

Fig. 18.1. Regions of the abdomen.

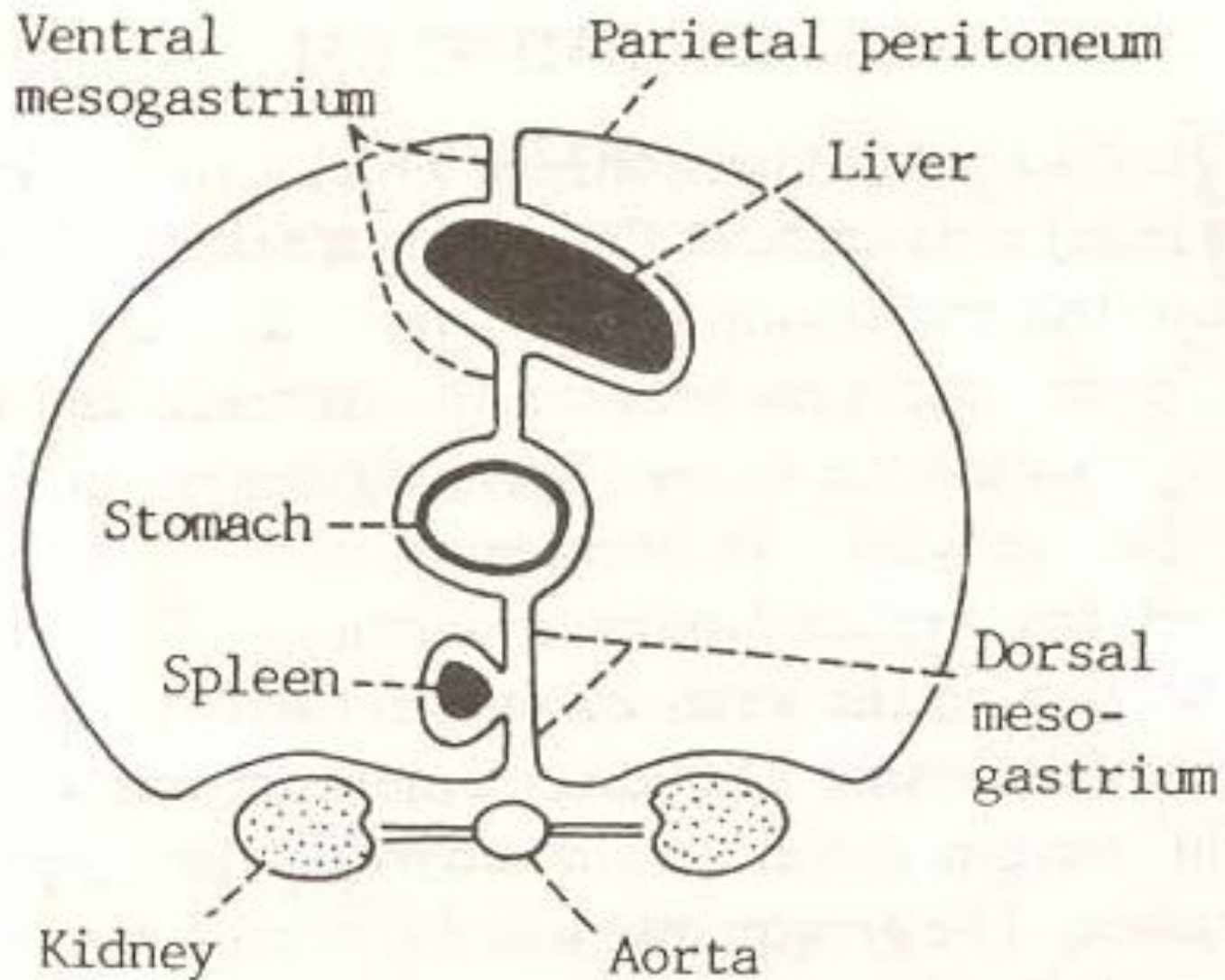


Fig. 18.5. Transverse section through the embryonic foregut showing the ventral and dorsal mesogastria and their divisions.

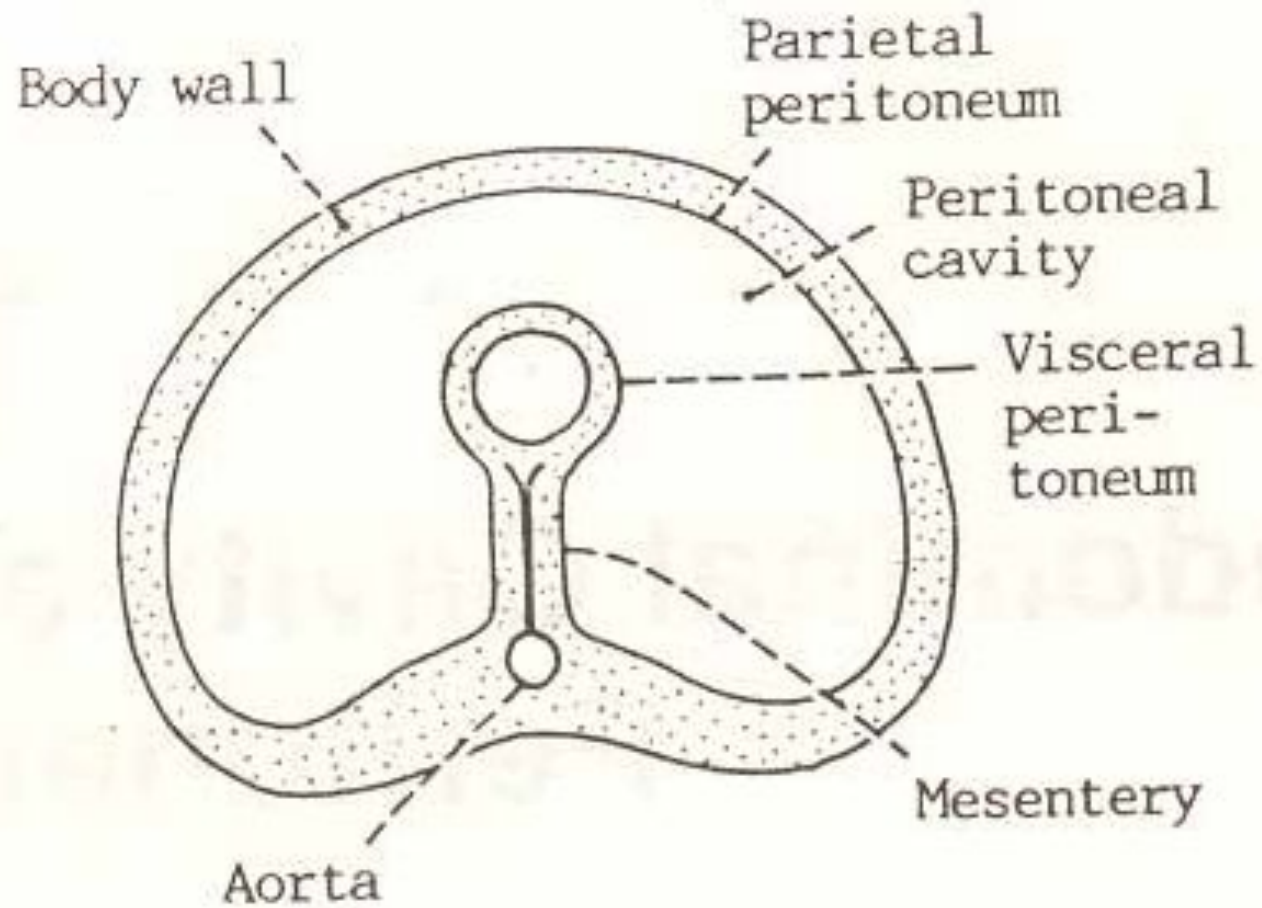


Fig. 18.2. Diagrammatic transverse section of the abdomen showing the arrangement of the peritoneum. The peritoneal cavity is actually a potential space and not so spacious as shown.

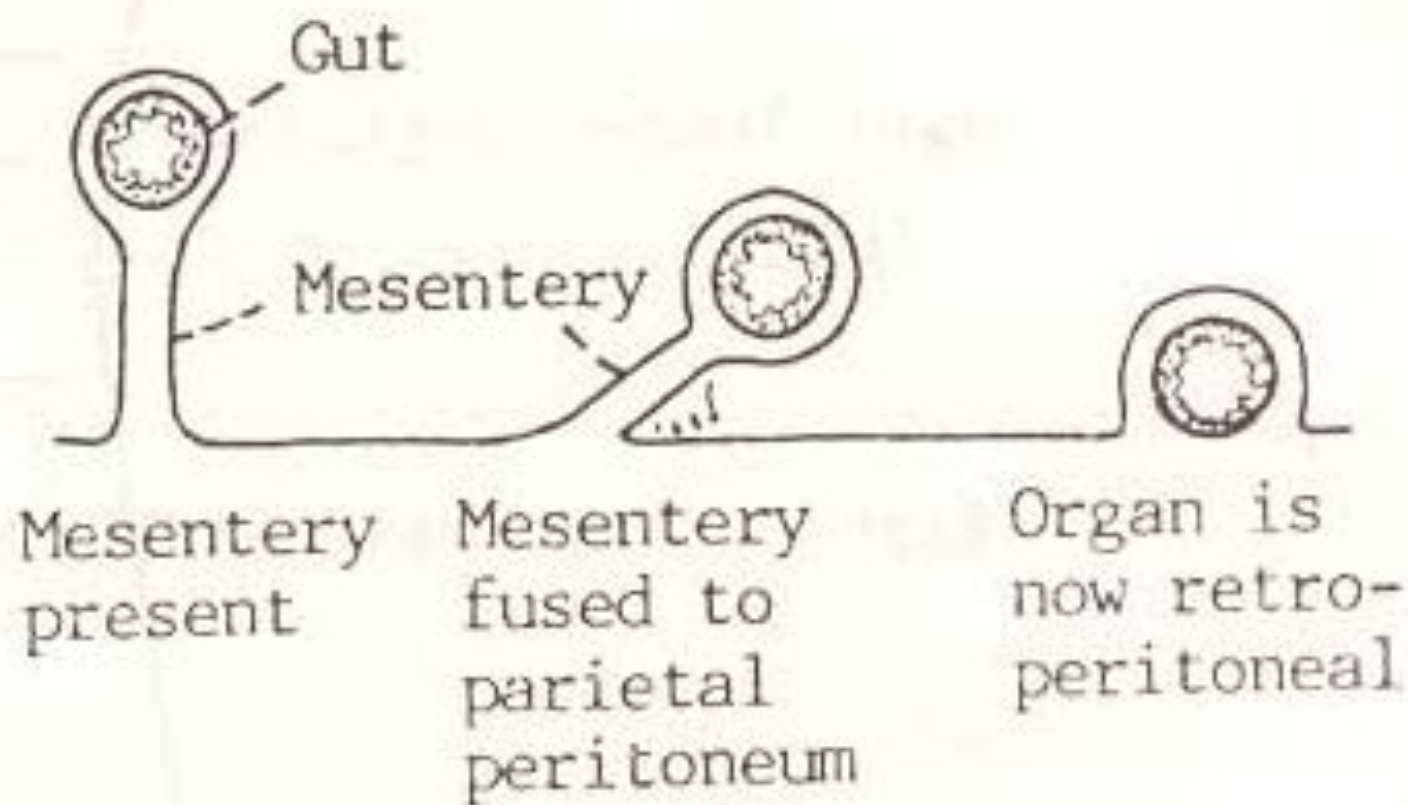


Fig. 18.3. Scheme to show how a loop of gut may lose its mesentery.

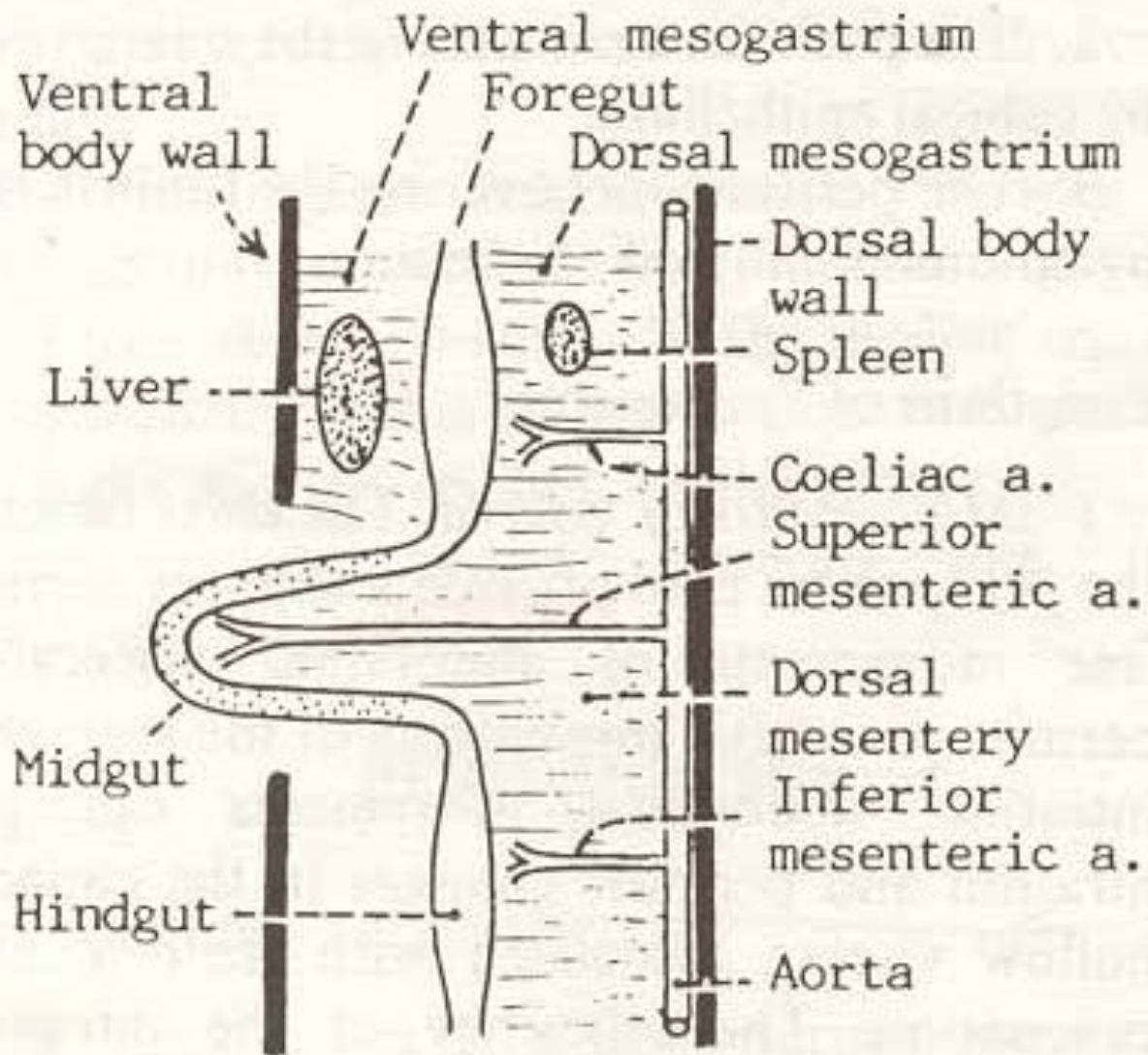
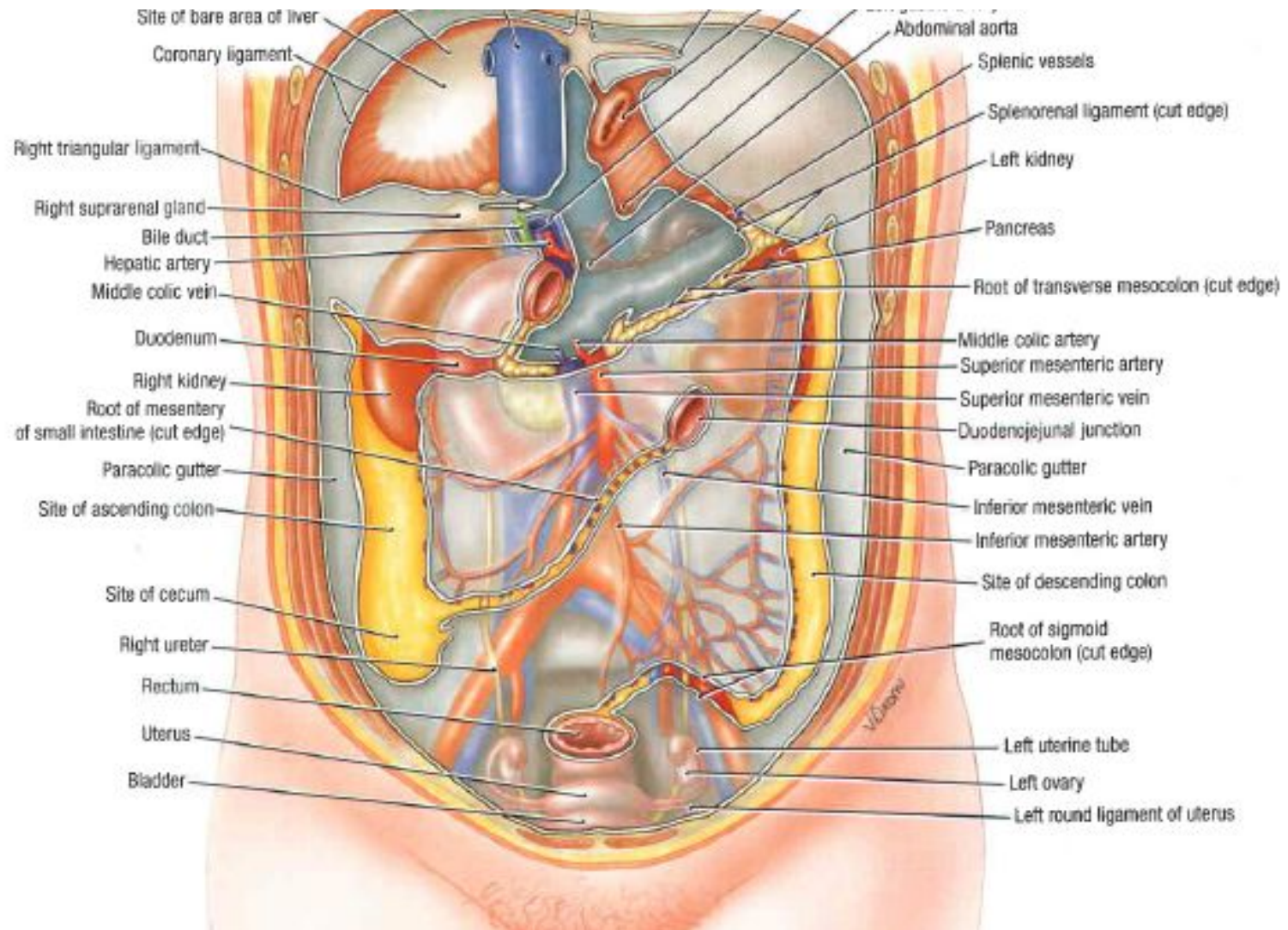


Fig. 18.4. Three parts of the primitive gut with their arteries and mesenteries.



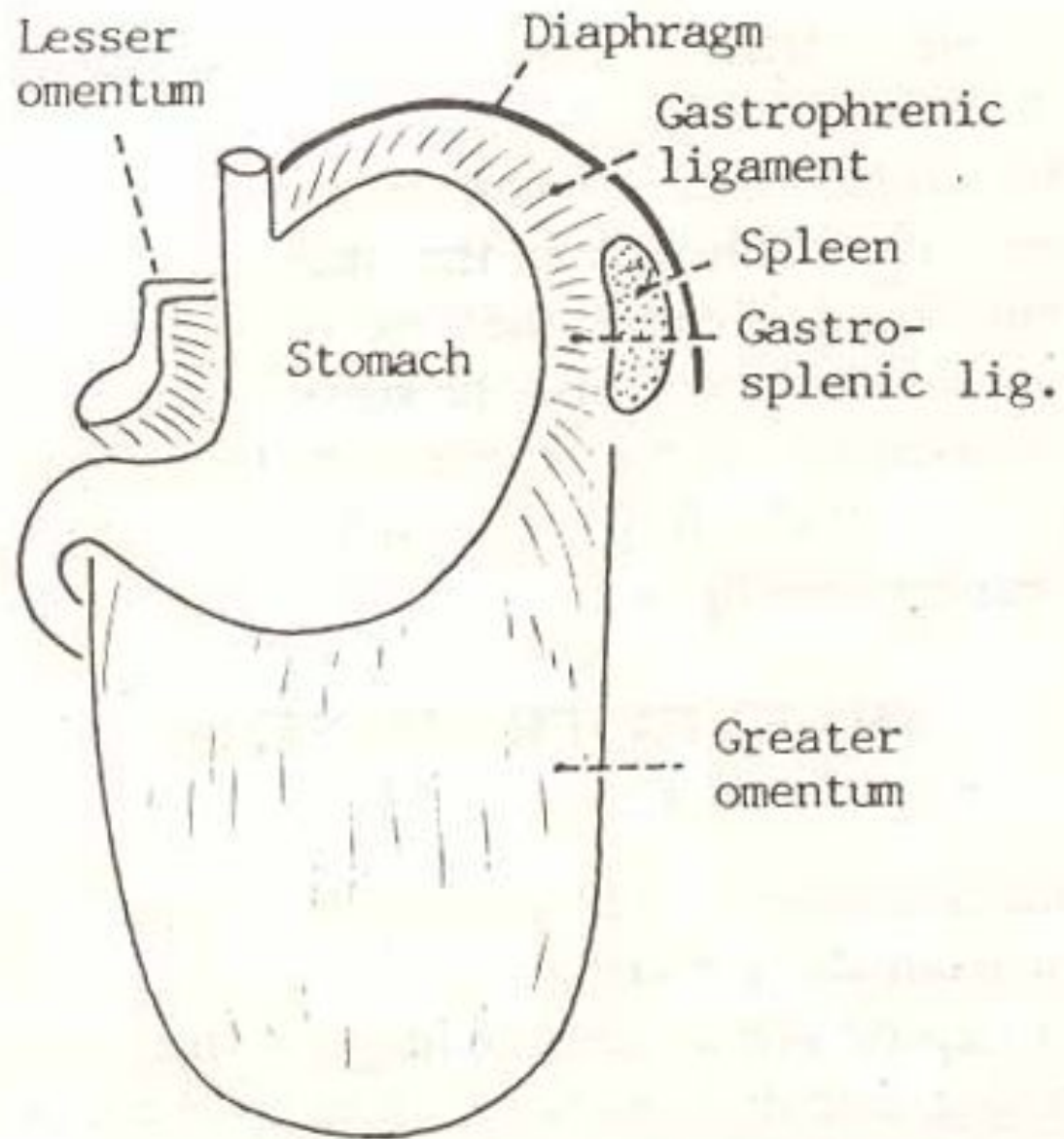


Fig. 18.7. Anterior view of the peritoneal folds attached to the greater and lesser curvatures of the stomach.

Stomach

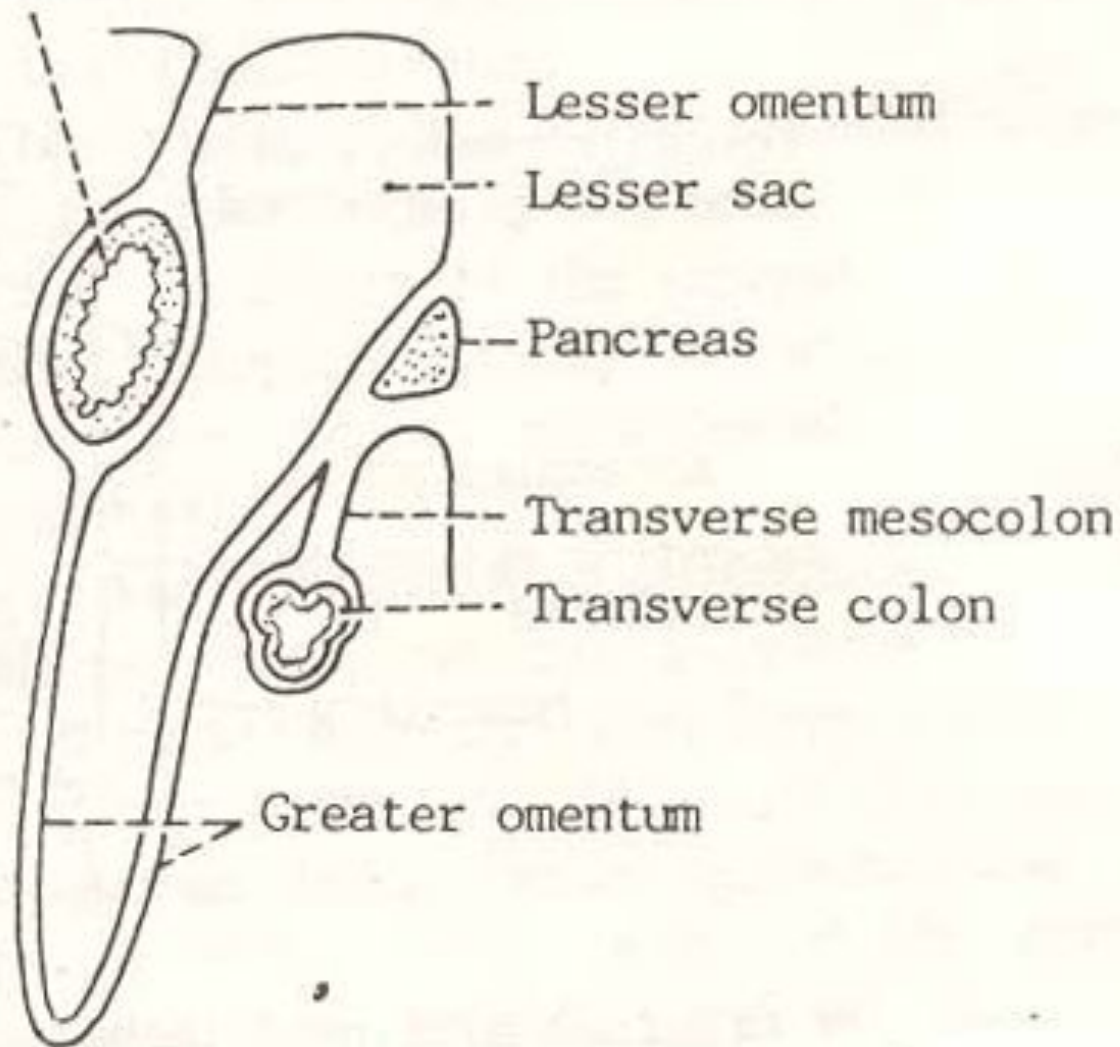
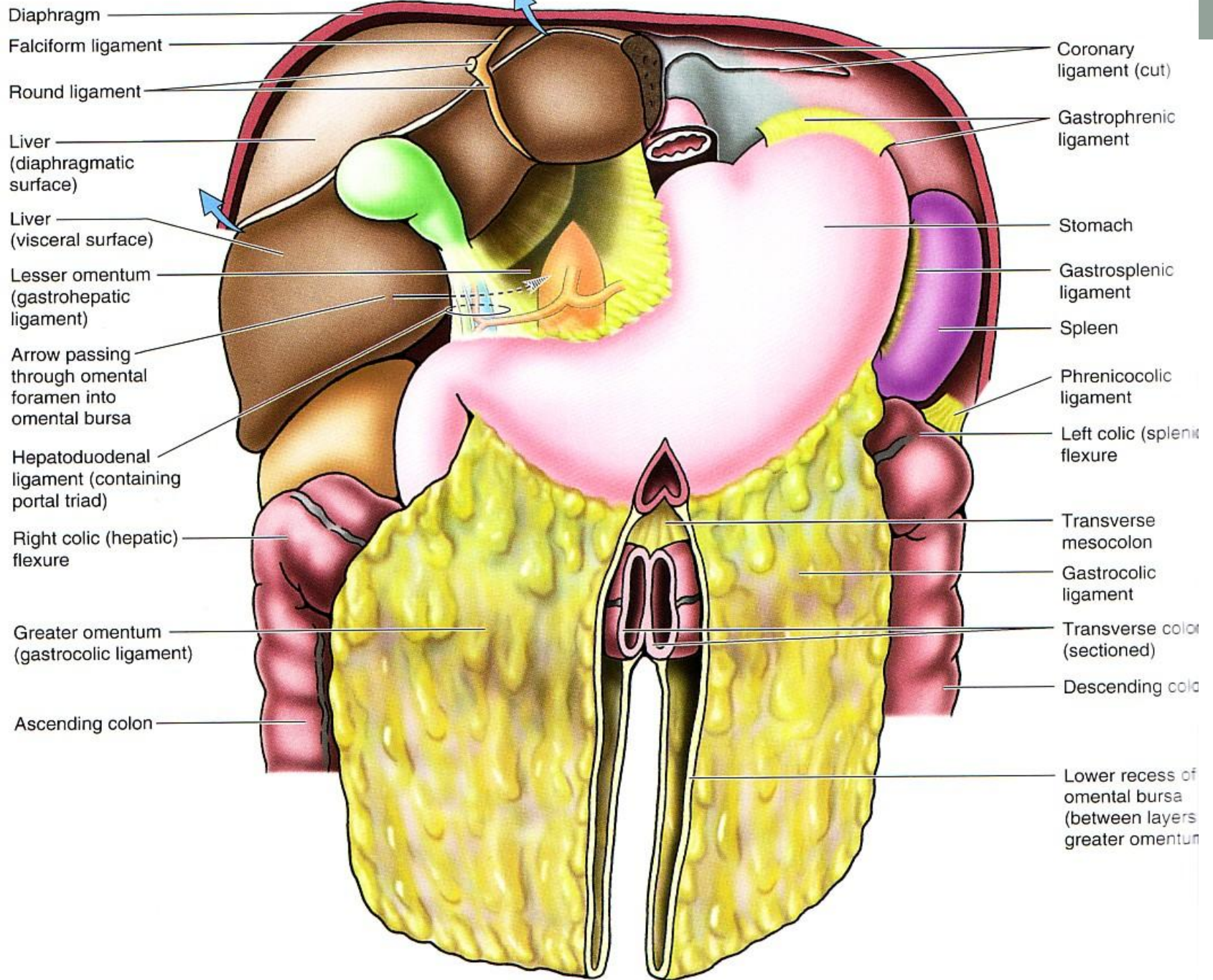
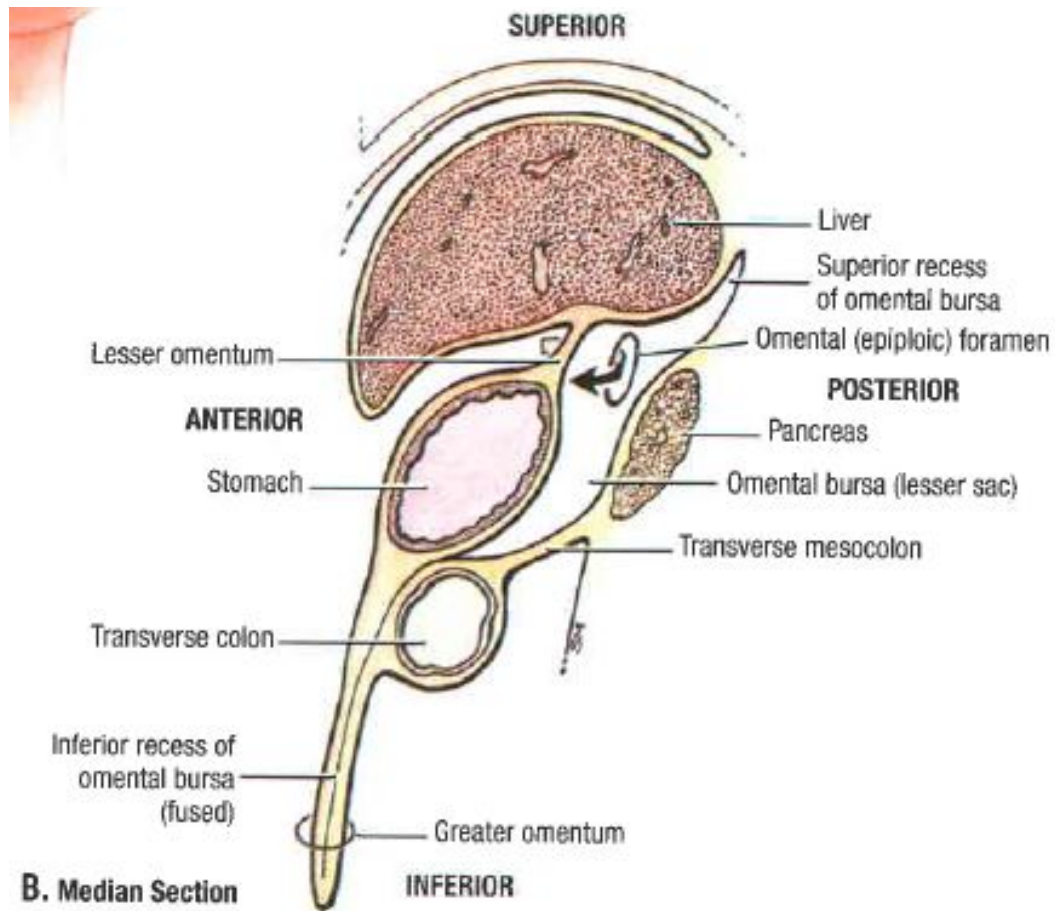
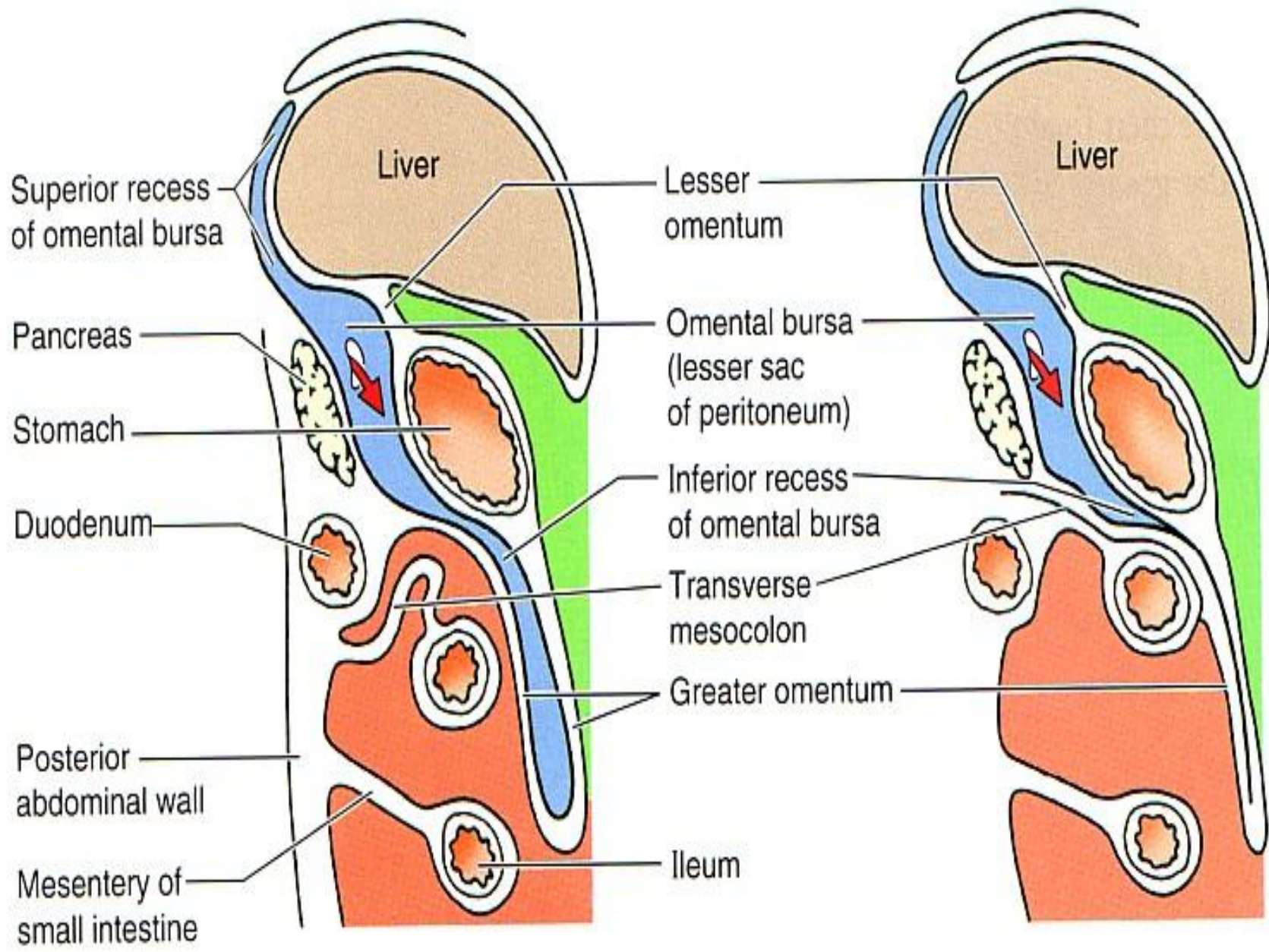
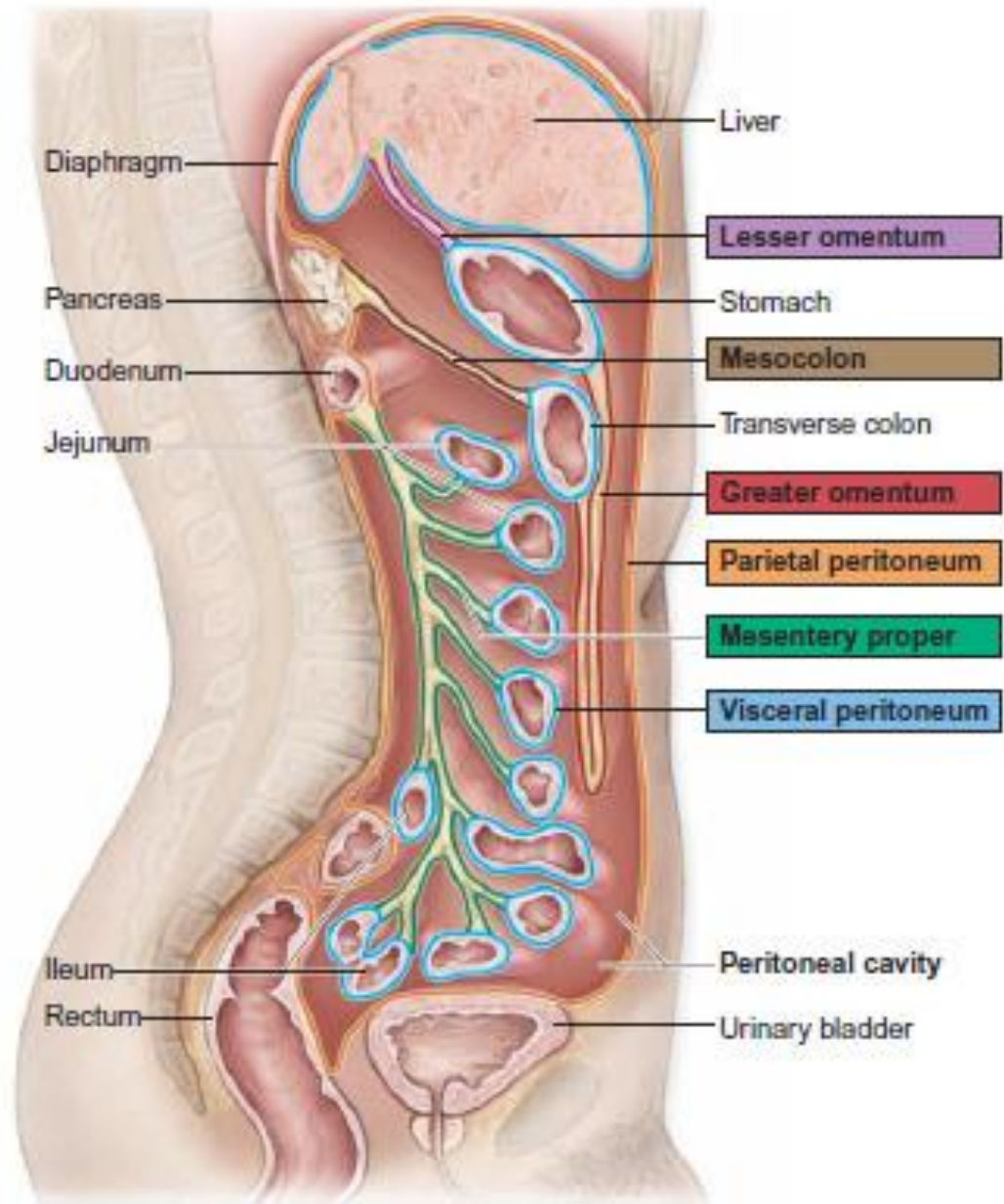


Fig. 18.8. Left view of a sagittal section of the abdomen showing the greater and lesser omenta and the transverse mesocolon.









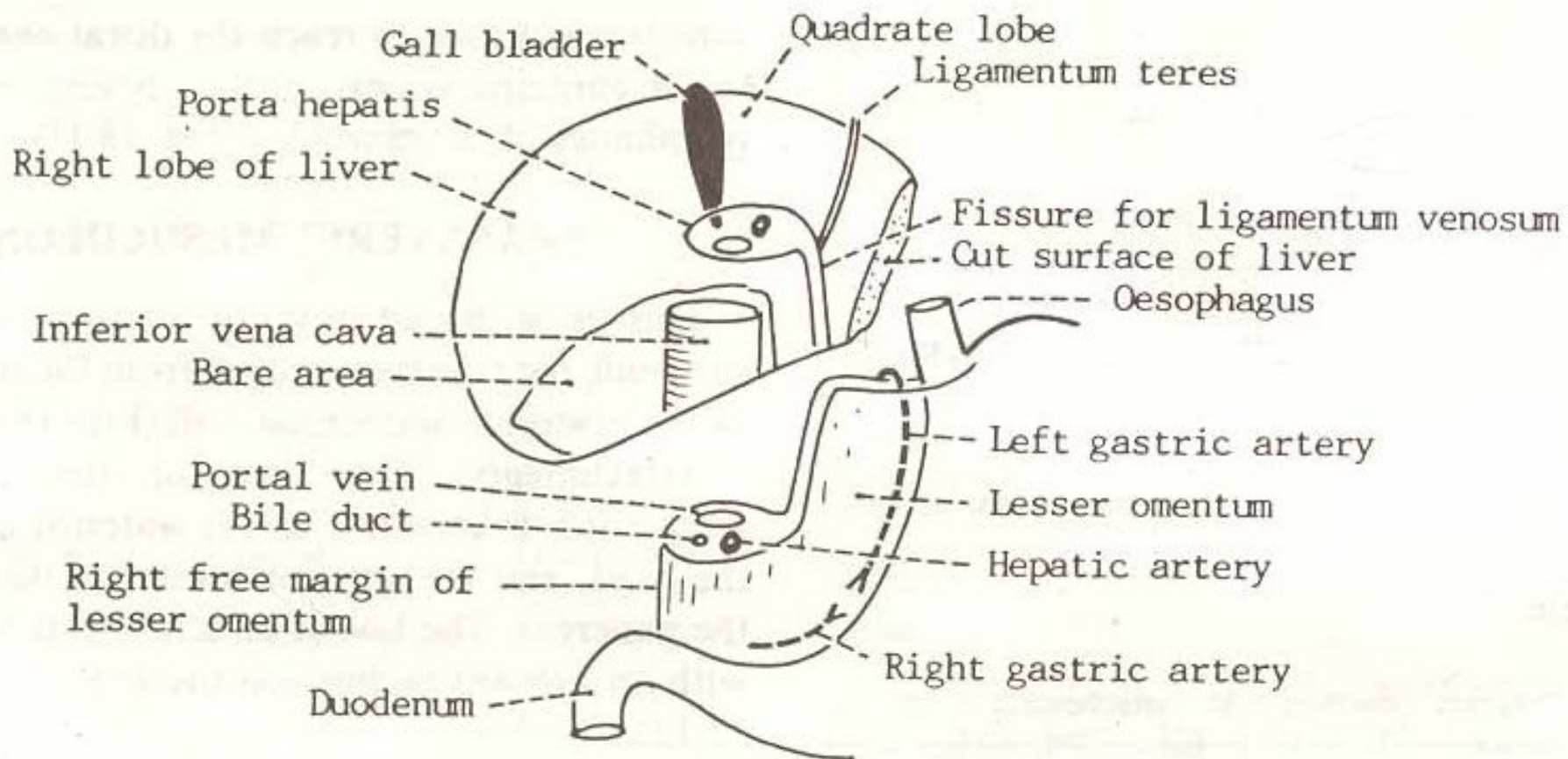


Fig. 18.9. The attachments and contents of the lesser omentum. The liver has been turned upwards so that its posteroinferior surface can be seen.

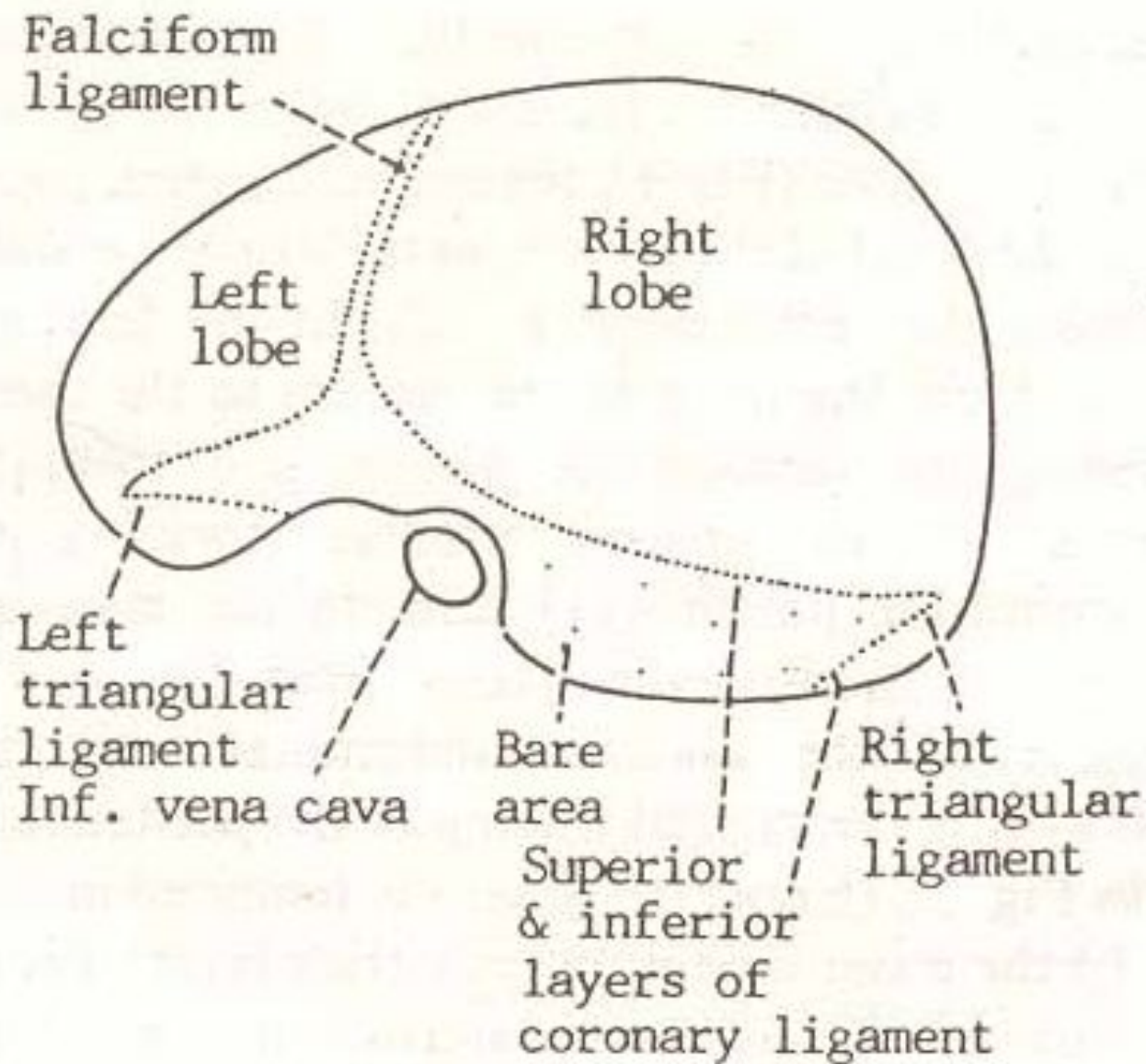


Fig. 18.14. Reflections of peritoneum on the liver. Superior aspect.

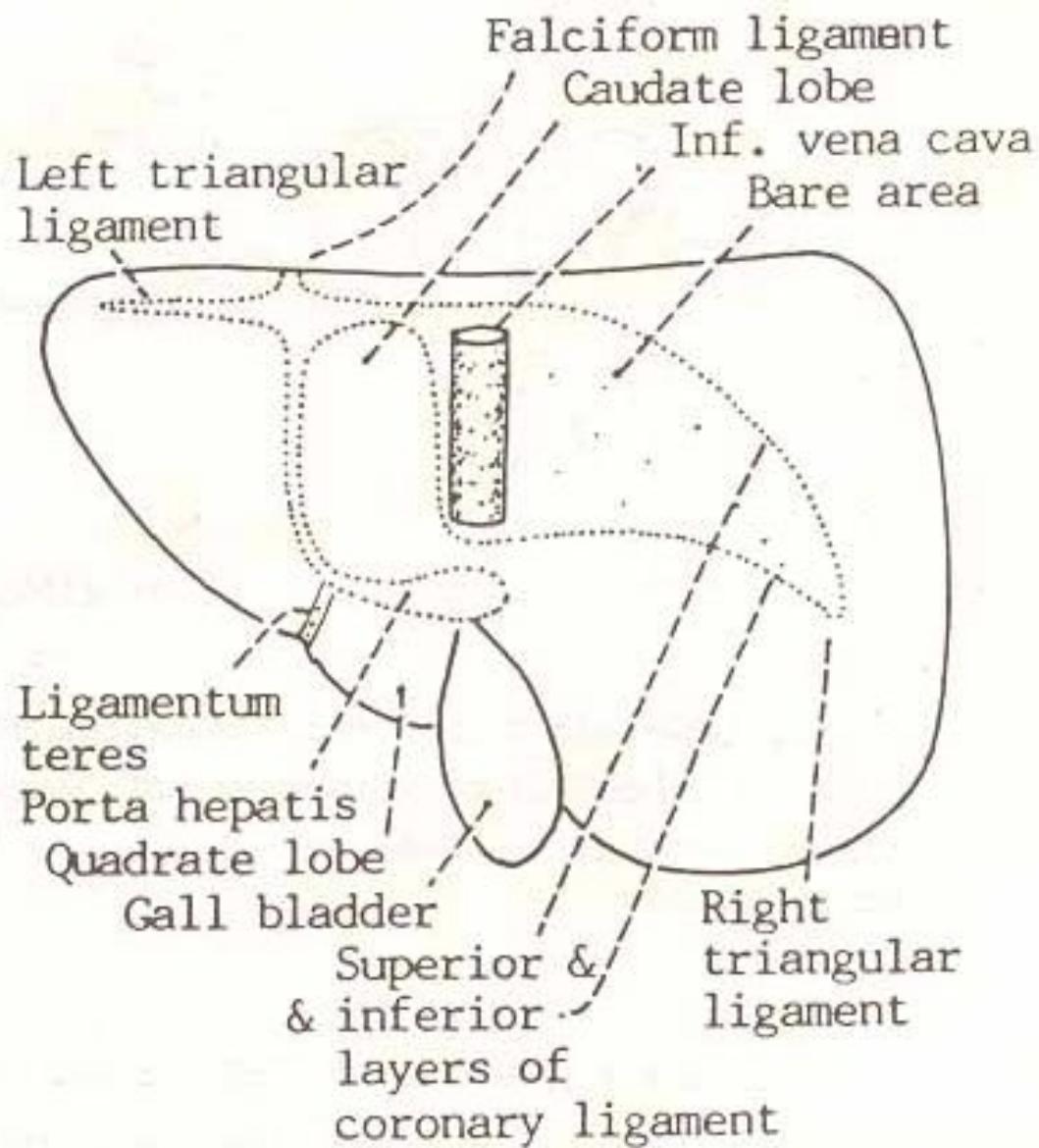
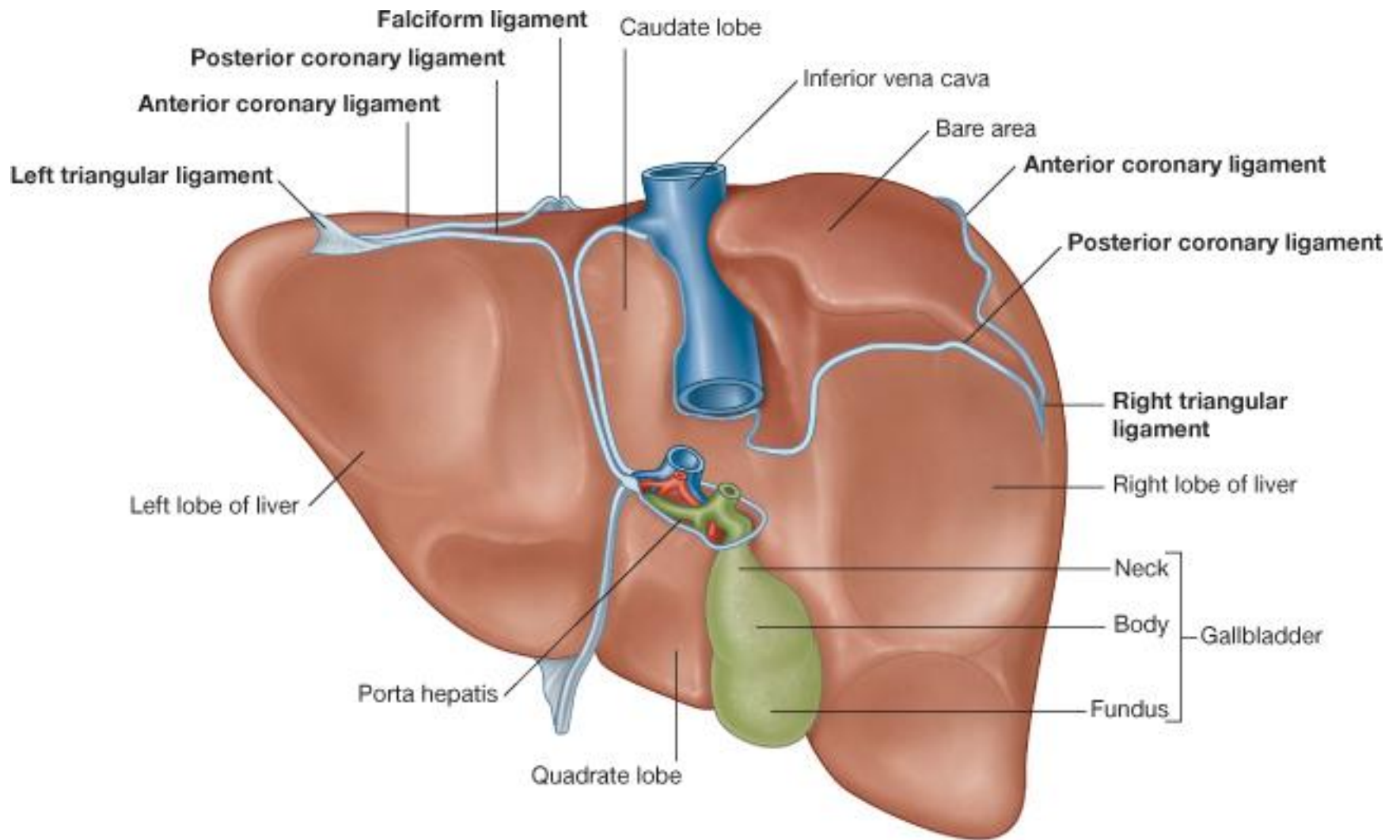
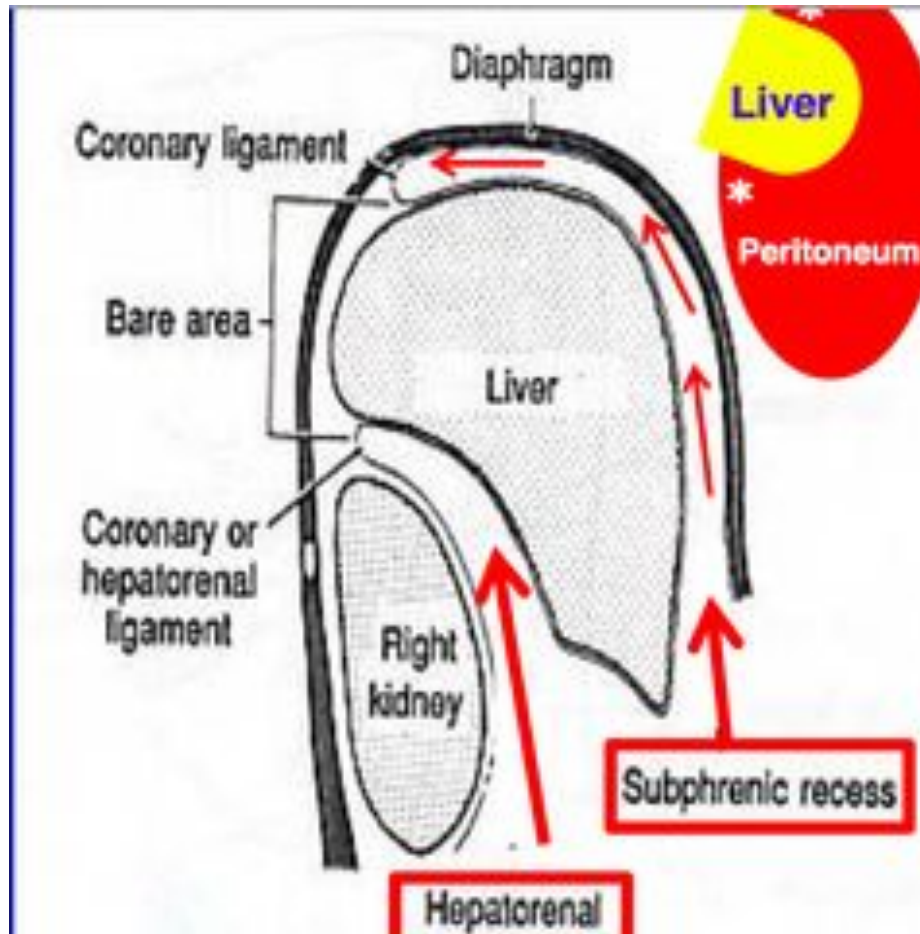
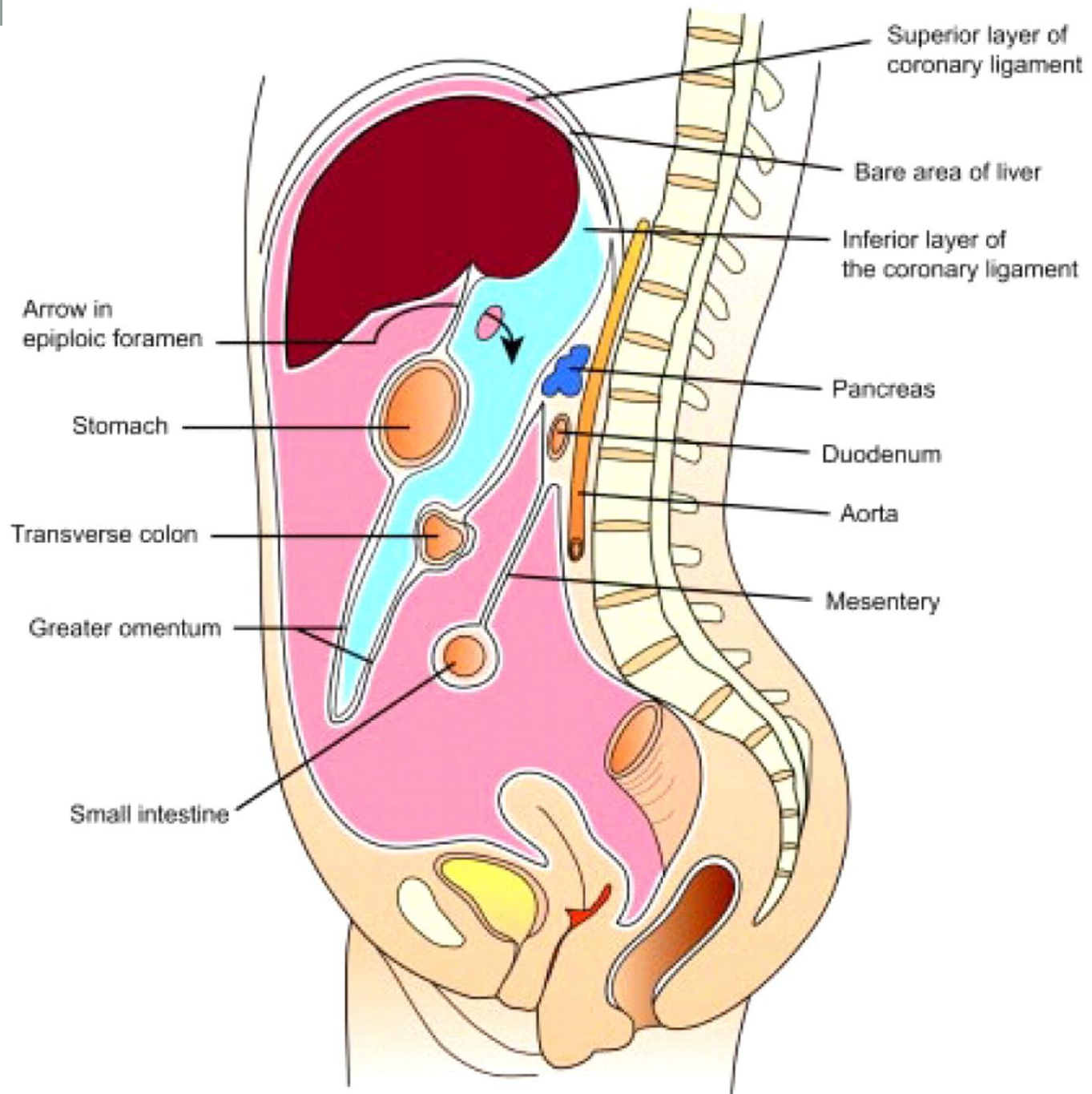


Fig. 18.15. Reflections of peritoneum on the liver. Posterior aspect.







