

All you need to know about your Liver

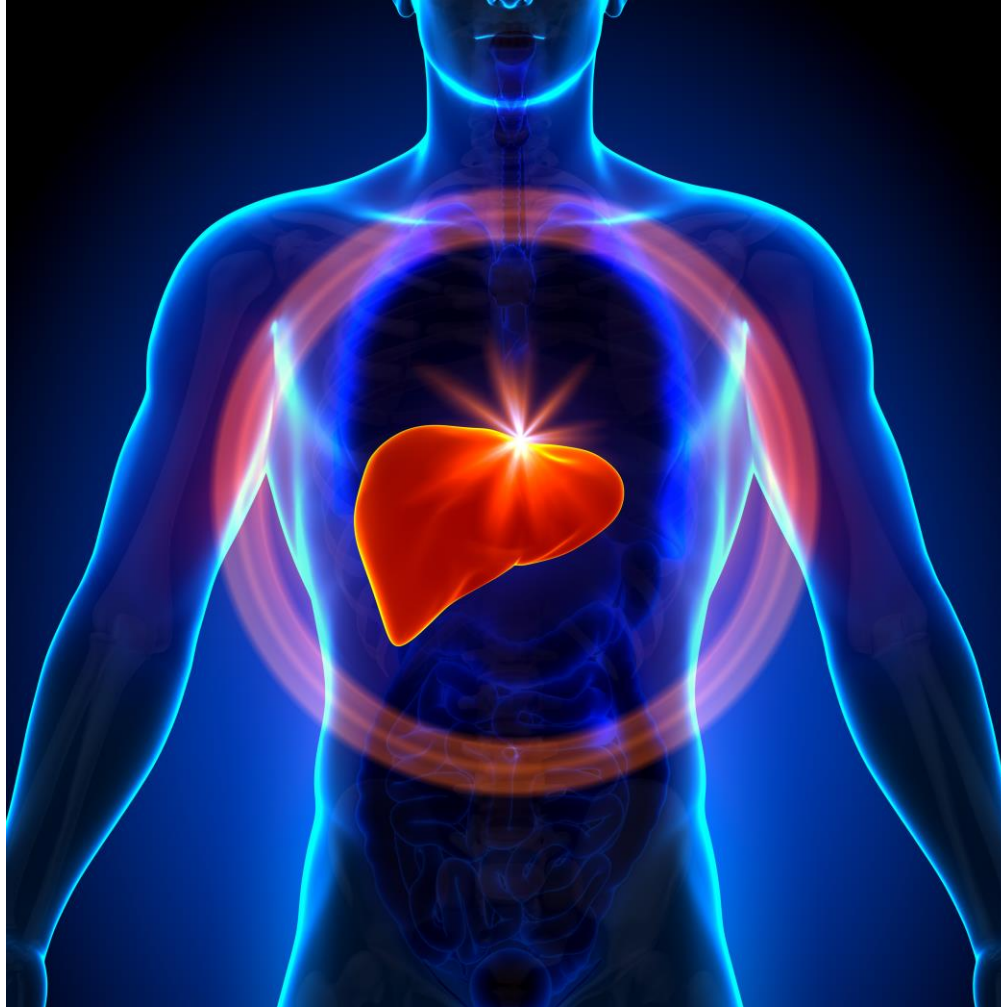
Dr. Sanjiv Saigal

MD, DM, DNB, MAMS, CCST(UK), MRCP(UK)
Principal Director and Head
Hepatology & Liver Transplant Medicine
Max Super Speciality Hospital, Saket

Where is Liver located ?



