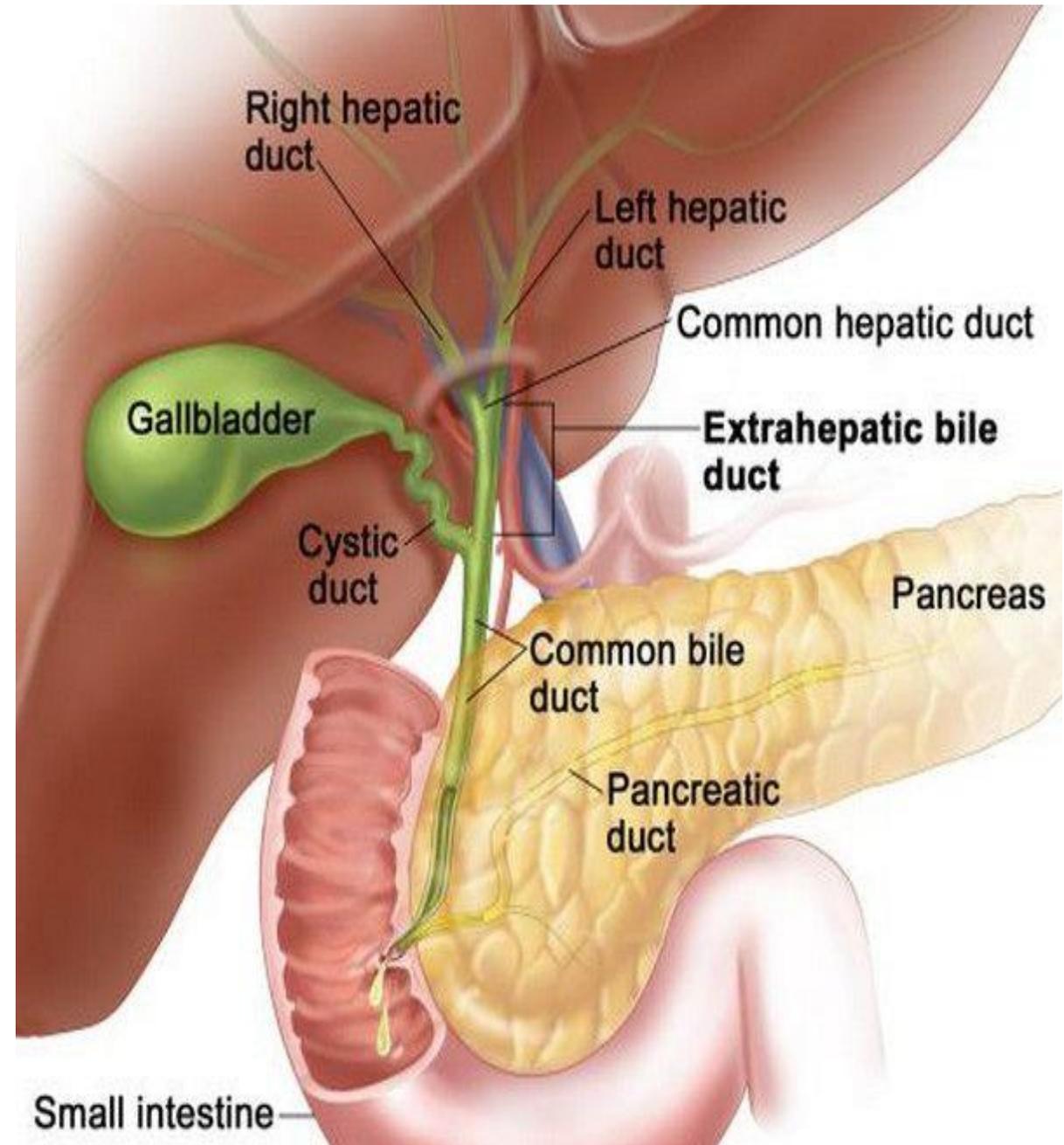


GALL BLADDER & BILIARY PASSAGE

DR. DALIA M. BIRAM

GALL BLADDER

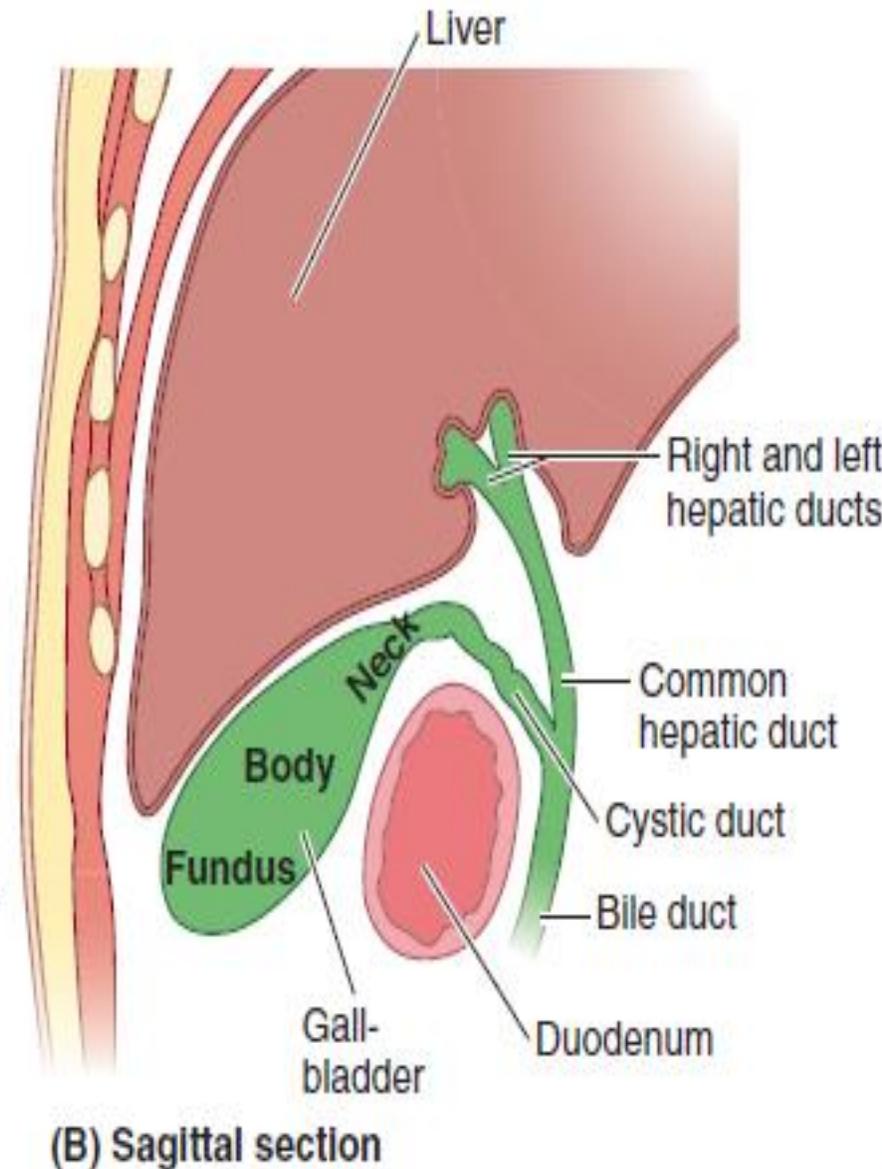
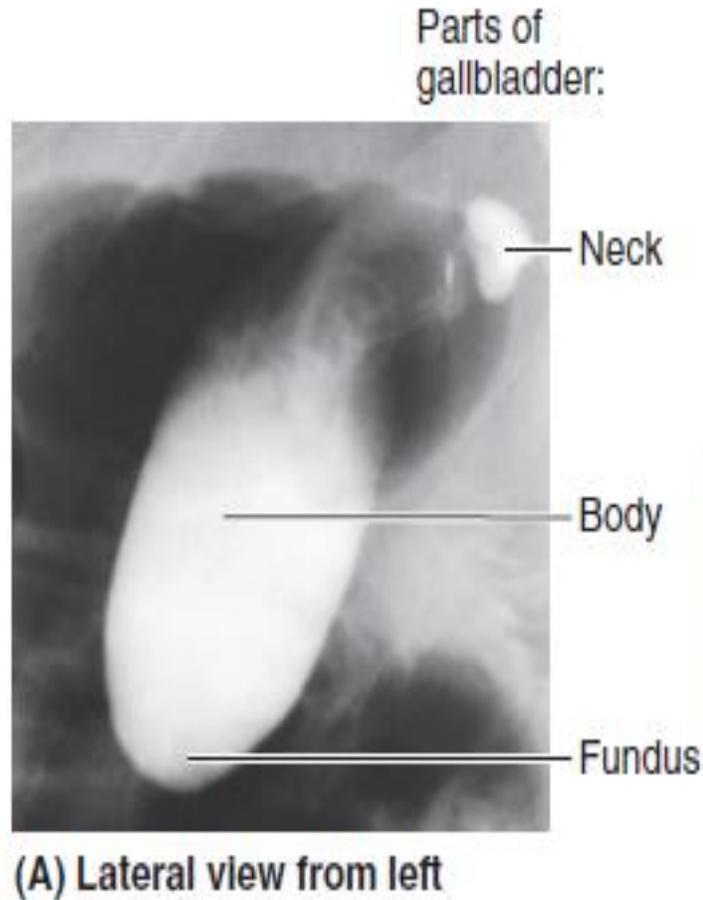
- The **gallbladder** (*gall*=bile) is a pear-shaped sac that is located on the inferior surface of the liver.
- It is 7–10 cm (3–4 in.) long and part of it typically hangs below the anterior inferior margin of the liver



