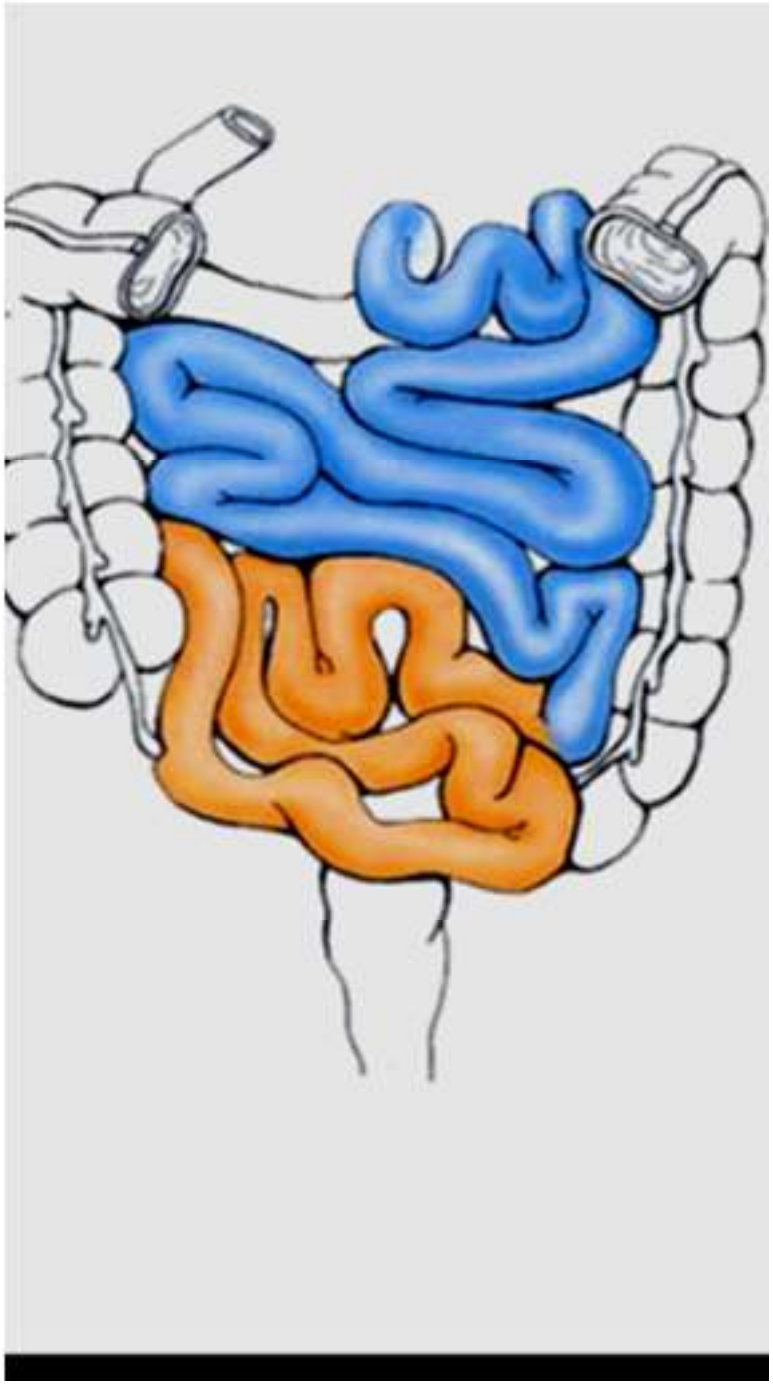
*Jejunum & Ileum.

