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## Hepatitis B

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### Summary

- Hepatitis B is a viral infection that causes liver inflammation. It is transmitted through contaminated blood and other body fluids.
  - Hepatitis B can be prevented by immunisation.
  - Immunisation against hepatitis B provides very good protection (about 95 per cent effective) and is recommended for all infants, young children and adolescents, and people in high-risk groups.
  - Untreated hepatitis B can stay in the body for a long time (chronic hepatitis B) and lead to liver scarring (cirrhosis), liver cancer and death.
  - Nearly half of all people living with hepatitis B in Australia have not been diagnosed.
  - Most people with hepatitis B in Australia became infected at birth or during their early childhood in countries overseas.
  - Hepatitis B may be spread through unsafe (unprotected) sex or sharing injecting equipment.
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Hepatitis means 'inflammation of the liver'. Hepatitis B (also referred to as hep B) is caused by the hepatitis B virus (HBV) and is an infection that can lead to serious liver problems. The virus is found in blood and, to a lesser degree, in body fluids such as semen and vaginal secretions.

You can get hepatitis B by having unsafe sex, sharing unsterile piercing or drug injecting equipment, or engaging in other activities where the blood or body fluids of an infected person enters the bloodstream of an uninfected person. The virus may also be passed from a pregnant mother to her baby. In about 30 to 40 per cent of cases, infections occur without a known cause.

Children who get hepatitis B are more likely to have ongoing infection and therefore more likely to develop liver disease or cancer in later life. Most adults who have hepatitis B recover completely (clear the virus) and do not require ongoing treatment.

All children born in Australia after 2000 were given immunisation for hepatitis B as part of the childhood immunisation schedule. All children and adults at increased risk should be immunised against hepatitis B.

### Symptoms of hepatitis B

Some people who are infected with the hepatitis B virus have mild, flu-like symptoms and some do not become sick at all. Children who are infected are less likely to have an illness or get sick after getting hepatitis B than adults. (However, the health consequences for people who were infected with hepatitis B in childhood can be more serious in the long term.)

In more severe cases, hepatitis B can cause:

- loss of appetite
- nausea and vomiting
- pain in the liver (under the right ribcage)
- fever
- pain in the joints
- jaundice (the eyes and skin become yellow).

Normally, these health problems disappear in a few weeks, but even when the person feels much better, they may still be infectious.

Most adults who become infected with the hepatitis B virus recover completely and do not become infected again. A few people become very ill in the time just after infection and need to go to hospital; some may even die.

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## Complications of hepatitis B

A small proportion of people who become infected with the hepatitis B virus develop a long-term (chronic) hepatitis B infection. They may have the virus in their bloodstream for most of their life without realising they are infected.

People with chronic hepatitis B infection may not notice any health problems until they develop liver problems such as liver disease (scarring or cirrhosis) or liver cancer later in life.

**Treatment for hepatitis B is essential because it is not possible to be a 'healthy carrier' of the hepatitis B virus.**

Chronic hepatitis B infection occurs more commonly in some communities, including:

- Aboriginal and Torres Strait Islander communities
- In people from parts of the world where hepatitis B is more common, such as:
  - North-East Asia
  - South-East Asia
  - Mediterranean Europe
  - North Africa
  - Middle East
  - Pacific Islands
  - sub-Saharan Africa.

## Causes of hepatitis B

Hepatitis B is spread through contact with blood that contains the hepatitis B virus. If infected blood or body fluids enter another person's bloodstream, that person may become infected.

The time from exposure to the hepatitis B virus to the appearance of the illness (if symptoms occur) is 45 to 180 days.

Risky activities that can cause infection include:

- sharing unsterile or unclean equipment for injecting drugs
- piercing the skin with equipment that is not properly cleaned, disinfected and sterilised
- sharing razor blades or toothbrushes
- coming into contact with infected blood through open cuts or the mucous membranes of another person
- having unprotected sex (for example, without a condom), especially if there is blood present.

