

OMENTUM

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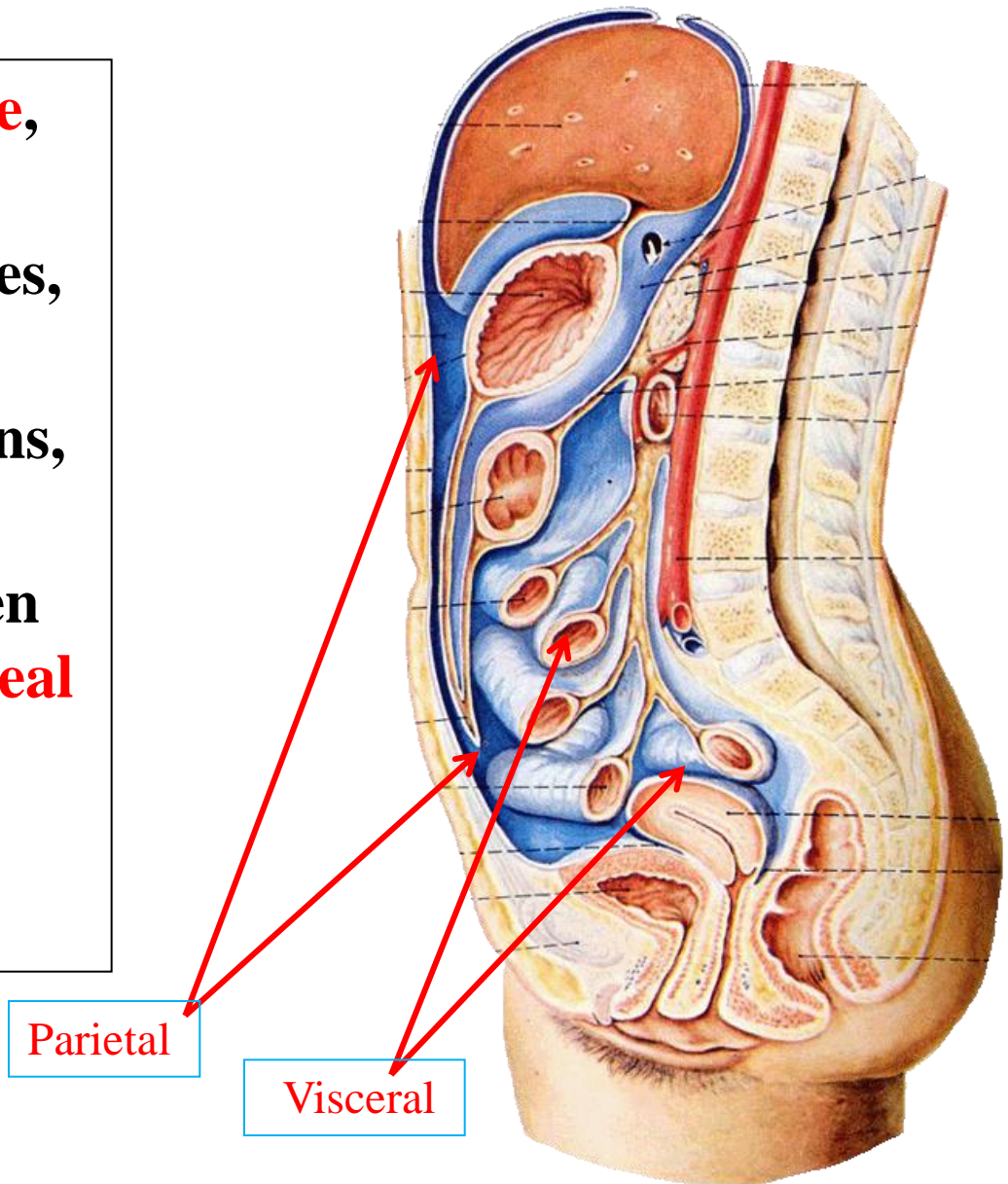
DR. ESSAM ELDIN SALAMA

