

PATIENT EDUCATION



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Hepatitis B and Hepatitis C in Pregnancy

Hepatitis B and hepatitis C are serious infections that affect the liver. Both diseases are contagious (easily spread) and caused by viruses. Both can lead to serious, long-term illness. They also pose specific risks during pregnancy. Not only does a pregnant woman face the risks of hepatitis herself, she also can pass the viruses to her baby. Many pregnant women may not even know that they are infected because infection sometimes causes no signs or symptoms.

This pamphlet explains

- how hepatitis B and hepatitis C viruses are spread
- signs and symptoms of hepatitis B and hepatitis C virus infections
- care during and after pregnancy

Hepatitis B

About 40,000 people become infected with the hepatitis B virus each year in the United States. There is no cure for hepatitis B virus infection, but symptoms can be managed. There also is a vaccine that prevents hepatitis B virus infection. People who have had recent contact with the hepatitis B virus and are not vaccinated can be given a shot called **hepatitis B immune globulin (HBIG)** along with the vaccine. HBIG contains **antibodies** to the virus. It can give additional protection against infection in certain situations.

How Hepatitis B Virus Is Spread

Hepatitis B virus is spread by direct contact with the body fluids (such as blood, **semen**, or vaginal fluids)

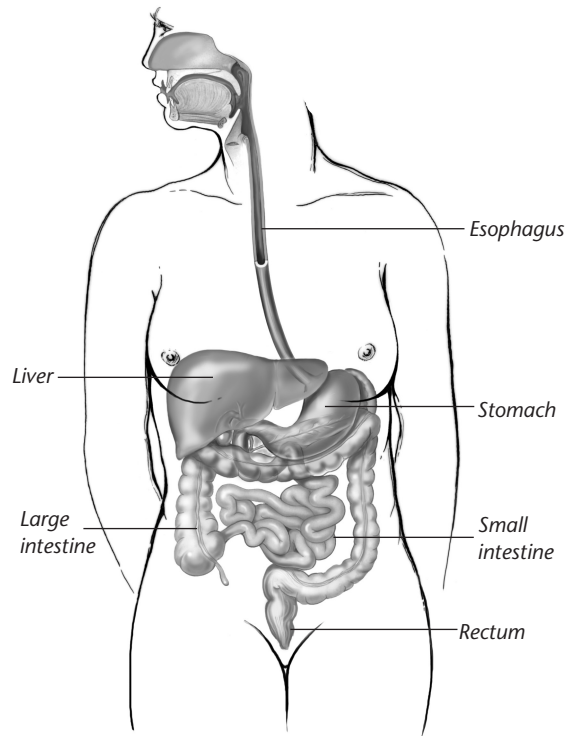
of an infected person. This can happen during unprotected sex or while sharing needles used to inject ("shoot") drugs. A baby can be infected during birth if the mother has hepatitis B.

Hepatitis B virus also can be spread if you live with an infected person and share household items that may come into contact with body fluids, such as toothbrushes or razors. Hepatitis B is not spread by casual contact with people and objects. Hepatitis B is not spread by breastfeeding.

Signs and Symptoms

Infection with hepatitis B virus can be acute or chronic. Acute infection is a short-term illness that happens in the first 6 months after a person is infected.

The Digestive System



Hepatitis B and hepatitis C viruses damage the liver.

Acute infection can cause only mild symptoms or no symptoms at all. When symptoms do occur, they may include the following:

- Tiredness
- Loss of appetite
- Nausea and vomiting
- **Jaundice** (yellowing of the skin and eyes)
- Stomach pain
- Pain in the muscles and joints

The infection can clear up completely in a few weeks without treatment. Those who do get rid of the hepatitis B virus become **immune** to it. They cannot get the virus again. However, a small number of adults and many children younger than 5 years never get rid of the virus. This is called chronic infection. These people keep the virus for the rest of their lives. They are known as **carriers**.

Most carriers do not have any symptoms. In a small number of carriers, chronic infection can lead to serious **complications**, such as **cirrhosis**, liver cancer, and early death. About 1 million people in the United States are chronic carriers of the hepatitis B virus.

Effects During Pregnancy

About 90% of pregnant women with acute hepatitis B virus infection will pass the virus to their babies.

Between 10% and 20% of women with chronic infection will do so. The baby can get the virus by being exposed to infected blood and fluids during labor and delivery.

Hepatitis B virus infection can be severe in babies. It can threaten their lives. Even babies who appear well may be at risk of serious health problems.

Infected newborns have a high risk (up to 90%) of becoming carriers. They, too, can pass the virus to others. When they become adults, they have a 25% risk of dying of cirrhosis of the liver or liver cancer.

Care During Pregnancy

All pregnant women are tested for hepatitis B. There are different blood tests for hepatitis B virus infection. They can tell whether you have been infected recently or whether you are a carrier. They also can tell whether you have had the hepatitis B virus in the past and are now immune to it or whether you have had the hepatitis B vaccine.

If your test result shows that you are infected with the hepatitis B virus, your health care provider will want to do more tests to learn whether your liver is still healthy. Being infected with the hepatitis B virus means that your children, your sexual partners, and others living in your household are at risk of infection. They should be told about testing and **vaccination**. Having hepatitis B infection does not affect how you will give birth. You still can have a vaginal delivery if you have hepatitis B.

Care After Pregnancy

If you are infected with the hepatitis B virus, steps can be taken to help prevent your baby from becoming infected. Within a few hours of birth, your baby will receive the first dose of the hepatitis B vaccine. A shot of HBIG is given as well. Two more doses of the vaccine are given over the next 6 months. You still can breastfeed your baby if you have hepatitis B infection.