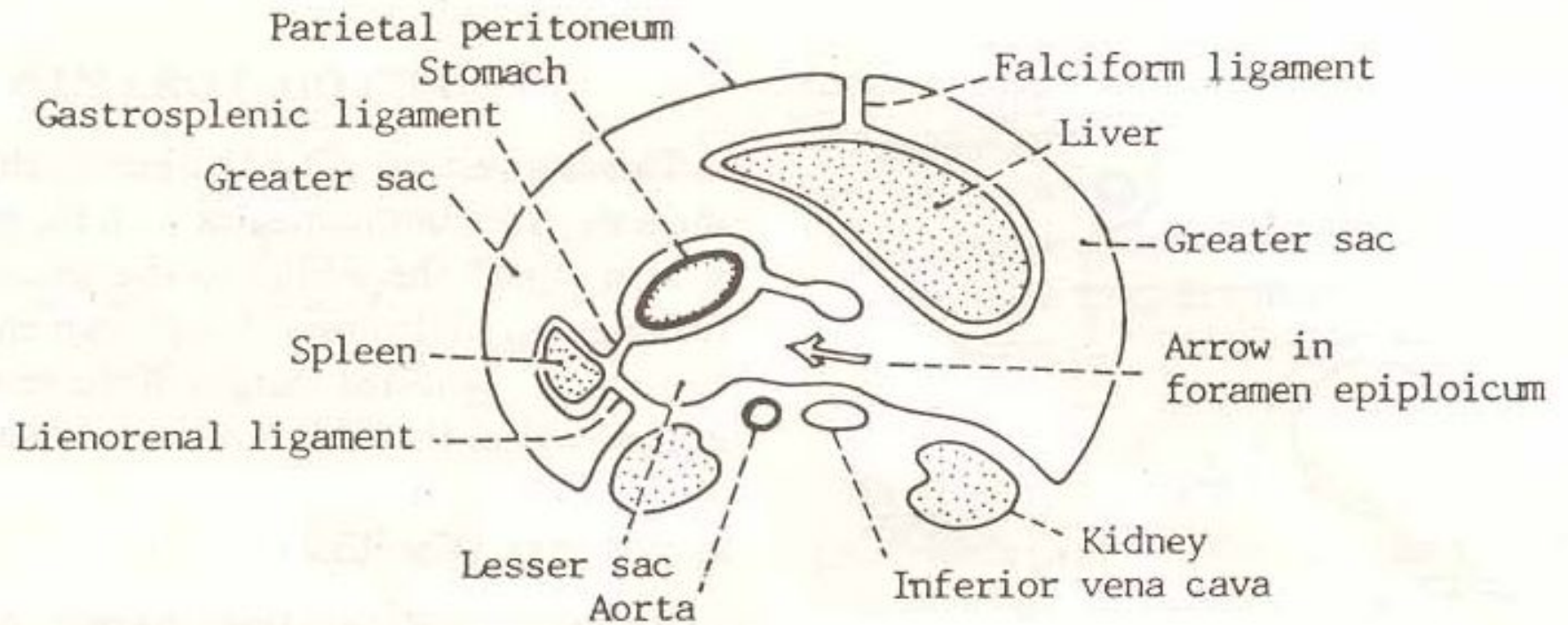


Fig. 18.17. Horizontal section through the supracolic compartment of the abdomen showing the horizontal disposition of the peritoneum.

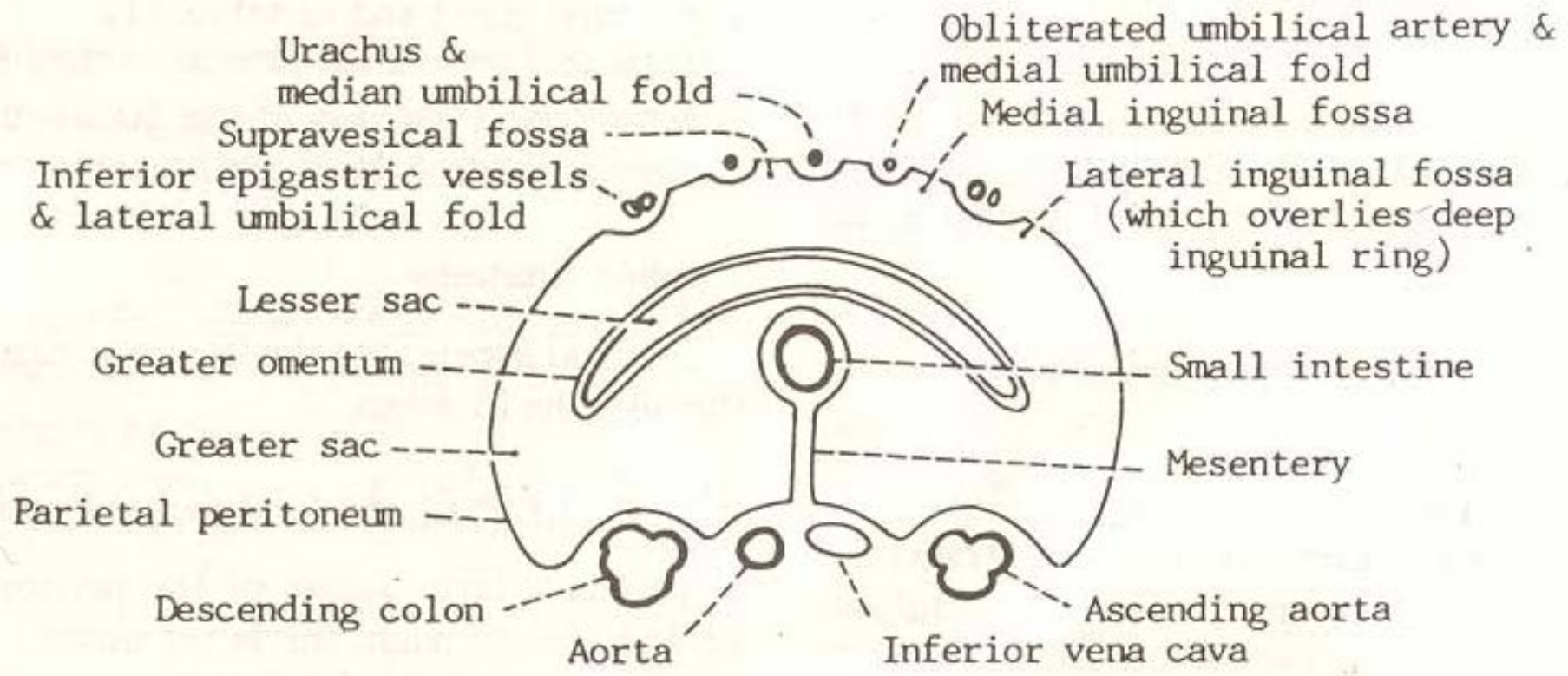


Fig. 18.18. Horizontal section through infracolic compartment of the abdomen showing the horizontal disposition of the peritoneum.

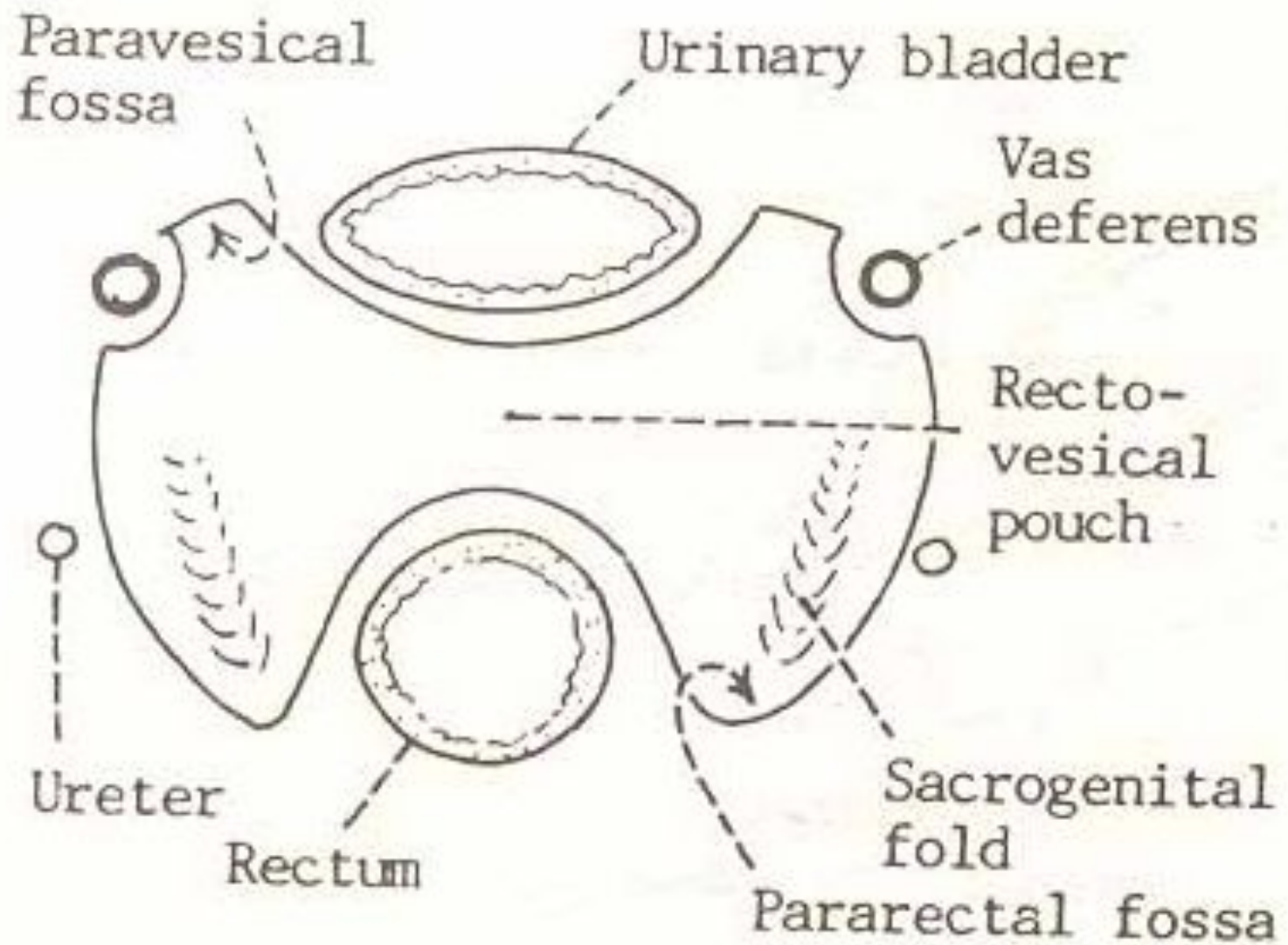


Fig. 18.19. Horizontal section through the male pelvis showing the horizontal disposition of the peritoneum.

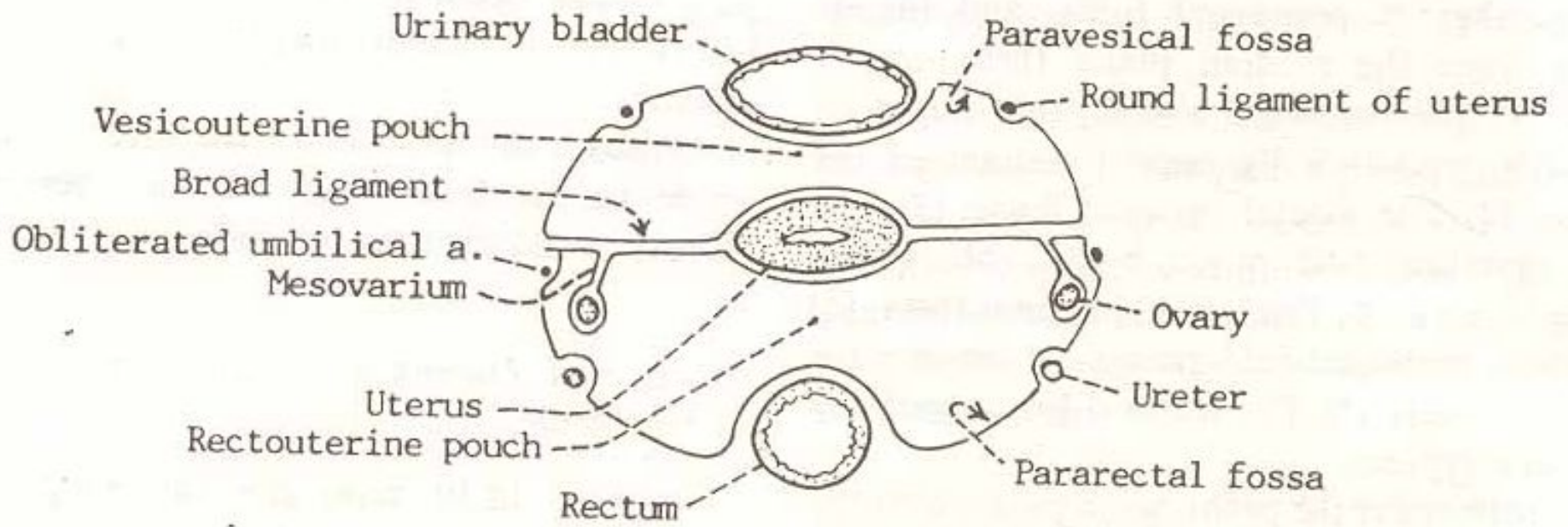


Fig. 18.20. Horizontal section through the female pelvis showing the horizontal disposition of the peritoneum.

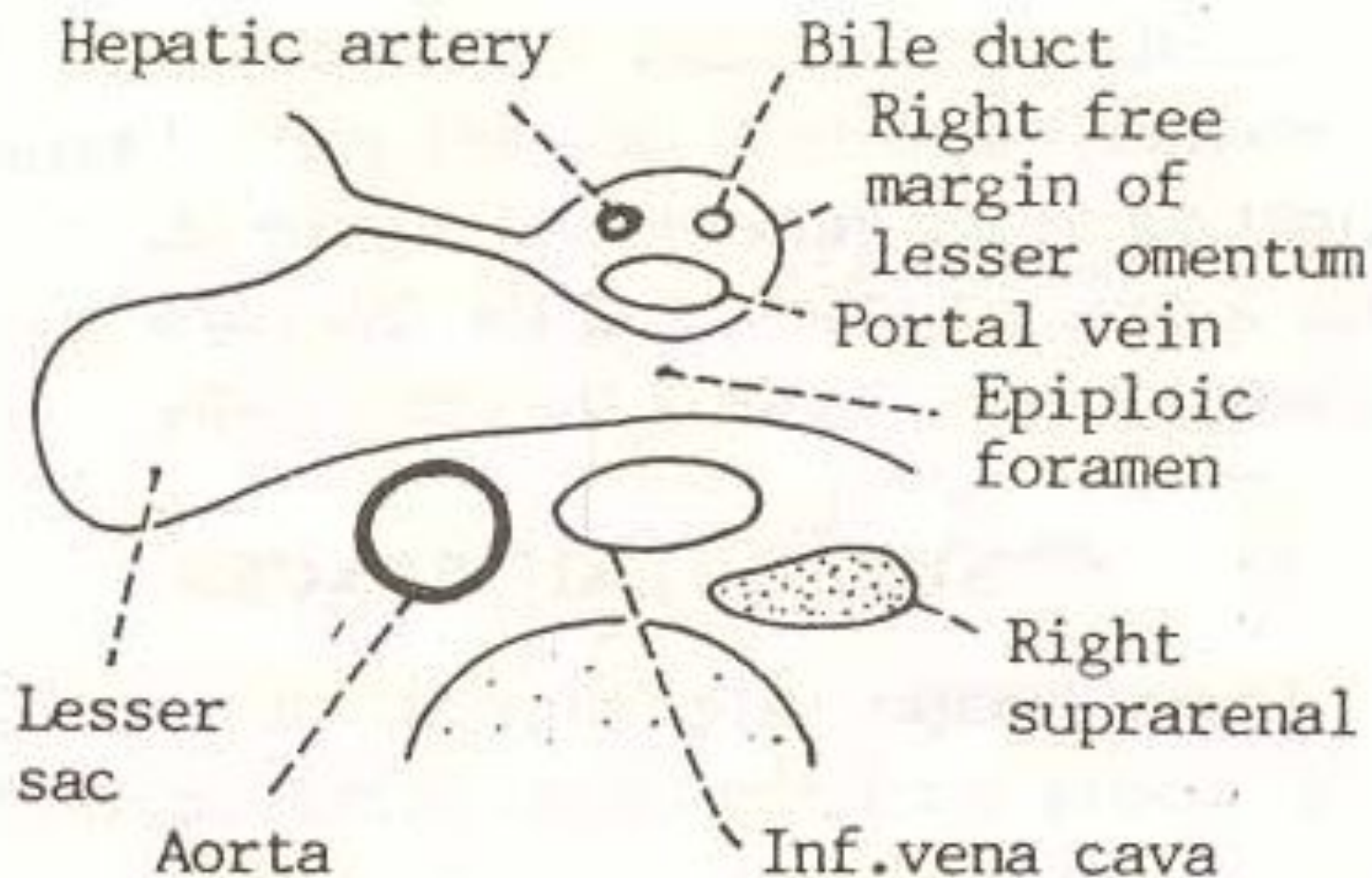


Fig. 18.21. Epiploic foramen as seen in a transverse section at the level of the twelfth thoracic vertebra.

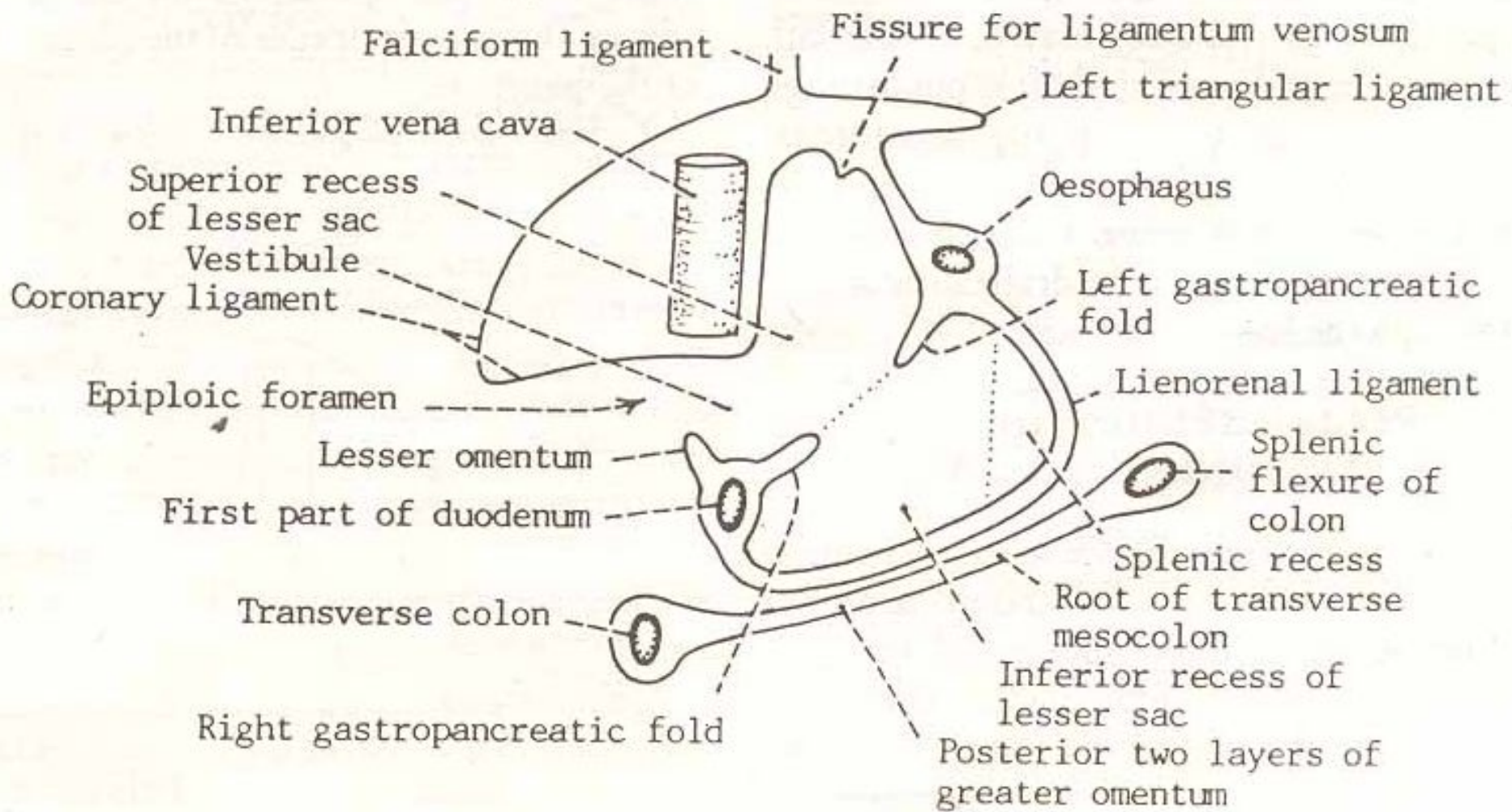


Fig. 18.22. Lesser sac seen after removal of its anterior wall.

Right posterior space
(right subhepatic)

Inferior
vena
cava

Left posterior
(L. subhepatic)
space

Coronary
ligament

Right extra-
peritoneal
space

Left anterior
(L. subhepatic)
space

Right anterior
(R. subhepatic)
space

Left
triangular
ligament

Falciform lig.

Fig. 18.23. Subphrenic spaces shown in relation to the peritoneal reflections on the liver.

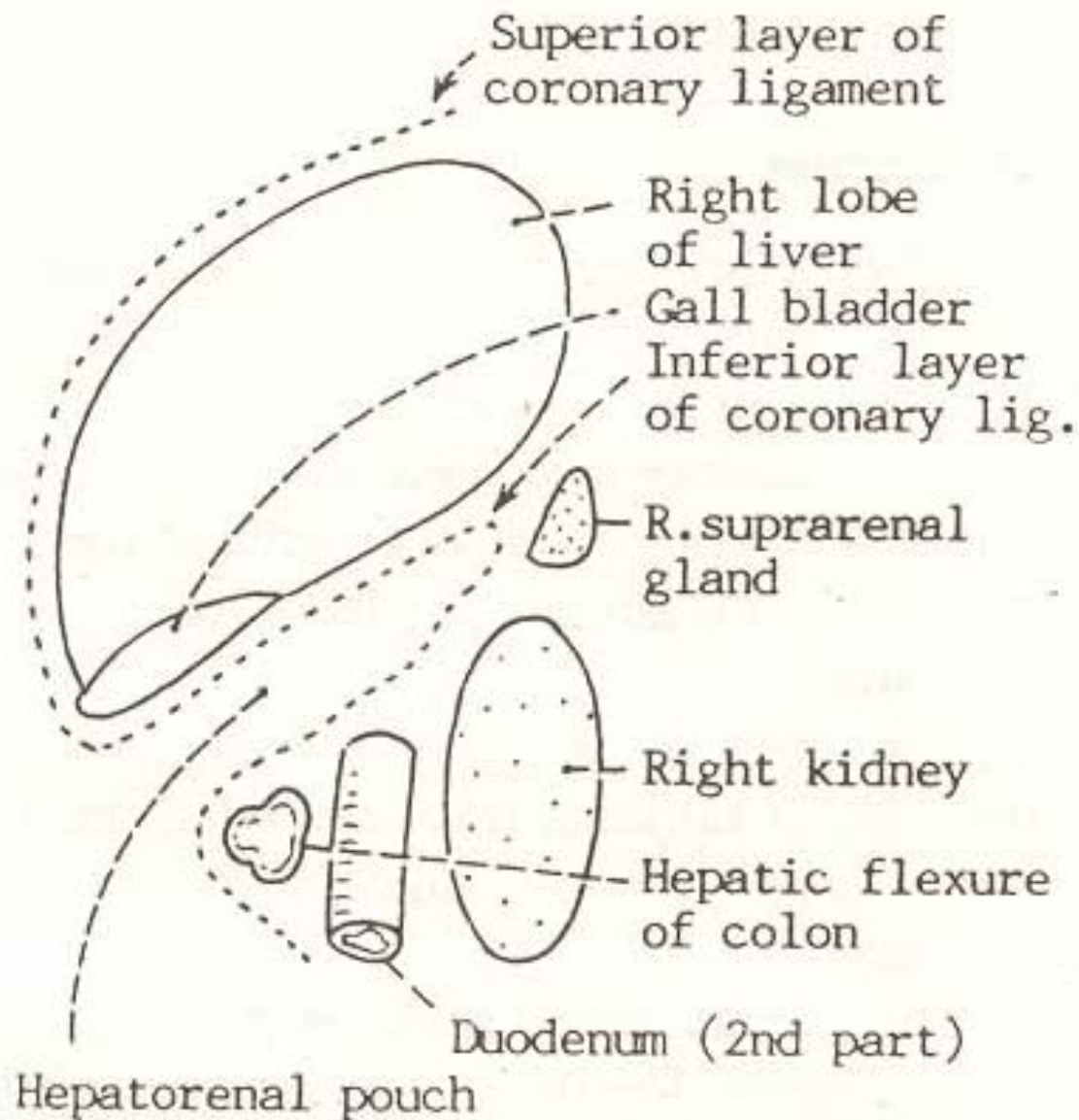
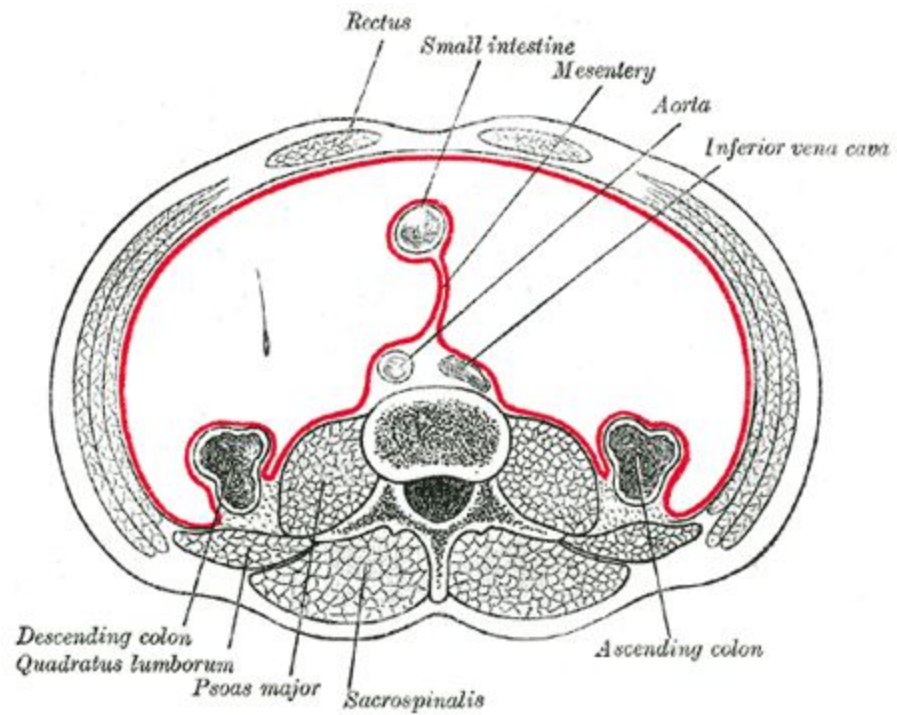
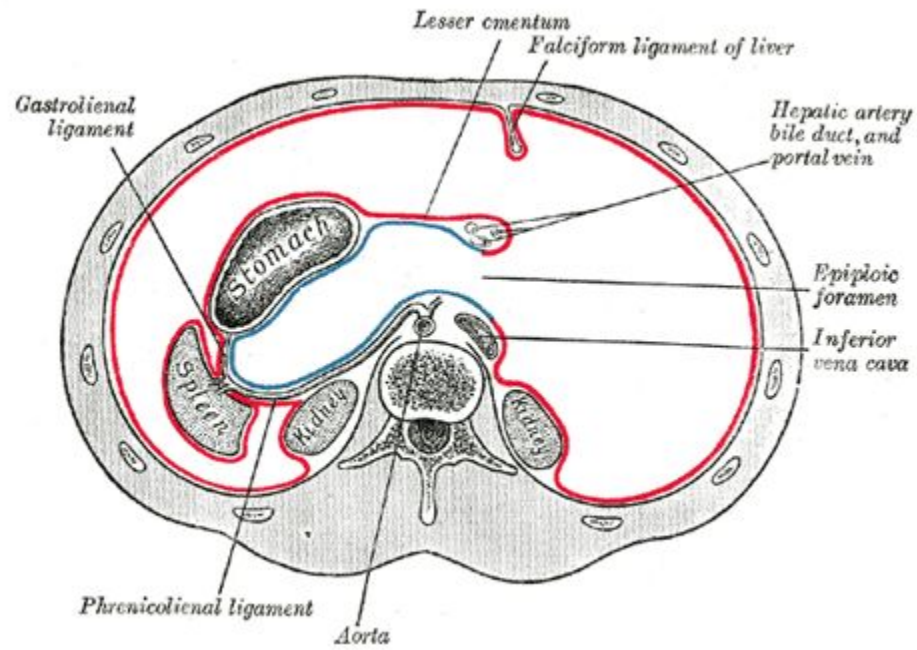
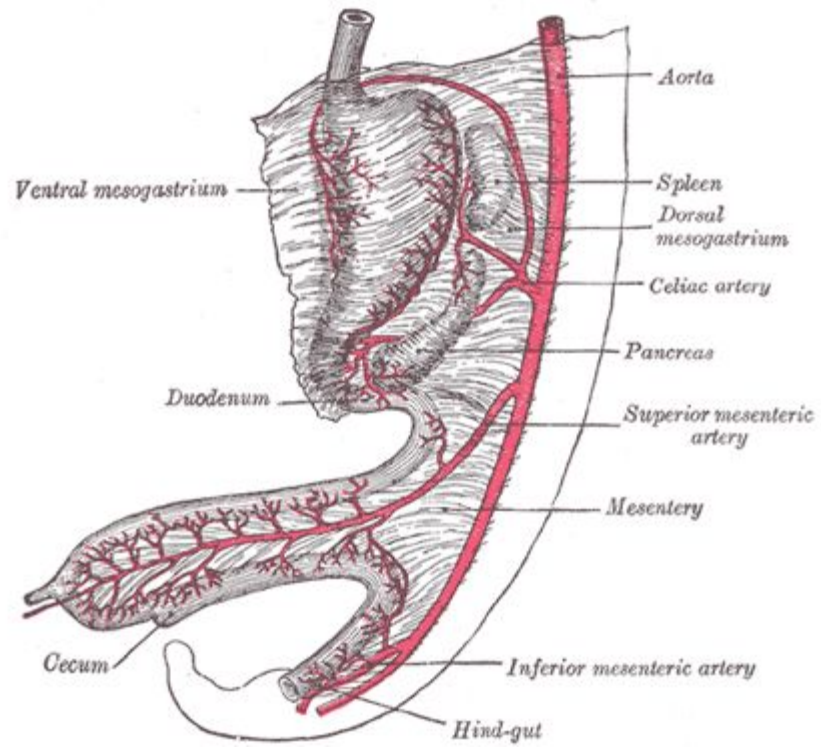
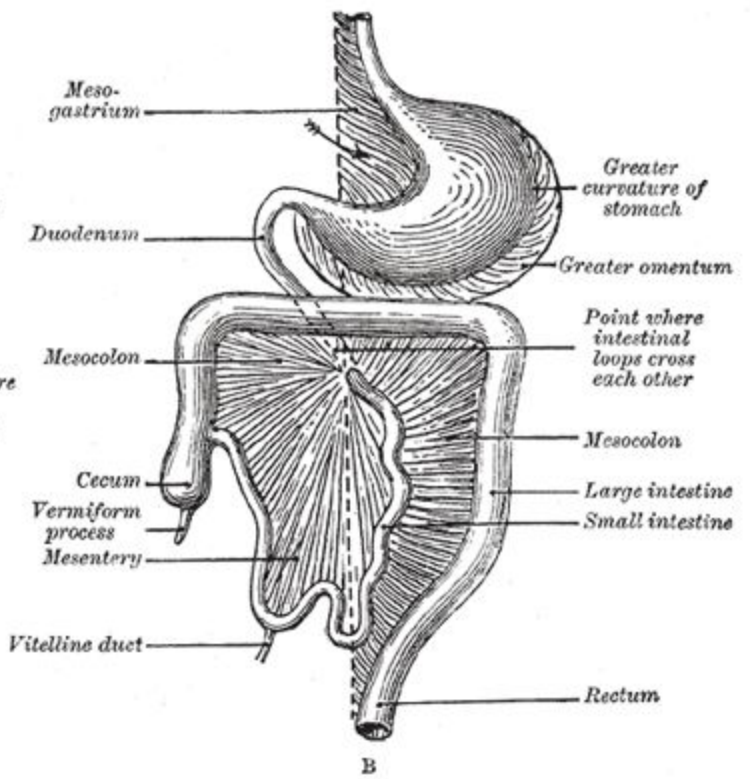
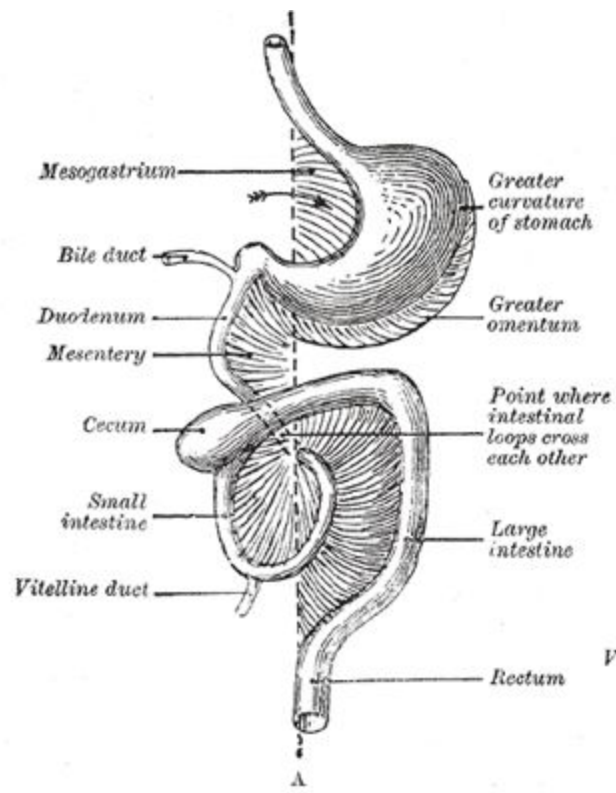


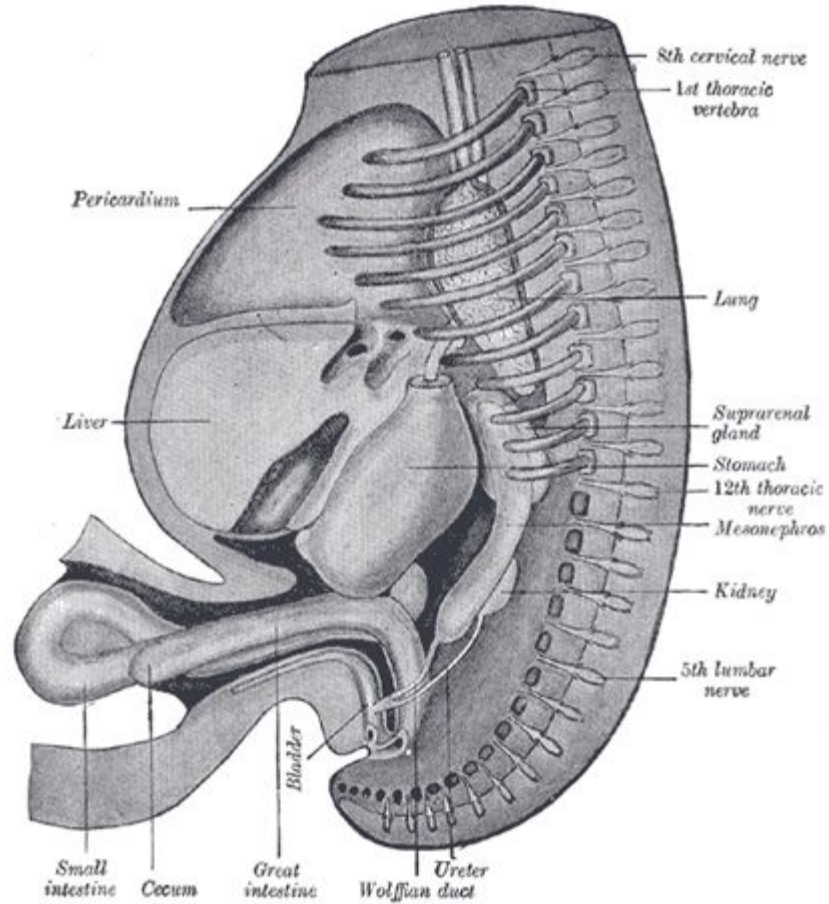
Fig. 18.24. Left view of a sagittal section through the hepatorenal pouch.

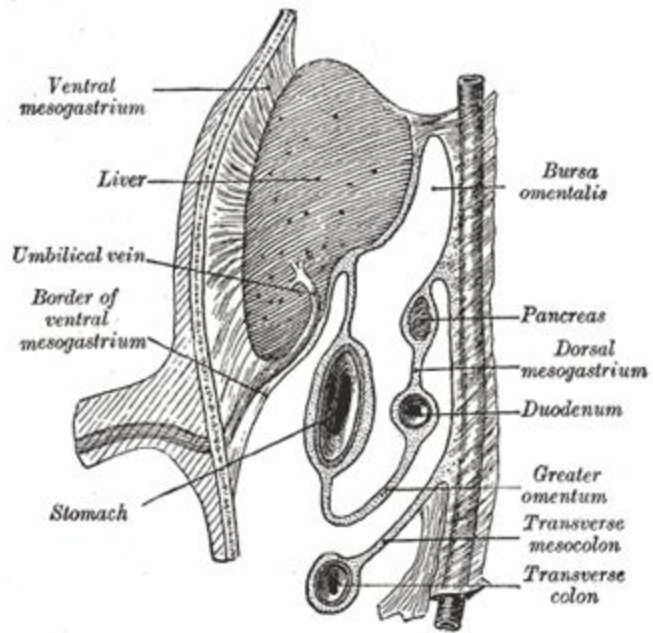


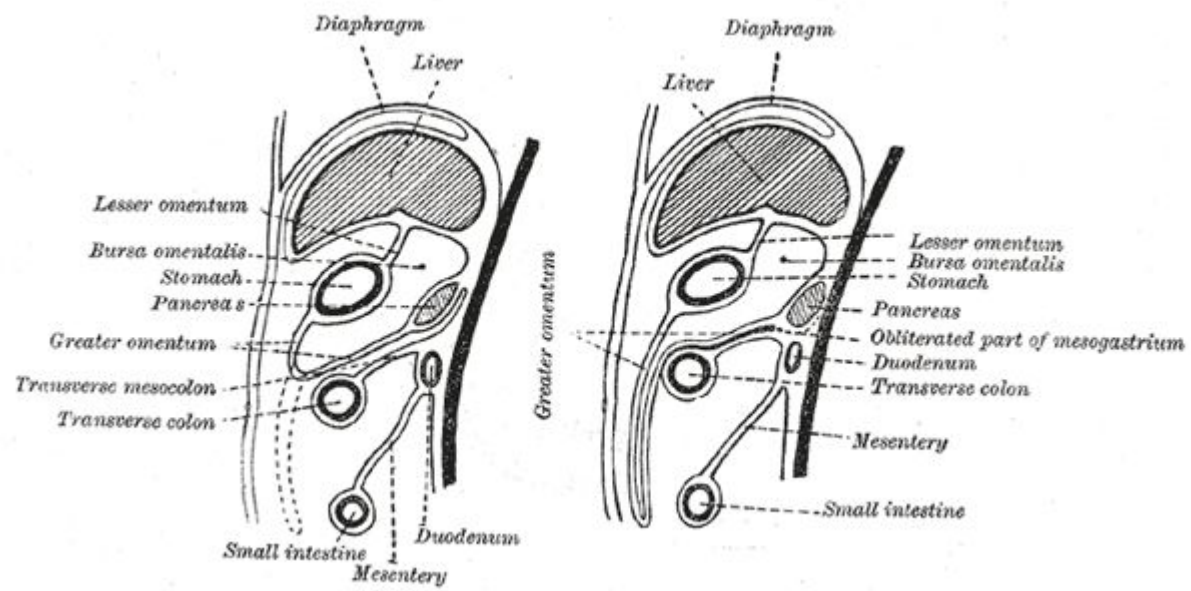






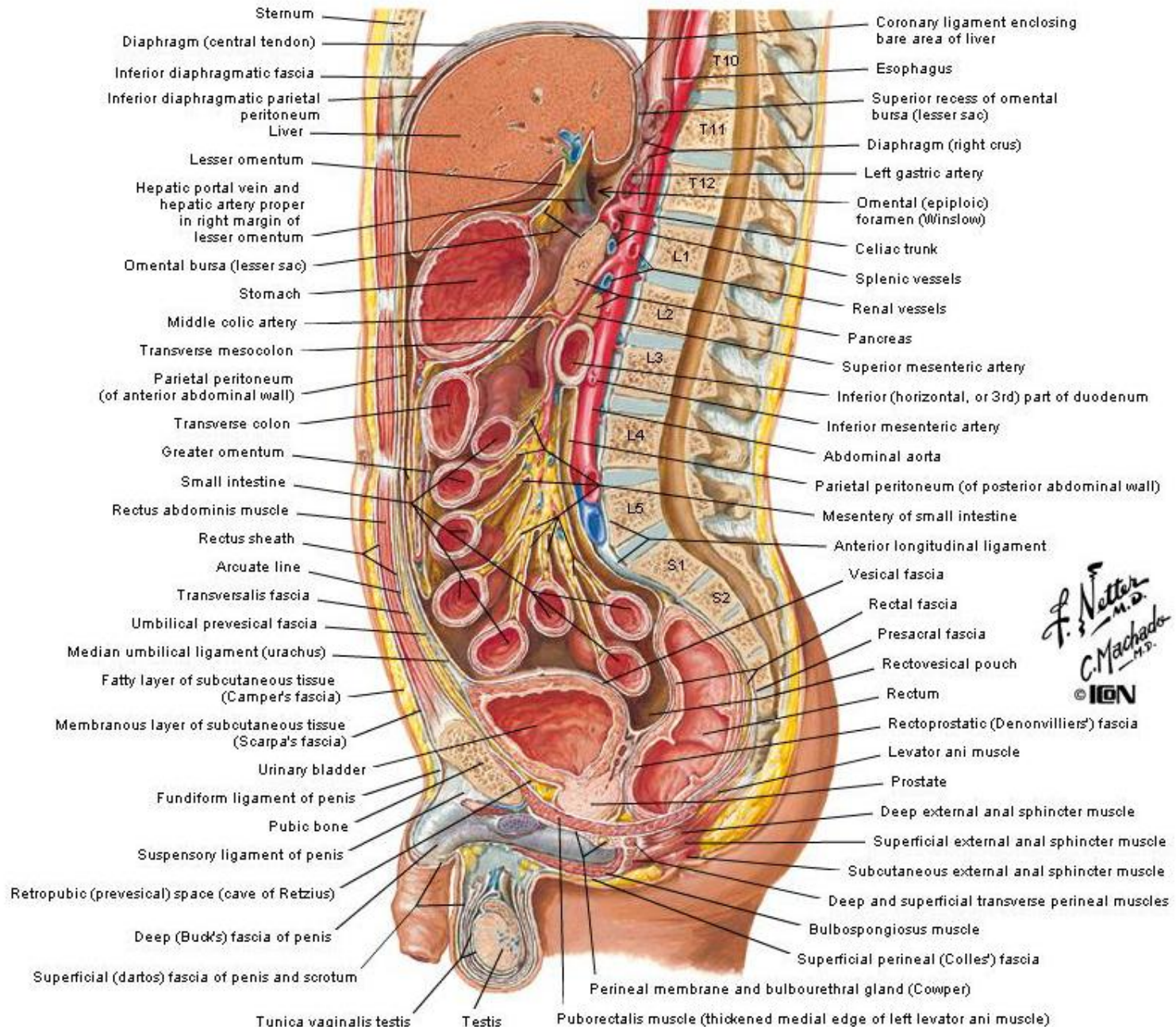


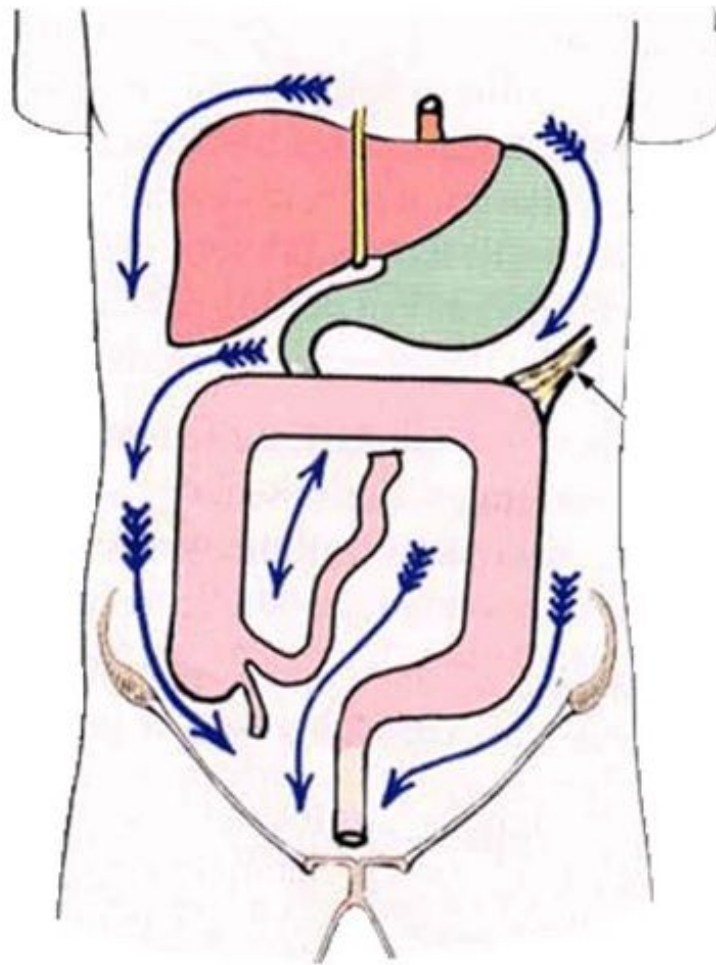




Abdominal Wall and Viscera

Median (Sagittal) Section





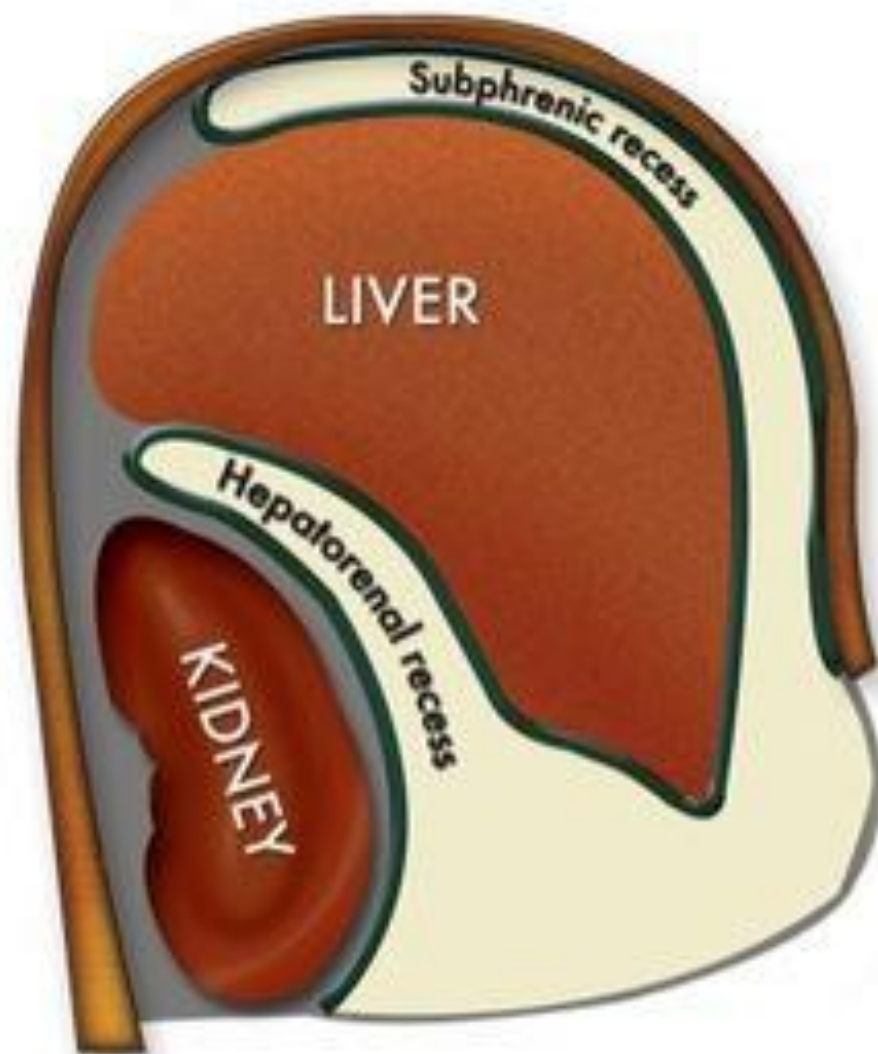
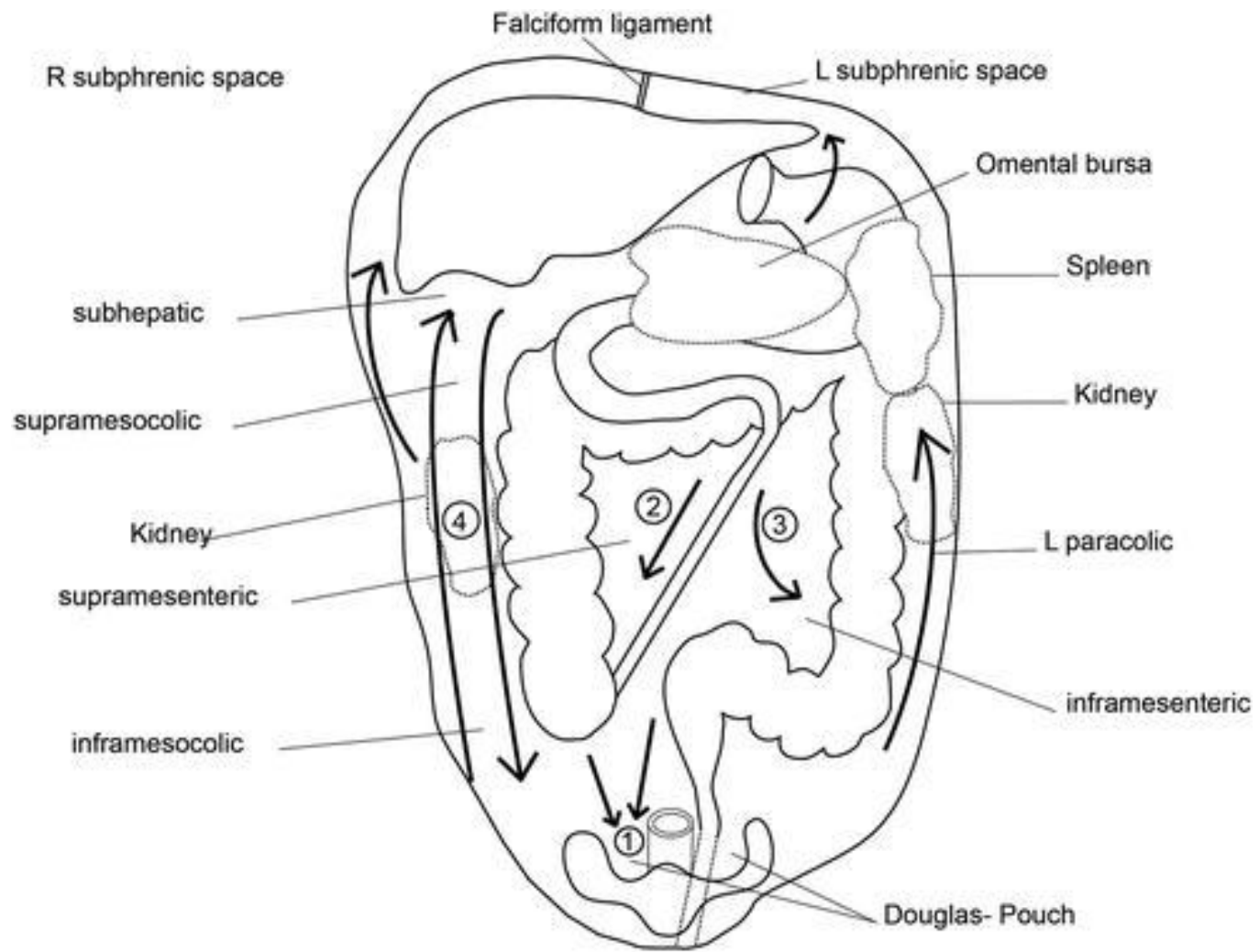
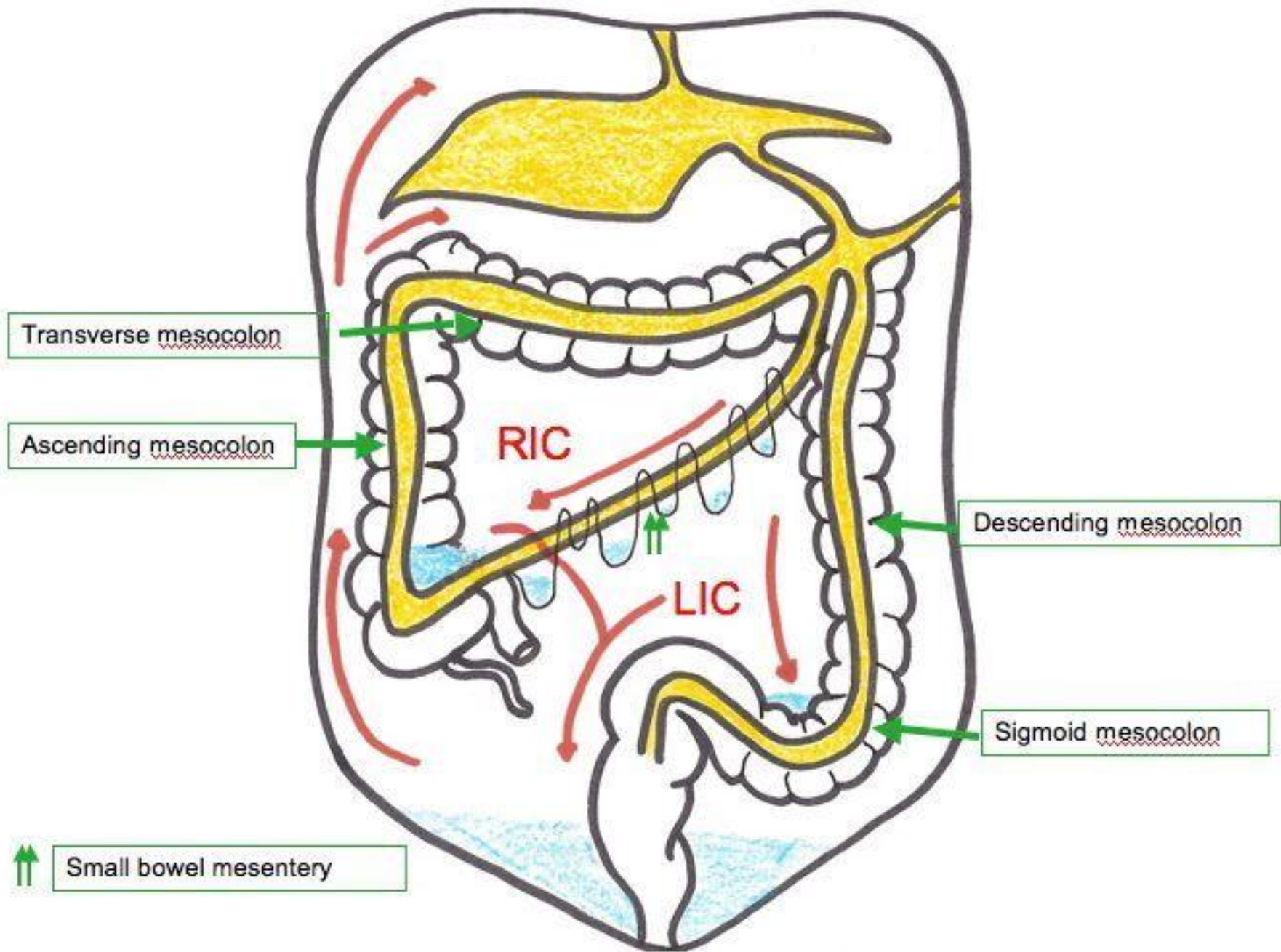


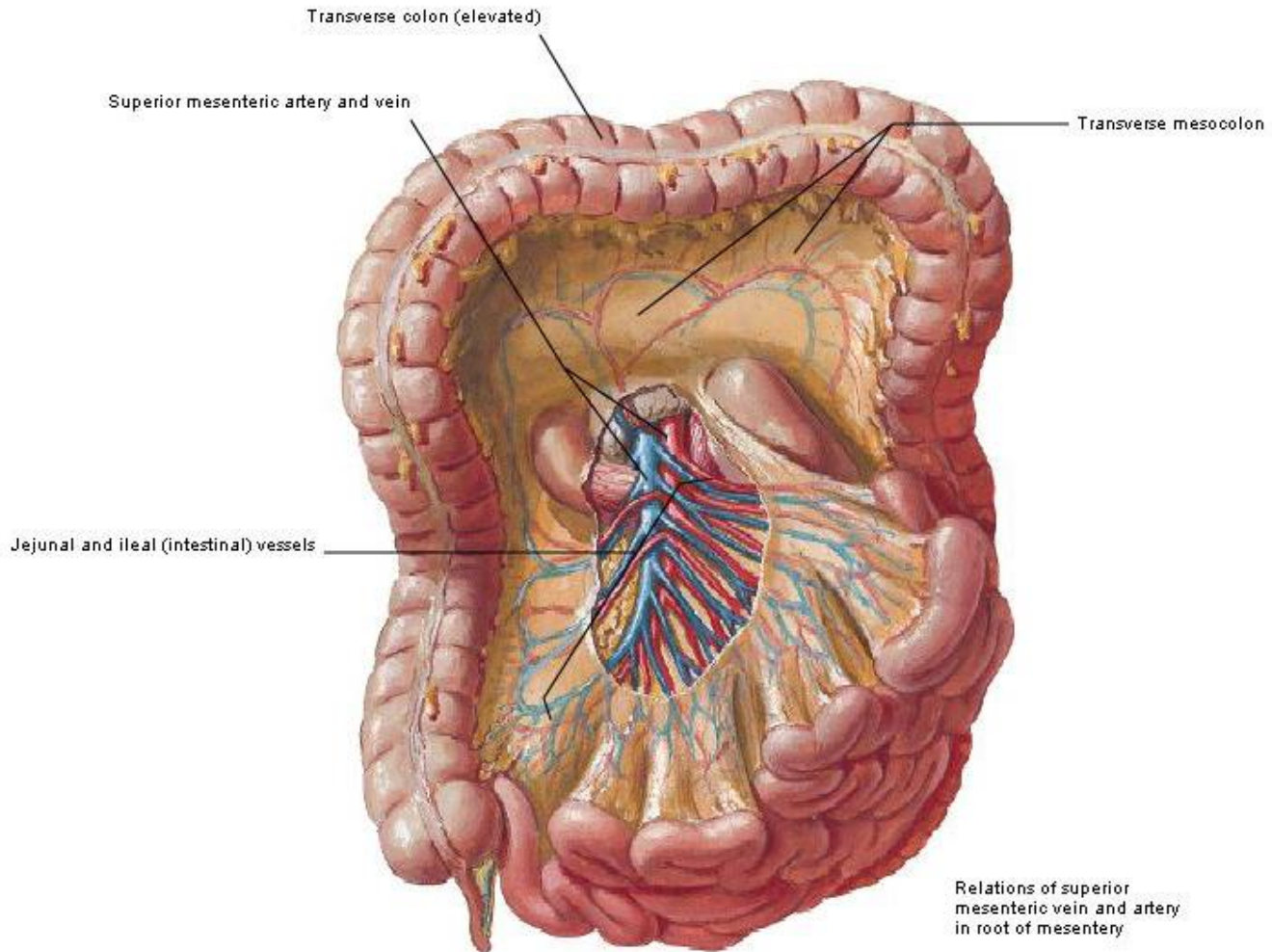
Figure 2. Schematic diagram depicting the perihepatic peritoneal recesses.



