

Liver health

The facts you need
to know

Patient information



Know it. Test it. Treat it.

ABOUT THIS BOOKLET

This booklet will help answer questions you may have about liver health, particularly hepatitis B. It also contains some basic information about how hepatitis B is spread, how to protect others, common tests and other helpful facts. For more information speak to your doctor or the Hepatitis Foundation of New Zealand.

ABOUT LIVER DISEASE

Liver disease can be inherited (genetic) or caused by various factors that damage the liver, such as viruses and alcohol use. Obesity is also associated with liver damage. Over time, liver damage results in scarring (cirrhosis), which can lead to liver failure or liver cancer. Both are life-threatening.

THE HEPATITIS FOUNDATION OF NEW ZEALAND

The Hepatitis Foundation is a charitable trust promoting positive health outcomes for people living with chronic hepatitis. It provides a monitoring programme offering regular blood tests and education and support. Its team of nurses and wider staff also provide ongoing care and support for people living with hepatitis B.

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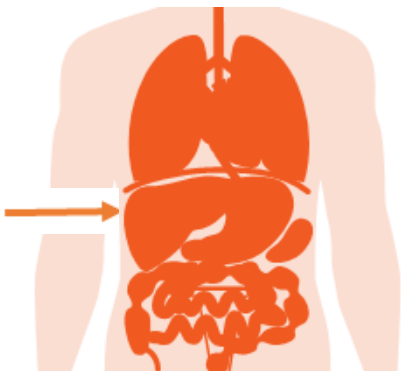
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WHY IS THE LIVER IMPORTANT?

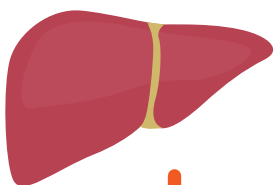


The liver is the largest organ inside the body and carries out many functions, including:

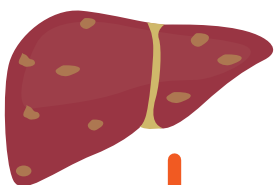
- Storing vitamins, minerals and iron
- Breaking down hormones and old blood cells
- Clearing blood of waste products, drugs and poisons
- Making clotting factors to stop excessive bleeding
- Making, storing and releasing sugars, fats and proteins
- Releasing bile to help digest food.



STAGES OF LIVER DAMAGE

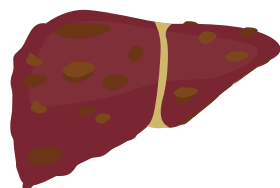


Healthy liver



Fibrosis:

Scar tissue forms



Cirrhosis:

Large sections
of the liver
become scarred

Because liver damage can occur over time it is important you have six-monthly blood tests to monitor your hepatitis B. These blood tests are free if you are enrolled with the Hepatitis Foundation of New Zealand.

WHAT IS HEPATITIS B?

Hepatitis means 'inflammation of the liver' and is most commonly caused by infection with one of five viruses – hepatitis A, B, C, D or E.

Hepatitis B is the world's most common, serious liver infection and is highly infectious.

Chronic hepatitis B occurs when the body can't get rid of the virus and it remains in the blood for more than six months. Most people with chronic hepatitis B will generally have it for the rest of their lives. They will need active monitoring. About 15–40 percent of people with chronic hepatitis B will develop serious liver disease.

If you're living with chronic hepatitis B it's vital to have regular six-monthly blood tests to monitor your virus status and your liver. These tests are free if you're enrolled with the Hepatitis Foundation.



HOW IS HEPATITIS B DIAGNOSED?

Chronic infection can be diagnosed by a simple blood test that looks for virus protein present in the bloodstream for more than six months (this protein is called hepatitis B surface antigen or HBsAg).

Other tests your doctor may order to assess your chronic hepatitis B are discussed in the 'What tests will I need to have?' section.

WHAT ARE THE SYMPTOMS?

Hepatitis B can be a silent condition. Many people with chronic hepatitis B don't have any symptoms. They may feel healthy and strong, and they can be affected for a long time without realising it. If symptoms are present, they are usually mild and non-specific.

Some people with chronic hepatitis have these symptoms:

- Tiredness, depression or irritability
- Nausea and vomiting
- Loss of appetite
- Pain in the liver (upper right side of abdomen)
- Joint aches and pain.

For people with more advanced disease, there may be other symptoms related to the underlying liver damage.

HOW CAN HEPATITIS B AFFECT MY LIVER?