Gallbladder

The parts of the gallbladder are:

- the broad fundus, which projects downward beyond the inferior border of the liver
- the central portion, called the body
- and a tapered portion called the neck.
- ✓ The body and neck project superiorly

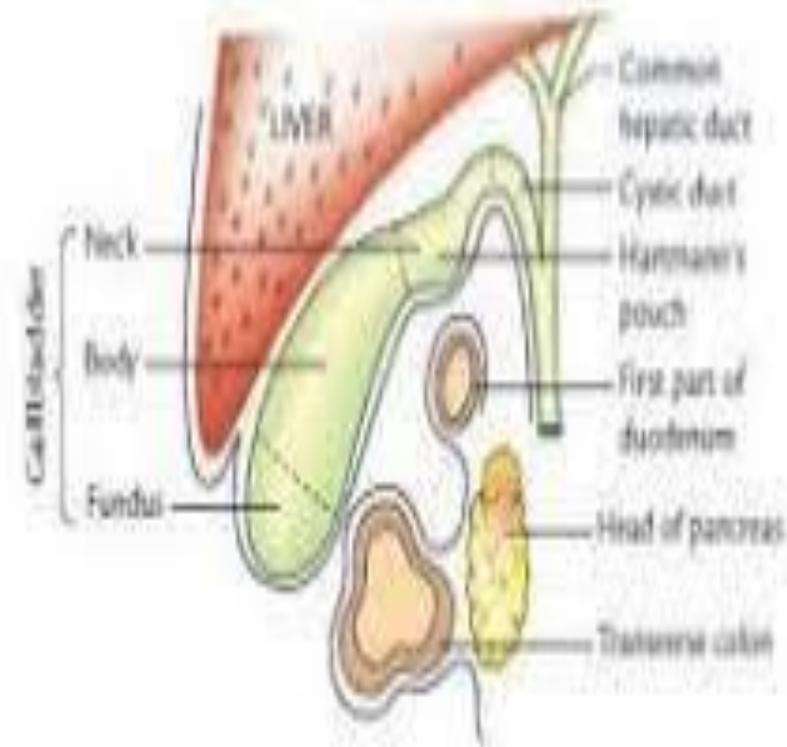


GALL BLADDER

PERITONEAL COVERING:

- **Fundus:** completely covered by peritoneum
- **Body & neck:** only covered posteriorly