Jejunum and Ileum:
Location and Description

- The upper 2/5 of intestine make up jejunum & lower 3/5 to ileum.
- Jejunum begin at duodenojejunal flexure &ileum ends at ileocecal junction.
- The coils of jejunum &ileum are freely mobile & attached to posterior abdominal wall by a fan-shaped fold of peritoneum known as **mesentery of small intestine.**

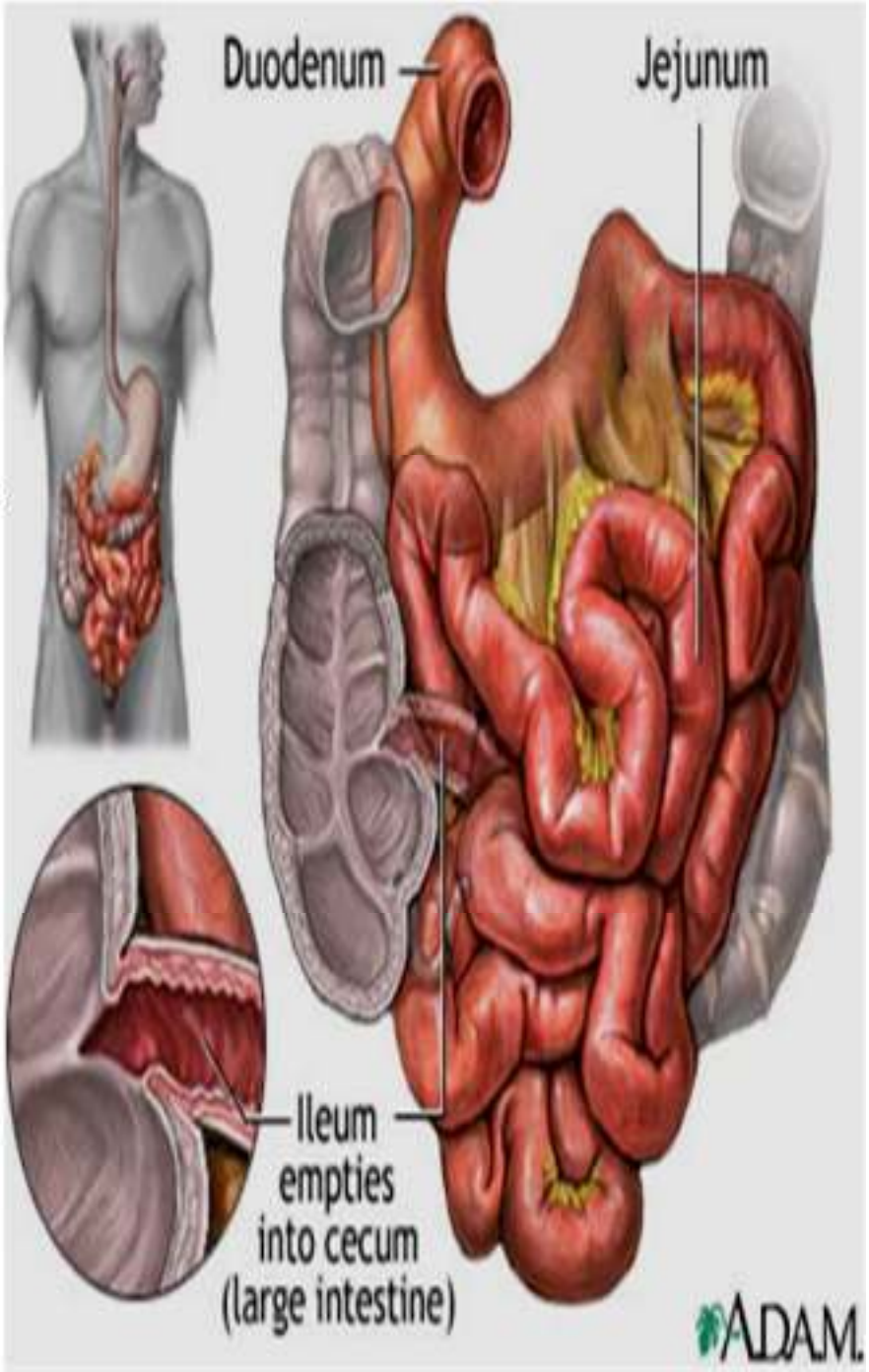


- The root of mesentery permits

entrance & exit of branches of

superior mesenteric artery & vein,

lymph vessels & nerves .