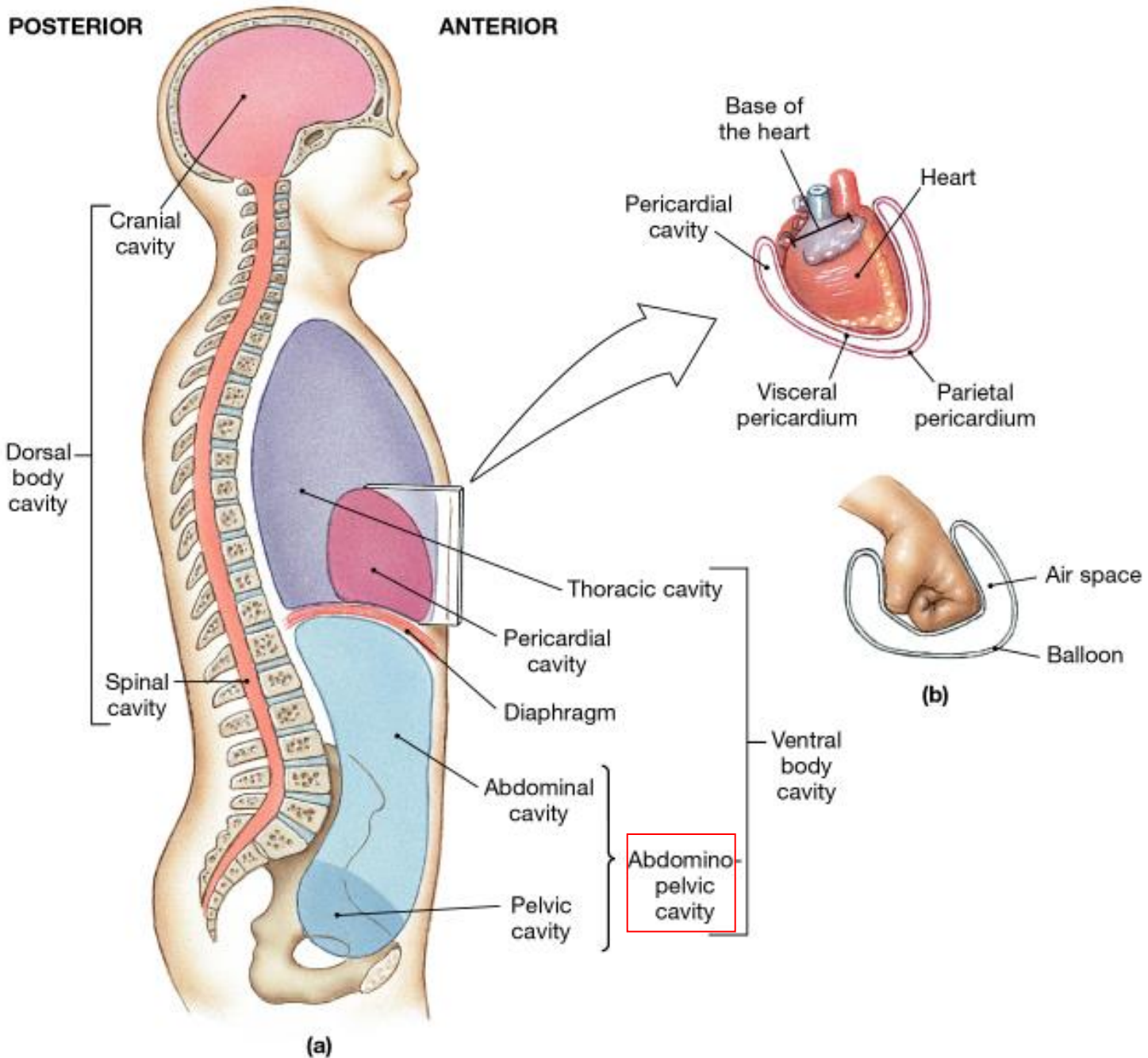
OBJECTIVES

- *At the end of the lecture the students must know:*
- Brief knowledge about **peritoneum** as a thin serous membrane and its main parts; **parietal** and **visceral**.
- The **peritoneal cavity** and its parts the **greater sac** and the **lesser sac (Omental bursa)**.
- The **omentum**, as one of the peritoneal folds
- The **greater omentum**, its extends, and contents.
- The **lesser omentum**, its boundaries, and contents.
- The **Omental bursa**, its boundaries.
- The **Epiploic foramen**, its boundaries.

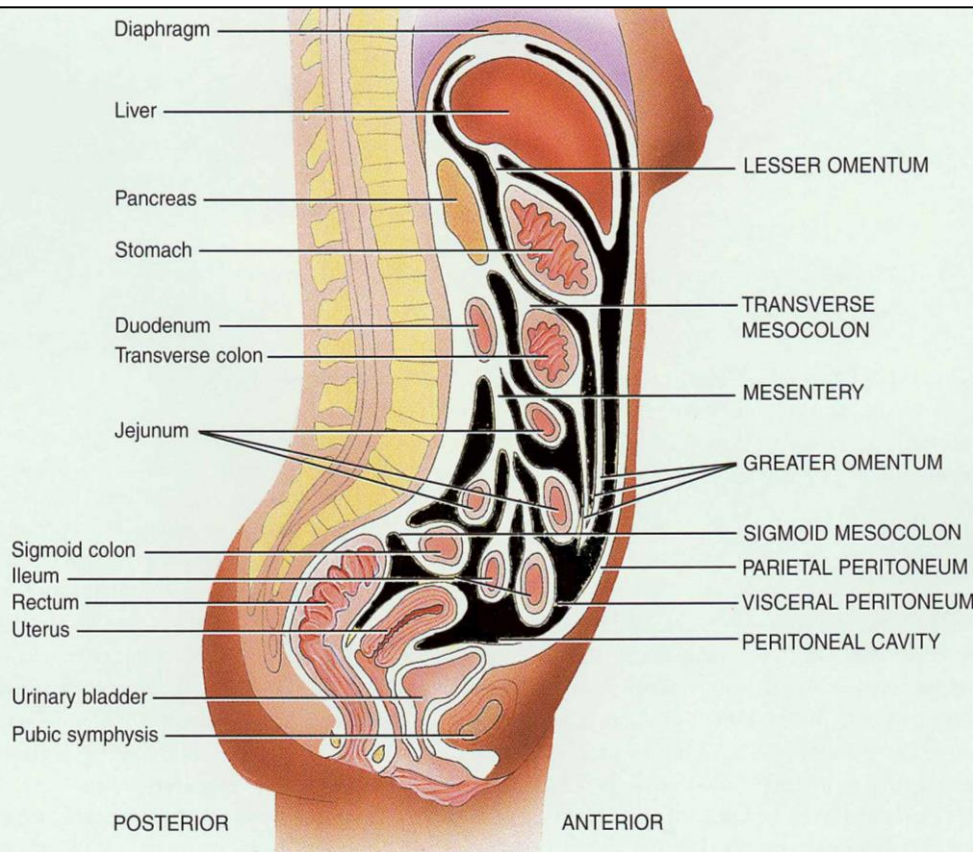
The peritoneum

- ❖ Is a **thin serous membrane**,
- Lining the wall of the abdominal and pelvic cavities, (the **parietal peritoneum**).
- Covering the existing organs, (the **visceral peritoneum**).
- The potential space between the two layers is the **peritoneal cavity**.





The peritoneum



❖ The **peritoneal cavity** is the largest one in the body.

❖ Divisions of the peritoneal cavity :

▪ **Greater sac**; extends from diaphragm down to the pelvis.

▪ **Lesser sac**; lies behind the stomach.

▪ Both cavities are interconnected through the **epiploic foramen**.

▪ In male : the peritoneum is a closed sac .

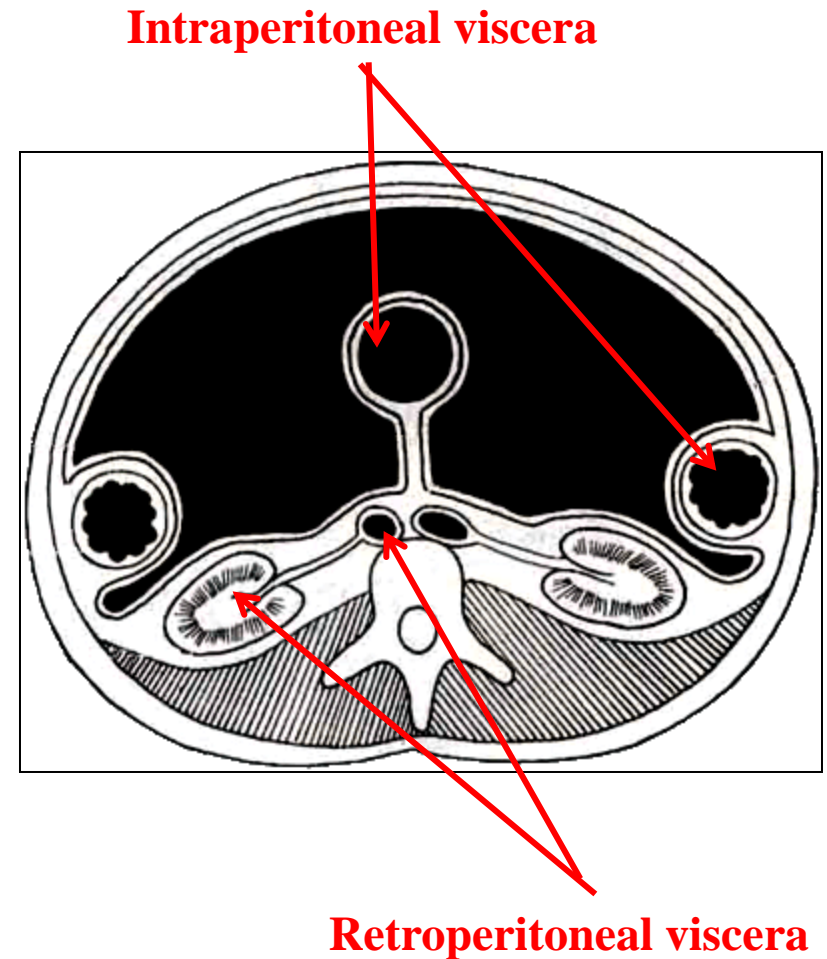
▪ In female : the sac is not completely closed because it communicates with the exterior through the uterine tubes, uterus and vagina.

