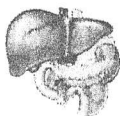


## WHY IS MY LIVER SO IMPORTANT?



The liver is the largest organ inside the body. In an adult it can weigh up to 1.4 kgs. It is located behind the ribs in the upper right-hand portion of the abdomen.

The liver does many vital things to make sure your body runs smoothly:

- Stores vitamins, sugar and iron to help give your body energy.
- Controls the production and removal of cholesterol.
- Clears the body of waste products, drugs and other poisonous substances.
- Makes clotting factors to stop excess bleeding.
- Produces immune factors and removes bacteria from the blood stream to combat infection.
- Releases a substance called "bile" to help digest food and absorb important nutrients.

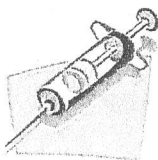
## So take care of your liver!

- Don't drown your liver in excess alcohol (beer, wine, spirits). Keep it down to two drinks a day at the most. If your liver tests are abnormal you are strongly advised not to drink at all.
- Take only the medicines prescribed by your doctor.
- Don't smoke - it increases the risk of cancer.



## And get a regular blood test at least once a year.

A simple blood test can pick up serious problems early, and often allow us to make them less serious. Sometimes special medical or surgical treatment is needed. For example, we can test those carriers who are at risk of liver cancer and may detect it early enough to give treatment.



## FOLLOW-UP OF HEPATITIS B CARRIERS

The Hepatitis Foundation is contracted by the Ministry of Health to manage the national follow-up programme for hepatitis B carriers. We have a confidential register of carriers who have enrolled in the follow-up programme and are provided with simple regular blood tests (usually every six months) to make sure their livers are healthy. This service is free of charge.

Any liver problems can usually be detected early. If liver problems are found, you will be told, and there may be a suitable treatment. We will refer you to a liver specialist for further management.

If any further information is required on our follow-up programme please contact us on 0800 33 20 10 or email [hepteam@hepfoundation.org.nz](mailto:hepteam@hepfoundation.org.nz).

You may like to visit our web-page at:  
[www.hepfoundation.org.nz](http://www.hepfoundation.org.nz).

Hepatitis Foundation (NZ)

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Free-phone: 0800 33 20 10

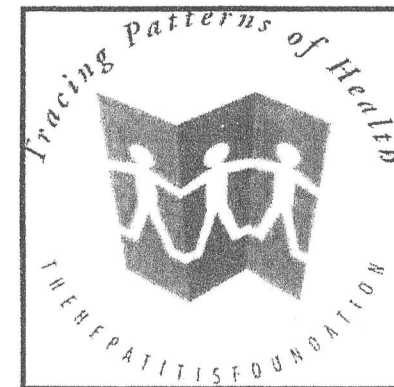
Phone: 07 307 1259

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# Hepatitis Foundation (NZ)



Free-phone: 0800 33 20 10

## ADVICE TO HEPATITIS B CARRIERS

A carrier is someone who has had a positive blood test on two occasions, usually 6 months apart, showing HEPATITIS B VIRUS (HBsAg) present in their blood

## WHO IS A HEPATITIS B CARRIER?

When you are infected with the hepatitis B virus the body usually responds by clearing it after a few weeks. Some people become ill for a while with jaundice (yellow colouring to the skin and eyes) but many never realise they have been infected. In many young children, and a small proportion of adults, the body is not able to clear the virus and it settles in the liver (host) for many years – these people are referred to as HEPATITIS B CARRIERS. Surprisingly, very few carriers feel ill when they get infected. Some hepatitis B carriers are more infectious than others. This is because they are replicating high levels of virus every day and they can be a risk to others, unless they are careful.

## CAN CARRIERS INFECT OTHER PEOPLE?

Carriers have “live” virus in their blood, saliva and sexual fluid for a number of years after they first get infected. Though in time they may lose part of the virus (HBsAg) from the blood, they are still carriers, and virus is still found in the liver. Carriers can pass the virus to others by direct passage of body fluids – for example, having unprotected sex, by sharing razors or toothbrushes, or by IV drug users sharing needles, but most infections in New Zealand occurred in childhood, and probably through breaks in the skin from sores and grazes.