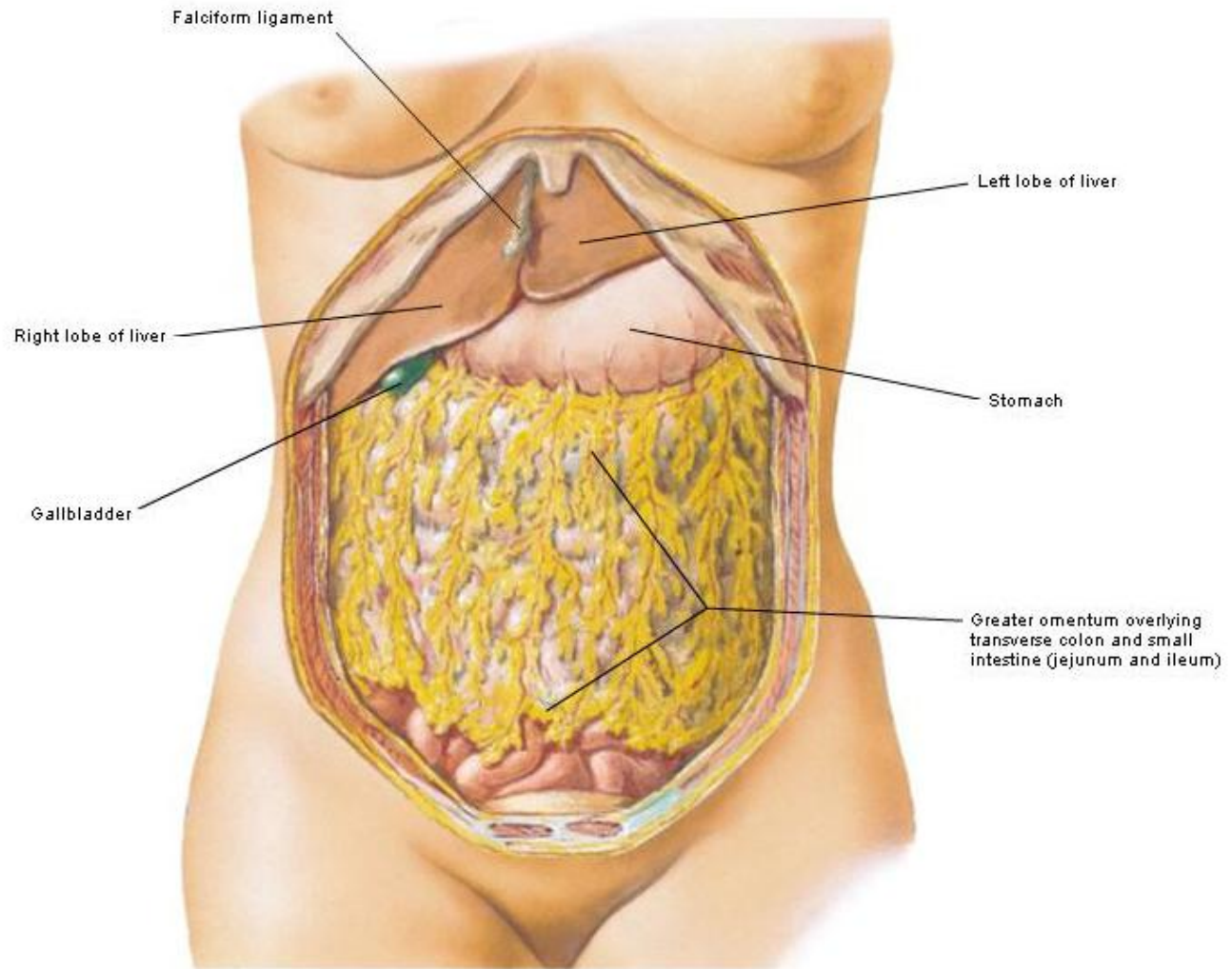


Veins of Small Intestine

Transverse Colon Elevated

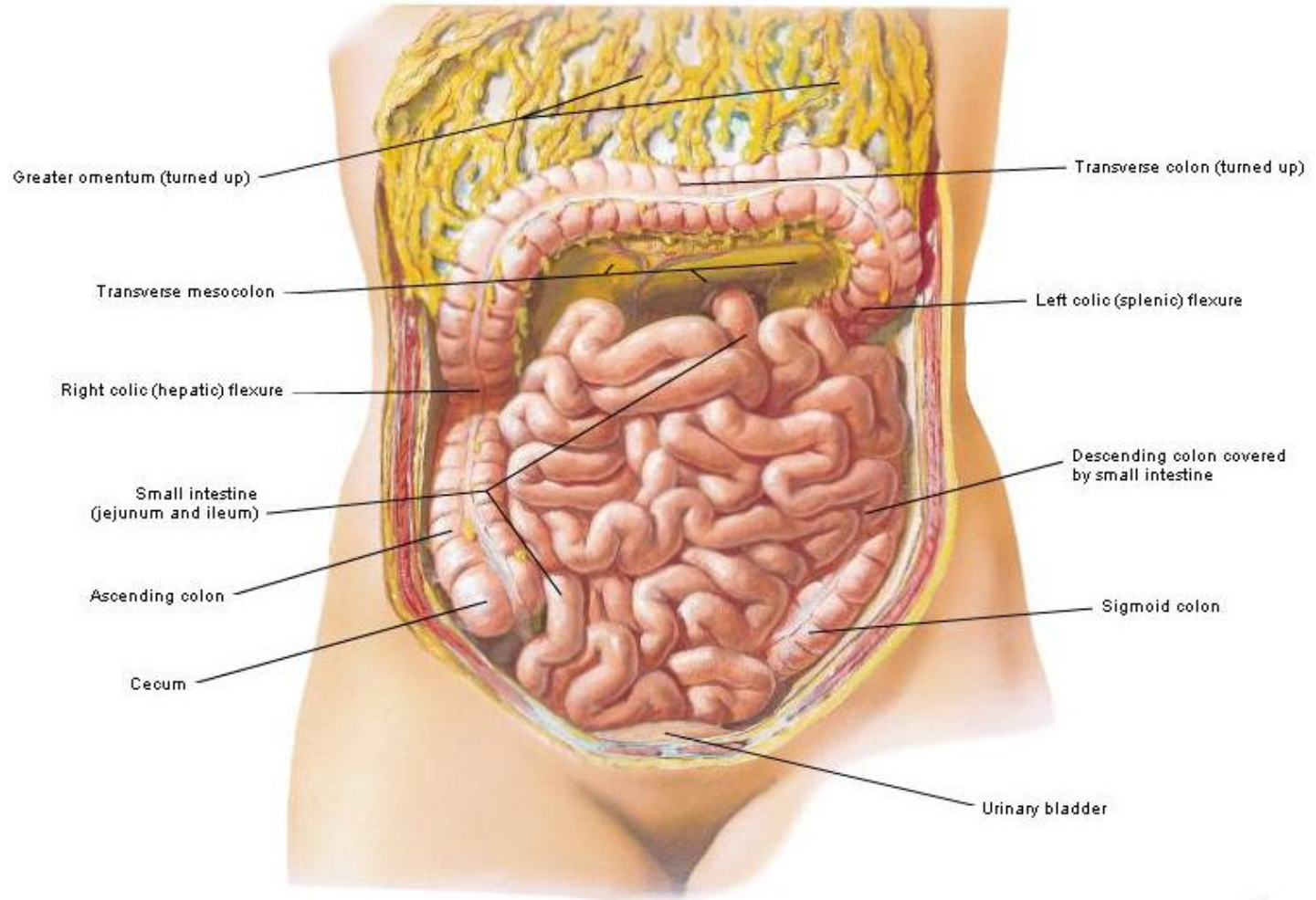


Greater Omentum and Abdominal Viscera



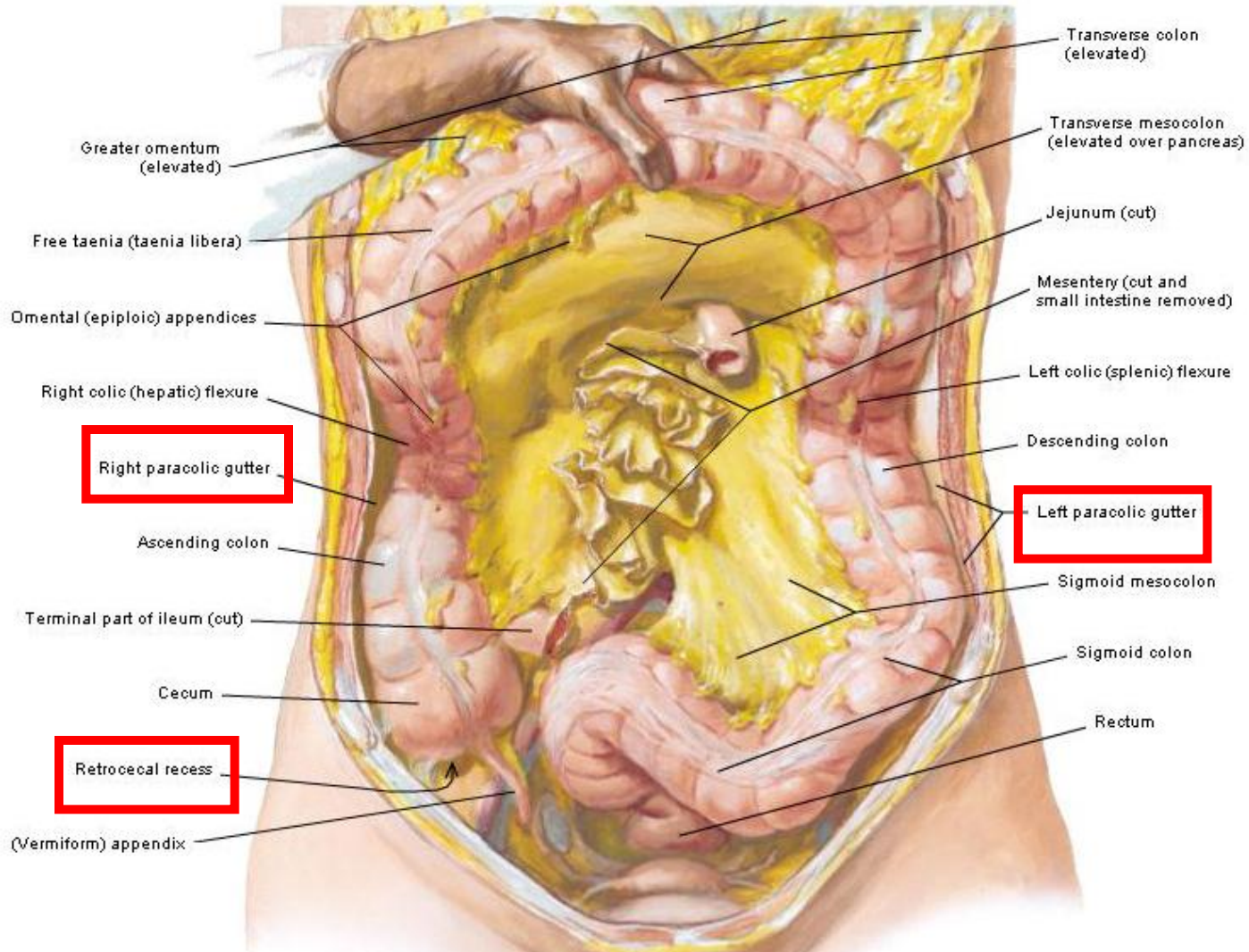
Greater Omentum and Abdominal Viscera

Omentum Raised

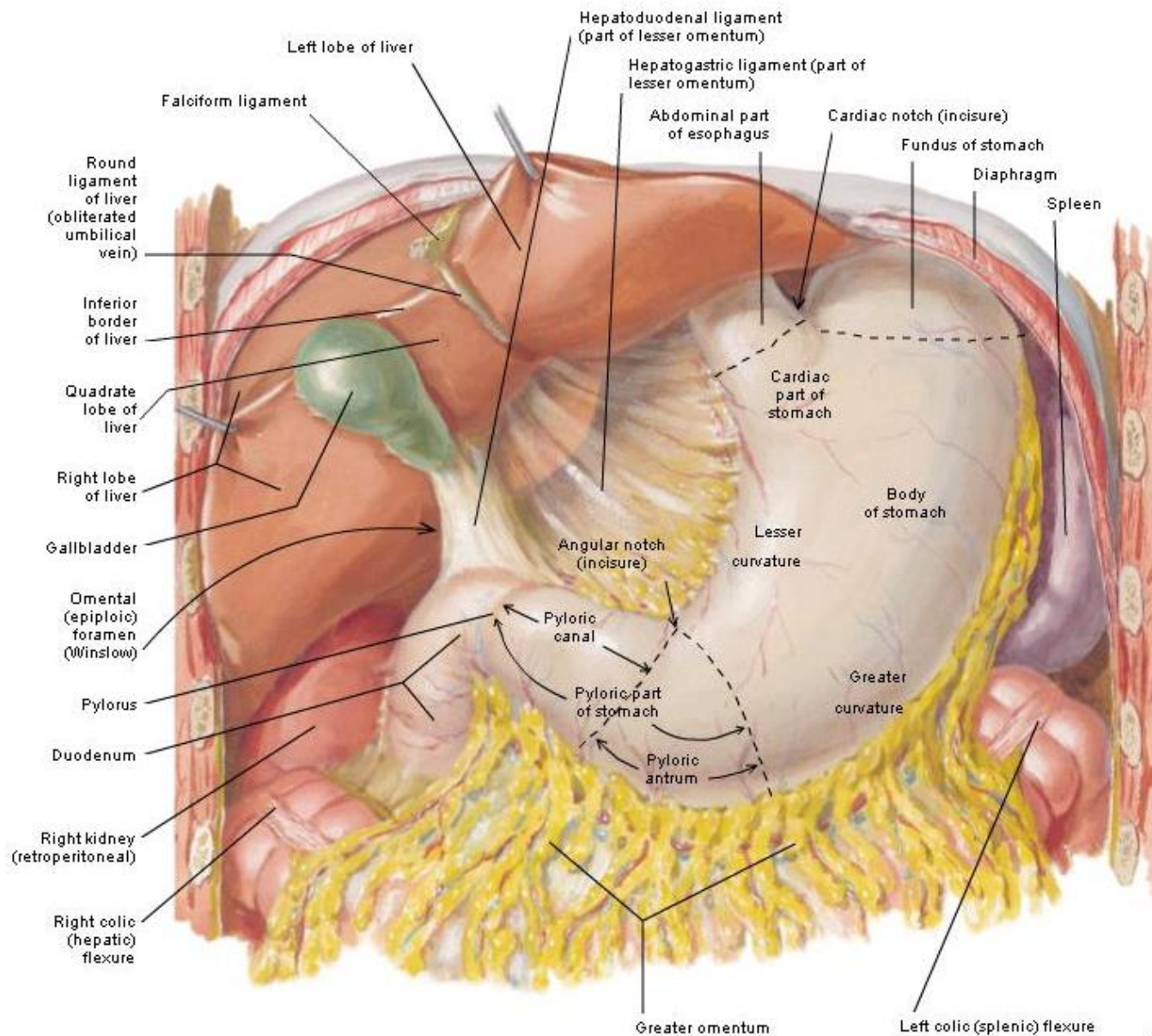


Mesenteric Relations of Intestines

Small Intestine Removed



Stomach In Situ



Epiploic foramen

Stomach

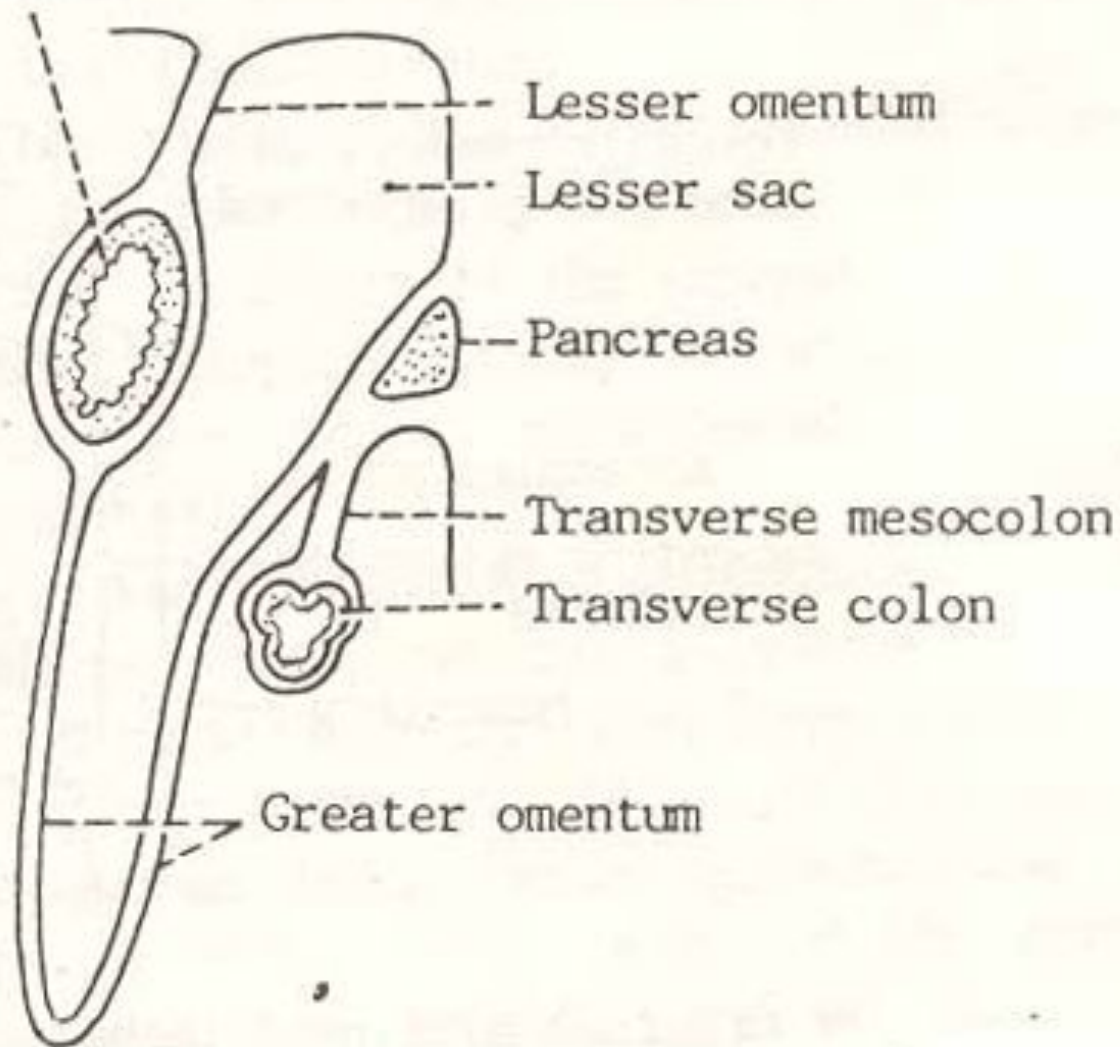
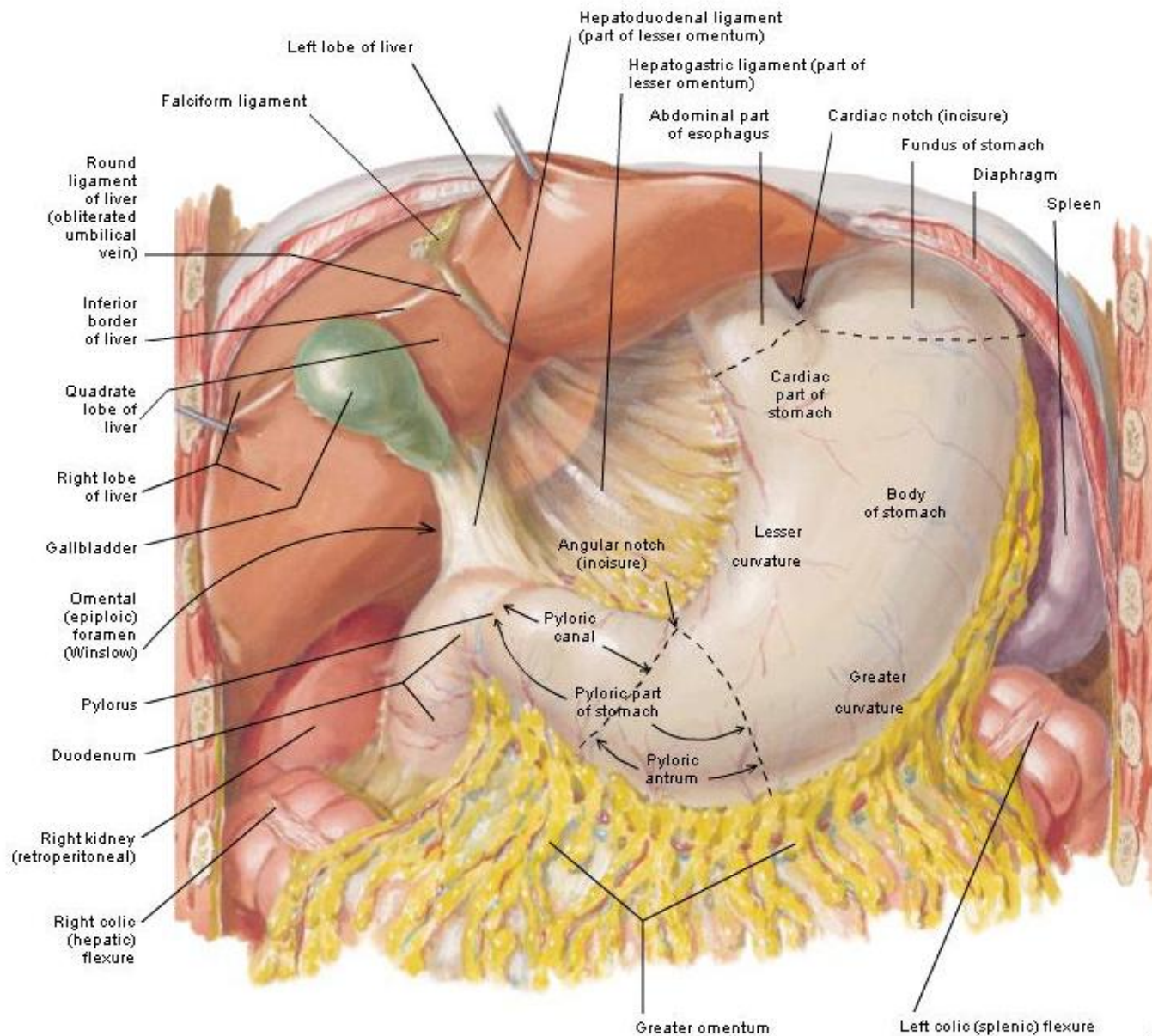
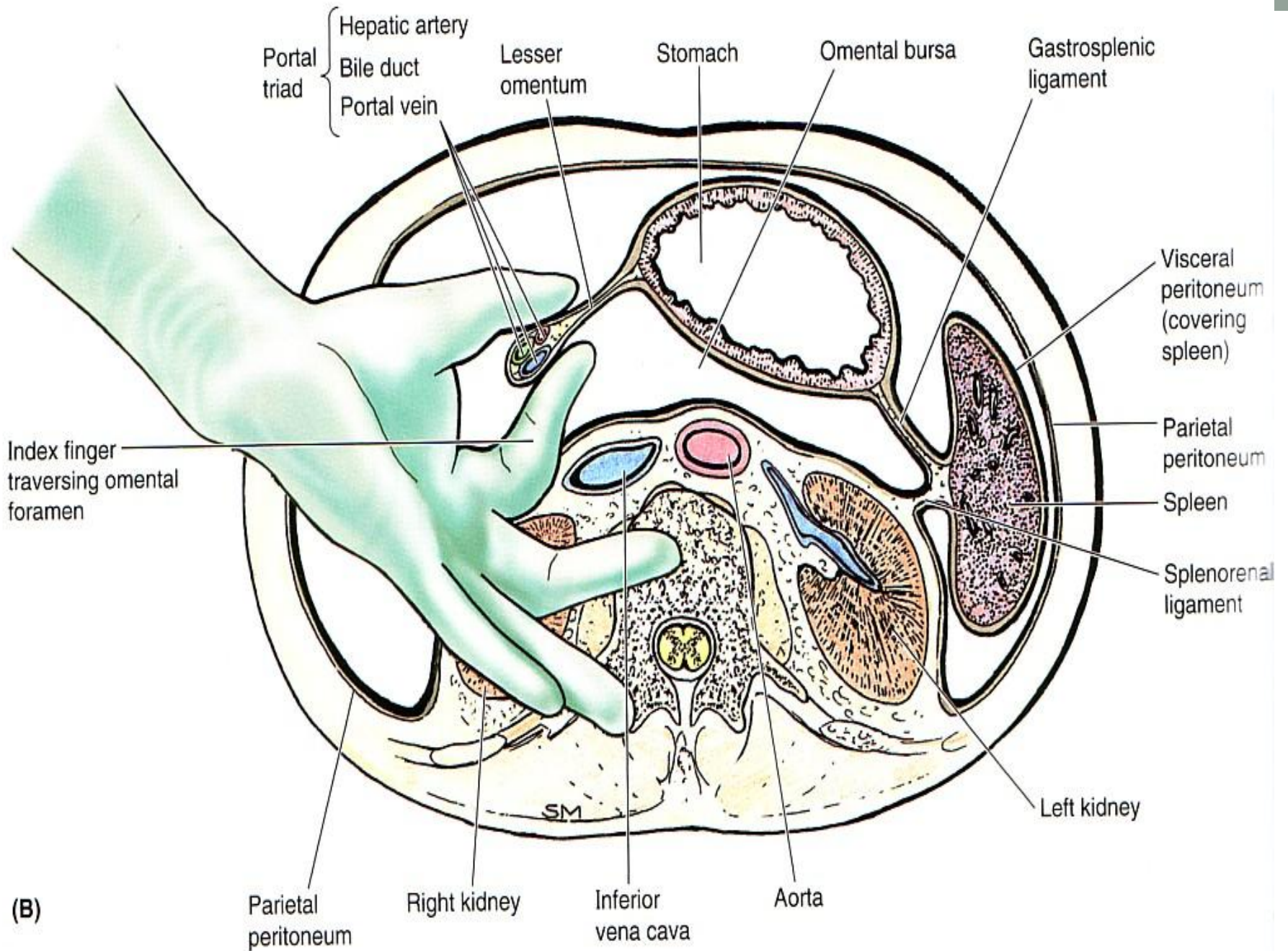


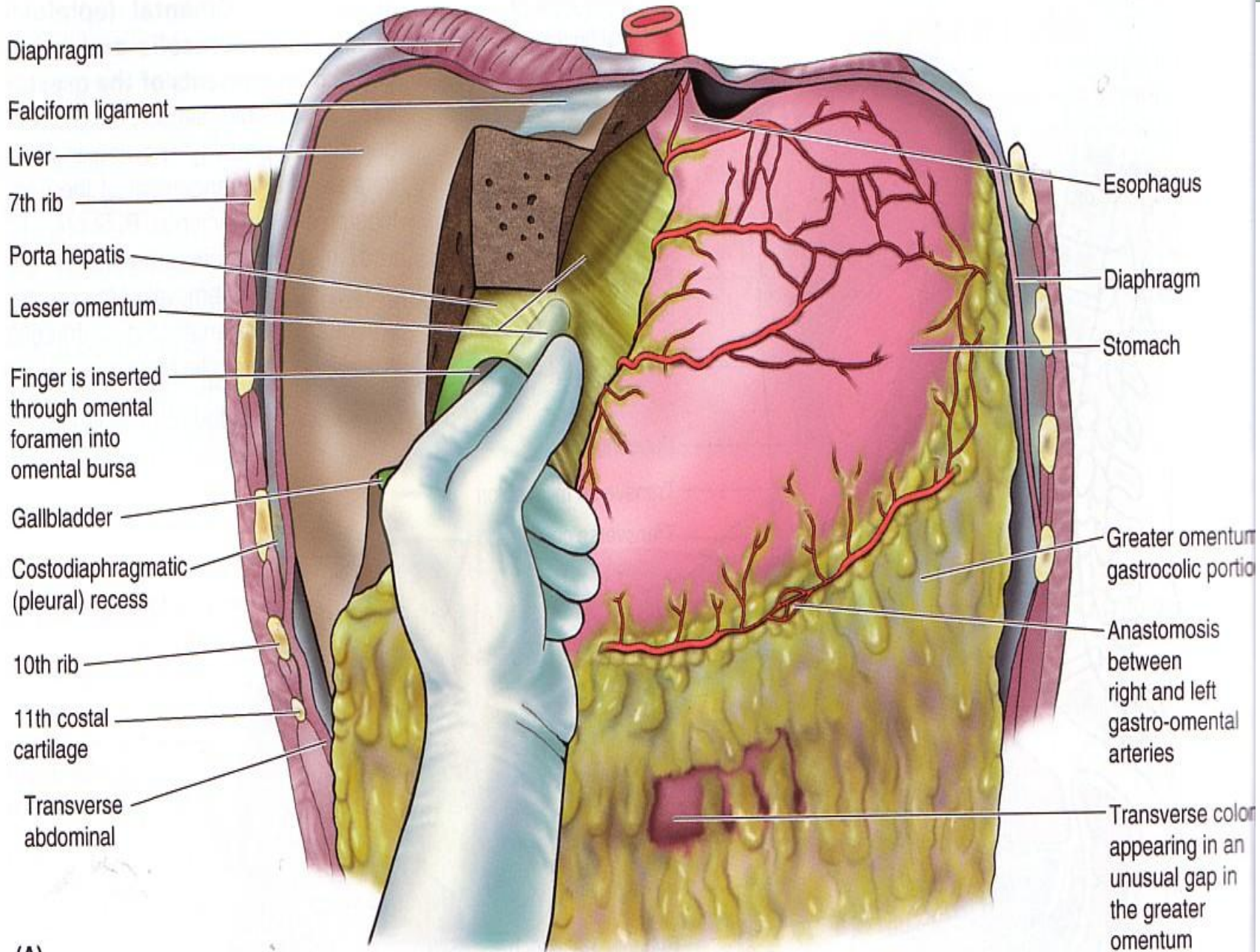
Fig. 18.8. Left view of a sagittal section of the abdomen showing the greater and lesser omenta and the transverse mesocolon.

Stomach In Situ





(B)



(A)

Meso.... attachment

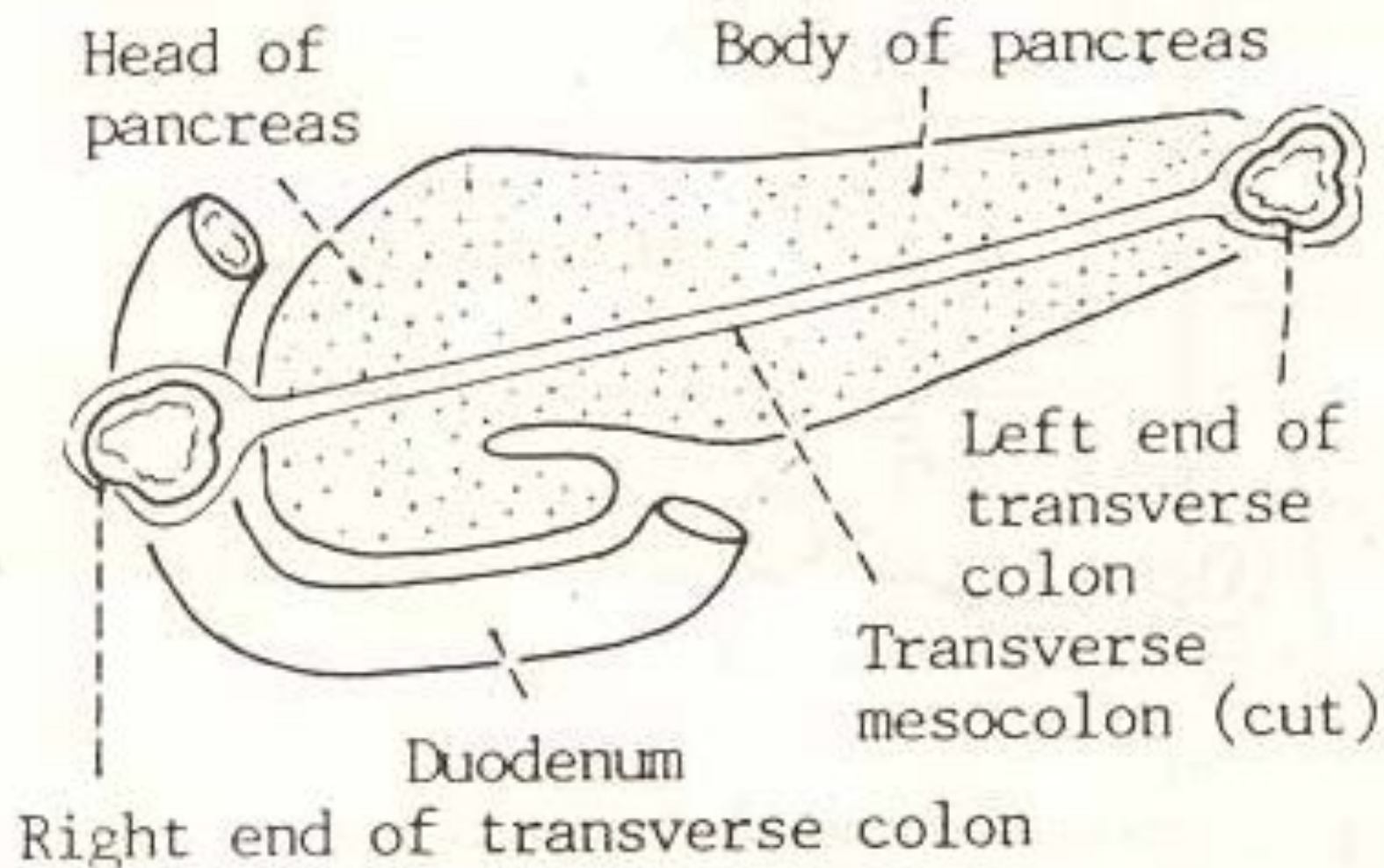


Fig. 18.12. Attachment of the root of the transverse mesocolon.

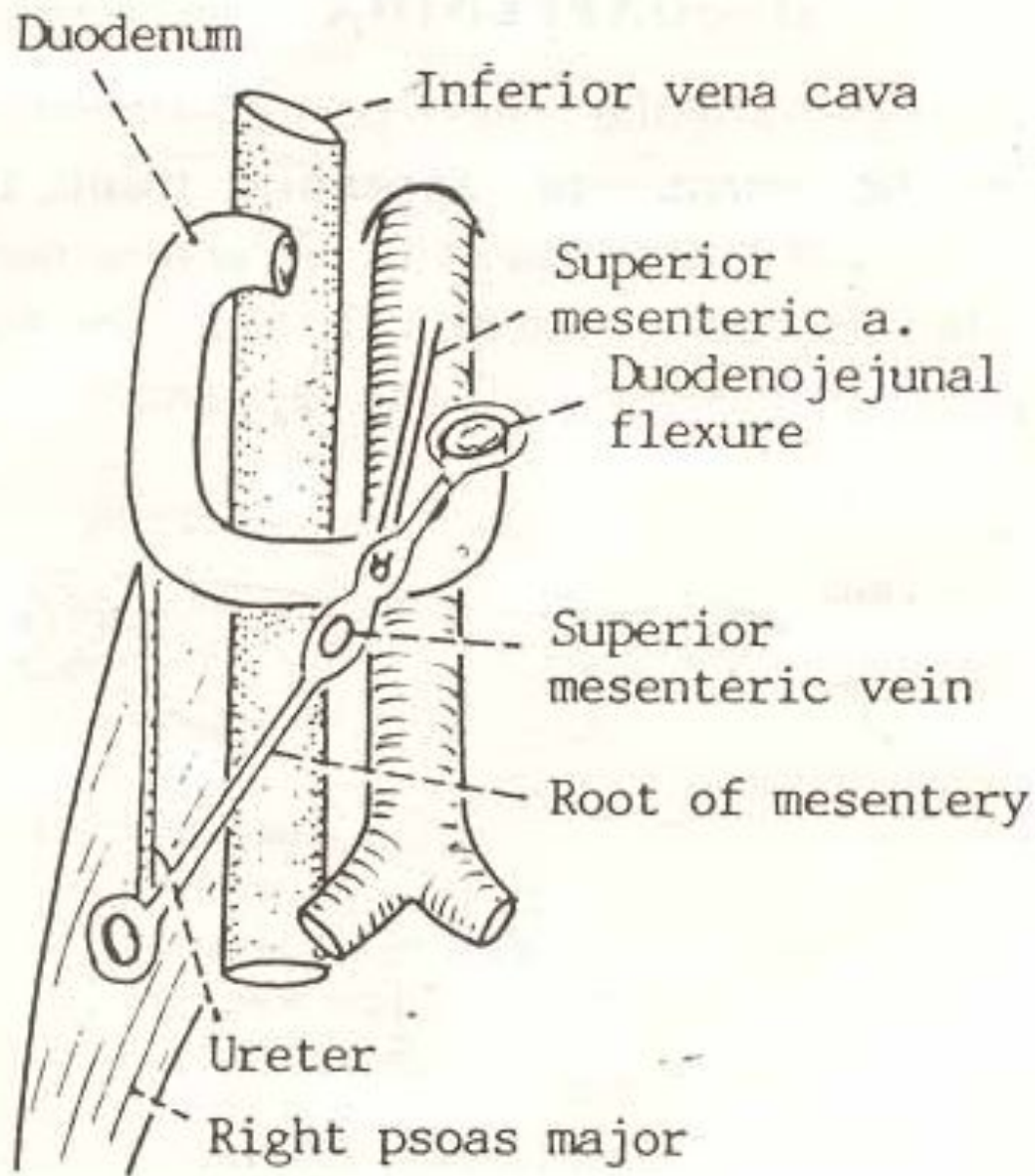
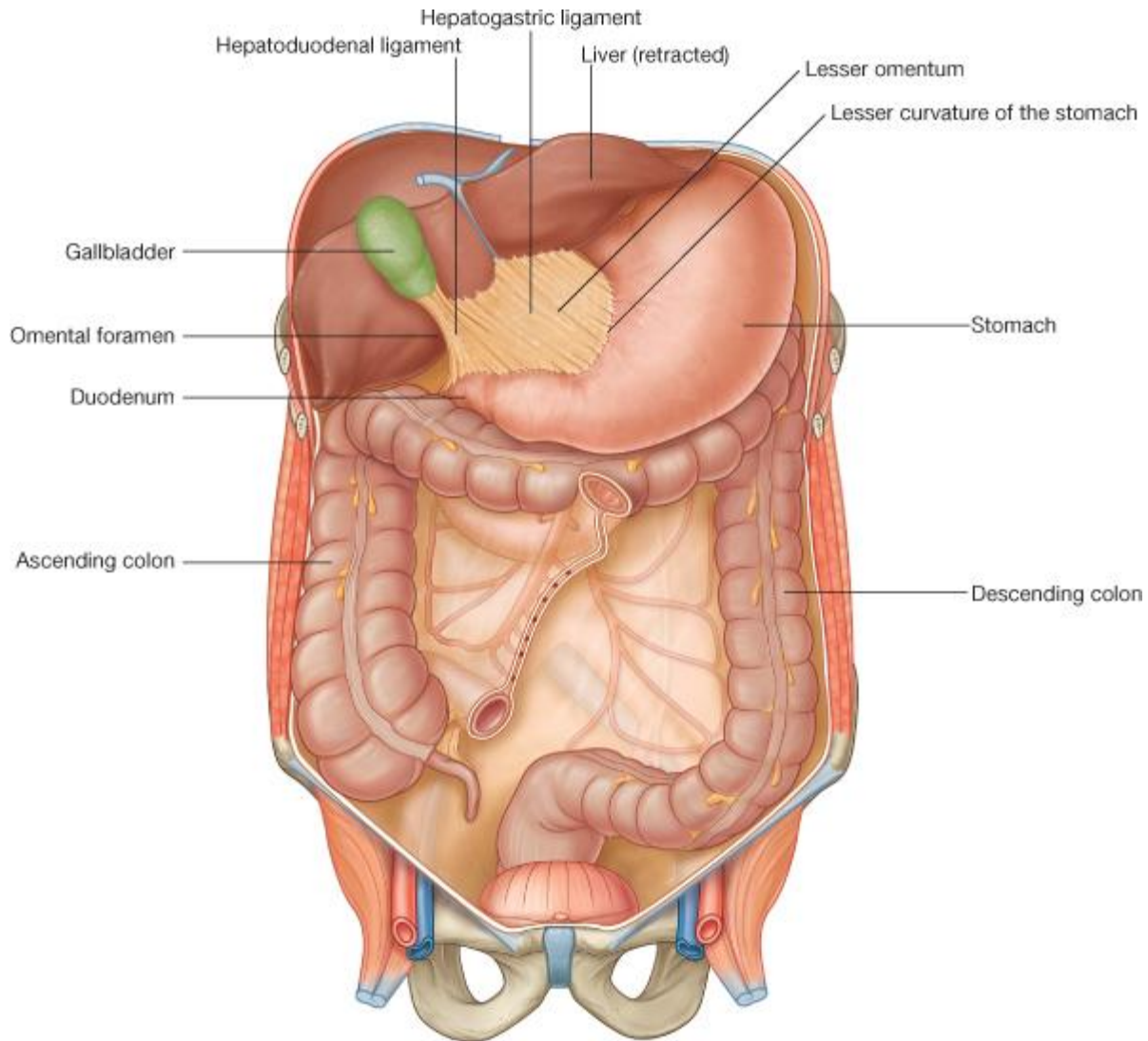


Fig. 18.10. Structures crossed by the mesentery.



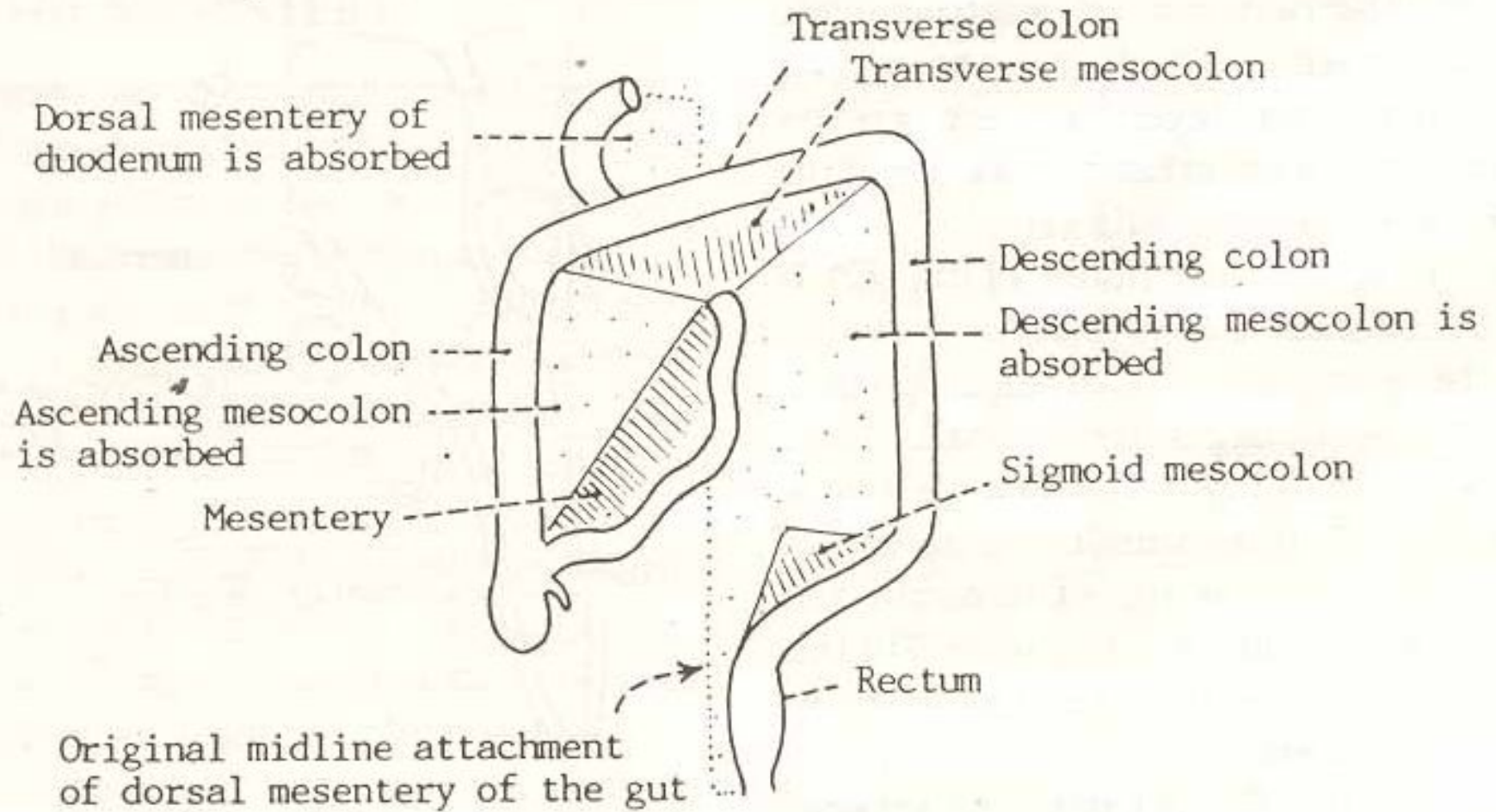


Fig. 18.6. Anterior view of the small and large intestines showing the parts of the dorsal mesentery that persist and other parts which are absorbed.

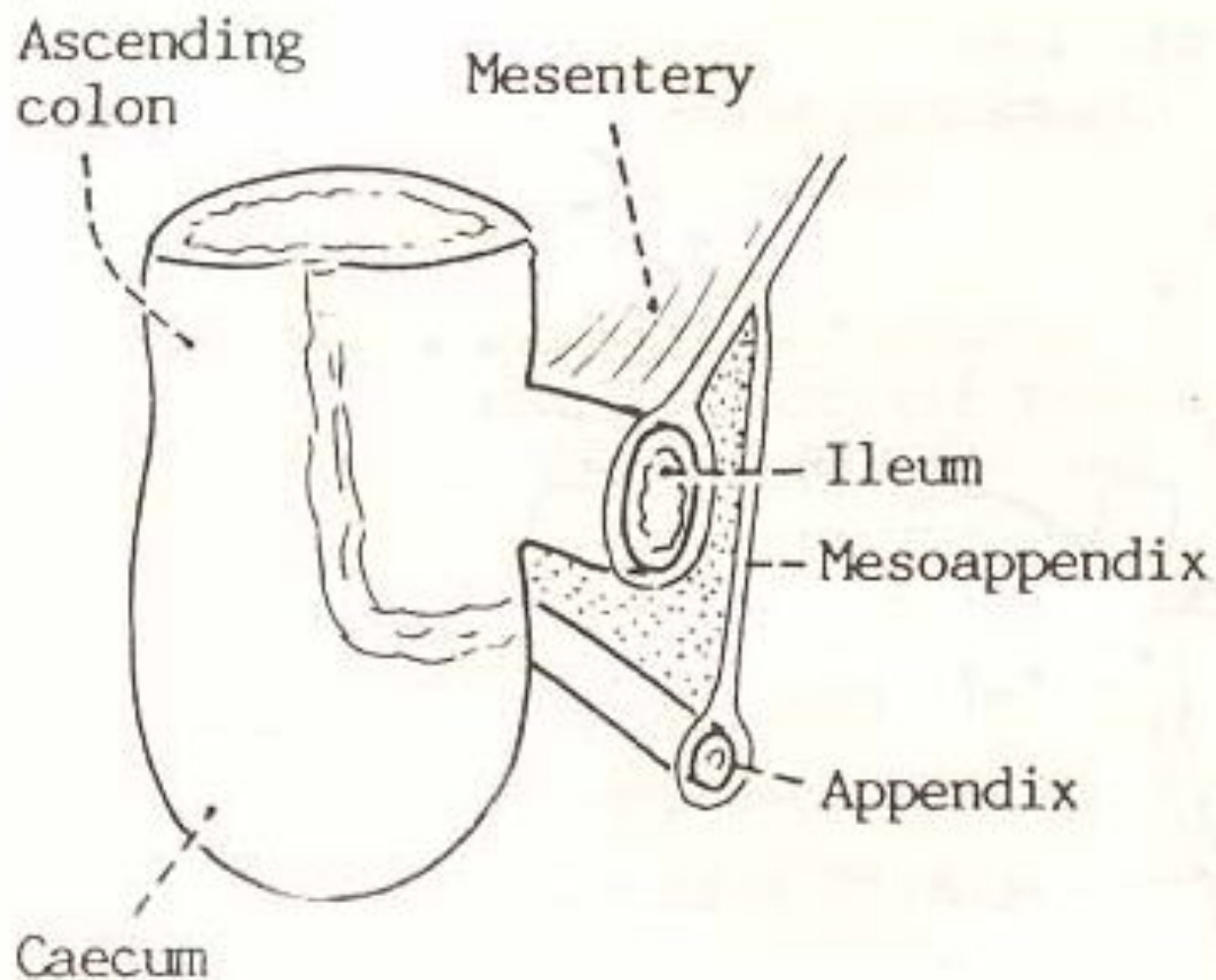


Fig. 18.11. Diagram showing the attachment of the mesoappendix to the posterior (left) surface of the lower end of the mesentery.

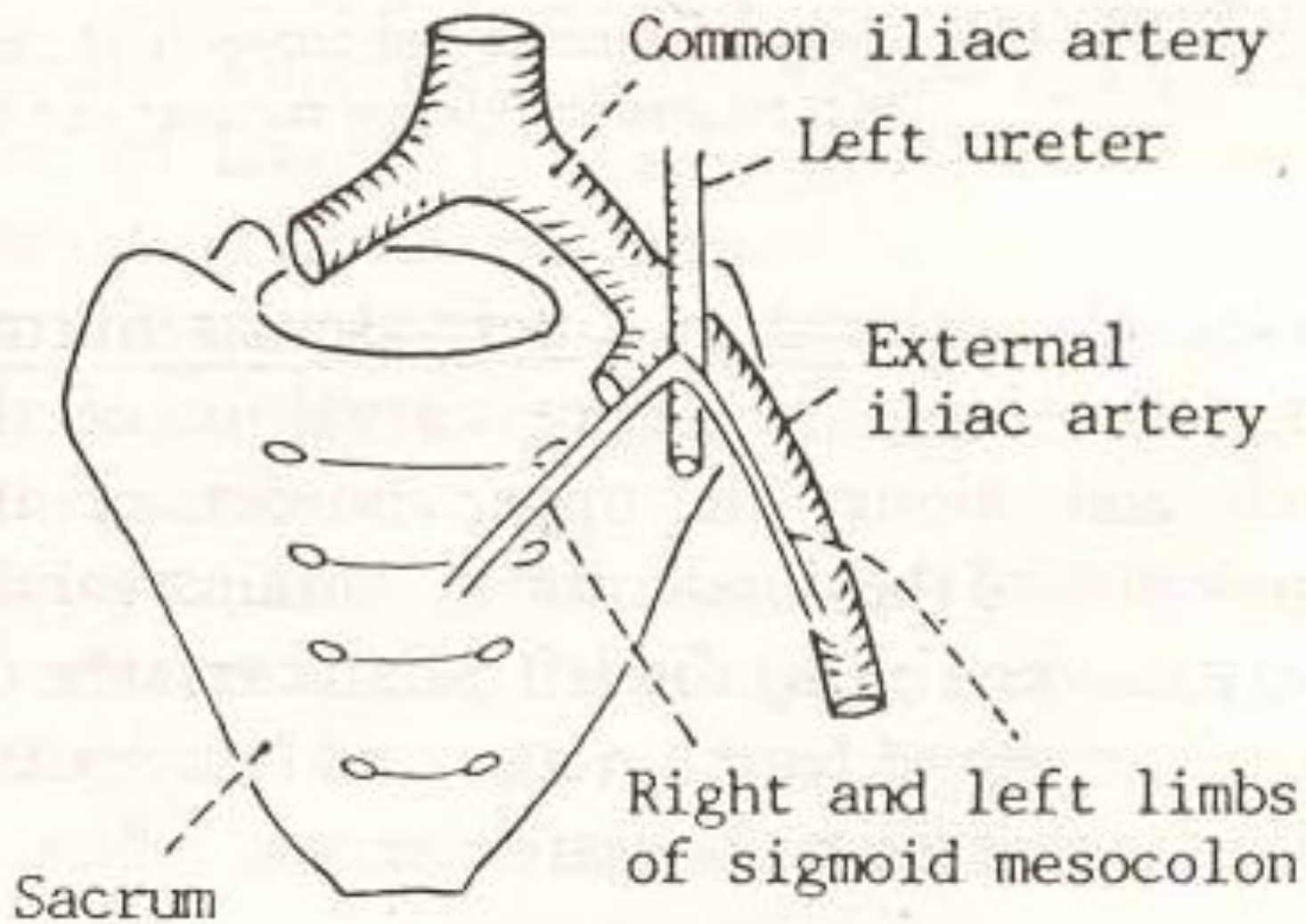


Fig. 18.13. Attachment of the root of the sigmoid mesocolon.