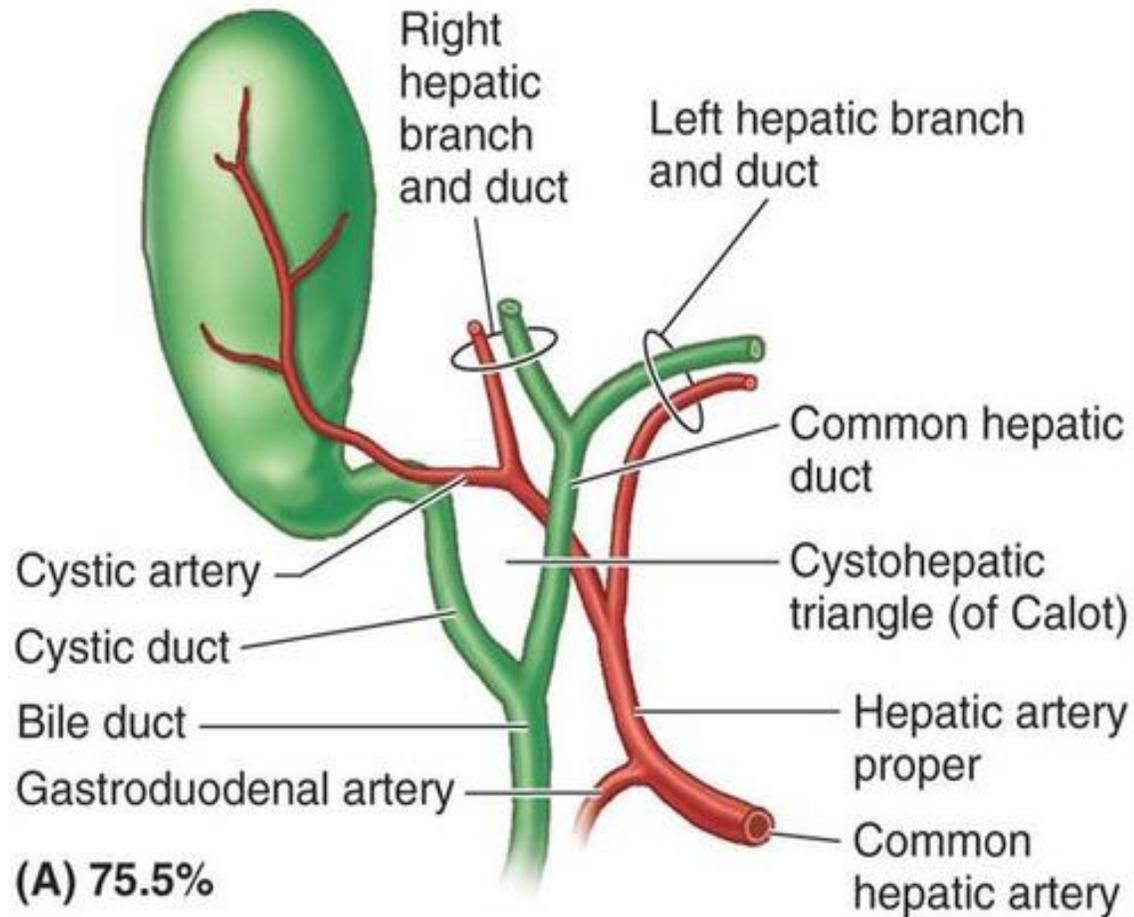
FUNCTION: Stores & concentrates bile



Peritoneal covering of gallbladder

Covered by peritoneum except for the surface resting on liver.

• BLOOD SUPPLY & Lymphatic drainage



(A) 75.5%

Anterior views

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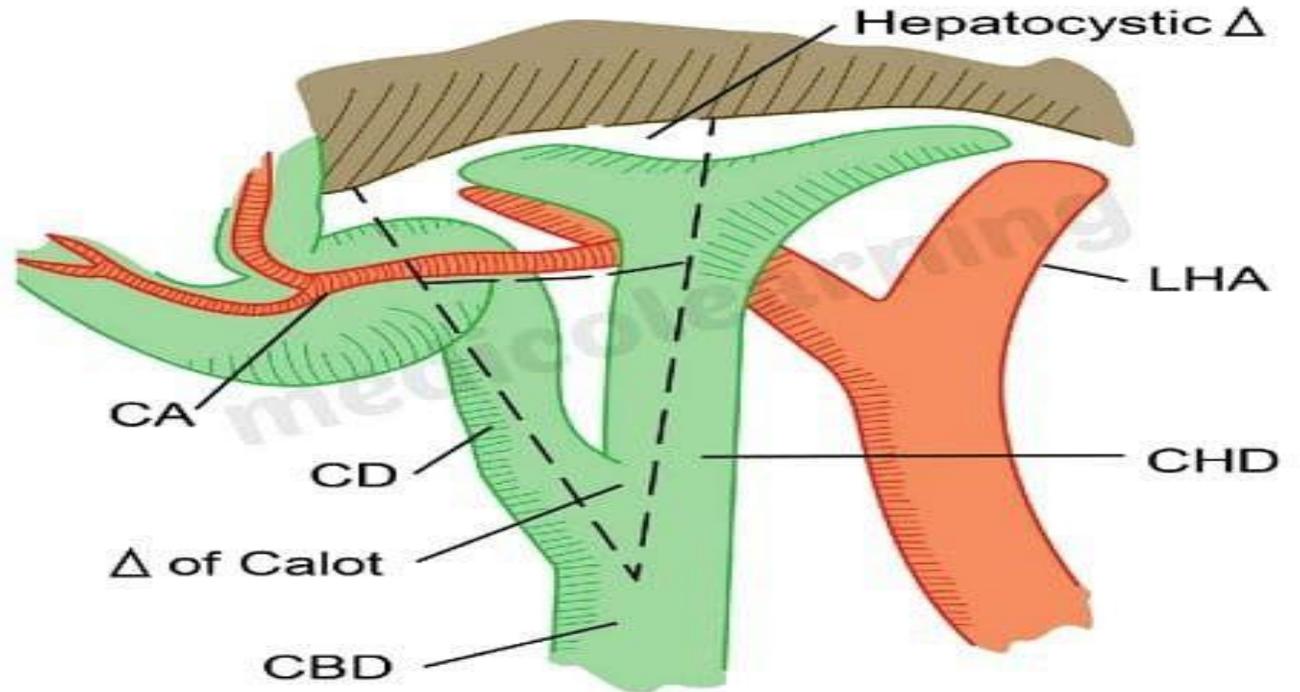
- It is supplied by the cystic artery (from right branch of hepatic artery). Its venous drainage goes to the cystic vein which drains to the right branch of portal vein.
- The gallbladder drains into nodes in the porta hepatis and to the cystic node in Calot's triangle, which is found at the junction of the cystic duct with the common hepatic duct.