The peritoneum

□ **Intraperitoneal** and **retroperitoneal**; describe the relationship between various organs and their peritoneal covering;

▪ **Intraperitoneal structure**; which is nearly totally covered by visceral peritoneum.

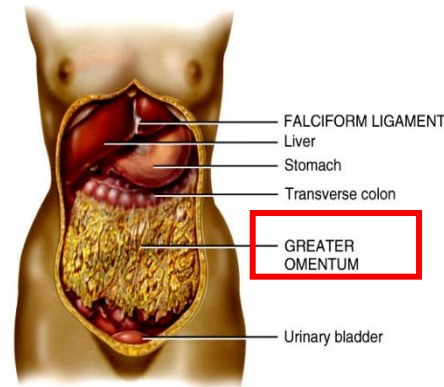
▪ **Retroperitoneal structure**; lies behind the peritoneum, and partially covered by visceral peritoneum.



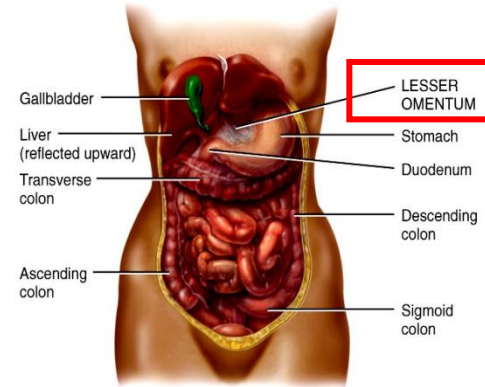
Folds of the peritoneum

□ The peritoneum is divided into :

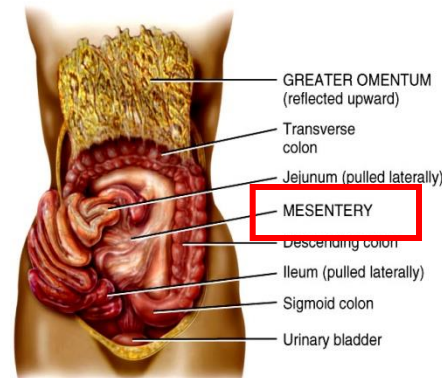
- **Omenta.**
- **Mesenteries.**
- **Peritoneal ligaments.**



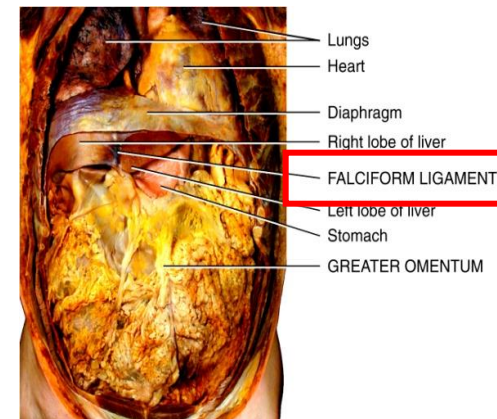
(b) Anterior view



(c) Lesser omentum, anterior view (liver and gallbladder lifted)



(d) Anterior view (greater omentum lifted and small intestine reflected to right side)

