

***Haemophilus influenzae* type B**

The Disease

You may never have heard of *Haemophilus influenzae* type b, or "Hib" disease. For some reason Hib disease has never become as well known as other childhood diseases, but it is just as dangerous. As recently as the mid-1980's, Hib disease struck one child out of 200 under 5 years old in the United States. Every year about 12,000 children got meningitis (inflammation of the covering of the brain) as a result of Hib. In fact, Hib disease was the leading cause of bacterial meningitis in children under five. About 1 in 4 of these children suffered permanent brain damage, and about 1 in 20 died. In addition, about 8,000 children a year suffered from other serious complications, such as pneumonia.

Hib is a bacterial disease. It is spread through the air by coughing, sneezing, or even breathing. Hib bacteria enter a child's system through the nose or throat, and if they stay in the nose and throat the child will probably not become sick. But sometimes the bacteria spread into the lungs or bloodstream. This is called "invasive" Hib disease, and it can cause serious complications. In addition to meningitis, invasive Hib disease can lead to:

- pneumonia,
- epiglottitis (inflammation and swelling in the throat that can cause the child to choke),
- arthritis, and other problems.

Most invasive Hib disease occurs in children under 5 years old, and up to 60% in children younger than 1 year. The disease is not common in older children or adults. Most Hib disease today strikes infants who are not immunized.

It probably takes about 2-4 days from the time a child is exposed to Hib bacteria until symptoms appear. An infected person can spread the disease to others for as long as the bacteria remain in the body. Antibiotics can stop spread within 2-4 days.

Hib Fact: Even though the word "influenzae" is part of it's name, Hib is not related to influenza (flu).

Hib Immunization

Hib vaccine has had a dramatic impact on *Haemophilus influenzae* type B. As soon the first vaccine came into use in 1985 the disease began to disappear. Several improved vaccines have been licensed since then, and the age for the first shot has been lowered

from 24 months to 2 months. There were an estimated 20,000 cases of Hib disease a year in the mid-1980's, but now there are only a few hundred cases a year.

Hib vaccine is an inactivated (killed) vaccine. It is made from only a part of the Hib bacteria.

Several different companies make Hib vaccine. Children should get either 3 or 4 doses, depending on which company's vaccine your doctor or clinic is using. All children should get the vaccine at 2 and 4 months of age, and a booster dose between 12 and 15 months. Some children should get an additional dose at 6 months. Children who have passed their 5th birthday do not need Hib vaccination.

Hib vaccine can be combined (that is, given in the same shot) with DTaP vaccine, or with hepatitis B vaccine. Your doctor or nurse might offer the vaccines in these combination forms. They work just as well, and are just as safe, as if the vaccines were given separately.

Side Effects from Hib Immunization

Hib is a very safe vaccine. It cannot cause Hib disease or meningitis, and is not known to cause any other serious reactions. About 2 children in every 100 who get Hib vaccine get some redness, swelling or warmth where the shot was given, or a fever of over 101°F. These reactions usually begin within 24 hours after the shot and last up to 2 or 3 days. They do not cause any permanent harm.

Like any vaccine, or medicine, Hib vaccine could theoretically trigger a serious reaction in someone who is allergic to one of its components. But severe allergic reactions to childhood vaccines are very rare (estimated at around one per million doses), and no child is ever known to have died from an allergic reaction to a vaccine.

Precautions

There are several reasons a doctor might want to delay giving a child a Hib vaccination or not give it at all:

- A child who has had a life-threatening **allergic reaction** after a dose of Hib vaccine should not get another dose.
- A child who has a **moderate or severe illness** on the day a Hib (or any) vaccination is scheduled should probably delay the vaccination until he or she has recovered.

- Children **under 4 weeks of age** should not get Hib vaccine. This isn't because it is unsafe, but because the vaccine might not protect as well when the first dose is given too early.

After Getting Hib Vaccine . . .

If the child has **any** serious or unusual problem after getting Hib vaccine, or any other vaccine, call a doctor or get the child to a doctor right away.