

Parents' Guide to Childhood Immunization

Hepatitis B

Hepatitis B is also a liver disease (the word “hepatitis” comes from the Greek words for “liver” and “inflammation”). It is caused by the hepatitis B virus. It is spread through contact with the blood, or other body fluids, of an infected person. Adolescents and adults can be infected through sharing drug needles or through unprotected sex, and health-care and public safety workers are often exposed to blood in the course of their jobs. Pregnant women can infect their newborn babies. People infected with hepatitis B might not feel sick, or might suffer loss of appetite or tiredness, muscle or stomach pains, diarrhea or vomiting, or yellow skin or eyes (jaundice). People usually recover from hepatitis B after several weeks, but others become “chronically infected.” They might not feel sick themselves, but they continue to carry the virus and can infect other people. A baby who is born to a chronically infected mother has a 70%–90% chance of being infected at birth. Many people who are chronically infected will suffer from serious problems such as cirrhosis (scarring of the liver) or liver cancer. More than a million people in the United States are chronically infected with hepatitis B. In 1996 an estimated 200,000 people became infected, and 4,000 to 5,000 people die each year from hepatitis B.

Hepatitis B Vaccine

Hepatitis B vaccine is an inactivated (killed) vaccine that is made from a small, non-infectious part of the hepatitis B virus, called hepatitis B surface antigen. The vaccine was licensed in 1986, and 98%–100% of children who get the vaccine develop immunity. Some parents question why infants and young children should be vaccinated against hepatitis B when they don't have the risk factors (drug use, sexual activity, professional risk) that lead to many infections. There are two reasons. One is that babies and children can become infected too. If a mother infects her baby during birth, for example, and the baby is not immunized immediately, it will probably become chronically infected too. One out of 4 of these children will eventually die from cirrhosis or liver cancer. The other reason is that vaccinating only high-risk adolescents and adults has proved not to be a very effective way to control the disease. It was only after we began routine childhood vaccination that rates of disease began to drop significantly. Three doses of hepatitis B vaccine are needed for full protection. The first dose is recommended at birth. This is particularly important for children whose mothers are chronically infected. The second dose is recommended at 1–4 months and the third at 6–18 months. These three doses should protect children for life. No additional booster doses are needed.

Hepatitis B Vaccine Side Effects

About 3–9 children out of 100 have some soreness where the shot is given, and up to 6 in 100 develop a mild fever. Up to 2 out of 10 might become tired or irritable. More serious reactions are extremely rare.

Hepatitis B Vaccine

Precautions In addition to the normal precautions for all vaccines, shown on page 30, children who are known to have a severe allergy to yeast should not get hepatitis B vaccine.

Combination Vaccines

Several vaccines are sometimes combined into a single shot. These are called combination vaccines. Some combination vaccines are used routinely — DTaP is a combination; so is MMR. There are currently four other combination vaccines available for children. One combines DTaP and Hib vaccines; the second Hib and hepatitis B; the third combines DTaP, hepatitis B, and polio, and the fourth combines measles, mumps, rubella and varicella. The advantage of

combination vaccines is, of course, that your children get the protection of all the component vaccines while getting fewer injections. Each of these vaccines has certain restrictions, and not all providers carry them. But ask your provider about them if you are interested in reducing the number of shots your child needs.

http://www.cdc.gov/vaccines/vpd-vac/hepb/downloads/pg_why_vacc_hepb.pdf