Liver: Metabolic factory of our body





Weight: 1200-1500g

Two lobes: right lobe and left lobe

Diseased Liver



Diseased Liver: Small, shrunken

Weight: 1200-1500g

Two lobes: right lobe and left lobe

Functions of the Liver

Metabolic

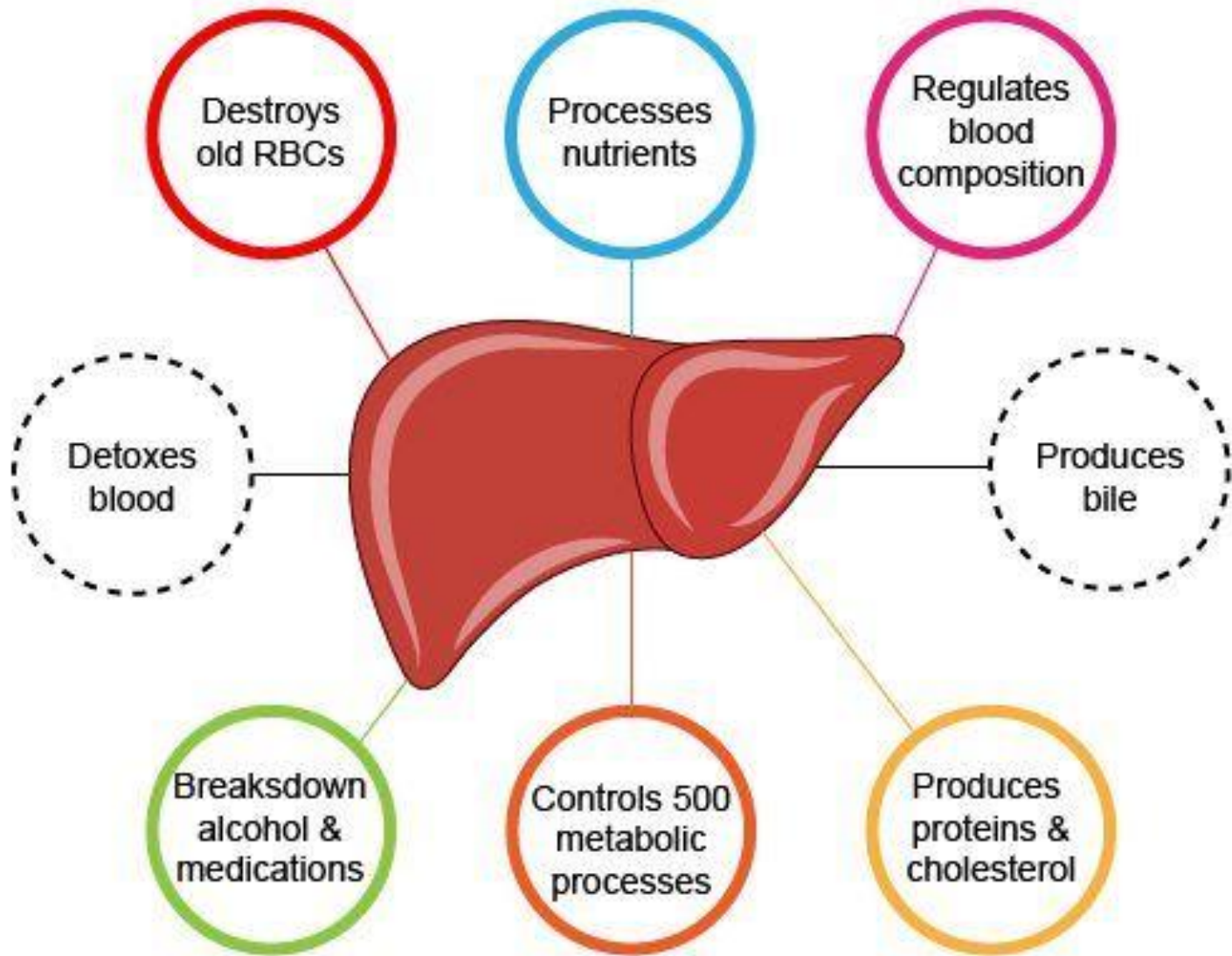
Storage

**Excretory/
Secretory**

Protective

Circulatory

Coagulation



Essential liver functions

Vital Functions of Liver

- ✦ Processes Healthful Nutrients
- ✦ Produces Bile that helps in absorption of Fat
- ✦ Manufactures new body protein
- ✦ Destroys Toxins
- ✦ Helps the body resist infection
- ✦ Stores Iron

Storage Functions

- ✱ Glycogen
- ✱ Vitamins A, D, E, K (fat soluble)
- ✱ B12 (water soluble)
- ✱ Iron
- ✱ Copper

Symptoms/Signs of Cirrhosis



Water in Tummy (Ascites)



Jaundice



Esophageal Varices



Liver Cancer

Liver Function Tests: Liver Enzymes

✱ Bilirubin

✱ Transaminases

- Aspartate aminotransferase (AST or SGOT)

- Alanine aminotransferase (ALT or SGPT)

✱ Cholestatic Enzymes

- Alkaline phosphatase (AP)

- Gamma-glutamyl transferase (GGT)

