

Gastrointestinal Tract (GIT) Accessory glands

Liver: is the largest organ in the body, lies mainly in the **upper right section** of the abdominal cavity, just **inferior to the diaphragm**. The liver consists of two **major lobes, left and right**, and the right lobe is divided into two **minor lobes, caudate and quadrate**. By the presence of the **gallbladder**.

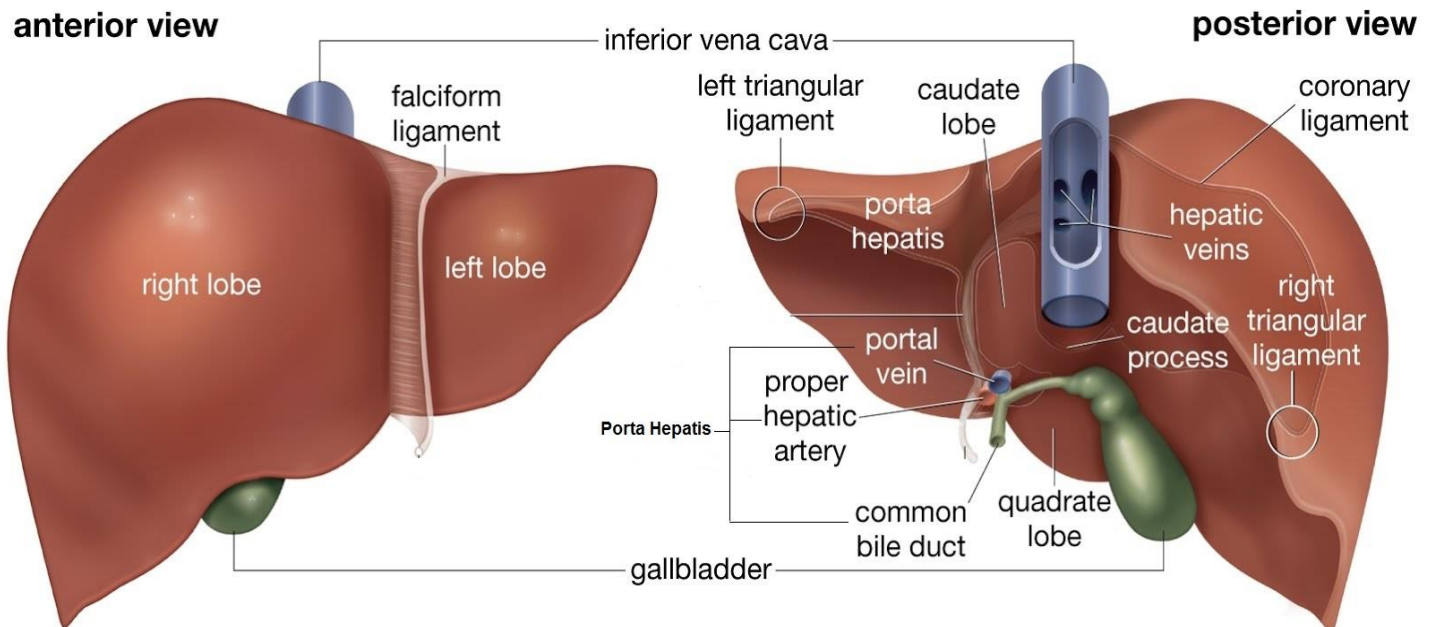


Fig 1: Liver

Porta Hepatis (Liver gate) is found on the **posteroinferior surface** and lies between the **caudate and quadrate lobes**. Consisting of the following structures:

- A. Hepatic duct or (bile duct):** that takes bile away from the liver.
- B. Hepatic artery:** that brings O₂-rich blood to the liver.
- C. Hepatic portal vein:** that transports nutrients from the intestines
- D. Hepatic nerve plexus:** Small nerves enter the liver through the porta.
- E. Hepatic lymph nodes:** a few nodes lie in here



The two **hepatic ducts**, one each from the right and left lobes, exit the liver at the porta. the right and left hepatic ducts unite to form a single **common hepatic duct**.

The **cystic duct** come from the **gallbladder** joins the **common hepatic duct** to form the **common bile duct**,

The common bile duct joins the **pancreatic duct** at the **hepatopancreatic ampulla**, where the hepatic and pancreatic ducts come together. The hepatopancreatic ampulla **empties** into the **duodenum** at the major **duodenal papilla**.

