



# HAEMOPHILUS INFLUENZAE

## TYPE-B (aka Hib Disease)

*Haemophilus influenzae* type-b (Hib) is a bacterium that causes serious, sometimes fatal illnesses, most often in young children. Some of the diseases it can cause include: meningitis (an infection of the coverings of the brain), epiglottitis (an infection of the upper throat and entrance of the windpipe), cellulitis (an infection of the deep tissues, especially of the face and neck), septic arthritis (an infection and swelling of the joints), pneumonia (an infection of the lung), and bacteremia (blood stream) infections.

### **Who gets this disease?**

This illness is primarily seen in unimmunized children under four years of age. Children under age two are most susceptible because their immune systems are not yet able to fight the bacteria. Rarely, older children and adults may develop infection.

It appears that in a setting such as the household or childcare facility – where there are young children and everyone is in close contact – there is an increased risk of one of these contacts developing Hib infection following a first case.

### **How is it spread?**

The bacterium is passed from person-to-person by breathing in infected droplets of nose or throat fluids scattered in the air or by direct contact with these infected secretions. The bacteria cannot live on environmental surfaces – they quickly shrivel and die.

Like *meningococcus*, some people can “carry” this bacterium for a period of time without it causing illness. However, a carrier may spread the bacteria to another person who may then become ill. In a household or childcare center in which Hib infection has occurred, the number of

persons with nose or throat carriage is greatly increased; thus, risk of serious disease is also increased.

### **How is it diagnosed and treated?**

Illnesses caused by *Haemophilus influenzae* type-b are diagnosed by signs and symptoms and by examining the blood and/or spinal fluid for white blood cells and bacteria. Spinal fluid is obtained by a physician performing a lumbar puncture (i.e., spinal tap).

### **How can the spread of this disease be prevented?**

1. If a person develops an illness caused by Hib, close contacts of this patient (including family members and persons having intimate contact such as sleeping together, hugging and kissing) are at increased risk of developing the illness. In this situation a physician may recommend: 1) carefully watching for early symptoms of illness caused by *Haemophilus influenzae* and/or 2) taking a preventive antibiotic to eliminate the bacteria from the body before disease begins.
2. Any child or adult contact that develops symptoms consistent with Hib infection requires evaluation by a health care provider **regardless** of whether or not this person has taken preventive antibiotics.
3. A vaccination against Hib infection is available and the Advisory Committee on Immunization Practices (ACIP) recommends that all children begin the vaccine series against Hib infection at two months of age. The four dose series should be completed at 2 months, 4 months, 6 months, and 12-15 months.

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4. For unvaccinated children age 15 months or older only 1 dose of the Hib vaccine is required.
5. The Hib vaccine is **not** required for children over age 5.
6. Children in childcare aged 3-60 months are **required** to have age appropriate Hib vaccination in order to attend. Parents with specific questions about the Hib vaccine and their child should contact their child's physician. The vaccination is **not required** for school entry.
7. Notify parents or guardians about the occurrence of this illness and urge them to contact their physicians for specific medical care advice.
8. Contact the Bureau of Infectious Disease Control for recommendations about preventing the spread of this illness and assistance in implementing them.

## **Who should be excluded?**

Children and staff who are ill with Hib infection should be excluded while they are ill and until 24 hours of antibiotic therapy has been completed.

## **Reportable?**

Yes, *Haemophilus influenzae* infections are reportable by New Hampshire law to the Bureau of Infectious Disease Control at (603) 271-4496.