Liver regeneration

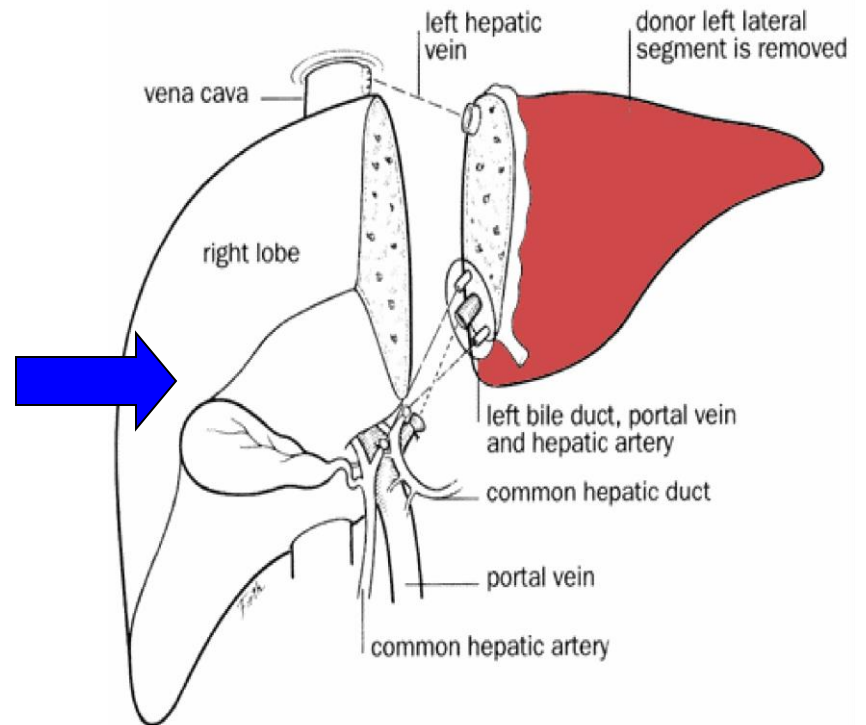
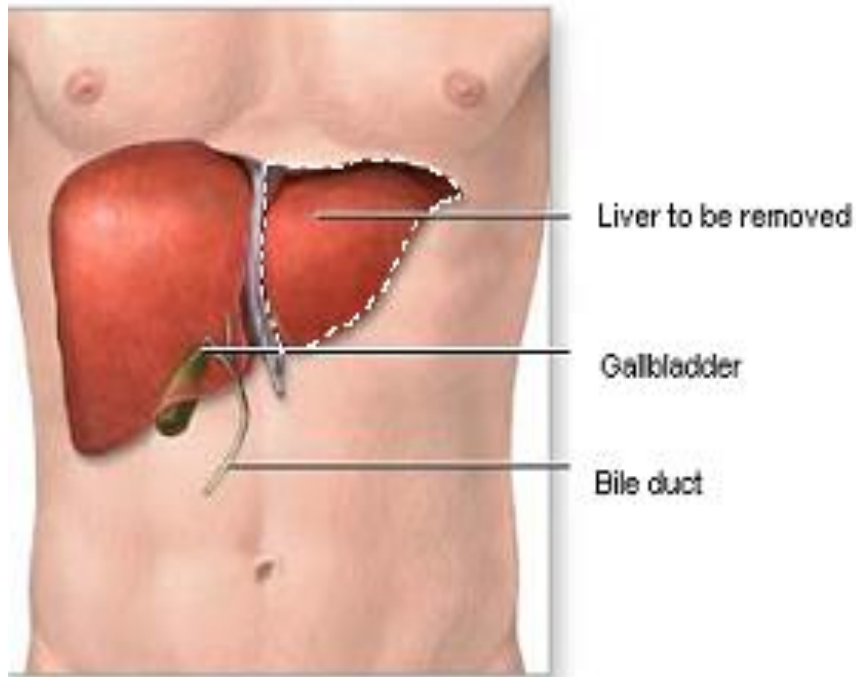
- The liver is the only human organ that has the remarkable property of self-regeneration
- If a part of the liver is removed, the remaining parts can grow back to its original size and shape

Liver regeneration



- *Zeus punished Prometheus by chaining him to a cliff and sending an eagle to eat his liver everyday.*
- *His liver grew again during a night time, so the bird came back and ate it again next day!*