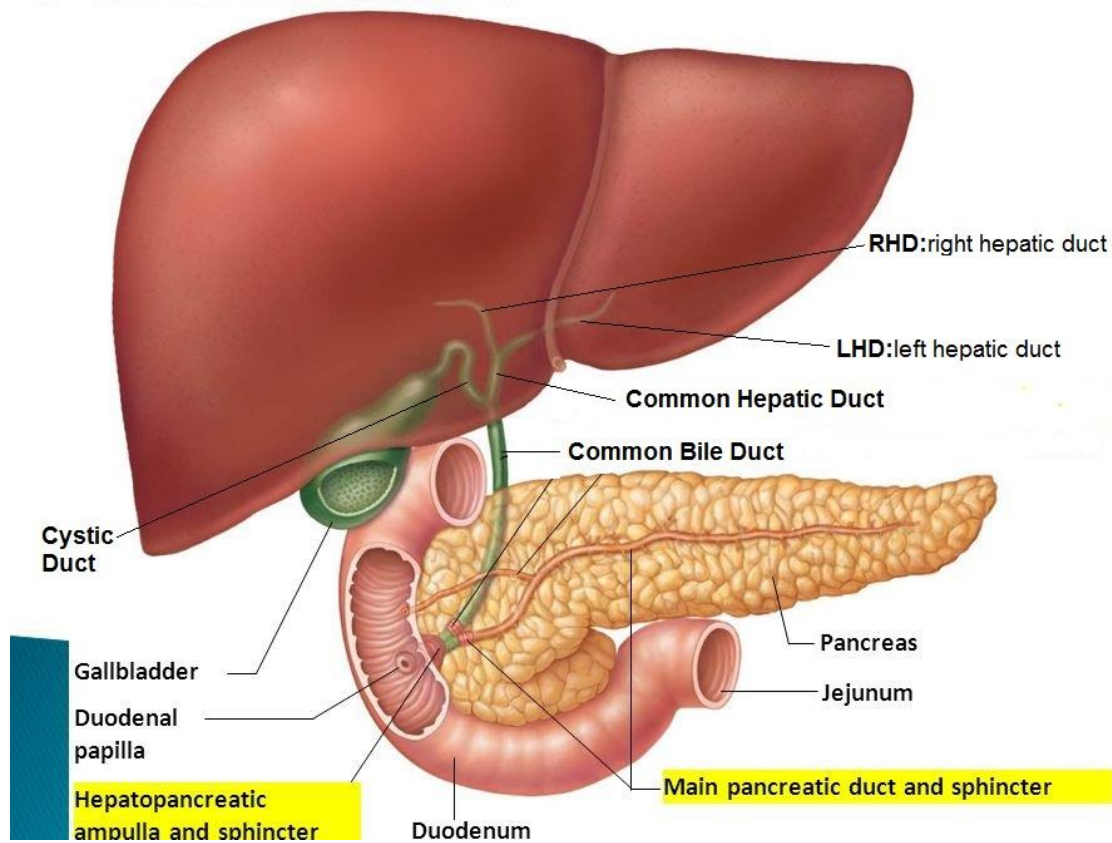


Fig 2: Hepatopancreatic ampulla

Gallbladder: is a pear-shaped sac lying on the undersurface of the liver (**inferior surface**) that is about 8cm long and 4cm wide.

Parts of Gallbladder:

A. The fundus: is rounded and projects below the inferior margin of the liver.

B. The body: lies in contact with the visceral surface of the liver

C. The neck: becomes continuous with the cystic duct.

The **cystic duct** connects the gallbladder to the **common hepatic duct** to form **common bile duct**.

NOTE: Bile is continually secreted by the liver and flows to the gallbladder, It has a capacity of 30 to 50 mL of bile can be stored and concentrated.

