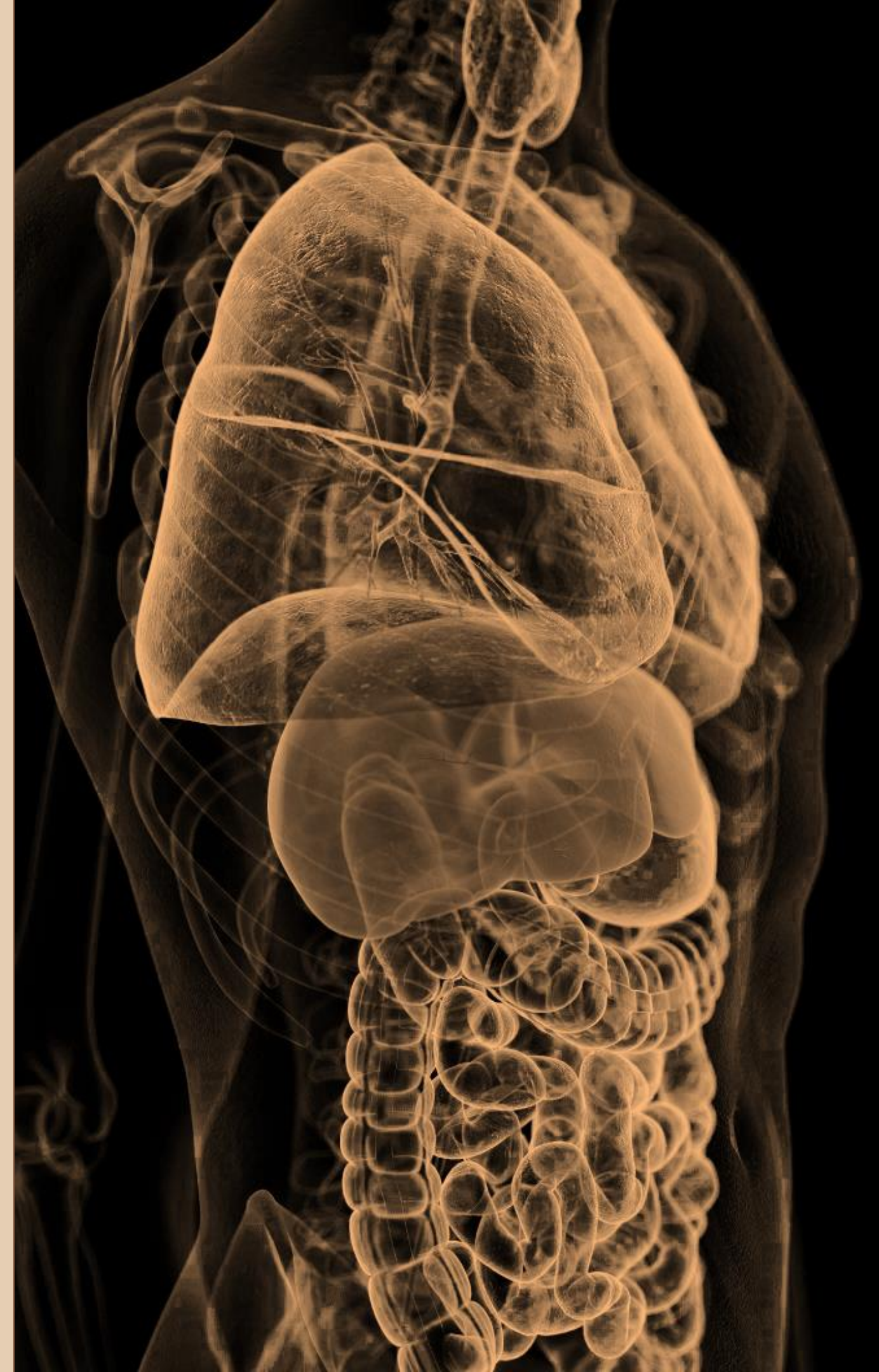


In The name of God

Master: mr.rasouli

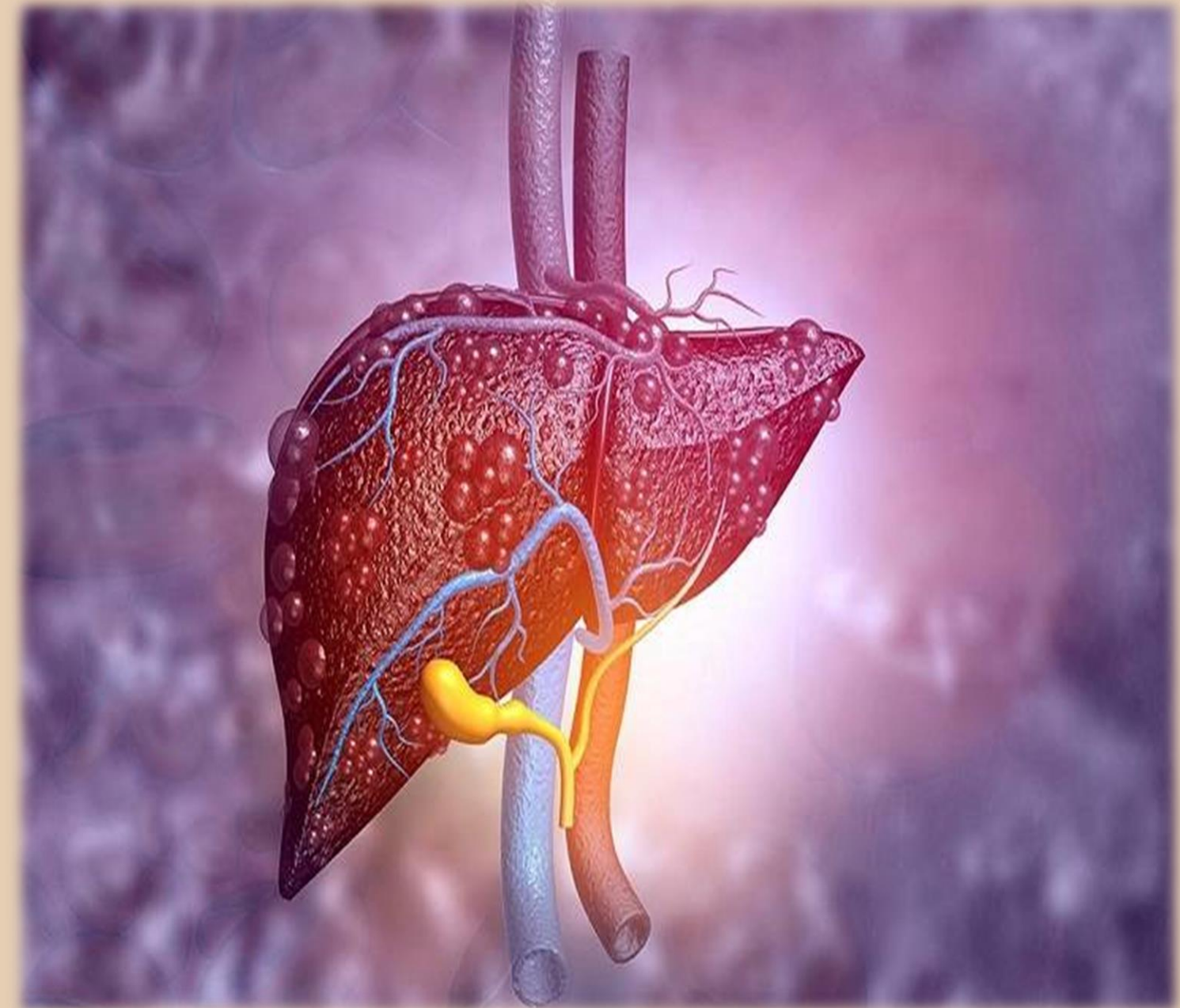
Presenter:yasaman sadat salehi



What is hepatitis?

Hepatitis is an inflammation of the liver that can be caused by a virus in most cases, but also by the consumption of toxic (alcohol, drugs, etc).

Hepatitis can be an acute (short-term) infection or a chronic (long-term) infection. Some types of hepatitis cause only acute infections. Other types can cause both acute and chronic infections.



What causes hepatitis??

Viral hepatitis is the most common type. It is caused by one of several viruses -- hepatitis viruses A, B, C, D, and E. In the United States, A, B, and C are the most common.

Autoimmune hepatitis is a chronic type in which your body's immune system attacks your liver. The cause is not known, but genetics and your environment may play a role.

Alcoholic hepatitis is caused by heavy alcohol use
Toxic hepatitis can be caused by certain poisons, chemicals, medicines, or supplements.

How is viral hepatitis spread?