Liver Regeneration



Common Diseases of Liver

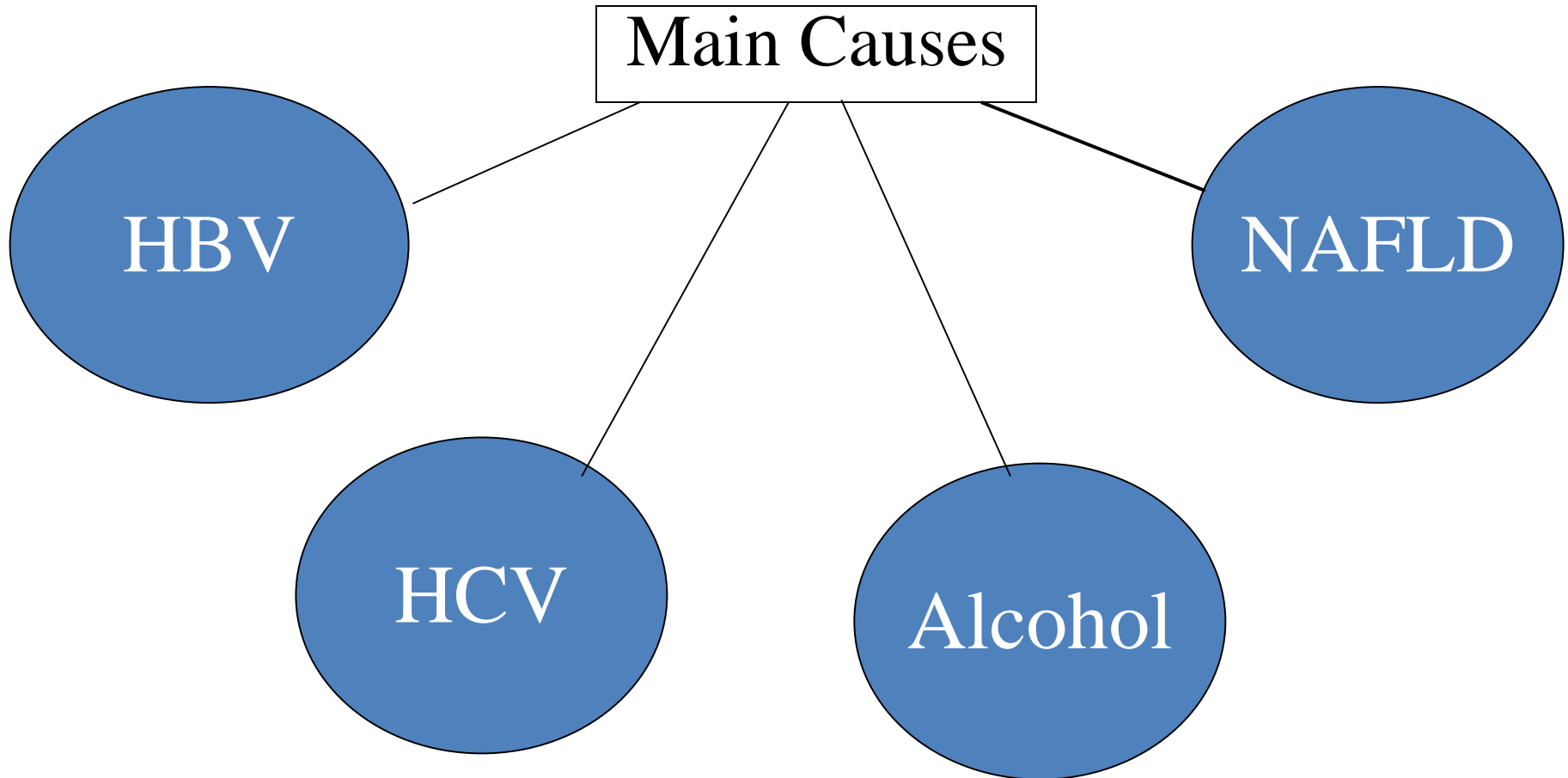
COMMON LIVER DISEASES

- **Hepatitis**
- **Alcoholic liver disease**
- **Fatty liver disease**
- **Non-alcoholic fatty liver disease**
- **Cirrhosis**
- **Liver cancer**

