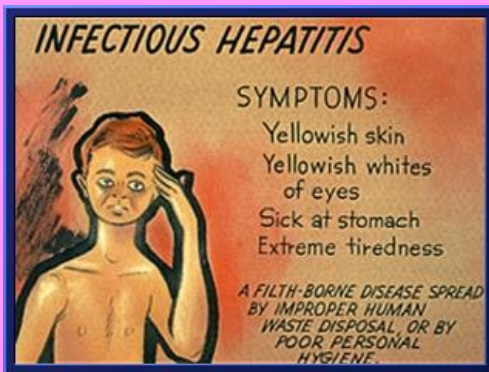


# Hepatitis B

## Definition

An inflammation of the liver caused by the hepatitis B virus.



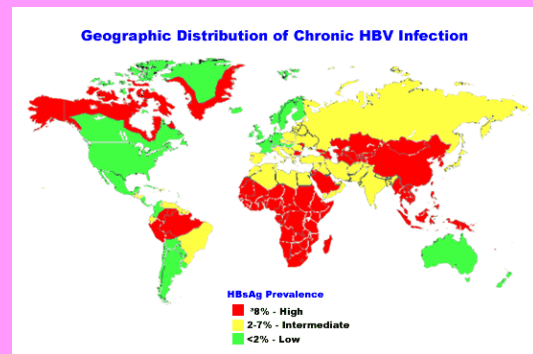
## Causes, Incidence, and Risk Factors

- Hepatitis B is considered primarily a sexually-transmitted disease.
- It is also transmitted in blood, creating high risk groups (one virus particle can cause disease). Those most at risk
  - health care professionals
  - intravenous drug users (needle sharing).
  - infected mothers to the foetus prior to birth.
  - Individuals dependant on blood products

- The initial course for hepatitis A and B may be similar but it is hepatitis B that can have long term consequences.
- Once infected with the hepatitis B virus, approximately 10% of the people develop a chronic permanent infection (chronic carrier state).
- In this group, a small proportion of people will develop slow but progressive liver damage leading to cirrhosis or hepatocellular cancer. Hepatitis B is thought to be the leading cause of liver cancer.

- Hepatitis B has a long incubation period, occasionally taking up to 6 months to manifest itself.
- Early symptoms may be a variety of
  - skin rashes
  - arthralgia
  - fever
  - malaise
  - abdominal pain
  - jaundice
    - appears, first in the whites of the eyes
    - then the skin.
  - dark urine
  - clay coloured stools.

- Hepatitis B is a serious disease and mortality (death rate) during the acute stage is approximately 1%.
- Incidence is 2 per 10,000 but the true incidence may be higher, because many cases do not cause symptoms and go undiagnosed and unreported.
- Pregnant women are now routinely screened for hepatitis B and, as it is a notifiable disease.
- One in 1,000 pregnant women are chronic carriers of hepatitis B. (incidence is higher in people of Southeast Asian heritage.)



- People at highest risk for acquiring hepatitis B infection continue to be those who are
  - homosexual
  - bisexual
  - IV drug users
  - partners of the above
- Because hepatitis B immunisation is available, the risk to
  - health-care workers
  - haemodialysis patients
  - individuals requiring multiple blood transfusions
  - newborn infants has been reduced

## Prevention

- Screening of all blood products
- Immunisation (HB VAX)
- Safe sex behaviours
- Infants born to carrier mums receive a special immunisation

## Symptoms

- **Jaundice**
- **Clay coloured stools**
- **Dark urine**
- **Abdominal pain** (Painful liver)
- Malaise
- Anorexia
- Nausea and vomiting

- Fever
- Fatigue
- Generalized itching
- Arthralgia
- Additional symptoms that may be associated with this disease:
- Depression
- Epistaxis

## Signs and Tests

- positive hepatitis B surface antigen
- positive hepatitis B core antigen
- elevated liver enzymes
- liver biopsy shows acute or resolving hepatitis
- Liver scan
- Bilirubin (blood/urine)

## Treatment

- There is no specific treatment for acute hepatitis.
- Rest is recommended during the acute phase of the disease when the symptoms are most severe.
- People with acute hepatitis should avoid alcohol
- Some people with chronic hepatitis may respond to alpha-interferon therapy.

## Prognosis

- The acute illness usually subsides after 2 to 3 weeks
- Liver returns to normal within 16 weeks.
- 10% of people infected may develop chronic hepatitis.
- There is a higher incidence of hepatocellular carcinoma in those who have had hepatitis B virus
- Hepatitis B is fatal in approximately 1% of cases of acute hepatitis B.

## Complications

- chronic hepatitis
- cirrhosis
- hepatocellular carcinoma



**Hepatitis B Virus**