The following changes may occur in the liver of people with chronic hepatitis B:

- **Fibrosis:** mild scar tissue is formed within the liver.
- **Cirrhosis:** as the damage from fibrosis progresses, large sections of the liver can become scarred and nodules may form. As a result, blood cannot easily flow through the liver causing the liver to shrink and harden. About 30 percent of people with hepatitis B develop cirrhosis.
- **Liver failure:** may occur in cases of severe cirrhosis. Liver failure means that the liver is unable to carry out its normal functions, which can lead to death.
- **Liver cancer:** a serious complication of chronic hepatitis B infection that mainly occurs in the presence of cirrhosis. About 5–10 percent of people with hepatitis B may develop liver cancer.

CAN I BE 'HEALTHY' WITH HEPATITIS B?

People affected by chronic hepatitis B can live full active and healthy lives, but the virus does put them at risk of liver problems. Most people notice no symptoms from hepatitis B. The best way to check for any problems is to have regular blood tests to monitor the liver.

Chronic hepatitis B goes through different phases and some are not associated with liver damage. However, people may not always stay in these phases. If they move from one phase to another they can be at risk of liver damage.

A healthy liver is flexible and soft but can become hardened in people with chronic hepatitis B. This is because the virus is damaging the liver over time.

HOW IS HEPATITIS B SPREAD?

The hepatitis B virus can be spread through contact with blood and bodily fluids of someone with the virus. Anyone living with hepatitis B can pass it on.

The virus is highly infectious and can survive outside the body for at least seven days, so blood spillages and dried blood could contain active virus.

Most adults with chronic hepatitis B were infected at birth or in early childhood.

Hepatitis B can be spread by:

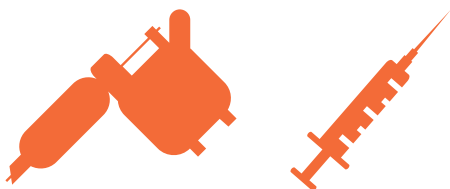
- **Mother-to-child transmission**, usually at or around the time of birth (vertical transmission). If you have hepatitis B and are pregnant, talk to your doctor about treatment your baby can have at birth that significantly reduces the chance of him or her getting the virus.
- **Contact with blood** (for example from cuts and injuries, nose bleeds or menstrual blood) or bodily fluids (for example weeping wounds). This may occur in the following ways: sexual contact (semen or vaginal fluid), direct contact between children or adults with open cuts and wounds, children biting one another and needle stick injuries.



- **Sharing household objects** such as toothbrushes, razors, pierced earrings and nail clippers that may have visible or invisible dried blood on them.



- **The use of unsterile medical tools and equipment:** used in tattooing, body piercing, injecting recreational drugs and acupuncture.



Important note:

Hepatitis B cannot be spread through kissing, sneezing, hugging, eating food prepared by someone who has hepatitis B, or sharing toilets or showers.

WHAT SHOULD I DO IF I HAVE CHRONIC HEPATITIS B?

- Enrol with the Hepatitis Foundation of New Zealand for free monitoring. It is important to have regular tests to check the health of your liver and detect any problems as early as possible
- The Hepatitis Foundation of New Zealand will order blood tests and other tests to evaluate your hepatitis B status and the health of your liver
- Discuss any medicines you are taking with your doctor or the Hepatitis Foundation, including herbal/alternative therapies, prescription and over-the-counter medications and allergies to any medications
- Limit alcoholic beverages as they can be extremely harmful to a liver infected with hepatitis B. Alcohol may increase the risk of scarring in the liver
- Avoid smoking
- Ask your doctor for a hepatitis A vaccination. Living with hepatitis A can also affect your liver.

HOW CAN I AVOID SPREADING THE VIRUS?

Do:

- Ensure all close family and household members are tested for hepatitis B and vaccinated if needed
- Advise any sexual contacts to be vaccinated.
- Use condoms during sex if your partner is not vaccinated
- Cover all cuts, scratches and open sores with a bandage
- Wash your hands well after touching blood or bodily fluids
- Clean up blood/bodily fluid spills with household bleach
- Throw away personal items such as tissues, menstrual pads and tampons in a sealed plastic bag
- Learn more about hepatitis B so you can make the best decision for yourself and provide the best protection for others.

Avoid

- Sharing toothbrushes, razors, nail files, earrings, clippers or anything that may have come into contact with blood or bodily fluids.
- Donating blood or sperm.