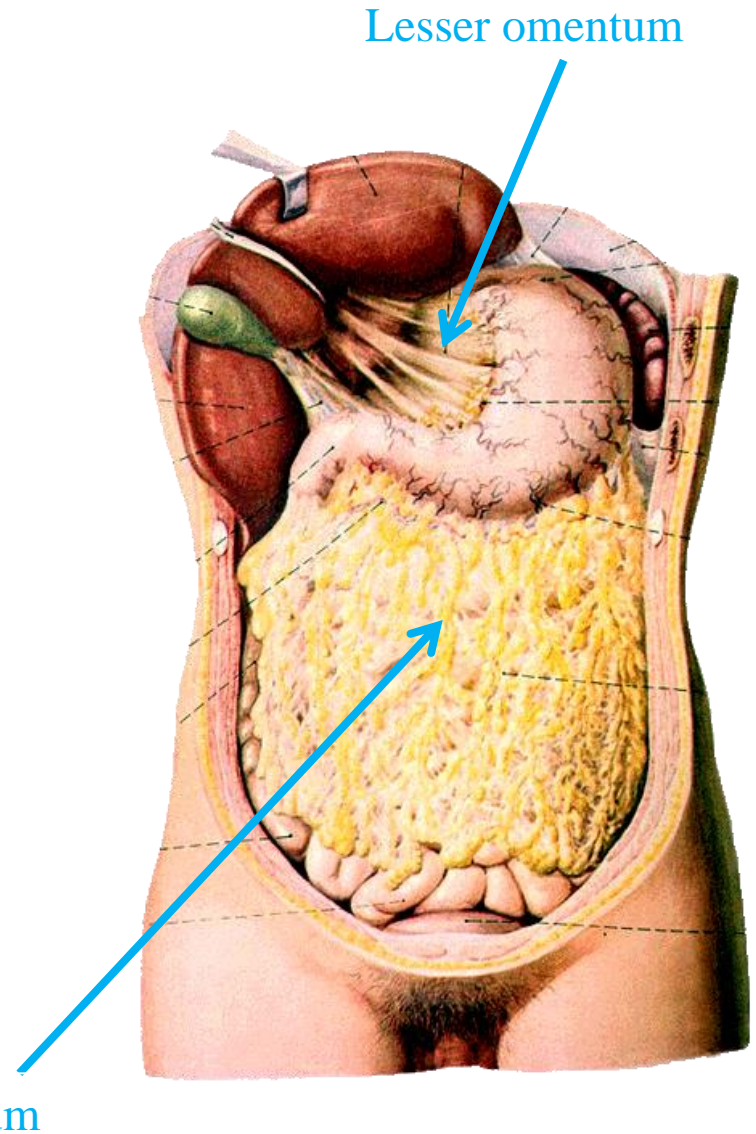


(e) Anterior view

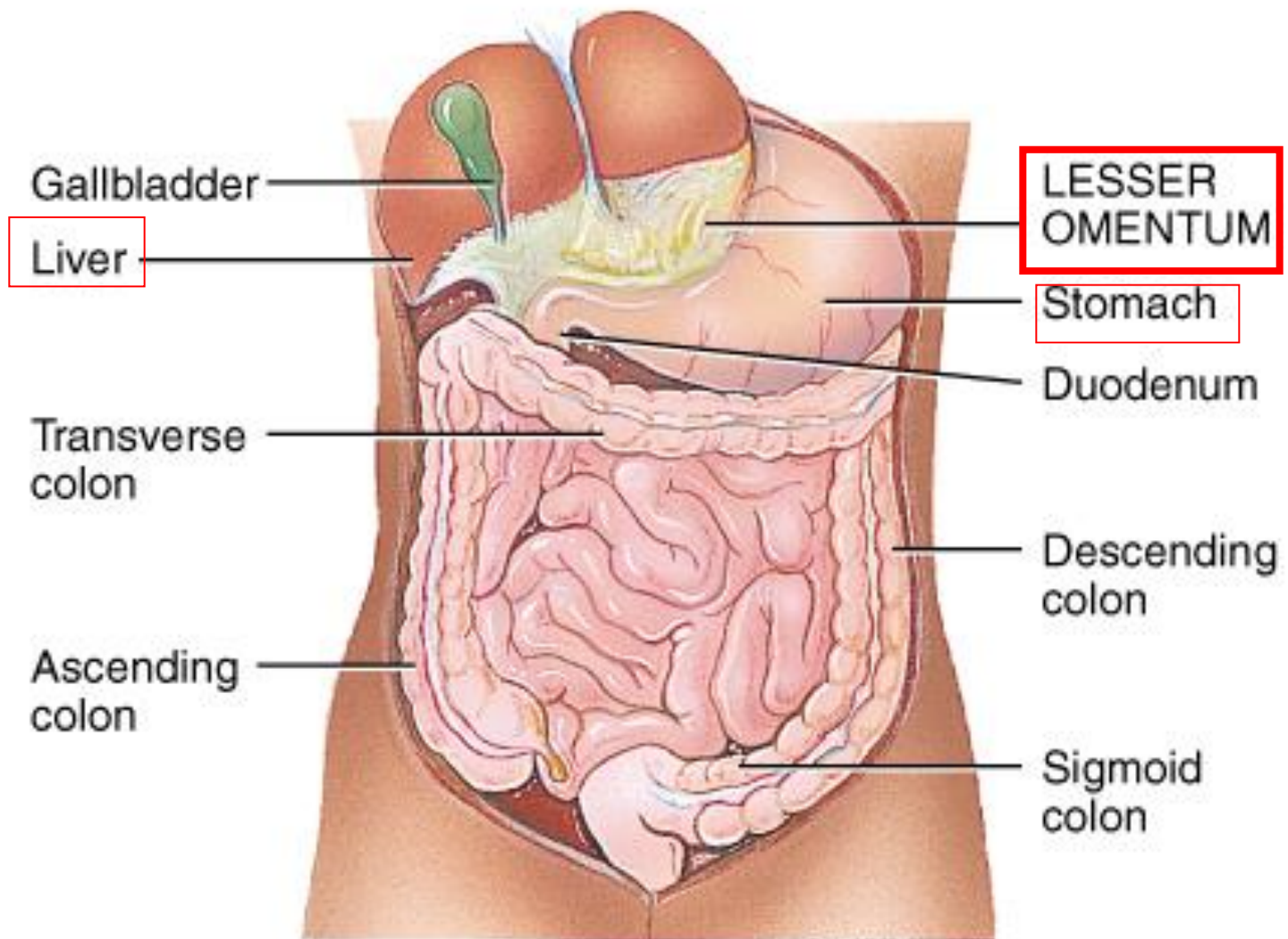
Figure 24.04a Tortora - PAP 12/e
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Omenta

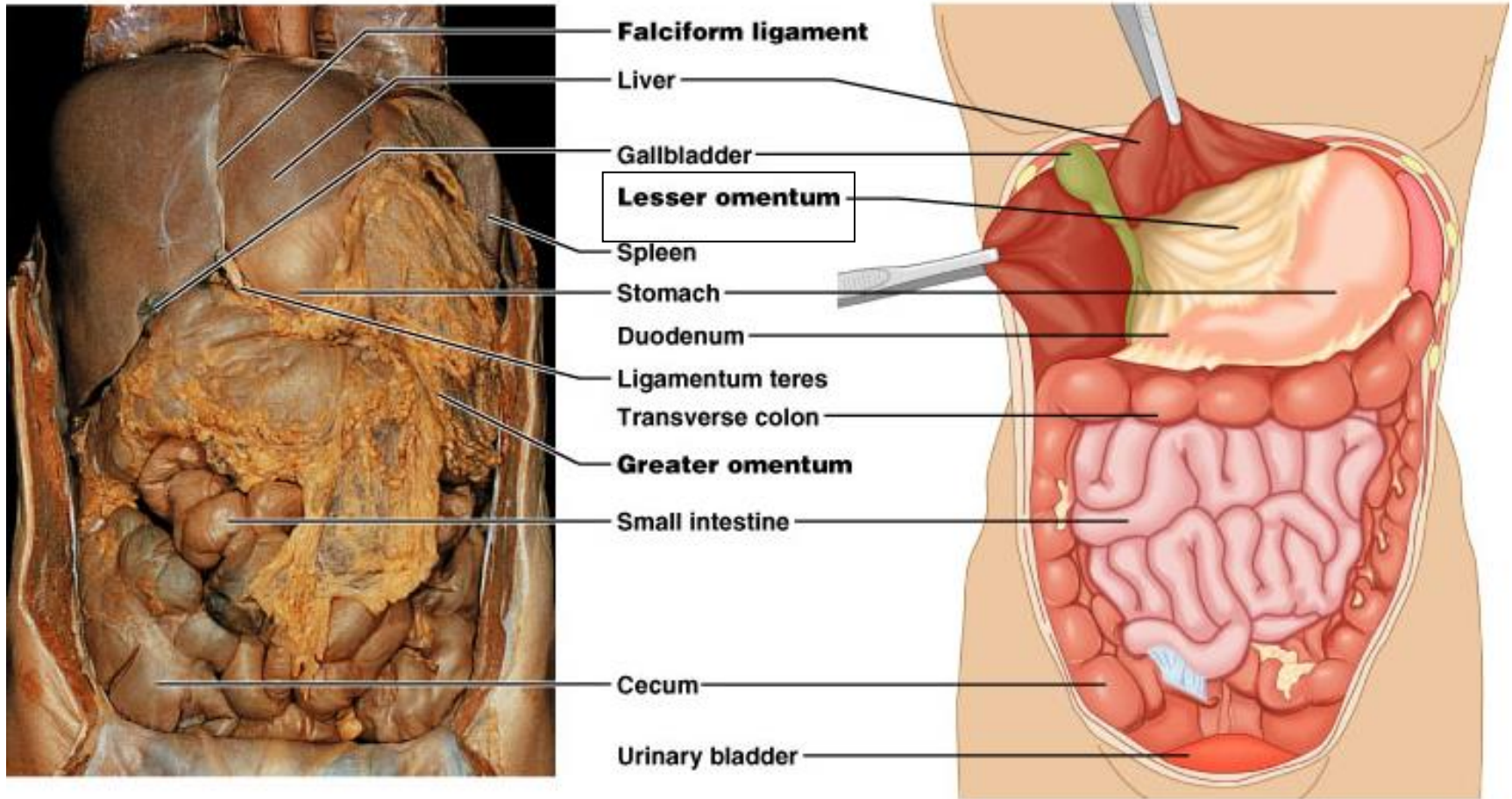
- ❖ Two layered fold of peritoneum connecting the stomach to another viscus.
- The **lesser omentum** attaches the lesser curve of the stomach to the liver.
- The **greater omentum** connects the greater curve of the stomach to the transverse colon.