Abdominal recess

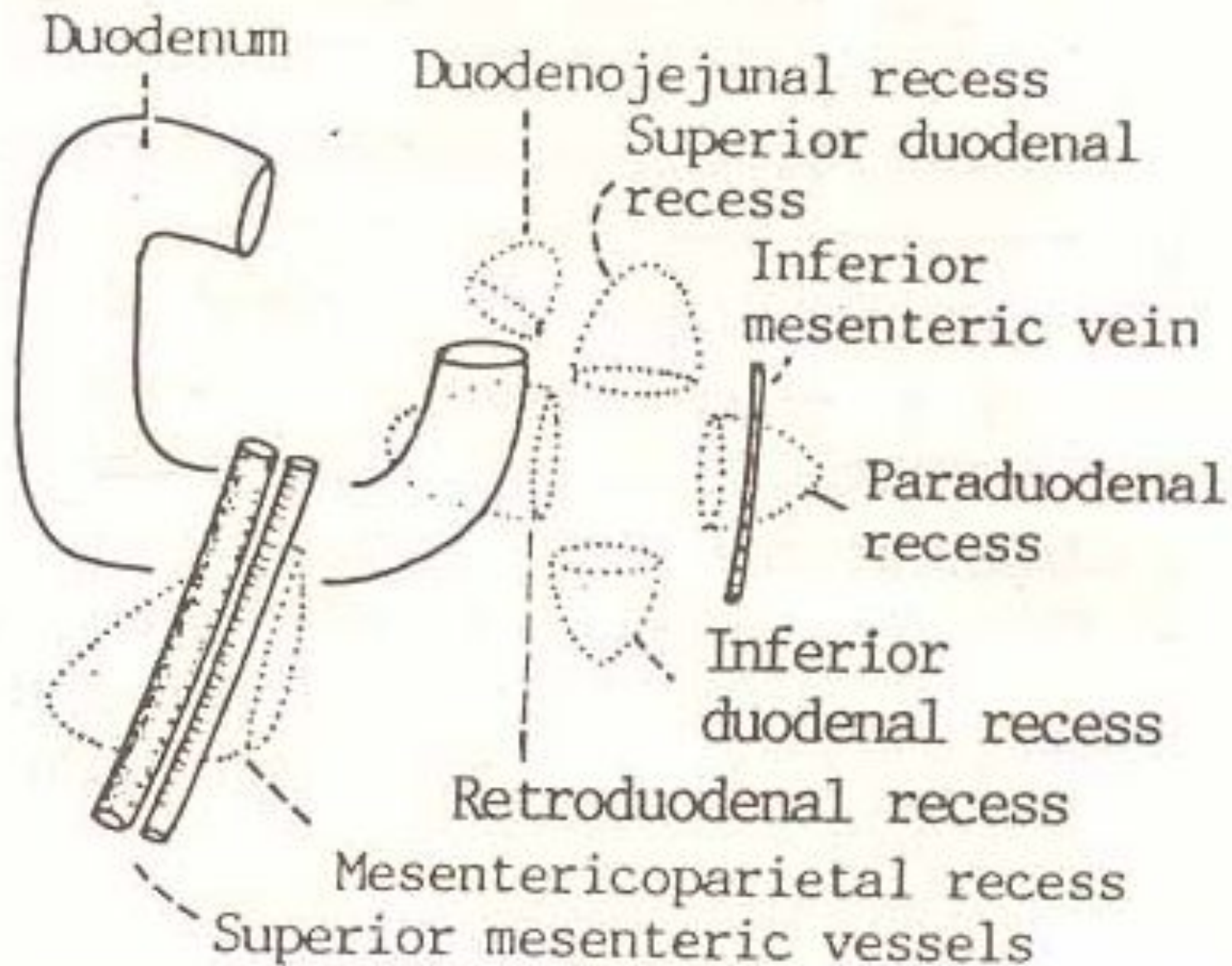
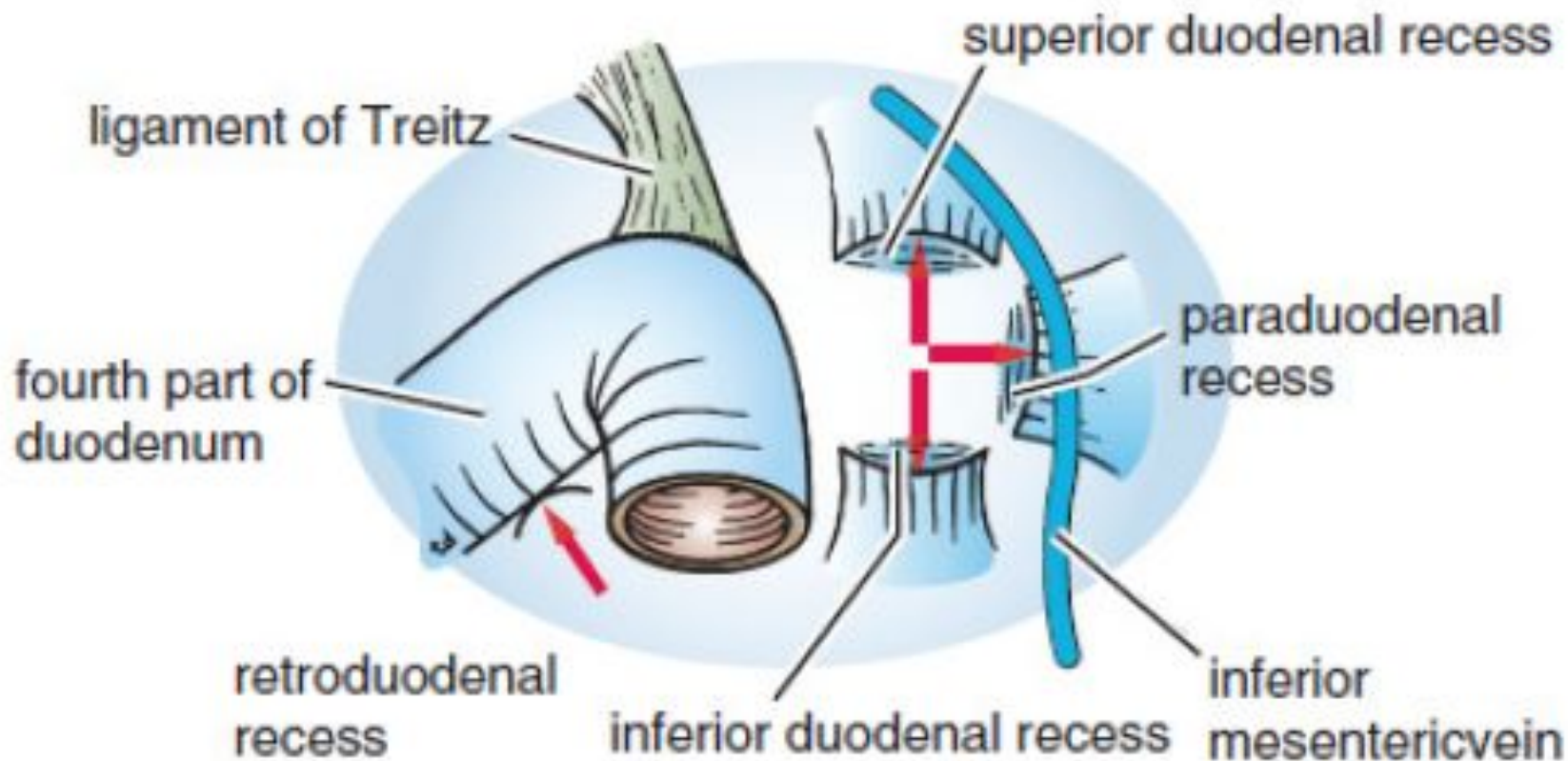
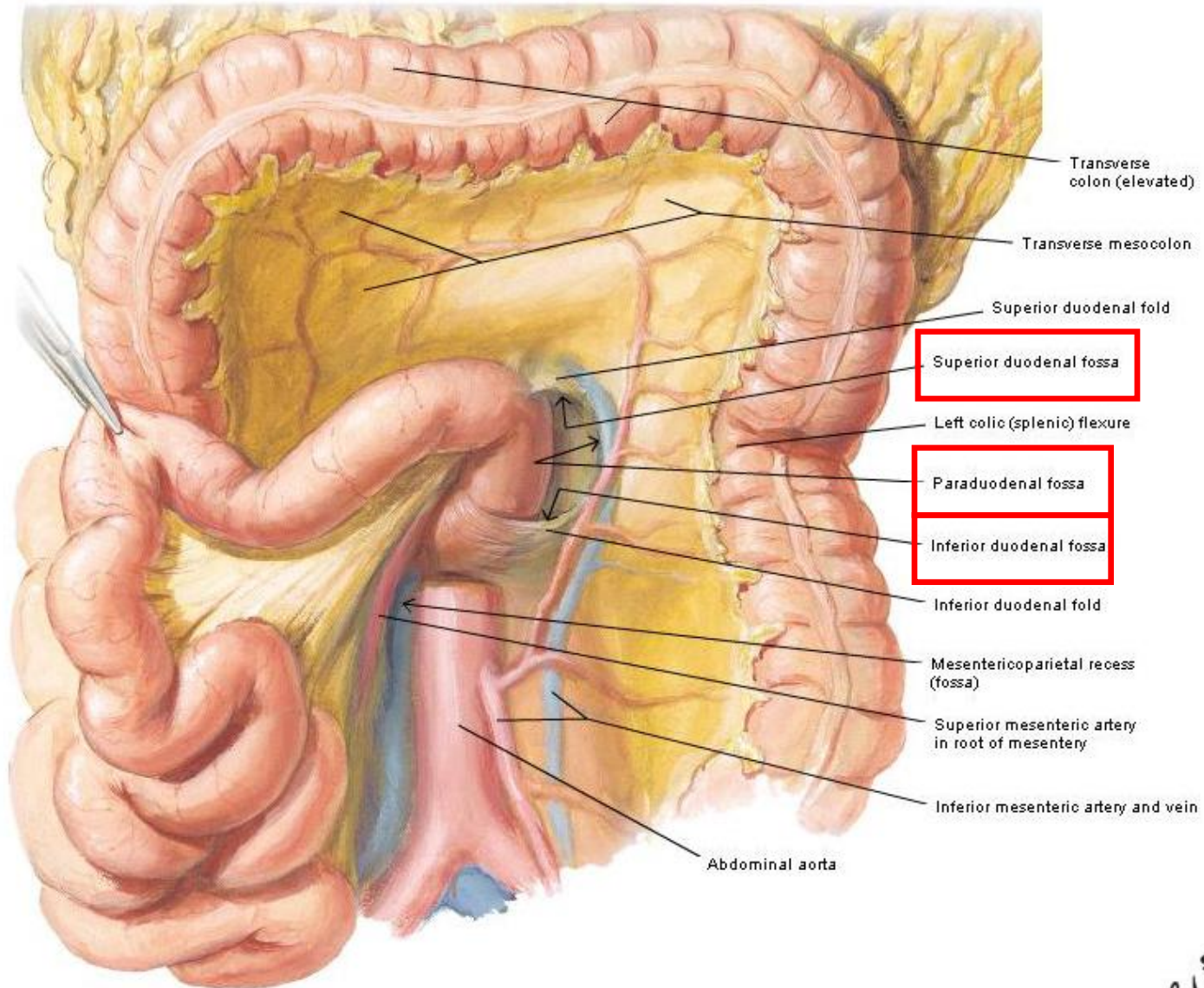


Fig. 18.26. Duodenal recesses of peritoneum.



Mesenteric Relations of Intestines

Transverse Colon Elevated



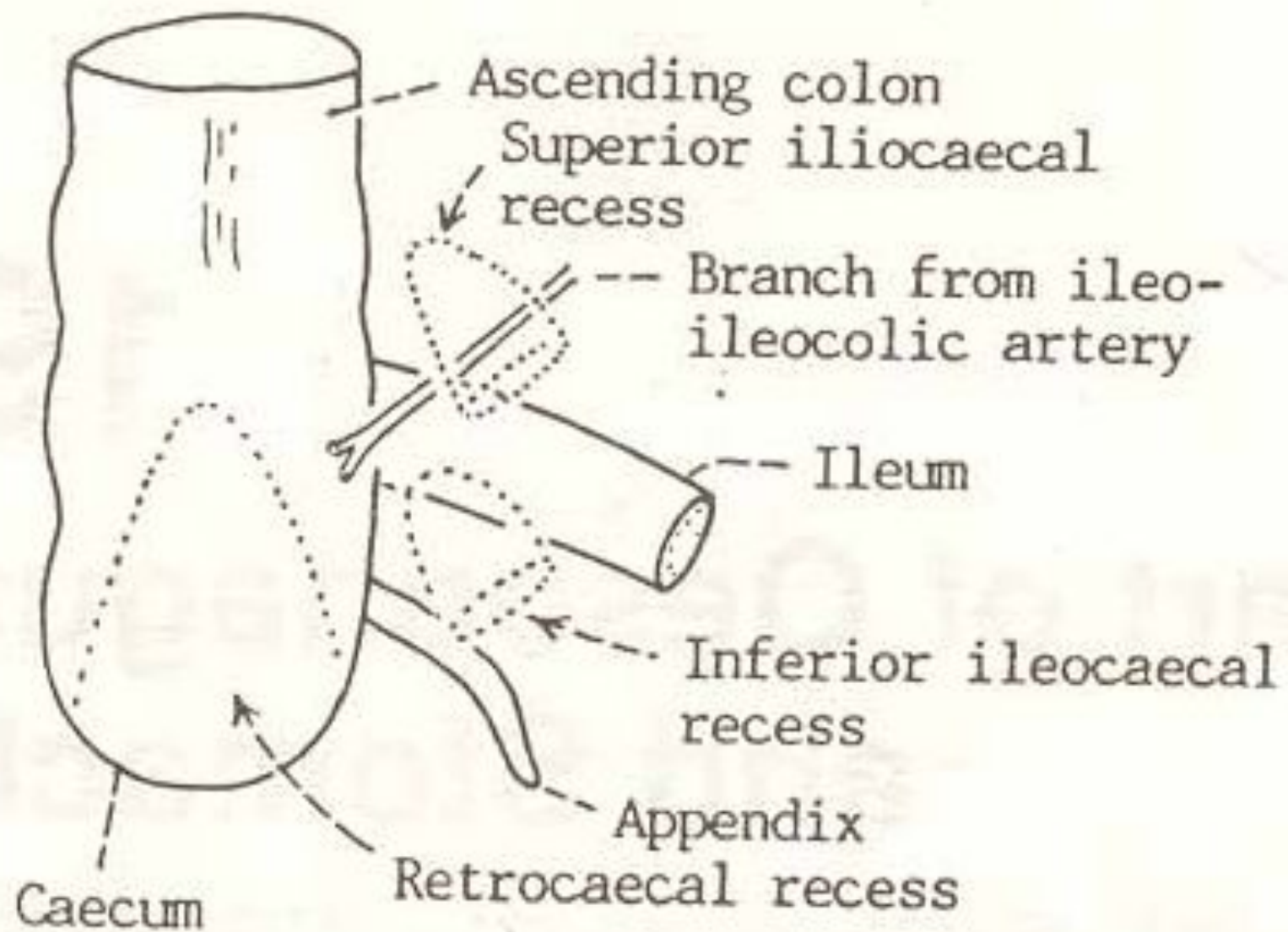


Fig. 18.27. Caecal recesses of peritoneum.

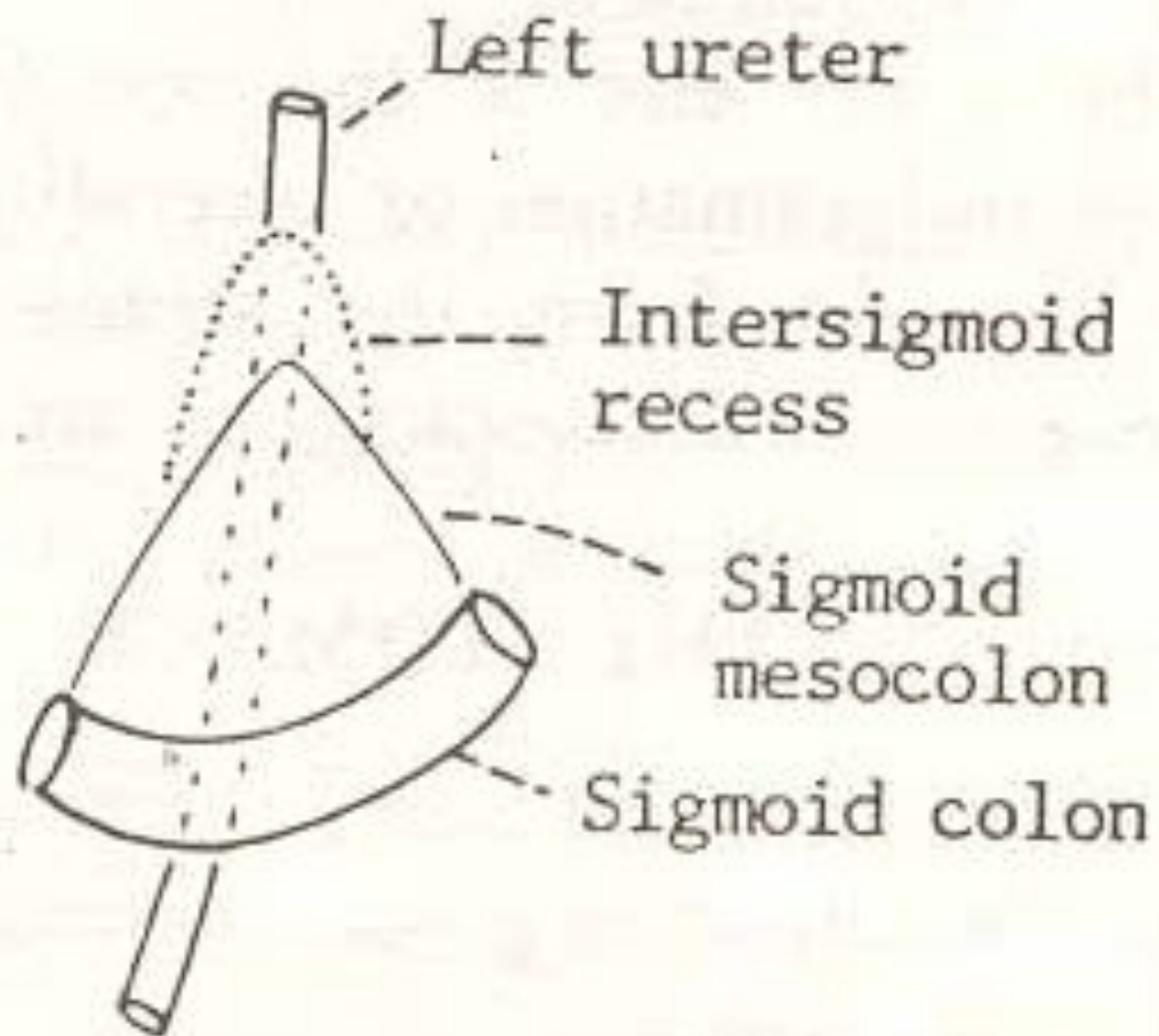


Fig. 18.28. Intersigmoid recess of peritoneum.

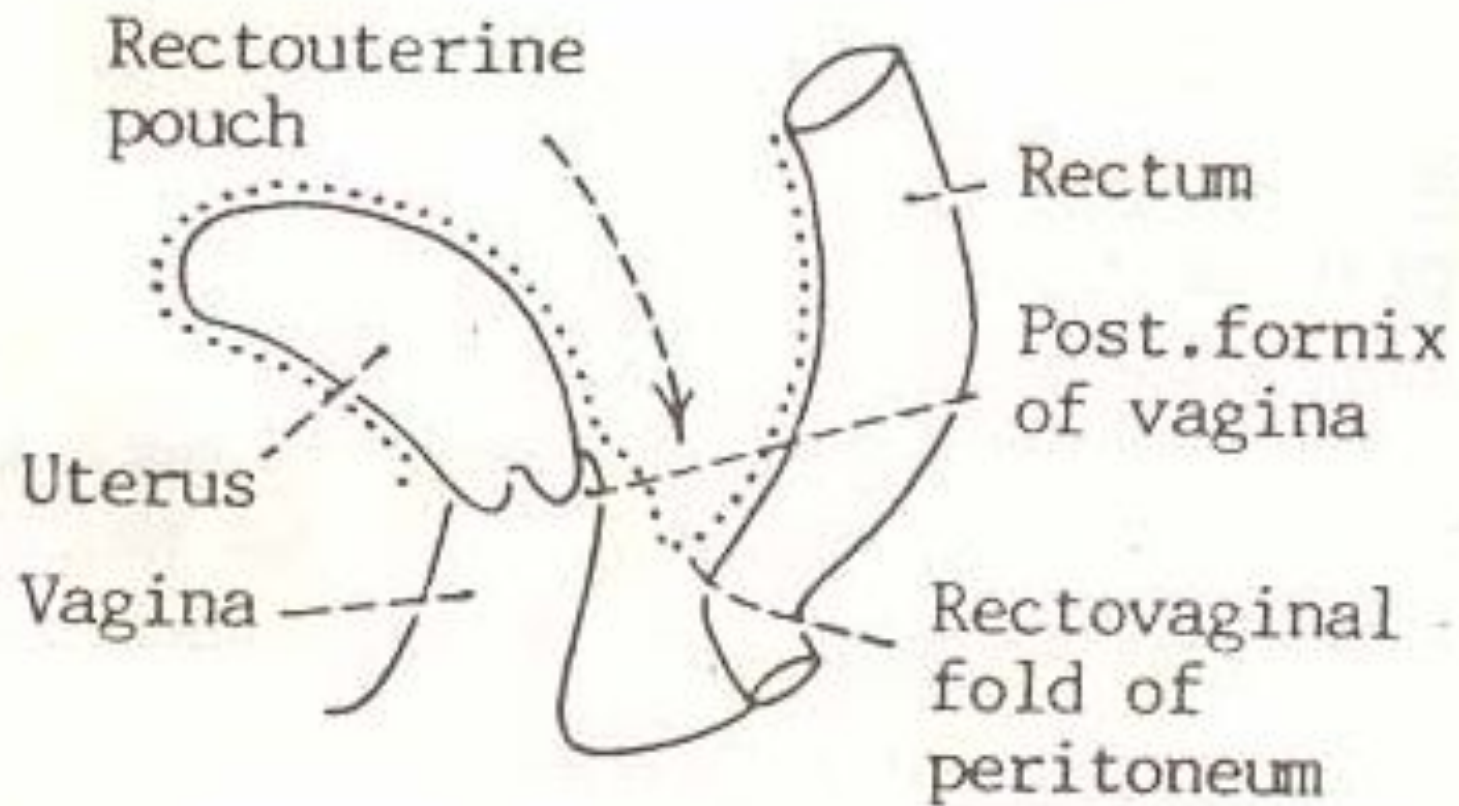


Fig. 18.25. Left view of a sagittal section through the rectouterine pouch.

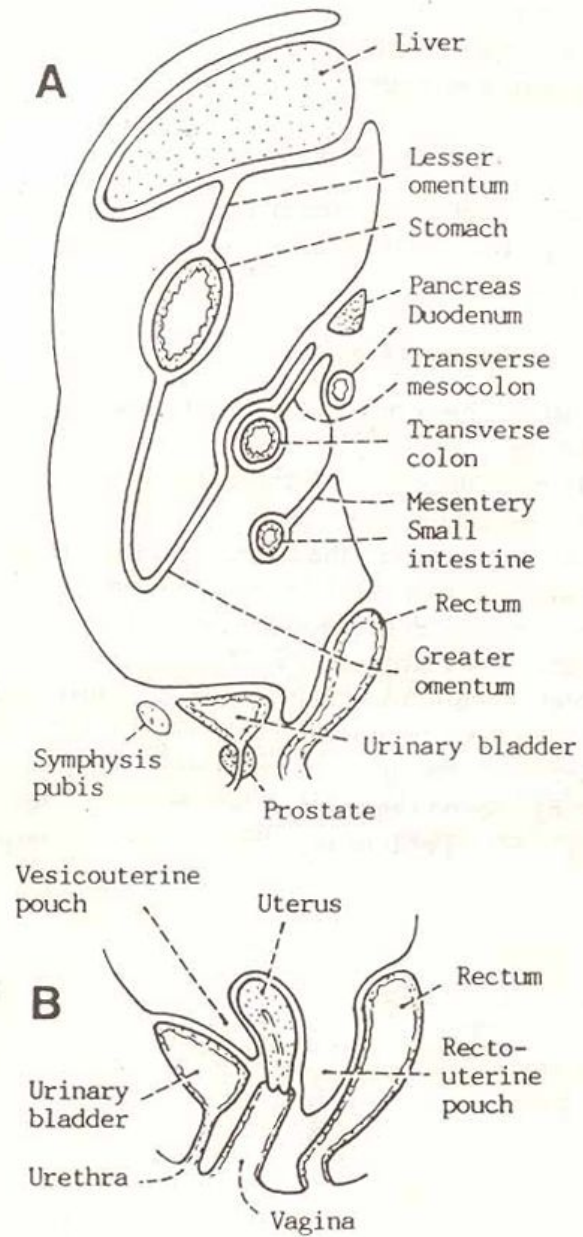
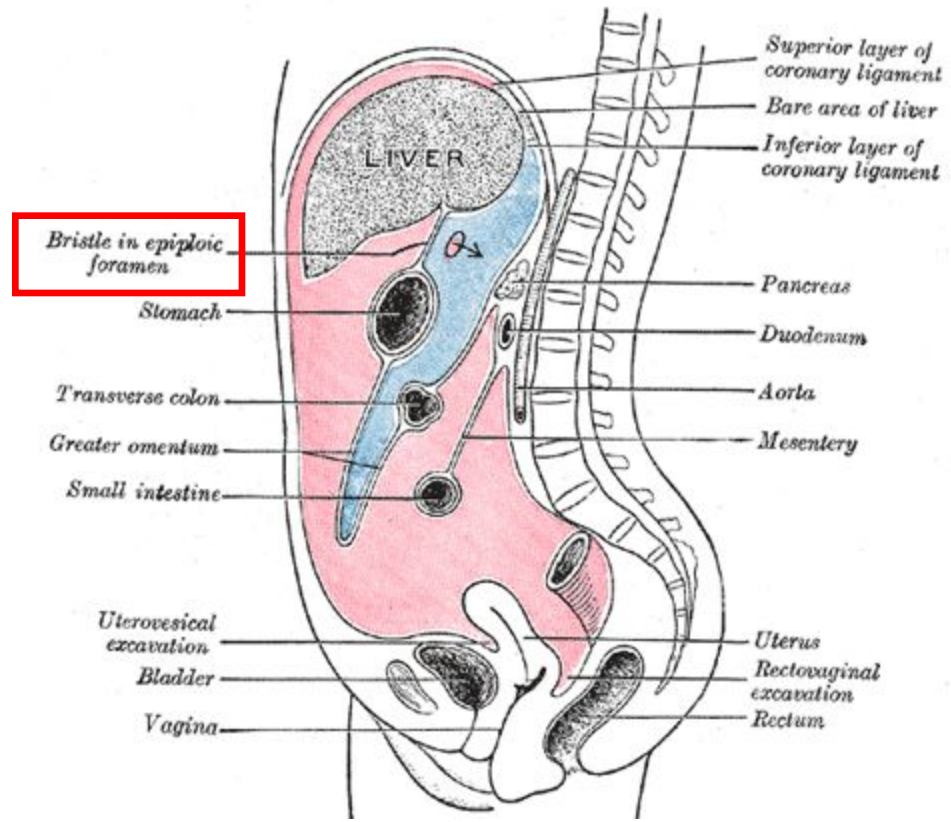
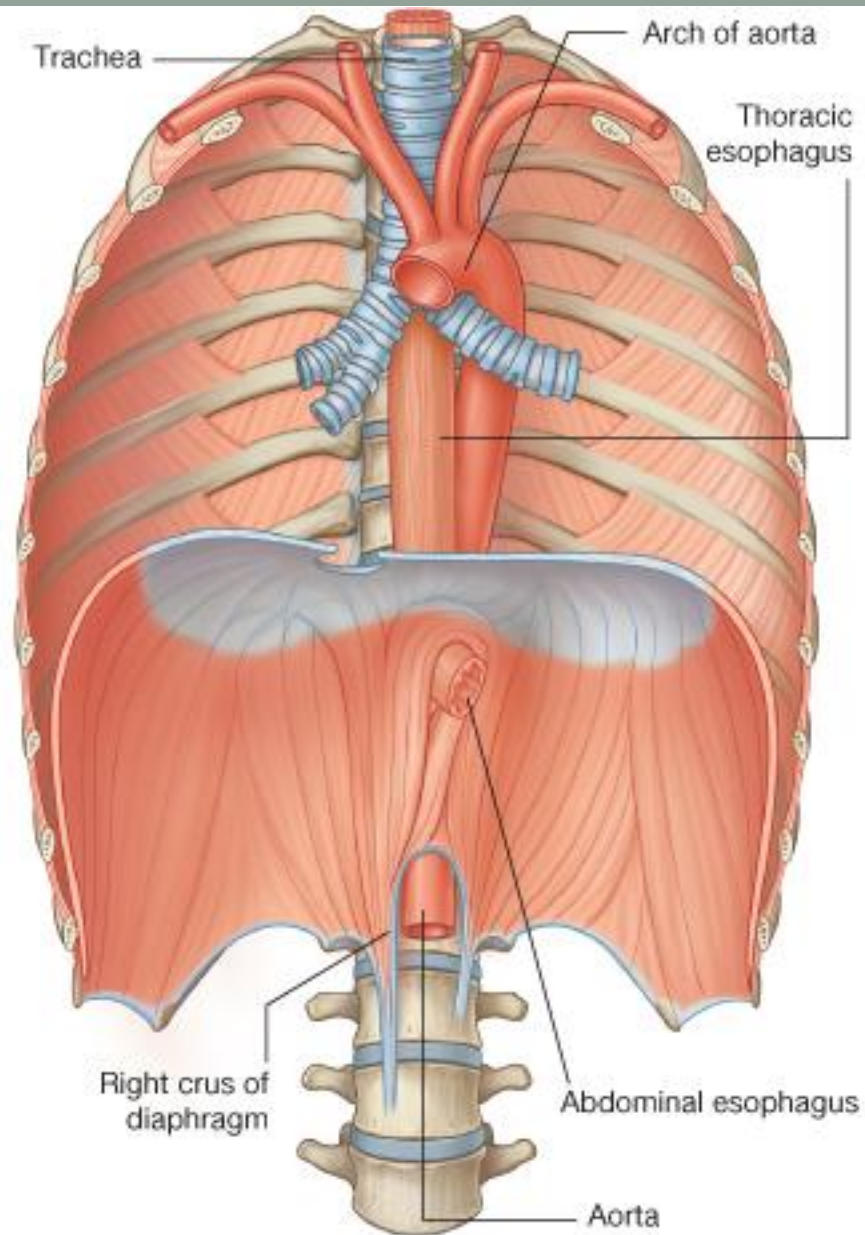
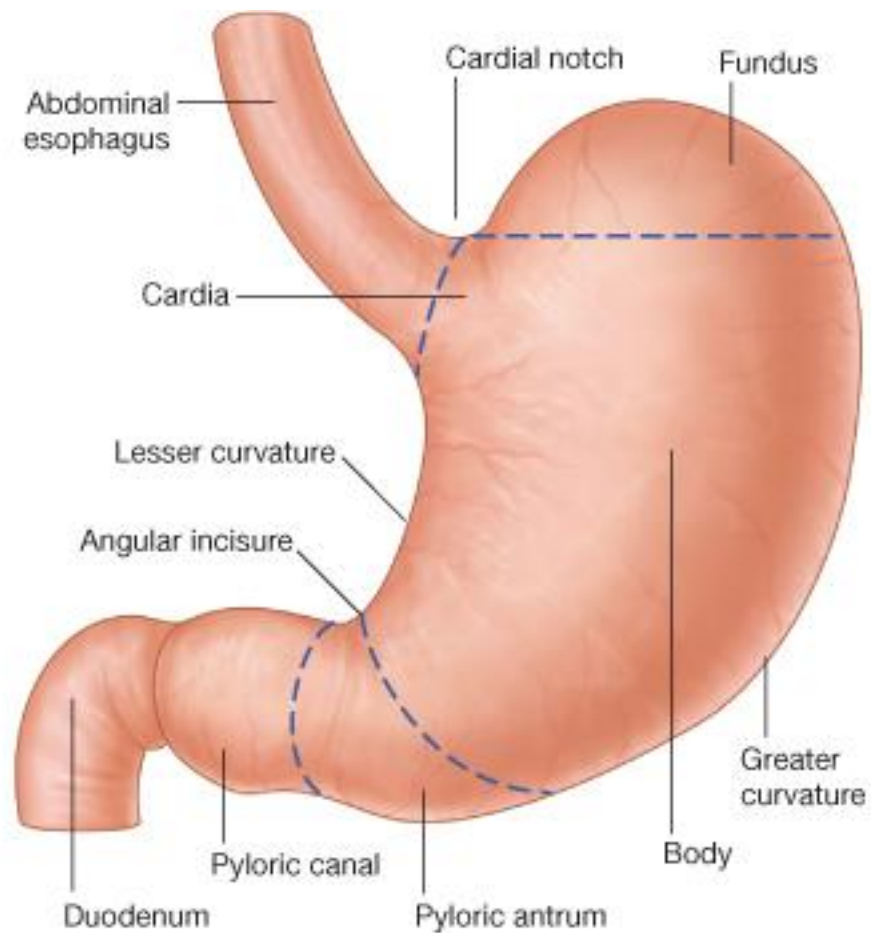


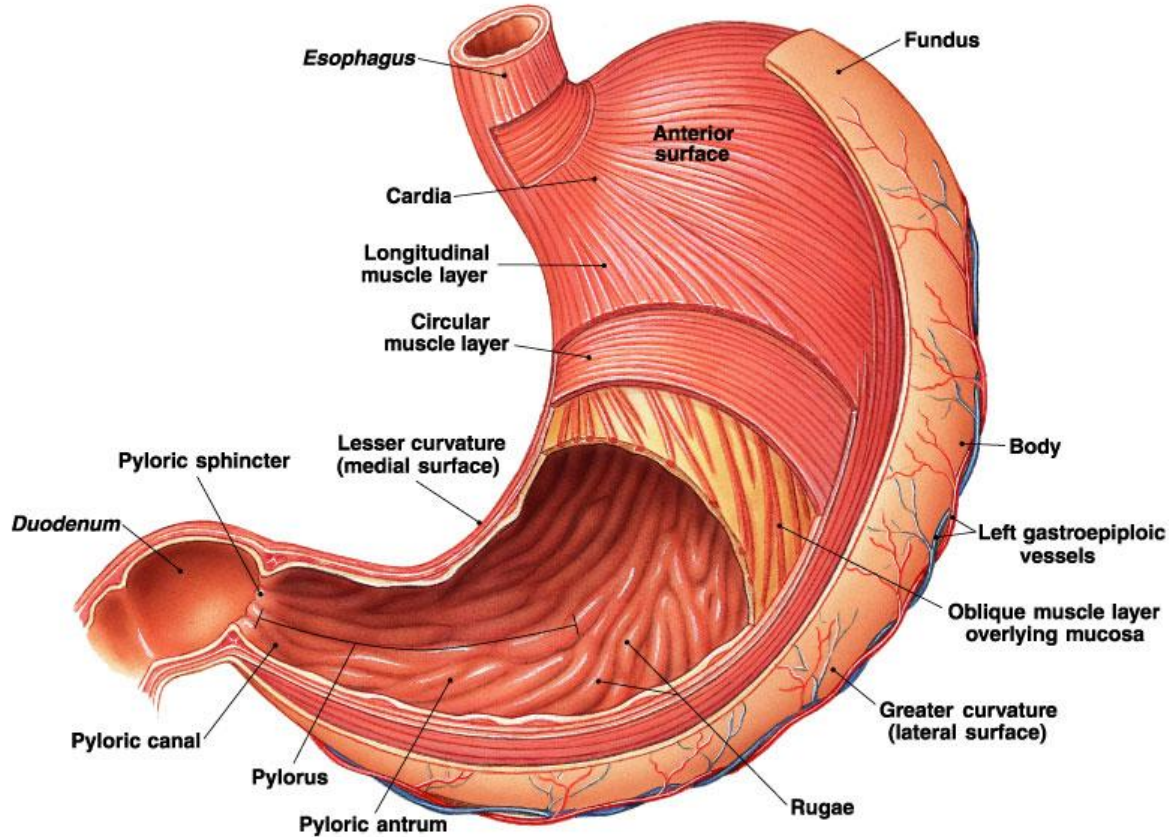
Fig. 18.16. (A) Sagittal section through the abdomen (male) to show the reflections of peritoneum. (B) Sagittal sections through a female pelvis showing the peritoneal reflections.







Stomach Anatomy



Openings •

Gastroesophageal: •

To esophagus

Pyloric: To •

duodenum

Regions •

Cardiac •

Fundus •

Body •

Pyloric •

muscle layers 3

- Oblique
- Circular
- Longitudinal

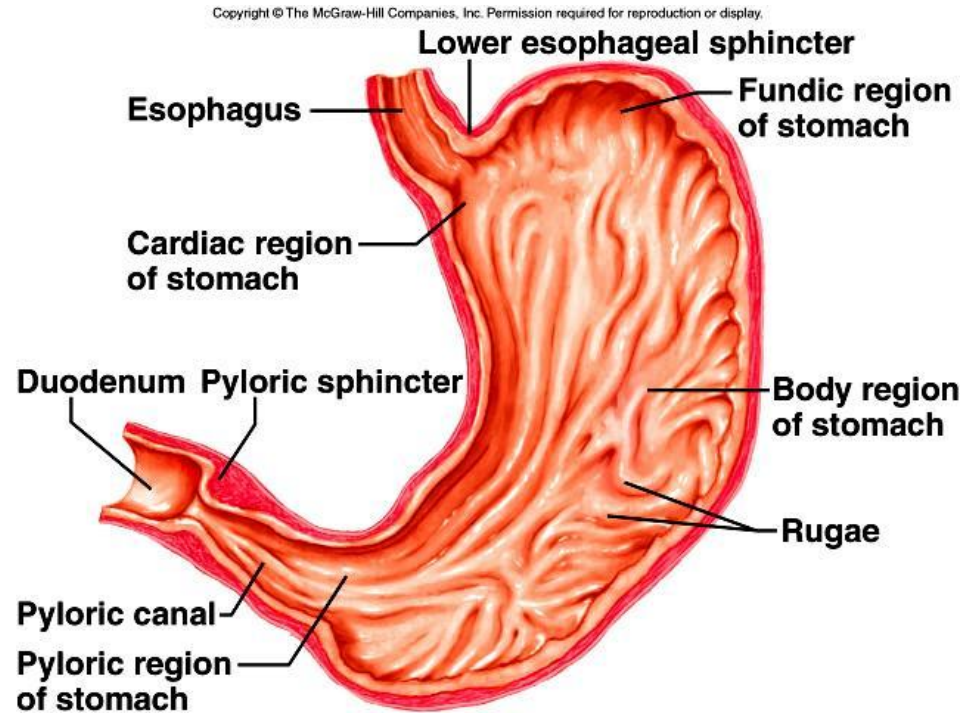
Regions

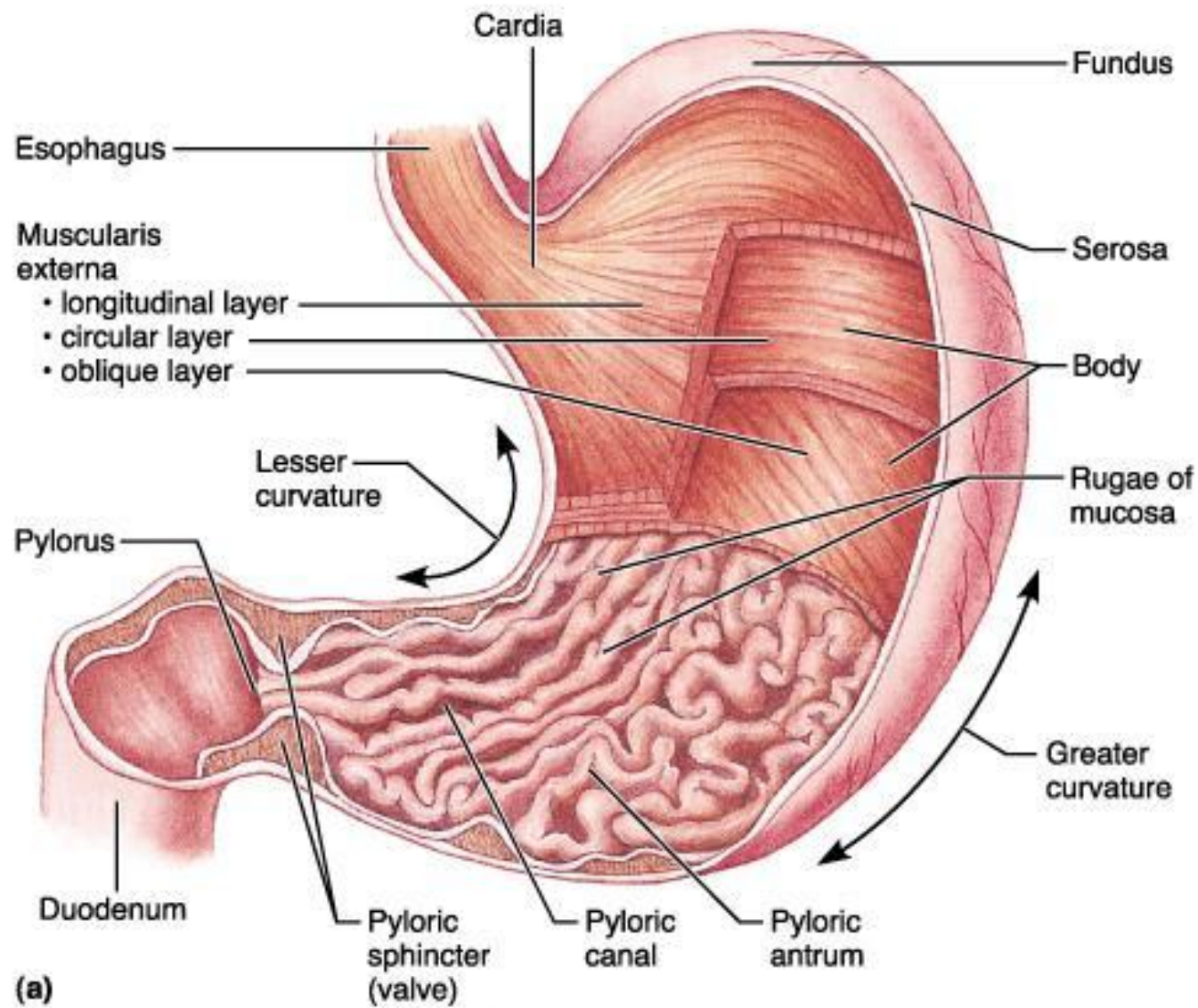
- Cardiac sphincter
- Fundus
- BODY
- Pyloric sphincter



Inner surface thrown into folds –
Rugae

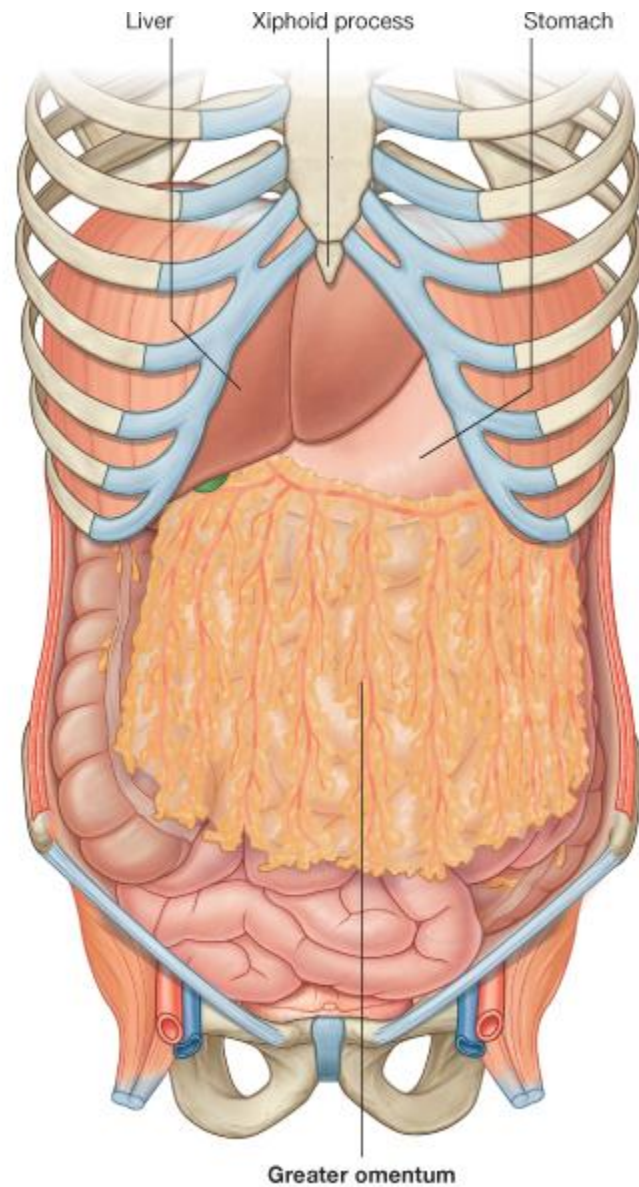
Contains enzymes that work best at
pH 1-2

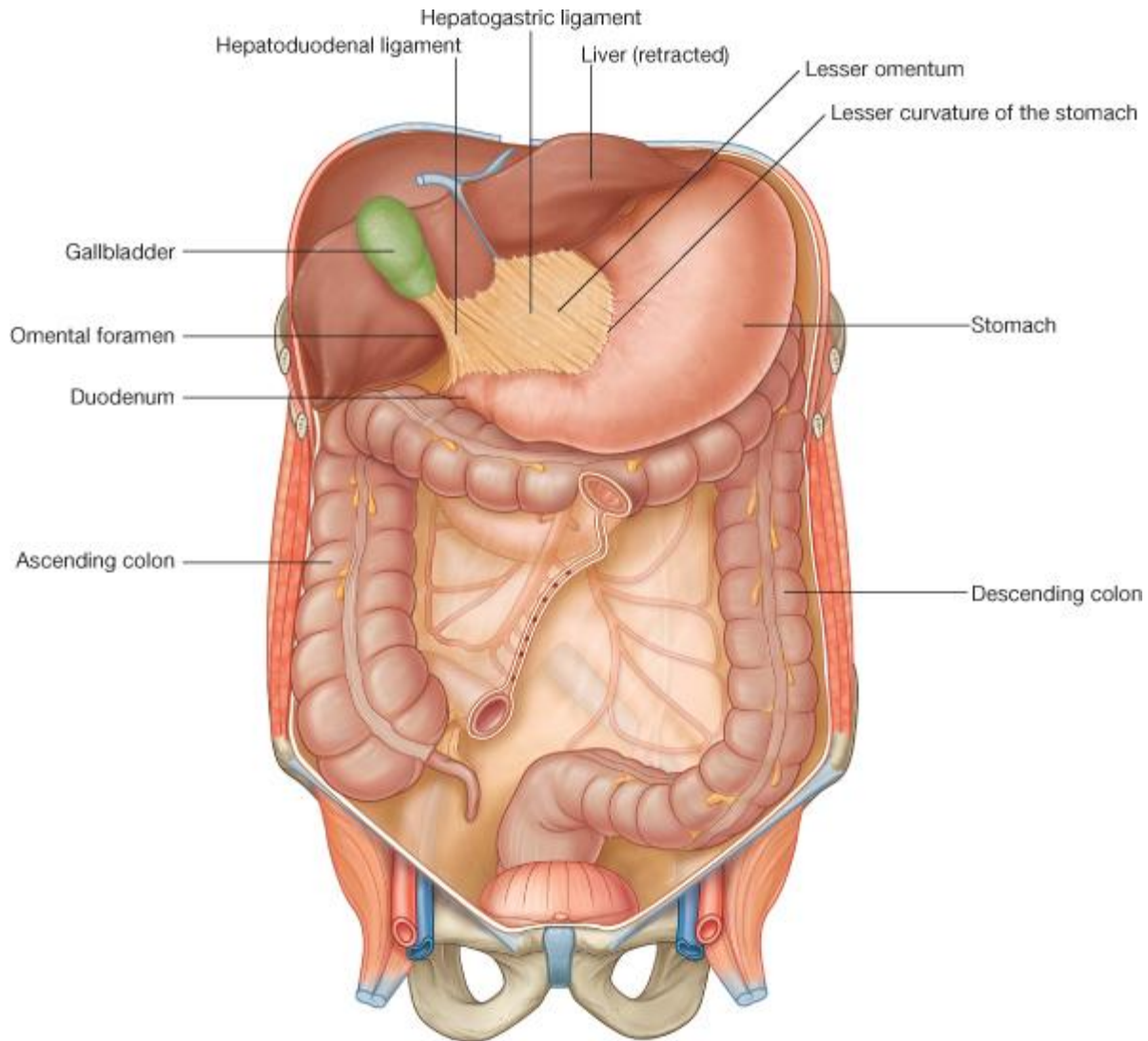


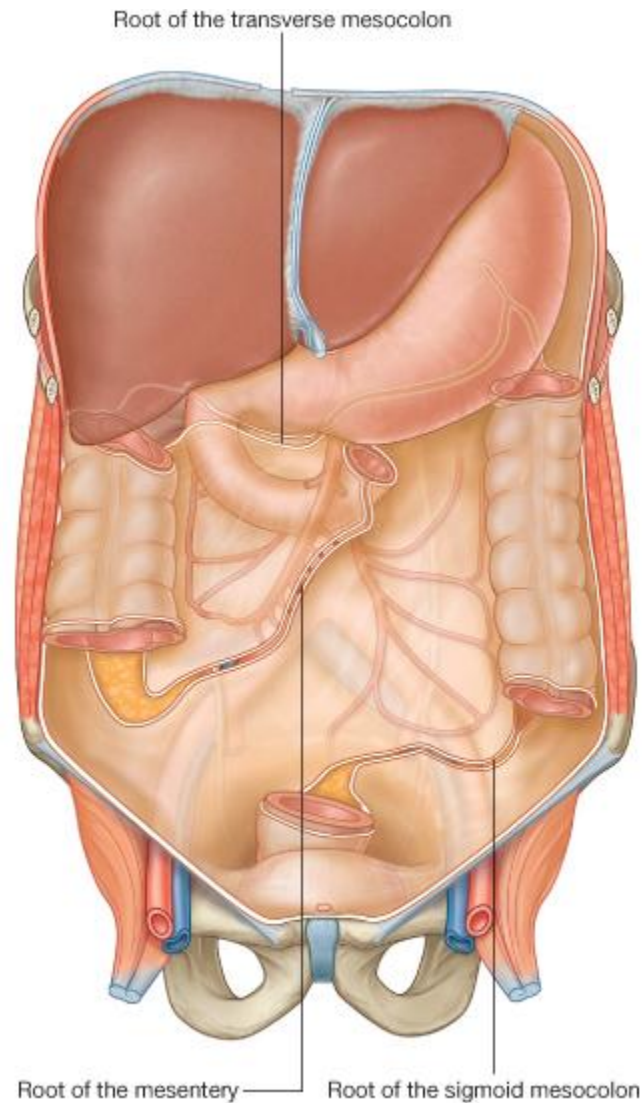


(a)

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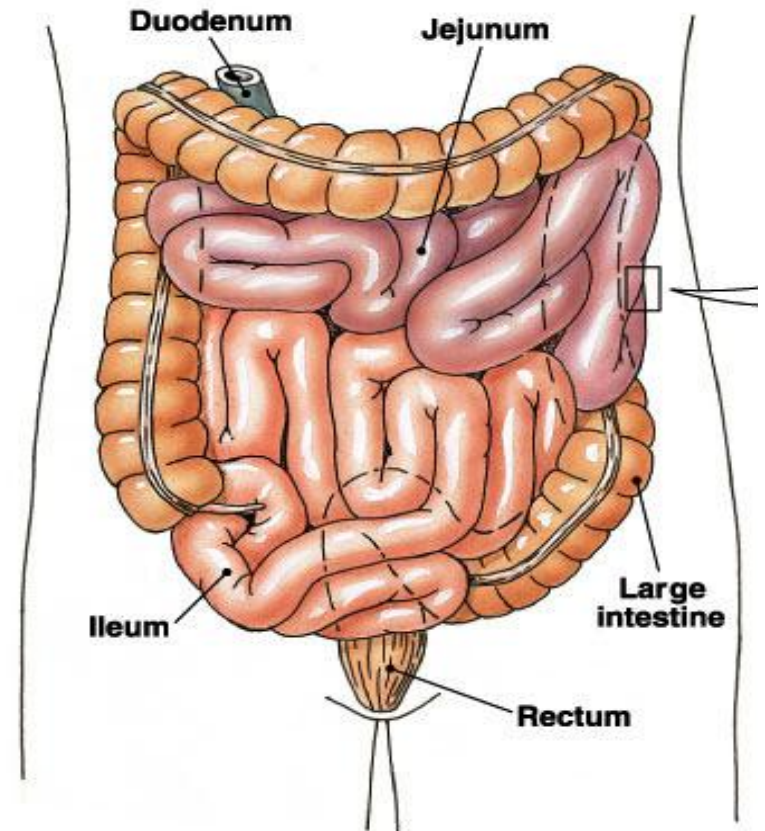






Small Intestine

- Divisions
 - Duodenum (5%)
 - Jejunum (<40%)
 - Ileum (<60%)
- Runs from pyloric sphincter to large intestine
- About 3-6 hours to move food through



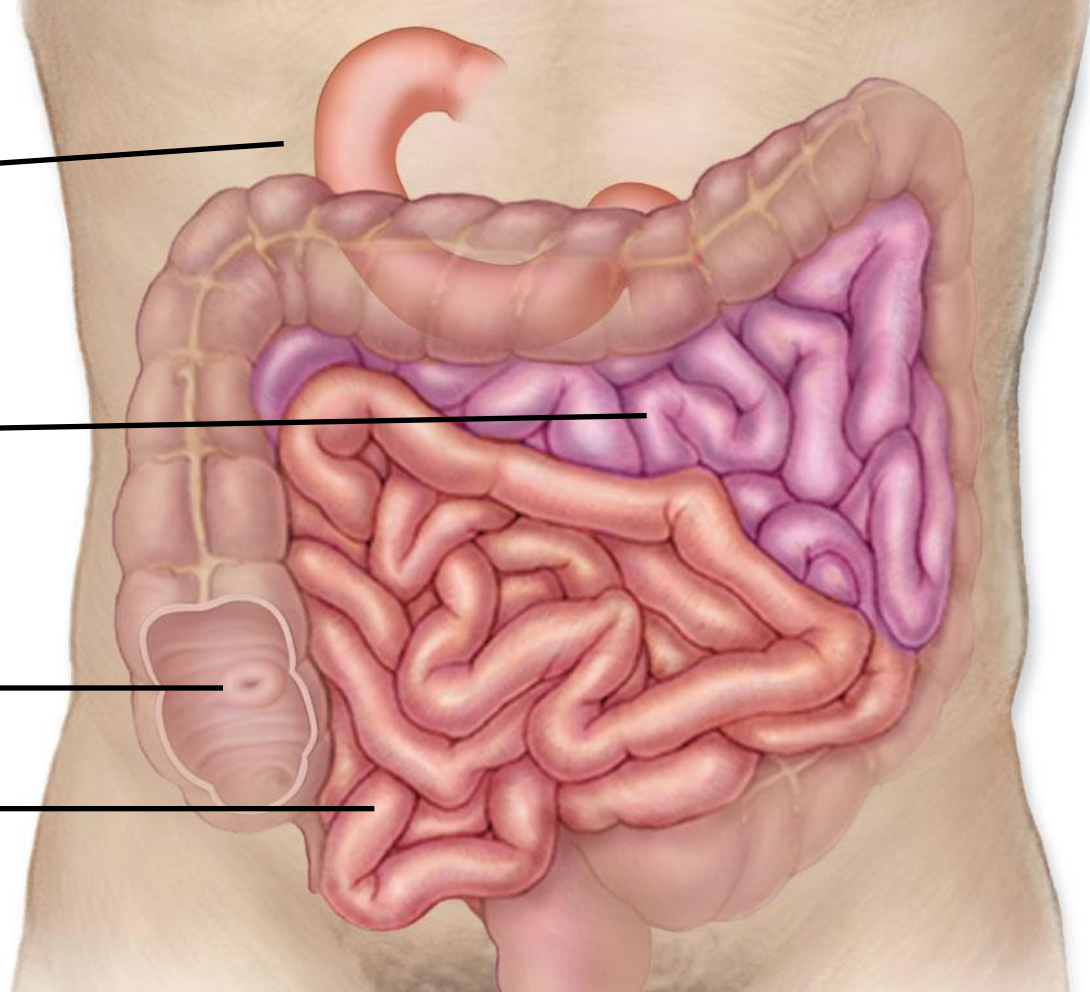
Longest part of alimentary canal

Duodenum

Jejunum

Ileocecal valve

Ileum

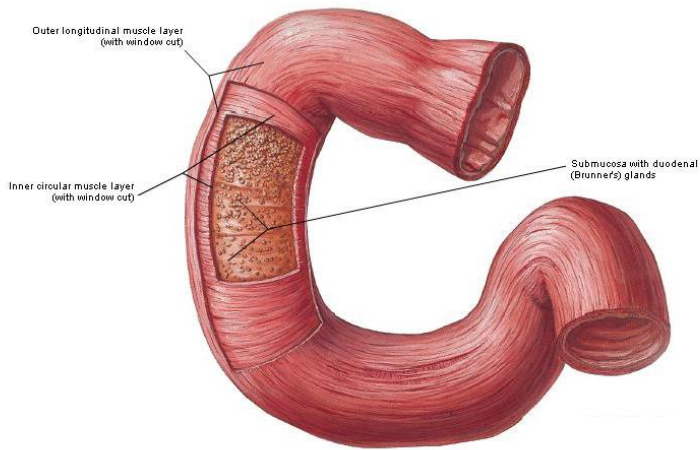


Duodenum (“twelve finger widths”) : 25 cm 5%

Jejunum (“empty”): 2.5 m 40 %

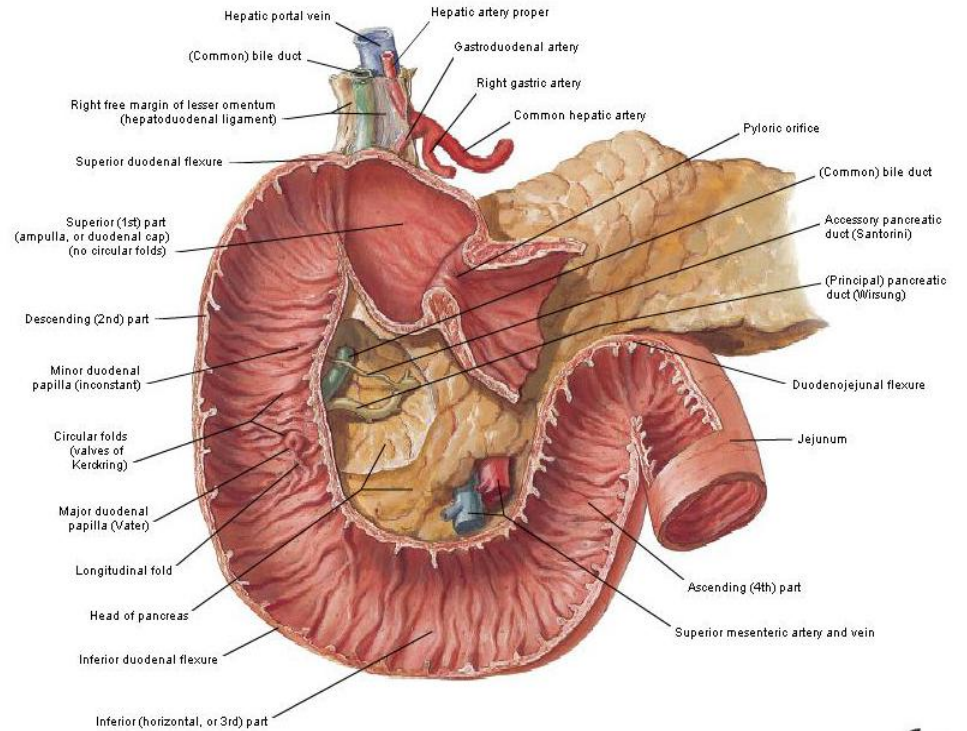
Ileum (“twisted”): 3.5 m 55%

Musculature of Duodenum Layers of Wall



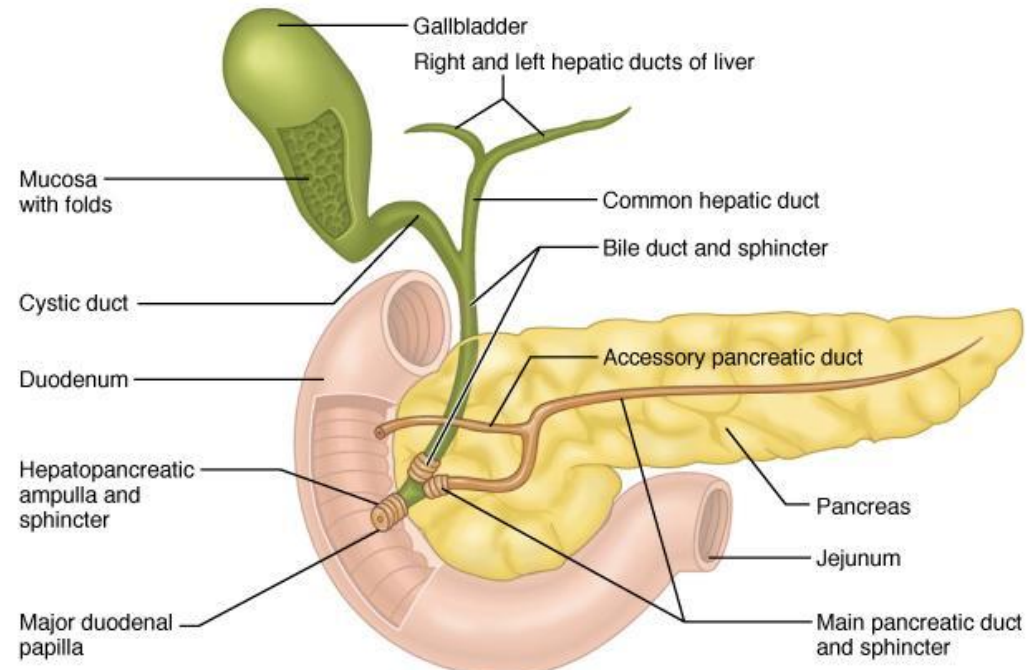
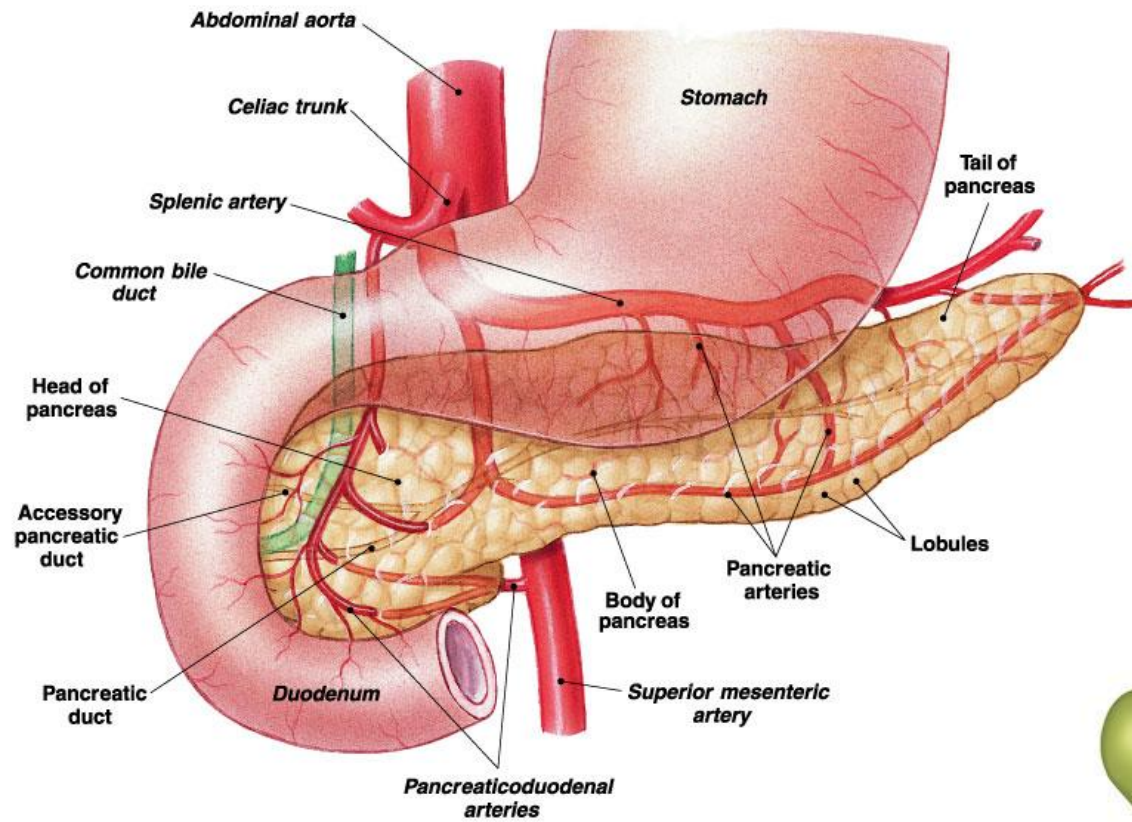
F.N.

