

Abbott Diagnostics

Hepatitis, Everything from A to E

Your Health Information

- What is hepatitis?
- What are the different types of viral hepatitis?
- · How prevalent is hepatitis?
- How do you know if you have hepatitis?
- How is hepatitis infection spread?
- · What is my risk of acquiring hepatitis?
- Is there any treatment for hepatitis?
- · What are the consequences of hepatitis?
- · What is being done to control hepatitis?

What is hepatitis?



The word "hepatitis" means inflammation of the liver. It can be caused by a number of agents, including bacteria, drugs, toxins and excess alcohol, but of serious concern is hepatitis that results when any one of several hepatitis viruses infect the liver.

Top of page

What are the different types of viral hepatitis?

There are at least five types of hepatitis caused by different hepatitis viruses.

- Hepatitis A formerly called "infectious hepatitis"
- Hepatitis B formerly called "serum hepatitis"
- Hepatitis C formerly called "non-A, non-B hepatitis"
- Hepatitis D also known as "delta hepatitis," an infection that exists only in combination with hepatitis B virus
- Hepatitis E formerly known as "epidemic" or "water-borne non-A, non-B hepatitis"

How prevalent is hepatitis?

In the United States, viral hepatitis ranks third among reportable communicable diseases. Every year, more than 600,000 Americans become newly infected with some form of viral hepatitis, yet only 10 percent of these cases are reported to health authorities.

About 50 percent of the world's reported viral hepatitis cases are hepatitis A. The hepatitis A virus is most prevalent among populations that have poor hygiene or are living in crowded conditions.

An estimated 300,000 people in the United States develop hepatitis B infection every year. Most of these people do not know that they have the disease, often mistaking it for the flu. Generally fewer than 30 percent have obvious symptoms of hepatitis, and approximately 10,000 infected people require hospitalization.

The hepatitis C virus infects nearly 150,000 Americans yearly, sometimes as a result of blood transfusions. In fact, hepatitis C is considered to be the developed world's most prevalent transfusion-related disease.

The prevalence of hepatitis D infection in the United States is under investigation.

Hepatitis E epidemics have been reported primarily in India, Asia, the Middle East, North Africa and Mexico.

Top of page

How do you know if you have hepatitis?

The symptoms of hepatitis vary a great deal. A large number of people have no symptoms at all, while others have severe symptoms. Early signs are similar to the flu — general fatigue, joint and muscle pain, and a loss of appetite. Nausea, vomiting, and diarrhea or constipation may follow with a low-grade fever. As the disease progresses, a tenderness may exist in the liver area (upper right side of the abdomen) and jaundice (yellow skin) may occur.

It's important to remember that even mild forms of the disease can lead to serious complications. Simple blood tests are necessary to determine with certainty if you have hepatitis.

How is hepatitis infection spread?

Hepatitis A virus is excreted in the feces. Infected people can spread the virus by neglecting to wash their hands after eliminating solid body waste. The virus may be passed along when these individuals handle food or other items that are placed in the mouth. Hepatitis A virus also can be spread through direct contact with infected people. In addition, hepatitis epidemics occur when drinking water or food (including raw or steamed clams, oysters or mussels) has been contaminated by hepatitis A virus.

Hepatitis B virus is found in all body fluids of infected people, including blood, semen, saliva and urine. The principle ways of spreading the hepatitis B virus include intimate contact with infected people or exposure to body fluids from these individuals. Piercing of the skin by contaminated instruments such as those used for tattooing, ear piercing, acupuncture, and dental or medical procedures poses a serious risk of passing hepatitis B virus to others. This disease also can be spread when illicit drug users share equipment. In addition, hepatitis B virus may be transmitted sexually, when contaminated body fluids come into contact with mucous membranes or tiny breaks in the skin. Hepatitis B may also be transmitted to infants born to women who are highly infectious at the time of delivery. These infants have an 80 percent to 90 percent chance of developing hepatitis; most become lifetime carriers of hepatitis B virus, unless their mothers are identified prior to delivery and infants are subsequently treated at birth.

Top of page

Hepatitis C virus, until recently, was known as non-A, non-B hepatitis because it could not be traced to A, B, or D viruses. In the late 1980s, genetic sequences of the virus were isolated and cloned, and a test for identifying an antibody to the virus was developed. The virus was designated hepatitis C. Transfused blood is one source of the transmission of this disease. Most hepatitis cases that occur as a result of blood transfusions are hepatitis C. Hepatitis C also may be spread through intimate contact with an infected person.

Hepatitis D virus cannot initiate an infection by itself. A person must have acquired hepatitis B before becoming infected with hepatitis D. These viruses together usually produce a disease more severe than that caused by the hepatitis B virus alone. Hepatitis D virus is spread in the same ways as the hepatitis B virus. In the United States, infections with hepatitis D occur primarily among those who must receive blood products frequently, such as dialysis patients, hemophiliacs, or among those who inject illicit drugs.

Hepatitis E virus is acquired when water or food contaminated with human feces is ingested.

Top of page

What is my risk of acquiring hepatitis?