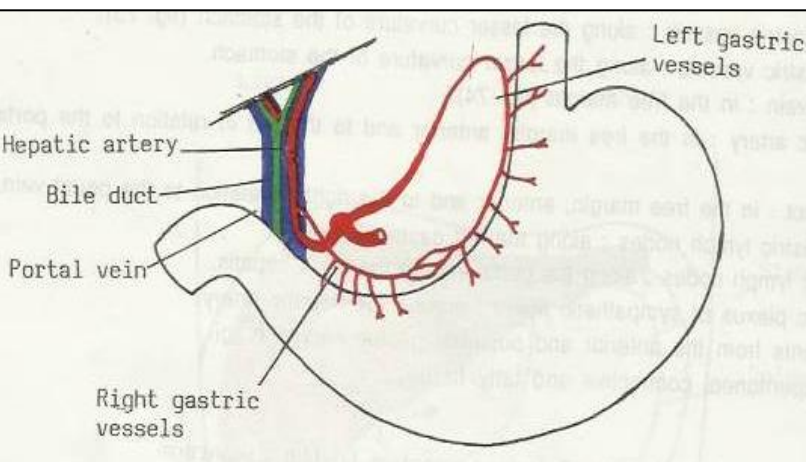
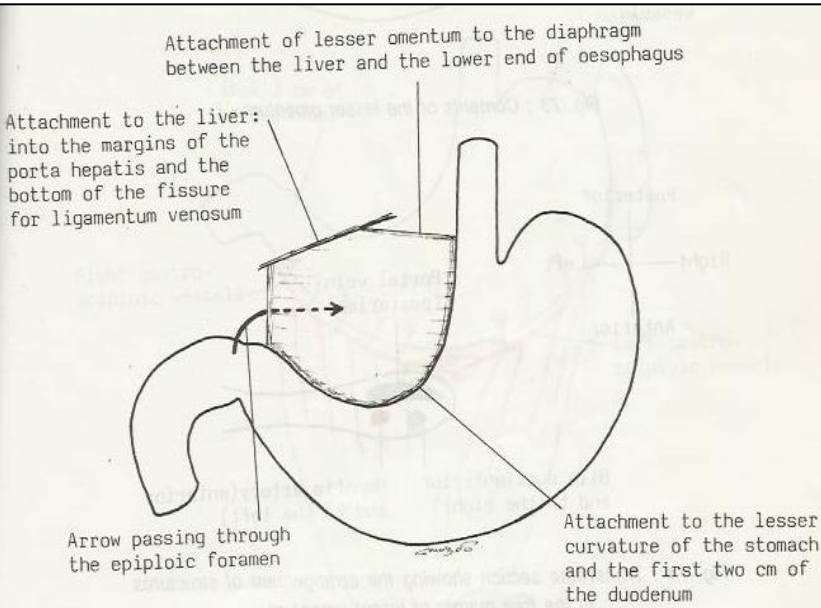
Lesser omentum



Lesser omentum

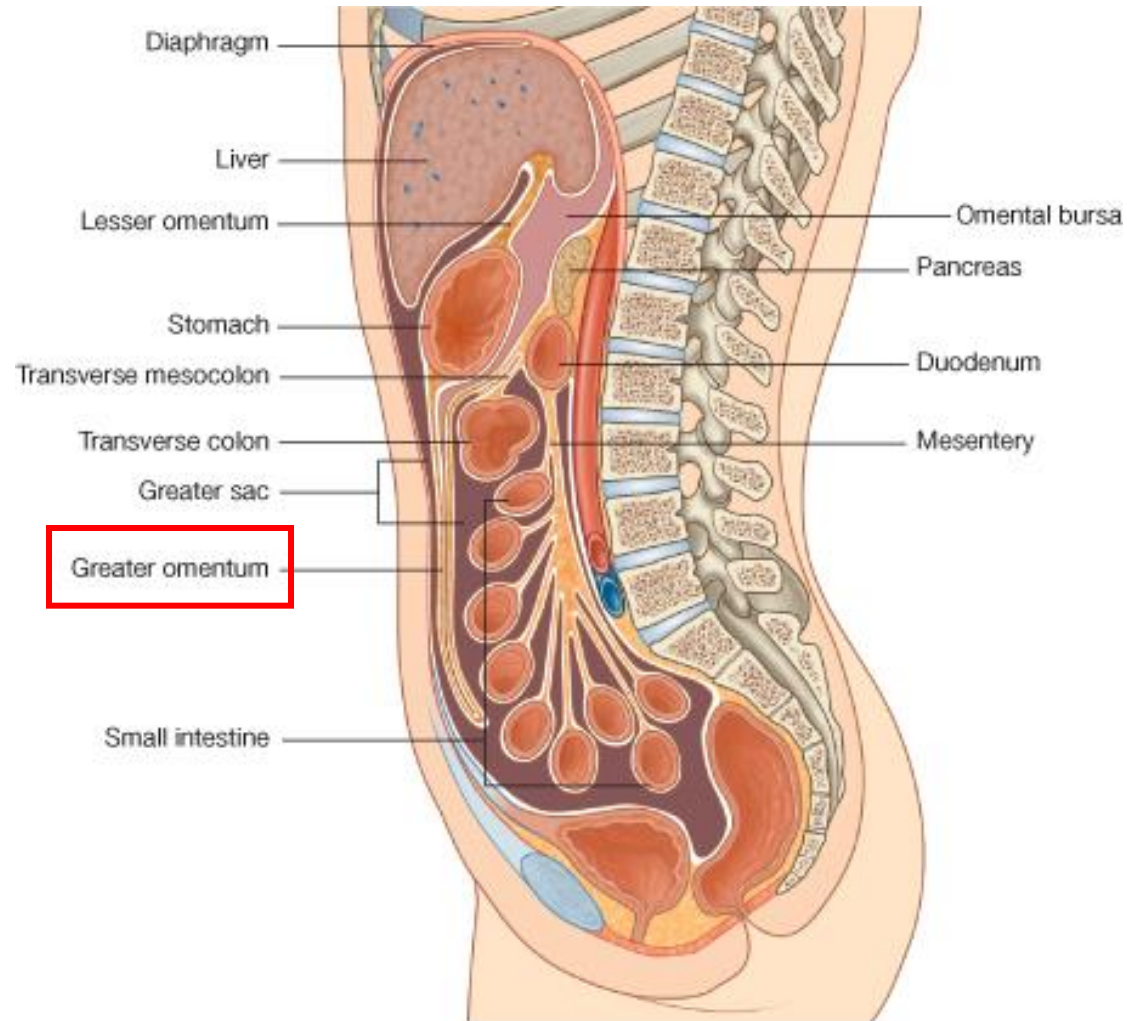
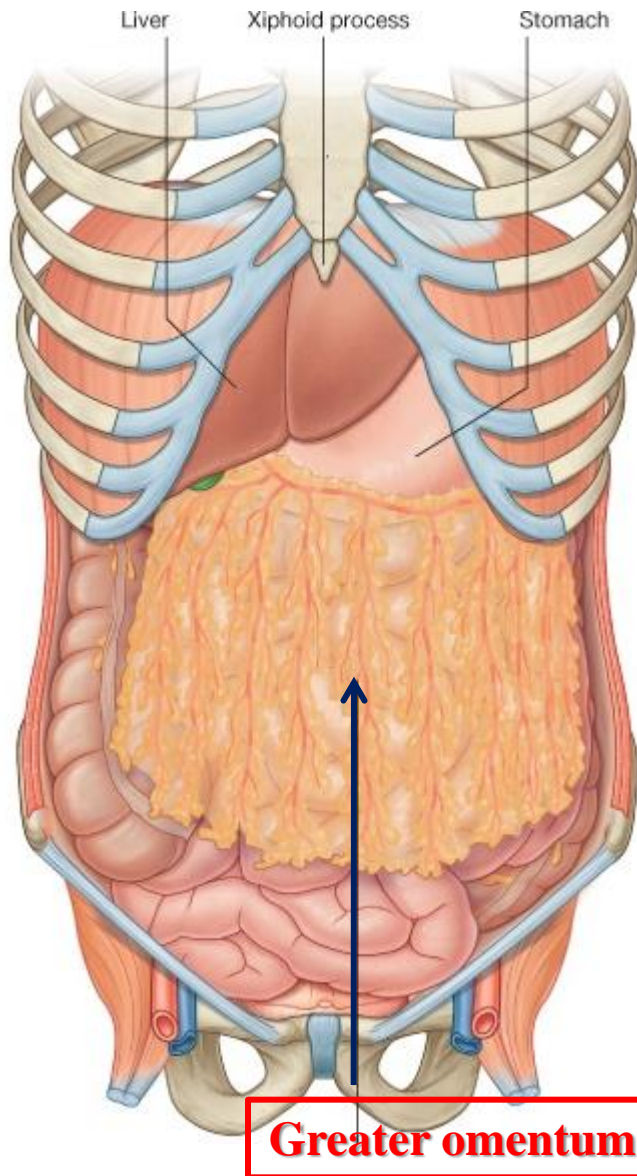