If friends or family have been exposed to hepatitis B, they should call their doctor or the Hepatitis Foundation as soon as possible

If you're pregnant and have chronic hepatitis B, speak to your doctor or the Hepatitis Foundation of New Zealand about ways to prevent your baby from getting the virus.

Children and adults with hepatitis:

- Can participate in all activities, including contact sports
- Should not be excluded from day care or school or be isolated from other children
- Can't be prevented from working.

WHAT TESTS WILL I NEED?

The Hepatitis Foundation of New Zealand and/or your doctor will monitor the status of your hepatitis B and the health of your liver. There are a number of tests that may be ordered, including:

- **Blood tests** to assess liver function and the amount of virus in your blood
- **Liver biopsy** to check the liver. With increased availability of fibroscans, liver biopsies to assess hepatitis B are often no longer required.
- **Liver scans:** tests that assess the shape and structure of the liver without needing to do a biopsy.

Hepatitis B blood tests can be confusing. It is useful to know what these terms mean.

- **Antigen:** a foreign substance in the body, such as hepatitis B.
- **Antibody:** a protein your immune system makes in response to a foreign substance.



FURTHER INFORMATION ABOUT TESTS

More information on the blood tests your doctor or the Hepatitis Foundation may order:

Hepatitis B surface antigen (HBsAg) All chronic hepatitis B patients will be positive for hepatitis B surface antigen (HBsAg) for more than six months.

Hepatitis B surface antibody (HBsAb) HBsAb reveals whether or not your body has developed a protective antibody against hepatitis B. This usually provides long-term protection against future hepatitis B infection.

Hepatitis e antigen (HBeAg) This stands for hepatitis B e antigen, which is a protein that is secreted by the hepatitis B virus. In collaboration with other blood tests, testing for HBeAg helps assess the stage of your disease.

Hepatitis e antibody (HBeAb) HBeAb reveals whether or not you have developed antibodies to the HBeAg. In collaboration with other tests it helps to assess the stage of disease.

Hepatitis B viral load (HBV DNA) This test measures the amount of hepatitis B virus DNA (viral load) present in your bloodstream. It is also important in determining when to start treatment and how well a current treatment is working.

**Alanine
aminotransferase
(ALT)**

ALT is a substance that is released from the liver cell into the bloodstream when liver cells are damaged. Increases in ALT above normal levels are often associated with damage to liver cells.

Having chronic hepatitis B increases the risk of developing liver cancer. You should be regularly screened for liver cancer, particularly if you have a family history of hepatocellular carcinoma.

The Hepatitis Foundation of New Zealand and/or your doctor may use tests, including alphafetoprotein (AFP, a blood test) and abdominal ultrasound to screen for liver cancer.

This is not a complete set of tests available to assess your disease and additional testing may be required.

IS THERE A CURE FOR CHRONIC HEPATITIS B?

Currently there is no cure but there are effective treatments that control hepatitis B. Not everyone needs treatment. The Hepatitis Foundation doctors and nurses can advise whether you need treatment. You may be referred to a hospital specialist to discuss this further.

You should be regularly monitored regardless of whether or not you have treatment.

Call 0800 33 20 10 or visit
www.hepatitisfoundation.org.nz

IMPORTANT POINTS ABOUT CHRONIC HEPATITIS B

- All family and household contacts should visit their doctor for testing/vaccination
- It is important to have six-monthly blood tests to detect active liver disease. Enrol with the Hepatitis Foundation of New Zealand to receive free monitoring
- Hepatitis B can be managed and treated
- For more information about chronic hepatitis B, please talk to Hepatitis Foundation of New Zealand staff or your doctor.

WHERE IS HEPATITIS B COMMON?

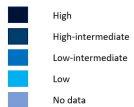
Worldwide, approximately 350–400 million people have chronic hepatitis B. The number of people with chronic hepatitis B in each country varies significantly.

As you can see from the map below, medium to high infection rates can be found in Southeast Asia, the Middle and Far East, Southern Europe and Africa. In New Zealand, about 100,000 people have chronic hepatitis B.

WORLDWIDE DISTRIBUTION OF CHRONIC HEPATITIS B



MAP 3-4. Prevalence of hepatitis B



Disease data source: Schweitzer A, Horn J, Mikolajczyk R, Krause G, Ott J. Estimations of worldwide prevalence of chronic hepatitis B virus infection: a systematic review of data published between 1965 and 2013. www.thelancet.com. 2015. Vol 386

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