



Anatomy Team

430

Anatomy Of Liver

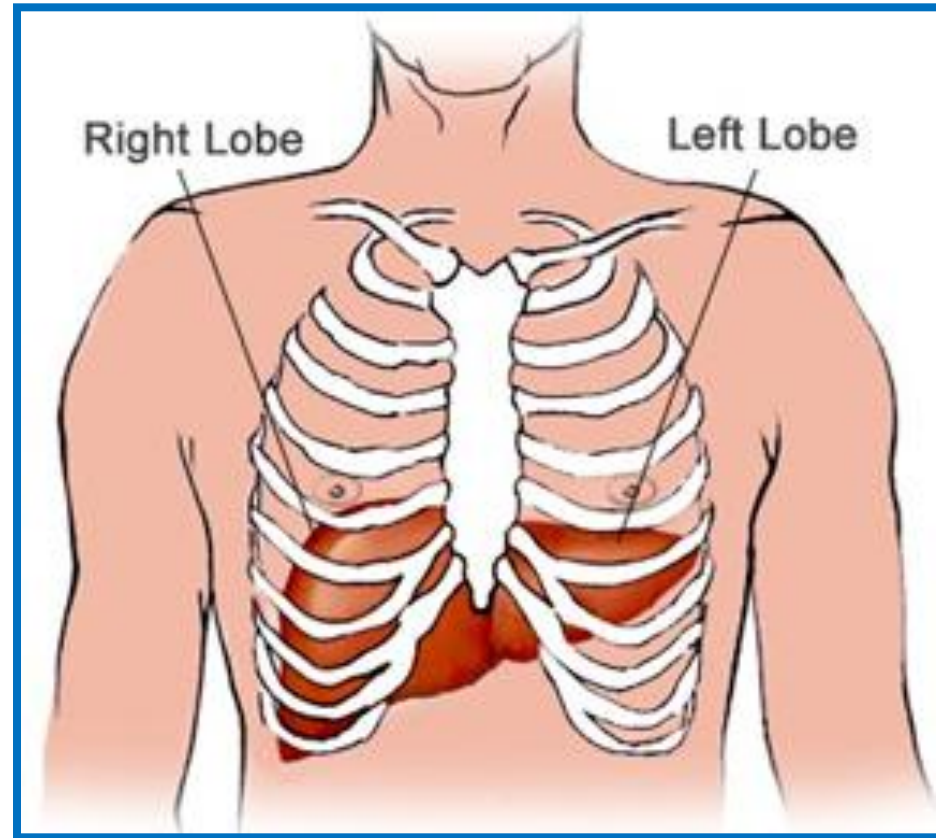
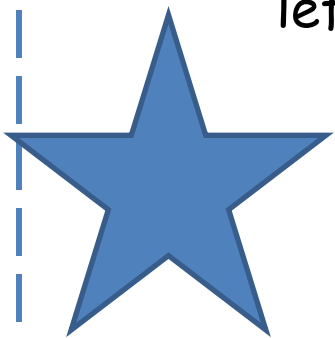
Done By:

Haya Al-Otaibi

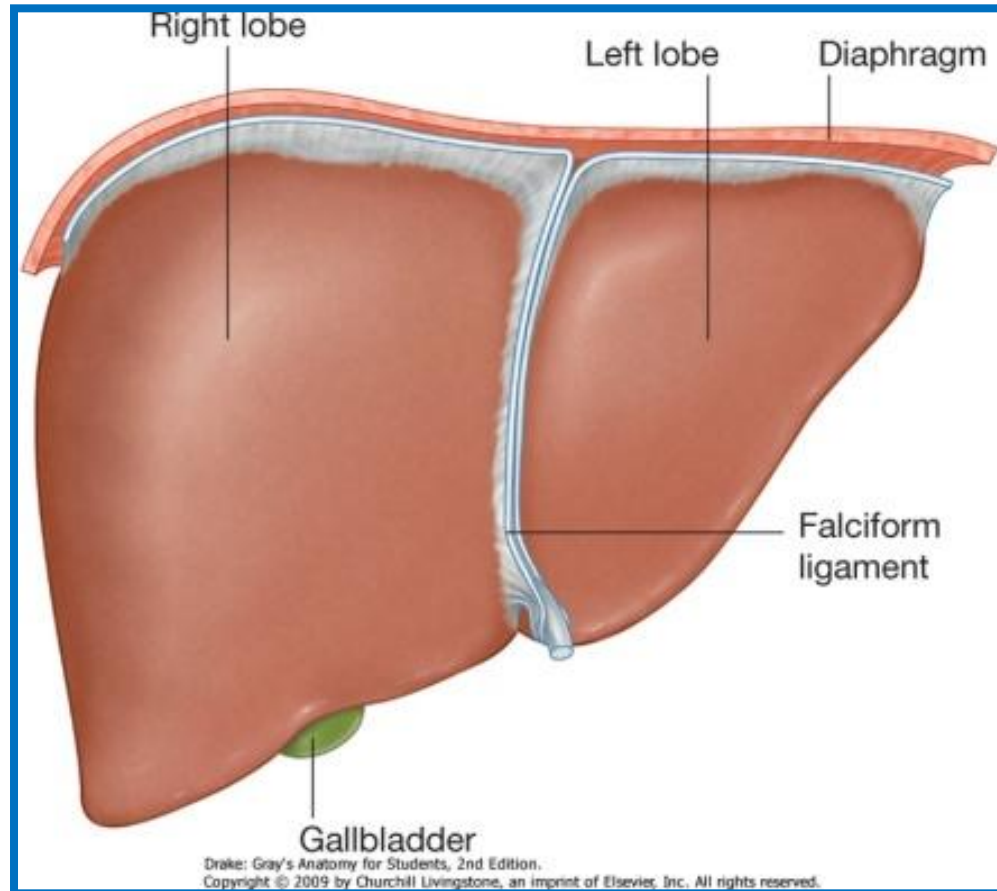
Surface anatomy :

*Lies mainly in the right hypochondrium, epigastrium and left hypochondrium.