Hepatitis A and hepatitis E usually spread through contact with food or water that was contaminated with an infected person's stool. You can also get hepatitis E by eating undercooked pork, deer, or shellfish.

Hepatitis B, hepatitis C, and hepatitis D spread through contact with the blood of someone who has the disease. Hepatitis B and D may also spread through contact with other body fluids. This can happen in many ways, such as sharing drug needles or having unprotected sex.



Understanding Viral Hepatitis

Hepatitis A (HAV)

can spread due to contaminated food and water or close physical contact.

Hepatitis B (HBV)

is transmitted through contact with direct body fluids or sexual contact.

Hepatitis C (HCV)

is contracted when contaminated blood enters the bloodstream of an uninfected person.

Hepatitis D (HDC)

can only be obtained when a person already has Hepatitis B.

Hepatitis E (HEC)

spreads through contaminated food or water and is commonly experienced by frequent travellers.



What are the symptoms of hepatitis?

- Fever
- Fatigue
- Loss of appetite
- Nausea and/or vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice, yellowing of your skin and eyes

If you have an acute infection, your symptoms can start anywhere **between 2 weeks to 6 months** after you got infected. If you have a chronic infection, you may not have symptoms until many years later.



How is hepatitis diagnosed?

Liver Function Tests

ALT
AST
ALP
Bili.T
Bili.D

Antibody Tests

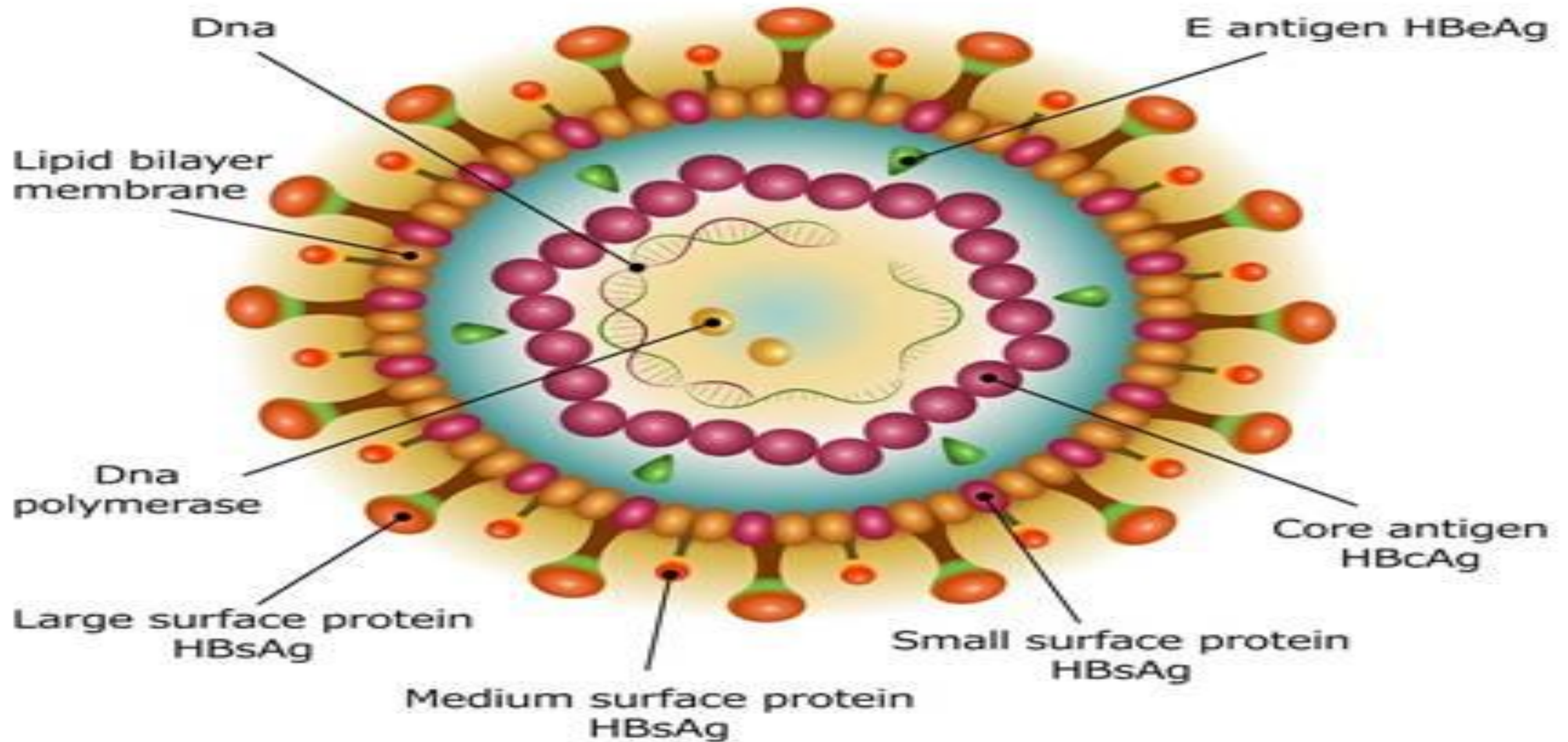
IgG
IgM

Imaging

CT
MRI
Abdominal ultrasound

Hepatitis B Virus

Baltimore Group VII (dsDNA-RT)



تفسیر	منفی شدن تست بعد از ورود ویروس به بدن	مدت زمان مثبت ماندن تست بعد از مثبت شدن تست	مثبت شدن تست بعد از ورود ویروس به بدن	تست‌ها
مثبت بودن آن نشانه عفونت فعال (حاد و یا ناقل مزمن) می باشد.	mo ۸.۵ - ۵.۵	wk ۲۰ - ۱۸	wk ۱۲ - ۴	HBs Ag
مثبت بودن آن نشانه عفونت قبلی و یا ایمن بودن فرد می باشد. مثبت بودن بعد از واکسیناسیون نشانه موفق بودن واکسیناسیون می باشد.	yr ۱۰ - ۶	yr ۱۰ - ۶	mo ۹ - ۶	HBs Ab
نشانه عفونت جدید، گاهی در ناقلین مزمن با تیترا پایین دیده می شود.	mo ۶ - ۳	mo ۵.۵ - ۲.۵	wk ۱۲ - ۲	HBc Ab(IgM)
مثبت بودن آن نشانه عفونت جاری و یا عفونت قدیمی می باشد (بعد از واکسیناسیون هیچگاه مثبت نمی شود)	تا پایان عمر	تا پایان عمر	wk ۱۲ - ۳	HBc Ab(Total)