Calot's Triangle

Calot's triangle (cystohepatic triangle) is a small anatomical space in the abdomen.

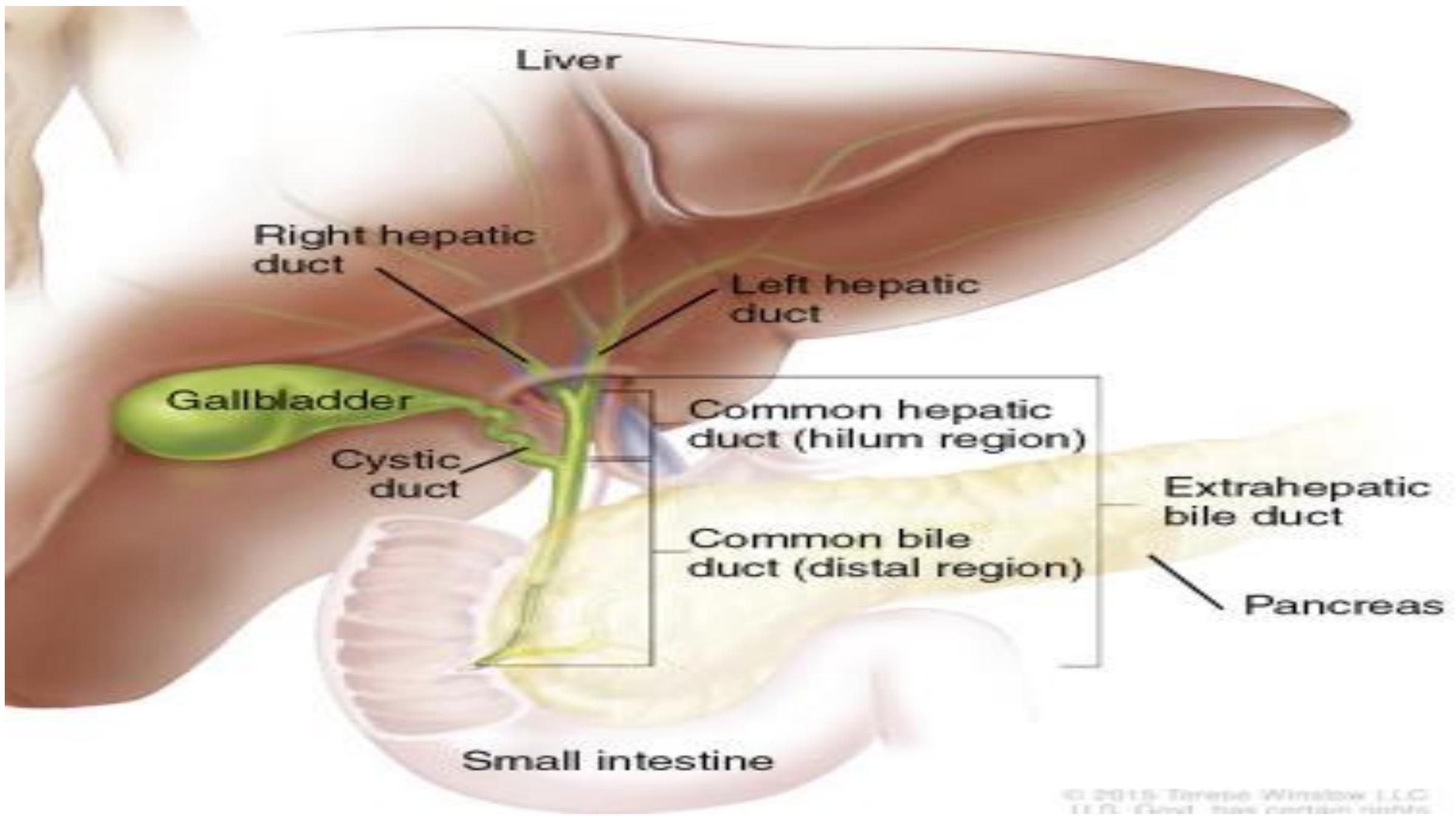
Contents

- Right hepatic artery
- Cystic artery
- Lymph node of Lund
- Lymphatics



Border

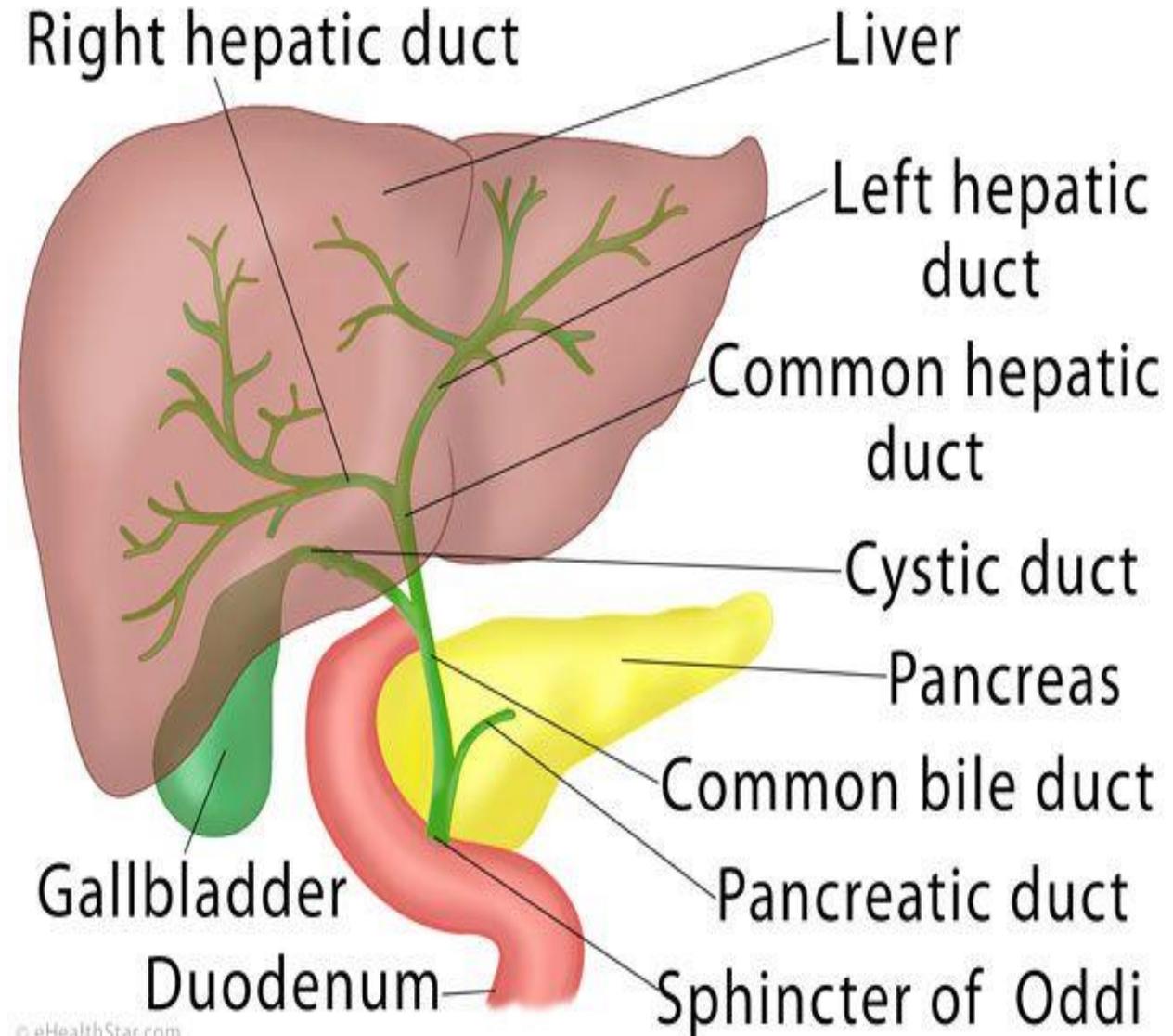
- **C**ommon hepatic duct medially
- **C**ystic duct inferiorly
- **C**ystic Artery superiorly



BILIARY DUCTS

- ❑ The biliary ducts convey bile from the liver to the duodenum.
- ❑ Bile is produced continuously by the liver and stored and concentrated in the gallbladder, which releases it intermittently when fat enters the duodenum.
- ❑ portal triads (terminal branches of the hepatic portal vein and hepatic artery and initial branches of the biliary ducts).