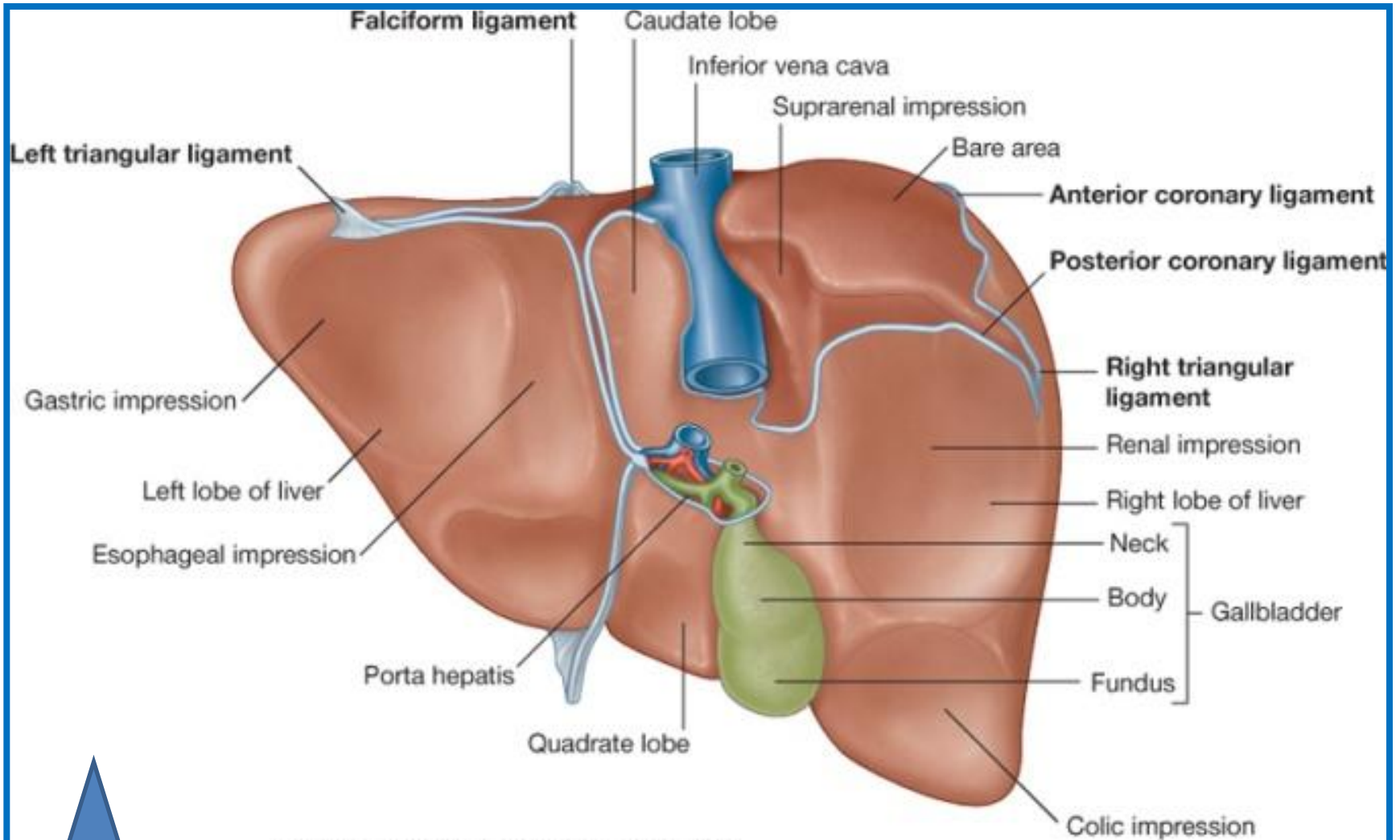
*Protected by the thoracic cage and diaphragm, lies deep to ribs 7-11 on the right side and crosses the midline toward the left nipple..



