Hepatitis B

Guidelines for Parents

American Academy
of Pediatrics

Hepatitis B

The increase in preventable childhood diseases shows that our children need better health care. Regular medical care includes vaccinations, which are an important part of your child's total health care.

This brochure explains why it's important to make sure your child is vaccinated on time. Without protection provided by the hepatitis B vaccine, your child could suffer from a serious illness that could have been prevented.

What is this disease?

Hepatitis B virus (HBV), or serum hepatitis virus, can cause infection at any age. It may lead to chronic infection of the liver and serious disease, especially if it is acquired during infancy or childhood. However, a child may not show signs of infection until years later when he or she develops liver failure and/or liver cancer.

HBV is transmitted in several ways, including being passed from mother to infant at the time of birth. Children living in the same household with an HBV carrier are at risk, especially during the first five years of life.

Finally, HBV can spread through sexual intercourse or through contact with infected blood, such as when drug users share needles.

It is important that your child be protected by the hepatitis B vaccine, because infection acquired during early life is most likely to cause chronic liver disease. More than 95 percent of the children who receive all the recommended doses of the hepatitis B vaccine are protected against the illnesses caused by the hepatitis B virus.

Talk to your child's pediatrician if you have questions about this vaccination or about other circumstances when this vaccine is used. He or she can answer any questions you may have about when your child should receive the hepatitis B vaccine.

Are there side effects to hepatitis B vaccine?

No serious reactions have been linked to this vaccine, and most children have no associated side effects. Those side effects that sometimes occur – fussiness and soreness, swelling, or redness where the shot was given – are usually mild and temporary. These symptoms may begin within 24 hours after the shot is given and usually go away within 48 to 72 hours.

Hepatitis B is one of the nine childhood diseases your child needs to be vaccinated against. Your pediatrician can tell you more about other vaccines to protect against measles, mumps, rubella (German measles), diphtheria, tetanus, pertussis (whooping cough), polio, and *Haemophilus influenzae* type b.

Immunizations have provided protection for children for years – but the vaccines only work if you make sure your child gets immunized.

Remember...your child's health depends on it!

Immunization is just one important part of preventive health care for children. The American Academy of Pediatrics, representing the nation's pediatricians, is dedicated to working toward a better future for our children. Join us by making sure your children receive the best possible health care.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

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Recommended Childhood Immunization Schedule United States, January – June 1996

Vaccines are listed under the routinely recommended ages. Bars indicate range of acceptable ages for vaccination. Shaded bars indicate catch-up vaccination: at 11-12 years of age, hepatitis B vaccine should be administered to children not previously vaccinated, and Varicella Zoster Virus vaccine should be administered to children not previously vaccinated who lack a reliable history of chickenpox.

Age ▶ Vaccine ▼	Birth	1 mo	2 mos	4 mos	6 mos	12 mos	15 mos	18 mos	4-6 yrs	11-12 yrs	14-16 yrs
Hepatitis B[1,2]	Hep B-1										
		Hep B-2			Hep B-3					Hep B[2]	
Diphtheria, Tetanus, Pertussis[3]			DTP	DTP	DTP	DTP[3] (DTaP at 15+ mos)			DTP or DTaP	Td	
H. influenzae type b[4]			Hib	Hib	Hib[4]	Hib[4]					
Polio[5]			OPV[5]	OPV	OPV				OPV		
Measles, Mumps, Rubella[6]						MMR			MMR[6] or	MMR[6]	
Varicella Zoster Virus Vaccine[7]						Var				Var[7]	

Approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).

[1] **Infants born to HBsAg-negative mothers** should receive 2.5 µg of Merck vaccine (Recombivax HB) or 10 µg of SmithKline Beecham (SB) vaccine (Engerix-B). The 2nd dose should be administered ≥1 mo after the 1st dose.
Infants born to HBsAg-positive mothers should receive 0.5 mL Hepatitis B Immune Globulin (HBIG) within 12 hr of birth, and either 5 µg of Merck vaccine (Recombivax HB) or 10 µg of SB vaccine (Engerix-B) at a separate site. The 2nd dose is recommended at 1-2 mos of age and the 3rd dose at 6 mos of age.
Infants born to mothers whose HBsAg status is unknown should receive either 5 µg of Merck vaccine (Recombivax HB) or 10 µg of SB vaccine (Engerix-B) within 12 hr of birth. The 2nd dose of vaccine is recommended at 1 mo of age and the 3rd dose at 6 mos of age.

[2] Adolescents who have not previously received 3 doses of hepatitis B vaccine should initiate or complete the series at the 11-12 year-old visit. The 2nd dose should be administered at least 1 mo after the 1st dose, and the 3rd dose should be administered at least 4 mos after the 1st dose and at least 2 mos after the 2nd dose.

[3] DTP4 may be administered at 12 mos of age, if at least 6 mos have elapsed since DTP3. DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) is licensed for the 4th and/or 5th vaccine dose(s) for children aged ≥15 mos and may be preferred for these doses in this age group. Td (tetanus and diphtheria toxoids, adsorbed, for adult use) is recommended at 11-12 years of age if at least 5 years have elapsed since the last dose of DTP, DTaP, or DT.

[4] Three *H. influenzae* type b (Hib) conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB [Merck]) is administered at 2 and 4 mos of age, a dose at 6 mos is not required. After completing the primary series, any Hib conjugate vaccine may be used as a booster.

[5] Oral poliovirus vaccine (OPV) is recommended for routine infant vaccination. Inactivated poliovirus vaccine (IPV) is recommended for persons with a congenital or acquired immune deficiency disease or an altered immune status as a result of disease or immunosuppressive therapy, as well as their household contacts, and is an acceptable alternative for other persons. The primary 3-dose series for IPV should be given with a minimum interval of 4 wks between the 1st and 2nd doses and 6 mos between the 2nd and 3rd doses.

[6] The 2nd dose of MMR is routinely recommended at 4-6 yrs of age or at 11-12 yrs of age, but may be administered at any visit, provided at least 1 mo has elapsed since receipt of the 1st dose.

[7] Varicella zoster virus vaccine (Var) can be administered to susceptible children any time after 12 months of age. Unvaccinated children who lack a reliable history of chickenpox should be vaccinated at the 11-12 year-old visit.

When should my child get the hepatitis B vaccine?

According to the American Academy of Pediatrics, your child needs three doses of hepatitis B vaccine to be fully protected against hepatitis B infection. Ordinarily, the first vaccination will be given at birth, the second dose at 1 to 4 months, and a third dose at 6 to 18 months of age.

The first dose of the vaccine can be delayed for premature babies (and those with other illnesses during the first days of life). Newborns who have not received a vaccine dose at birth should receive three hepatitis B vaccine doses by 18 months of age.

However, if the mother tests positive for hepatitis B, the child must receive the first vaccine dose as well as hepatitis B immune globulin (HBIG) at or shortly after birth. The child also requires a second dose at 1 month and the final vaccine dose by 6 months of age.

Older children, adolescents, and others living with infected household members also should receive the three-dose series to protect against hepatitis B.

The American Academy of Pediatrics is an organization of 50,000 pediatricians dedicated to the health, safety and well-being of infants, children, adolescents, and young adults.

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