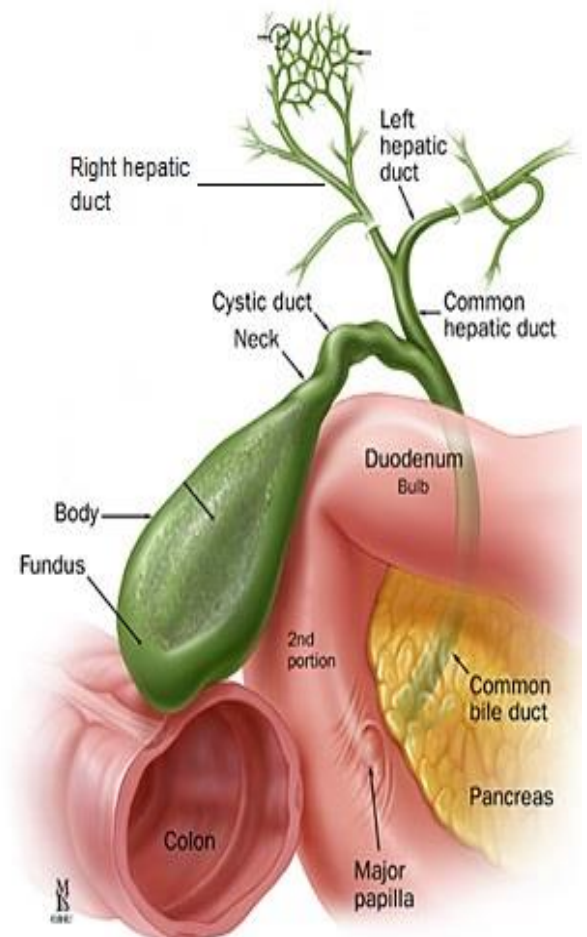


Fig 3: Parts of Gallbladder

Pancreas: is an elongated structure that lies in **the left upper quadrant of the abdominal wall**. It is soft and lobulated. The pancreas is divided into a **head, neck, body, and tail**.

Parts of Pancreas:

A. The **head** of the pancreas is disc-shaped and lies within the concavity of the duodenum.

B. The **neck** is the constricted portion of the pancreas and connects the head to the body.

C. The **body** runs upward and to the left across the midline.

D. The **tail** which extends to the spleen

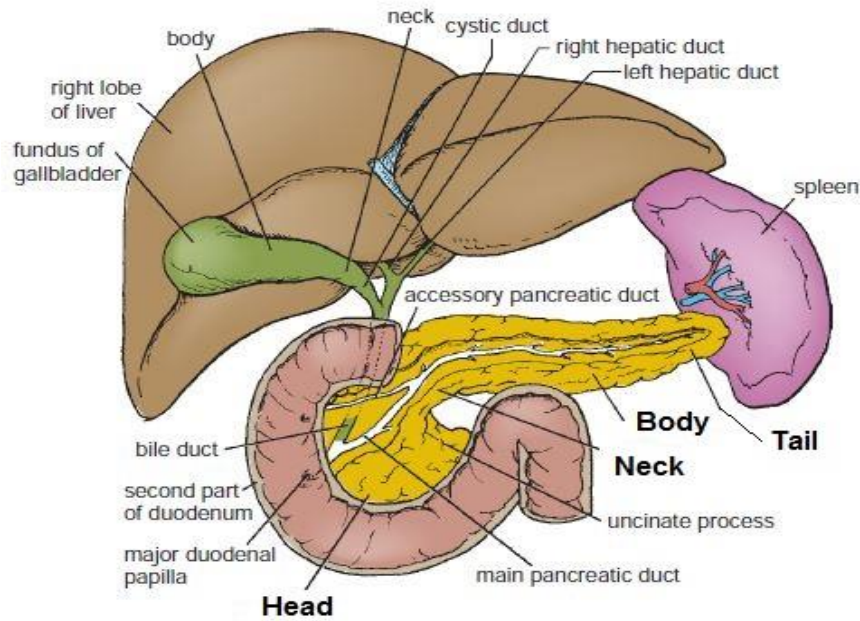


Fig 4: Parts of Pancreas

The pancreas has both an exocrine and endocrine gland.

- **The exocrine portion** of the gland produces a secretion that contains **enzymes** capable of hydrolyzing **proteins, fats, and carbohydrates**.
- **The endocrine portion** of the gland, the **pancreatic islets (islets of Langerhans)**, produces the hormones **insulin** and **glucagon**, which are very important in controlling **blood levels of nutrients**, such as glucose and amino acids.