Surfaces



Anterior surface

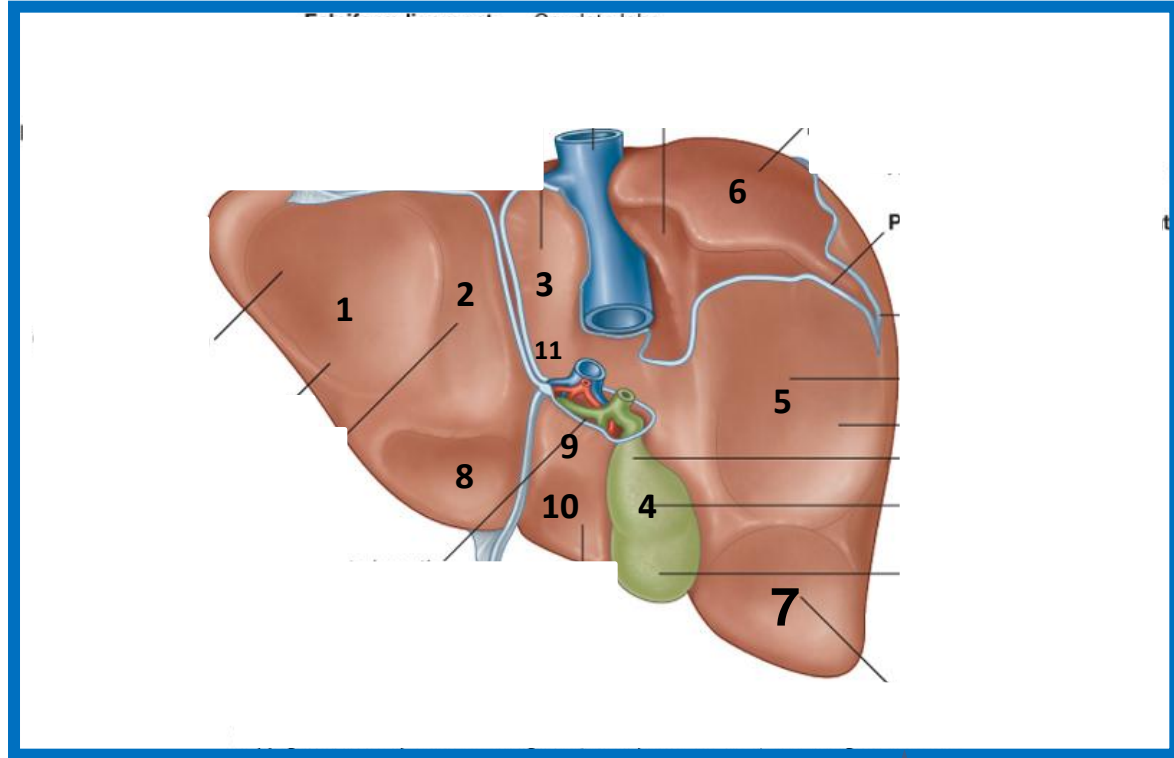


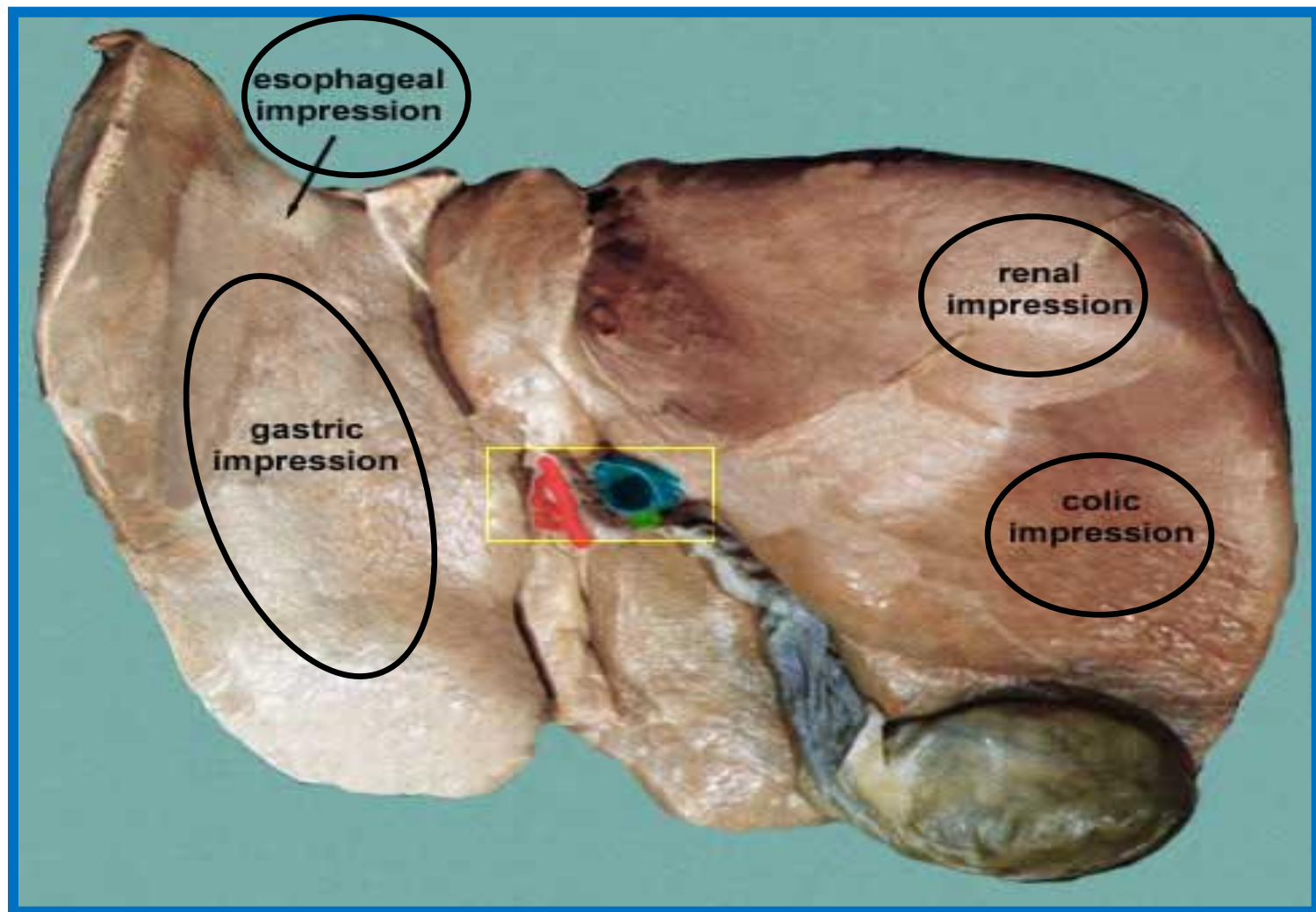
Drake: Gray's Anatomy for Students, 2nd Edition.
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Visceral surface

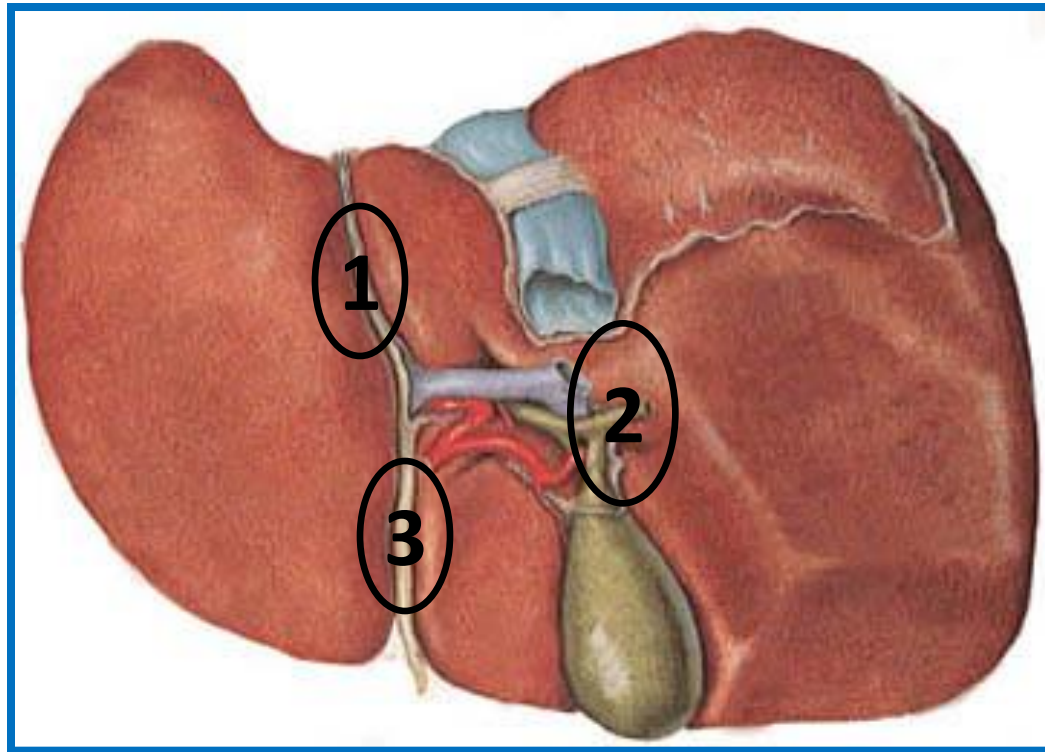
The visceral surface is related to the:

1. Stomach (gastric impression)
2. Esophagus
3. Caudate Lobe related to the diaphragm .
4. gallbladder
5. Right kidney and right suprarenal (renal impression)
6. Bare area related to the diaphragm
7. Right colic flexure (colic impression)
8. Transverse colon
9. Pylorus & 1st part of duodenum
10. Quadrate lobe
11. Lesser omentum





[Identify the impressions]

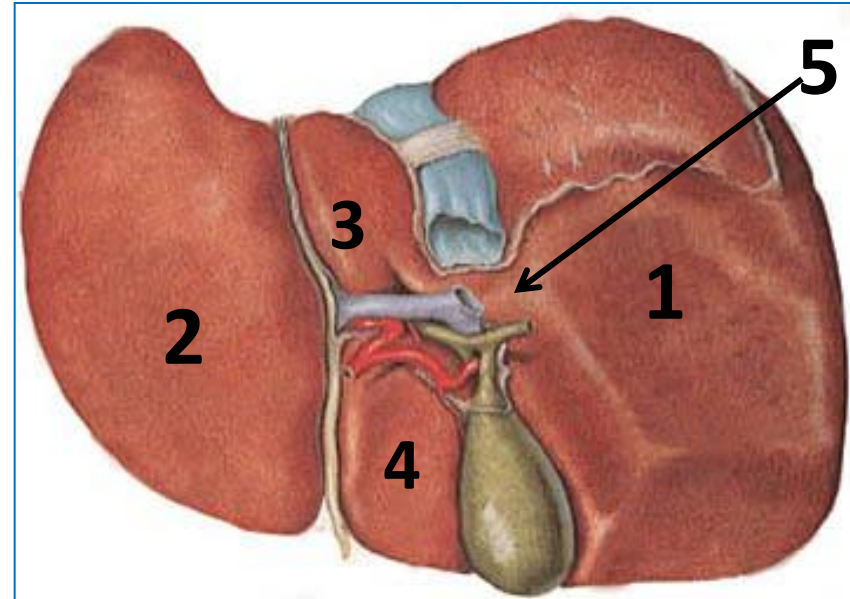
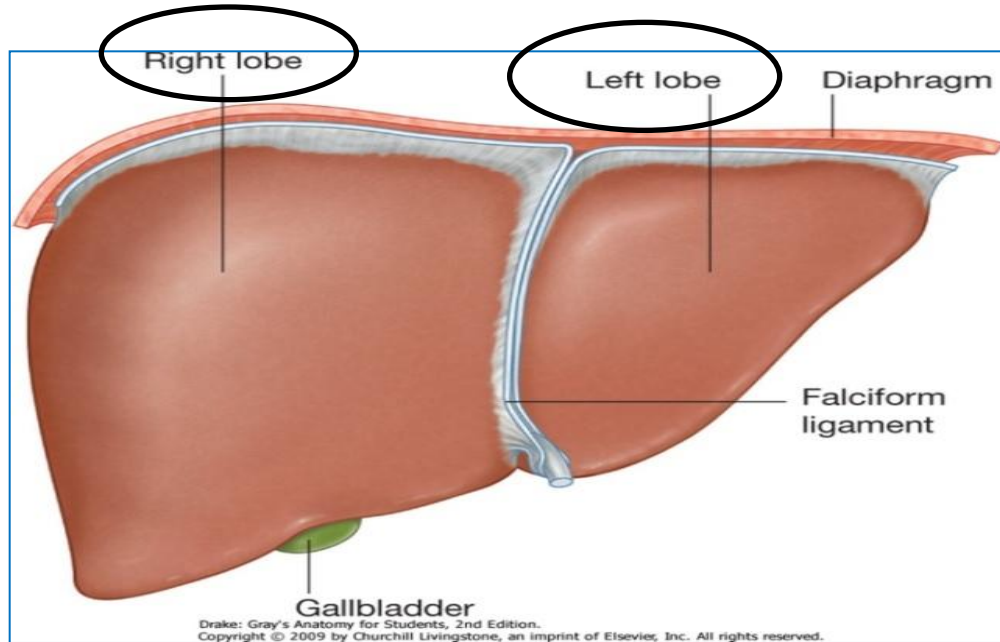


Identify :

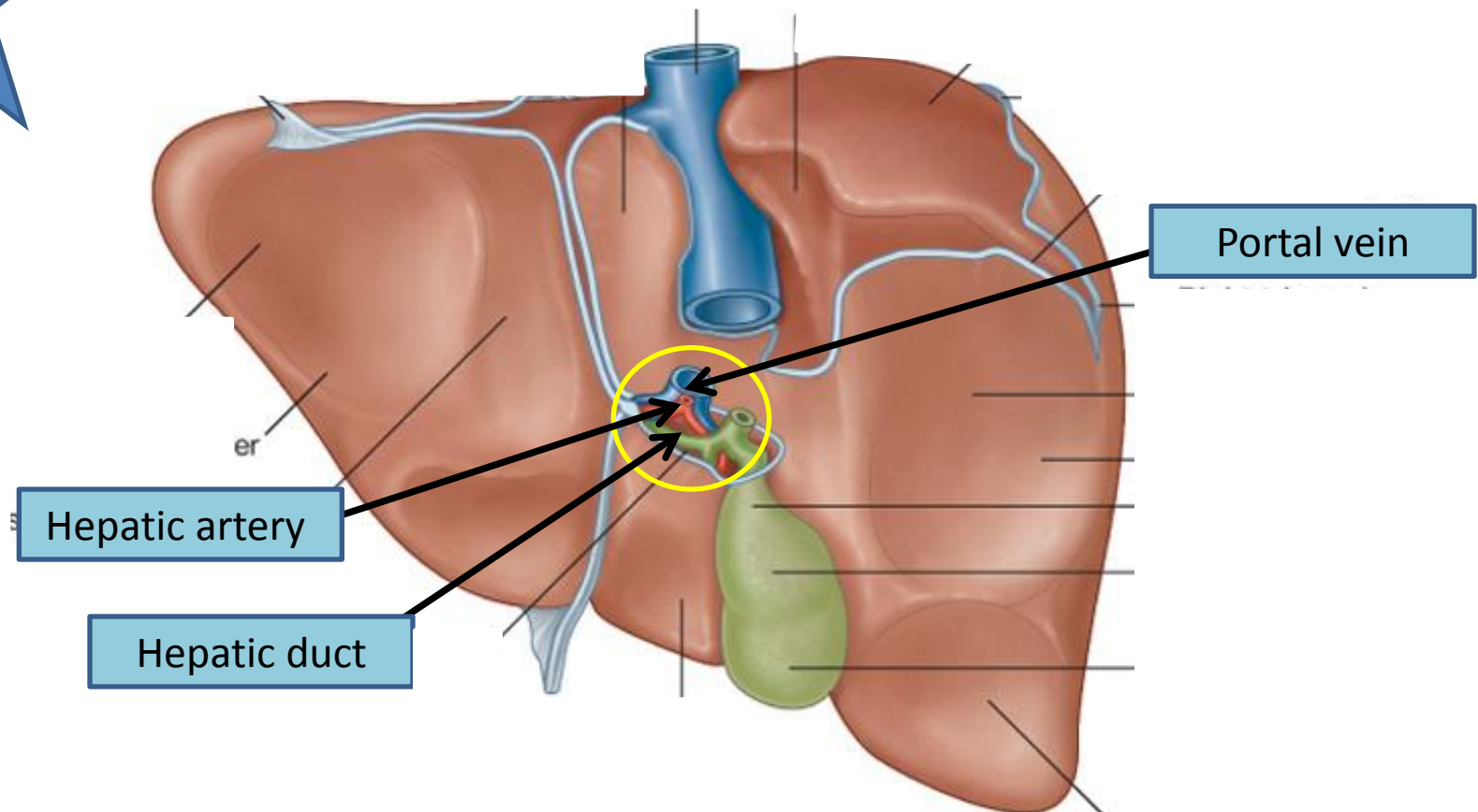
- **left fissure** : is the continuous groove formed **anteriorly by the fissure for the round ligament (3)** and **posteriorly by the fissure for the ligamentum venosum (1)**
- **right fissure (2)** : is the continuous groove formed:
anteriorly by the fossa for the gallbladder and posteriorly by the groove for the vena cava