Mothers who have hepatitis B can pass the virus to their babies or children at the time of birth or after birth. If the newborn baby is quickly immunised with two vaccines, they can be protected from getting hepatitis B.

All blood and blood products produced for medical purposes in Australia are carefully screened for hepatitis B and other blood-borne viruses. The risk of getting infected with hepatitis B from a blood transfusion is extremely low (approximately 1 in 764,000).

## Reducing the risk of hepatitis B

Simple steps that everyone can take to protect themselves against hepatitis B include:

- making sure you and your children are immunised – this is the best protection
- using condoms every time you have anal or vaginal sex with new partners until you both get a check-up (this also prevents against other infections)
- avoiding oral sex if you or your partner have herpes, ulcers or bleeding gums – it is unlikely that you will contract hepatitis through oral sex unless blood is present
- choosing to have any body piercing or tattooing done by an experienced practitioner who follows good sterilisation and hygiene practices, and who works at premises registered by the local council
- wearing single-use gloves if you give someone first aid or need to clean up blood or body fluids

- never sharing needles and syringes or other equipment, such as spoons, swabs or water, if you inject drugs. Always use sterile needles and syringes. These are available from needle and syringe programs and some pharmacists. Always wash your hands before and after injecting.

If you have hepatitis B:

- Make sure your partner and close contacts are immunised against hepatitis B so you don't have to worry about hepatitis B passing to others in your home.
- Avoid sharing injecting equipment or personal items such as toothbrushes or razors.
- Completely cover any cut or wound with a waterproof dressing.
- Practise safe sex until you know your partner is immunised and protected.
- Consider discussing your condition with your healthcare professional when undergoing any medical or dental procedure, although there is no legal obligation to do so.

**If you think you have been exposed to hepatitis B, see a doctor immediately.** Your doctor can give you treatment in some instances, which greatly reduces the risk of you becoming infected with hepatitis B.

### Diagnosis of hepatitis B

Blood tests are available to determine if you are or have been infected with hepatitis B. It may take six months from the time of infection before a blood test can detect antibodies to hepatitis B, so follow-up testing may be required. During this six-month period, until you know whether you are infected or not, take action to prevent potential infection of other people.

There are also tests that can assess liver damage from hepatitis B. The interpretation of these tests can be complicated and specialist advice is needed, so talk to your doctor.

All pregnant women are tested for hepatitis B. If you are found to have chronic hepatitis B, your doctor can help reduce the risk of transferring the infection to your newborn child.

### Check-ups and treatment for hepatitis B

All people living with long term (chronic) hepatitis B require regular check-ups, but only some require regular medicine (antiviral medications, some of which are covered by the Pharmaceutical Benefits Scheme). Medicine for hepatitis B controls the amount of virus in the body but does not clear or cure the person of the infection.

People whose bodies are naturally maintaining low levels of the virus in their blood and who have no sign of liver damage do not need to be on medication for hepatitis B.

People who have high levels of the virus or some liver damage can have treatment that will control and reduce the amount of virus in their body, prevent liver damage and help to heal their scarred liver.

Your body's ability to control the virus can change, so you may need medication at some times, and not at others.

The decision to start treatment for hepatitis B is complicated. Talk to your doctor or specialist to understand whether you need it or not.

While not everyone living with long-term hepatitis B requires medications, **all people with long-term hepatitis B need to have regular check-ups** for their hepatitis B, every six to 12 months.

If you have long-term hepatitis B, consult with your doctor. They will monitor your condition and, if necessary, refer you to a specialist.

You can also help to keep your liver healthy by:

- limiting how much alcohol you drink
- quitting smoking
- eating a well-balanced, low-fat diet.

### Immunisation for hepatitis B

Immunisation is the best protection against hepatitis B infection. A course of vaccination is recommended for all babies and people in high-risk groups.

Immunisation can be with a vaccine against hepatitis B alone or with a combination vaccine. To be immunised,

contact your doctor or local council.

