



Special Populations

# Children and Hepatitis B

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In 1991, a national hepatitis B vaccination program was initiated in the United States, which led to a dramatic drop in the rate of new hepatitis B (HBV) infections, especially among children born thereafter. Children who are not immunized are at risk of contracting hep B.

Most pediatric hepatitis B infections are the result of perinatal transmission, usually during delivery from HBV-positive mothers. However, HBV-positive mothers can take preventive measures to avoid infecting infants. If these measures are not taken, roughly 40 percent of infants born to mothers with HBV will develop chronic hepatitis B infection.

Infants who are born with hep B often have no symptoms. Infants who are infected have a 90 percent chance of developing chronic HBV; one in four of these will die from chronic liver disease. [Click here](#) for more information about hepatitis B acquired during pregnancy.

In addition to perinatal transmission, children may acquire hep B from an infected member of the household. Teens are infected with HBV primarily through high-risk sexual activity and injection drug use.

## Hepatitis B Treatment for Children

In 2018, the American Association for the Study of Liver Diseases (AASLD) updated their [practice guidelines](#) for the treatment of chronic hepatitis B in children and adults. Specific guidelines for children who have hepatitis B were published by the Hepatitis B Foundation ([Hepatology, October 2010](#)). Most children are in an immune-tolerant phase and will not need treatment. In this phase, their HBV is replicating (multiplying) quickly, but inflammation is low. Their [viral load](#) (HBV RNA) will be high and [liver enzymes](#) (ALTs) are persistently normal. They will test positive for [hepatitis B e antigen](#) (HBeAg). Children who contract hep B during birth may remain in this phase for decades before progressing to the next phase.

Although it is less common, some children will progress to what is known as the immune activation phase. In studies of the children in this phase, all were HBeAg positive; most had elevated ALTs that were 1.3 times the upper limit of normal of 30 international units/liter. Treatment is recommended for children in the immune activation phase.

Here are the HBV treatments approved for children:

- [Intron-A](#) (interferon-alfa 2b) for children 1 year and older

- [Baraclude](#) (entecavir) for children 2 years and older
- [Epivir-HBV](#) (lamivudine) for children 2 years and older
- [Hepsera](#) (adefovir dipivoxil) for children 12 years and older
- [Viread](#) (tenofovir) for children 12 years and older

Technically, [Pegasys](#) (peginterferon-alfa 2a) is not approved for pediatric use, but doctors may prescribe it at their own discretion, a practice known as off-label.

For information about how to manage hepatitis B medication side effects, [click here](#). For drug interaction information, [click here](#).

### Social Issues and Stigma

Hepatitis B doesn't just affect the body; it affects social systems. Having hepatitis B may complicate a child's world. The child's parents may be worried. Kids may not have the maturity to deal with the implications of living with a chronic, infectious disease. Keeping others safe is a tricky issue, and it is different for a 5-year-old versus a 15-year-old. Conversations about sex and drugs are more complicated when you have a potentially infectious virus. Telling an HBV-positive kid to avoid alcohol is an even more serious discussion than it already is with kids who have healthy livers.

Stigma may be especially cruel for kids who have hep B. People aren't always kind to others who have potentially infectious diseases. Adults and children may be ignorant about how hepatitis B is transmitted. Infected kids have sometimes been isolated while playing sports, in their classrooms and during social activities.

To help reduce stigma, some parents have met with school officials to discuss hepatitis B and how it is transmitted. To learn more about how to prevent the spread of hep B, [click here](#) or visit the [CDC's website](#).

### Further Information

There is little information about hepatitis B in the pediatric population, and many of the resources are outdated. Here are a few up-to-date ones:

- Hepatitis B Foundation [www.hepb.org](http://www.hepb.org)
- PKIDS: Parents of Kids with Infectious Diseases [www.pkids.org](http://www.pkids.org)

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