hepatitis B DNA or viral load (HBV DNA)	A measure of the amount of virus in the blood – when you are on treatment the aim is for this to be very low (undetectable).

Tests to measure the health of your liver

Liver profile	This measures the level of liver inflammation or 'irritation' caused by HBV.
Coagulation	This is a measure of blood clotting that we send if your liver is very inflamed' it tells us if your liver is performing it's usual functions.
Full blood count	This checks for anaemia, a measure of your general health, and your platelet count which can be low if your liver is scarred.
Alphafetoprotein	A blood test that is used to detect liver cancer.
Liver ultrasound	A scan that looks at the shape and texture of the liver and is used to detect liver cancer – this is done at UCLH.
Liver elastography (Fibroscan)	A scan done at Mortimer Market which tells us if the liver is soft (normal) or stiff (which suggests scarring or cirrhosis). It can also measure how much fat is in the liver.

Will I be tested for any other infections?

We test all patients with HBV for other infections that can be acquired in the same way. These include Human Immunodeficiency Virus (HIV), Hepatitis C Virus (HCV) and Hepatitis D Virus (HDV/Hepatitis Delta). Worldwide, up to 10 people in every 100 who are infected with HBV are also infected with HDV. If you are also infected with HDV, your liver can be damaged more quickly. The treatment would be slightly different from HBV.

Can I take medication to cure chronic HBV?

There is currently no cure for HBV, but it can be controlled with treatment. The majority of people living with HBV will not need to start any treatment, but will be monitored lifelong.

Treatment is usually offered if:

- Your immune system is unable to control the hepatitis B by itself
- There's evidence of liver damage

Hepatitis B medications can help keep the virus under control and stop it damaging your liver, and some people need lifelong treatment. If you have HIV as well as HBV you will need to take this medication for life.



What medication is used to treat chronic HBV?

Tenofovir and entecavir are used to treat HBV. Tenofovir is usually the first drug you are prescribed for chronic HBV. If you have poor kidney function and / or poor bone health you will be prescribed entecavir. Both are taken as tablets and usually once a day. Common side effects of these medicines include feeling sick, vomiting and dizziness, which usually improves after a couple of weeks.

Interferon is another drug used, but it is only given in certain phases of the HBV infection (or if you also have HDV). This drug is given as an injection under the skin once a week for up to 48 weeks. It helps boost the immune system to fight HBV. Common side effects include flu-like symptoms, such as a fever and muscle and joint pain, after you start to take the medicine, although these should improve with time.

Lamivudine is sometimes given to prevent reactivation of HBV, for example, if you are receiving chemotherapy or other treatment that suppress the immune system. This works in the same way as tenofovir, but is not as effective. Therefore it is not usually used to treat chronic hepatitis B in the UK.

Living with hepatitis B

Your lifestyle is important for your general health but is also important for the health of your liver. You can help look after your liver by:

- Avoid having unprotected sex, including anal and oral sex, unless you're sure your partner has been vaccinated or is already immune from past infection
- Avoid sharing needles used to inject drugs with other people
- Take precautions, such as not sharing toothbrushes or razors with other people (close contacts, such as family members, may need to be vaccinated)
- Eat a generally healthy, balanced diet – there's no special diet for people with hepatitis B
- Limit alcohol consumption – this can increase your risk of developing serious liver problems like liver cirrhosis (scarring of the liver)
- Avoid smoking as this increases your risk of liver cancer
- Do physical exercise on a regular basis
- Speak to your doctor if you're thinking of having a baby

People with hepatitis B should have a normal pregnancy, but it's a good idea to discuss your plans with a doctor first as you may need extra care and your medications may need to be changed.

There's a risk of pregnant women with hepatitis B passing the infection on to their baby around the time of the birth, but this risk can be prevented in almost every case by ensuring the baby is vaccinated shortly after they're born.

Getting close contacts (family, partners) tested and vaccinated is important.

Monitoring

- Most people with hepatitis B do not need treatment, they just require monitoring. This is done by a blood test and, for some people a scan, usually every six months.
- Some people will clear the virus spontaneously themselves (this usually happens within six months of infection if it is going to happen). However hepatitis B is often a long-term (chronic) condition that requires life-long monitoring.
- If you have hepatitis B with or without HIV, it is important that you are under the care of a specialized viral hepatitis liver team. The local team is based at Mortimer Market Centre, Bloomsbury clinic.
- We will monitor you about every six months and if we think you need treatment, we can manage this for you as well.
- If you have evidence of liver scarring we will usually advise you are seen by a team that specialises in liver disease, at University College Hospital or The Royal Free Hospital.



Further resources

British Liver Trust

Helpline: 0800 652 7330 (10am to 3:00pm Monday to Friday)

britishlivertrust.org.uk/information-and-support/

living-with-a-liver-condition/liver-conditions/hepatitis-b

The Hepatitis B Positive Trust

Helpline: 07958 558 510

www.hepbpositive.org.uk

www.hepbpositive.org.uk/list-of-uk-hepatitis-support-groups

Hepatitis B: guidance, data and analysis

[www.gov.uk/government/collections/](http://www.gov.uk/government/collections/hepatitis-b-guidance-data-and-analysis)

hepatitis-b-guidance-data-and-analysis

Terrence Higgins Trust

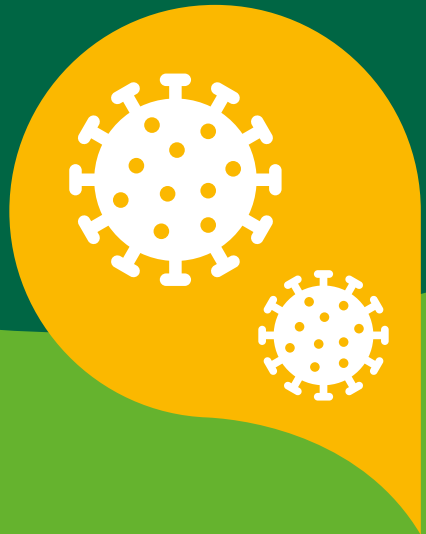
www.tht.org.uk/hiv-and-sexual-health/

sexual-health/stis/hepatitis/hepatitis-b



Facts at a glance

- Hepatitis B is a virus that affects the liver by causing inflammation and potentially scarring, but often no symptoms are experienced.
- It is more common in Africa and Asia although it is found worldwide.
- Hepatitis B can cause permanent damage to the liver (known as cirrhosis) and liver cancer. Knowing you have hepatitis B by testing for it is the first step in trying to prevent these complications, monitoring for them or identifying and managing them.
- Hepatitis B is easily managed and you can live a 'normal' life. The important thing is to know you have it so that we can look after you in the right way.



This document is also available in other languages, large print, Braille, and audio format upon request. Please email communications.cnwl@nhs.net

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Arabic

این مدرک همچنین بنا به درخواست به زبانهای دیگر، در چاپ درشت و در فرمت صوتی موجود است.

Farsi

এই ডকুমেন্ট অন্য ভাষায়, বড় প্রিন্ট আকারে, ব্রেল এবং অডিও টেপ আকারেও অনুরোধ পাওয়া যায়

Bengali

Dokumentigaan waxaa xitaa lagu heli karaa luqado kale, daabacad far waa-wayn, farta indhoolaha (Braille) iyo hab dhegaysi ah markii la soo codsado.

Somali

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Portuguese

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Polish

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Gujarati

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Turkish