Protection against hepatitis B is available free of charge under the **National Immunisation Program Schedule**. In Victoria, immunisation against hepatitis B is free for:

- babies at birth – immunisation against hepatitis B alone as soon as possible after birth
- babies at two, four and six months – combination immunisation in the form of a diphtheria, tetanus, whooping cough, hepatitis B, polio and *Haemophilus influenzae* type b (Hib) vaccine (six-in-one vaccine)
- premature babies at 12 months – premature babies born under 32 weeks gestation or under 2,000 g birth weight receive a single booster dose
- children up to and including nine years of age
- people aged less than 20 years having a catch-up immunisation
- refugees and humanitarian entrants aged 20 years and above.

In Victoria, free hepatitis B vaccine is provided for people who are at increased risk of infection, including:

- household contacts and sexual partners of people living with hepatitis B
- people who inject drugs or are on opioid substitution therapy
- people living with hepatitis C
- men who have sex with men
- people living with HIV
- prisoners and people on remand who do not have hepatitis B or immunity against hepatitis B
- people no longer in a custodial setting who commenced, but did not complete, a free vaccine course while in custody
- Aboriginal and Torres Strait Islander people
- vulnerable people who have experienced socioeconomic disadvantage that compromised their equitable access to the vaccine, aged 20 years and above (this is based on an individual assessment by the immunisation provider)
- people who arrived in the last 10 years from countries where hepatitis B is endemic (including China, Philippines, Malaysia, Vietnam, Afghanistan, Thailand, South Korea, Myanmar, Indonesia, Singapore, Hong Kong, Taiwan and Cambodia).

Immunisation is also recommended, but not necessarily free, for people who are at increased risk of infection, including:

- healthcare or emergency workers, or members of the police force or armed forces
- workers who come into regular contact with blood and other body fluids or tissue such as funeral workers, embalmers, tattooists, and people who come into regular contact with used needles or syringes
- workers in the sex industry
- migrants from areas where hepatitis B is widespread, including Africa, Asia, Russia and Eastern Europe
- adults on haemodialysis and people with severely impaired renal function in whom dialysis is anticipated
- solid organ and haematopoietic stem cell transplant recipients
- immunocompromised adults
- people with a blood-clotting disorder or who require ongoing transfusions with blood products
- people who have more than one sexual partner
- people with chronic liver disease or a liver transplant
- residents or staff members at facilities for people with developmental disabilities
- travellers to hepatitis B endemic areas either long-term or for frequent short visits, or undertaking activities that increase their risk of exposure
- people with a history of injecting drug use.

Remember that being immunised against hepatitis B does not protect you against HIV, hepatitis C or other diseases spread by blood or body fluids, so you still need to take precautions to ensure you are not exposed to these diseases.

## Pregnancy and hepatitis B immunisation

Hepatitis B vaccine is not usually recommended for women who are pregnant or breastfeeding, but could be recommended by your doctor if you are not immune to hepatitis B and you are at increased risk of infection.

### Where to get help

- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- Your **GP (doctor)**
- Your local community health centre
- Your local government immunisation service
- **Maternal and Child Health Line** (24 hours) Tel. **13 22 29**
- **NURSE-ON-CALL** Tel. **1300 60 60 24** – for expert health information and advice (24 hours, 7 days)
- **National Immunisation Information Line** Tel. **1800 671 811**
- **DirectLine** Tel. **1800 888 236** – for 24-hour confidential drug and alcohol telephone counselling, information and referral (including information about where to get clean needles and syringes)
- **Melbourne Sexual Health Centre** Tel. **(03) 9341 6200** or **1800 032 017** (toll free from outside Melbourne metropolitan area only)
- Your local **pharmacist**
- **SAEFVIC** Tel. **1300 882 924** – the line is attended between 9 am and 4 pm and you can leave a message at all other times
- **Immunisation Section**, Department of Health and Human Services Tel. **1300 882 008**
- **Hepatitis Infoline** Tel. **1800 703 003**
- **St Vincent's Hospital, Melbourne have produced a booklet: Treatment for hepatitis B which is available in English, Simplified and Traditional Chinese and Vietnamese.**

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