Lesser omentum

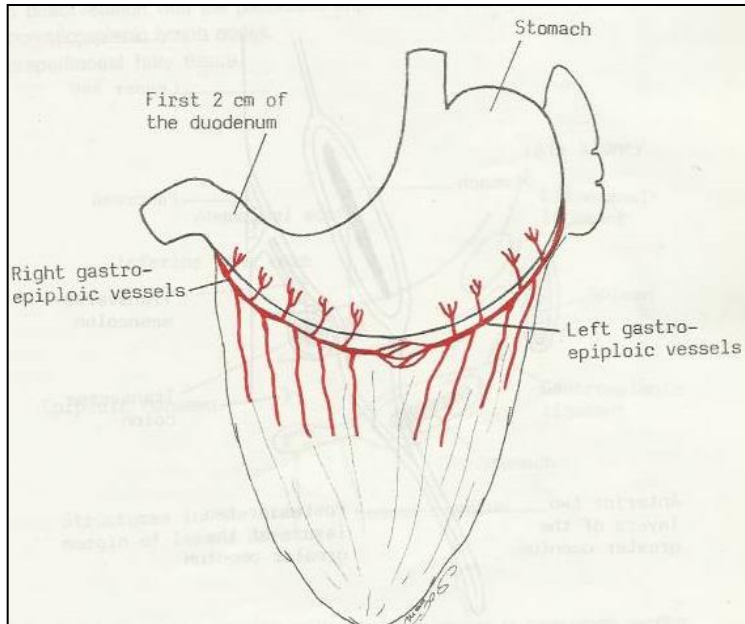


- ❑ Extends between the **liver** and the **lesser curvature of the stomach**.
- It is continuous with the two layers of peritoneum which cover the stomach and first part of the duodenum.
- Ascend as a double fold to the porta hepatis, and fissure for ligamentum venosum.
- To the **left** of porta hepatis it is carried to the **diaphragm**.
- Its **right** border is a **free margin**; constitutes the anterior boundary of the epiploic foramen.
- ❑ **Contents between the two layers of the lesser omentum :**
 - Close to the right free margin, are the **hepatic artery**, the **common bile duct**, the **portal vein**, **lymphatics**, and the **hepatic plexus of nerves**.
 - At the attachment to the stomach, run the **right and left gastric vessels**.