Biliary Tree

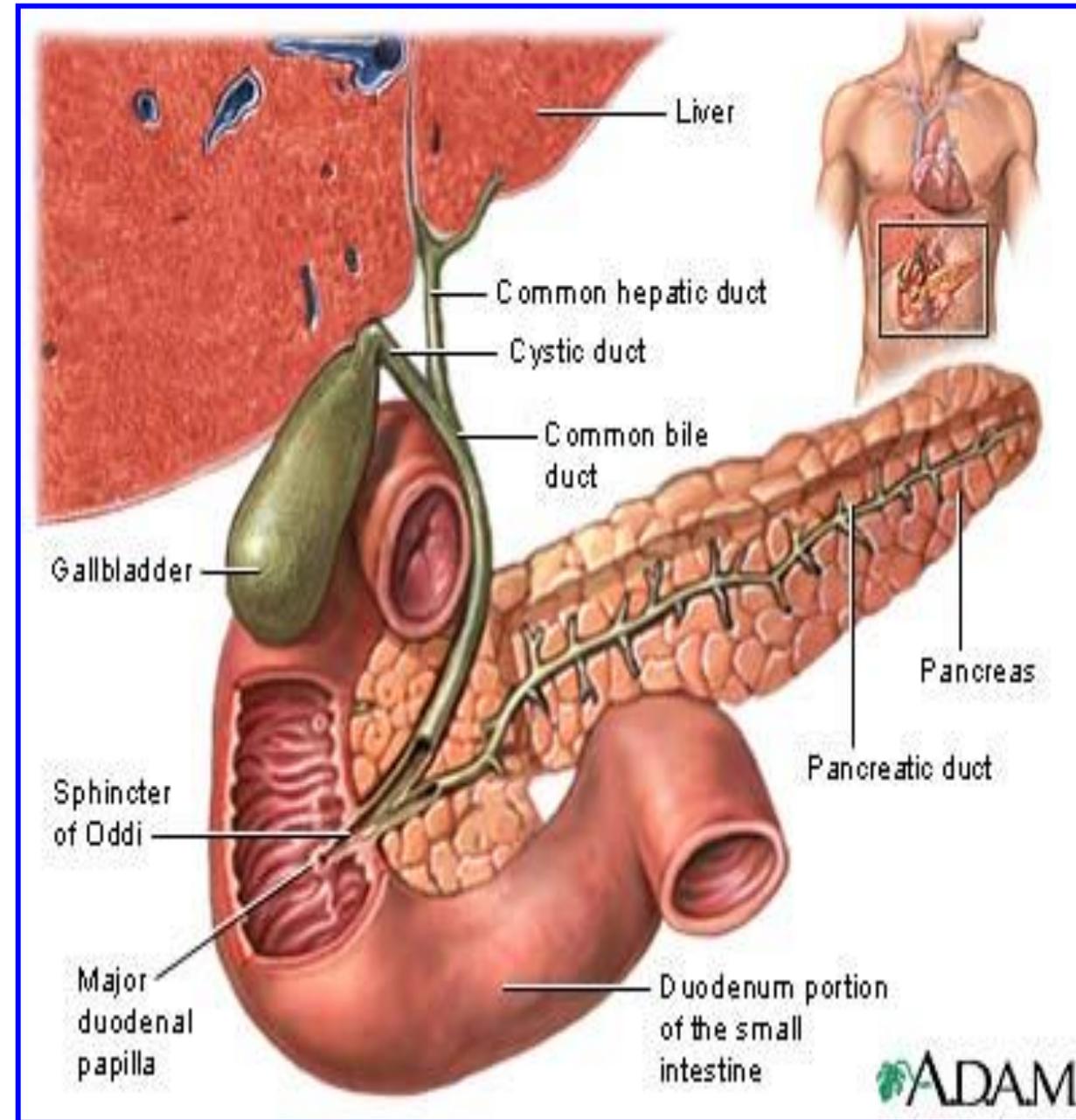


Biliary Tract

Part of the digestive system.

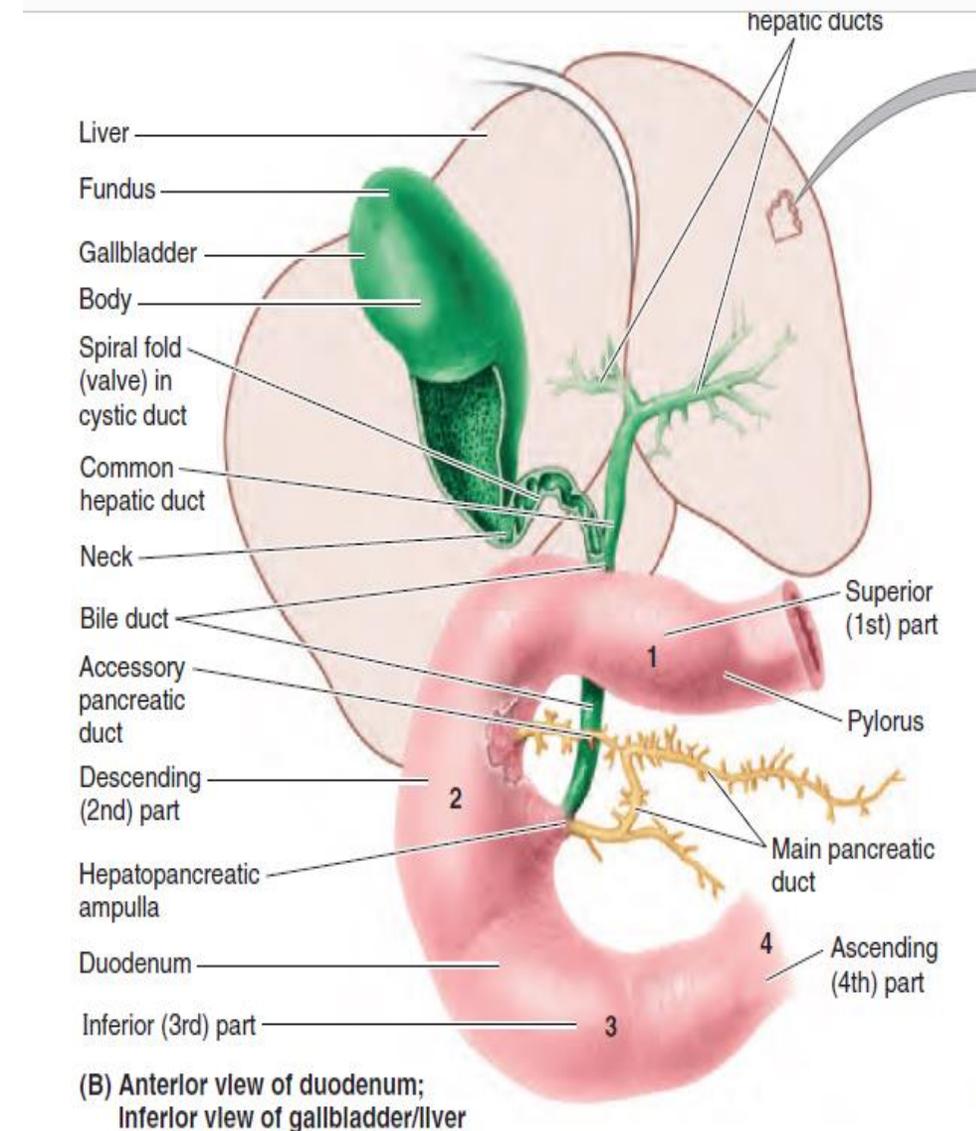
Made up of:

- Intra hepatic ducts
- Extra hepatic ducts
- Gallbladder
- Common Bile Duct



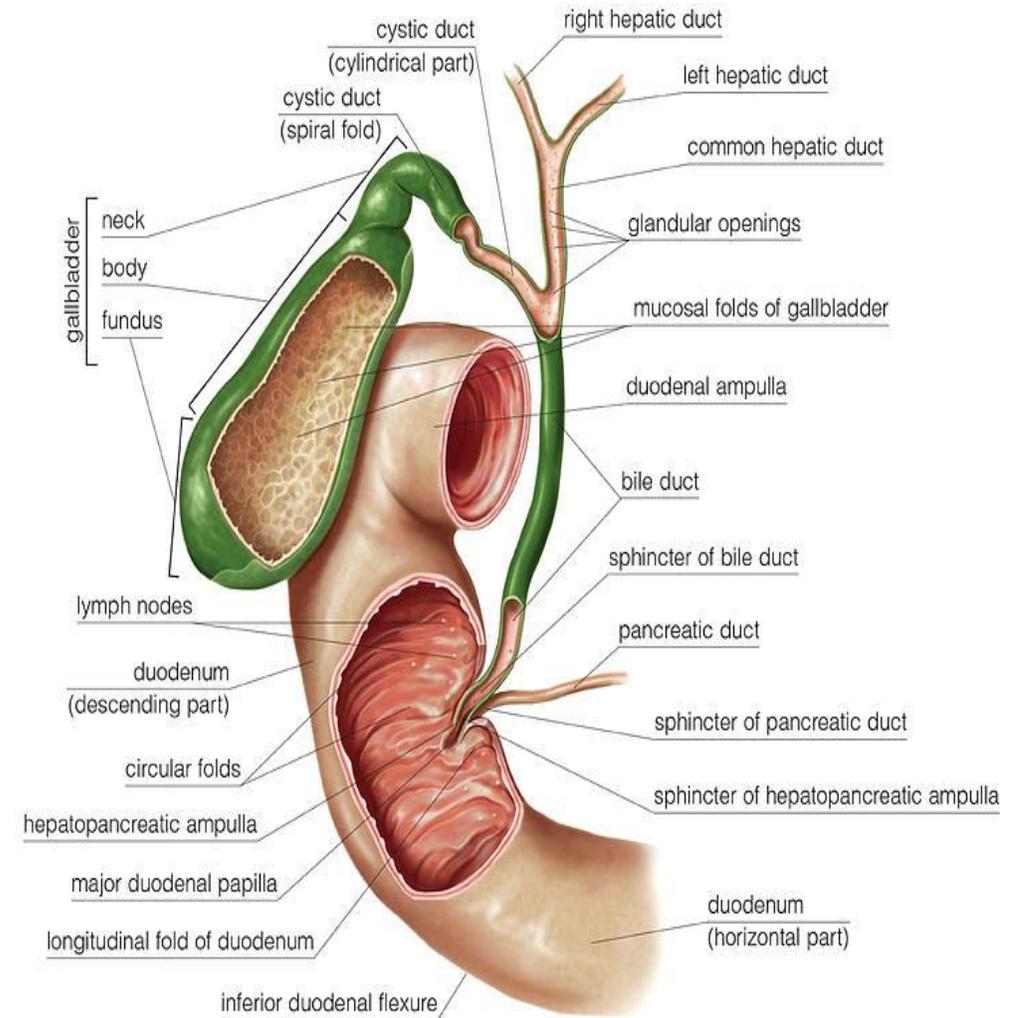
BILIARY DUCT

- ❑ The hepatocytes secrete bile into the **bile canaliculi** formed between them. The canaliculi drain into the small **interlobular biliary ducts** and then into large collecting bile ducts of the intrahepatic portal triad, which merges to form the hepatic ducts
- ❑ **The right and left hepatic ducts** drain the right and left (parts of the) liver, respectively.
- ❑ Shortly after leaving the porta hepatis, these hepatic ducts unite to form the common hepatic duct,
- ❑ **common hepatic duct** is joined on the right side by the cystic duct to form the bile duct (part of the extrahepatic portal triad of the lesser omentum), which conveys the bile to the duodenum