Identify the Lobes of the Liver

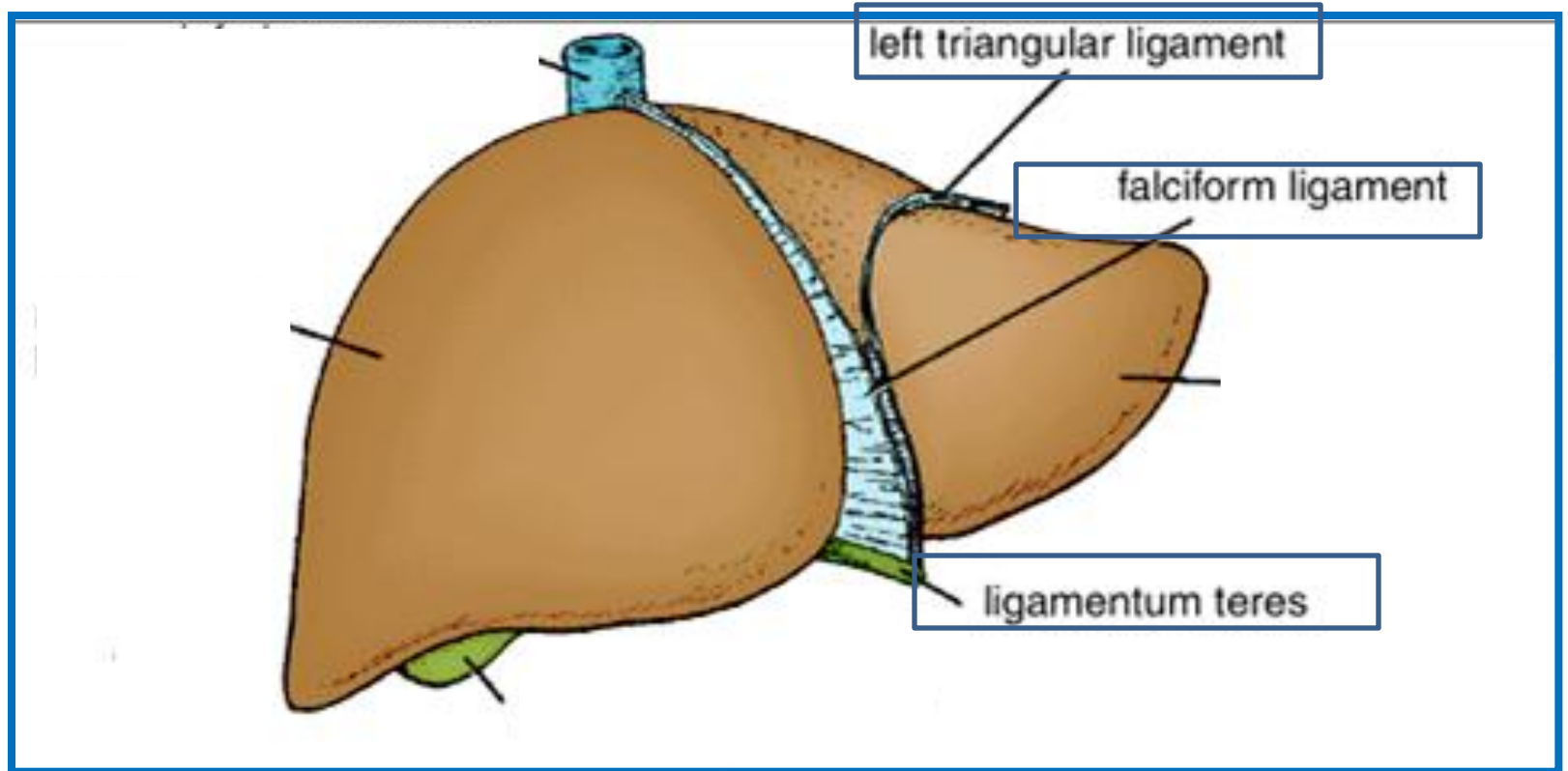


- 1-Renal impression
- 2- Gastric impression
- 3- caudate lobe
- 4- quadrate lobe
- 5- caudate process