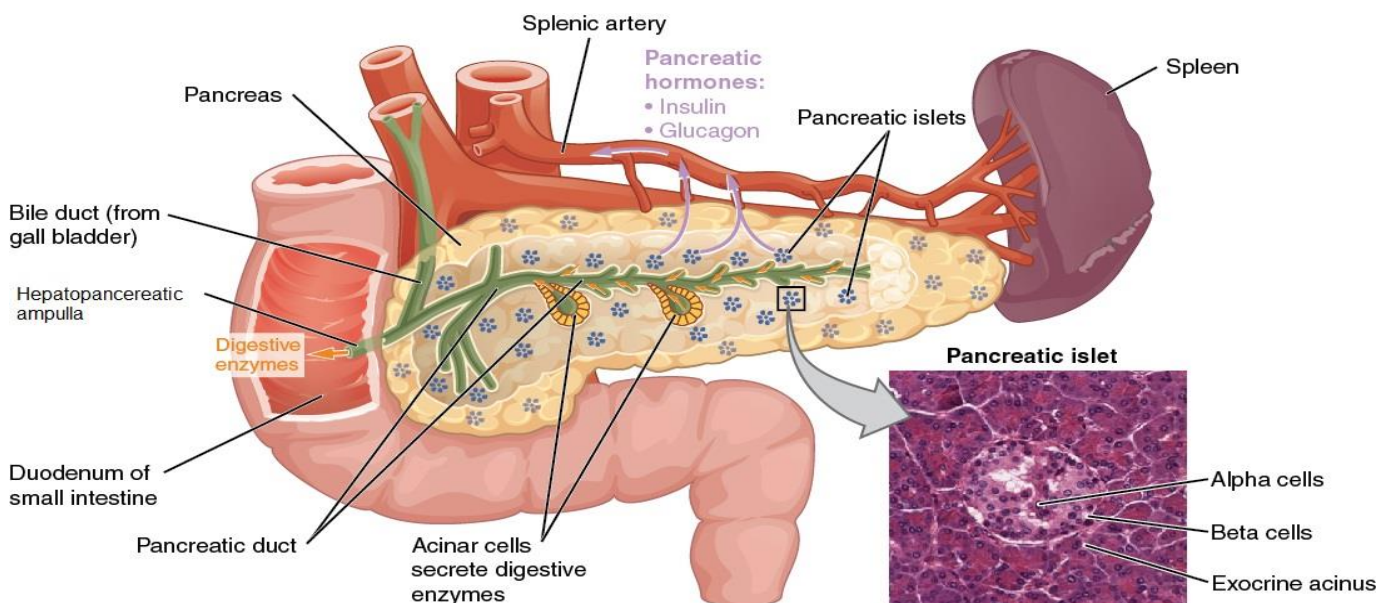


Fig 5: Pancreas Gland

A. Medical Word Elements		
Element	Meaning	Example for word analysis
or/o stomat/o	Mouth	Or/al : pertaining to the mouth Stomat/itis : inflammation of the mouth
gloss/o lingu/o	Tongue	Gloss/ectomy : removal of all or part of the tongue. Lingu/al : pertaining to the tongue.
dent/o	Teeth	Dent/ist : specialist who diagnoses and treats diseases of teeth
gingiv/o	gum(s)	Gingiv/ectomy : excision of diseased gingival tissue -ectomy : excision, removal
enter/o	intestine	Enter/o/pathy : disease of the intestine -pathy : disease
hepat/o	Liver	Hepat/o/megaly : enlargement of the liver -megaly : enlargement
pancreat/o	Pancreas	Pancreat/o/lysis : destruction of the pancreas by pancreatic enzymes.
pepsia	digestion	Dys/pepsia : epigastric discomfort felt after eating; also called indigestion . -dys : painful; difficult
B. Pathology, Symptomatic and Related Terms		
Diarrhea	abnormally frequent discharge or flow of fluid fecal matter from the bowel	
Anorexia	Lack or loss of appetite , resulting in the inability to eat	
Appendicitis	Inflammation of the appendix , usually due to obstruction or infection	
Ascites	Abnormal accumulation of fluid in the abdomen	
Colic	Spasm in any hollow or tubular soft organ especially in the colon , accompanied by pain	
Dysentery (bloody diarrhea)	Inflammation of the intestine , especially the colon , which results in bloody diarrhea	
Ulcer	Peptic ulcers are the most common type of ulcer that occurs in the digestive system .	
Hernia	Is a protrusion of any organ or tissue through the wall of the cavity	
Hepatitis	is an inflammatory condition of the liver	
Intestinal Obstruction	is a partial or complete blockage in the small or large intestine	
C. Diagnostic & Laboratory Procedure Terms		
Endoscopy	Visual examination of a cavity or canal using a flexible fiber optic instrument called an endoscope	
Hepatitis panel	Panel of blood tests that identify the specific virus —hepatitis A (HAV), hepatitis B (HBV), or hepatitis C (HCV)	
Liver function tests (LFTs)	Group of blood tests that evaluate liver injury, liver function , and conditions often associated with the biliary tract.	
Serum bilirubin	Measurement of the level of bilirubin in the blood	
Stool culture	Test to identify microorganisms or parasites present in feces.	