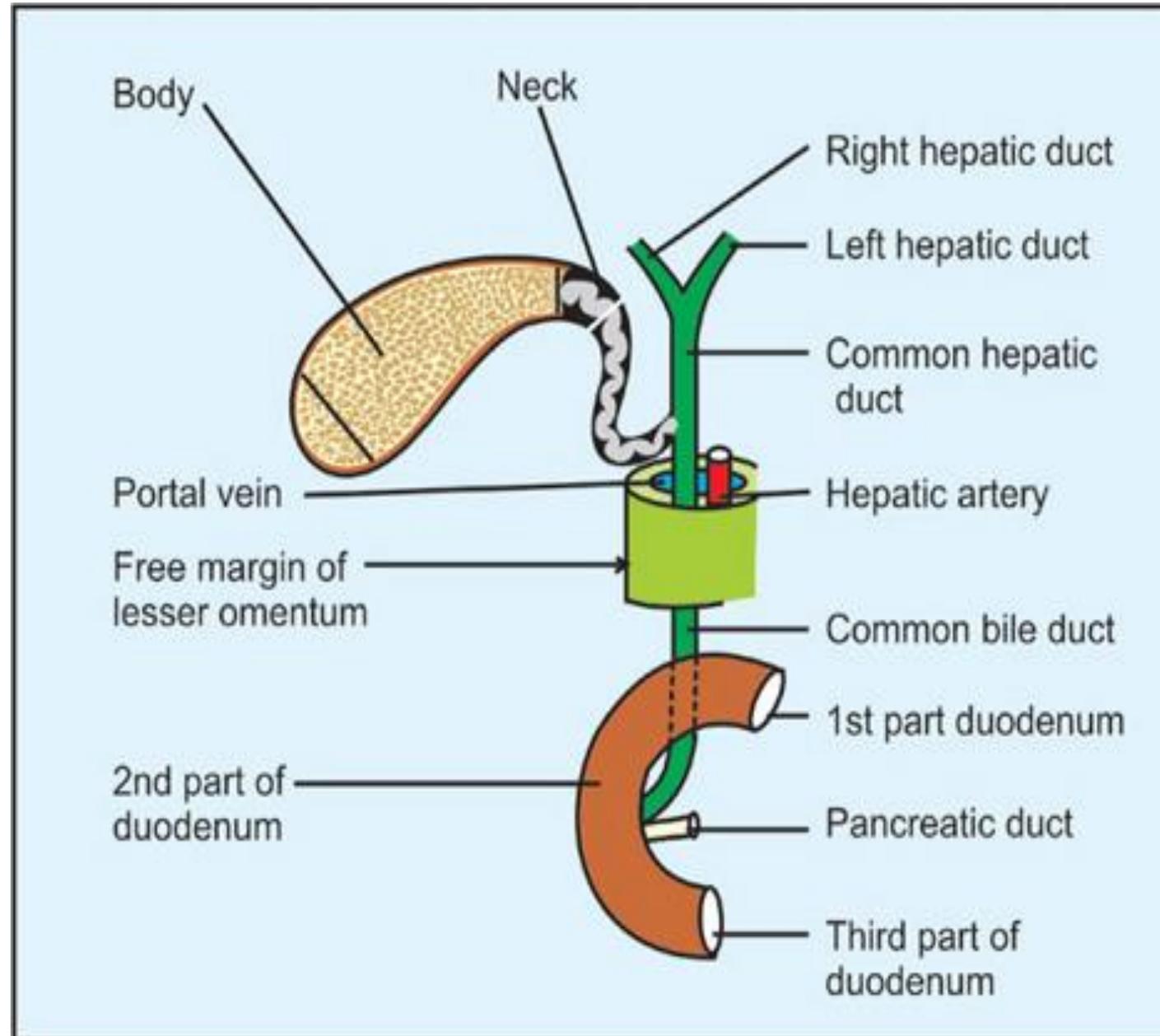
Cystic Duct

1. 3-4 cm long
2. Extends from neck of gallbladder to common hepatic duct
3. Joins with common hepatic duct inferior to porta hepatis
4. Spiral valve may extend into neck of gallbladder



BILE DUCT

- ❑ The bile duct (formerly called the common bile duct) forms in the free edge of the lesser omentum by the union of the cystic duct and common hepatic duct anterior to the portal vein.
- ❑ The length of the bile duct is about 3 inches, depending on where the cystic duct joins the common hepatic duct.
- ❑ The bile duct descends posterior to the superior part of the duodenum and lies in a groove on the posterior surface of the head of the pancreas.