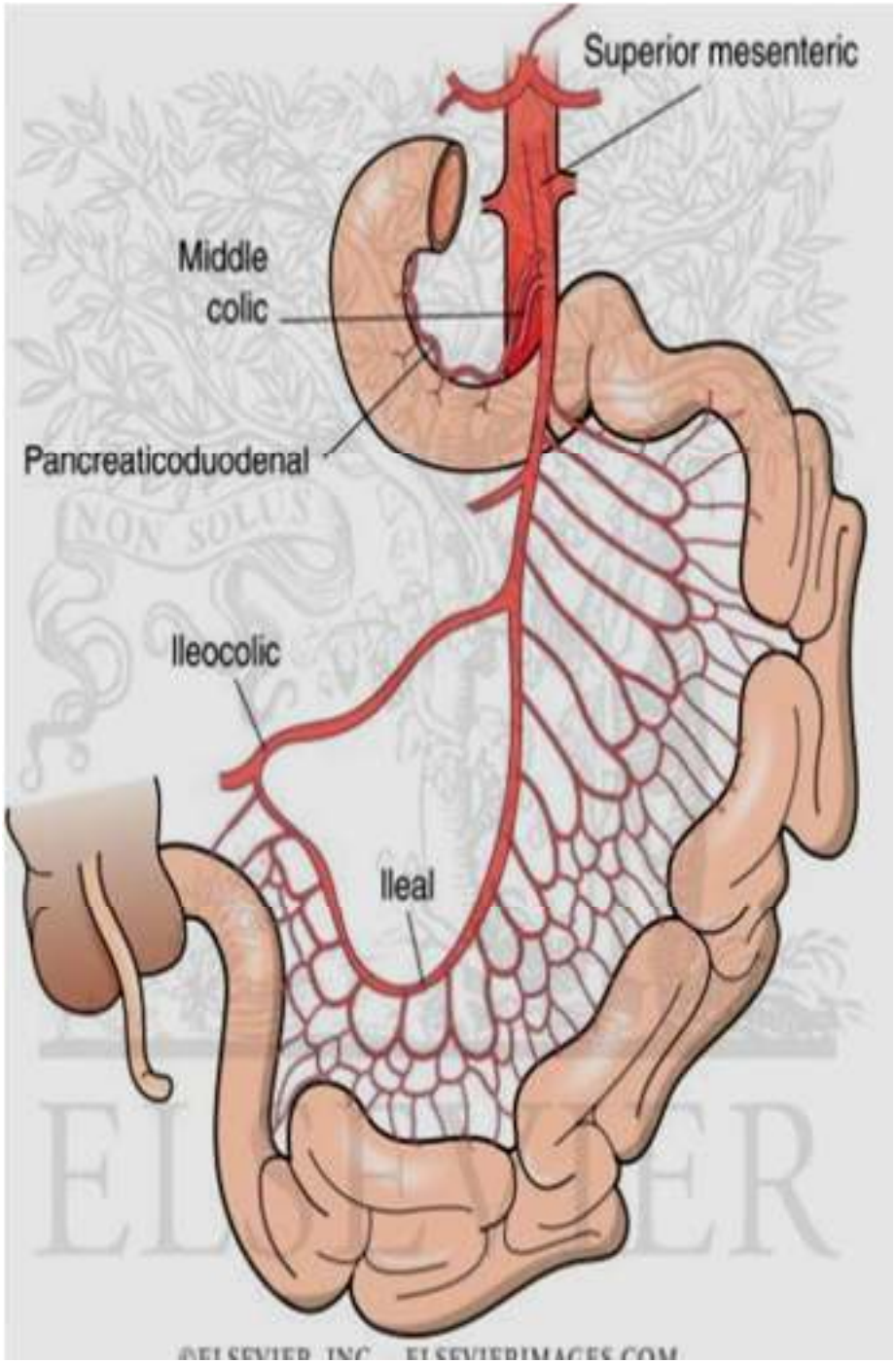
Blood Supply

Arteries:

- Branches of the superior mesenteric artery .
- The lowest part of the ileum is also supplied by ileocolic artery.