Greater omentum

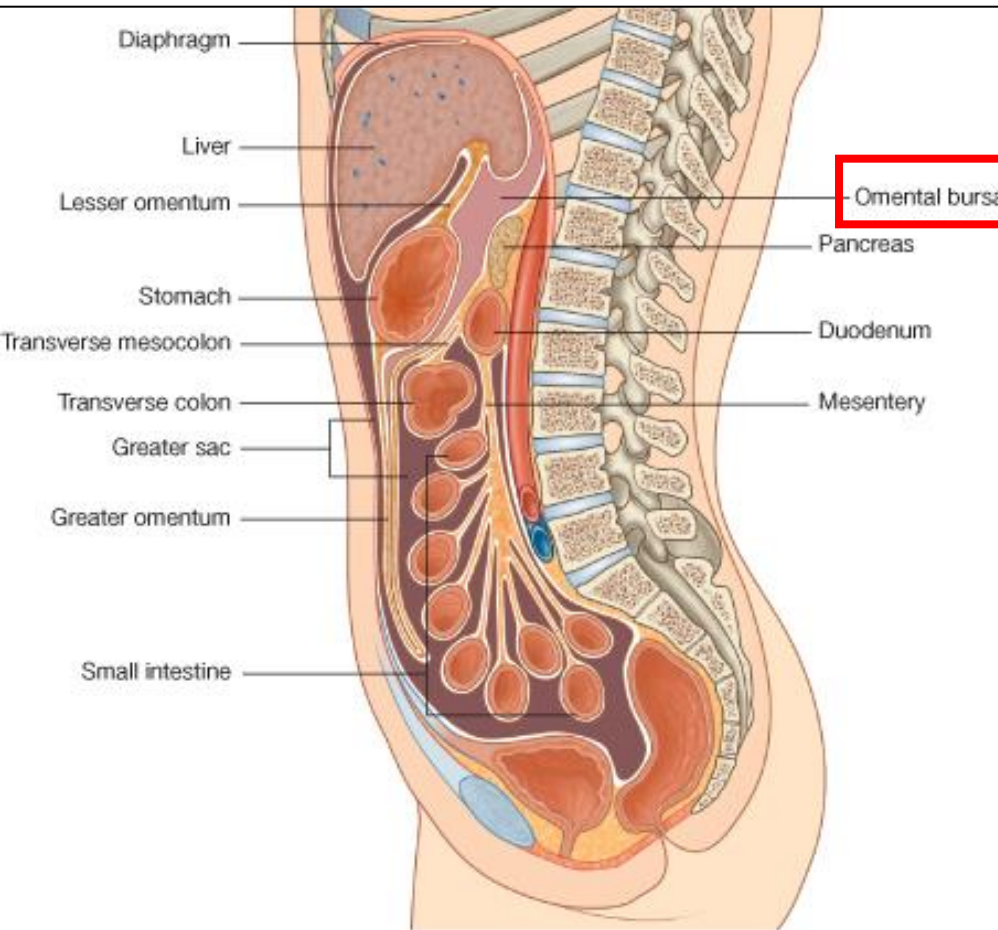


Greater omentum



- The largest peritoneal fold, with cribriform appearance, contains some adipose tissue.
- It consists of a double sheet of peritoneum, folded on itself so that it is made up of four layers (anterior 2 layers + posterior 2 layers).
- The two layers which descend from the greater curve of the **stomach** and commencement of the duodenum, pass downward in front of the small intestines, then turn upon themselves, and ascend to the **transverse colon**, where they separate and enclose it.
- The **left** border of the greater omentum is continuous with the **gastrosplenic ligament**.
- Its **right** border extends as far as the commencement of the duodenum.
- **Contents** : the anastomosis between the **right and left gastroepiploic vessels**.

Omental bursa, (Lesser Sac)



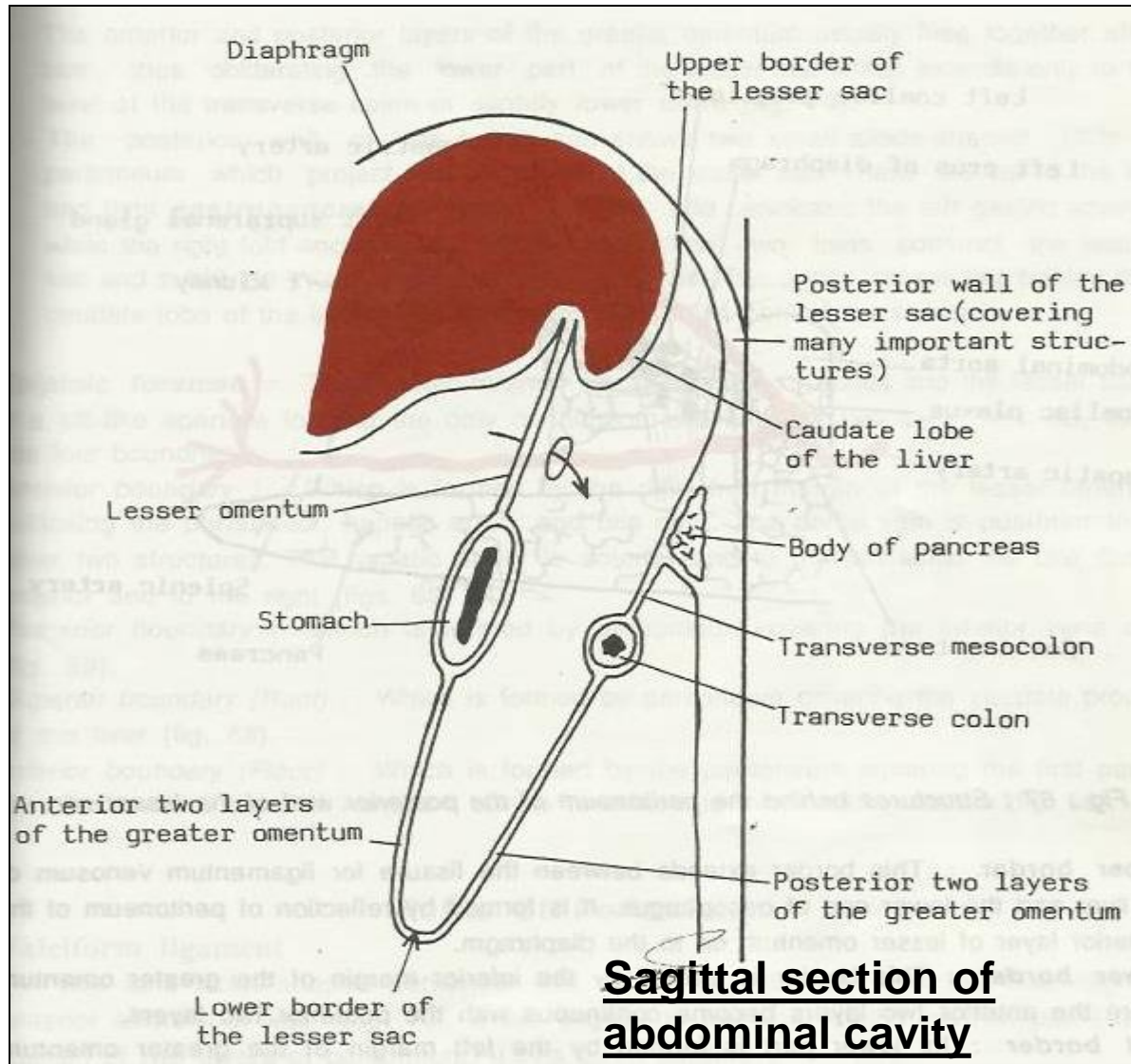
□ It is a part of the peritoneal cavity behind the stomach.

□ **Boundaries of the *omental bursa* ;**

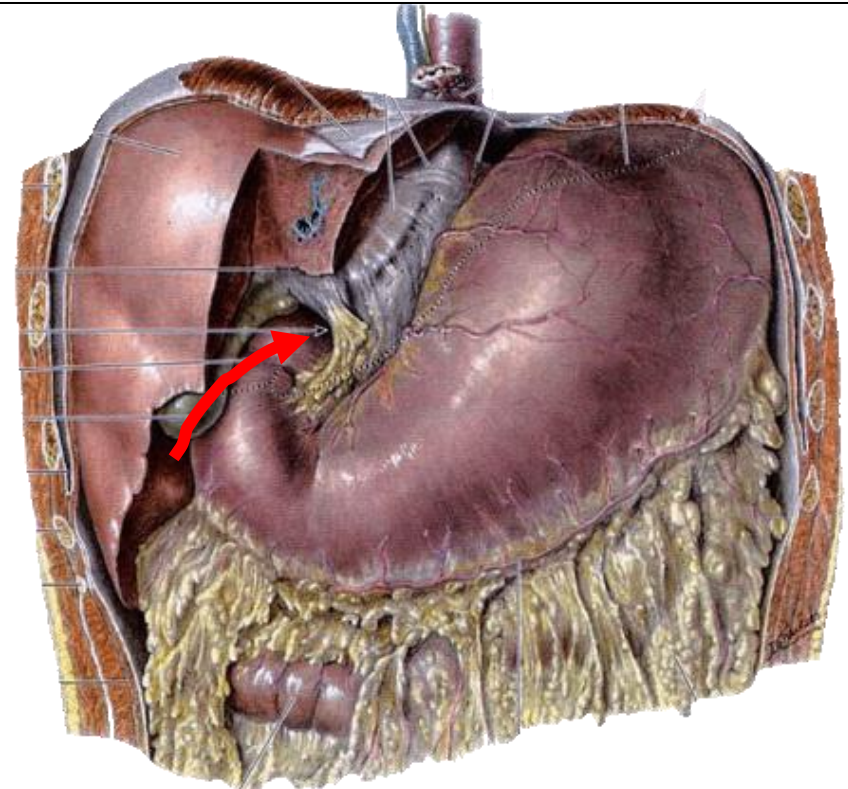
▪ **Anterior wall**, from above downward, by the **caudate lobe** of the liver, the **lesser omentum**, back of the **stomach**, and the **anterior two layers** of the **greater omentum**.