People who are at risk of acquiring hepatitis A and hepatitis E infections are primarily those exposed to unsanitary conditions where they may consume food or water contaminated by viruses. Hepatitis A outbreaks also occur quite commonly in day-care centers or nurseries where an infected child may transmit the disease to others quite rapidly. Those at highest risk for acquiring hepatitis B infection are listed specifically below. Individuals who belong to any of the following groups should consider being tested for signs of past infection or current infection with hepatitis B virus.

A) Health care personnel:

- · Dentists and oral surgeons
- Physicians and surgeons
- Paramedical personnel and custodial staff who may be exposed to the virus
- Dental hygienists and dental nurses
- · Laboratory personnel handling blood, blood products and other patient samples, e.g. urine
- Nursing staff, dental and medical students

B) Selected patients and patients contacts:

- · Patients and staff in hemodialysis units and hematology/oncology units
- Patients requiring frequent and/or large-volume blood transfusion or clotting factor concentrates
- Residents and staff of institutions for the mentally handicapped
- Household and other intimate contacts of people with persistent hepatitis B antigen in their blood
- · Certain military personnel
- · Morticians and embalmers
- Blood bank and plasma fractionation workers
- People at increased risk of the disease due to their sexual practices (e.g., people who repeatedly contract sexually transmitted disease; homosexually active males; female prostitutes.)
- Users of illicit injectable drugs.

C) People of Asian, African, Eastern European, Caribbean, Pacific Island, American Indian, native Alaskan or South American descent

People with a hepatitis B infection or those who are carriers of hepatitis B virus are at risk of acquiring hepatitis D virus.

Hepatitis C infection is a risk for anyone who must receive transfused blood or blood products. The risk of sexual transmission is under investigation.

Top of page

Is there any treatment for hepatitis?

If a blood test shows that you have one of these diseases, your physician may prescribe bed rest inactivity.

The doctor may also recommend that you isolate yourself and use disposable plates, cups and utensils.

Recently, treatment with the drug interferon has shown encouraging results in patients with chronic cases of hepatitis B and hepatitis C.

Nevertheless, the most important way to avoid the consequences of hepatitis is through prevention. If a person is infected with hepatitis A virus, other members of the household who are not immune may receive an injection of a blood product called gamma globulin. Gamma globulin contains antibody to hepatitis A virus that can reduce the recipient's risk of infection.

Under certain conditions, people who are exposed to hepatitis B virus and are not immune may be given a blood product with a high concentration of protective hepatitis B antibody called hepatitis B immune globulin (HBIG). Hepatitis B vaccine also may be considered for long-term prevention. Circumstances that would suggest the administration of HBIG, hepatitis B vaccine, or both, should be discussed with your physician.

Top of page

What are the consequences of hepatitis?

Hepatitis A often produces fever, however, the disease is generally resolved without any long-term effects.

Hepatitis B may have a broad range of clinical symptoms including complete recovery for most people, death due to fulminant (severe) hepatitis (in less than 1 percent of the cases), or chronic liver disease which may progress to liver cancer (5 percent to 10 percent).

People who acquire hepatitis C stand a 50 percent to 60 percent chance of developing lifelong liver disease.

Hepatitis D, in conjunction with hepatitis B, is the most severe known form of viral hepatitis and generally progresses into chronic active disease or death due to severe hepatitis.

Hepatitis E is among the leading causes of acute viral hepatitis in young to middle-aged adults in developing countries. It has a high mortality rate — nearly 20 percent — in infected pregnant women.

Complete recovery from any form of hepatitis may take four months or longer. Many people say that they are not themselves for years after infection. In certain cases, individuals do not regain their former levels of energy and stamina; sometimes they are forced to take less demanding jobs and discontinue many aspects of their previous lifestyle.

Top of page

What is being done to control hepatitis?

Hospitals and blood banks are required to test all blood drawn for transfusion with very sensitive test for hepatitis B and hepatitis C viruses. Many hospitals are testing staff members, patients being prepared for surgery, kidney patients and pregnant women for evidence of hepatitis B infection. In some areas, all patients admitted to the hospital are tested for hepatitis on a routine basis.

A major advance in the control of hepatitis B occurred in 1981 with the introduction of a hepatitis vaccine. For people at high risk of acquiring hepatitis, vaccination is recommended. Once vaccinated, individuals should have their blood tested at regular intervals to determine their level of immunity.

Many people in high-risk categories acquire natural immunity to hepatitis B virus through previous infection. Simple blood tests can identify people with immunity; these individuals do not need to be vaccinated.

Pregnant women, especially those in the high-risk groups noted earlier, should arrange for hepatitis testing prior to delivery. If the mother is infectious with hepatitis B virus, arrangements should be made to immunize her infant at birth. Treatment usually includes administration of the hepatitis B vaccine together with HBIG. Both mother and infant should be tested regularly thereafter to determine their immune status.

A blood test has been developed to identify antibody to hepatitis D virus, and a recently developed blood test will identify the hepatitis C antibody. New developments in the field of hepatitis diagnosis and treatment are being made which will help curtail the spread of this disease in the future.

Back to top

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