

**What is *Haemophilus influenzae* type B or Hib disease?**

Hib used to be one of the most common causes of serious bacterial infection in young children. Hib may cause a variety of diseases such as meningitis (inflammation around the spinal cord and brain), blood stream infections, pneumonia, cellulitis (infection of the skin), epiglottitis (inflammation of the upper airway), arthritis, and infections of many other parts of the body. Hib is not the same as influenza or the flu. Hib may be prevented with immunization.

Who is at risk for Hib?

Children younger than 4 who are not immunized are at an increased risk of Hib disease.

What are the symptoms of Hib?

Symptoms depend upon the part of the body affected. Fever is present in all forms of Hib disease. Meningitis can cause stiff neck, headache and vomiting. Pneumonia may cause a cough that produces mucus and rapid breathing, and patients with epiglottitis usually have noisy breathing and a very sore throat. Swelling and purple-red discoloration of the skin is a symptom of cellulitis.

How soon do symptoms appear?

The incubation period for Hib disease is unknown.

How is Hib spread?

Hib disease may be transmitted through contact with secretions or droplets from the nose and throat of an infected person. Individuals may have Hib and potentially spread disease without having any symptoms themselves.

When and for how long is a person able to spread the disease?

A person will remain contagious until antibiotic treatment has begun.

How is a person diagnosed?

A laboratory test is needed in order to make a diagnosis.

What is the treatment?

Antibiotics are used to treat people with Hib. Supportive care may also be needed.

Does past infection make a person immune?

Children who develop Hib disease before age 24 months may not be immune and should be immunized with the Hib conjugate vaccine. If Hib disease occurs after age 24 months, the child probably becomes immune and vaccination is generally not necessary.

Should children or others be excluded from child care, school, work or other activities if they have Hib disease?

Yes. Exclude all children with confirmed Hib infection until treatment is completed. Do not exclude exposed children and staff as long as they have no other reasons for exclusion.

What can be done to prevent the spread of Hib disease?

The American Academy of Pediatrics (AAP) and the Advisory Committee on Immunization Practices (ACIP) recommend that Hib conjugate vaccine be given to all children between 2 months and 5 years of age. Depending on the type of vaccine, children should receive three doses at 2, 4 and 6 months of age or two doses at 2 and 4 months of age. A booster dose should be given at 12 to 15 months of age, regardless of what type of Hib vaccine they previously received. All children attending North Dakota early childhood facilities are required to be age-appropriately immunized against HIB.

It is also recommended that rifampin prophylaxis (antibiotics) be given to all members of the household of a patient with Hib disease, if there are children younger than age 4 in the household who have not been immunized.

In child care facilities, when two or more cases occur within 60 days and unimmunized or incompletely immunized children are in attendance, antibiotics for attendees and personnel should be considered. The North Dakota Department of Health will make recommendations for antibiotics on a case-by-case basis.

Additional Information:

Additional information is available at www.ndhealth.gov/disease or by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resource: American Academy of Pediatrics. *Haemophilus influenzae* Infections. In: Pickering LK, ed. *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2009: 314-321.

