

Haemophilus influenzae type b (Hib)

Haemophilus influenzae type b (Hib) is a life-threatening bacterial infection that can lead to serious illness, especially in children. Conditions such as meningitis, epiglottitis and pneumonia can develop very quickly and may require urgent medical attention.

Hib disease is spread mainly through coughing or sneezing or contact with discharges from the nose and throat of an infected person. Despite its name, Hib is not a form of influenza (flu).

Before the introduction of immunisation in 1993, Hib was a common cause of life-threatening infection in children under five. Routine immunisation has been highly effective in reducing the incidence of this disease in Australia. Children under five years of age and people at increased risk of developing Hib infection should be immunised.

Symptoms of Hib

If you suspect that your child may have any of the following symptoms, it is important that you seek urgent medical attention:

- Severe headache
- Stiff neck
- Convulsions or seizures
- Severe drowsiness
- Difficulty waking up
- Loss of consciousness
- Difficulty with breathing.

A range of infections in children

If your child is not immunised and contracts Hib, they could develop:

- **Meningitis** – an infection of the membrane covering the brain. Signs include fever, stiff neck, drowsiness, irritability and refusing food.
- **Epiglottitis** – inflammation of the flap at the top of the windpipe (epiglottis), which can block a child's breathing. Signs can include severe breathing difficulties, fever, restlessness and irritability.
- **Pneumonia** – lung inflammation. Symptoms include fever, cough, chest pains and breathing problems, such as shortness of breath.
- **Septic arthritis** – joint infection. Symptoms include joint pain, swelling and reduced mobility of the joint.
- **Cellulitis** – infection of the tissue under the skin, usually on the face.

These conditions can develop very quickly. If left untreated, your child could die very rapidly.

How Hib is spread

Haemophilus influenzae bacteria live normally in the upper respiratory (nose and throat) tract of most healthy people without causing illness. However, infection with the type b (Hib) bacterium can cause a range of conditions in vulnerable people, some of which are medical emergencies.

Hib disease is spread mainly through person-to-person contact with infected droplets (coughing or sneezing) or discharges from an infected person's nose and throat. The usual time between contact with the bacteria and the development of the illness is around two to four days. The person with Hib is infectious for as long as the bacteria stays in the nose or throat. Generally 24 to 48 hours of appropriate antibiotic treatment is required to clear the infection.

If your child has a Hib infection, they should be kept away from child care or school until a course of appropriate antibiotics is completed and your doctor has confirmed that they are no longer infectious.

In some circumstances the household of a person with Hib infection may require preventative antibiotics. The Health Department will guide healthcare workers if this is the case.

Diagnosis of Hib

Since other types of bacteria can cause similar infections, it is important to test specifically for the presence of *Haemophilus influenzae* type b. Tests may include:

- Physical examination
- Blood test
- Cerebrospinal fluid (CSF) test by lumbar puncture
- Other specimens.

Emergency diagnosis of life-threatening conditions is generally made on the basis of onset of symptoms having occurred very rapidly in a previously well child.

Treatment for Hib

Depending on the illness, treatment may include:

- Admission to hospital
- A course of the appropriate antibiotics.

A child with epiglottitis may be cared for in an intensive care unit and a breathing tube inserted to help them breathe.

Immunisation for Hib

Immunisation is the best protection against Hib infection and is recommended for all infants and young children and adults at high risk. Generally, any immunisations you may need are decided by your health, age, lifestyle and occupation. Together, these factors are referred to as HALO.

In Victoria, the Hib vaccine is offered free of charge for:

- **All children at two, four, six and 12 months** – the first three doses are part of a combined vaccine (diphtheria, tetanus, pertussis, hepatitis B, polio and *haemophilus influenzae* type b vaccine)
- **Children up to five years of age who have not been previously immunised** – a single catch-up dose is required.

A single dose of Hib vaccine is also recommended for anyone who has no spleen or a poorly functioning spleen and has not been previously immunised for Hib. People who have had a stem cell transplant should also be given Hib vaccine.

Before Hib immunisation

Before receiving the vaccine, tell your doctor or nurse if you or your child:

- Is unwell on the day of immunisation (temperature over 38.5° C)
- Has ever had a serious reaction to any vaccine or has any allergies.

Side effects of the Hib vaccine

Serious reactions to this vaccine are rare. Mild reactions can include:

- A mild temperature
- Drowsiness or tiredness
- Mild swelling, redness and pain at the injection site
- Temporary small lump at the injection site
- Irritability or crying – your child may appear generally unsettled.

There is a very small risk of a serious allergic reaction to any vaccine. It is important to stay at the clinic where the immunisation was given for 15 minutes after the immunisation.

Reducing the side effects

You can help prevent vaccine side effects by:

- Placing a cold, wet cloth over the sore injection spot
- Giving your child extra fluids to drink and not overdressing your child if he or she has a fever
- Paracetamol to reduce any fever – check the label for the correct dose (especially for children).

If you are concerned about any reaction to the vaccine, contact your doctor or hospital.

Where to get help

- In an emergency, always call triple zero (000) for an ambulance
- Your doctor
- Your local Maternal and Child Health centre
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Your local council immunisation service
- Department of Health Victoria Immunisation Section Tel. 1300 882 008
- National Immunisation Infoline Tel. 1800 671 811

Things to remember

- Hib can lead to serious illness, especially in children. There is a vaccine available.
- Babies and children under five years of age should receive the full course of immunisation against Hib.
- Serious reactions to the Hib vaccine are rare.

This page has been produced in consultation with, and approved by:

Department of Health - Communicable Disease Prevention and Control Unit

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