

Hepatitis B

The Disease

Hepatitis B is a disease that affects the liver. It is one of several hepatitis diseases (for example, hepatitis A and hepatitis C). These are caused by different germs, but are similar in that they all affect the liver ("hepatitis" comes from the Greek words for "liver" and "inflammation").

Hepatitis B is caused by a virus. Some people who are infected with the hepatitis B virus never feel sick. Others have symptoms that might last for several weeks. Those symptoms can include:

- loss of appetite and tiredness,
- pains in muscles, joints or stomach,
- diarrhea or vomiting,
- yellow skin or eyes (jaundice).

This is called "acute" hepatitis B.

Some people never recover from hepatitis B. They develop what is called "chronic" (long-term) hepatitis B virus infection. They might not look or feel sick, but they will probably carry the hepatitis B virus in their blood for the rest of their lives, and they can infect other people.

Many of these chronically infected people will suffer from serious health problems, such as cirrhosis (scarring of the liver) or liver cancer. In fact, the hepatitis B virus causes most of the liver cancer in the world. In the United States alone, there are more than 1 million people chronically infected with the hepatitis B virus. In 1996, an estimated 200,000 people became infected with hepatitis B virus, and about 4,000 to 5,000 people a year die from hepatitis B.

Hepatitis B virus is spread through contact with the blood, or other body fluids, of an infected person. People can get hepatitis B by having unprotected sex, by sharing drug needles, or by sharing personal items like razors or toothbrushes with someone who is infected. Doctors, nurses, and other health care workers can get hepatitis B through exposure to blood from infected patients. Police, fire fighters, and paramedics who are exposed to blood are also at risk.

Why, then, do we immunize children against hepatitis B when they don't have sex, don't take drugs, and are not nurses or police officers? One important reason is that

babies can get infected too. If a mother is chronically infected with hepatitis B, her baby could become infected during birth. If these babies are not immunized immediately, most of them will become chronically infected too. One out of 4 of these babies will eventually die from cirrhosis or liver cancer. Also, children can be infected through exposure to blood, saliva, or other fluids from infected children or adults. While this is not common, vaccination is a reasonable precaution, particularly since the vaccine is a very safe one.

Hepatitis B Fact: Hepatitis B is a major cause of liver cancer, and hepatitis B vaccine can prevent the disease. Therefore, hepatitis B vaccine is the first vaccine that prevents cancer.

Hepatitis B Immunization

You can protect children from hepatitis B by getting them vaccinated with three doses of hepatitis B vaccine. ***Newborn babies whose mothers either are infected with the hepatitis B virus or have not been tested*** should get their first shot within 12 hours of birth, the second shot at 1-2 months of age, and the third shot at 6 months of age. ***Other babies*** can get their first shot between birth and 2 months of age, the second at 1-4 months of age, and the third at 6-18 months of age.

Note: Babies born to infected mothers should also get Hepatitis B Immune Globulin (HBIG) within 12 hours of birth. Your doctor or nurse can give you details. These babies should also be checked when they are 9-15 months old to make sure the vaccine worked and that they do not have chronic hepatitis B virus infection.

The second shot should always be given at least one month after the first shot, and the third shot at least 2 months after the second and 4 months after the first. Your doctor or clinic will tell you the best time to get these shots. If you miss a dose or get behind schedule, there is no need to start over. Just get the next dose as soon as possible and continue on schedule. After the third shot, most children will be protected. They do not need booster shots.

Side Effects from Hepatitis B Immunization

Hepatitis B is a very safe vaccine. Some children (about 3-9 out of 100) have some soreness where the shot is given, and up to about 6 in 100 will get a mild fever. Up to 2 out of 10 children might become tired or irritable. More serious reactions are extremely rare.

Like any vaccine, or medicine, hepatitis B 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 hepatitis B vaccination or not give it at all:

- A child who is known to have a **severe allergy** to baker's yeast (the kind used for making bread) should not get hepatitis B vaccine.
- A child who had a life-threatening **allergic reaction** after a dose of hepatitis B vaccine should not get another dose.
- A child who has a **moderate or severe illness** on the day a hepatitis B (or any) vaccination is scheduled should probably delay the vaccination until he or she has recovered.

After Getting hepatitis B Vaccine . . .

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