

Hepatitis B

Hepatitis B can be transmitted during birth, during sex and through blood-to-blood contact. It is prevented by immunisation, safe sex and safe injecting. All children, young people, and adults at higher risk should be vaccinated.

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What is hepatitis B?

Hepatitis B is a disease of the liver that is caused by hepatitis B virus. It is one of several viruses that can infect the liver.

Most adults who get infected with hepatitis B virus recover or 'clear' the infection without specific treatment. They are no longer infectious, and have lifelong immunity.

However, about five to ten percent of infected adults do not clear the virus, and remain infectious for many years. They have chronic (long-term) hepatitis B infection. About 90% of babies infected at birth from their mother go on to have chronic hepatitis B.

Chronic hepatitis B slowly damages the liver, so people with this condition may, after decades, develop liver failure or cancer of the liver. Untreated chronic hepatitis B is associated with death from liver scarring and failure and/or liver cancer in up to 25% of cases.

What are the symptoms?

Most people have no symptoms when they are first infected with hepatitis B.

If there are symptoms, they usually develop about two to three months after infection. Acute hepatitis B symptoms include:

- loss of appetite
- nausea and/or vomiting
- abdominal pain
- fatigue
- dark urine
- pale stools
- a yellowing of the skin and eyes (jaundice).

These symptoms last from days to a few weeks and then get better without treatment. However, this doesn't mean that the virus has gone, and some people will go on to have chronic hepatitis B.

People with [chronic hepatitis B infection](#) may appear well while others will, after many years, develop symptoms such as fatigue, loss of appetite, nausea/vomiting, abdominal pain and joint pains.

How is it spread?

The hepatitis B virus is spread when infected body fluids (blood, semen, saliva or vaginal fluid) come in contact with the blood stream of another person. This can occur:

- from mother to child around the time of birth
- via unprotected vaginal, oral or anal sex
- when the skin is pierced with contaminated equipment, including:

- shared drug injecting equipment (needles, syringes and other equipment for injecting drugs and drug solutions)
- needle stick injuries
- unsafe injections, tattoos, body piercing, acupuncture and other procedures that involve unsterile body cutting or piercing
- by sharing personal items that may have blood on them such as toothbrushes, razors, sex toys
- when blood from an infected person makes direct contact with an open wound of another person.

Hepatitis B is **not** transmitted by casual contact such as hugging or holding hands, kissing on the cheek, coughing or sneezing, sharing food, sharing eating utensils, or eating food prepared by someone with hepatitis B.

Who is at risk?

Those who have not had hepatitis B and who have not been vaccinated against it are at risk of getting the disease.

In Australia, people at the highest risk of becoming infected with hepatitis B virus are:

- people who use injection drugs
- people who have sex without a condom, particularly men who have sex with men
- household contacts of people infected with hepatitis B
- people in custodial settings
- people who work in high-risk occupational settings such as healthcare, correctional facilities, laboratories, mortuaries, ambulance or police services.

In Australia, people who are at the highest risk of having chronic hepatitis B are:

- people born in a country/region where hepatitis B is common (China; Southeast, Central and South Asia; Pacific islands; countries in Africa, Central and Eastern Europe). Most people with chronic hepatitis B from these countries were infected at birth.
- Aboriginal and Torres Strait Islander people (particularly those born before the introduction of universal infant hepatitis B vaccination in May 2000)
- people whose mother had chronic hepatitis B and who were born prior to universal infant hepatitis B vaccination
- people living with human immunodeficiency virus (HIV) or hepatitis C virus.

How is it prevented?

The best protection from hepatitis B is vaccination.

The standard vaccination schedule consists of 3 doses given over 6 months and is safe and effective. In Australia, hepatitis B vaccination is part of the infant immunisation program. In NSW, students in the first year of high school were offered hepatitis B vaccination via the school based vaccination program from 2004 to 2013, when children vaccinated as infants from 2000 onwards reached high school age. Hepatitis B vaccination is available from general practitioners and Aboriginal Community Controlled Health Services. It is also available free at sexual health clinics and at some other services for people at highest risk of infection.