▪ **Posterior wall**, from below upward, by the posterior two layers of the **greater omentum**, the **transverse colon**, and the ascending layer of the **transverse mesocolon**, the upper surface of the **pancreas**, the **left suprarenal gland**, and the upper end of the **left kidney**.

Omental bursa, (Lesser Sac)

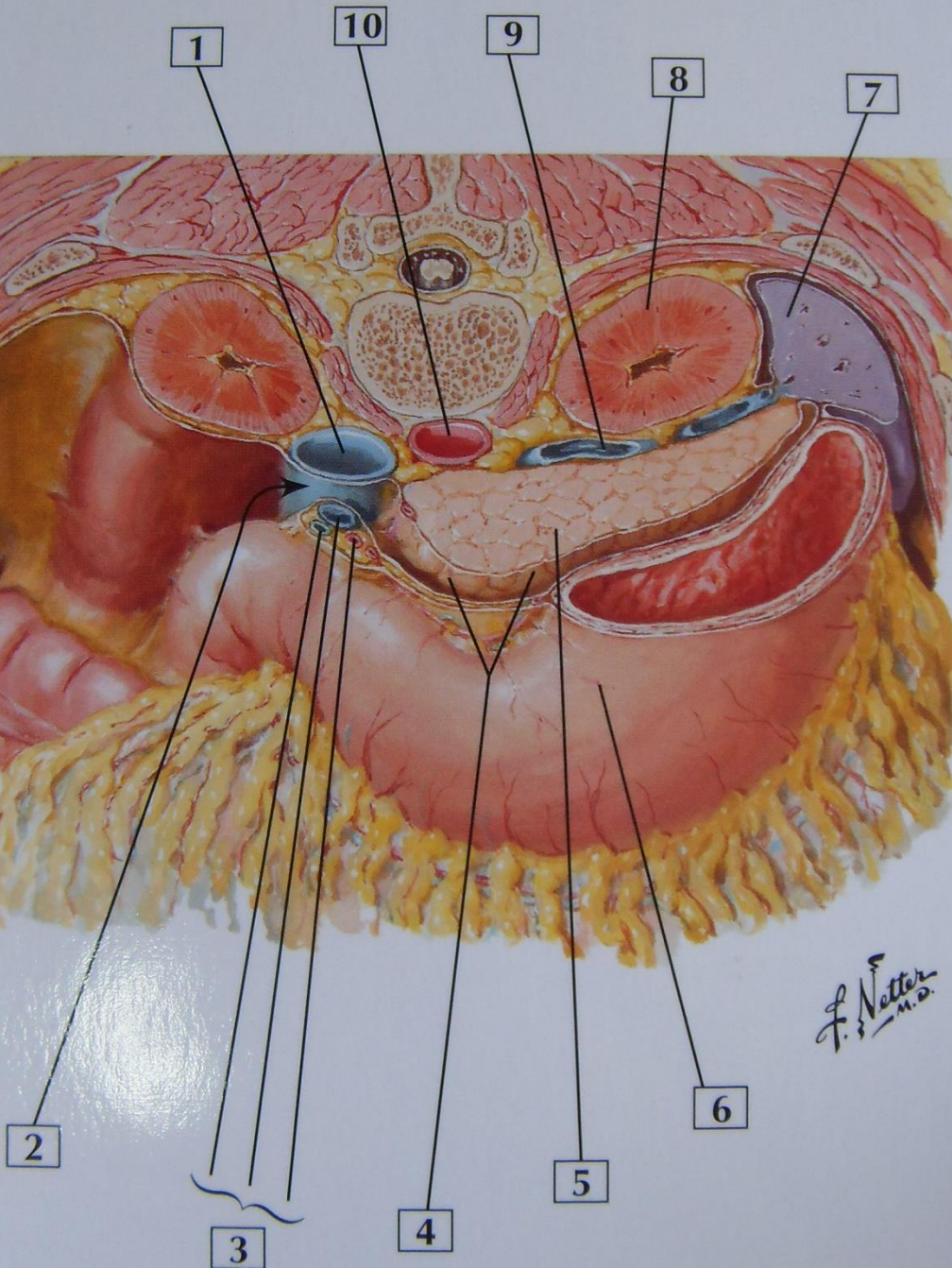


Epiploic foramen



- It is the communication between the greater and lesser sacs .
- It is bounded by;
- In front by the **free border** of the lesser omentum, with its contents : **hepatic artery, common bile duct, and portal vein** between its two layers.
- Behind by the **peritoneum** covering the **inferior vena cava**.
- Above (roof) by the **peritoneum** on the **caudate process** of the liver.
- Below (floor) by the **peritoneum** covering the commencement of the **duodenum** and the **hepatic artery**, before ascending between the two layers of the lesser omentum.

Omental bursa



1. IVC
2. Epiploic Foramen
3. Portal Triad
4. Lesser Sac
5. Pancreas
6. Stomach
7. Spleen
8. Kidney
9. Splenic Vein
10. Abdominal Aorta

SUMMARY

- **The peritoneum** is divided into 2 layers :
- Parietal layer, lines the abdominal and pelvic walls.
- Visceral layer, covers the abdominal and pelvic organs.
- **Omenta** are folds of peritoneum.
- **Lesser omentum** connects the stomach and 1st part of duodenum to the liver.
- Right border of lesser omentum is free and it forms the anterior boundary of epiploic foramen.
- **Contents of lesser omentum** :
- **Along lesser curvature of stomach** : right & left gastric vessels.
- **At the right free border** :
- Hepatic artery.
- Bile duct.
- Portal vein.
- Nerves, lymph vessels & fat.

SUMMARY

- **Greater omentum** : connects the greater curvature of stomach with the transverse colon.
- **Contents of greater omentum** :
 - Along the greater curvature of stomach :
 - Right & left gastroepiploic vessels.
 - Lymph nodes, vessels & fats.
- **Lesser sac of peritoneum (Omental Bursa)** :
 - **Boundaries** :
 - Anterior wall.
 - Posterior wall.
 - **Opening to lesser sac (epiploic foramen)** :
 - It is a slit-like opening which connect lesser sac with greater sac.
 - Lies behind the lesser omentum.
 - Epiploic foramen is bounded **anteriorly** by right free margin of lesser omentum.

THANK YOU