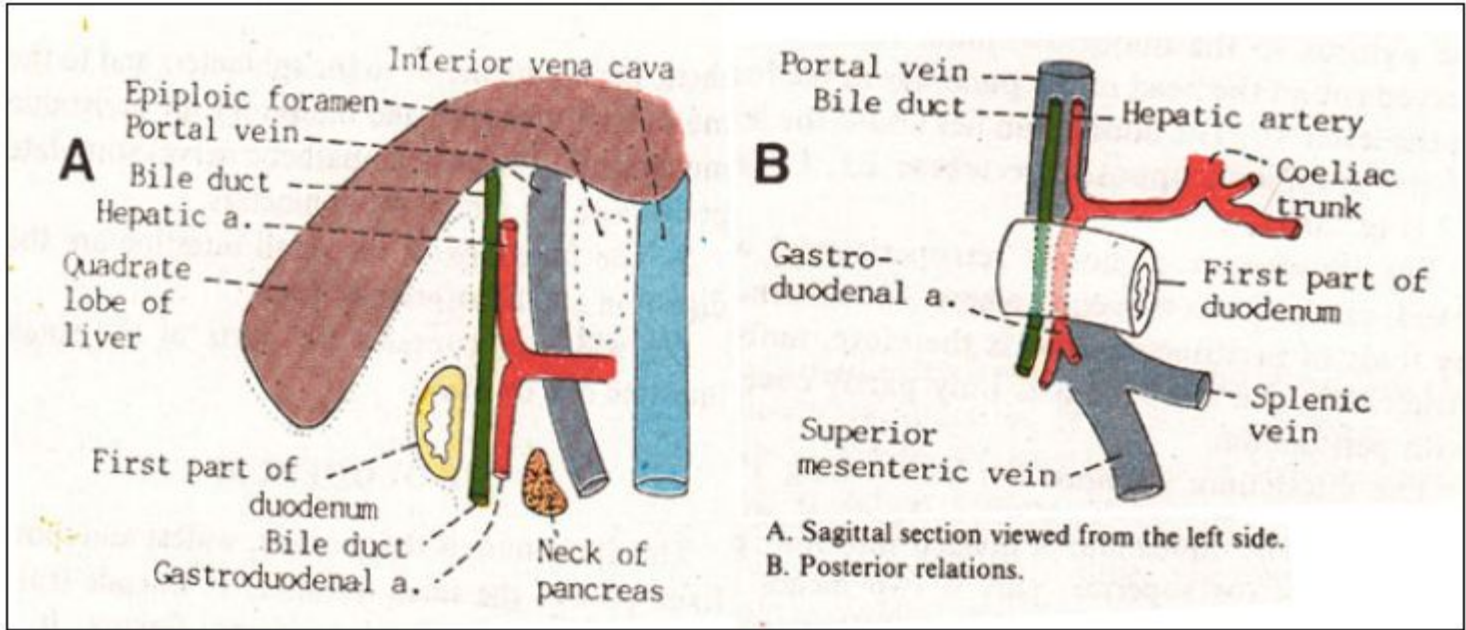
Mucosa of Duodenum

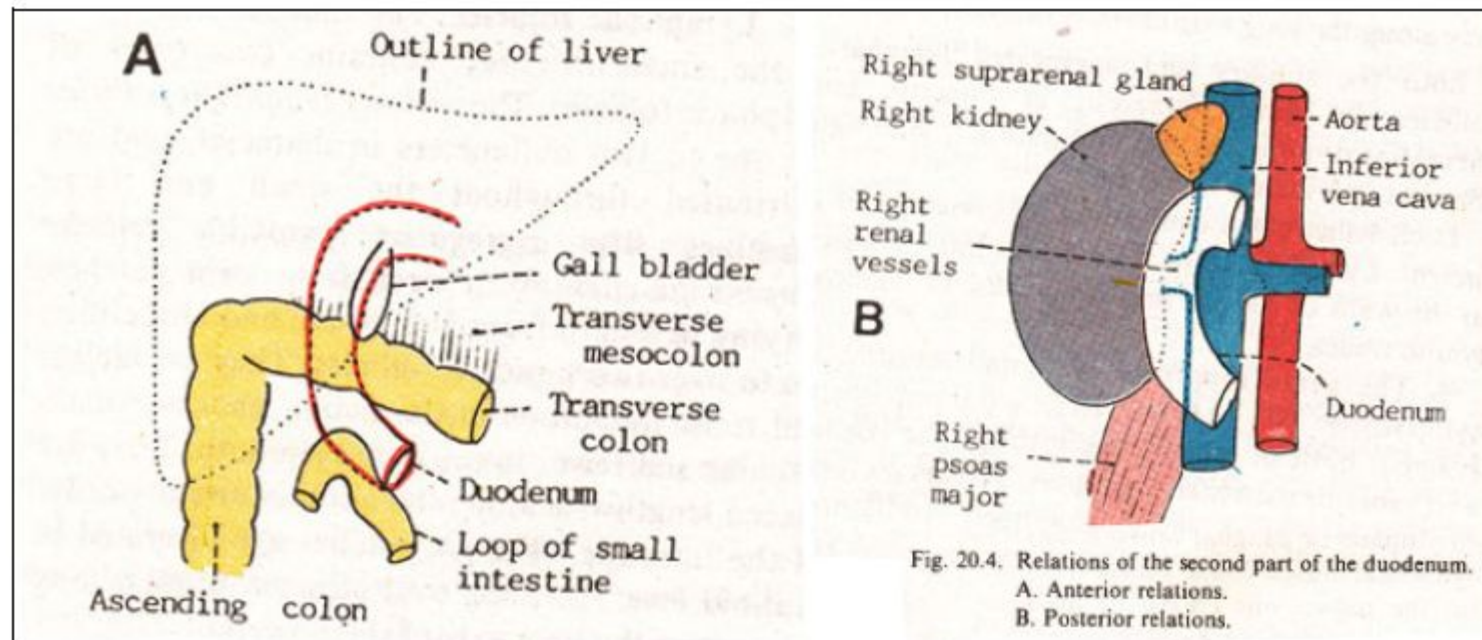


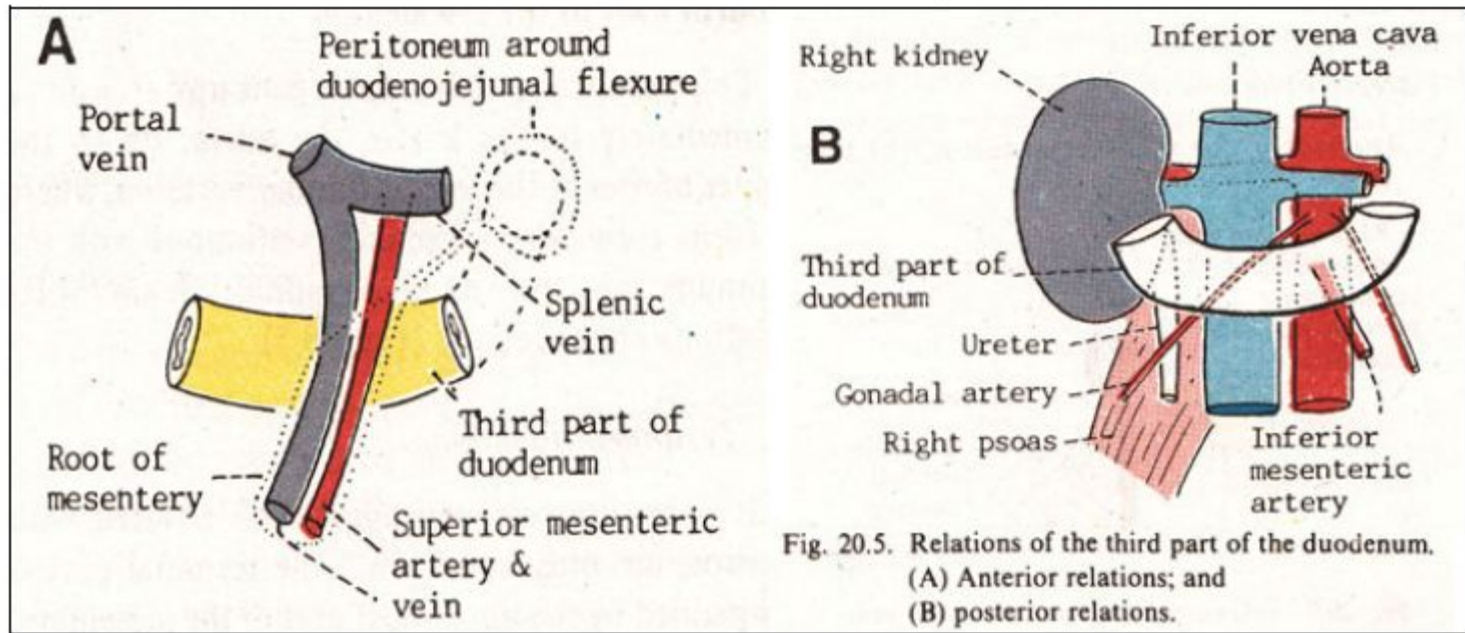
F. Netter M.D.
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Duodenum and Pancreas

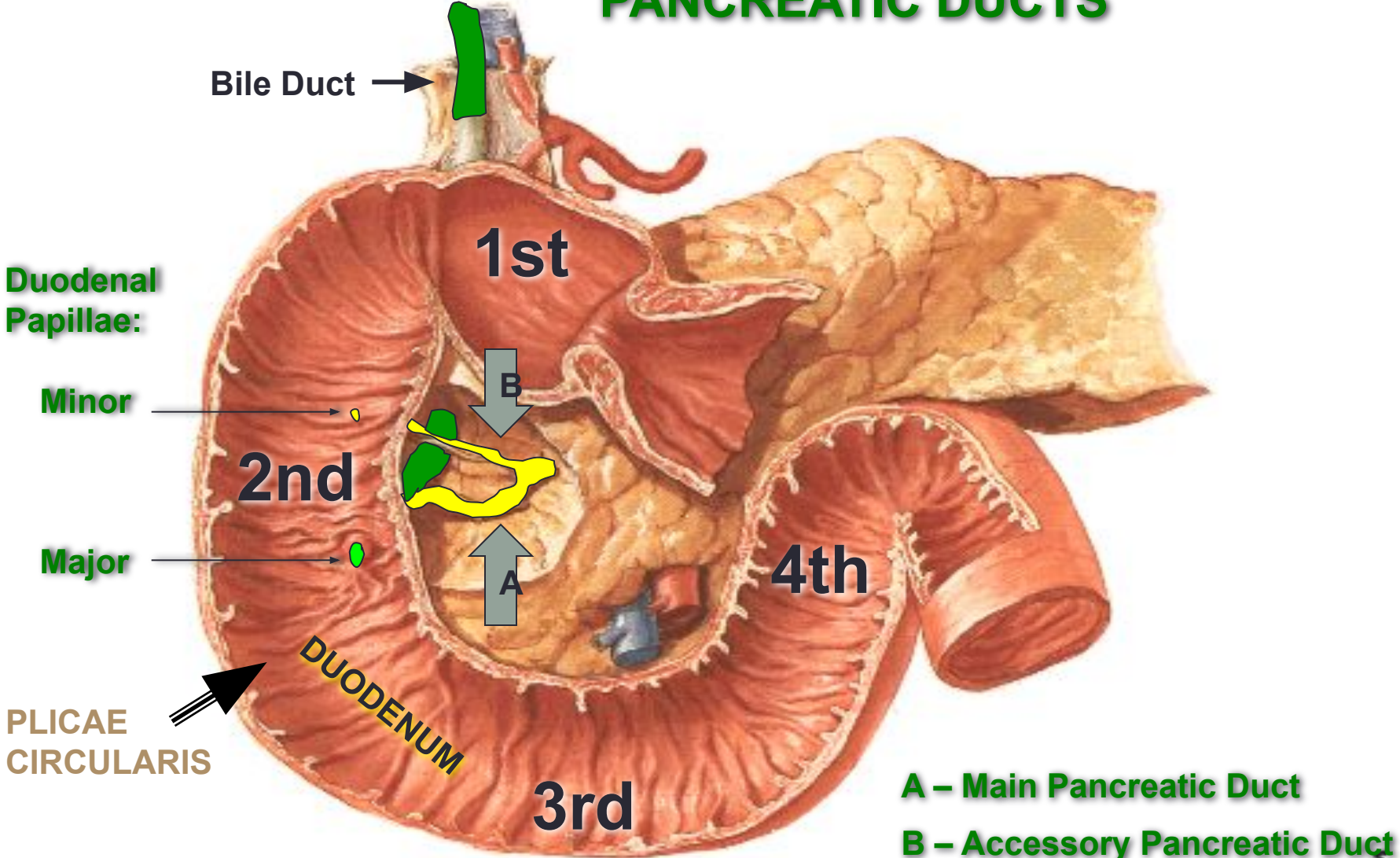




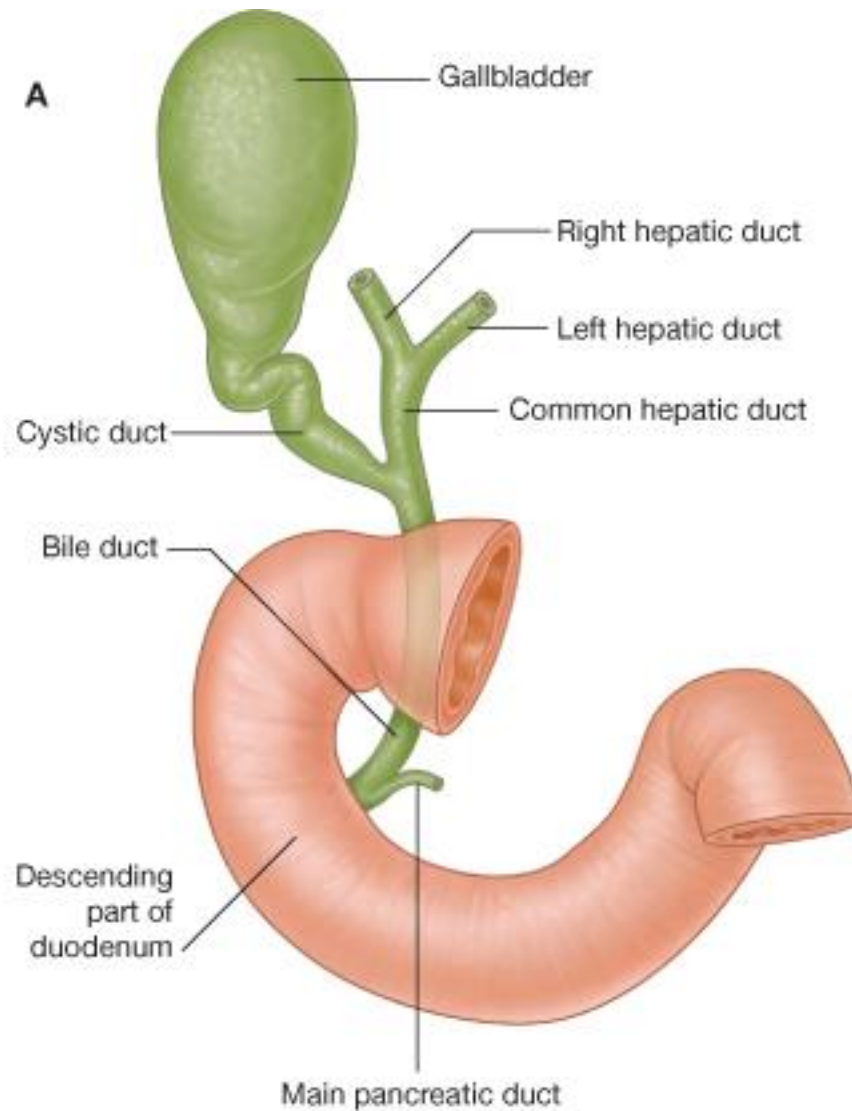




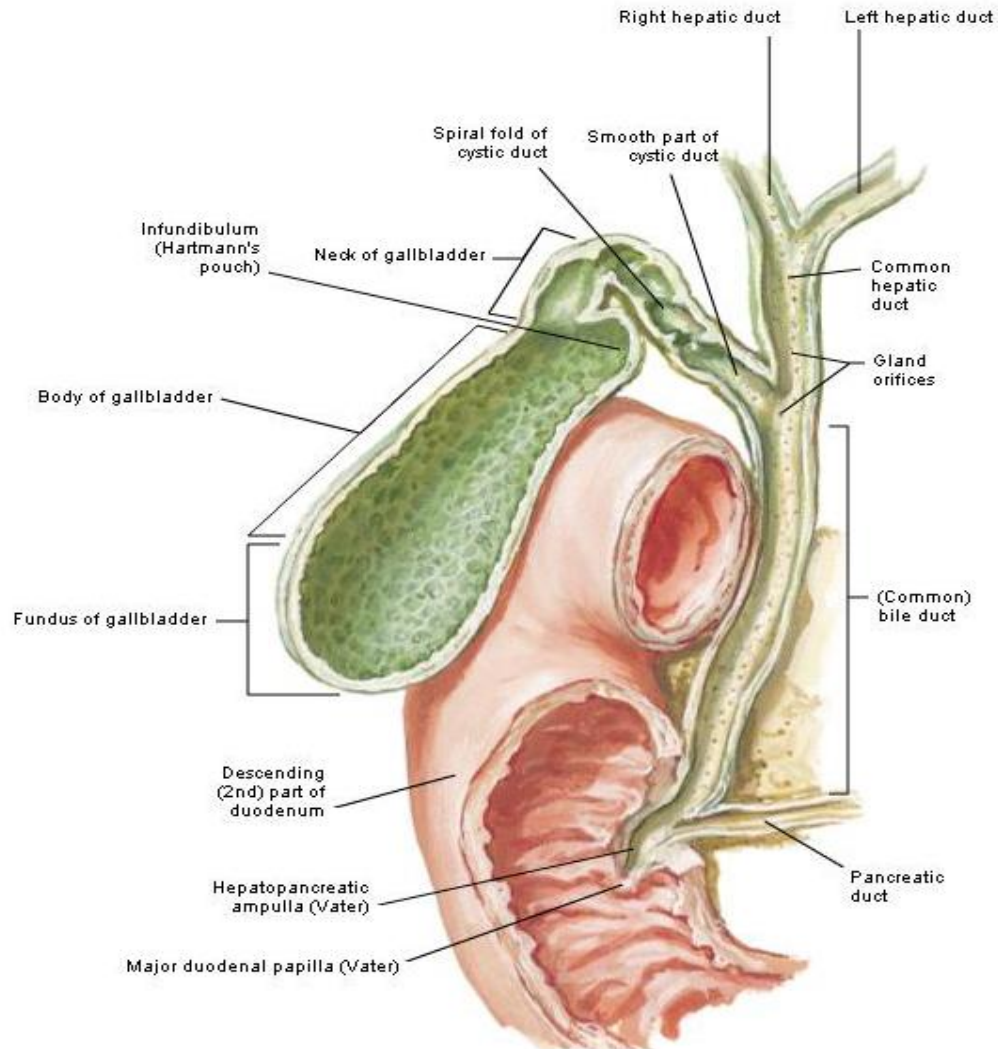
PANCREATIC DUCTS

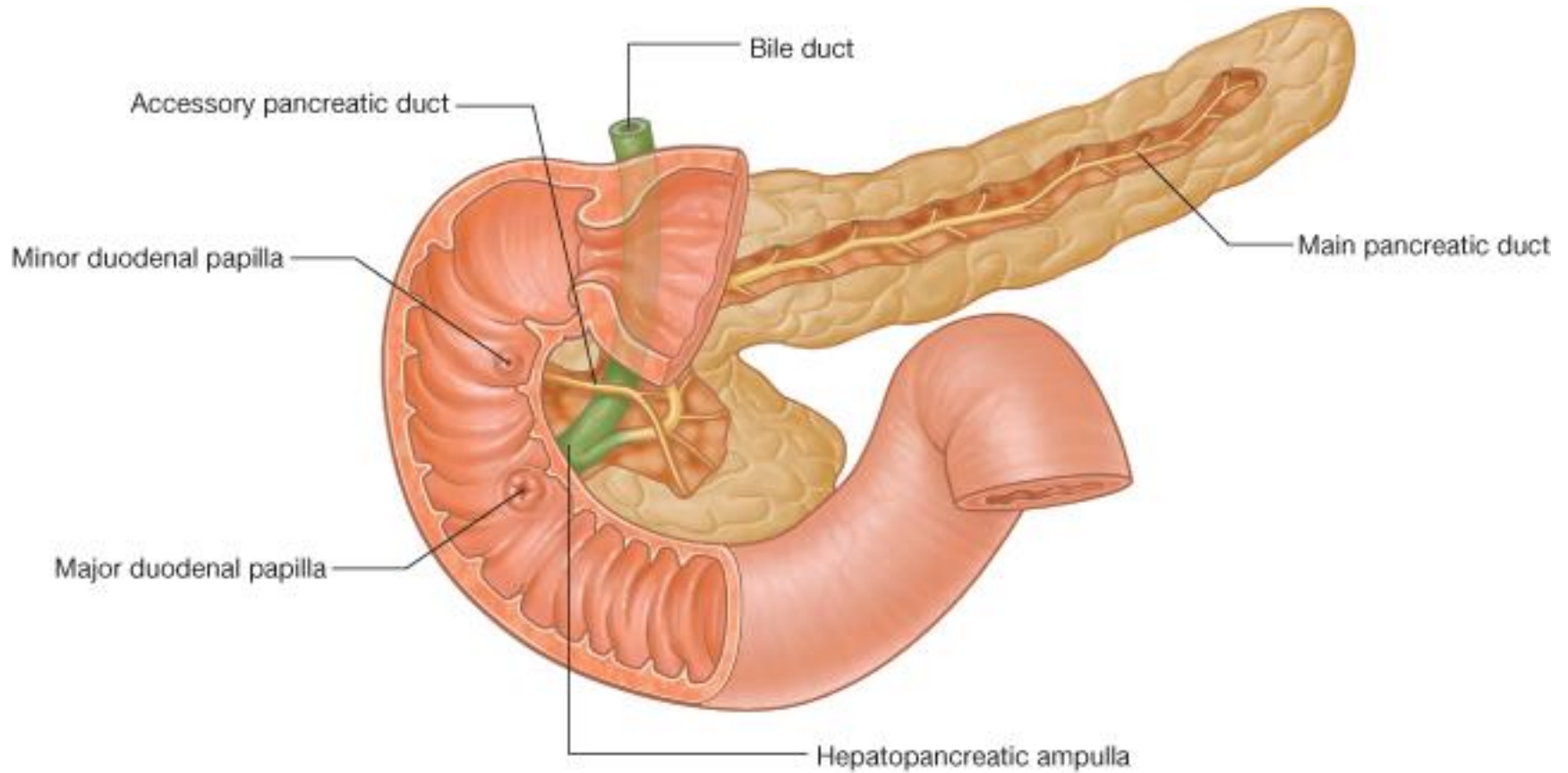


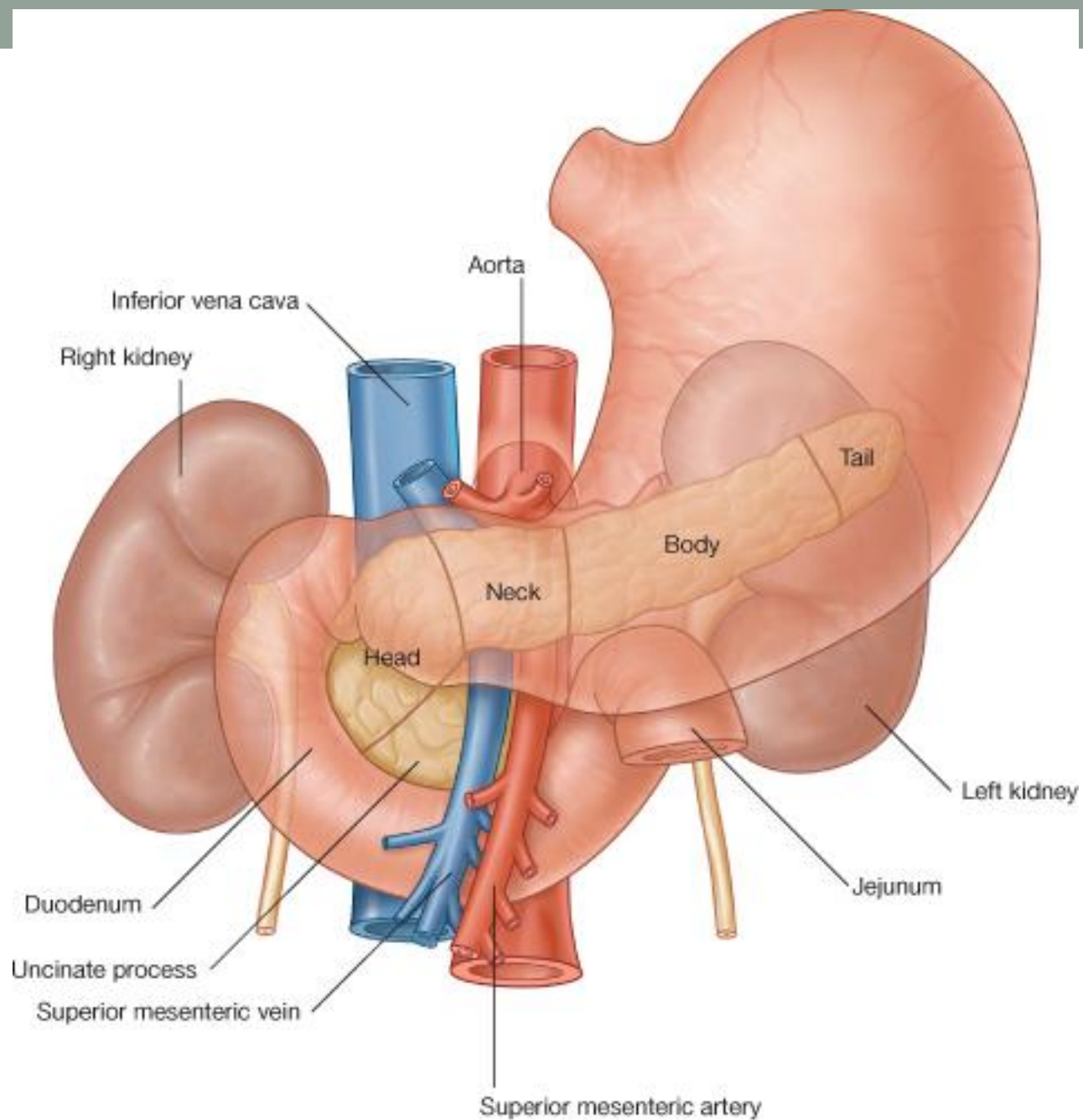
A – Main Pancreatic Duct
B – Accessory Pancreatic Duct

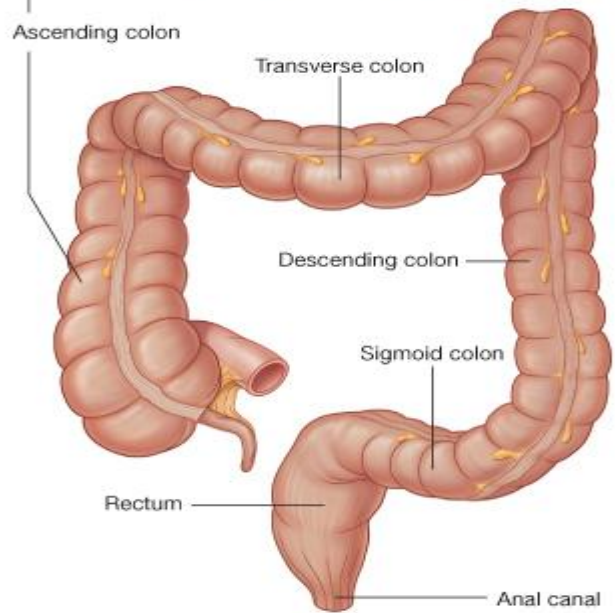
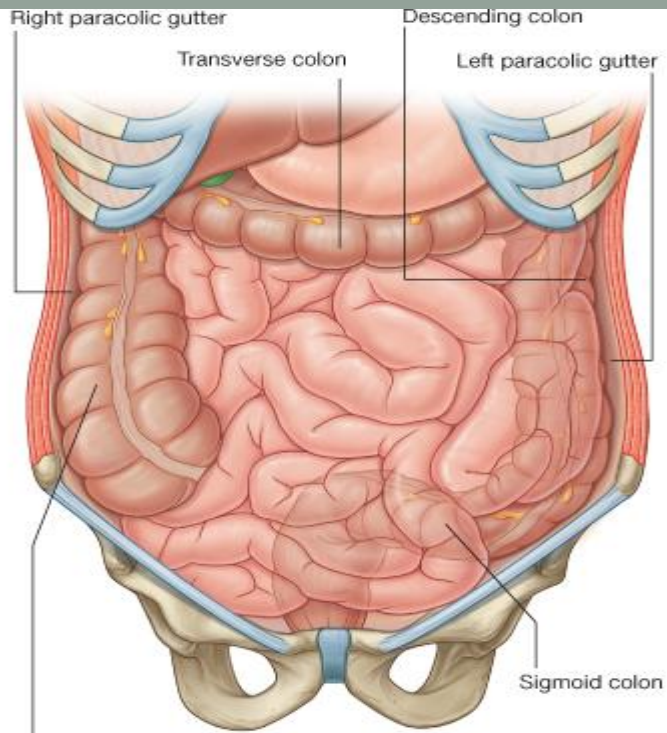


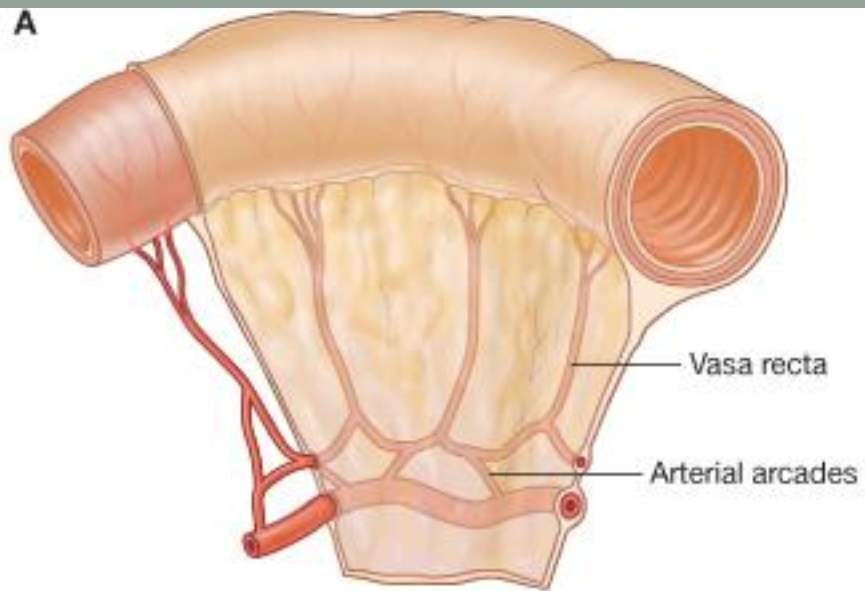
Gallbladder and Extrahepatic Bile Ducts Sectioned



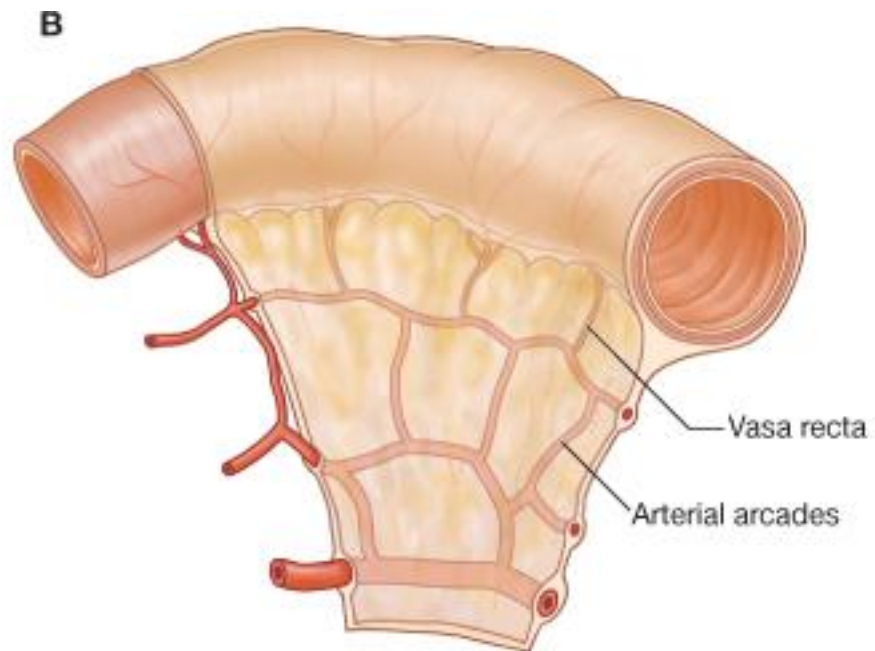








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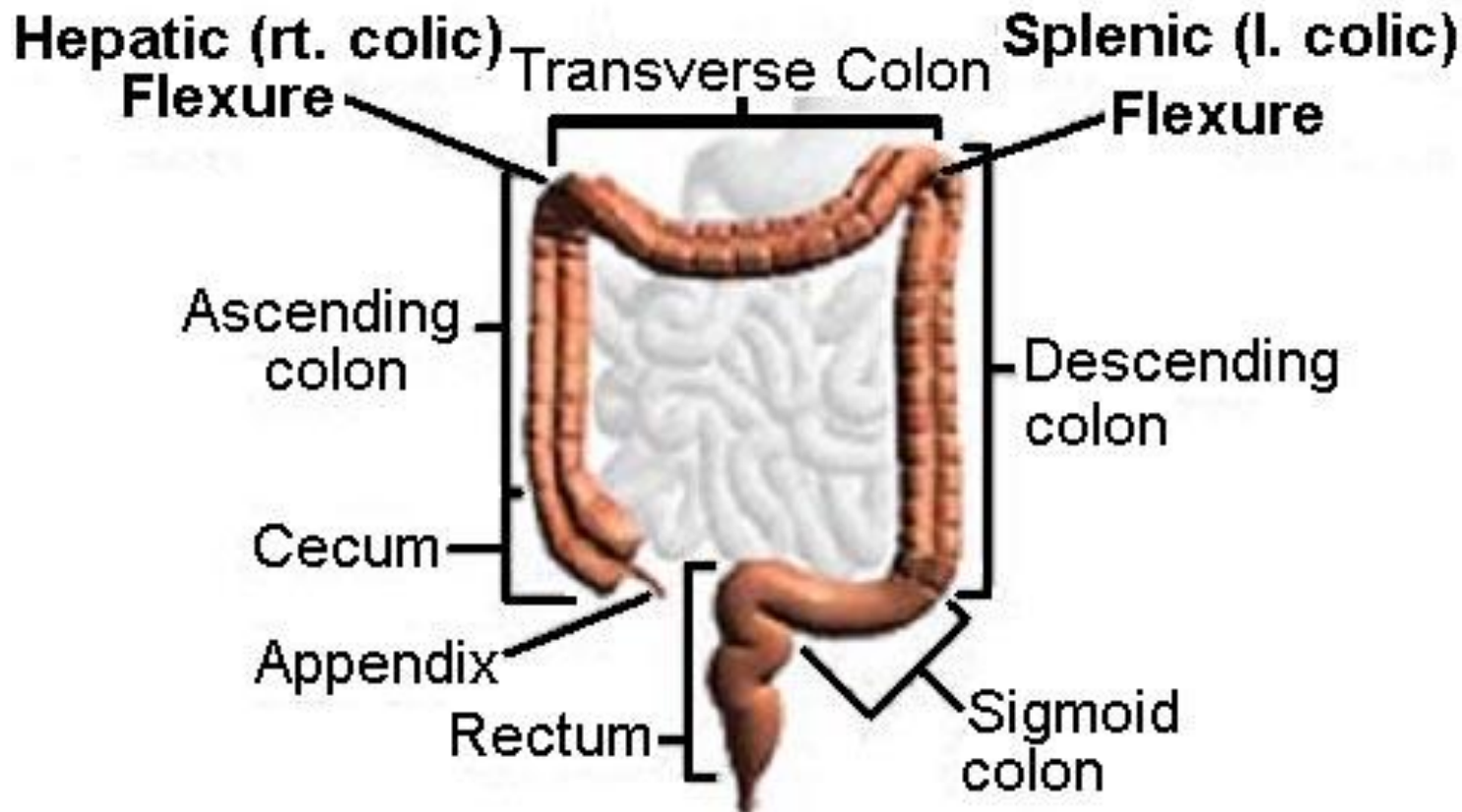


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Large Intestine

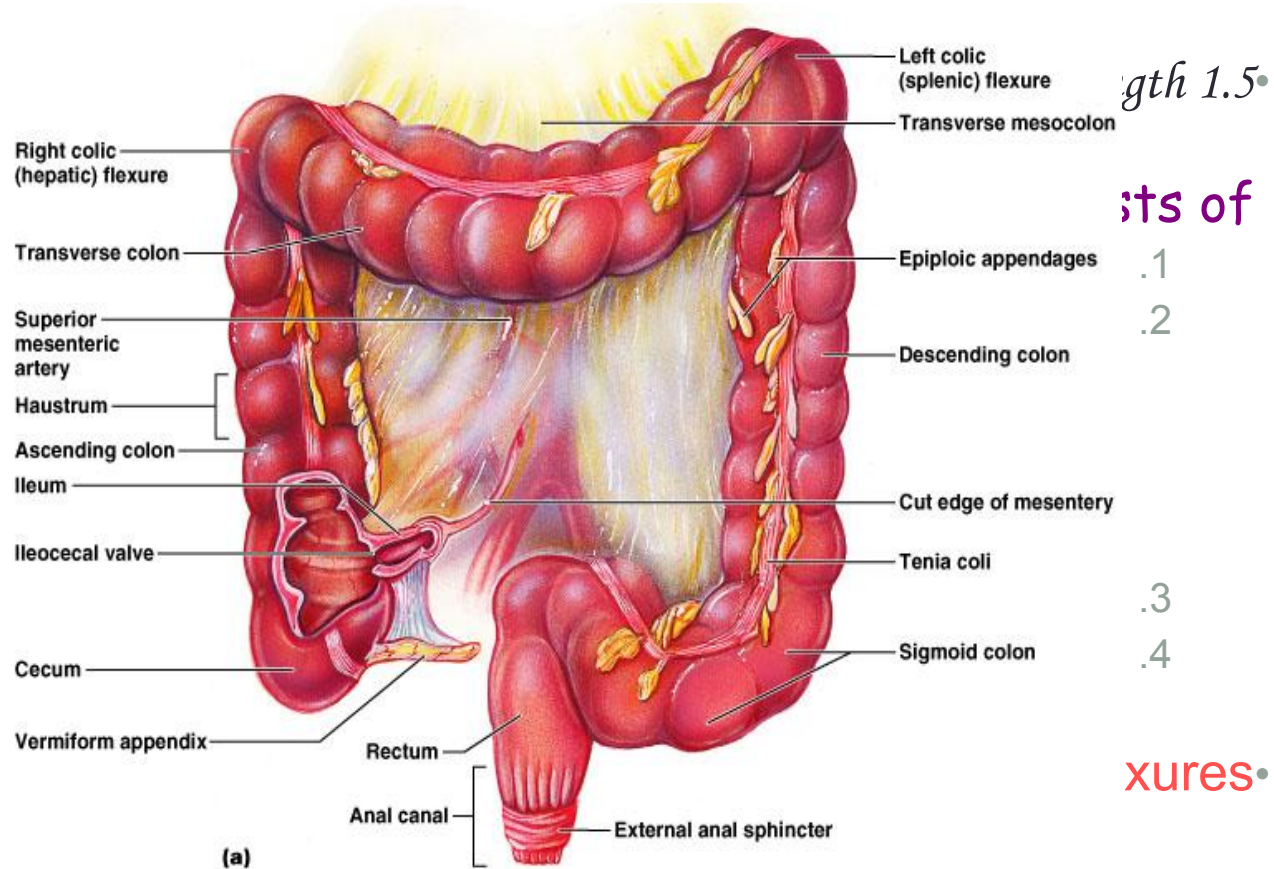
Extends from ileocecal valve to anus

Regions



Extends from ileocecal valve to anus

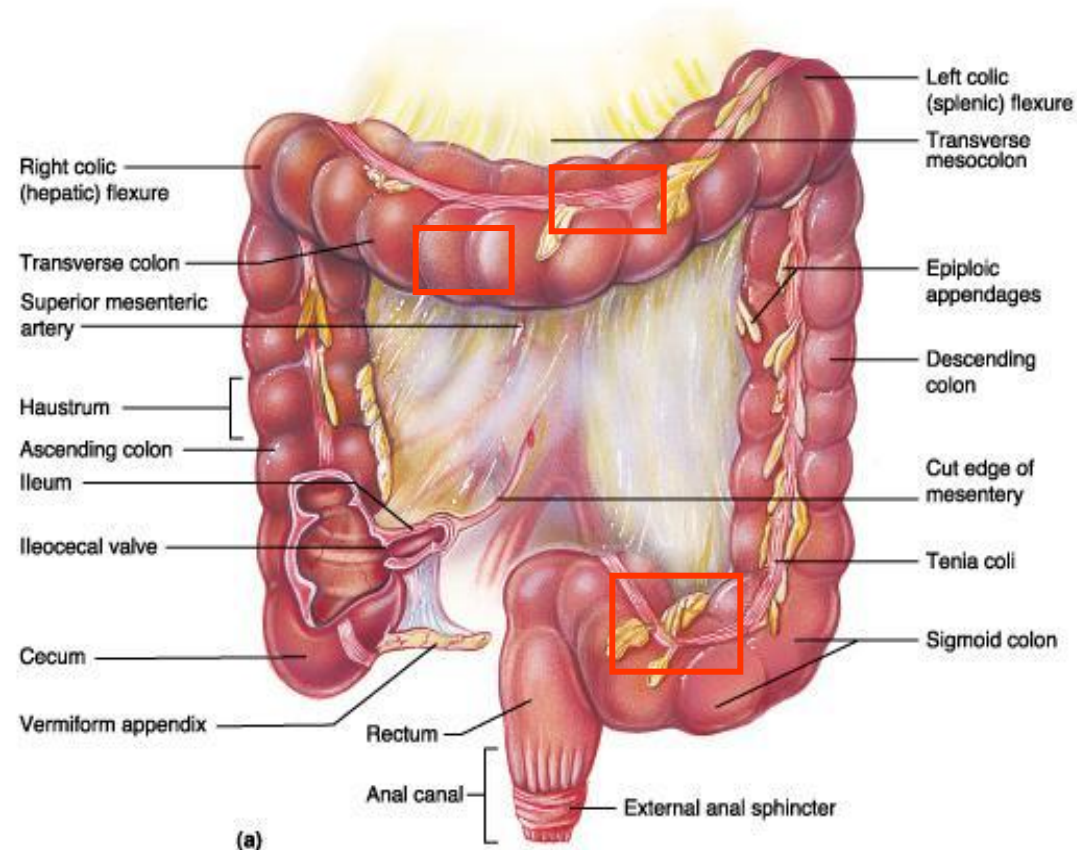
cm in diameter 6



Movements sluggish (18-24 hours)•

I. *The large intestine exhibits 3 features not seen in other area of the digestive system.*

- I. *the teniae coli*
- II. *Haustra*
- III. *epiploic appendages.*



Large intestine gross anatomy

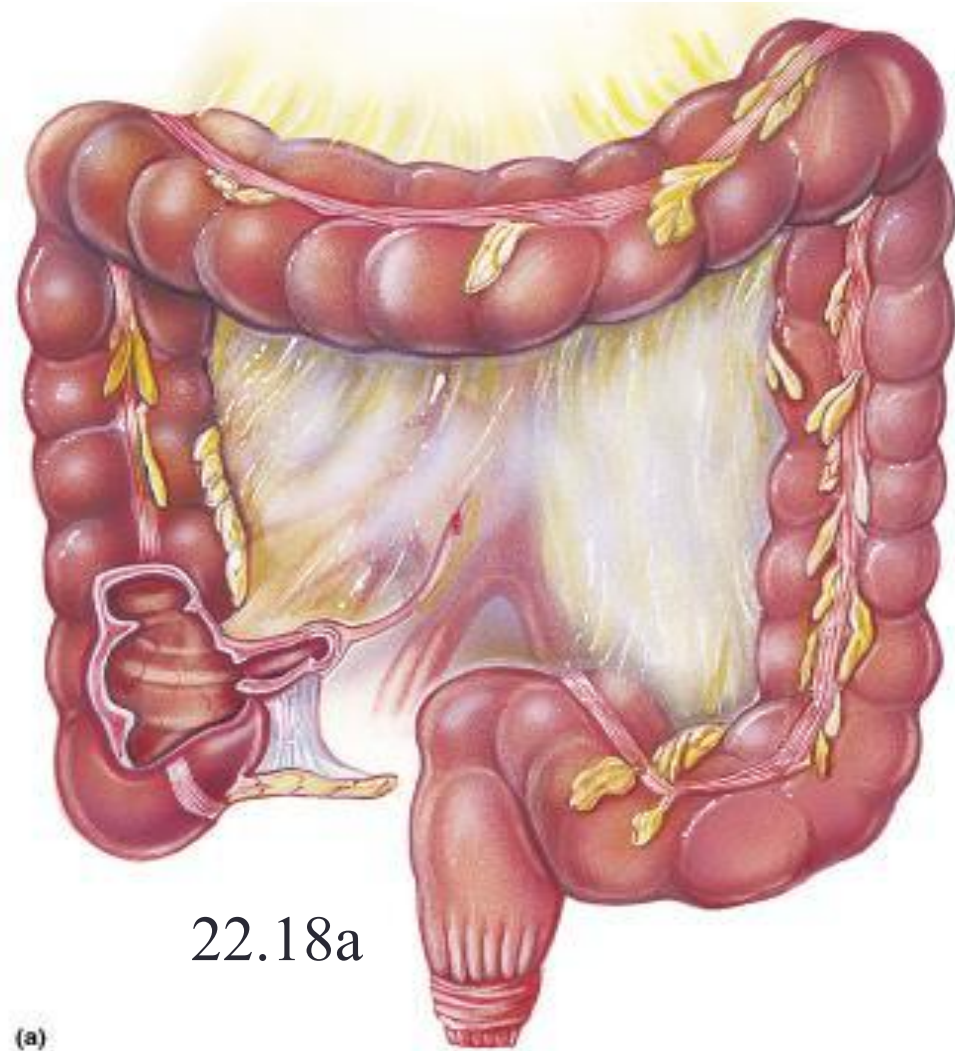
m long 1.5 •

strips Tenia coli 3 •

longitudinal smooth muscle •

Haustra •

Epiploic appendages •



Cecum and Appendix

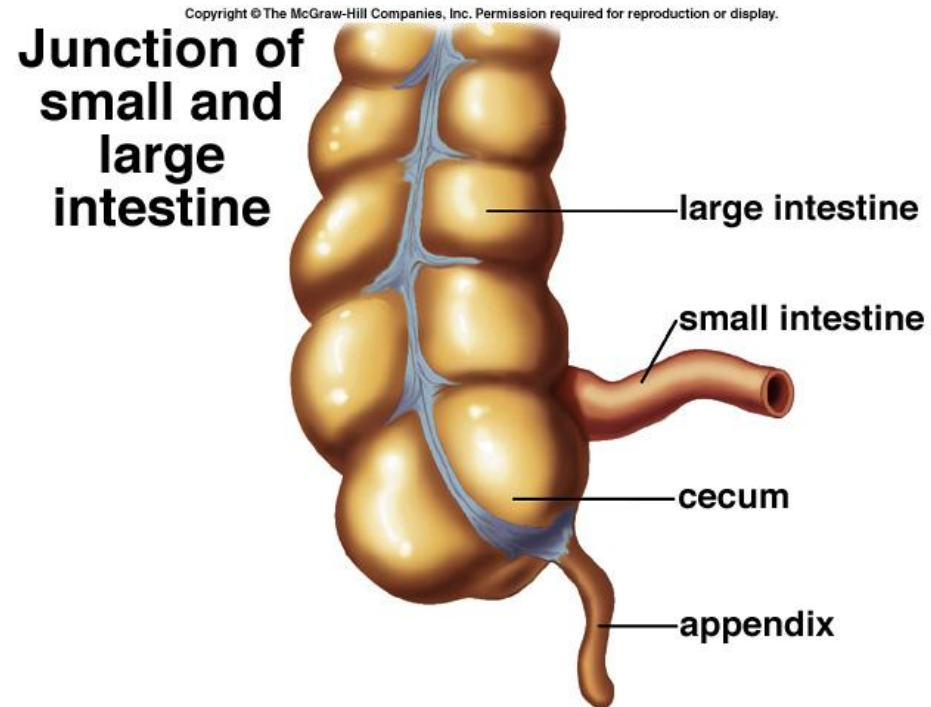
Cecum •

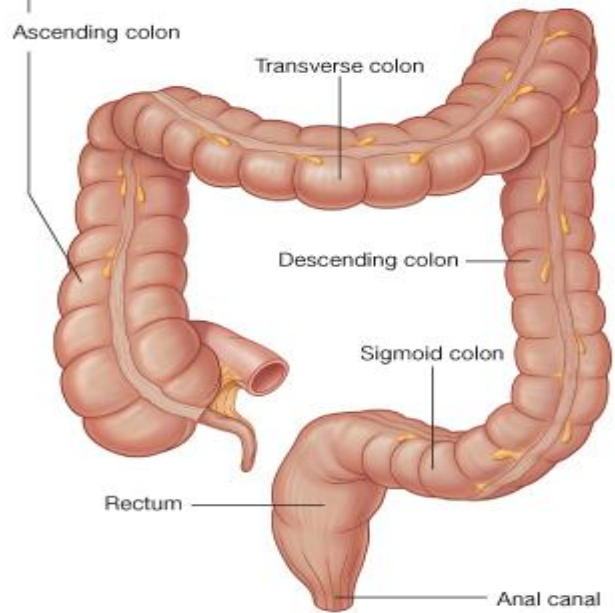
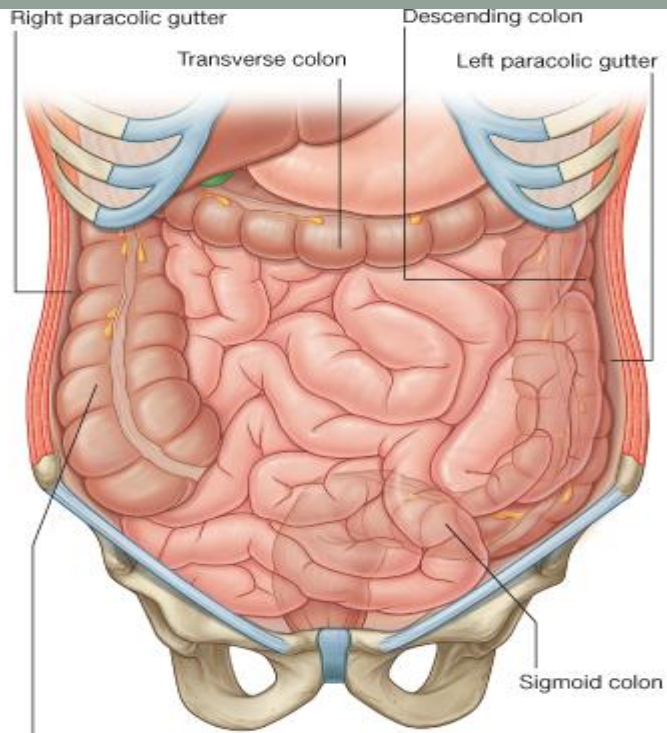
- sac-like, blind pouch •
- right lower quadrant •

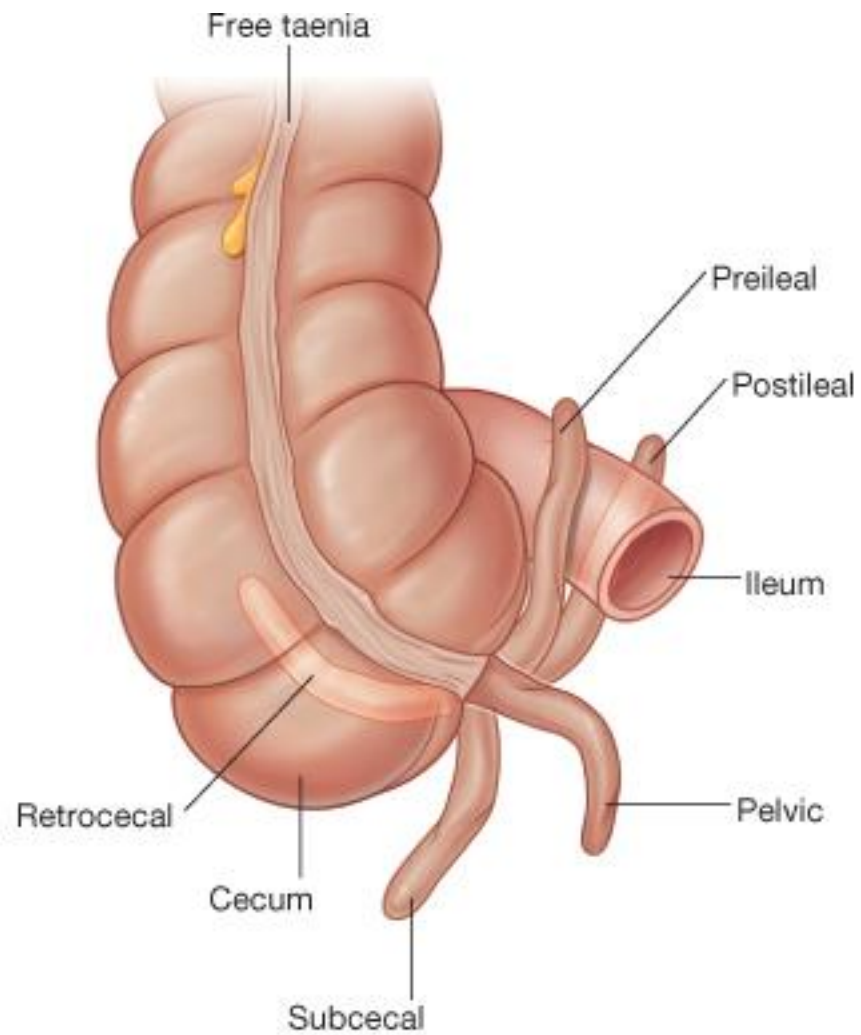
Ileocecal valve •

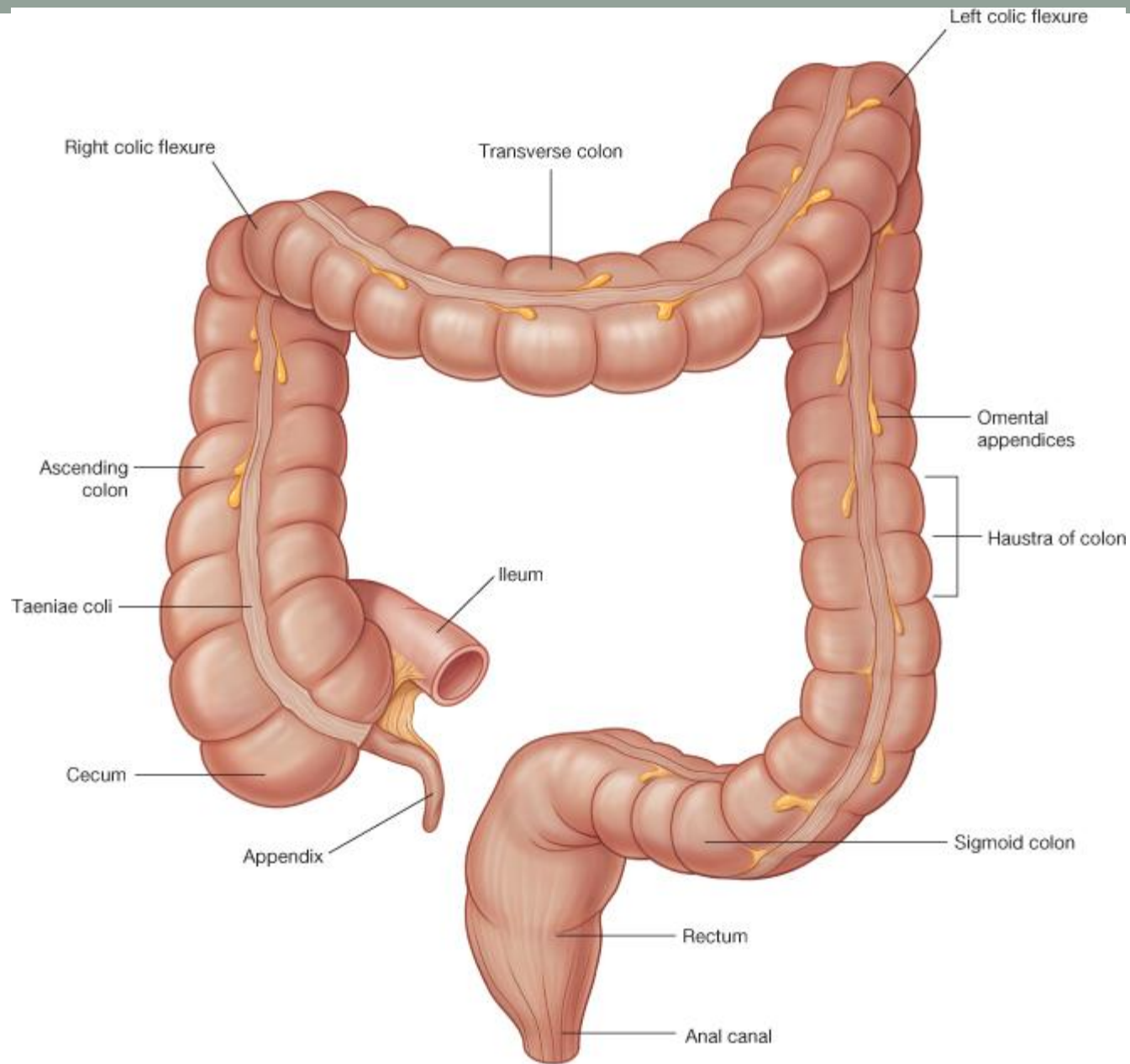
Vermiform Appendix •

- blind tube •
- masses of lymphoid tissue in wall •
- Tonsil-like function •

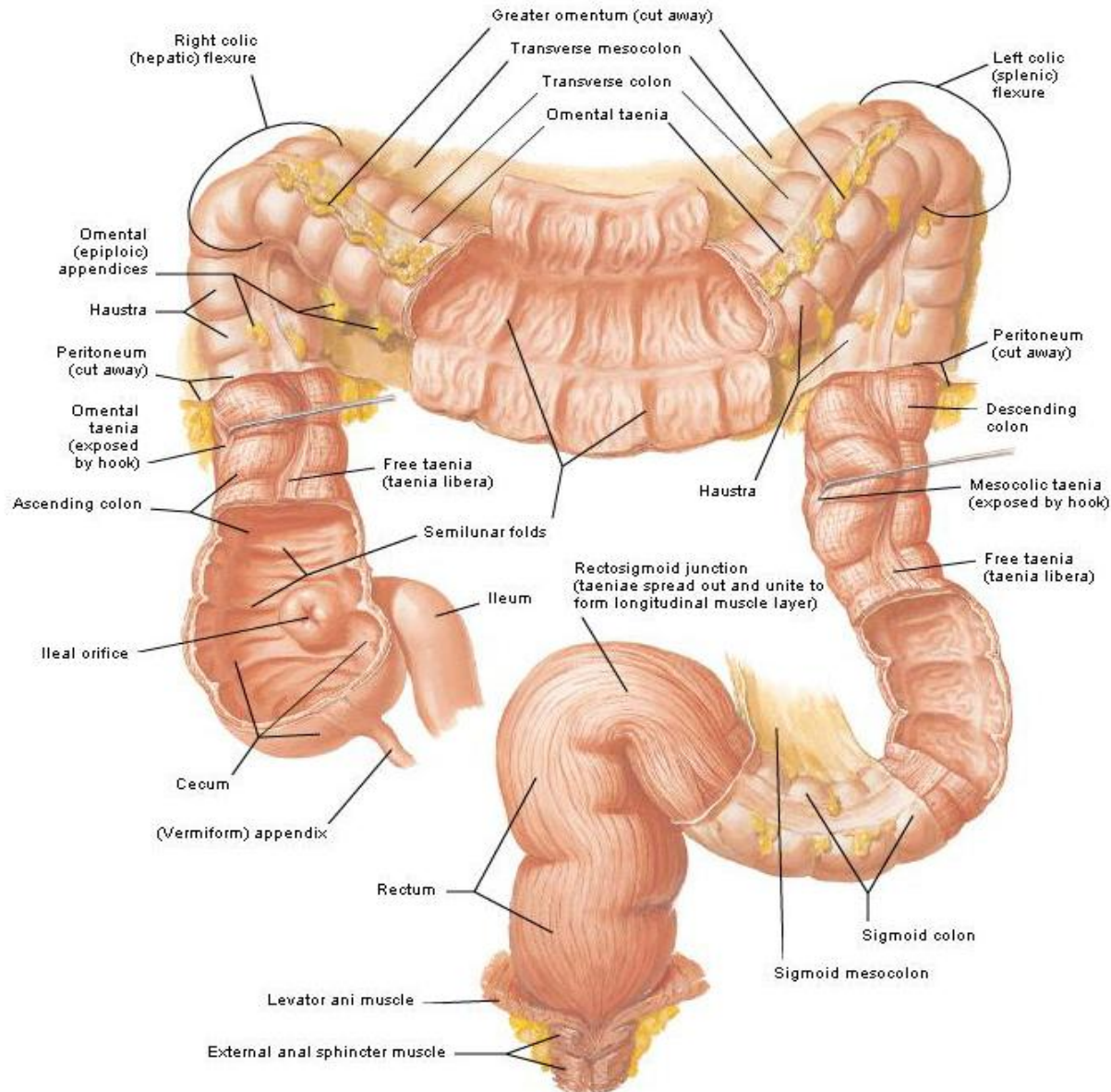








Mucosa and Musculature of Large Intestine



Trans. colon
(removed)

Kidney

1-Diaphragm

Subcostal
a. & n.
12th rib
Iliohypo-
gastric n.