Mothers can also pass the virus to their babies at the time of birth (we test all pregnant mothers and protect the babies of carrier mothers to prevent infection to baby).



Please do not worry about spreading hepatitis B by sharing plates, cups, cutlery or handling food, but please remember that hepatitis A can be spread this way. Hepatitis A is a different virus and is not chronic.

In New Zealand all blood transfusions are tested to check that they are free of hepatitis B, as well as hepatitis C.

## CAN I AVOID INFECTING OTHERS?

You can reduce the risks to your family and friends by some simple precautions:

- Cover open sores and cuts
- Don't share razors, towels or toothbrushes

Remember carriers can infect their sexual partners. Unless you know your partner has already been infected or had the vaccinations you should use condoms.

All your household contacts should also be blood tested for hepatitis B. People who have lived closely with you for several years may be already infected. A blood test can detect if they are immune (been infected and recovered or previously vaccinated) or carriers. If they have not been infected or vaccinated against the hepatitis B virus it would be wise to get them protected by vaccination. We suggest you discuss this with your doctor or staff at the Hepatitis Foundation.

If you have an accident or go into hospital inform the people caring for you that you are a carrier – it helps them to avoid infection. We do not recommend you tell others, as they may not understand this virus.

## IS IT PERSONALLY DANGEROUS TO BE A CARRIER?

Most New Zealand carriers do not suffer serious liver problems, but some go on to develop serious disease, approximately 25%, often many years after they became infected:

**Chronic Hepatitis** – slow damage to the liver over several years. Usually causes no symptoms but can lead to scarring (cirrhosis).

**Cirrhosis** (scarring of the liver) – can eventually result in liver failure and can be fatal.

**Liver Cancer** – this is the most serious complication of being a hepatitis B carrier and occurs mostly in males (1 in 6 male carriers) over the age of 30 years. Regular blood tests may pick this up early so that effective treatment can be started.

Male carriers seem to have greater risk of chronic liver disease than females. Carriers who become infected very young, from their mothers, seem to be at the greatest risk of all. Regular blood tests may help to detect these problems.

## IS THERE ANY TREATMENT TO GET RID OF THE VIRUS?

A successful treatment is one where the virus ceases to multiply and the liver function returns to normal, though usually the patient remains chronically infected.

## Pegylated Interferon

Pegylated Interferon treatment is a synthetic form of a natural product that is usually produced during virus infections. It attacks the virus directly, and indirectly by stimulating the immune system. Unfortunately it has a number of drawbacks - it is given by weekly injection, it only works in a proportion of cases (1/3 to 2/3 according to selection criteria), and it causes side effects in everyone. Most troublesome are muscle aches and malaise, though these often improve after the first few doses, and can be lessened by giving the dose at night with aspirin or paracetamol. It can also aggravate depressive symptoms and affect the blood count, which needs regular review. It has the advantage of only requiring one year of treatment in total.

## Entecavir (Baraclude) and Lamivudine (Zeffix™)

Entecavir (Baraclude) and Lamivudine (Zeffix™) are available as a tablet, and are well tolerated. They work by stopping the hepatitis B virus replicating, and in most cases stop further liver damage while treatment continues. In some cases treatment can be stopped but in many needs to be continued indefinitely. The virus may develop resistance to Lamivudine (Zeffix™) - up to 65 % after three years - but this is much less of a problem with Entecavir, less than 1% at year six.

**Adefovir (Hepsera)** For HBV carriers with serious liver disease that has become resistant to lamivudine this drug is an alternative. Like lamivudine it is well tolerated and suppresses HBV but often needs to be taken long-term.

**Tenofovir (Viread)** is another very powerful antiviral that has a low rate of viral resistance.