

# Haemophilus Influenzae type b (Hib)

Haemophilus influenzae type B (Hib) is a bacterium commonly found in the throat of healthy people. Despite its name, it is not related to influenza ('the flu'). Hib is prevented by routine immunisation of infants.

When Hib invades the body from the throat or nose, this infection can cause either:

- meningitis (inflammation of the membranes around the brain and spinal cord)
- epiglottitis (inflammation of a part of the lower throat)
- pneumonia (lung infection)
- osteomyelitis (infection of the bones and joints)
- cellulitis (infection of the tissue under the skin).

## Signs and Symptoms:

Symptoms depend on which part of the body is affected.

- Meningitis – fever, headache, stiff neck, nausea, vomiting and drowsiness
- Epiglottitis – difficulty breathing and swallowing, pale colour and fever
- Pneumonia – shortness of breath, fever, lack of energy, loss of appetite, headache, chest pain and cough
- Osteomyelitis – swelling, inflammation and pain over the affected bone
- Cellulitis – affected area is red, hot, swollen and tender. There may also be a discharge of fluid or pus.

## Treatment:

A person with Hib is usually admitted to hospital and treated with appropriate antibiotics.

## Transmission:

Hib bacteria can live harmlessly in the throat of healthy people. The bacteria are spread through contact with droplets from the nose or throat of an infected person. A person does not need to have symptoms to spread the bacteria. The usual time between contact with the bacteria and the development of the illness is short, approximately two to four days.

The person with Hib is infectious for as long as the bacteria is present in the nose or throat. They require 48 –72 hours of appropriate antibiotic treatment before they are no longer infectious.

People most at risk of infection include:

- Children under five years of age
- Aboriginal and Torres Strait Islander people
- People with other medical conditions such as sickle cell disease, HIV/AIDS, a non-functioning spleen, a bone marrow transplant or who are being treated for cancer.

## Prevention:

People with Hib should not attend child care or school until they have had at least 72 hours of an appropriate antibiotic. In certain circumstances, a short course of antibiotics may be recommended for those in very close contact with someone who has Hib disease. The purpose of the antibiotic is to eliminate the Hib bacteria from the nose or throat of those who may be carrying it and so prevent the bacteria from being passed to those most susceptible to Hib disease. However, cases of disease may occur despite taking the antibiotic so contacts must still be alert for symptoms. Contacts who have no symptoms and are taking antibiotics may continue to attend childcare, school or work.

Vaccination is the most effective means of preventing invasive Hib disease. Vaccination is recommended as part

of the National Immunisation Program Schedule for all children at six to eight weeks of age then at four, six and twelve months of age. The Hib vaccine for children is given as one injection combined with other childhood vaccines. It can be given at the same time as other immunisations recommended at this age.

Hib vaccine is also recommended for people who do not have a spleen or a working spleen and for stem cell transplant (HSCT) recipients.

Like all medications, vaccines may have side effects. Most side effects are minor, last a short time and do not lead to any long-term problems. Possible side effects include discomfort, fever and/or redness and swelling where the injection was given. More serious side effects are extremely rare. Contact your immunisation provider if you or your child has a reaction following vaccination which you consider serious or unexpected.

### Health outcome:

Before the introduction of routine Hib vaccination in 1993, Hib was the most frequent cause of life threatening bacterial infection in children under the age of five years. Since routine vaccination, there has been a reduction of greater than 90% in reported cases of Hib disease.

### Other resources:

- [13 HEALTH](https://www.qld.gov.au/health/contacts/advice/13health/index.html) (<https://www.qld.gov.au/health/contacts/advice/13health/index.html>) (call 13 43 25 84)
- [Queensland Health immunisation](https://www.health.qld.gov.au/public-health/topics/immunisation) (<https://www.health.qld.gov.au/public-health/topics/immunisation>)
- [Immunise Australia](http://www.immunise.health.gov.au/) (<http://www.immunise.health.gov.au/>) (call 1800 671 811)

### Help and assistance:

For further information, please contact your local doctor, community health centre or nearest public health unit. You can be immunised at your local doctor or medical centre. Check with your local council, community child health and community health centre regarding free immunisation clinics.

### Related Content

- [Having a vaccination: what to expect](http://conditions.health.qld.gov.au/HealthCondition/condition/14/119/70/Having-a-vaccination-what-to-expect) (<http://conditions.health.qld.gov.au/HealthCondition/condition/14/119/70/Having-a-vaccination-what-to-expect>)

### Footnotes

Communicable Disease Network Australia. 2014. [Haemophilus influenza type b Invasive Infection](http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hib.htm) (<http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hib.htm>). CDNA National Guidelines for Public Health Units. Department of Health, Canberra, viewed 16 May 2014. (<http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hib.htm>)

Heymann, D., ed. 2008. *Control of Communicable Diseases Manual, 19th edition*. Washington, DC: American Public Health Association.

Australian Government, 2013. [The Australian Immunisation Handbook](http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home) (<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home>), 10th Ed.

### Health Insite:

[Haemophilus influenzae type B \(HIB\)](https://www.healthdirect.gov.au/haemophilus-influenzae-type-b-hib) (<https://www.healthdirect.gov.au/haemophilus-influenzae-type-b-hib>)