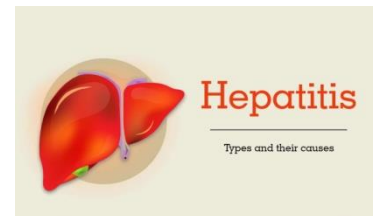


## Infectious diseases

**B. Hepatitis:** Hepatitis is swelling and inflammation of the liver.



- **Causes:** Hepatitis can be caused by:
  - Immune cells in the body attacking the liver (autoimmunity)
  - Infections from viruses (such as hepatitis A, hepatitis B, or hepatitis C), bacteria, or parasites
  - Liver damage from alcohol or poison
  - Medicines, such as an overdose of acetaminophen
  - Fatty liver
  - Liver disease can also be caused by inherited disorders such as cystic fibrosis or hemochromatosis, a condition that involves having too much iron in your body.
  - Other causes include Wilson disease, a disorder in which the body retains too much copper and ingestion of toxic mushrooms.
- **Types:** There are 5 main hepatitis viruses, referred to as types A, B, C, D and E. These 5 types are of greatest concern because of the burden of illness and death they cause and the potential for outbreaks and epidemic spread. In particular, types B and C lead to chronic disease in hundreds of millions of people and, together, are the most common cause of liver cirrhosis and cancer.
- Hepatitis A and E are typically caused by ingestion of contaminated food or water. Hepatitis B, C and D usually occur as a result of parenteral contact with infected body fluids. Common modes of transmission for these viruses include receipt of contaminated blood or blood products, invasive medical procedures using contaminated equipment and for hepatitis B transmission from mother to baby at birth, from family member to child, and also by sexual contact.
- Acute infection may occur with limited or no symptoms, or may include symptoms such as jaundice (yellowing of the skin and eyes), dark urine, extreme fatigue, nausea, vomiting and abdominal pain.

## Types



Hepatitis A



Hepatitis B



Hepatitis C



Hepatitis D



Hepatitis E

### Virus types:

**Hepatitis A virus (HAV)** is present in the faeces of infected persons and is most often transmitted through consumption of contaminated water or food. Certain sex practices can also spread HAV. Infections are in many cases mild, with most people making a full recovery and remaining immune from further HAV infections. However, HAV infections can also be severe and life threatening. Most people in areas of the world with poor sanitation have been infected with this virus. Safe and effective vaccines are available to prevent HAV.

**Hepatitis B virus (HBV)** is transmitted through exposure to infective blood, semen, and other body fluids. HBV can be transmitted from infected mothers to infants at the time of birth or from family member to infant in early childhood. Transmission may also occur through transfusions of HBV-contaminated blood and blood products, contaminated injections during medical procedures, and through injection drug use. HBV also poses a risk to healthcare workers who sustain accidental needle stick injuries while caring for infected-HBV patients. Safe and effective vaccines are available to prevent HBV.

**Hepatitis C virus (HCV)** is mostly transmitted through exposure to infective blood. This may happen through transfusions of HCV-contaminated blood and blood products, contaminated injections during medical procedures, and through injection drug use. Sexual transmission is also possible, but is much less common. There is no vaccine for HCV.

**Hepatitis D virus (HDV)** infections occur only in those who are infected with HBV. The dual infection of HDV and HBV can result in a more serious disease and worse outcome. Hepatitis B vaccines provide protection from HDV infection.

**Hepatitis E virus (HEV)** is mostly transmitted through consumption of contaminated water or food. HEV is a common cause of hepatitis outbreaks in developing parts of the world and is increasingly recognized as an important cause of disease in developed countries. Safe and effective vaccines to prevent HEV infection have been developed but are not widely available.

- **Symptoms:** Hepatitis may start and get better quickly. It may also become a long-term condition. In some cases, hepatitis may lead to liver damage, liver failure, cirrhosis, liver cancer or even death. There are several factors that can affect how severe the condition is. These may include the cause of the liver damage and any illnesses you have. Hepatitis A, for example, is most often short-term and does not lead to chronic liver problems

The symptoms of hepatitis include:

- Pain or bloating in the belly area
- Dark urine and pale or clay-colored stools
- Fatigue
- Low grade fever
- Itching

- Jaundice (yellowing of the skin or eyes)
- Loss of appetite
- Nausea and vomiting
- Weight loss
  
- **Diagnosis:**
  - Ultrasound of the abdomen
  - Autoimmune blood markers
  - Blood tests to diagnose Hepatitis A, B, or C
  - Liver function tests
  - Liver biopsy to check for liver damage (may be needed in some cases)
  - Paracentesis (if fluid is in your abdomen)
  
- **Prevention:**
  - Talk to your provider about having a vaccine to prevent hepatitis A and hepatitis B.
  - Steps for preventing the spread of hepatitis B and C from one person to another include:
    - Avoid sharing personal items, such as razors or toothbrushes.
    - DO NOT share drug needles or other drug equipment (such as straws for snorting drugs).
    - Clean blood spills with a mixture of 1 part household bleach to 9 parts water.
    - DO NOT get tattoos or body piercings with instruments that have not been cleaned properly.