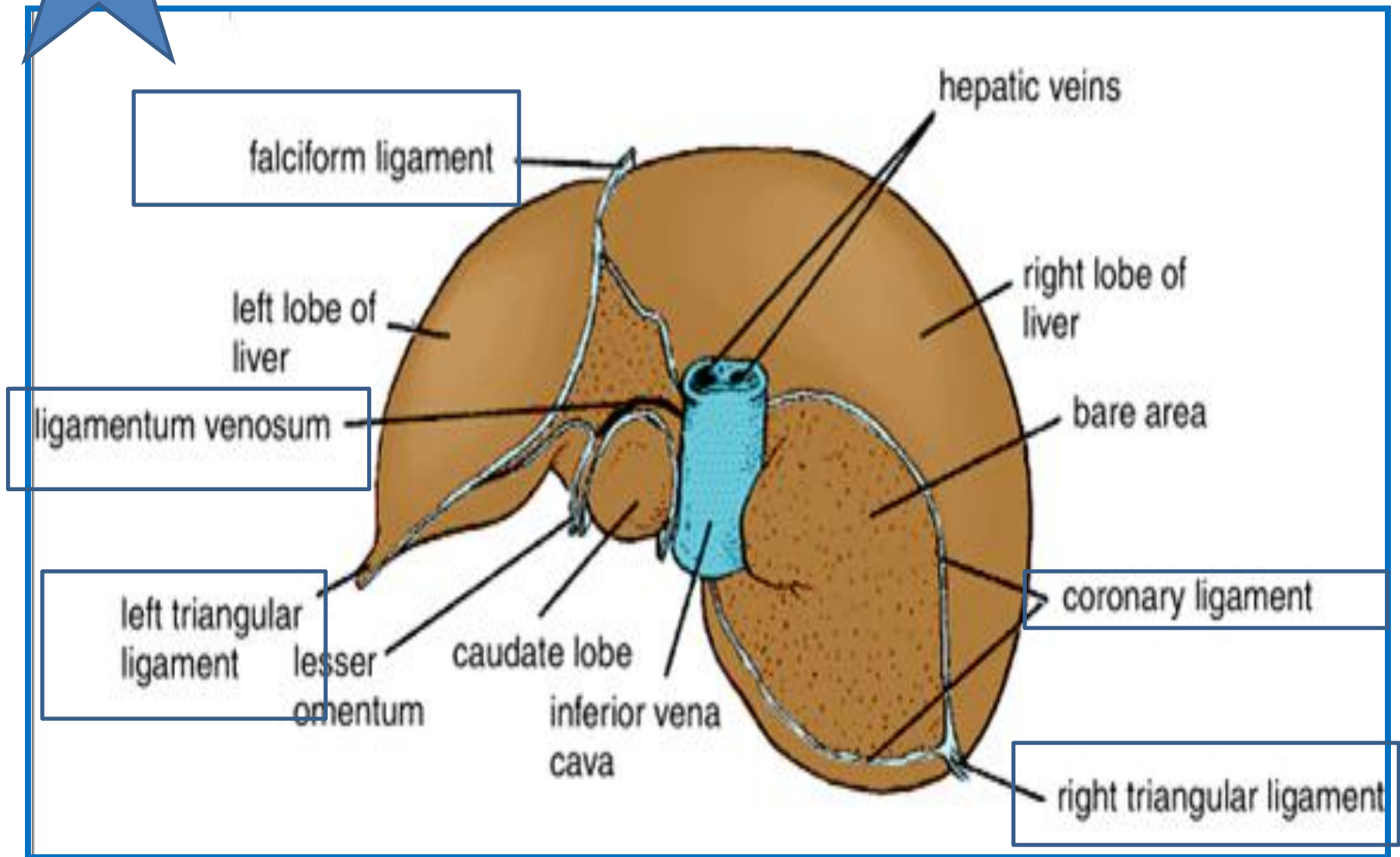


Porta hepatis; anterior (2 hepatic ducts which unite to form the common hepatic duct) Middle (2 hepatic Arteries) Posterior (Portal Vein) .

Peritoneal Ligaments

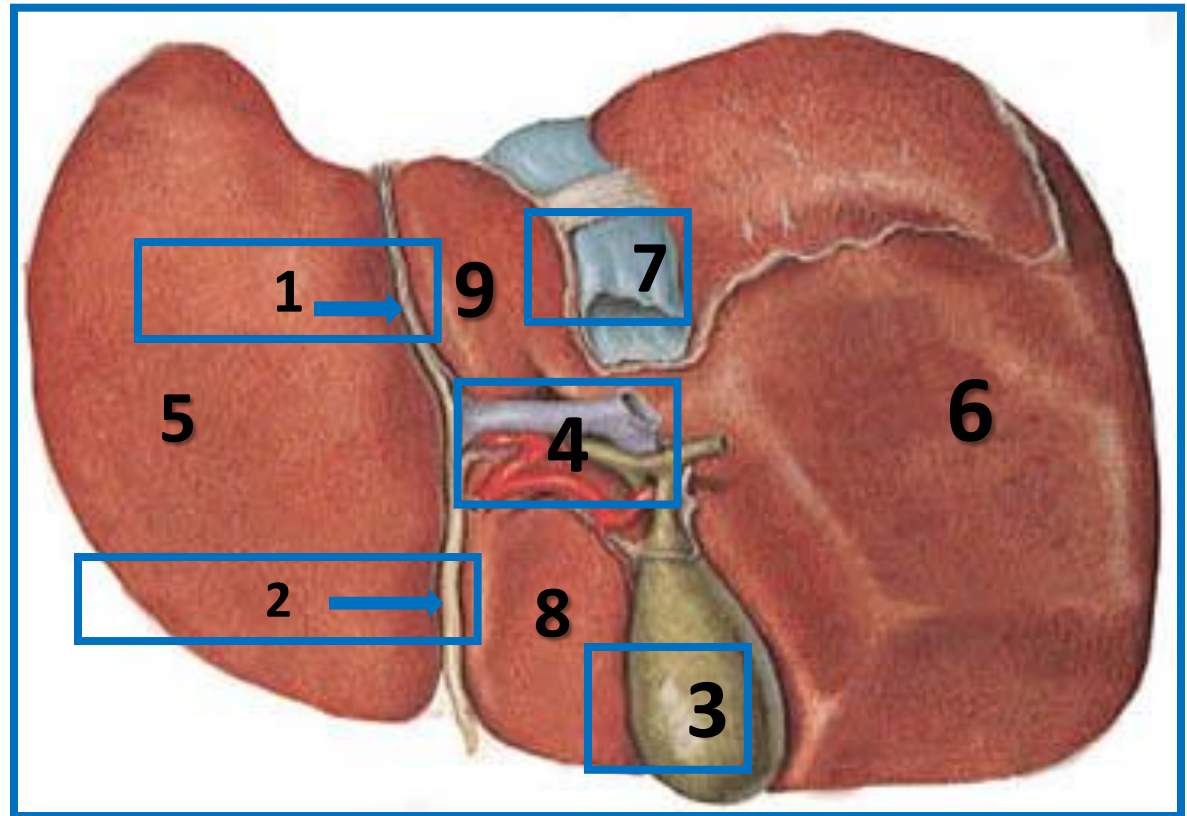
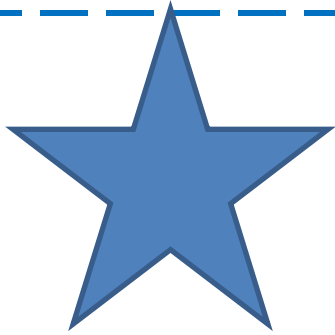


