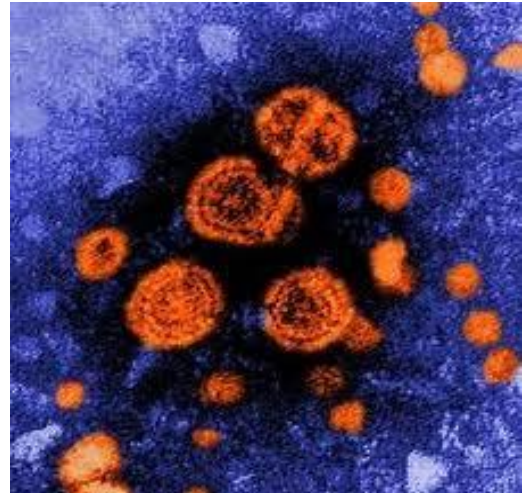


Viral Hepatitis

Overview

The word hepatitis simply means inflammation of the liver. Inflammation is a natural bodily reaction and causes the affected area to become swollen and tender. There are many reasons why the liver may become inflamed such as viral infection, alcohol, drugs and other toxins, or less commonly by a breakdown in a person's immune system. Most viral infections do not attack the liver exclusively, it just happens to be one of the organs affected when the body is infected. Viral hepatitis refers specifically to a set of viruses that attack the liver directly. They are described as being hepatotropic, this means having a special attraction to the liver.



Virus Types

There are five confirmed hepatotropic viruses, hepatitis A, B, C, D and E. These are described in detail in the table below. Transmission refers to how a person catches the virus. Chronicity describes how chronic a virus is, ranging from acute, which is a sudden and severe onset, to chronic, which is a slow onset and can keep reoccurring over a number of years. Incubation period refers to the time elapsed between exposure and infection, to when signs become apparent.

Virus	Transmission	Chronicity	Treatment	Incubation Period
Hepatitis A (HAV)	Faecal – oral route. Hepatitis A is found in the faeces of an infected person. It can be transmitted through food and water. Flies can spread hepatitis A. Infected people are infectious with hepatitis A for two weeks before and one week after onset of symptoms.	No	Those infected should live a healthy lifestyle and avoid alcohol. There is no treatment although a vaccine is available.	15-45 days
Hepatitis B (HBV)	Via blood and body fluids. Hepatitis B can be spread through hypodermic needle sharing, sexual intercourse, blood transfusions, and dirty medical or tattooing equipment.	Yes (uncommon)	There is no cure; infected people can be given antiviral agents which can help reduce liver damage, and in chronic cases should have their liver assessed every 6 - 12 months.	45-165 days

Hepatitis C (HCV)	Via blood and blood serum. Hepatitis C can be spread through hypodermic needle sharing, blood transfusions, dirty medical or tattooing equipment. Hepatitis C is rarely passed on through sexual intercourse.	Yes (common)	There are drugs licensed for the treatment of hepatitis C. Combination therapy can eliminate the virus in 50% of cases.	15-150 days
Hepatitis D (HDV)	All the same routes of transmission as hepatitis B, as only in the presence of hepatitis B can it propagate.	Yes – with chronic hepatitis B	Again, there is no cure, and treatment is mainly supportive care, that is, treating the symptoms and any complications. With acute hepatitis D, the sufferer usually gets better within several months.	30-60 days
Hepatitis E (HEV)	Hepatitis E is spread via the same routes as hepatitis A.	No	There is no treatment. Infected people should live a healthy lifestyle and avoid alcohol.	15-60 days

Symptoms

Viral hepatitis can be asymptomatic, which means no obvious symptoms. When symptoms do occur, they include:

- loss of appetite, nausea and vomiting;
- weakness and tiredness;
- abdominal aching;
- darkened urine;
- jaundice, yellowish discolouration of the skin, mucous membranes and whites of the eyes caused by deposition of bile salts in these tissues; and
- fever.

Most people who contract acute viral hepatitis go on to make a full recovery, as the body's immune system eradicates the virus and the person develops immunity.

Effect of hepatitis viruses on the liver

Hepatitis viruses that become chronic can cause liver damage because the virus reproduces in the liver. As more liver cells are damaged and destroyed, scar tissue takes their place, causing cirrhosis. Serious damage to the liver can lead to liver failure and liver cancer. Viral hepatitis sufferers can receive transplants, although they will almost certainly infect their new liver.

Epidemiology

At this moment in time, more than 500,000 Australians and New Zealanders have chronic viral hepatitis B or C, of whom less than 10% have received antiviral therapy. As this infected population ages, the proportion with cirrhosis and liver related complications will grow.

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