After the vaccine series is complete, the baby will be tested for hepatitis B infection. A test also is done to measure the level of antibodies that have been made as a result of the vaccine. A second vaccine series may be given if test results show that the baby is not

Protect Yourself

Avoiding risky behavior can help prevent infection with the hepatitis B virus and hepatitis C virus, as well as other diseases like **human immunodeficiency virus (HIV)**:

- Use a latex condom during sex.
- Know your partner's sexual history and have only one sexual partner.
- If you are injecting drugs, get help and try to stop—if you cannot stop, do not share needles.

infected with the hepatitis B virus but has not made enough antibodies to the virus. If test results show that the baby is infected with the hepatitis B virus, he or she will need to have ongoing medical care. Regular visits with the baby's doctor will be needed to assess the baby's health and how well the liver is working.

If you are not infected with the hepatitis B virus, your baby should get the first dose of vaccine before you leave the hospital. If it cannot be given by then, it should be given within 2 months of birth. The remaining doses are given within the next 6–18 months.

If you were not tested and you do not know whether you are infected, you should be tested for hepatitis B infection when you go to the hospital to have your baby. Your baby should get the first dose of vaccine within a few hours of birth. The rest of your baby's treatment depends on whether your test results are positive or negative for hepatitis B infection.

Hepatitis C

About 3.2 million people in the United States currently are infected with the hepatitis C virus. There is no vaccine to protect against the hepatitis C virus. Avoiding certain types of behavior is the only way to prevent infection (see box "Protect Yourself").

How Hepatitis C Virus Is Spread

Hepatitis C virus is spread by direct contact with infected blood. This can happen while sharing needles or sharing household items that come into contact with blood. A baby can be infected during birth if the mother has hepatitis C infection. It also can be spread during unprotected sex, but it is harder to spread the virus this way. It is not spread by casual contact or breastfeeding.

Signs and Symptoms

Hepatitis C virus infection causes signs and symptoms similar to those of hepatitis B virus infection. It also can cause no symptoms. Unlike hepatitis B virus infection, most adults infected with the hepatitis C virus—75% to 85%—become carriers. Most carriers develop long-term liver disease. A smaller number will develop cirrhosis and other serious, life-threatening liver problems.

Being infected once with the hepatitis C virus does not mean that a person cannot get it again. There is more than one type of hepatitis C virus. These different types are called strains. It is possible to be reinfected later with a different strain or be infected at the same time with more than one strain.

Effects During Pregnancy

About 4% of women who are infected with the hepatitis C virus will pass it to their babies. The risk is related to how much of the virus a woman has and whether she also is infected with HIV.

Care During Pregnancy

If you have risk factors for infection, you should be tested for the hepatitis C virus during pregnancy. Risk factors include the following:

- Seeking care for a **sexually transmitted infection (STI)**
- Having had a blood transfusion before 1990
- Injecting illegal drugs
- Having a job that may put you at risk of a needle stick injury

If you have the virus, you will need special care during pregnancy to make sure you stay healthy. Currently, there are no preventive measures available that can reduce the risk of passing the virus on to the baby.

Care After Pregnancy

If you are infected with the hepatitis C virus, your baby will be tested, usually when he or she is at least 18 months of age. Babies who do become infected with the hepatitis C virus will need ongoing medical care. You also will need long-term health care. Treatment with an antiviral drug may be helpful to those infected with the hepatitis C virus. You can still breastfeed your baby if you have hepatitis C infection.

Finally...

Infection with the hepatitis B virus or hepatitis C virus can damage your health and can pose specific health risks for pregnant women. Both viruses can be passed to your baby during labor and delivery.

Knowing whether you are infected with either virus is key to planning your health care during pregnancy and after the baby is born. All pregnant women are tested for hepatitis B and hepatitis C if they have risk factors. It may be possible to reduce the risk of passing the hepatitis B virus to your baby. Although there are no such measures for the hepatitis C virus, getting specialized health care during pregnancy can help you stay healthy.

Glossary

Antibodies: Proteins in the blood that the body makes in reaction to foreign substances, such as bacteria and viruses.

Carriers: People who are infected with the organism of a disease without showing symptoms. These people can pass the disease to other people.

Cirrhosis: A disease caused by loss of liver cells. The lost cells are replaced by scar tissue that impairs liver function.

Complications: Diseases or conditions that happen as a result of another disease or condition. An example is pneumonia that occurs as a result of the flu. A complication also can occur as a result of a condition, such as pregnancy. An example of a pregnancy complication is preterm labor.

Hepatitis B: An infection caused by a virus that can be spread through blood, semen, or other body fluid infected with the virus.

Hepatitis B Immune Globulin (HBIG): A substance given to provide temporary protection against infection with hepatitis B virus.

Hepatitis C: An infection caused by a virus that can be spread by sharing needles used to inject drugs.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system. If left untreated, HIV can cause acquired immunodeficiency syndrome (AIDS).

Immune: Protected against infectious disease.

Jaundice: A buildup of bilirubin (a brownish yellow substance formed from the breakdown of red cells in the blood) that causes the skin to have a yellowish appearance.

Semen: The fluid made by male sex glands that contains sperm.

Sexually Transmitted Infection (STI): An infection that is spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Vaccination: Giving a vaccine to help the body's natural immune system develop protection from a disease.

Vaccine: A substance that helps the body fight disease. Vaccines are made from very small amounts of weak or dead agents that cause disease (bacteria, toxins, and viruses).

Viruses: Agents that cause certain types of infections.

This information was designed as an educational aid to patients and sets forth current information and opinions related to women's health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician's independent professional judgment. Please check for updates at www.acog.org to ensure accuracy.

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