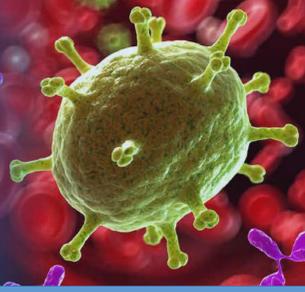


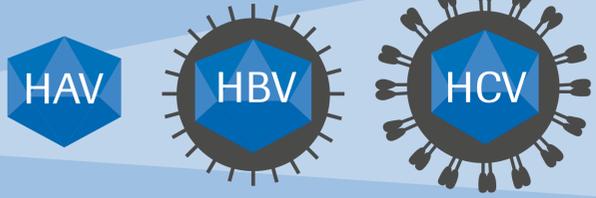
# Diagnosing and monitoring Hepatitis B



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



THESE ARE  
**3 common types**  
of viral hepatitis

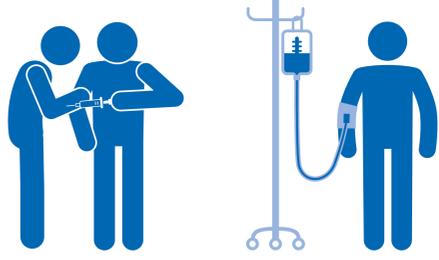


\*There are vaccines for HAV and HBV

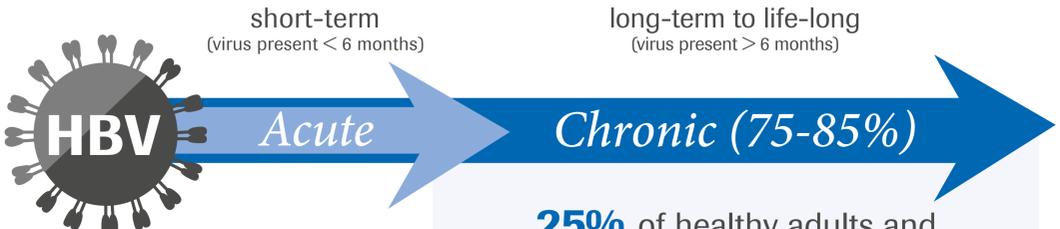
## Diagnosing: first step to manage hepatitis B

*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



WORLDWIDE  
**240 million**  
people  
CHRONICALLY INFECTED



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

**CHRONIC HEPATITIS B:**  
15-25% of people with  
**chronic Hepatitis B**  
develop serious liver  
conditions, such as  
**cirrhosis** or **liver cancer**

**25%** of healthy adults and  
**80-90%** of infants infected during  
the first year of life develop  
chronic infections

HBV  
is the underlying  
cause of

**20-30%**  
of  
**LIVER CANCERS**

## Diagnosis



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:

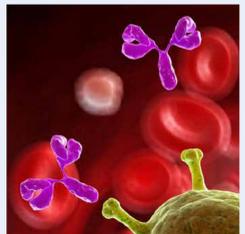
- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Joint pain
- Jaundice (yellow color in the skin or the eyes)



**Blood is tested for HBV antigens and antibodies**

Antibody is a Y-shaped proteins recruited by the immune system to identify and neutralise 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 recognise and respond to it.



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



**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.

## Monitoring and treatment



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

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

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

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

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