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## Hepatitis B – immunisation

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### Summary

- Hepatitis B can cause serious illness or death and lead to liver disease and cancer.
  - Babies can contract hepatitis B from their infected mother during pregnancy and at the time of birth.
  - Immunisation is about 95 per cent effective and is recommended for all infants and young children, adolescents and those in high-risk groups.
  - The National Immunisation Program provides immunisations against hepatitis B for babies from birth.
  - In Victoria other groups at high risk (including men who have sex with men) can also receive free immunisation against hepatitis B.
  - Common immunisation side effects are usually mild and temporary, and do not require specific treatment.
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**Hepatitis B** is a liver disease caused by the hepatitis B virus. Most adults who catch hepatitis B recover completely and do not require ongoing treatment. Children with hepatitis B are more likely to develop liver disease or cancer in later life.

All children should be immunised against hepatitis B, and adults at increased risk should also be immunised.

In Victoria the hepatitis B vaccine is offered free of charge to all infants and anyone who is at increased risk of contracting the hepatitis B infection, including men who have sex with men and people living with HIV.

Serious side effects or allergic reactions to the vaccines are rare. If you are concerned about your or your child's reaction to any vaccine, see your doctor immediately.

### Complications of hepatitis B in infants and children

Mothers who are infected with hepatitis B can pass the virus to their children either through the womb (rarely) or at the time of birth. Hepatitis B virus can also be spread through exposure of broken skin or mucous membranes to the blood or other body fluids of an infected person.

If newborn babies are quickly immunised (within 24 hours of birth) with two vaccines, they can be protected from getting hepatitis B.

Many people who are infected with hepatitis B have no symptoms. Babies and children who are infected with hepatitis B are less likely than adults to have symptoms of infection, but are more likely to develop chronic hepatitis B.

A child who contracts chronic hepatitis B has an increased risk of developing liver disease and cancer later in life. A small proportion of adults who become infected with the hepatitis B virus develop a long-term hepatitis B infection.

### Immunisation against hepatitis B

The current Australia-wide **immunisation program** is necessary to protect all children from hepatitis B infection.

A full course of hepatitis B injections must be given for a child to be protected. It is recommended that this course begins within 24 hours of birth with a vaccine against hepatitis B alone. Further doses are routinely given at two months, four months and six months, as a combination vaccine.

Immunisation is the best protection against hepatitis B infection. In Victoria a free hepatitis B vaccine is available for a number of groups at high risk, including men who have sex with men, and people living with HIV.

The adult course involves three doses of the vaccine over six months and gives protection to about 95 per cent of people. Once you have had the three doses, you can have a blood test to see if you are protected.

### Immunisation against hepatitis B for children

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Immunisation is the best protection against hepatitis B infection and is recommended for all infants and young children, adolescents and those in high-risk groups. Immunisation can be with a vaccine against hepatitis B alone or with a combination vaccine.

Protection against hepatitis B is available free of charge under the **National Immunisation Program Schedule**. In Victoria immunisation against hepatitis B is free for all babies and children including:

- babies at birth – immunisation against hepatitis B alone as soon as possible after birth
- babies at two, four and six months – 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.

### **Immunisation against hepatitis B for people at risk**

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

- men who have sex with men
- people living with HIV
- 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**
- prisoners
- 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
- people born in priority hepatitis B endemic countries who arrived in Australia in the last 10 years – priority countries include China, Philippines, Malaysia, Vietnam, Afghanistan, Thailand, South Korea, Myanmar (Burma) Indonesia, Singapore, Hong Kong, Taiwan and Cambodia
- vulnerable citizens – people who have experienced hardship that prevented them from accessing the vaccine earlier. Vulnerable citizens are vaccinated based on an individual assessment by an immunisation provider.

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

- adults on haemodialysis and people with severely impaired renal function who may need dialysis in the future
- solid organ and haematopoietic stem cell transplant recipients
- immunocompromised adults
- people with chronic liver disease or a liver transplant
- healthcare or emergency workers or members of a police force or armed forces
- workers who come into regular contact with blood or tissue such as funeral workers, embalmers, tattooists
- other people who come into regular contact with human tissue, blood or body fluids or used needles or syringes
- workers in the sex industry
- people who have more than one sexual partner
- people with a history of injecting drug use
- people with a blood-clotting disorder or who require ongoing transfusions with blood products
- 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.