Hepatitis B, and other blood borne viruses, can also be prevented by:

- never sharing needles, syringes and other injecting equipment
- ensuring tattoo, acupuncture, and body piercing equipment are sterile
- always using condoms with new and casual sexual partners and avoiding oral sex where blood or sores are present (e.g. menstruation, gum disease, cuts, ulcers, cold sores)
- preventing contact with other people's body fluids (e.g. use gloves to dress wounds and to clean up spills of blood and other body fluids)
- never sharing personal items such as razors, toothbrushes, combs, nail clippers or sex toys.

All pregnant women should have a blood test for hepatitis B. Hepatitis B can be prevented in babies born to mothers with hepatitis B by administering hepatitis B immunoglobulin within 12 hours of birth (in addition to four doses of vaccine over six months recommended for all babies). Immunoglobulin contains antibodies against hepatitis B virus which provide immunity more rapidly than a vaccine. In some cases, the mother might also require hepatitis B treatment in the last stages of pregnancy to ensure her baby doesn't get the virus.

Hepatitis B infection can also be prevented in unvaccinated people potentially exposed to hepatitis B virus (e.g. after a needle stick injury or unprotected sex) with hepatitis B immunoglobulin. Immunoglobulin must be given as soon as possible after the exposure, and within 72 hours. However, it can still be effective if given within 14 days after sexual exposure.

How is it diagnosed?

Hepatitis B is detected by a blood test. This can show if a person has current infection or has had hepatitis B in the past and is no longer infectious. It can also show whether someone is immune following vaccination.

A test for hepatitis B can be part of a general health or sexual health check-up. It is important that all people born in a country with a high rate of hepatitis B are tested. Other people with risk factors for hepatitis B who have not been vaccinated against hepatitis B should also be tested; if their blood test shows no hepatitis B then they should be vaccinated.

How is it treated?

There is no specific treatment for acute hepatitis B; treatment is supportive and is based on the person's symptoms and signs of illness.

For chronic hepatitis B (defined as infection that persists for at least six months), specific antiviral treatments that limit liver damage are available depending on the stage of infection. It is very important that people with chronic hepatitis B have regular (usually once a year) monitoring of their liver function and stage of infection so that the need for treatment can be assessed. Not everyone with chronic hepatitis B will require treatment but everyone should be monitored. Regular screening for liver cancer is also recommended depending on the stage of infection.

To reduce the risk of further liver damage, people with chronic hepatitis B should:

- limit or avoid alcohol
- eat a healthy diet
- get vaccinated against hepatitis A.

Telling others

If you have hepatitis B it is important to tell people who may have been exposed, so that they can get tested and vaccinated.

If you are infectious and you have had unprotected sex or shared needles with someone who is not immune, they need to see a doctor immediately in case they need immunoglobulin. For sexual exposure to hepatitis B virus, immunoglobulin given up to 14 days after exposure may still be effective. Family members and housemates may also be at risk of infection if they are not immune, and should be vaccinated.

Your doctor or sexual health clinic can help you identify other people who may be at risk and help to contact them. If you wish, your doctor can make the contact for you, while also keeping your identity confidential.

What is the public health response?

Doctors, hospitals and laboratories must notify new cases of viral hepatitis to the local public health unit. This information is kept confidential and is used to control further spread and better understand who is at risk of the disease.

Further Information

- Hepatitis Infoline **02 9332 1599** or **1800 803 990** (outside Sydney)
- www.hepatitis.org.au
- NSW Sexual Health Infoline **1800 451 624**

For further information please call your local public health unit on 1300 066 055 or visit the New South Wales Health website <https://www.health.nsw.gov.au/hepatitis/Pages/default.aspx>.

For more information about hepatitis B vaccination see the [Australian Immunisation Handbook](#).