Duodenum
Desc. colon

Asc.
colon
Ilio-in-
guinal n.

2-Trans.
abdom.m.
3-Quad.
lumb.m.

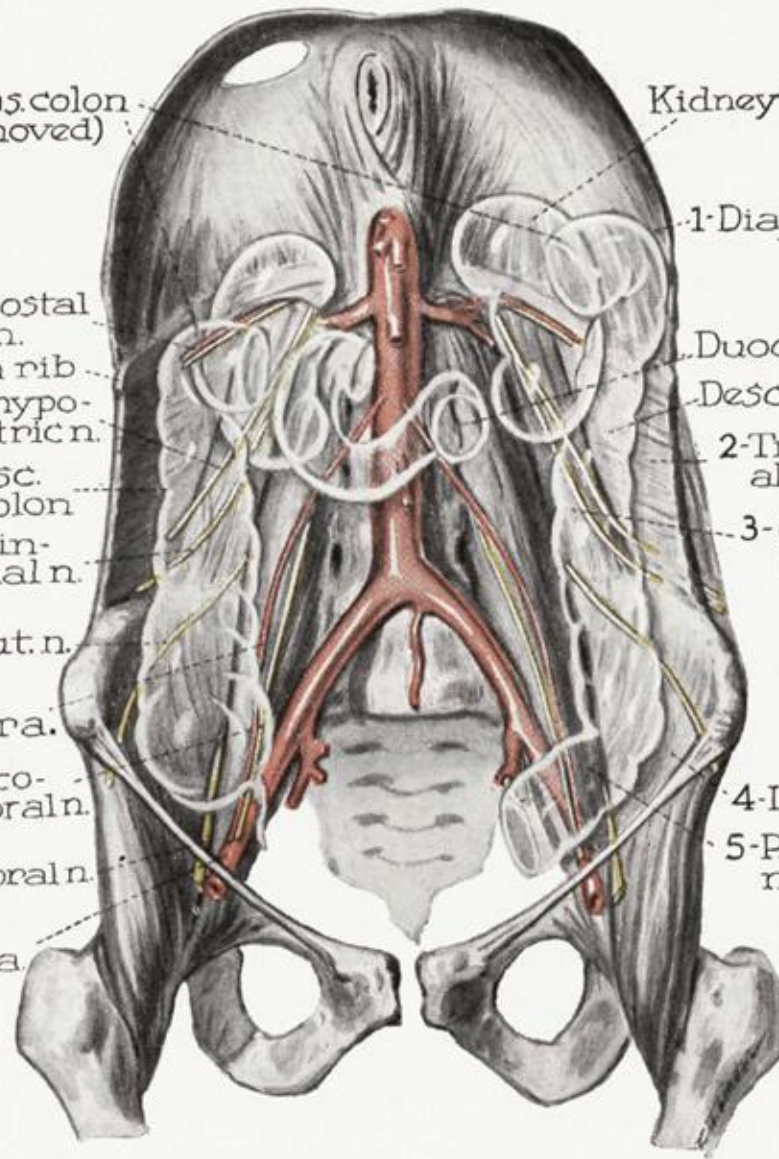
Lat.cut.n.
Tes-
ticulara.

4-Iliacus m.
5-Psoas
maj.m.

Genito-
femoral n.

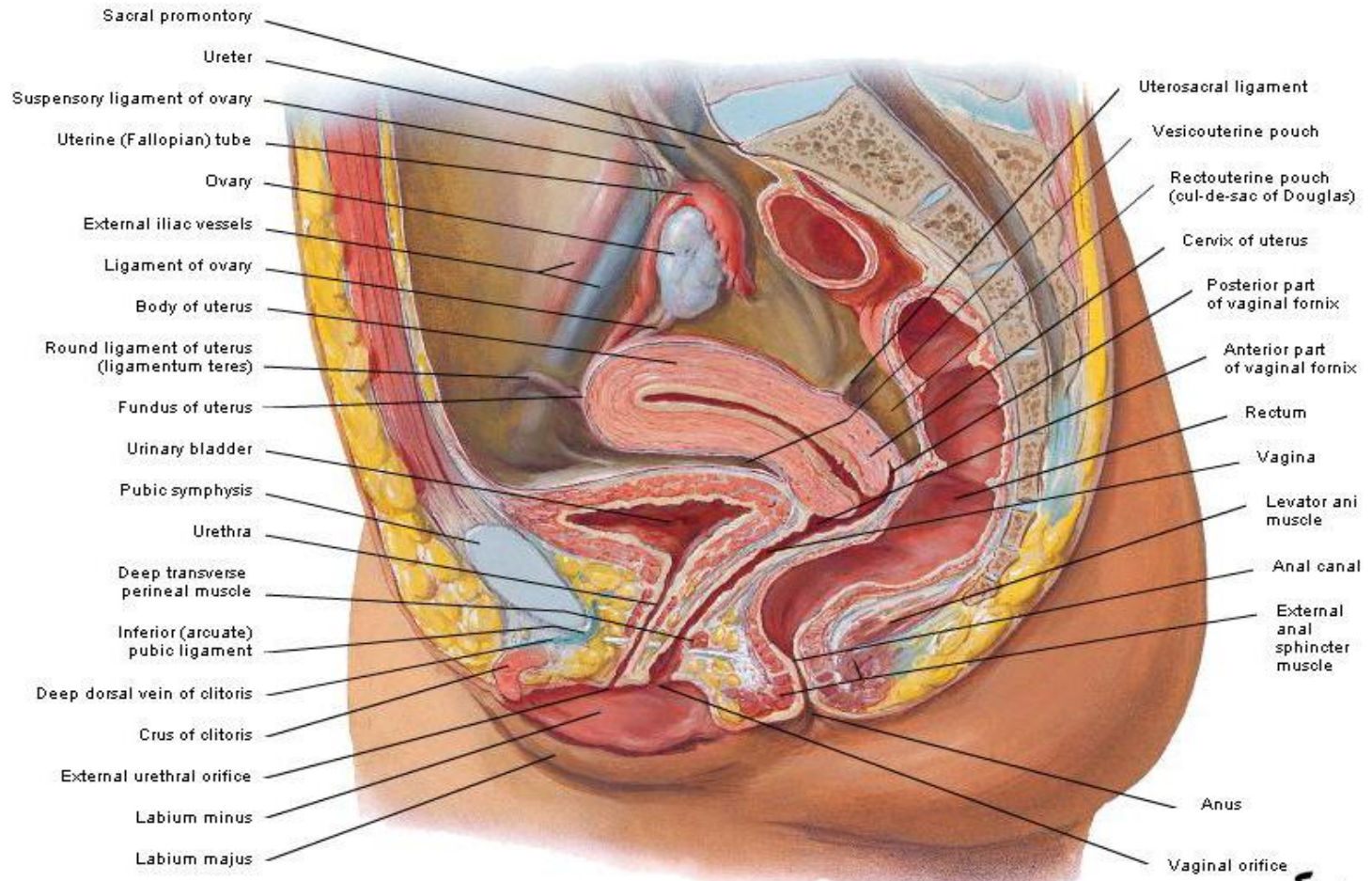
Femoral n.

Ext.
iliaca



Pelvic Viscera and Perineum of Female

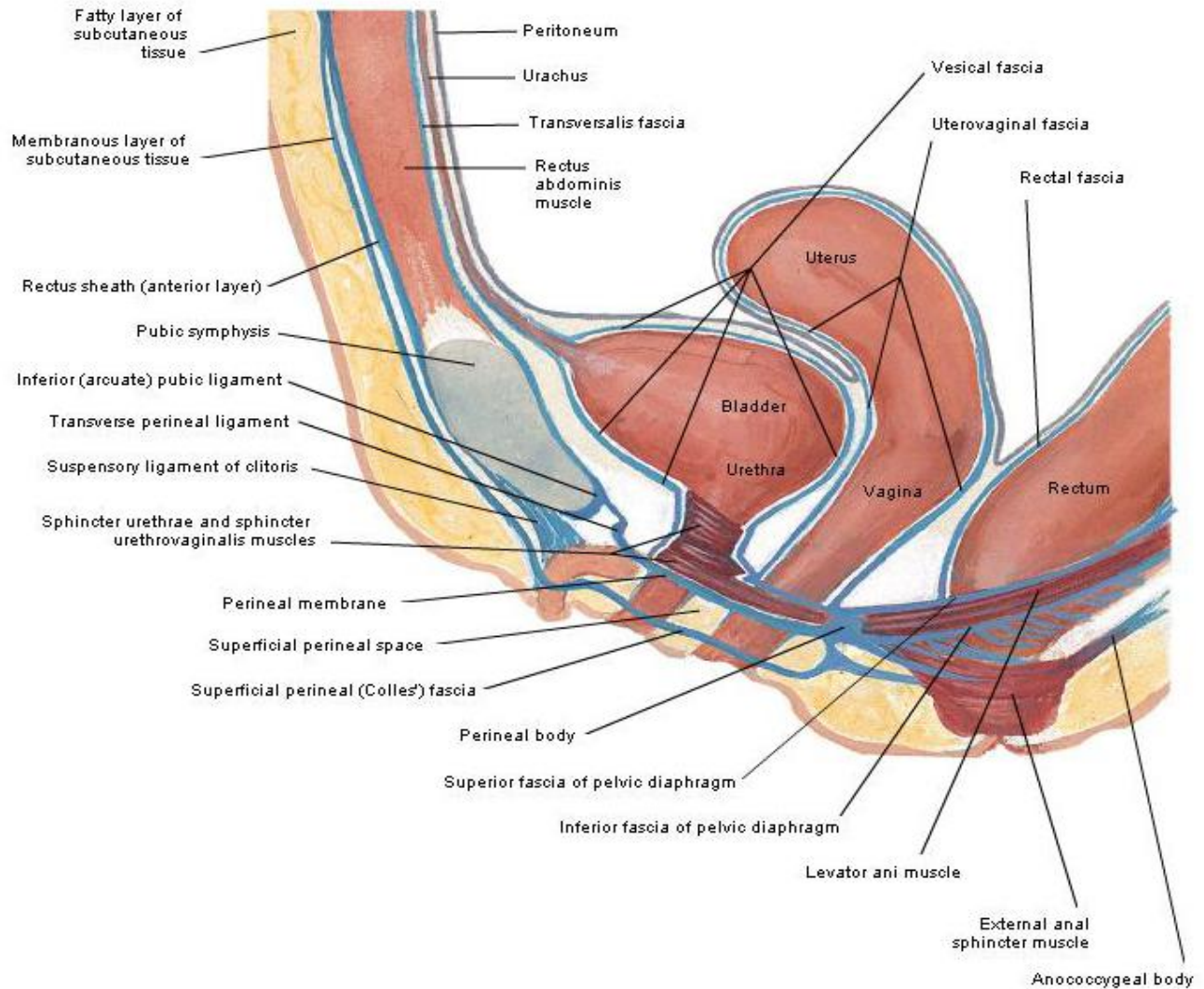
Median (Sagittal) Section



F. Netter M.D.
C. Machado M.D.
 © IGM

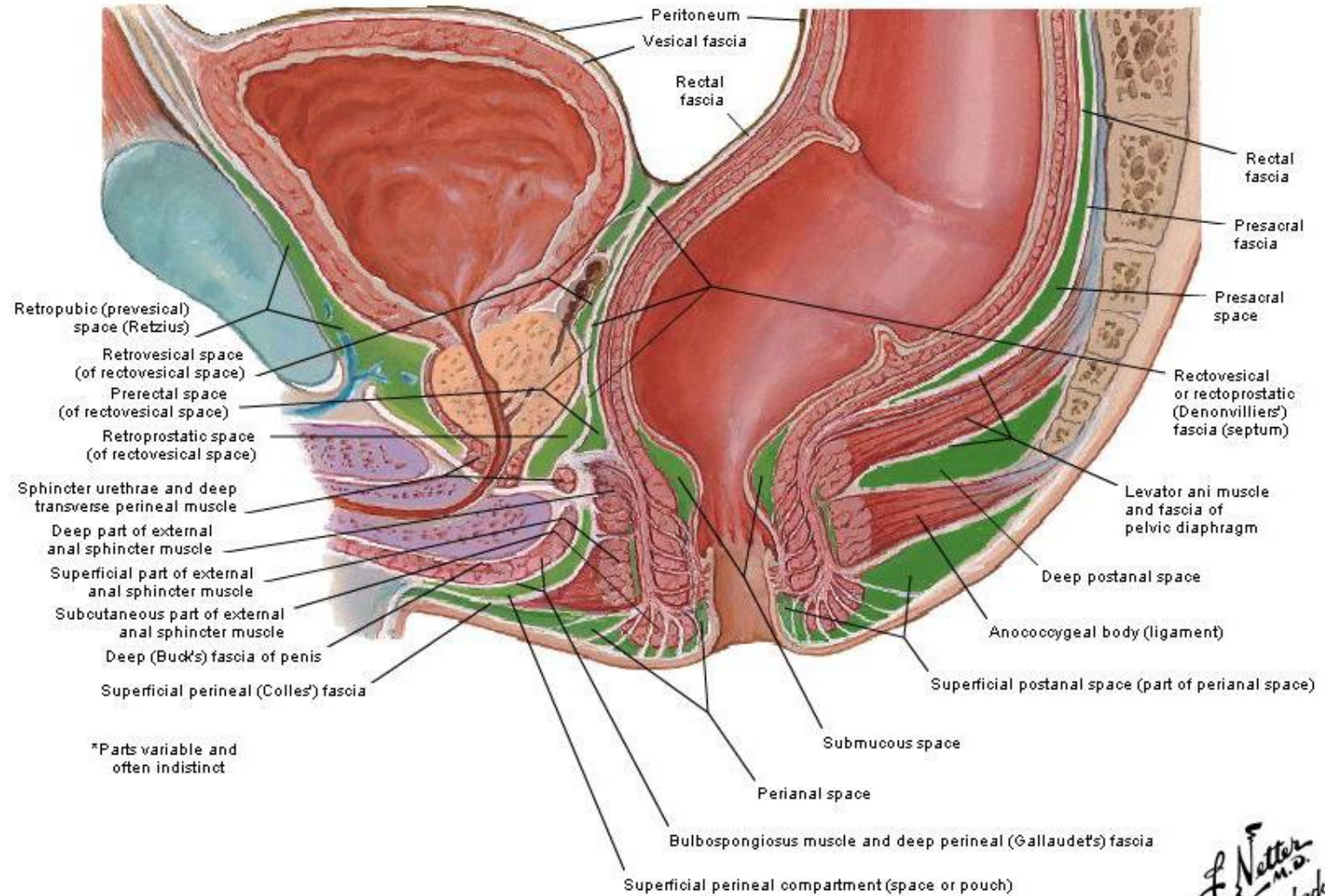
Perineum of Female

Sagittal Section



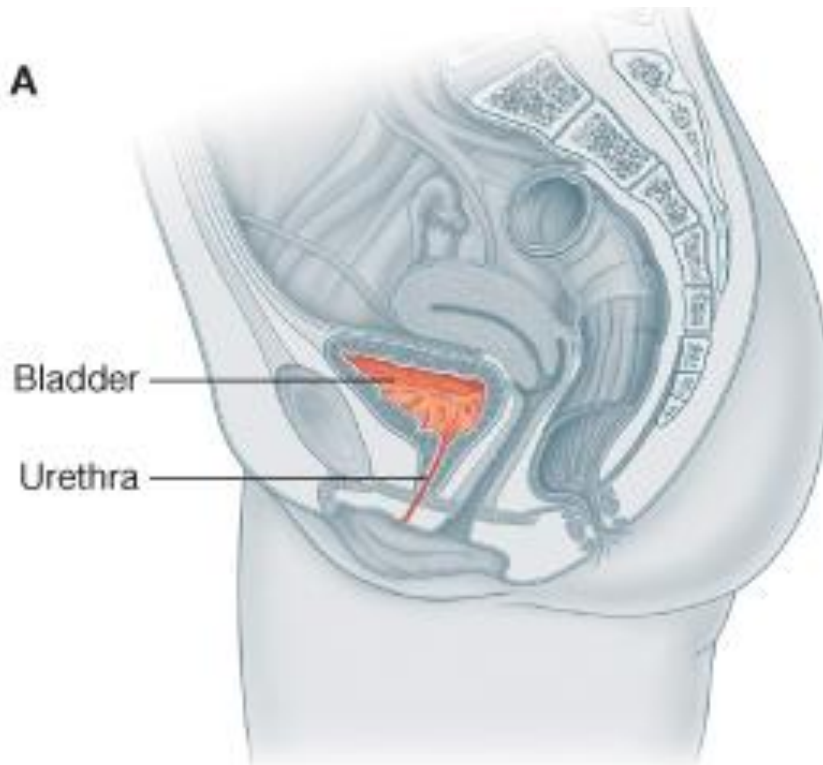
Actual and Potential Perineopelvic Spaces

Sagittal section



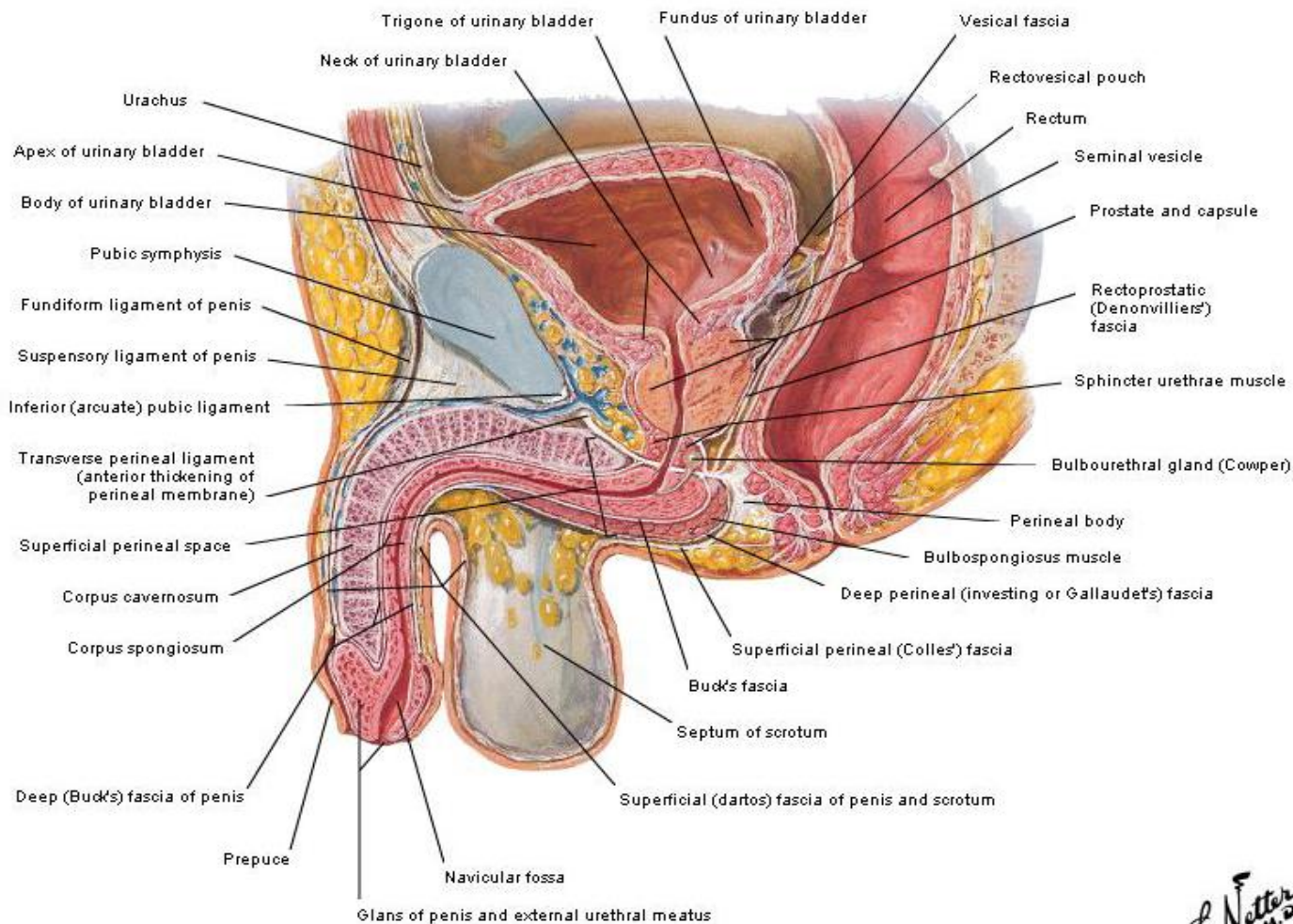
*Parts variable and often indistinct

A



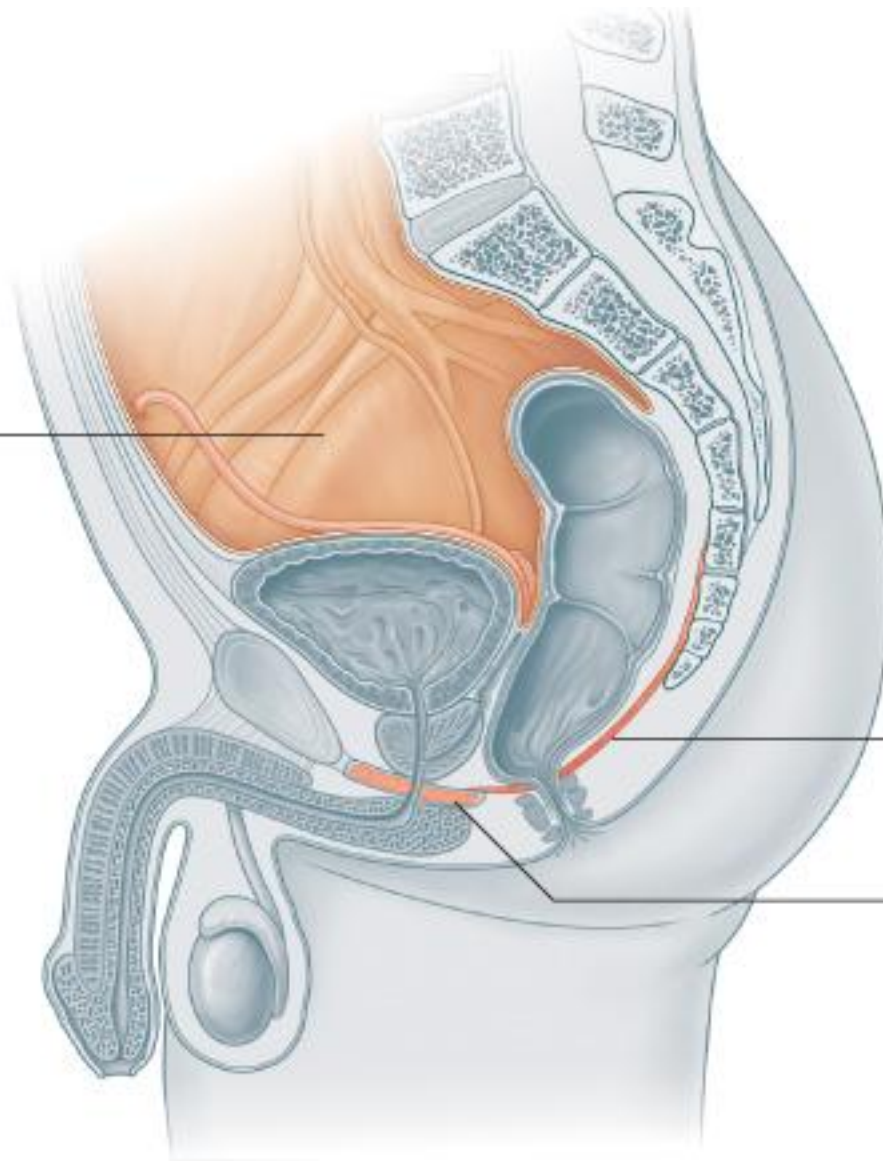
Pelvic Viscera and Perineum of Male

Median (Sagittal) Section



A

Pelvic cavity lined
by peritoneum

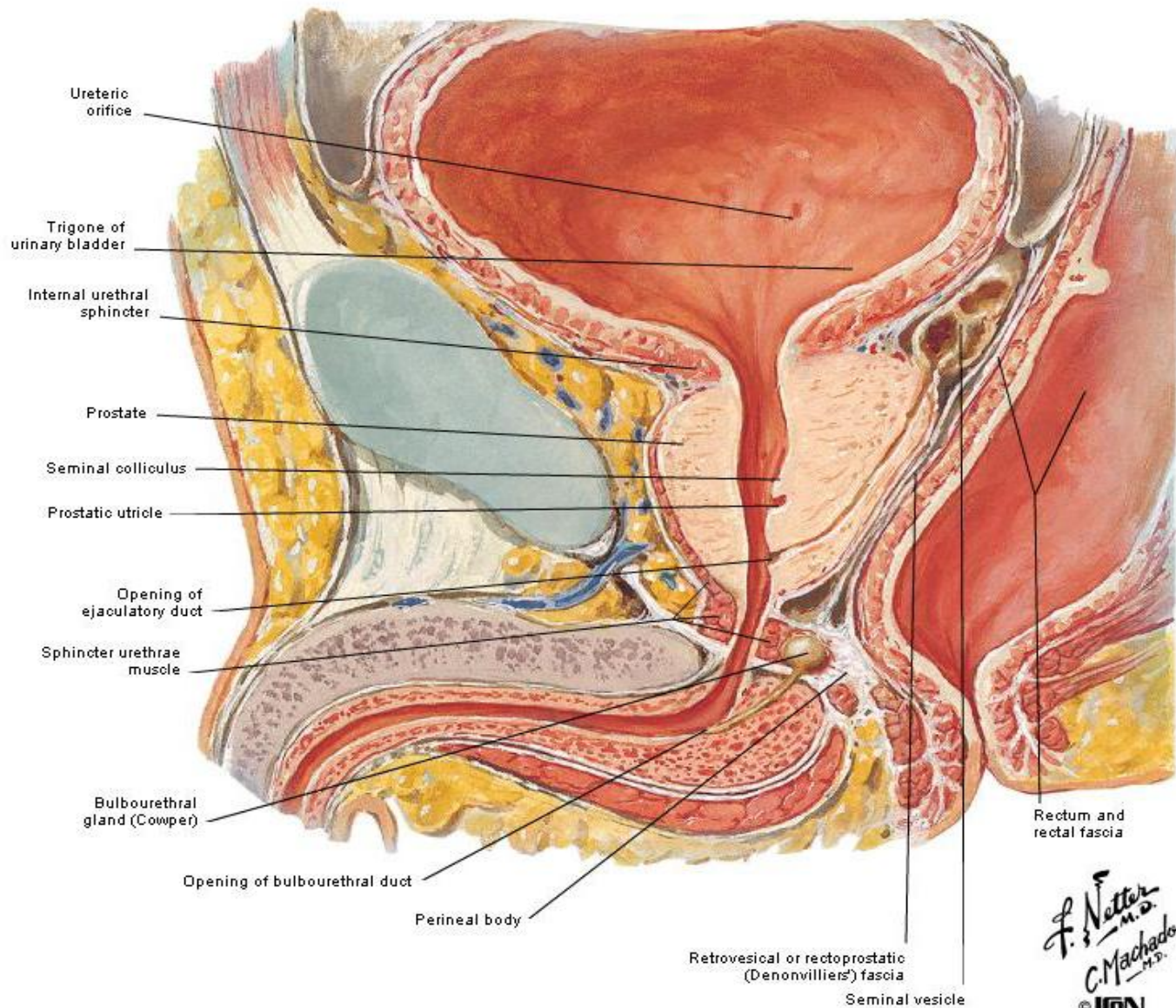


Levator ani

Perineal membrane
and deep perineal pouch

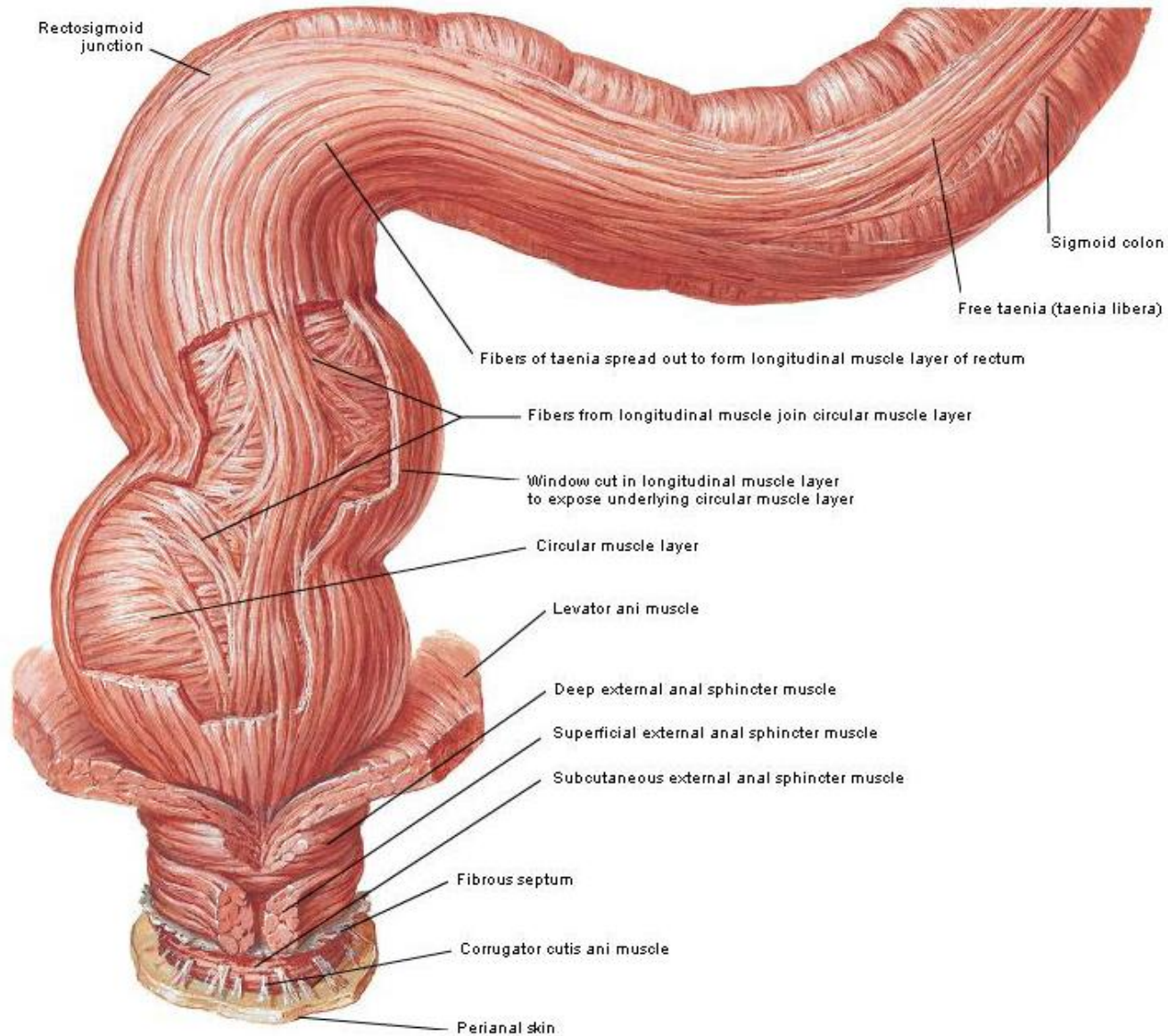
Prostate and Seminal Vesicles

Sagittal Section

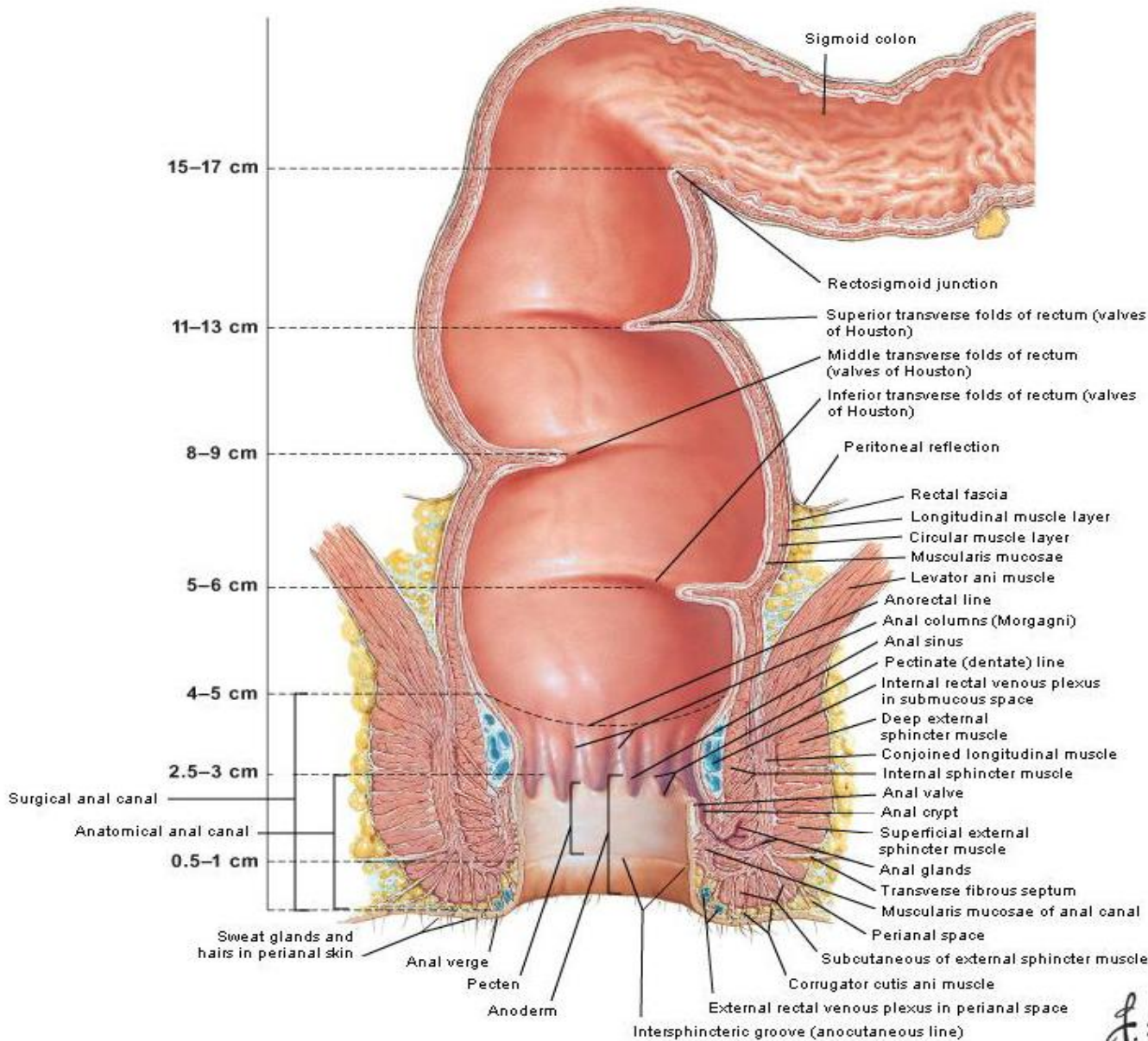


Anorectal Musculature

Anterior View



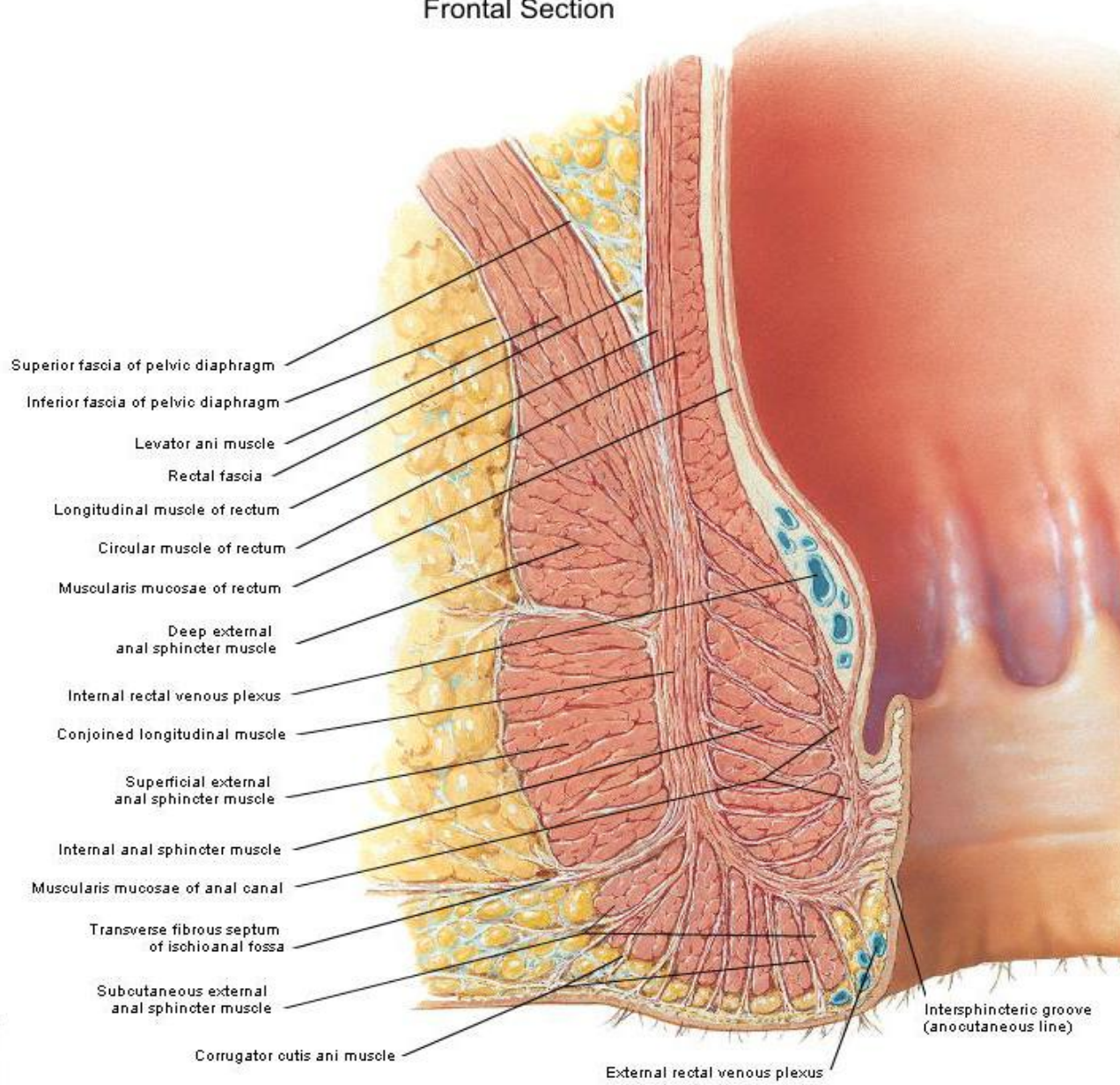
Rectum and Anal Canal



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M.D.
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Anorectal Musculature

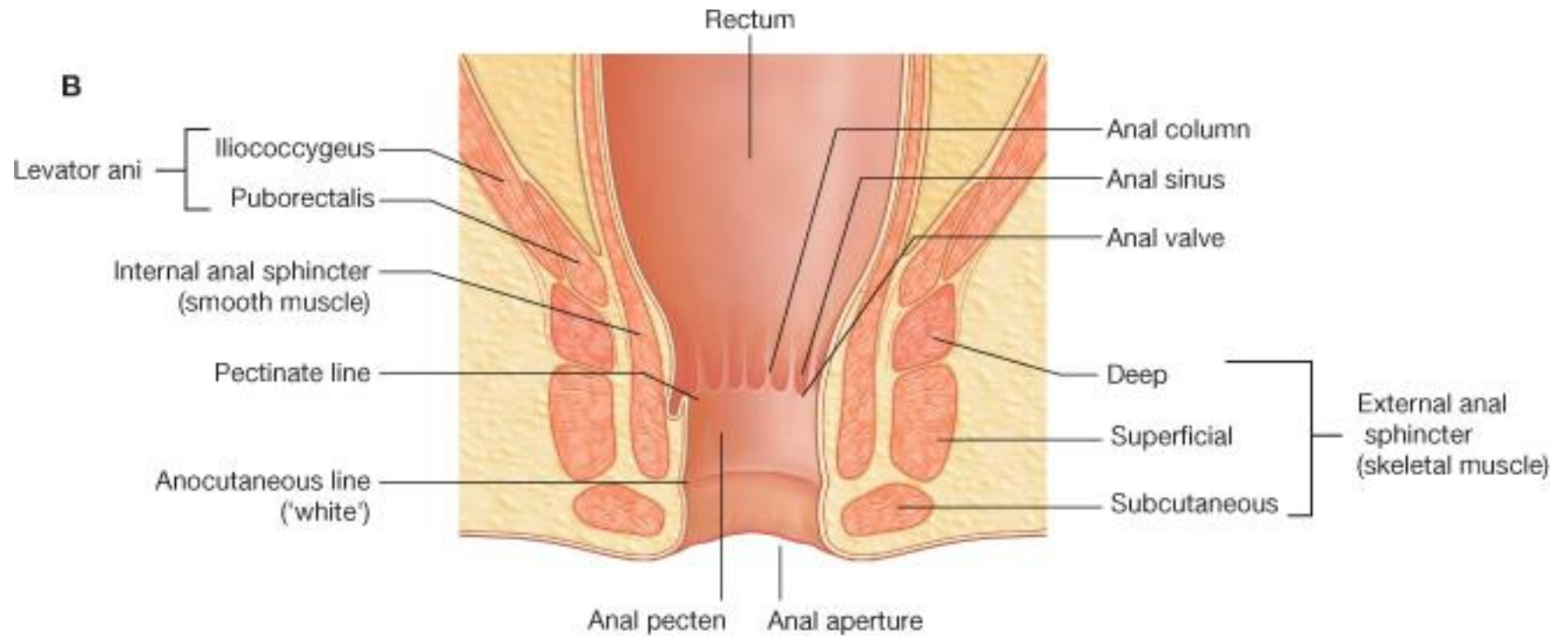
Frontal Section



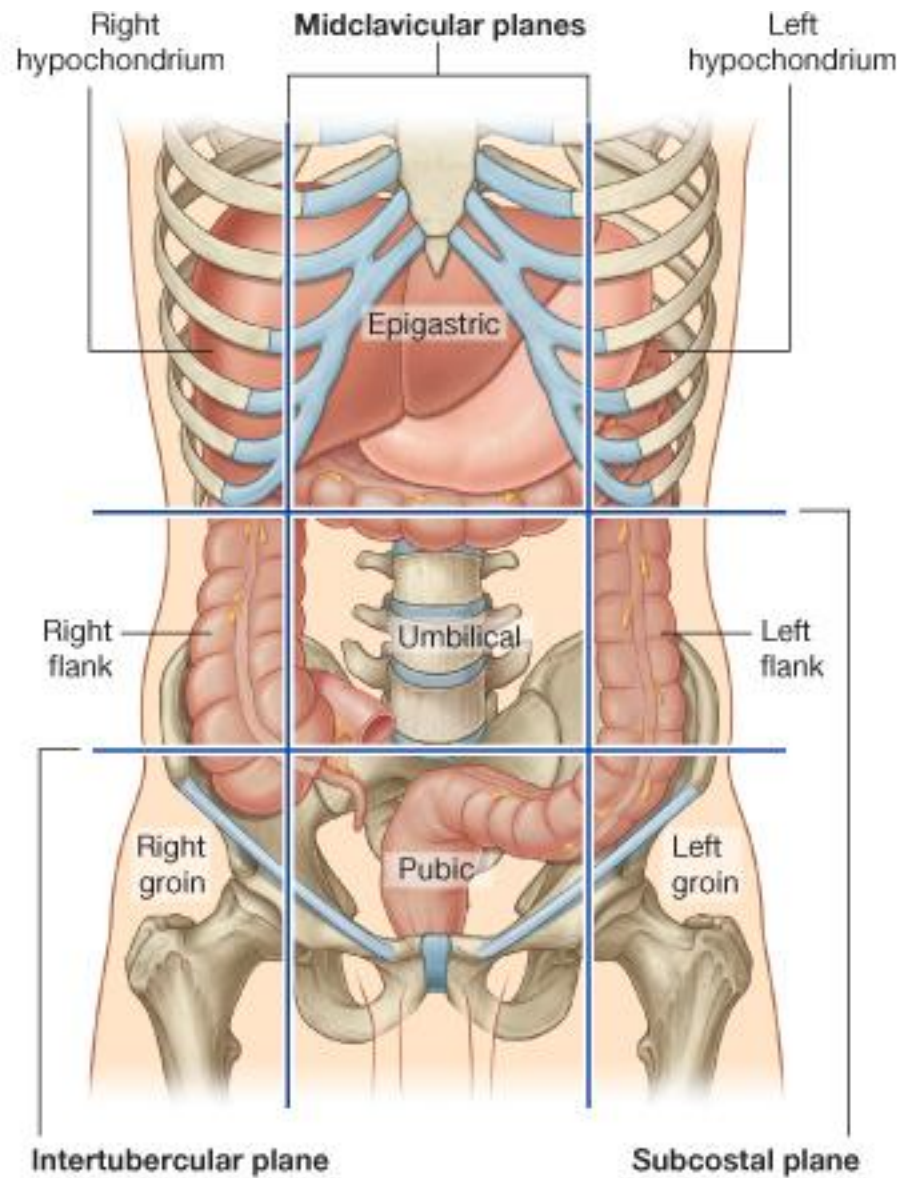
- Superior fascia of pelvic diaphragm
- Inferior fascia of pelvic diaphragm
- Levator ani muscle
- Rectal fascia
- Longitudinal muscle of rectum
- Circular muscle of rectum
- Muscularis mucosae of rectum
- Deep external anal sphincter muscle
- Internal rectal venous plexus
- Conjoined longitudinal muscle
- Superficial external anal sphincter muscle
- Internal anal sphincter muscle
- Muscularis mucosae of anal canal
- Transverse fibrous septum of ischioanal fossa
- Subcutaneous external anal sphincter muscle
- Corrugator cutis ani muscle

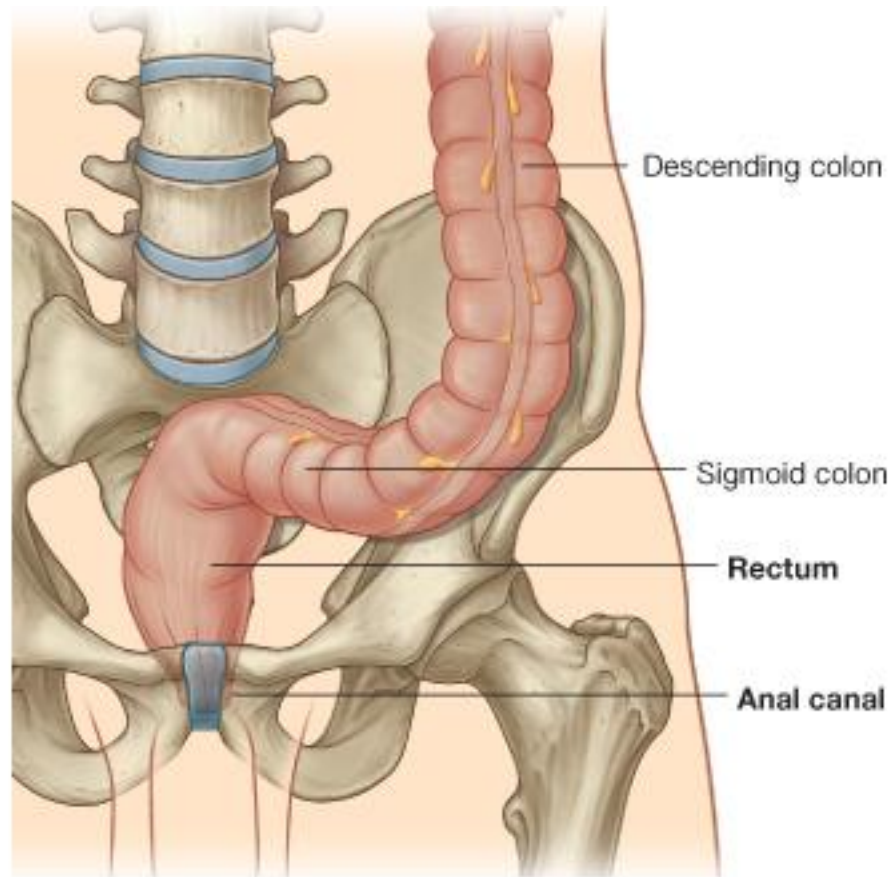
Intersphincteric groove (anocutaneous line)

External rectal venous plexus

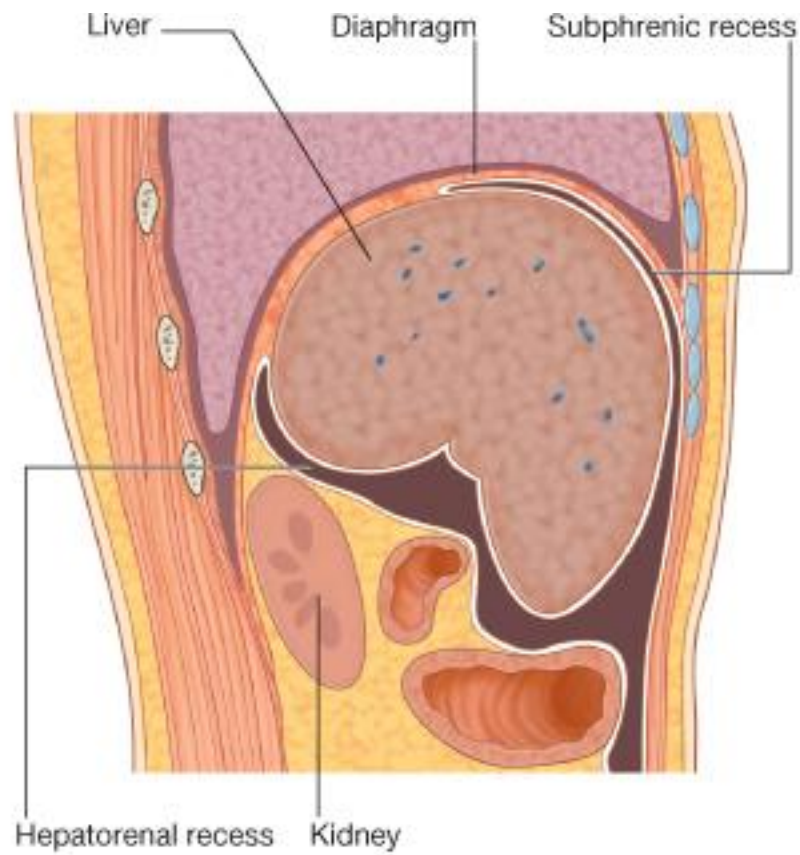


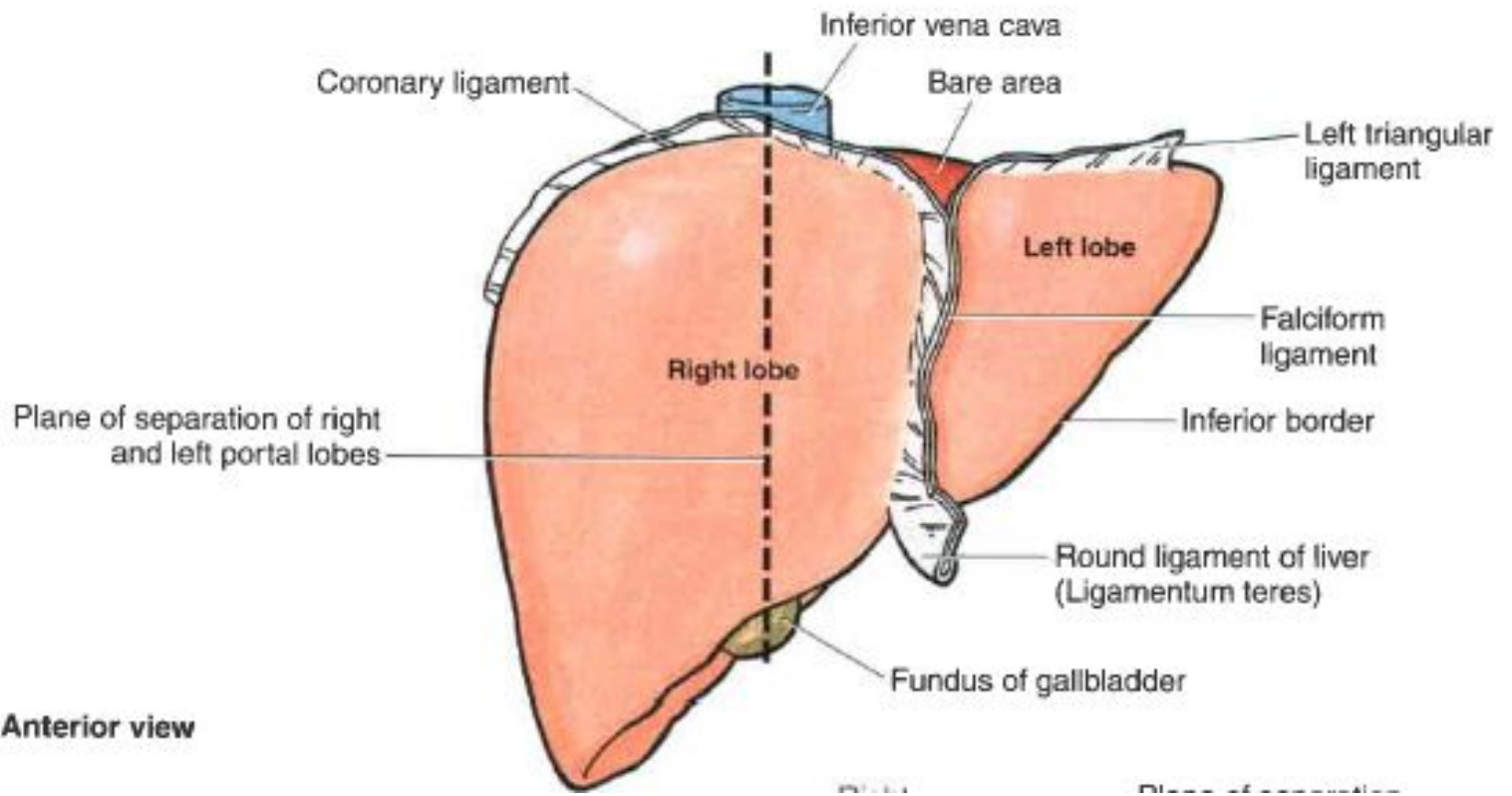
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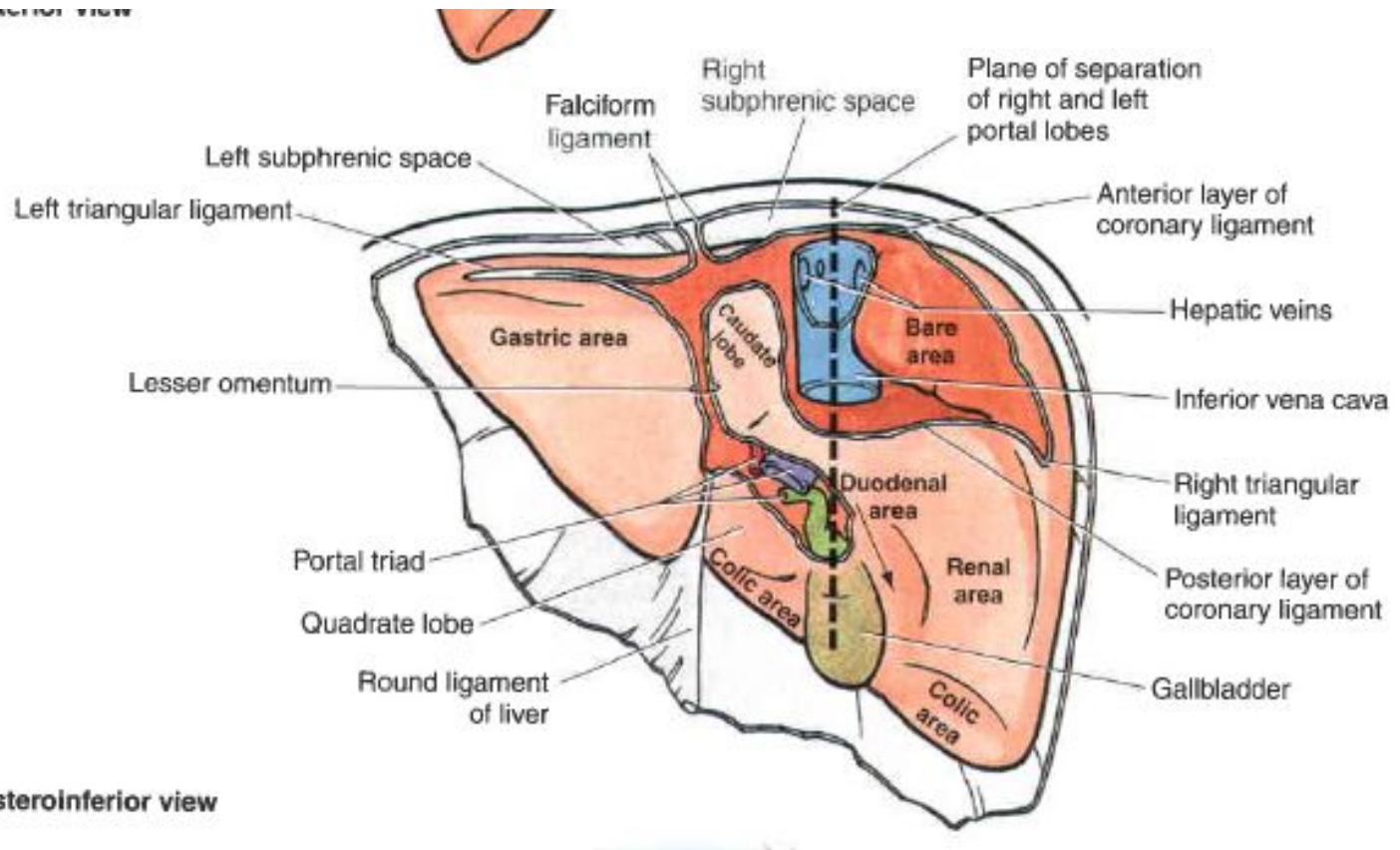
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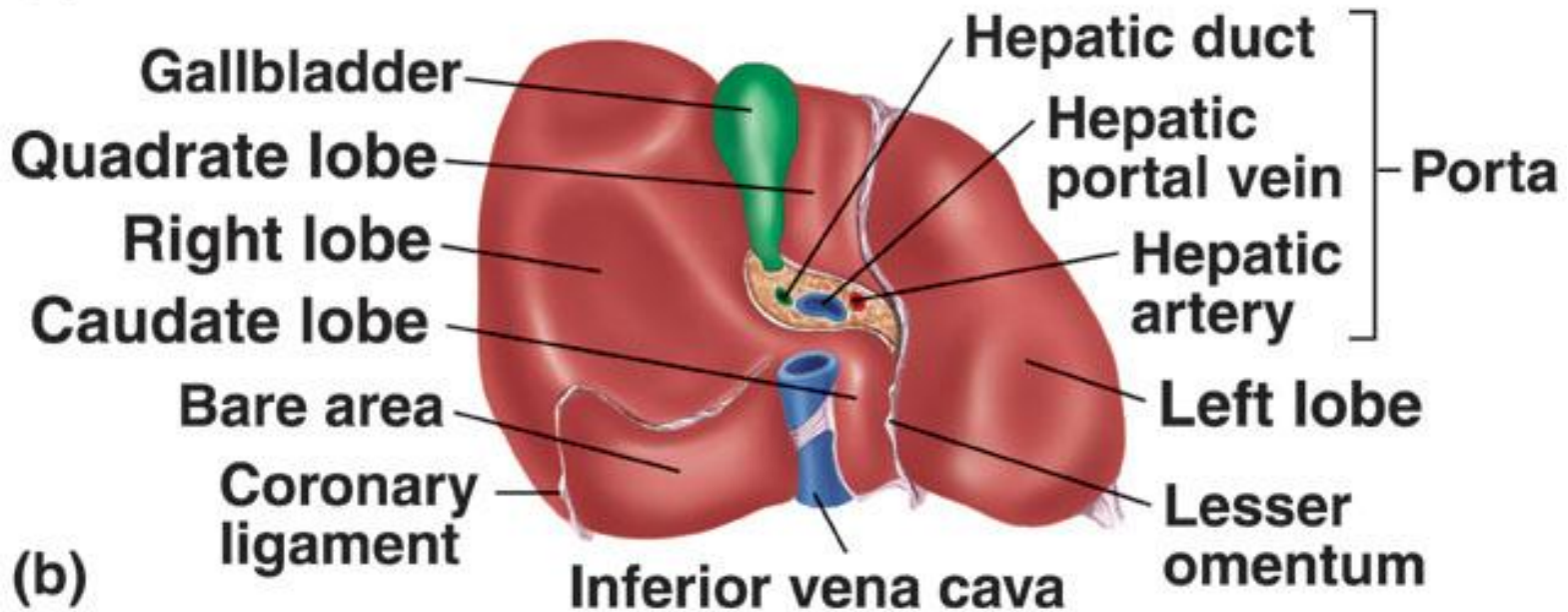
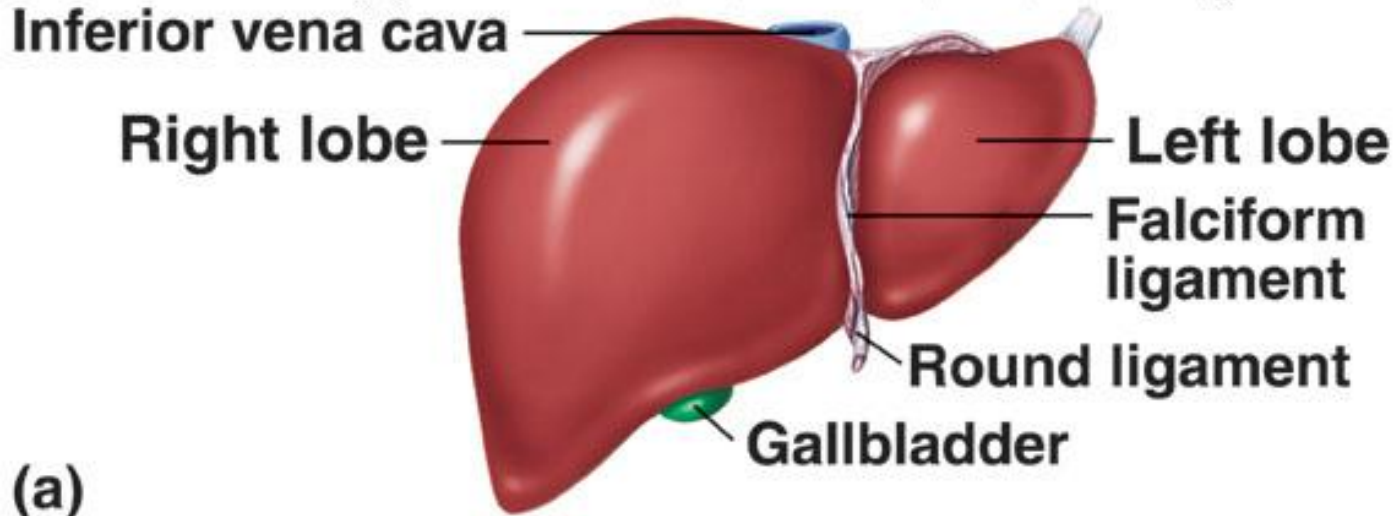