If you think you have been exposed to hepatitis B, see a doctor immediately. Your doctor can give you treatment that, in some instances, can greatly reduce your risk of infection with hepatitis B.

Remember that being immunised against hepatitis B does not protect you against HIV, hepatitis C or other

diseases spread by blood or bodily fluids. It is important that you take precautions to make sure 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. Speak with your doctor about protecting yourself from hepatitis B if you are not immune to hepatitis B and you are at increased risk.

### **Pre-immunisation checklist**

Before immunisation, it is important that you tell your immunisation provider if you (or your child):

- are unwell (have a temperature over 38.5 °C)
- have had a serious reaction to any vaccine
- have had a serious reaction to any component of the vaccine
- have had a severe allergy to anything
- are pregnant or intend to become pregnant.

### **Side effects of hepatitis B vaccines**

Immunisations containing components to protect against hepatitis B (including the six-in-one vaccine) are effective and safe, although all medication can have unwanted **side effects**.

Side effects from the vaccine are uncommon and usually mild, but may include:

- localised pain, redness and swelling at the injection site
- low-grade temperature (fever)
- in children, being unsettled, irritable, tearful, generally unhappy, drowsy and tired
- occasionally, an injection-site lump (nodule) that may last many weeks, but for which treatment is not needed.

### **Managing fever after immunisation**

Common side effects following immunisation are usually mild and temporary (occurring in the first few days after vaccination). Specific treatment is not usually required.

There are a number of treatment options that can reduce the side effects of the vaccine such as giving extra fluids to drink and not overdressing if there is a fever.

Although routine use of paracetamol after vaccination is not recommended, if fever is present, paracetamol can be given – check the label for the correct dose or speak with your pharmacist, especially when giving paracetamol to children.

### **Managing injection site discomfort**

Many vaccine injections may result in soreness, redness, itching, swelling or burning at the injection site for one to two days. Paracetamol might be required to ease the discomfort.

### **Concerns about immunisation side effects**

If the side effect following immunisation is unexpected, persistent or severe, or if you are worried about yourself or your child's condition after a vaccination, see your doctor or immunisation nurse as soon as possible or go directly to a hospital.

It is important to seek medical advice if you (or your child) are unwell, as this may be due to other illness, rather than because of the vaccination.

Immunisation side effects may be reported to **SAEFVIC**, the Victorian vaccine safety and reporting service. Discuss with your immunisation provider how to report adverse events in other states or territories.

### **Rare side effects after immunisation**

There is a very small risk of a **serious allergic reaction** (anaphylaxis) to any vaccine. This is why you are advised to stay at the clinic or medical surgery for at least 15 minutes following immunisation, in case further treatment is

required.

**If you think your child may be having a serious allergic reaction and you are no longer at the clinic where they were immunised, take them immediately to your doctor or to the nearest hospital, or call 000 for an ambulance.**

Another rare side effect is the **hypotonic-hyproresponsive episode (HHE)**. If they are experiencing HHE, a baby may be:

- pale
- limp
- unresponsive.

This may occur from one to 48 hours following vaccination. The whole episode may last from a few minutes to 36 hours.

**If you think your child may be having an HHE episode, take them immediately to your doctor or to the nearest hospital.**

Follow-up of children with HHE shows no long-term neurological or other side effects.

### **Immunisation and HALO**

The immunisations you may need are decided by your health, age, lifestyle and occupation. Together, these factors are referred to as HALO. **Check your immunisation HALO.**

Talk to your doctor or immunisation provider if you think you or someone in your care has health, age, lifestyle or occupation factors that could mean immunisation is necessary.

### **Where to get help**

- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- Your **GP (doctor)**
- **Pharmacist**
- **Hepatitis Victoria infoline.** Tel. **1800 703 003**
- Local government immunisation service
- **Maternal and Child Health Line** (24 hours, 7 days) Tel. **13 22 29**
- **NURSE-ON-CALL** Tel. **1300 60 60 24** – for expert health information and advice (24 hours, 7 days)
- **Immunisation Section, Department of Health and Human Services,** Victorian Government Tel. **1300 882 008**
- **Immunise Australia Information Line** Tel. **1800 671 811**
- **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

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