Peritoneal Ligaments



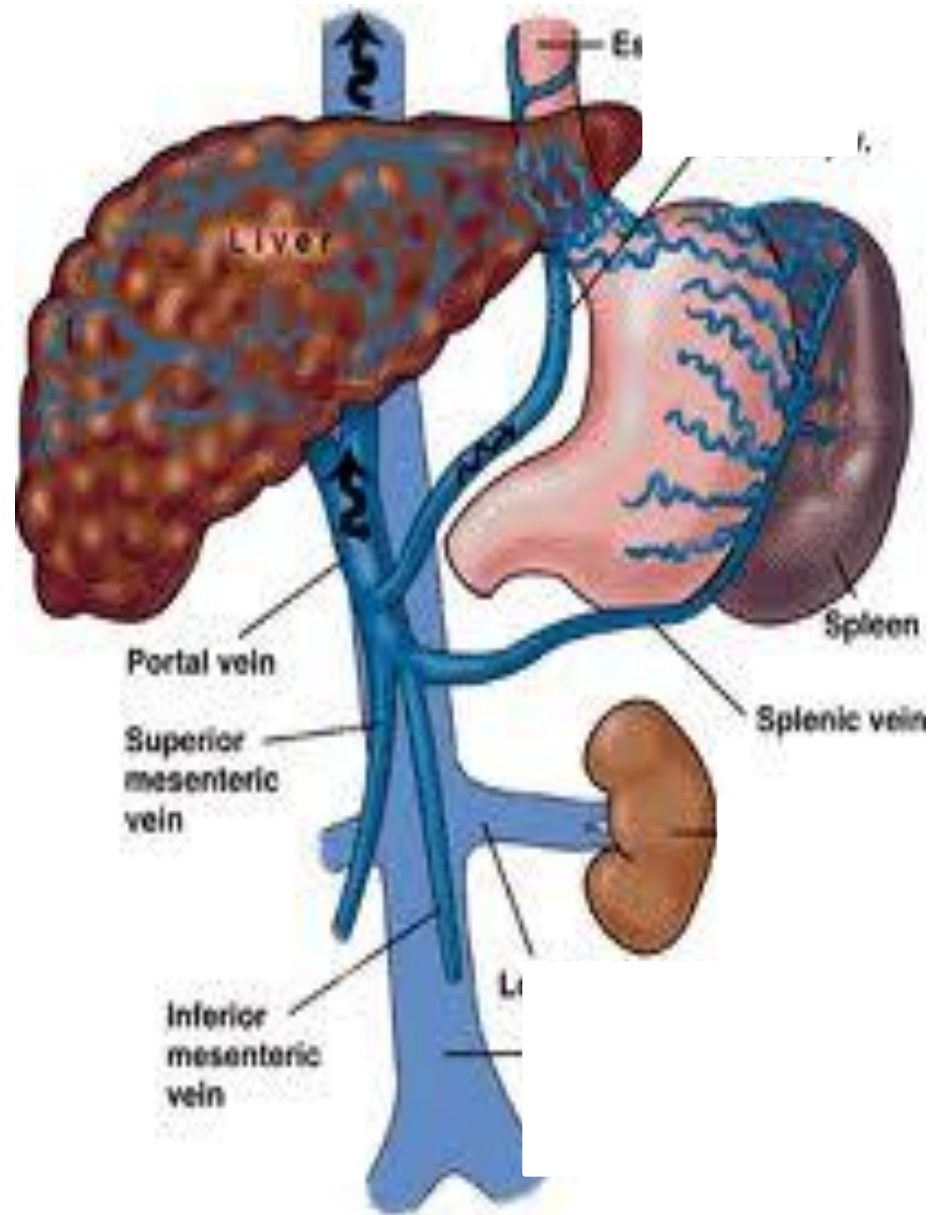
Peritoneal Ligaments

Identify
these
structures :



- 1- ligamentum venosum
- 2- The round ligament of the liver(ligamentum teres of liver)
- 3- gall bladder
- 4- porta hepatis
- 5- Gastric impression
- 6- Renal impression
- 7- inferior vena cava
- 8- Quadrate lobe
- 9- caudate lobe

*the **splenic vein** will leave the hilum of the spleen to join the **superior mesenteric vein** behind the neck of pancreas and in front of the inferior vena cava forming the **Portal vein**.



1-submucosa of lower part of the esophageal :

-systemic vein : esophageal tributaries of azygos vein

-Portal vein : esophageal - tributaries of left gastric vein

2- submucosa of the anal canal :

-Portal vein : superior rectal vein (continuation of inferior mesenteric vein)

systemic vein : middle and inferior rectal veins (branches of internal iliac artery)

3- anterior abdominal wall :

