

Hepatitis (Hepatitis A, B, or C Virus)

Viral hepatitis is a major health problem worldwide. There are several different hepatitis viruses, which cause different diseases. The most common type of hepatitis in children is caused by hepatitis A virus. This virus usually causes a mild illness that goes away in a few weeks. Other viruses, especially hepatitis B or C virus, can be life-long infections that cause permanent liver damage.

What is hepatitis?

Hepatitis is an infection or inflammation of the liver. Various causes are possible, but infection with hepatitis viruses is the most common cause. The main difference between the various hepatitis viruses is the type of disease they result in:

- *Hepatitis A virus.* Disease is usually not severe, and the infection goes away completely within several weeks.
- *Hepatitis B and C viruses.* Can cause permanent, lifelong infection, with potentially serious complications.

All of the hepatitis viruses cause similar symptoms, including jaundice (yellow color of the skin). Or, they may cause no symptoms at all. Hepatitis B or C virus may lead to chronic infection with liver disease and other complications.

What does it look like?

Hepatitis A virus:

- Your child may develop a sudden illness, including fever, nausea and vomiting, loss of appetite, and abdominal pain. In infants and preschoolers, you may not even notice these symptoms.
- Later, your child's skin may begin to turn yellow or orange (jaundice). This happens because the infection makes it difficult for the liver to get rid of a normally produced substance called bilirubin. Jaundice is sometimes called "hyperbilirubinemia."
- Your child's urine may be dark-colored.
- Symptoms go away gradually over several weeks. Most children recover completely within 1 month. Rarely, the symptoms return.

Hepatitis B and C viruses:

- Your child may develop symptoms similar to those of hepatitis A virus infection.

- With hepatitis B virus, the initial illness may be more severe, including symptoms such as joint pain and a rash. Hepatitis C virus usually causes less severe symptoms at the outset.
- Often, the initial symptoms are mild, or there are no symptoms at all. Your child may have hepatitis B or C virus for years before the infection is discovered.
- Both hepatitis B and C viruses may lead to chronic hepatitis (continuing infection). Although it may not happen until adulthood, chronic hepatitis can eventually lead to serious complications. Your child may be infected with these viruses for life.
- Pregnant women may pass hepatitis B and C viruses on to their newborns.

How is viral hepatitis spread?

Although many different viruses may infect the liver, hepatitis A virus is the most common in children, followed by hepatitis B and hepatitis C viruses. Other hepatitis viruses exist but are less common.

Hepatitis viruses spread in different ways:

- *Hepatitis A virus* is found in the stool (bowel movements) of infected people. The virus spreads by means of hand-to-mouth contact or through contaminated food or water.
- *Hepatitis B and C viruses* are spread through direct contact with blood or body fluids from an infected person. There are relatively few ways that this can happen:
 - Having sex with an infected person.
 - Being exposed to blood from an infected person, for example, being stuck with an infected needle or other sharp object.
- If a pregnant woman is infected, she can spread hepatitis B or C virus to her baby.

What are some possible complications of viral hepatitis?

- *Hepatitis A virus.* Serious complications are rare. In some people, hepatitis symptoms go away, then come back again.
- *Hepatitis B or C virus.* Infection with hepatitis B or C virus may remain present for life.
 - Hepatitis C virus is the most common cause of *chronic hepatitis* (long-term). Both hepatitis B and C may lead

to permanent liver damage, including *cirrhosis* (scarring of the liver) and other complications.

- These complications may take many years to develop. Treatment can help to keep your child as healthy as possible but cannot cure the infection.

What puts your child at risk of viral hepatitis?

- *Hepatitis A virus.* If someone in your family is infected with hepatitis A virus, there is a high risk that the virus will be passed on to others. Hepatitis A virus is more common in certain regions of the United States and in poor countries.
- *Hepatitis B and C viruses.* Hepatitis B and C viruses are transmitted by contact with blood and other body fluids and by sexual activity. Your teenager will be at high risk if he or she engages in activities such as having multiple sex partners or injecting drugs. If you are infected with hepatitis B or C virus and are pregnant, there is a risk that you will pass the infection on to your baby.

Can viral hepatitis be prevented?

Vaccines. Effective vaccines can protect against infection with hepatitis A or B virus. There is no vaccine for hepatitis C virus.

- Hepatitis A vaccine is recommended for all children ages 1 to 18 and some high-risk groups, such as people living in or traveling to areas where hepatitis A is common. People with hepatitis B or C infection should be vaccinated against hepatitis A virus.
- Hepatitis B vaccine is recommended for all infants. The first dose is given soon after birth. Two more doses are given between 1 and 18 months. Vaccination is also recommended for certain high-risk groups: if you or your child is infected, all other family members should be vaccinated.

Preventing the spread of hepatitis A. If your child has hepatitis A, the disease will be contagious for 2 weeks before and about 1 week after symptoms develop.

- *Wash your hands frequently to reduce the risk of spreading infection.* Be especially careful to clean up after changing diapers and before preparing meals.
- We will probably recommend injections of immunoglobulin (antibodies) for you and other members of your family to reduce your risk of catching the virus. After being infected with hepatitis A virus, your child will be immune to future infection.

Preventing the spread of hepatitis B and C viruses. Hepatitis B and C viruses cannot be spread by casual contact.

Teenagers should learn safe sex and other practices to reduce the risk of spreading the virus to others. Pregnant women should be tested for the virus.

How is viral hepatitis diagnosed and treated?

- If we suspect that your child has hepatitis, we may recommend blood tests for hepatitis A, B, or C virus. Treatment will depend on which of these viruses, if any, your child is infected with.
- *If your child has hepatitis A,* the disease will clear up gradually over several weeks. There are no specific treatments that will help your child get better faster. Make sure your child drinks plenty of fluids.
 - Symptoms get better then come back in about 15% of patients with hepatitis A. If this happens, it may take several months before your child's hepatitis finally clears up permanently.
 - Very rarely, more serious complications resulting in severe liver damage may develop.
- *If your child has chronic hepatitis B or C,* he or she will need thorough medical evaluation and follow-up. The goal is to determine the best treatment and reduce the long-term risk of complications. We may recommend a visit to a specialist in treating liver diseases.
 - Your child is likely to need lifelong medical follow-up as well as health education to learn to live with chronic hepatitis B or C. He or she should avoid high-risk behaviors, especially drug use, and learn to practice safe sex, especially using condoms. People with hepatitis should avoid alcohol, as it can make their liver disease worse.
 - Although chronic hepatitis B and C are not curable, they are treatable. Doctors, nurses, and other health care professionals can help your family to live with these diseases.

When should I call your office?

Call our office if you have any questions about your child's hepatitis, its treatment, or how to prevent the spread of hepatitis viruses.

As your child is recovering from an episode of viral hepatitis, call our office if your child has any of the following symptoms:

- Bleeding.
- Continued vomiting or abdominal pain.
- Swelling of the hands, feet, or elsewhere in the body.
- Behavior changes.
- Decreased responsiveness, grogginess.