- ❑ On the left side of the descending part of the duodenum, the bile duct comes into contact with the main pancreatic duct.
- ❑ These ducts run obliquely through the wall of this part of the duodenum, where they unite, forming a dilation, the **hepatopancreatic ampulla**. The distal end of the ampulla opens into the duodenum through the **major duodenal papilla**.
- ❑ The circular muscle around the distal end of the bile duct is thickened to form the sphincter of ODDI.

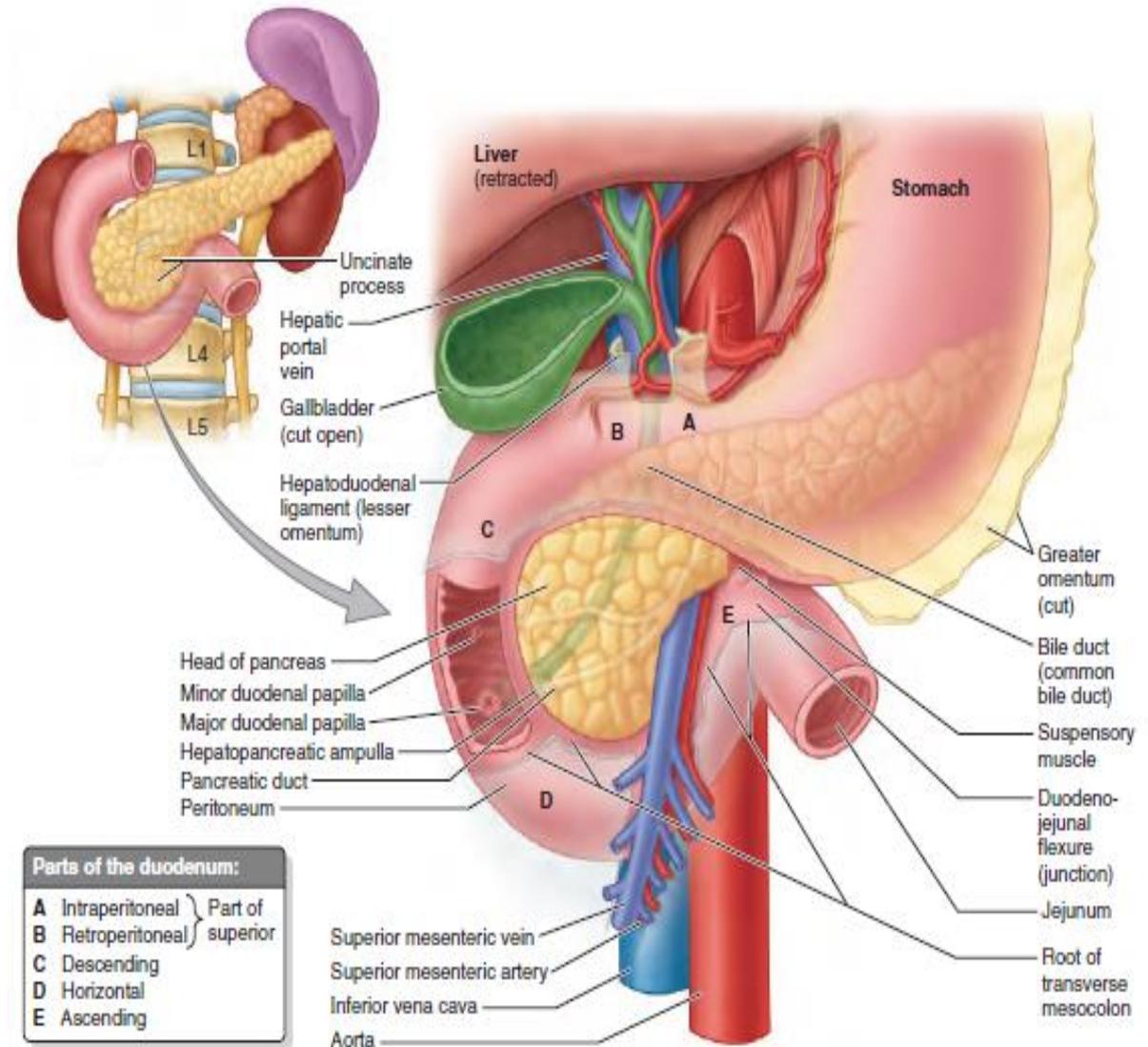


FIGURE 2.45. Relationships of duodenum. The duodenum pursues a C-shaped course around the head of the pancreas.