مثبت بودن آن نشانه عفونت فعال و ناقل بودن بیماری در این فرد است ، ریسک پیشرفت بیماری در این بیماران زیاد می باشد.	wk ۱۶ - ۱۳	wk ۹ - ۷	wk ۷ - ۵	HBe Ag
مثبت بودن آن نشانه ناقل نبودن بیماری در این فرد است، ریسک پیشرفت بیماری در فرد پایین است.	mo ۱۲ - ۸	mo ۸ - ۵	wk ۱۶ - ۱۳	HBe Ab

HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative positive positive	Immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	Immune due to hepatitis B vaccination
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	Acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	Chronically infected
HBsAg anti-HBc anti-HBs	negative positive negative	Interpretation unclear; four possibilities: 1. Resolved infection (most common) 2. False-positive anti-HBc, thus susceptible 3. "Low level" chronic infection 4. Resolving acute infection



Test	Acute	Chronic	Recovery	Carrier	Window period	Vaccination
HBsAg	positive	positive	negative/positive	positive	negative	negative
Anti-IgM HBc	positive	neg/pos	negative	negative	positive	negative
Anti-IgG HBc	negative	positive	positive	positive	neg/pos	positive
HBeAg	positive	neg/pos	negative	negative	negative	negative
Anti-HBeAb	negative	positive	positive	positive	pos/neg	negative
Anti-HBs Ab	negative	negative	positive	negative	negative	positive
PCR	positive	positive	negative	negative	positive	negative

How is Hepatitis treated?

Your treatment options will depend on the type of hepatitis you have and the severity of the infection.

Hepatitis A

The symptoms of hepatitis A may go away without treatment if it is a short-term illness. There may, however, be a need for bed rest if symptoms cause a great deal of discomfort. A dietary plan to maintain hydration and nutrition may be recommended by your doctor if you experience vomiting or diarrhea.



Hepatitis B

Acute hepatitis B does not have a specific treatment program. Those with chronic hepatitis B, however, will require antiviral medications. The cost of this type of treatment can be high, as you may need to continue it for several months or even years.



Tips to Prevent Hepatitis:

Keep your weight in check
Limit alcohol consumption
Vaccinations
Be careful while taking medications
Personal hygiene