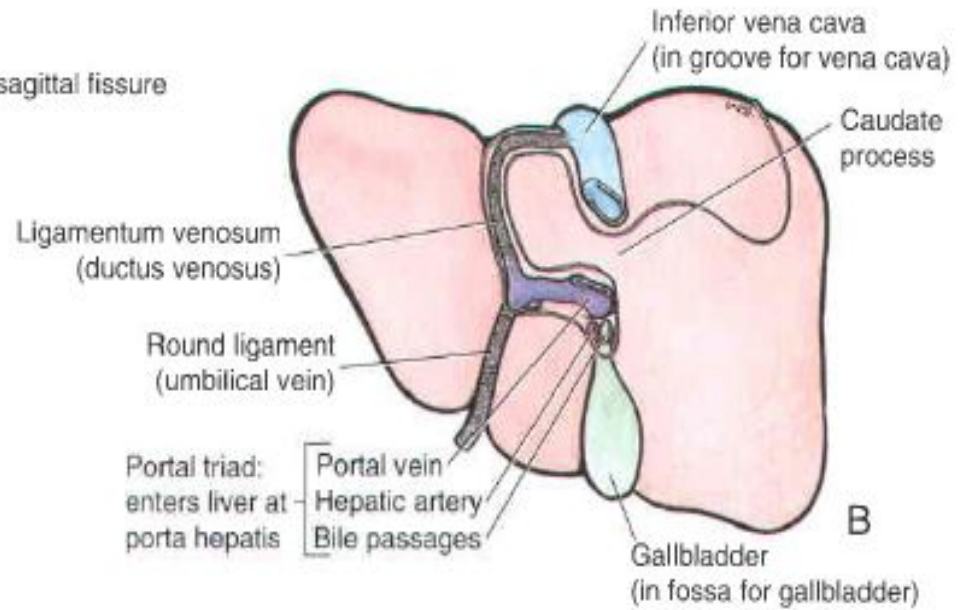
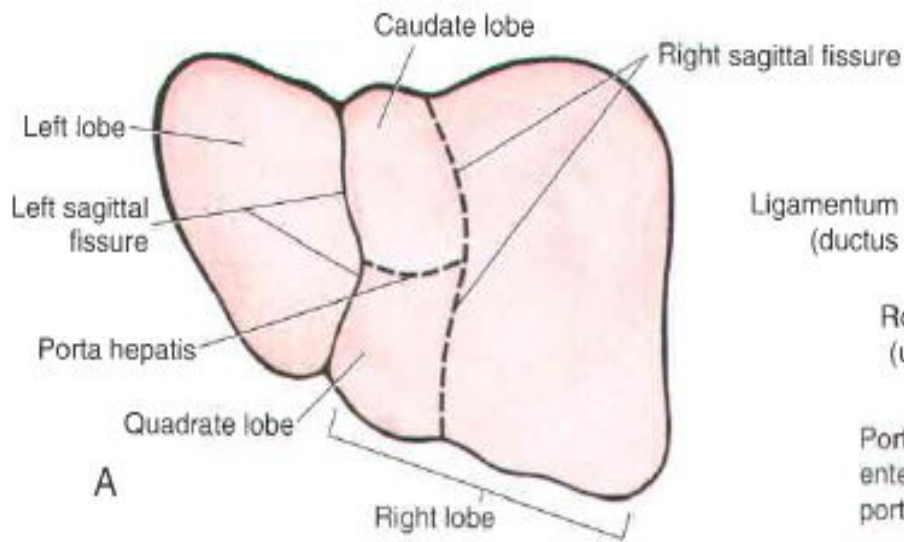
A Anterior view

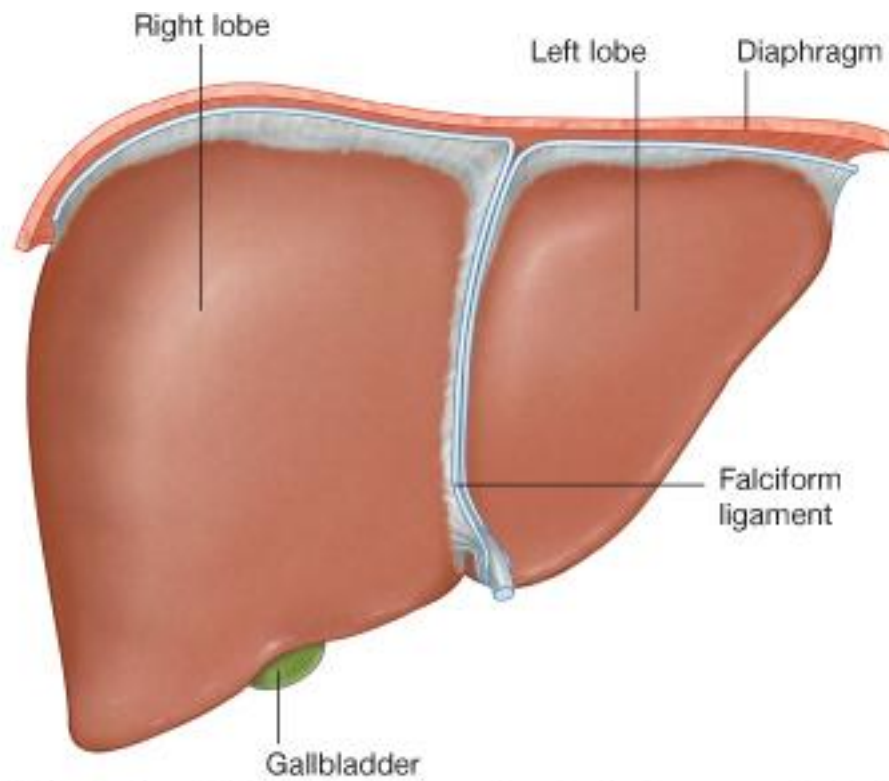
A SUPERIOR VIEW



B Posteroinferior view

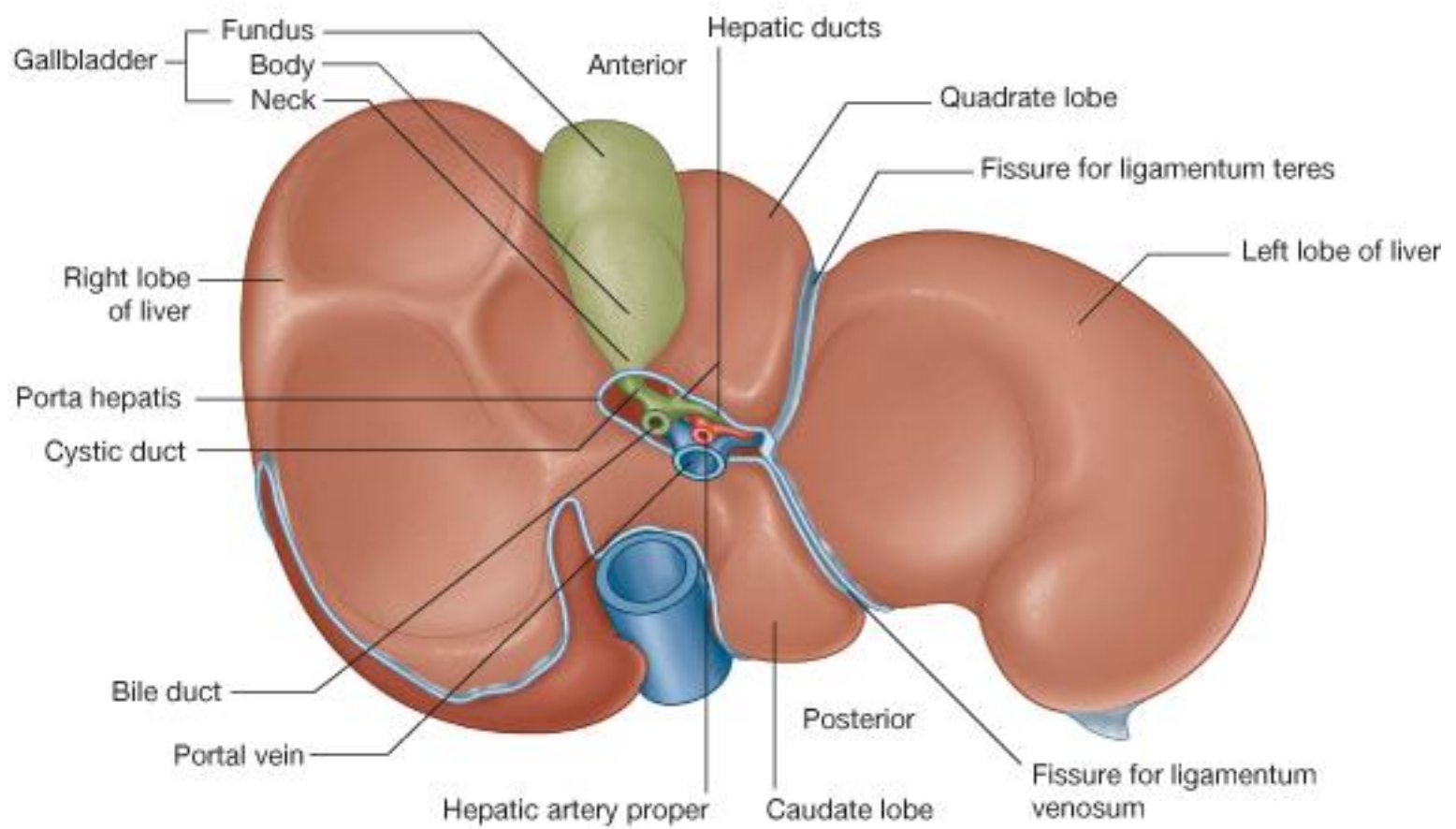


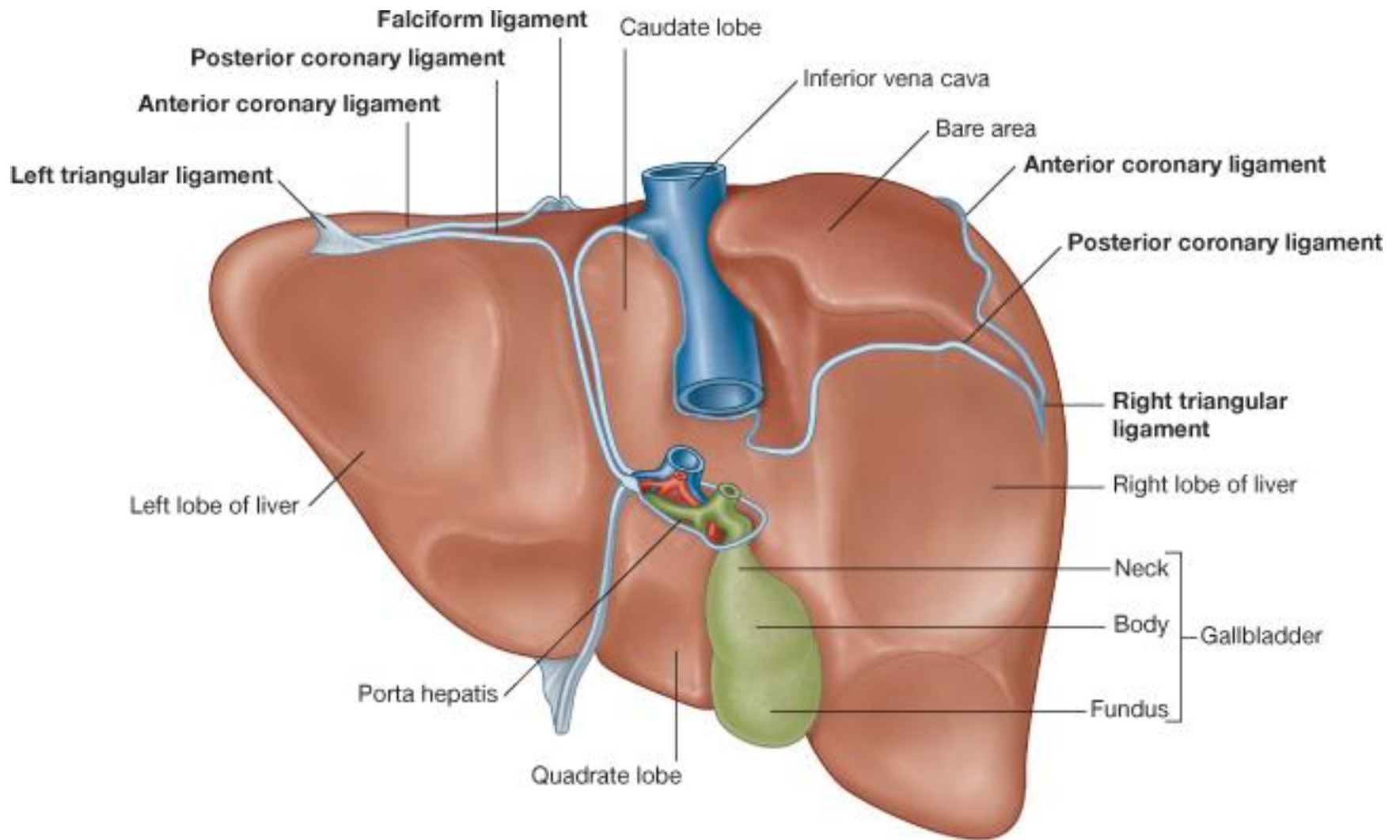


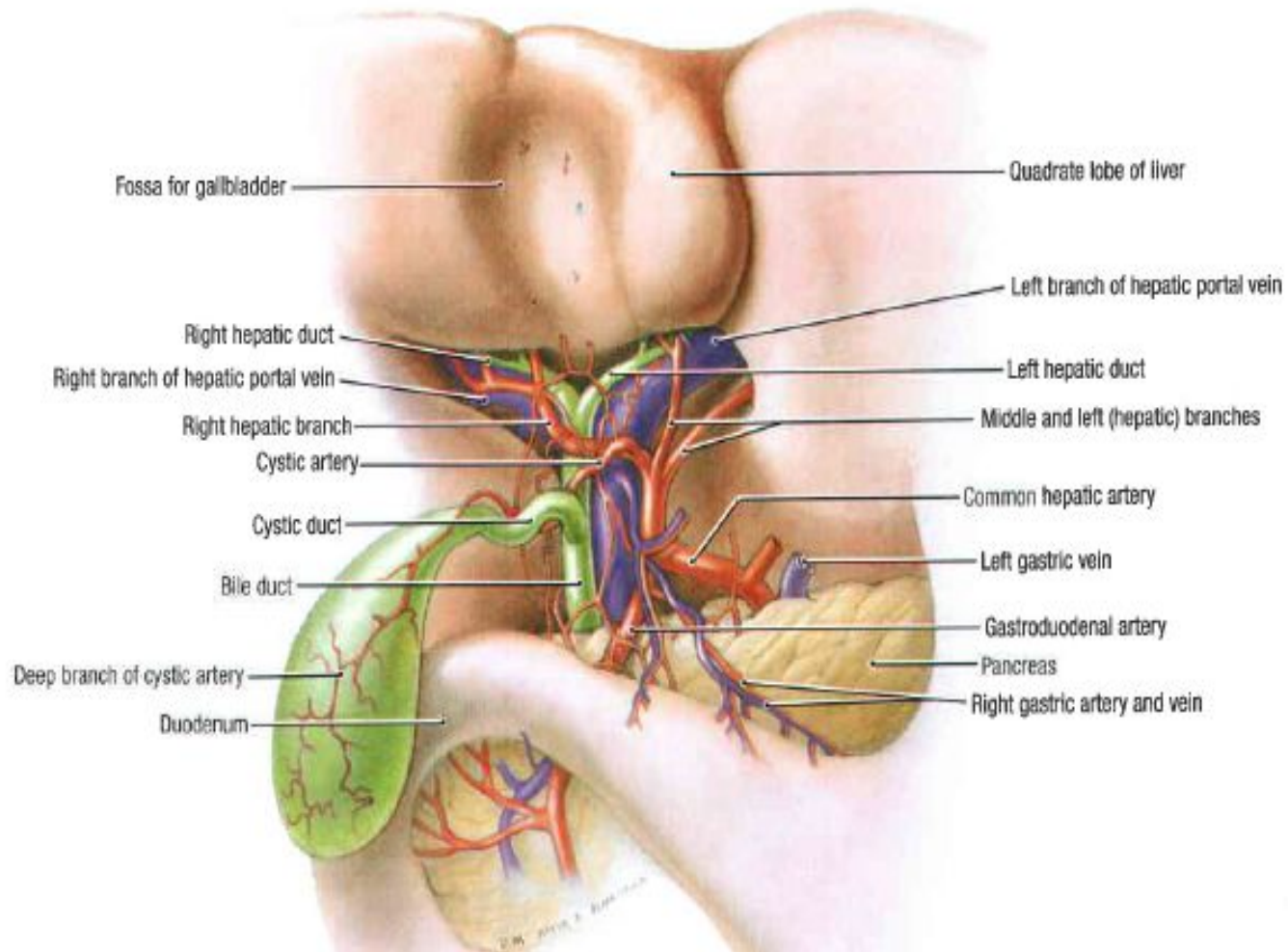


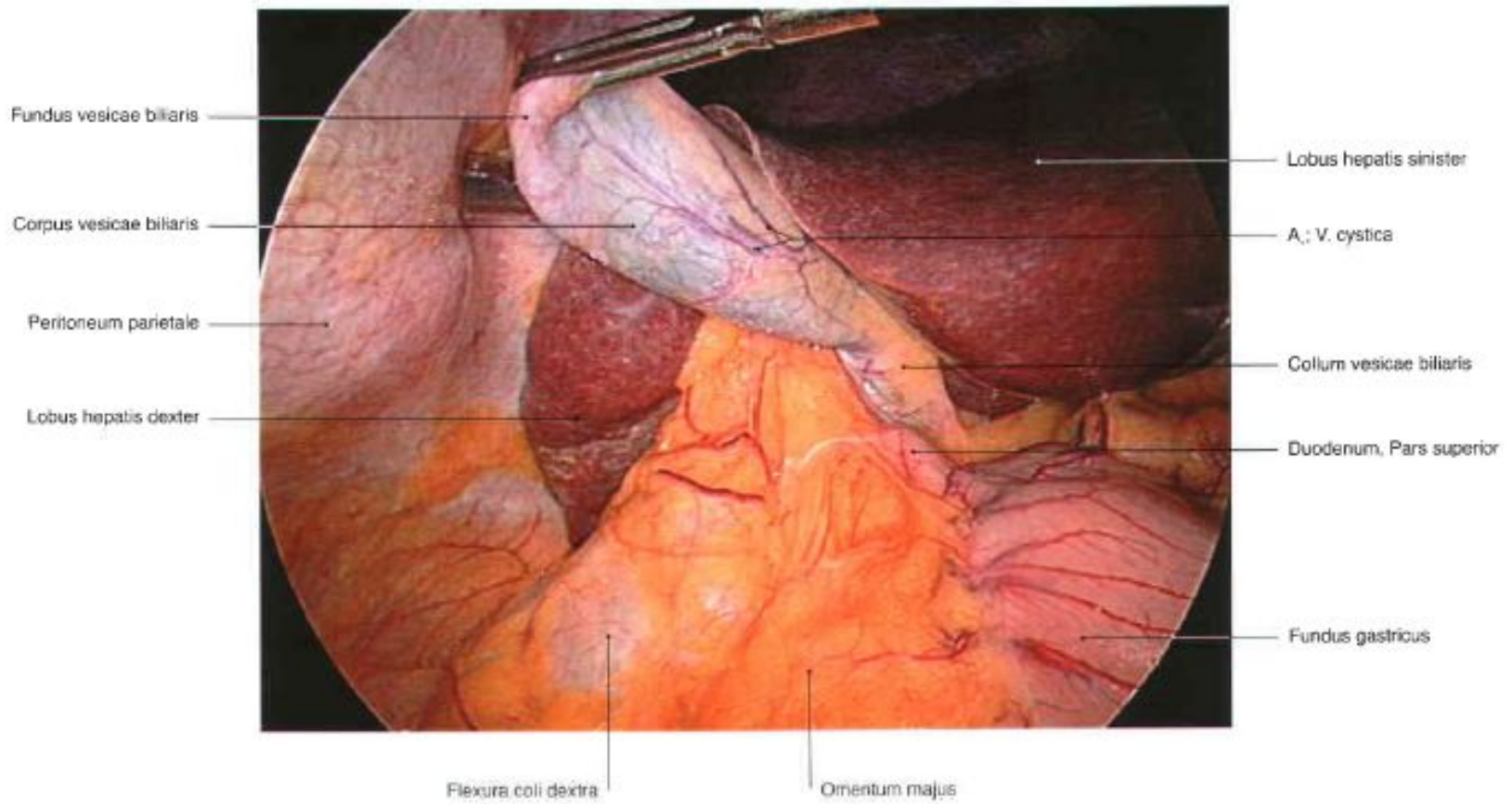
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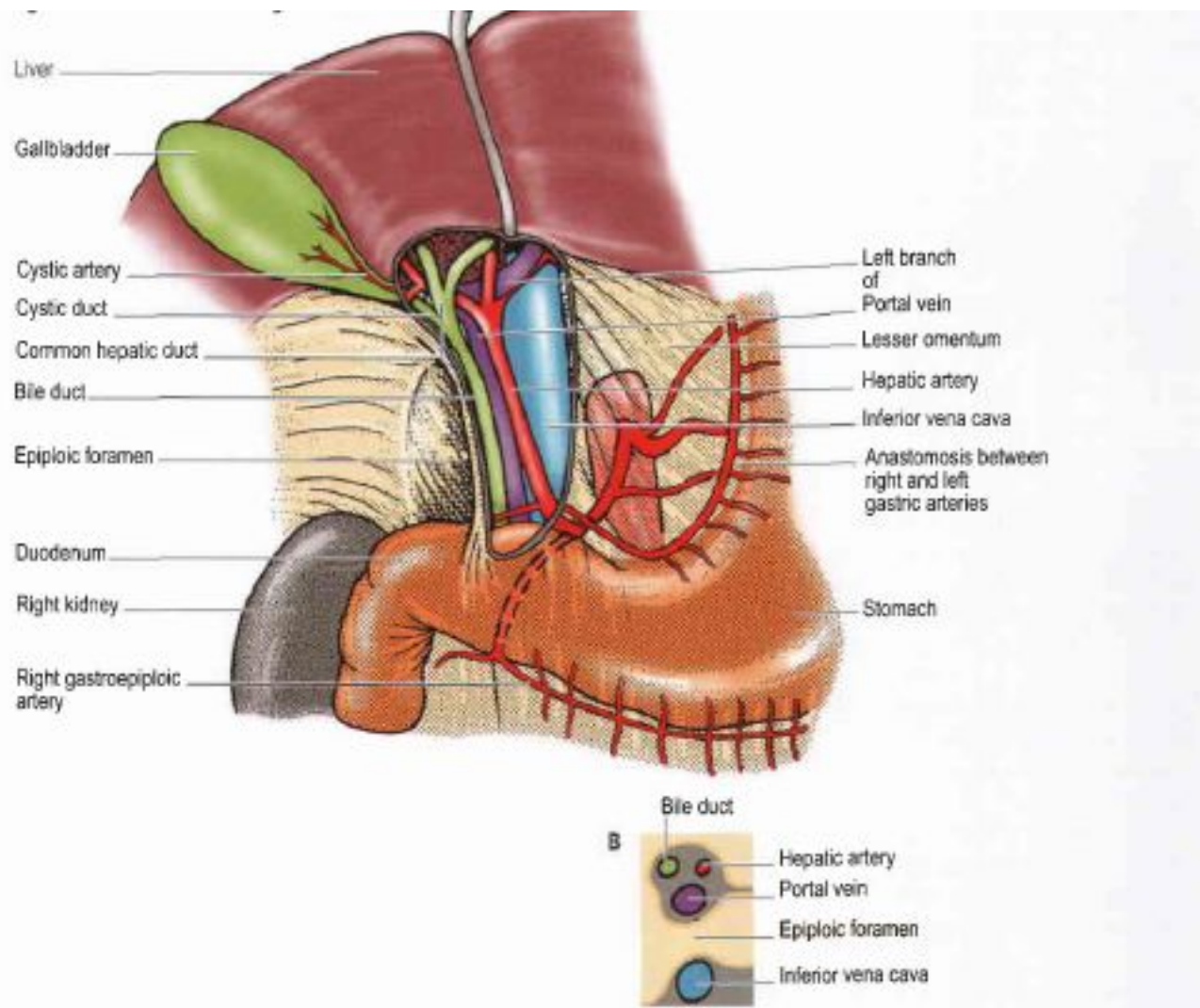
A











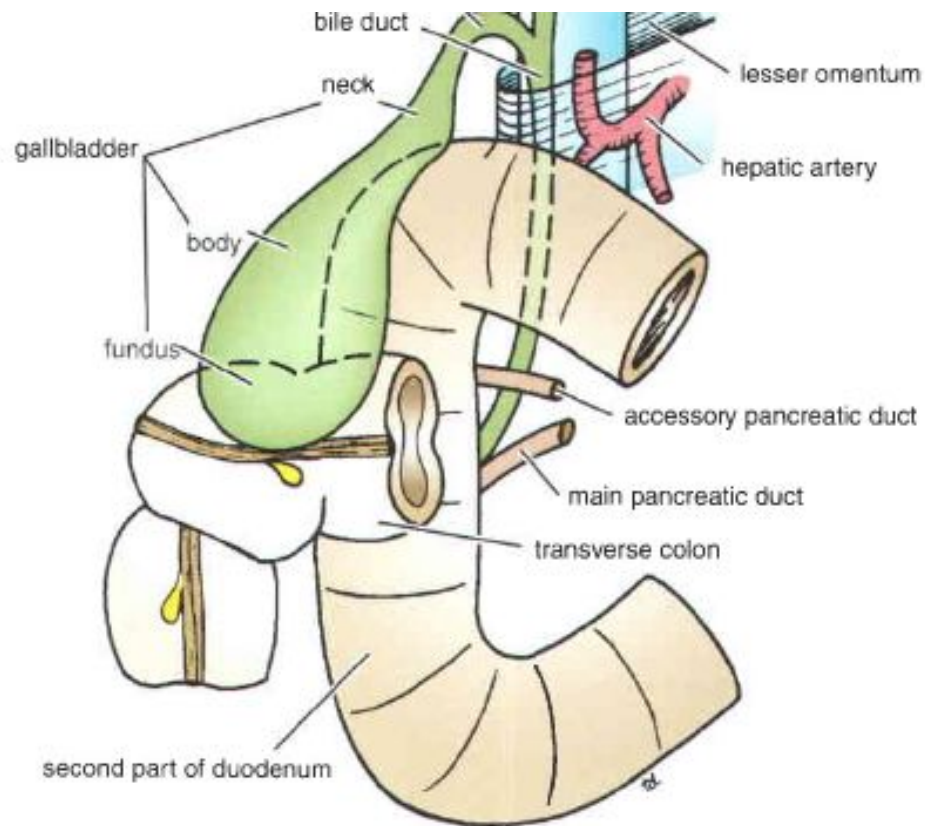
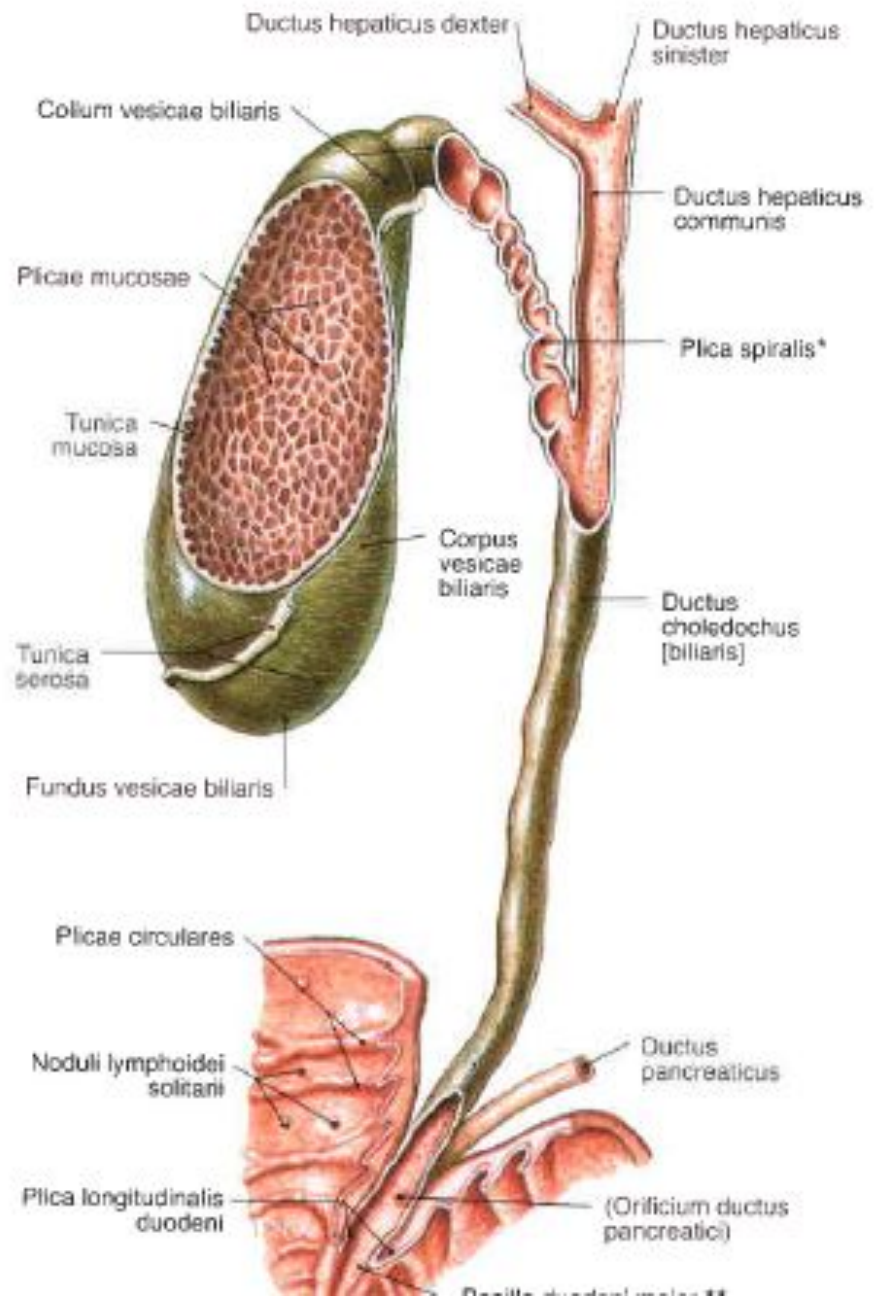
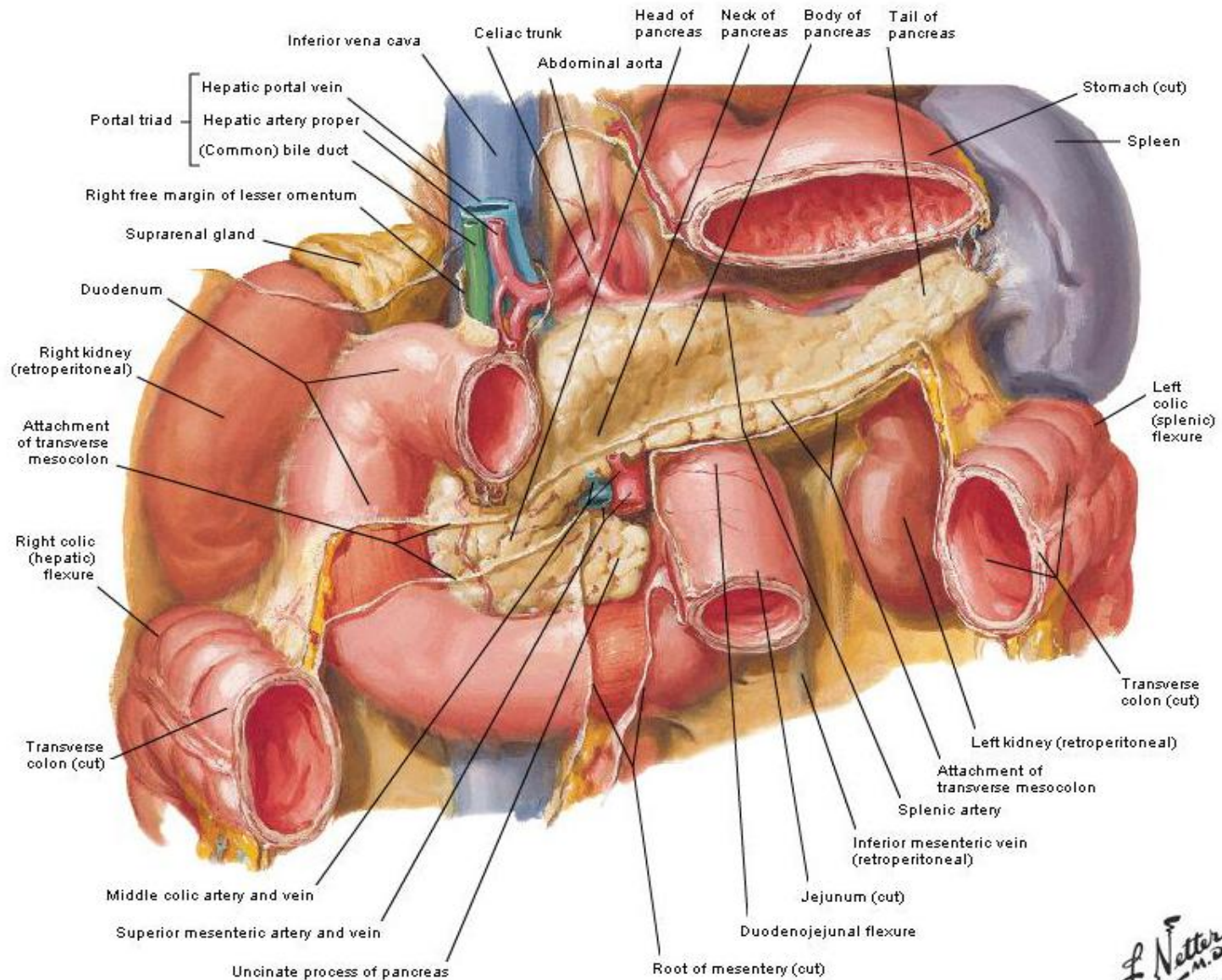


Figure 5-29 The bile ducts and the gallbladder. Note the relation of the gallbladder to the transverse colon and the duodenum.



Pancreas In Situ



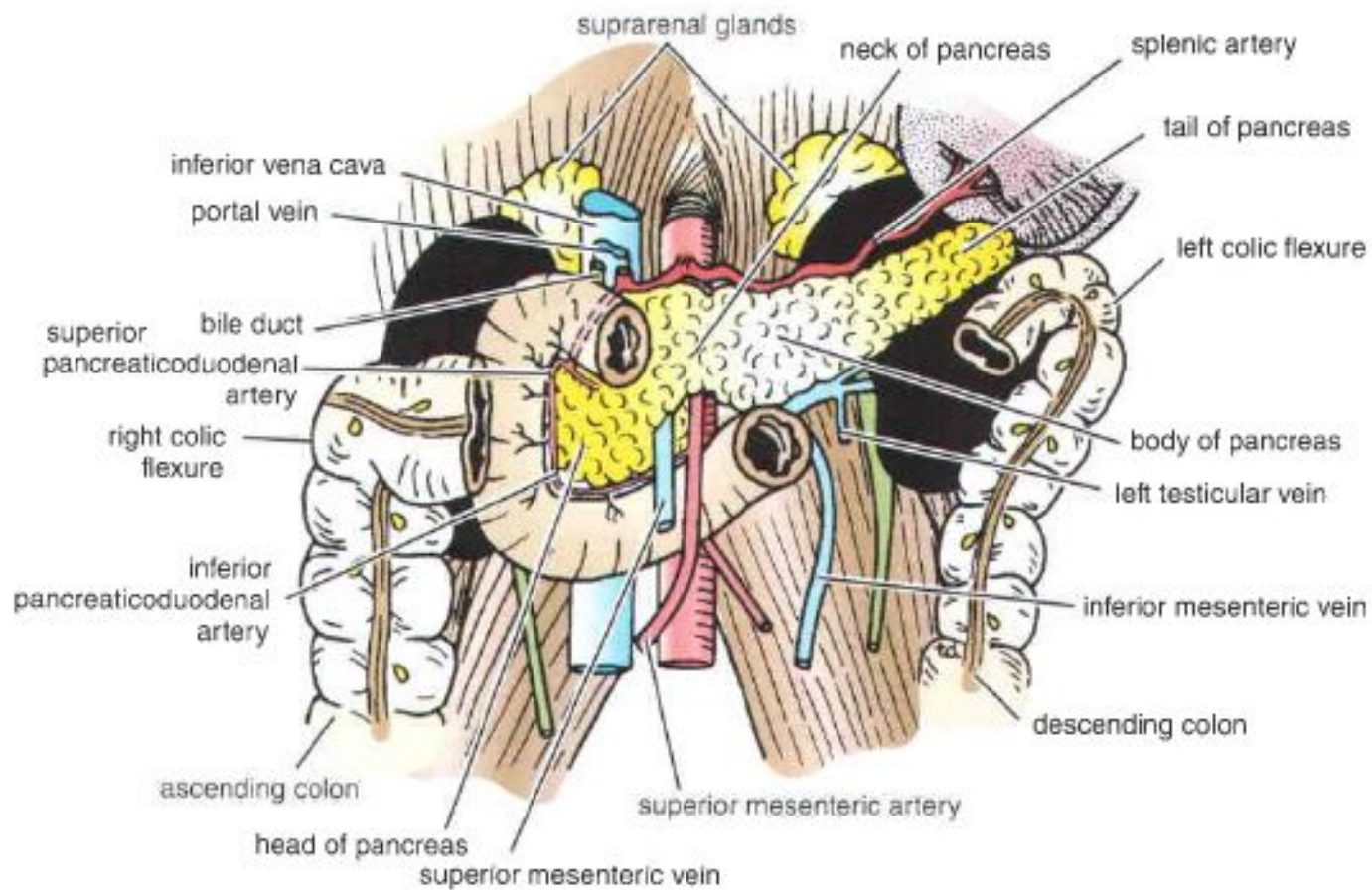


Figure 5-26 Pancreas and anterior relations of the kidneys.

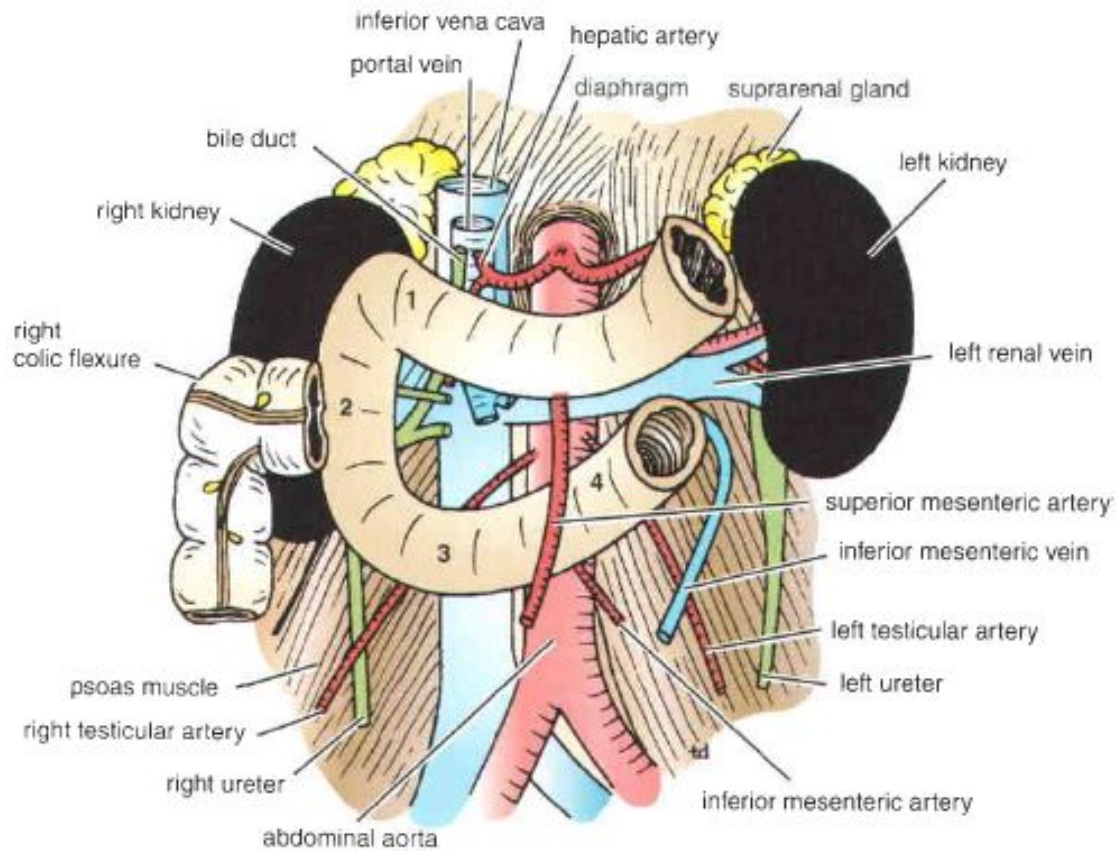
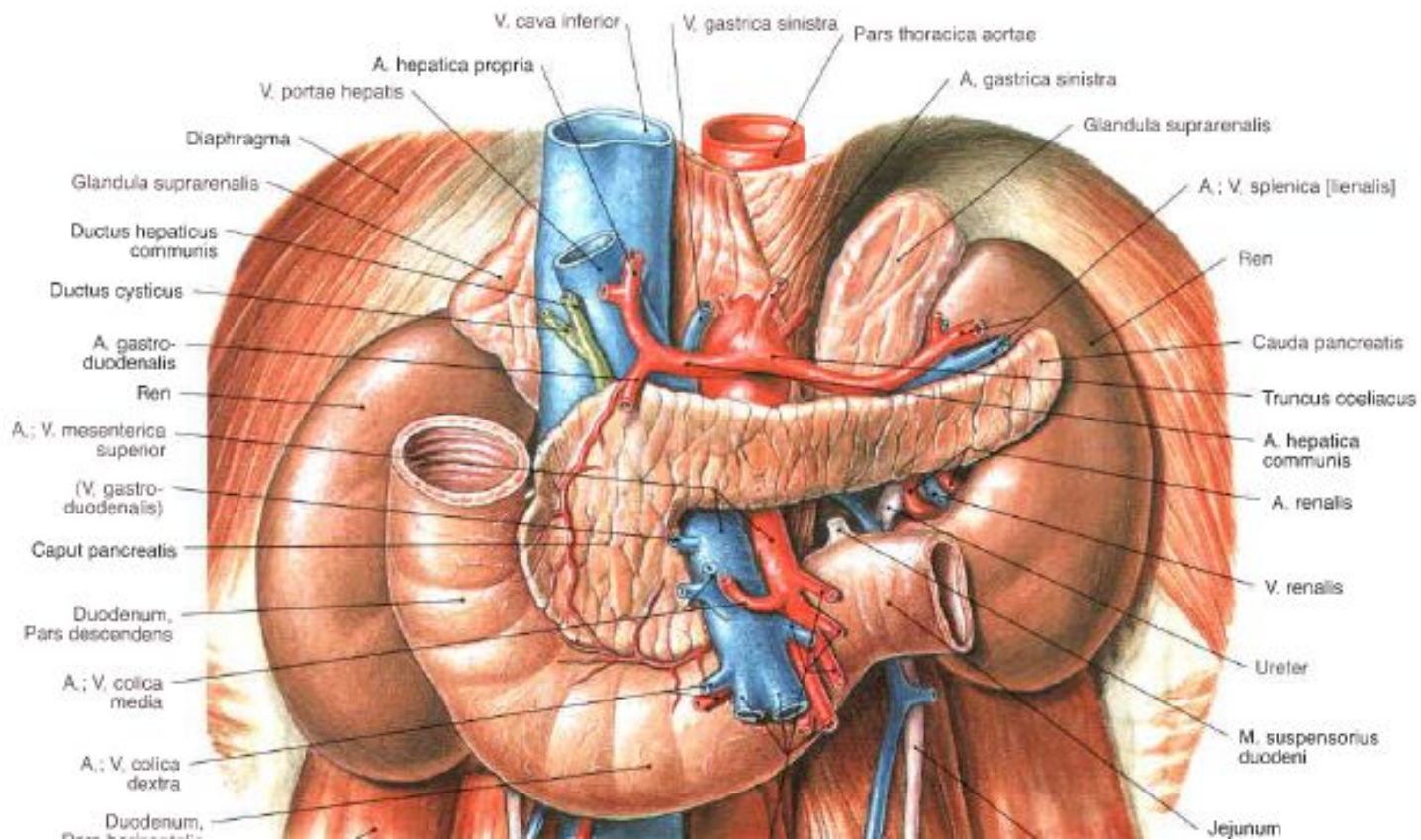
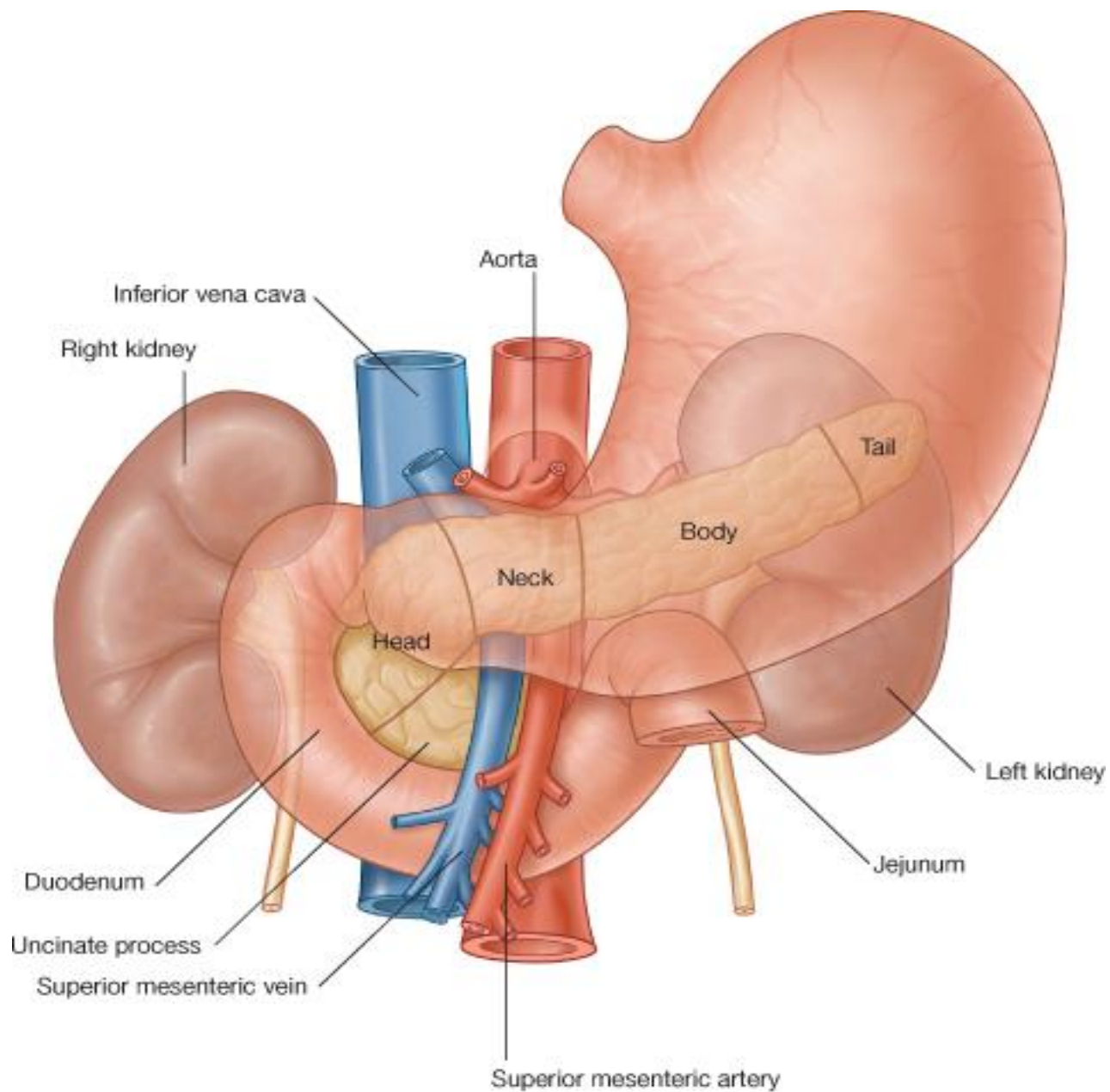
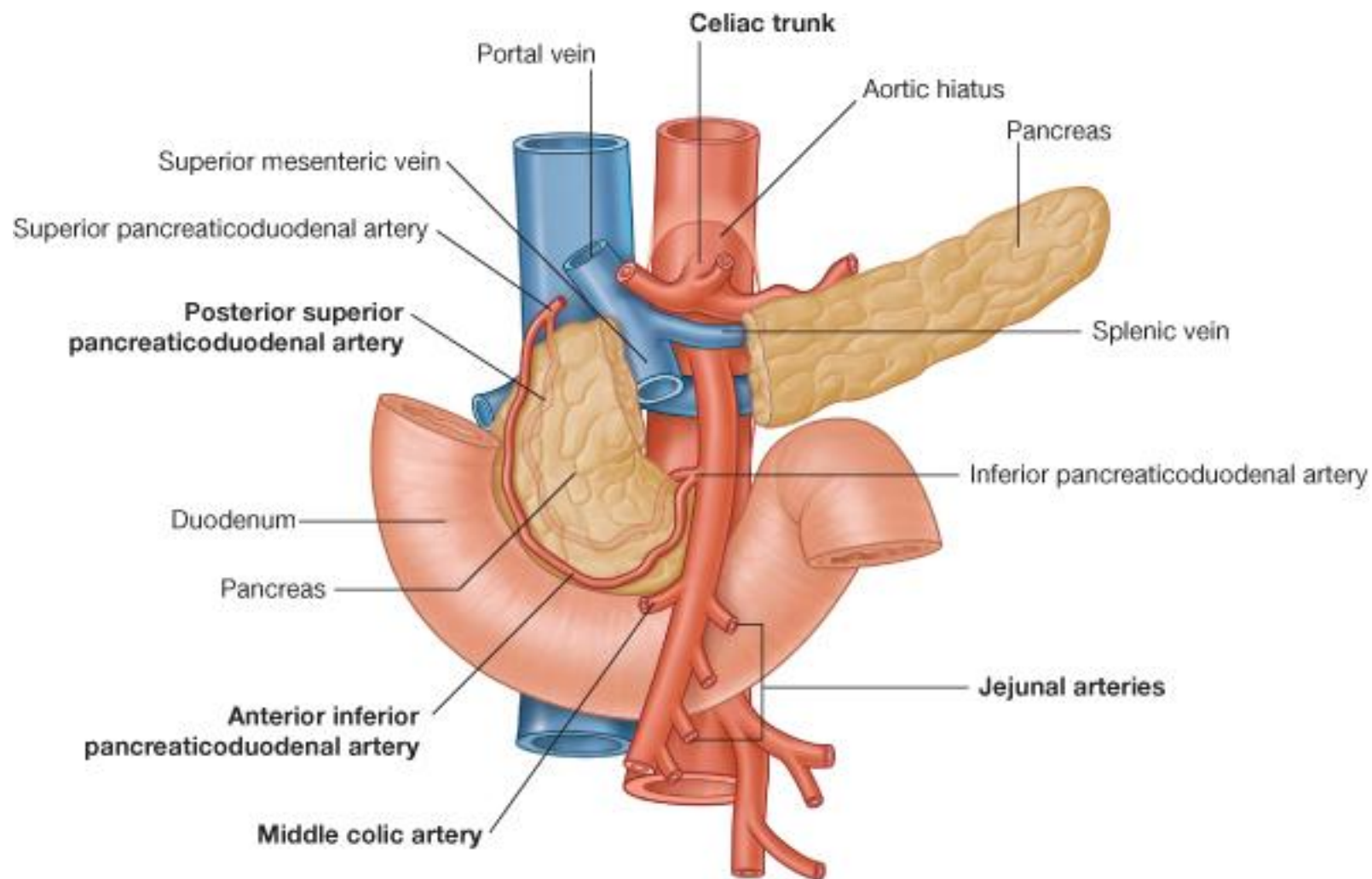


Figure 5-27 Posterior relation the duodenum and the pancre. The numbers represent the four parts of the duodenum.

