Hepatitis means inflammation of the liver and is often caused by a virus.  

**Diagnosing and monitoring**  
**Hepatitis B**

There is a vaccination that can prevent infection. The vaccine is 95% effective. However, HBV carriers do not know they are infected because they do not have obvious symptoms. Symptoms include:  
- Antiviral agents against HBV are available and have been shown to suppress HBV replication, prevent progression to cirrhosis, and reduce the risk of cancer and liver-related deaths.

**Sources:**
- [www.who.int/mediacentre/factsheets/fs204/en/](http://www.who.int/mediacentre/factsheets/fs204/en/)
- [http://www.cdc.gov/hepatitis/hbv/bfaq.htm](http://www.cdc.gov/hepatitis/hbv/bfaq.htm)

**Worldwide**

240 million people

**Diagnosis**

Diagnosing and monitoring Hepatitis B

Hepatitis means inflammation of the liver and is often caused by a virus.  

**Diagnosing:**

- There are vaccines for HAV and HBV of viral hepatitis.
- Common types of viral hepatitis are:
  - Hepatitis A
  - Hepatitis B
  - Hepatitis C

**HBV: 650,000 deaths from HBV-related liver diseases each year**

**CHRONIC HEPATITIS B:** 15–25% of people with chronic Hepatitis B are long-term carriers, and more than 1% of healthy adults and 80-90% of infants infected during the first year of life develop chronic infections.

HBV is transmitted primarily through blood or body fluids:

- birth
- injection drug use
- needle stick injury
- blood transfusion
- unsanitary tattooing or piercing
- high-risk sexual contacts

**Acute HBV**

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Joint pain
- Jaundice (yellow color in the skin or the eyes)

**Chronic HBV**

- 20% of healthy adults and 80-90% of infants infected during the first year of life develop chronic infections.

If positive:

- Liver enzyme test is performed
- Blood is tested for the presence of HBV genetic material (DNA).

If patient requires treatment HBV DNA levels are monitored every 6 months at first and every year thereafter.

- Antibody is a Y-shaped protein recruited by the immune system to identify and neutralize foreign objects like bacteria and viruses.
- An antigen is a substance on the surface of a virus that causes a person’s immune system to recognize and respond to it.

**Effectiveness of treatment is measured through ongoing blood tests that monitor viral load (amount of virus in the blood).**

HBV can replicate tens of copies per day, so HBV viral load can be high.

Another blood test is repeated in 6 months to confirm that virus is still present.

If patient requires treatment HBV DNA levels are monitored every 6 months at first and every year thereafter.

Viral load testing indicates that the virus has been effectively suppressed.

**The goal of treatment is to suppress the virus**

- Effectiveness of treatment is measured through improving blood tests that monitor viral load (amount of virus in the blood).
- HBV can replicate tens of copies per day, so HBV viral load can be high.

**HBV can be manageable with the right treatment plan**

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HBV can be manageable with the right treatment plan

**Antibody is a Y-shaped protein recruited by the immune system to identify and neutralize foreign objects like bacteria and viruses.**

**An antigen is a substance on the surface of a virus that causes a person’s immune system to recognize and respond to it.**

**Diagnosis**

**Monitoring and treatment**

**HBV in the underlying cause of 20–30% of liver cancers**

CHRONICALLY INFECTED  
Long-term to life-long (virus present > 6 months)

Acute (75-85%)

Short-term to long-term (virus present < 6 months)  

*There are vaccines for HAV and HBV*