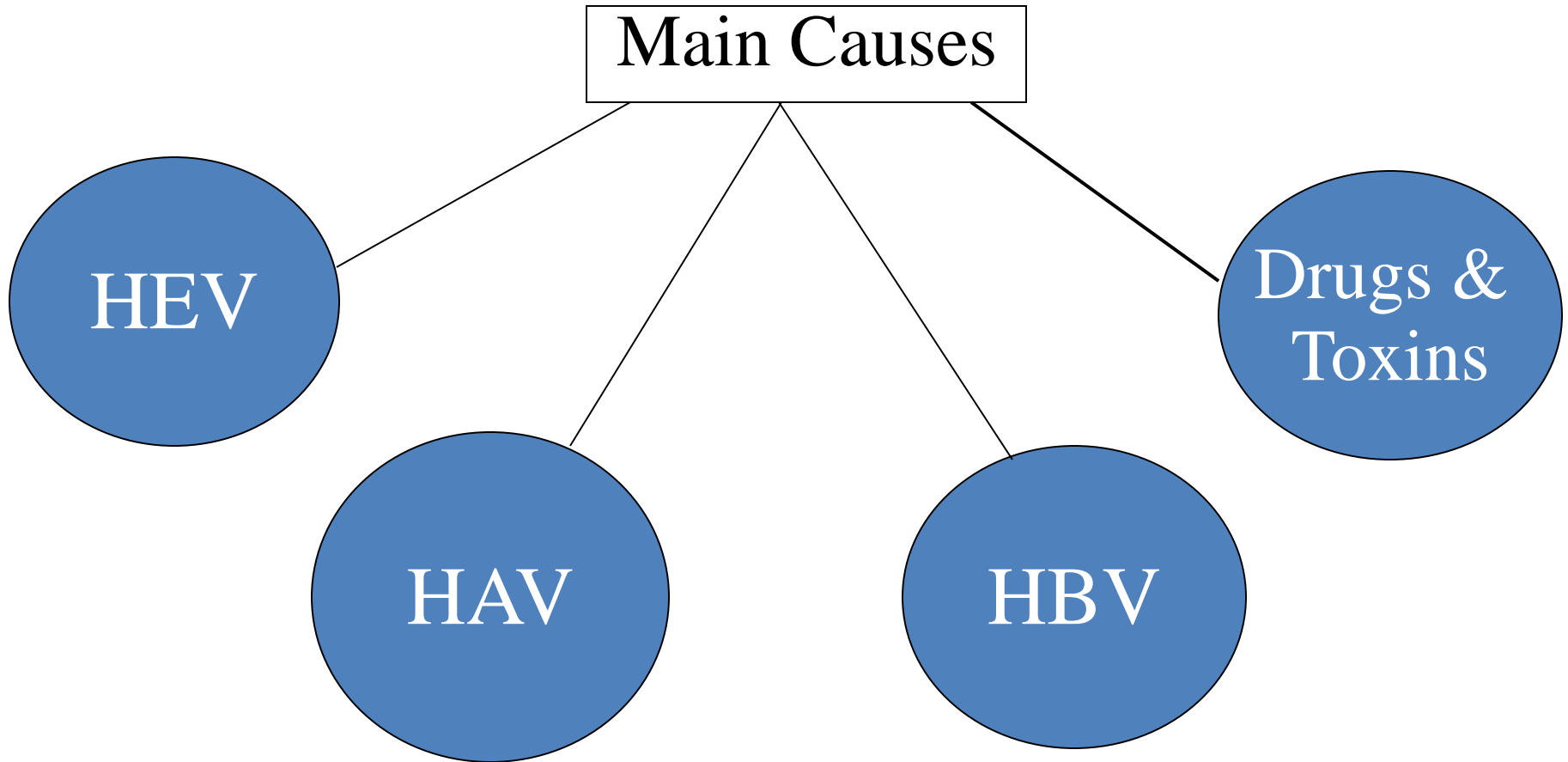
THOSE AT RISK

- **Overweight persons**
- **Those who consume alcohol**
- **Hepatitis B or Hepatitis C patients**
- **Fatty liver disease patients**

Causes Cirrhosis in India



Acute Liver Failure in India



Symptoms of liver damage

- ✱ Pale stools
- ✱ Dark urine
- ✱ Jaundice
- ✱ Swelling of the abdomen
- ✱ Excessive fatigue
- ✱ Bruising and easy bleeding
- ✱ Pain in the upper right quadrant

Symptoms of Liver Disease



**Bleeding
from nose**



**Vomiting
Blood**



**Stomach
pain**



Weight loss



Fatigue



Jaundice

What Causes Fatty Liver ?



Seven Steps Towards Healthy Liver !

- A: Avoid Alcohol
- B: Balanced diet
- C: Control of diabetes , dyslipidemia
- D: Drugs (avoid drugs and toxins)
- E: Exercise
- F: Follow up with doctor
- G: Get vaccinated

Healthy Lifestyle for a Healthy Liver



Healthy Diet



Exercise



Exercise to keep your liver healthy



Take Home Messages

- ✱ The liver is the largest internal organ in the human body
- ✱ The liver is extremely vital for our survival providing numerous functions
- ✱ A healthy liver is a sign of a healthy organism
- ✱ Common liver diseases include Viral Hepatitis, Fatty liver disease, Alcoholic liver disease, Liver cancer
- ✱ Good lifestyle can keep the liver healthy