-Systemic vein : veins of anterior abdominal wall

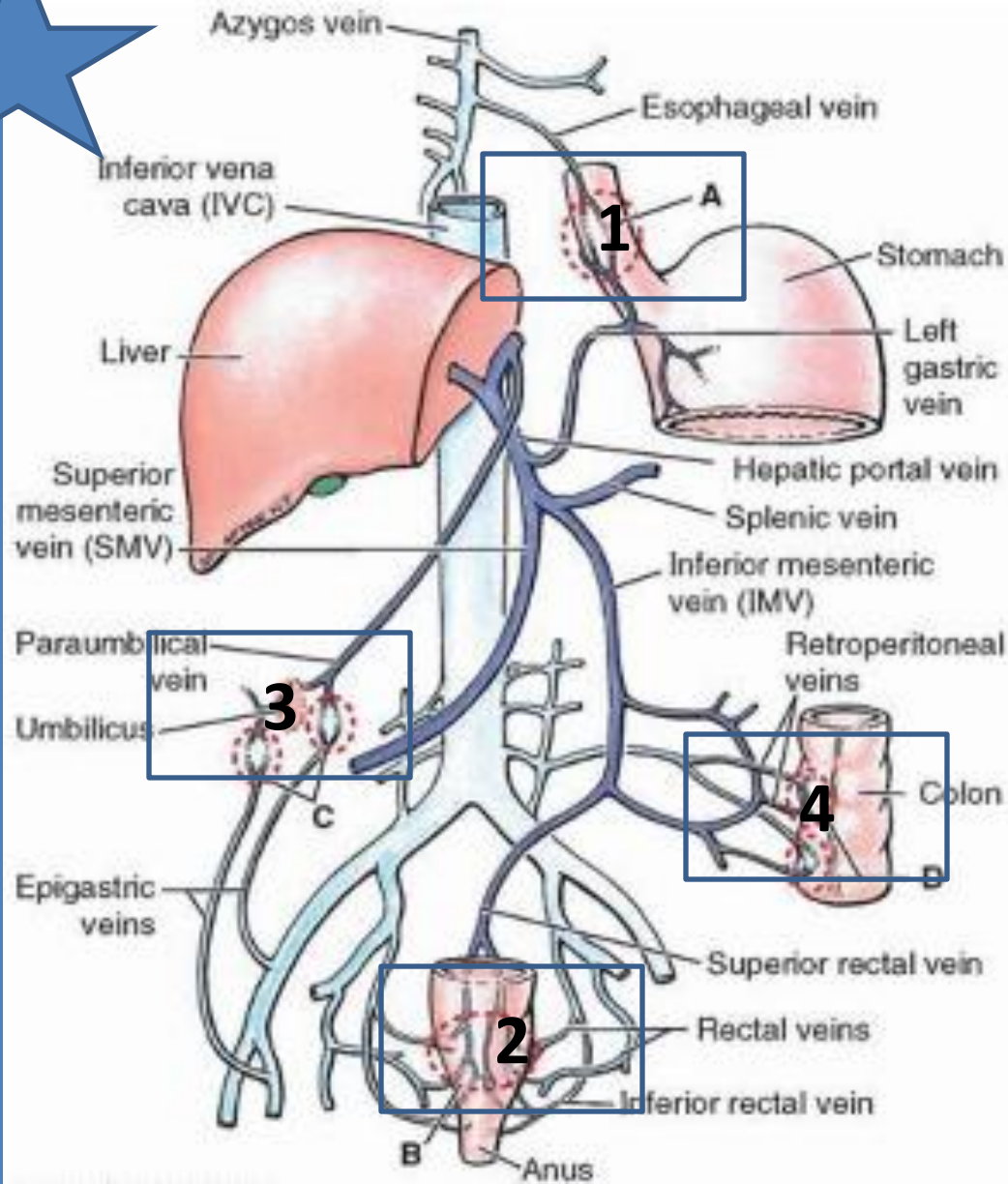
-Portal veins : paraumbilical veins which run with ligamentum teres

4- the back of colon :

Systemic vein : veins of posterior abdominal wall

Portal vein : veins of the colon

portal-systemic anastomoses



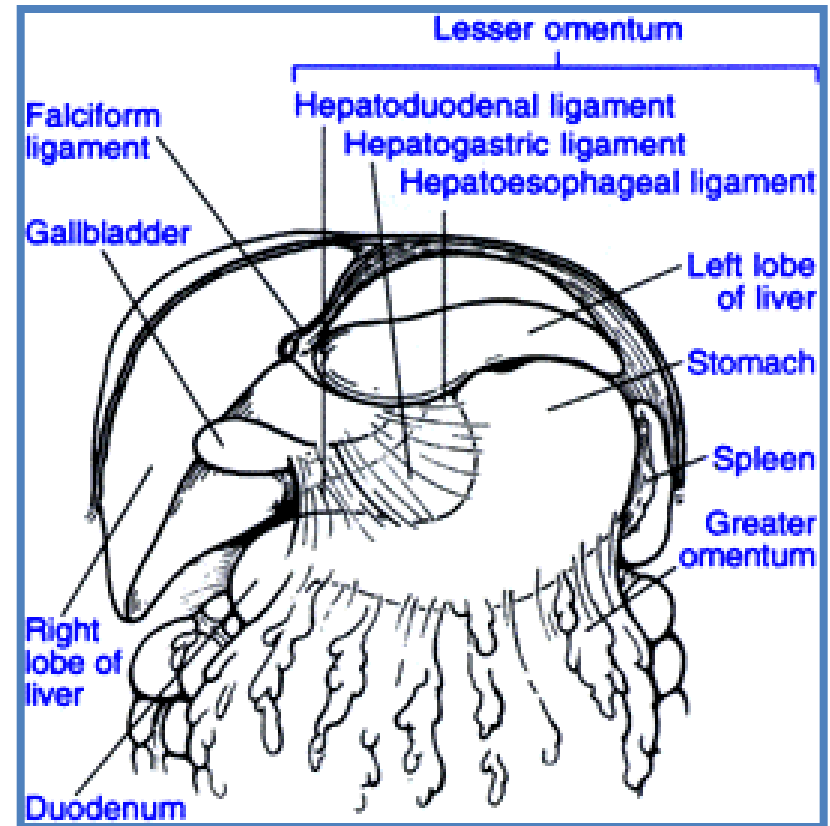
Lesser omentum



-The lesser omentum is extremely thin, and is continuous with the two layers of peritoneum which cover respectively the **antero-superior and postero-inferior surfaces of the stomach and first part of the duodenum.**

-When these two layers reach the lesser curvature of the stomach and the upper border of the duodenum, **they join together and ascend as a double fold to the porta hepatis.**

-At the right border of the lesser omentum, the two layers are continuous, and form a free margin which constitutes **the anterior boundary of the epiploic foramen**



IMPORTANT!!!!!!!!!!!!!!



- Between the two layers of the lesser omentum, close to the right free margin, are the hepatic artery, the common bile duct anteriorly, the portal vein posteriorly, lymphatics, and the hepatic plexus of nerves—all these structures being enclosed in a fibrous capsule (Glisson's capsule).
- Between the layers of the lesser omentum, where they are attached to the stomach, run the right and left gastric arteries along the lesser curvature of the stomach, as well as the gastric veins



(Epiploic foramen, foramen of Winslow)

- anterior**: the free border of the lesser omentum, known as the hepatoduodenal ligament (is the portion of the lesser omentum extending between the porta hepatis of the liver and the superior part of the duodenum). This has two layers and within these layers are the **common bile duct, hepatic artery, and portal vein**.
- posterior**: the peritoneum covering the **inferior vena cava**.
- superior**: the peritoneum covering the **caudate process** of the liver
- inferior**: the peritoneum covering the **commencement of the duodenum** and the **hepatic artery**.

Gall bladder

We can feel the **fundus of the gall bladder** at the crossing point between the tip of ninth right costal margin and Linea semilunaris