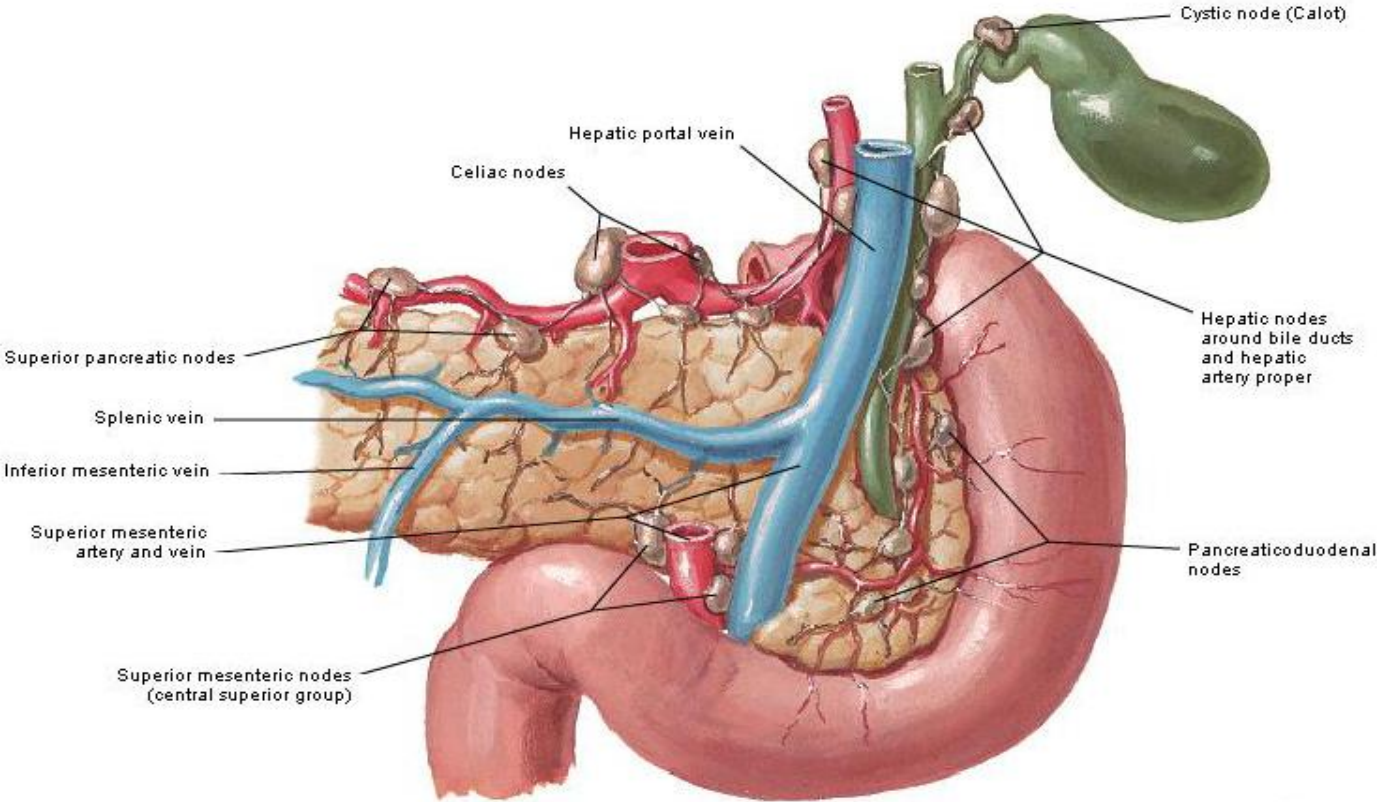






Lymph Vessels and Nodes of Pancreas

Posterior View



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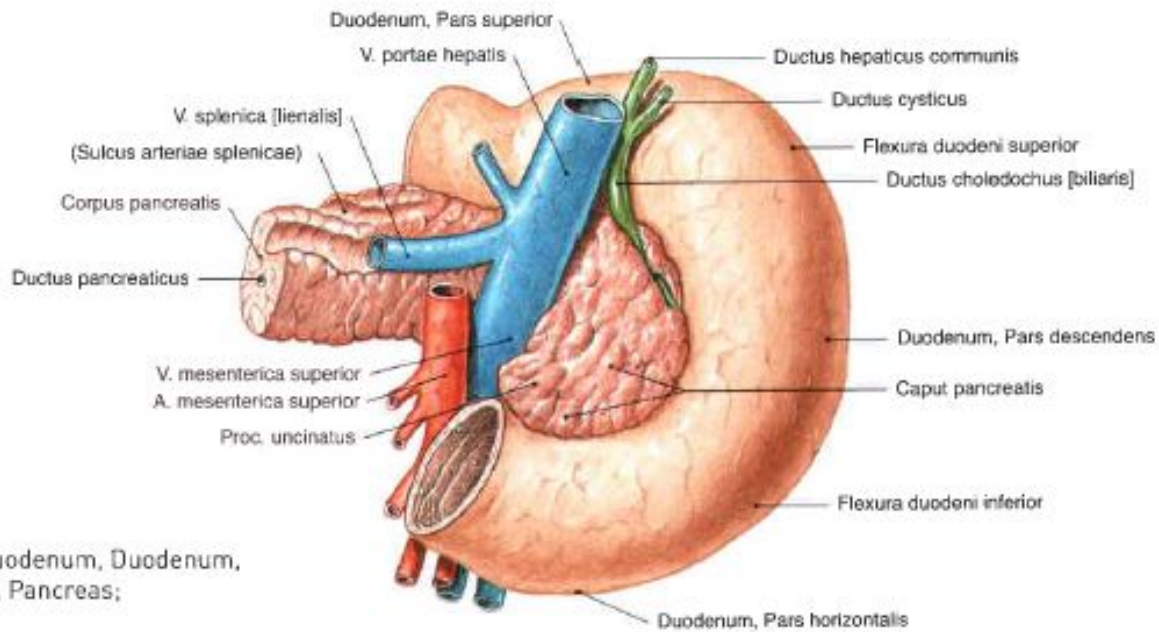
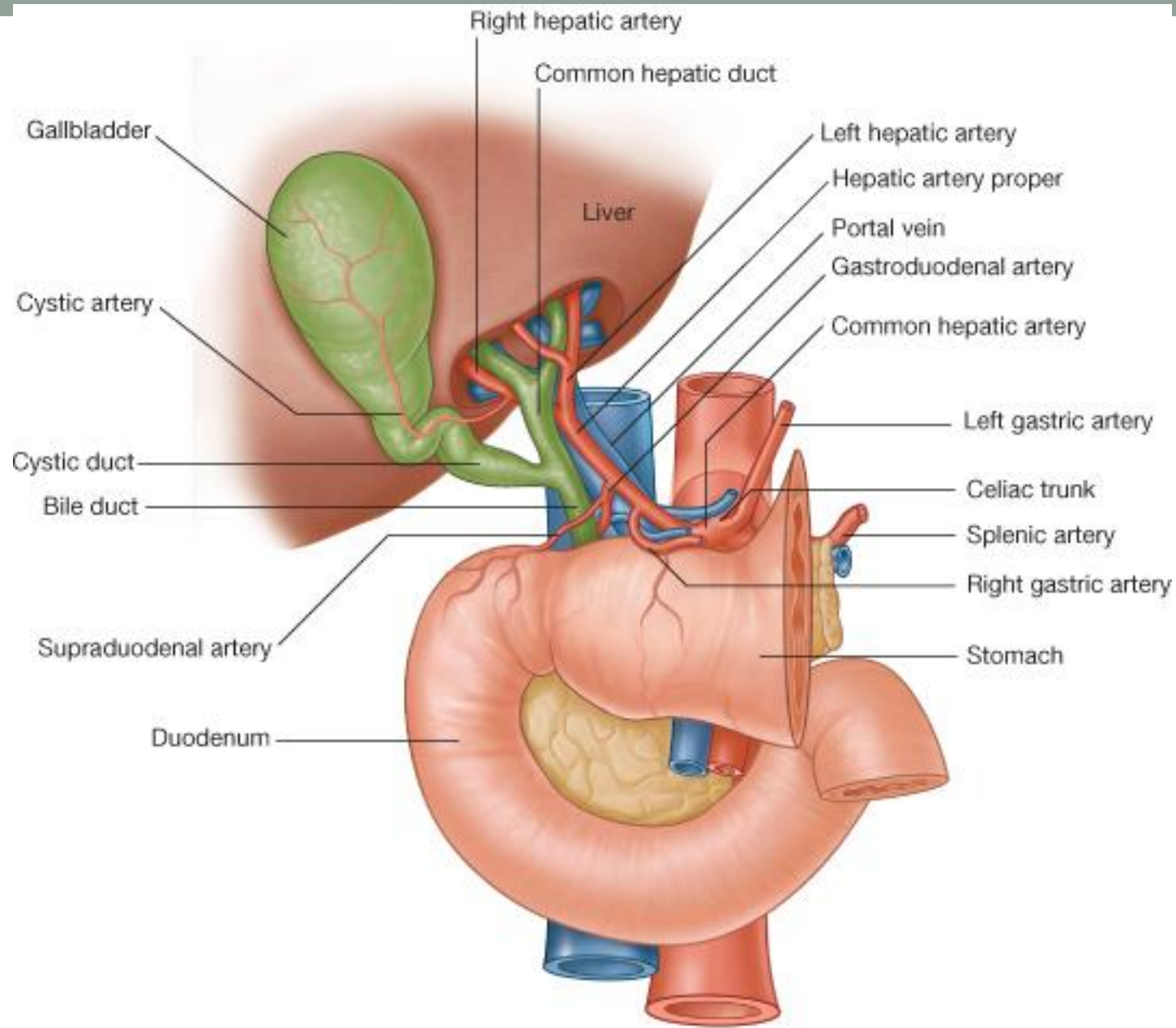
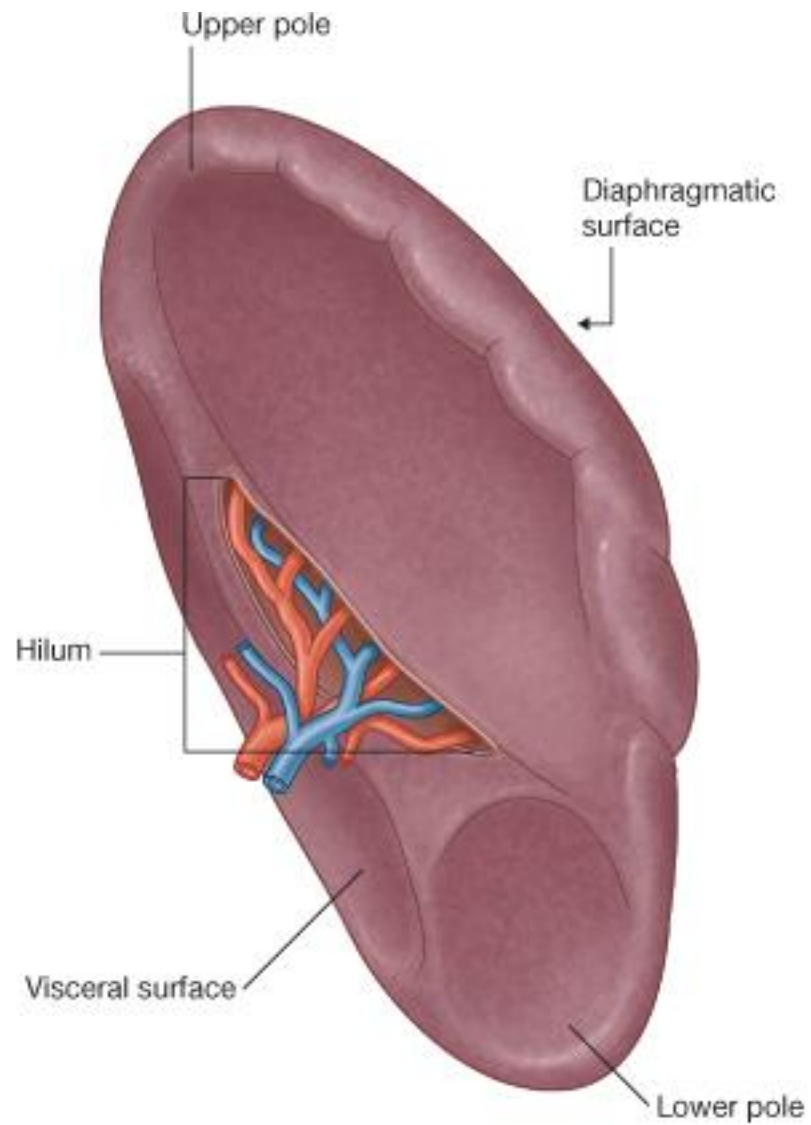


Fig. 1035 Duodenum, Duodenum, and pancreas, Pancreas; dorsal view.





Spleen

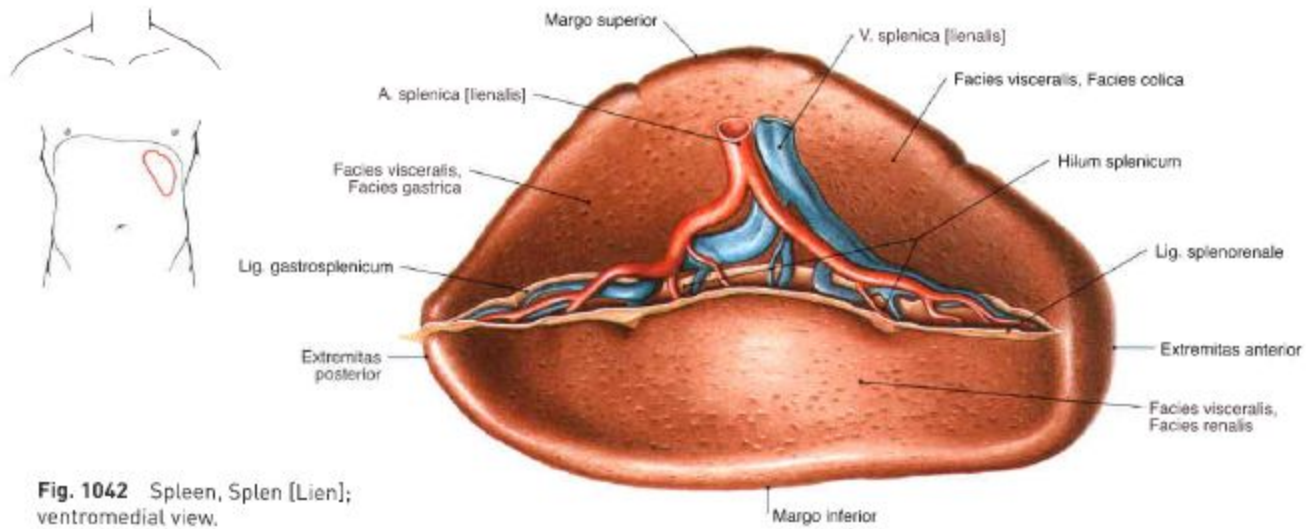


Fig. 1042 Spleen, Splen [Lien];
ventromedial view.

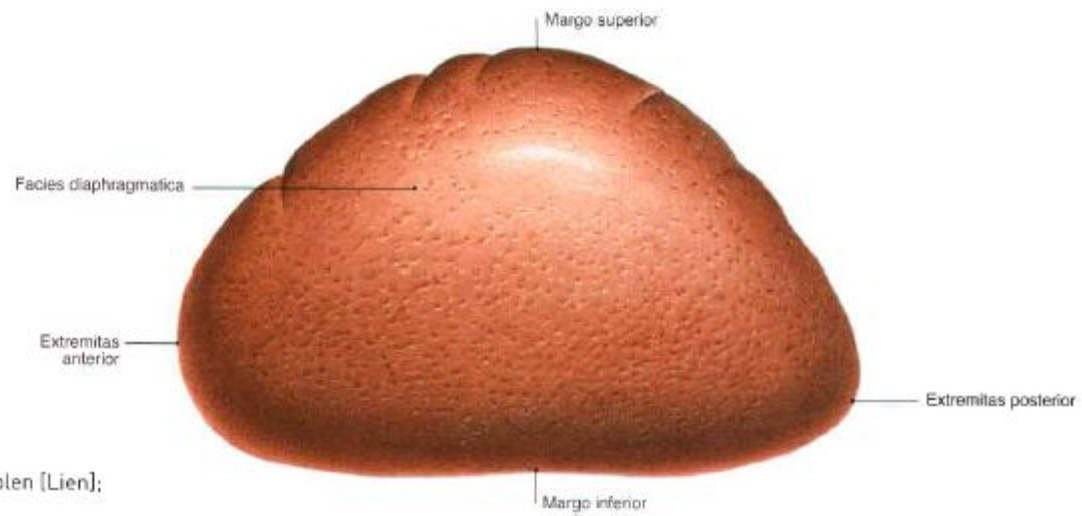
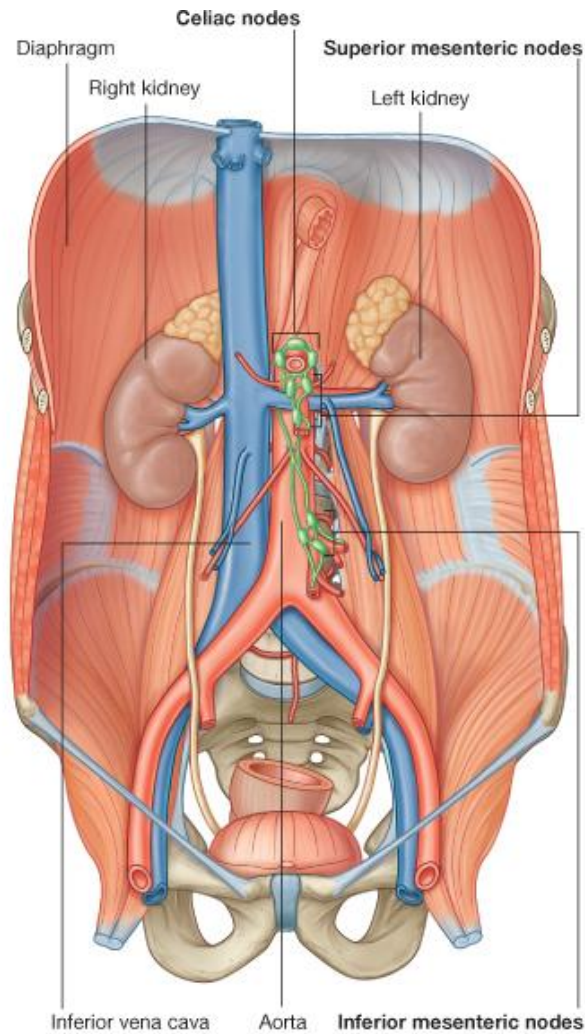
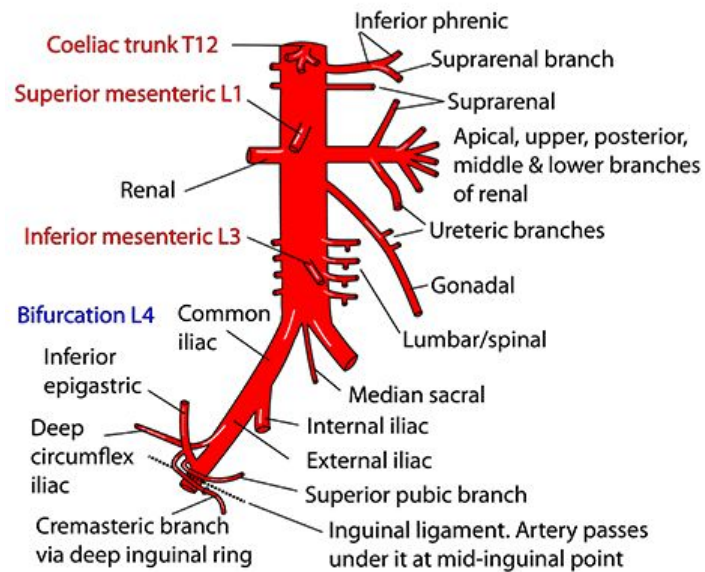


Fig. 1043 Spleen, Splen [Lien];
superolateral view.



ABDOMINAL AORTA AND RIGHT EXTERNAL ILIAC ARTERY



Relations of aorta

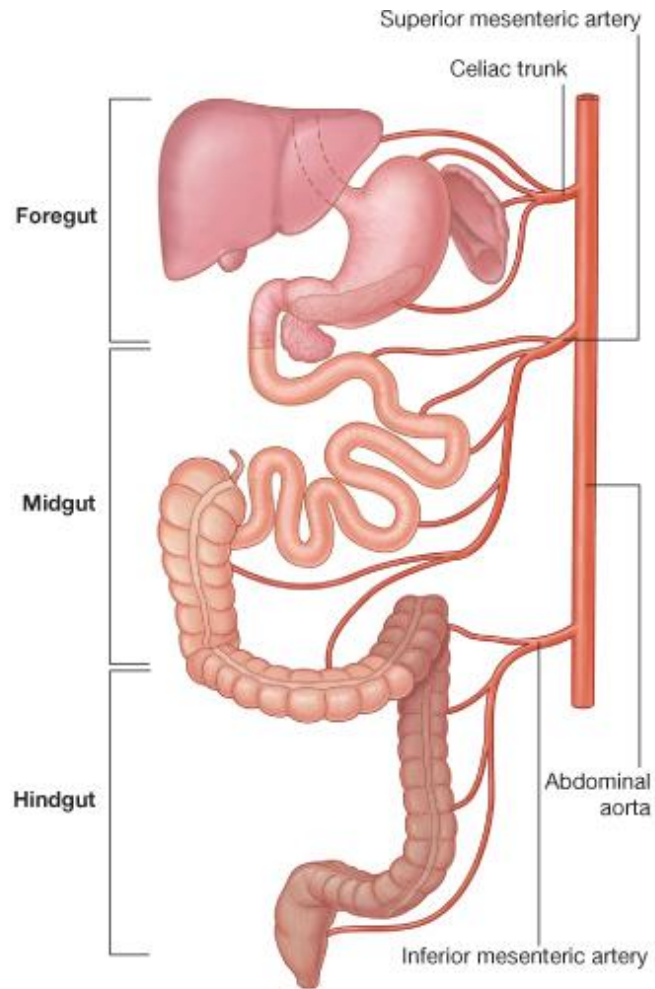
Left lateral: Sympathetic chain

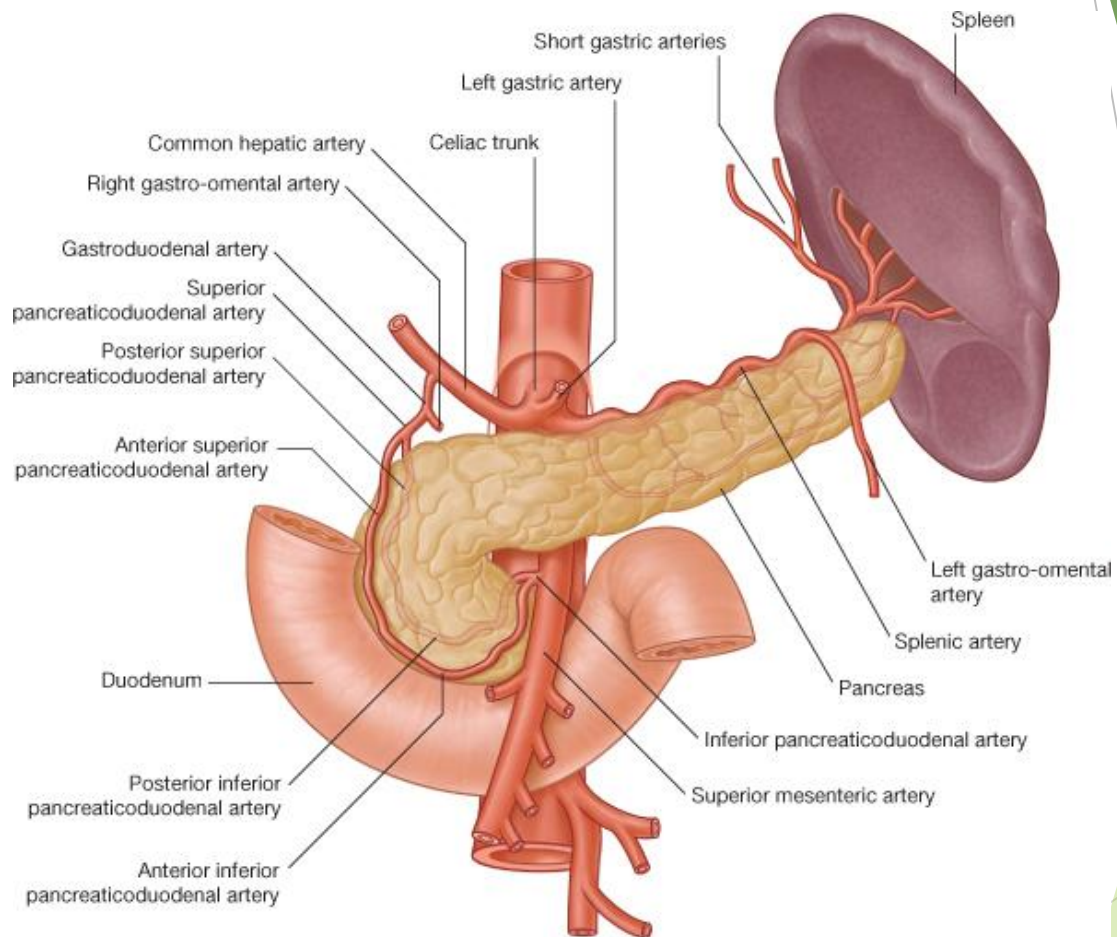
Right lateral: IVC, Cisterna chyli

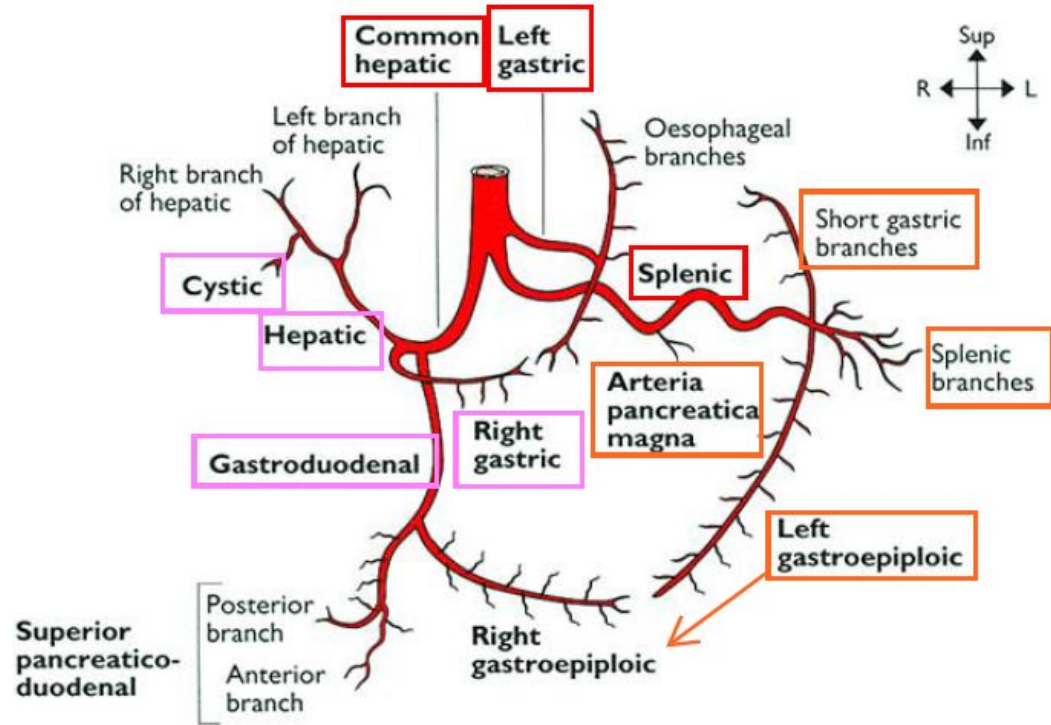
Both lateral: Azygos veins, para-aortic nodes, coeliac ganglia

Anterior: Pancreas, splenic vein, left renal vein, 3rd part duodenum, mesentery, nodes, autonomic plexus, lesser sac, stomach, omentum, small bowel

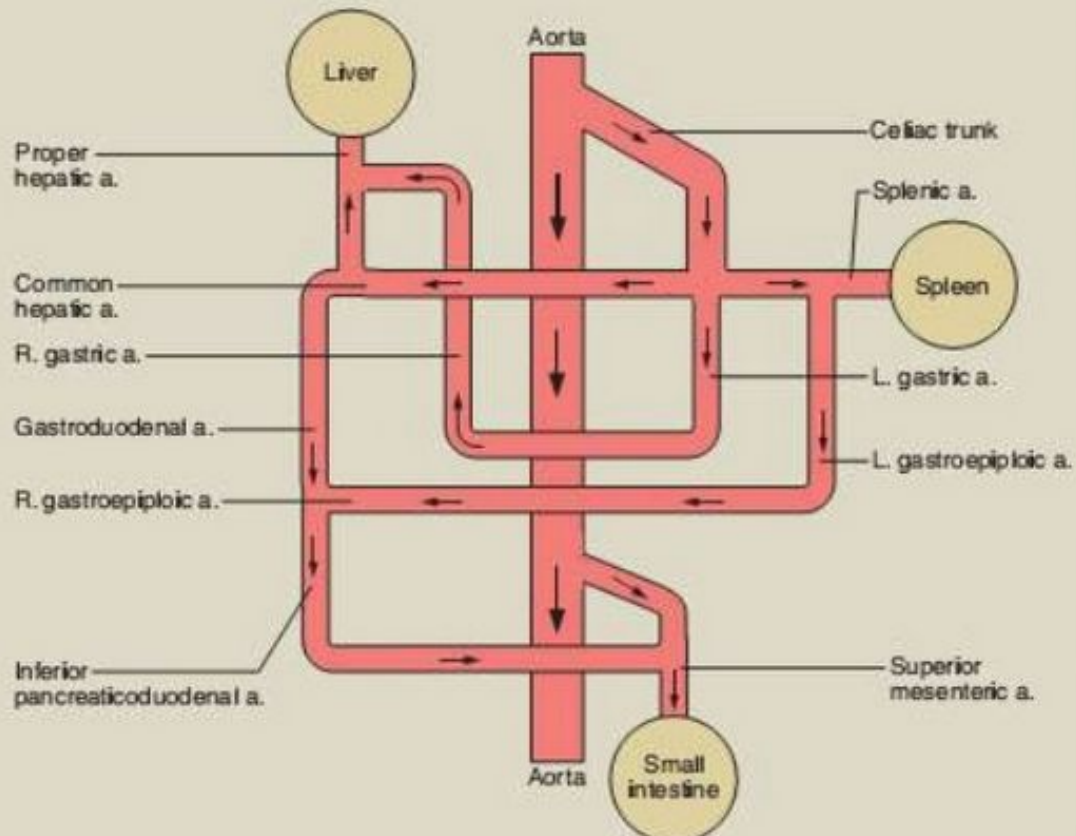
Posterior: T12-L4 vertebrae, left lumbar veins



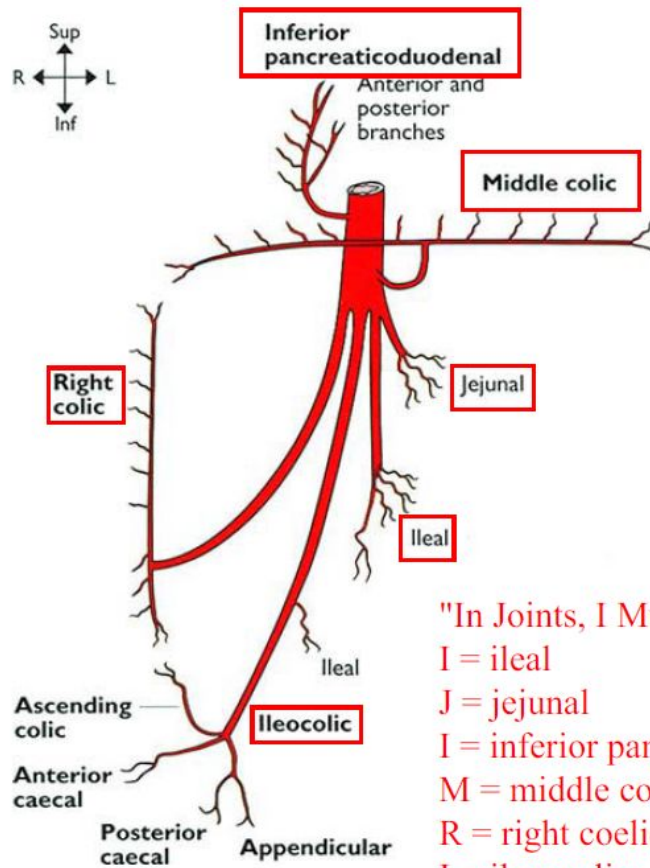




Coeliac trunk



7 Branches of the Celiac Trunk.



"In Joints, I Must Remember Injuries"

I = ileal

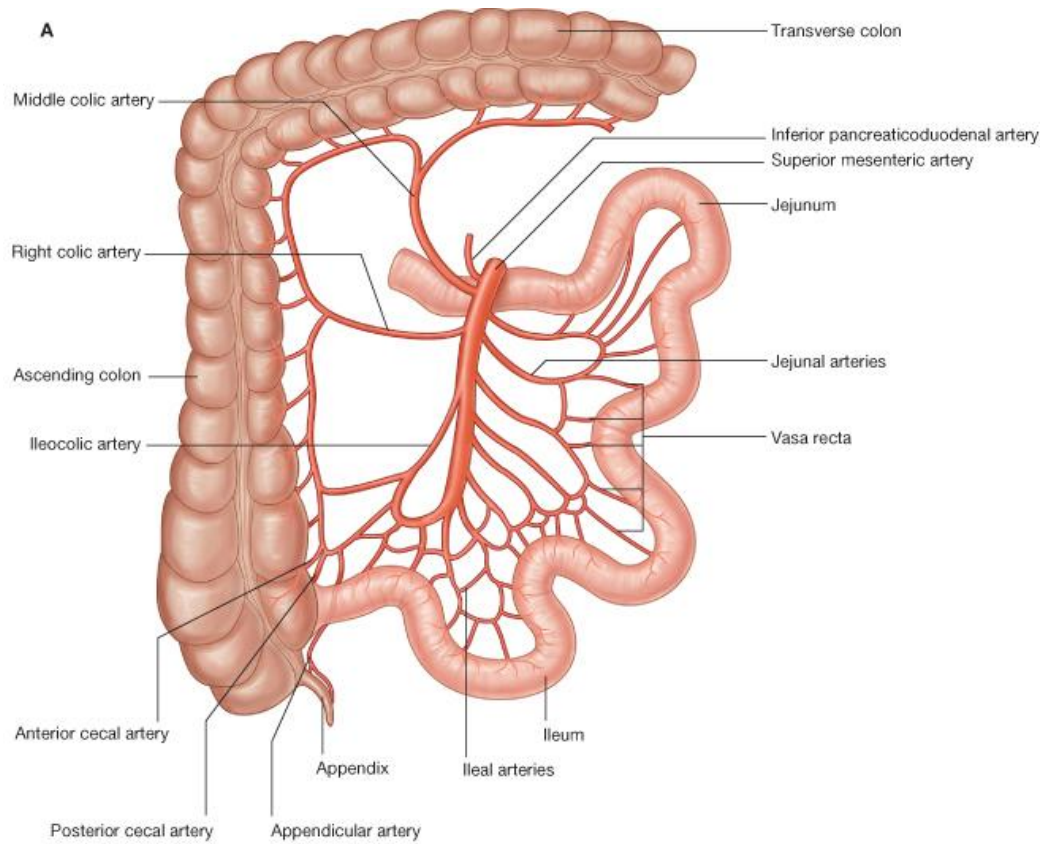
J = jejunal

I = inferior pancreaticoduodenal

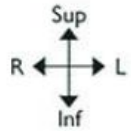
M = middle colic

R = right colic

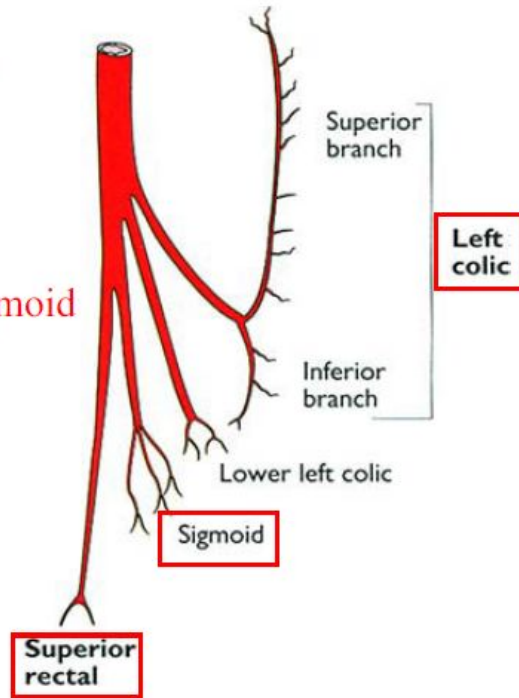
I = ileocolic



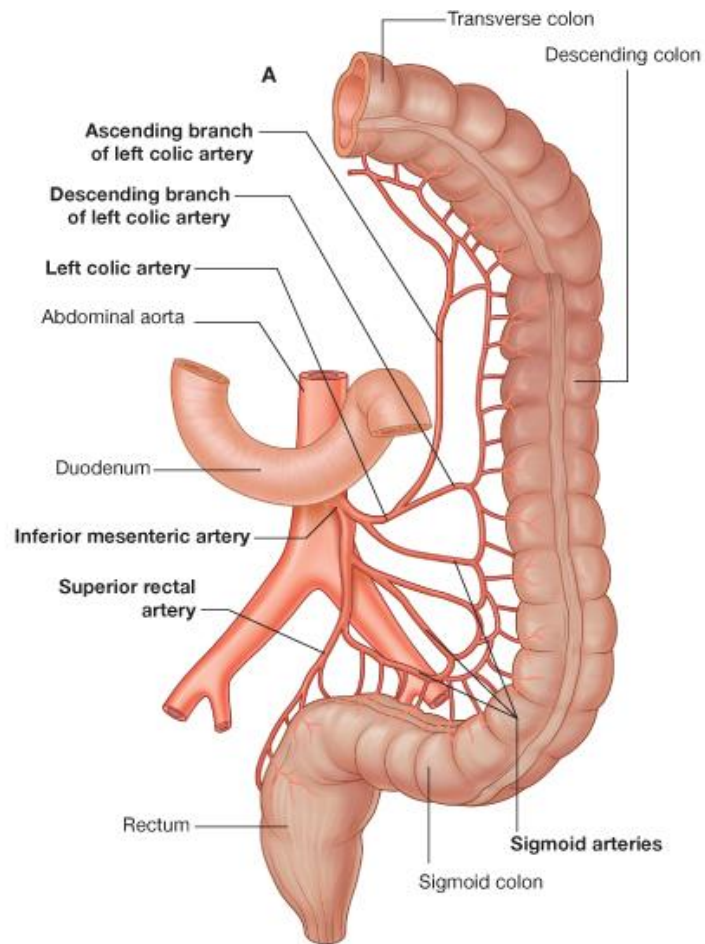
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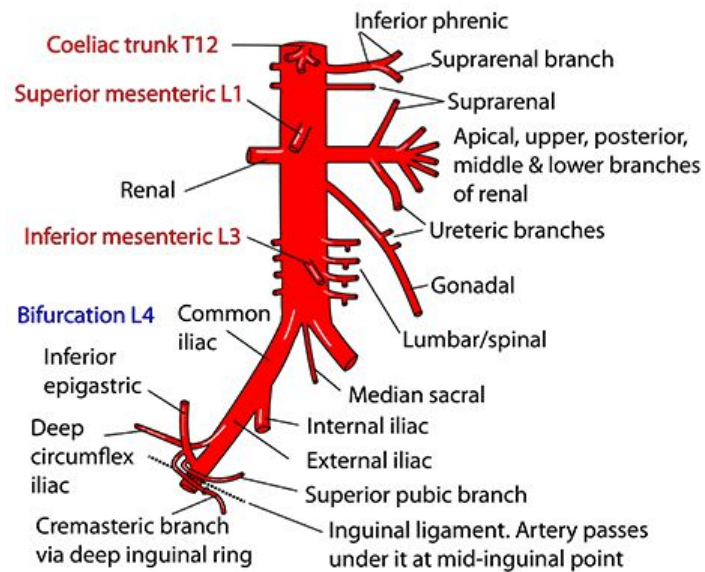
"Ushers Like Silence"
U = Upper left coelic
L = Lower left coelic = sigmoid
S = Superior rectal



Inferior mesenteric artery



ABDOMINAL AORTA AND RIGHT EXTERNAL ILIAC ARTERY



Relations of aorta

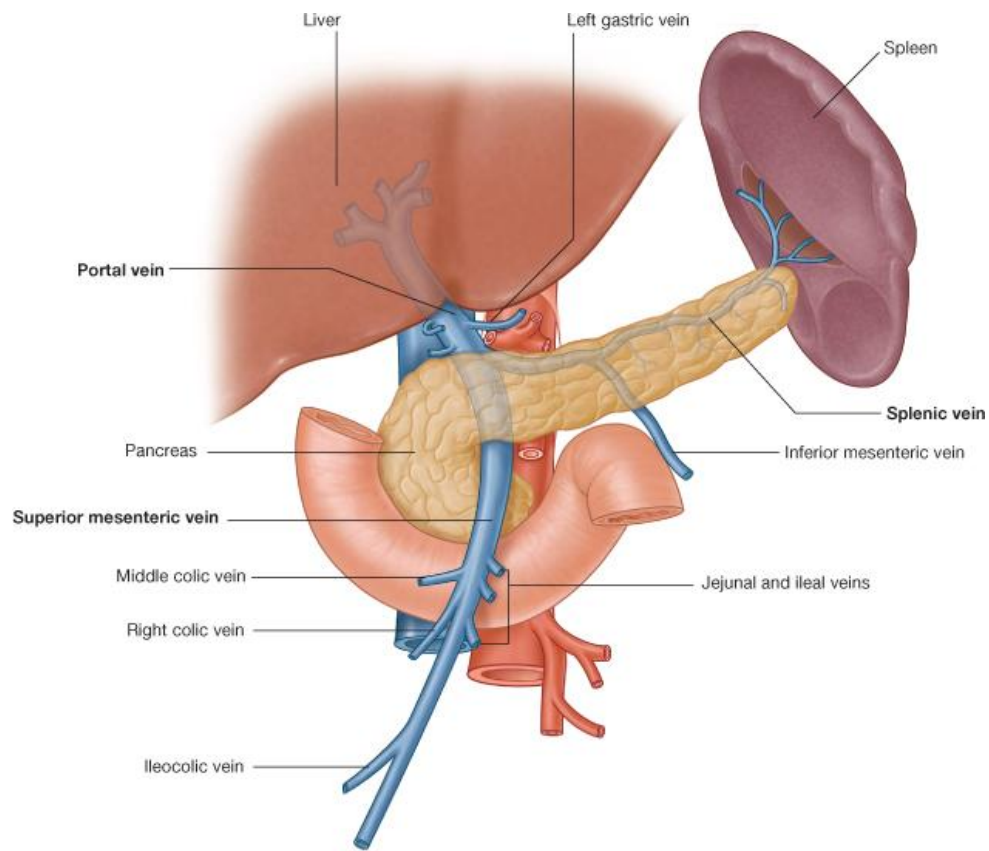
Left lateral: Sympathetic chain

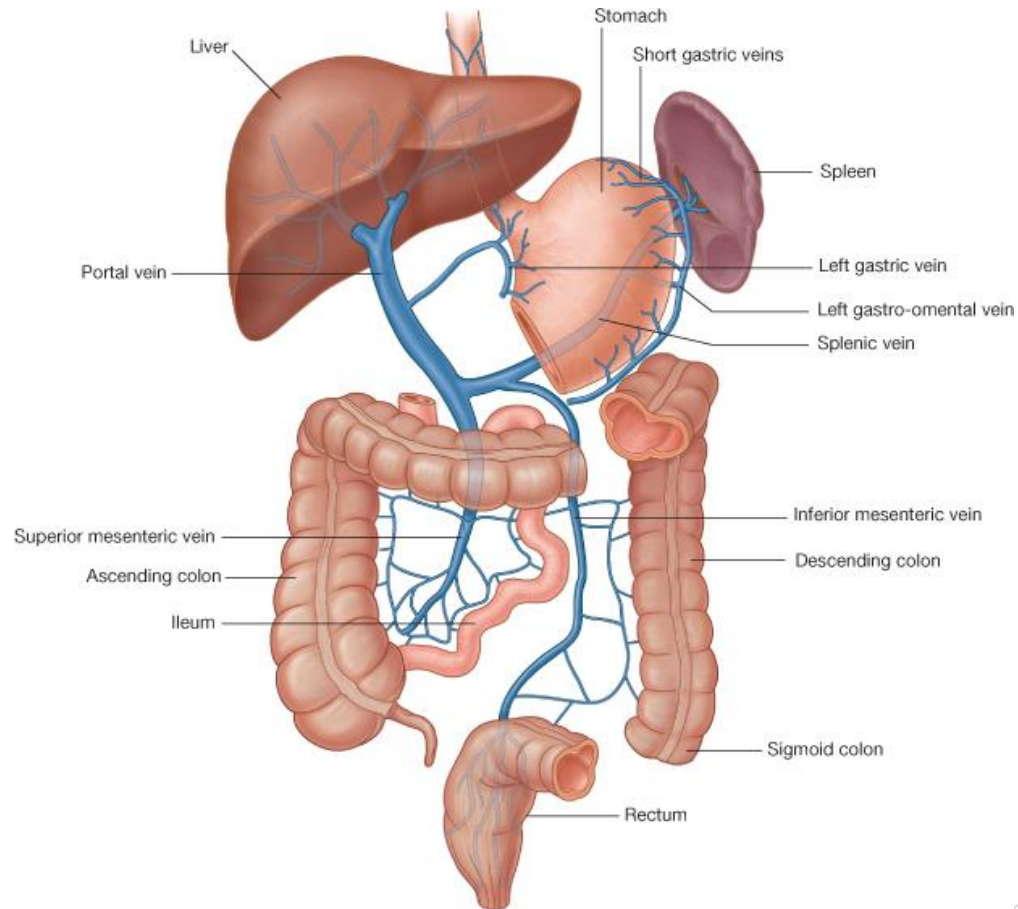
Right lateral: IVC, Cisterna chyli

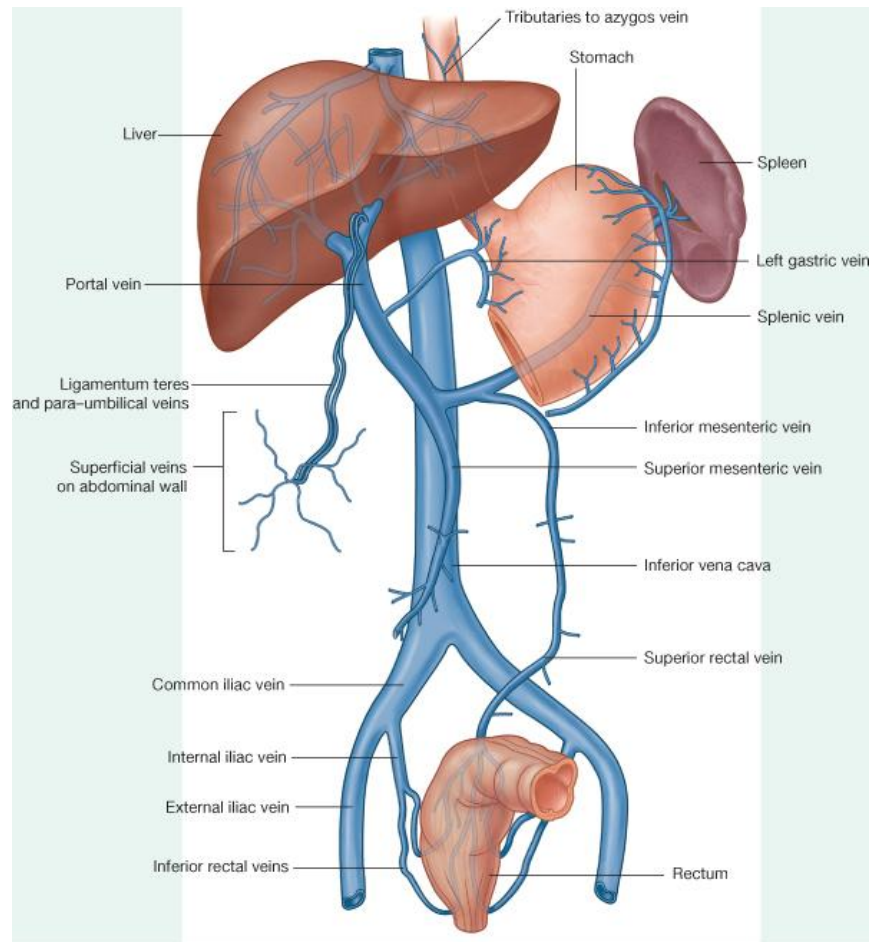
Both lateral: Azygos veins, para-aortic nodes, coeliac ganglia

Anterior: Pancreas, splenic vein, left renal vein, 3rd part duodenum, mesentery, nodes, autonomic plexus, lesser sac, stomach, omentum, small bowel

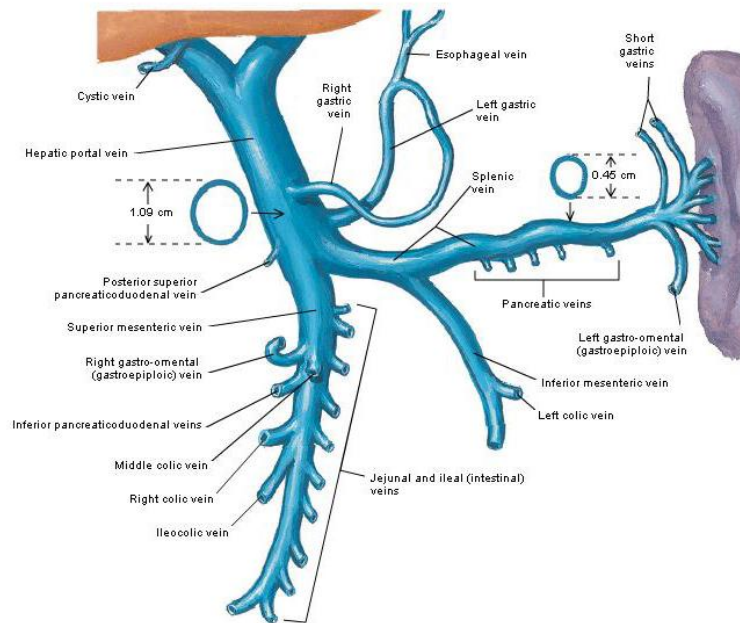
Posterior: T12-L4 vertebrae, left lumbar veins



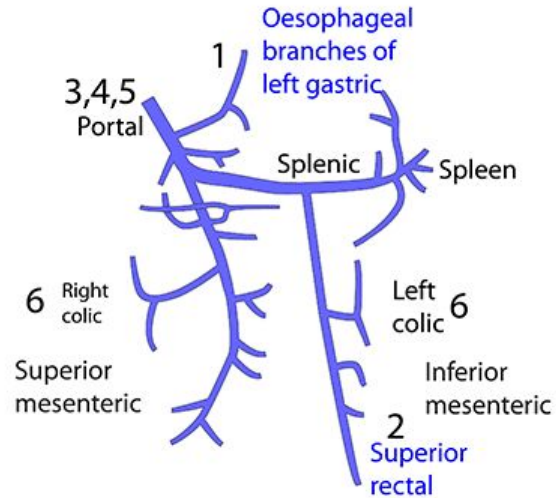




Typical Arrangement of Hepatic Portal Vein



PORTOSYSTEMIC ANASTOMOSES



1 Lower oesophagus

Portal: Oesophageal branches of left gastric veins
Systemic: Azygos veins

2 Upper anal canal

Portal: Superior rectal vein
Systemic: Middle/inferior rectal veins

3 Umbilical

Portal: Veins of ligamentum teres
Systemic: Superior/inferior epigastric veins

4 Bare area of liver

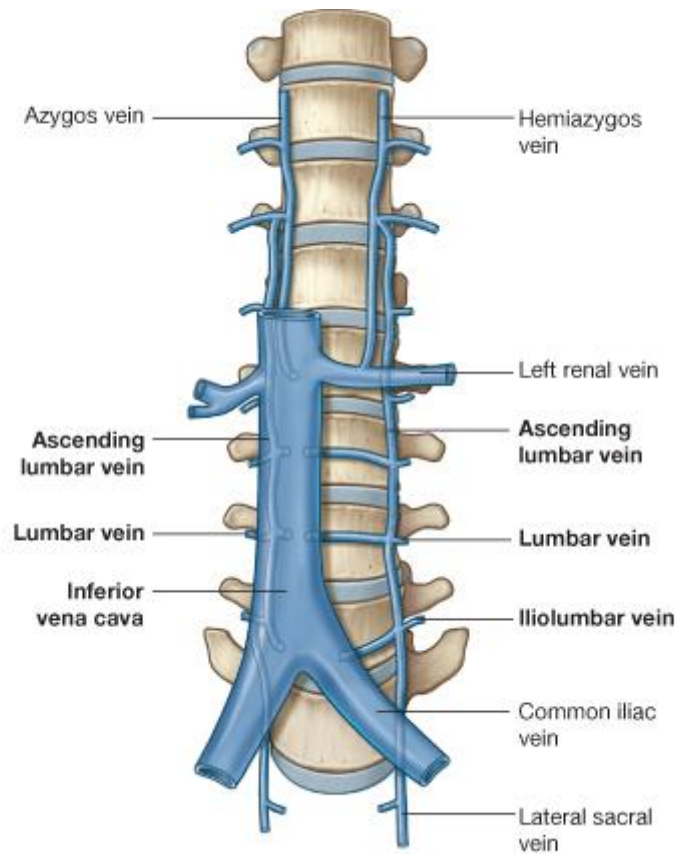
Portal: Hepatic/portal veins
Systemic: Inferior phrenic veins

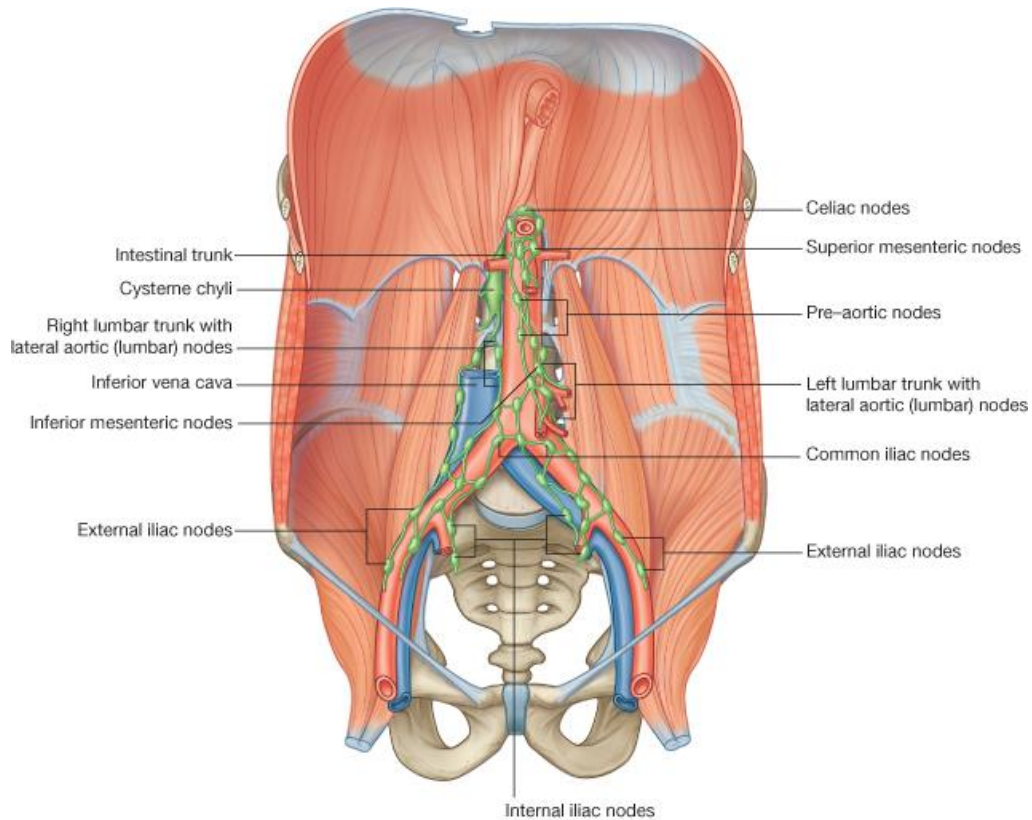
5 Patent ductus venosus (rare)

Portal: Left branch of portal vein
Systemic: Inferior vena cava

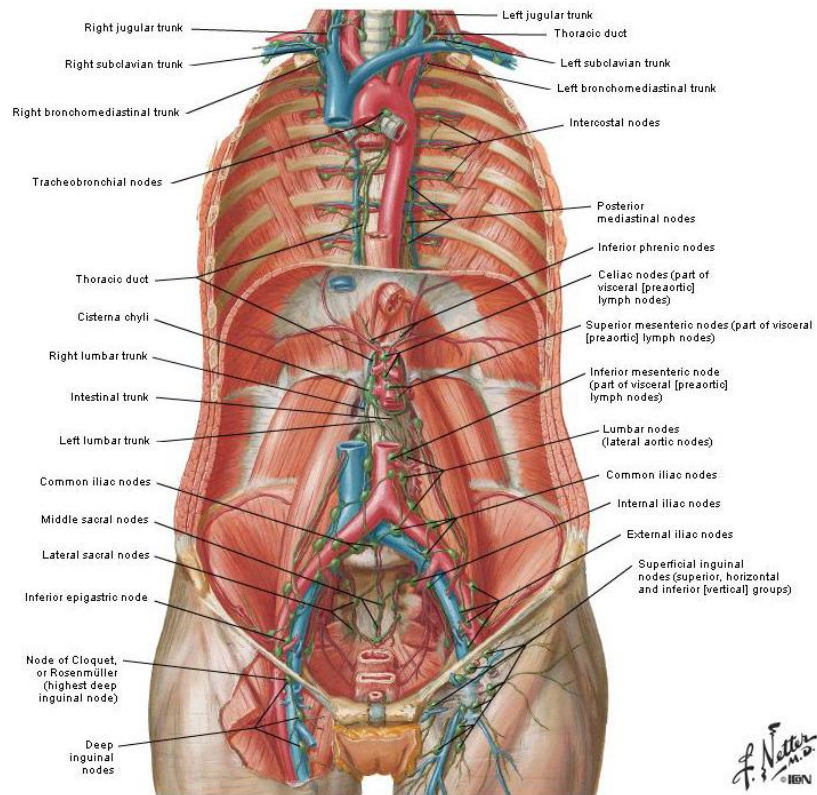
6 Retroperitoneal

Portal: Colonic veins
Systemic: Body wall veins

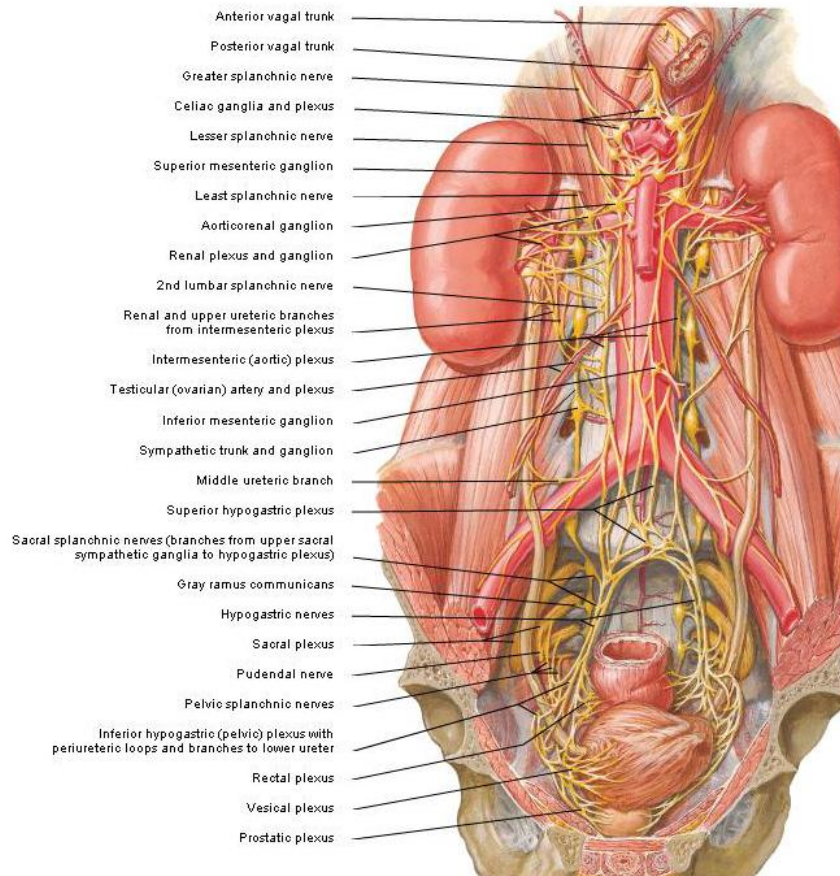




Lymph Vessels and Nodes of Posterior Abdominal Wall



Nerves of Kidneys, Ureters and Urinary Bladder



Correlation between spinal nerve & sympathetic chain

