Hepatitis is inflammation of the liver. Several different viruses cause viral hepatitis. They are named the hepatitis A, B, C, D, and E viruses.

All of these viruses cause acute, or short-term, viral hepatitis. The hepatitis B, C, and D viruses can also cause chronic hepatitis, in which the infection is prolonged, sometimes lifelong.

Other viruses may also cause hepatitis, but they have yet to be discovered and they are obviously rare causes of the disease.

**Symptoms of viral hepatitis**

Symptoms include

- jaundice (yellowing of the skin and eyes)
- fatigue
- abdominal pain
- loss of appetite
- nausea
- diarrhea
- vomiting.

However, some people do not have symptoms until the disease is advanced.
Hepatitis A

Disease Spread
Primarily through food or water contaminated by feces from an infected person. Rarely, it spreads through contact with infected blood.

People at Risk
International travelers; people living in areas where hepatitis A outbreaks are common; people who live with or have sex with an infected person; and, during outbreaks, day care children and employees, sexually active gay men, and injection drug users.

Prevention
The hepatitis A vaccine; also, avoiding tap water when traveling internationally and practicing good hygiene and sanitation.

Treatment
Hepatitis A usually resolves on its own over several weeks.

Hepatitis B

Disease Spread
Through contact with infected blood, through sex with an infected person, and from mother to child during childbirth.

People at Risk
Injection drug users, people who have sex with an infected person, men who have sex with men, children of immigrants from disease-endemic areas, people who live with an infected person, infants born to infected mothers, health care workers, and hemodialysis patients.

Prevention
The hepatitis B vaccine.

Treatment
Drug treatment with alpha interferon or lamivudine.

Hepatitis C

Disease Spread
Primarily through contact with infected blood; less commonly, through sexual contact and childbirth.

People at Risk
Injection drug users, hemodialysis patients, health care workers, people who have sex with an infected person, people who have multiple sex partners, infants born to infected women, and people who received a transfusion of blood or blood products before July 1992 or clotting factors made before 1987.

Prevention
There is no vaccine for hepatitis C—the only way to prevent the disease is to reduce the risk of exposure to the virus. This means avoiding behaviors like sharing drug needles or sharing personal items like toothbrushes, razors, and nail clippers with an infected person.

Treatment
Drug treatment with alpha interferon or combination treatment with interferon and the drug ribavirin.
**Hepatitis D**

**Disease Spread**
Through contact with infected blood. This disease occurs only in people who are already infected with hepatitis B.

**People at Risk**
Anyone infected with hepatitis B. Injection drug users who have hepatitis B have the highest risk. People who have hepatitis B are also at risk if they have sex with a person infected with hepatitis D or if they live with an infected person.

**Prevention**
Immunization against hepatitis B for those not already infected; also, avoiding exposure to infected blood, contaminated needles, and an infected person’s personal items (toothbrush, razor, nail clippers).

**Treatment**
Drug treatment with alpha interferon.

**Hepatitis E**

**Disease Spread**
Through food or water contaminated by feces from an infected person. This disease is uncommon in the United States.

**People at Risk**
International travelers; people living in areas where hepatitis E outbreaks are common; and people who live or have sex with an infected person.

**Prevention**
There is no vaccine for hepatitis E—the only way to prevent the disease is to reduce the risk of exposure to the virus. This means avoiding tap water when traveling internationally and practicing good hygiene and sanitation.

**Treatment**
Hepatitis E usually resolves on its own over several weeks to months.

**Other Causes of Viral Hepatitis**
Some cases of viral hepatitis cannot be attributed to the hepatitis A, B, C, D, or E viruses. This is called non A...E hepatitis or hepatitis X. Scientists have identified several candidate viruses, but none have been proven to cause hepatitis. The search for the virus responsible for hepatitis X continues.

**For More Information**
Information about viral hepatitis is also available from

- **American Liver Foundation**
  75 Maiden Lane, Suite 603
  New York, NY 10038
  Phone: (800) GO–LIVER (465–4837)
  Internet: www.liverfoundation.org

- **Centers for Disease Control and Prevention**
  National Center for Infectious Diseases
  Hepatitis Branch
  1600 Clifton Road
  Atlanta, GA 30333
  Phone: (888) 443–7232
  Internet: www.cdc.gov/ncidod/diseases/hepatitis

- **Hepatitis Foundation International**
  30 Sunrise Terrace
  Cedar Grove, NJ 07009–1423
  Phone: (800) 891–0707 or (973) 239–1035
  Internet: www.hepfi.org
National Digestive Diseases Information Clearinghouse

2 Information Way
Bethesda, MD 20892–3570
Phone: 1–800–891–5389 or (301) 654–3810
Fax: (301) 907–8906
Email: nddic@info.niddk.nih.gov

The National Digestive Diseases Information Clearinghouse (NDDIC) is a service of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). The NIDDK is part of the National Institutes of Health under the U.S. Department of Health and Human Services. Established in 1980, the clearinghouse provides information about digestive diseases to people with digestive disorders and to their families, health care professionals, and the public. NDDIC answers inquiries, develops and distributes publications, and works closely with professional and patient organizations and Government agencies to coordinate resources about digestive diseases.

Publications produced by the clearinghouse are carefully reviewed by both NIDDK scientists and outside experts. This fact sheet was reviewed by Bruce Bacon, M.D., St. Louis University.

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