Veins:

Superior mesenteric vein

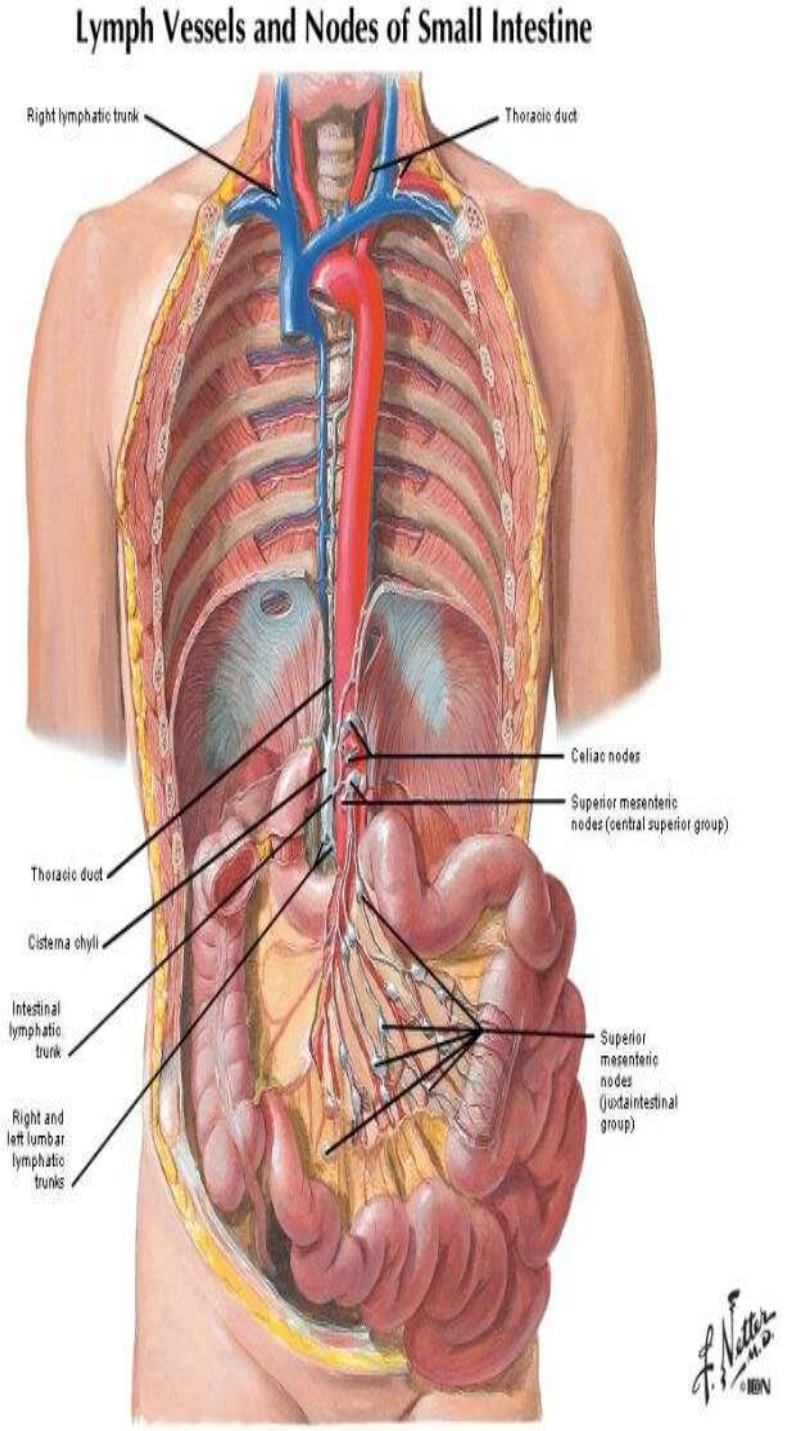


Lymph Drainage:

The superior mesenteric nodes

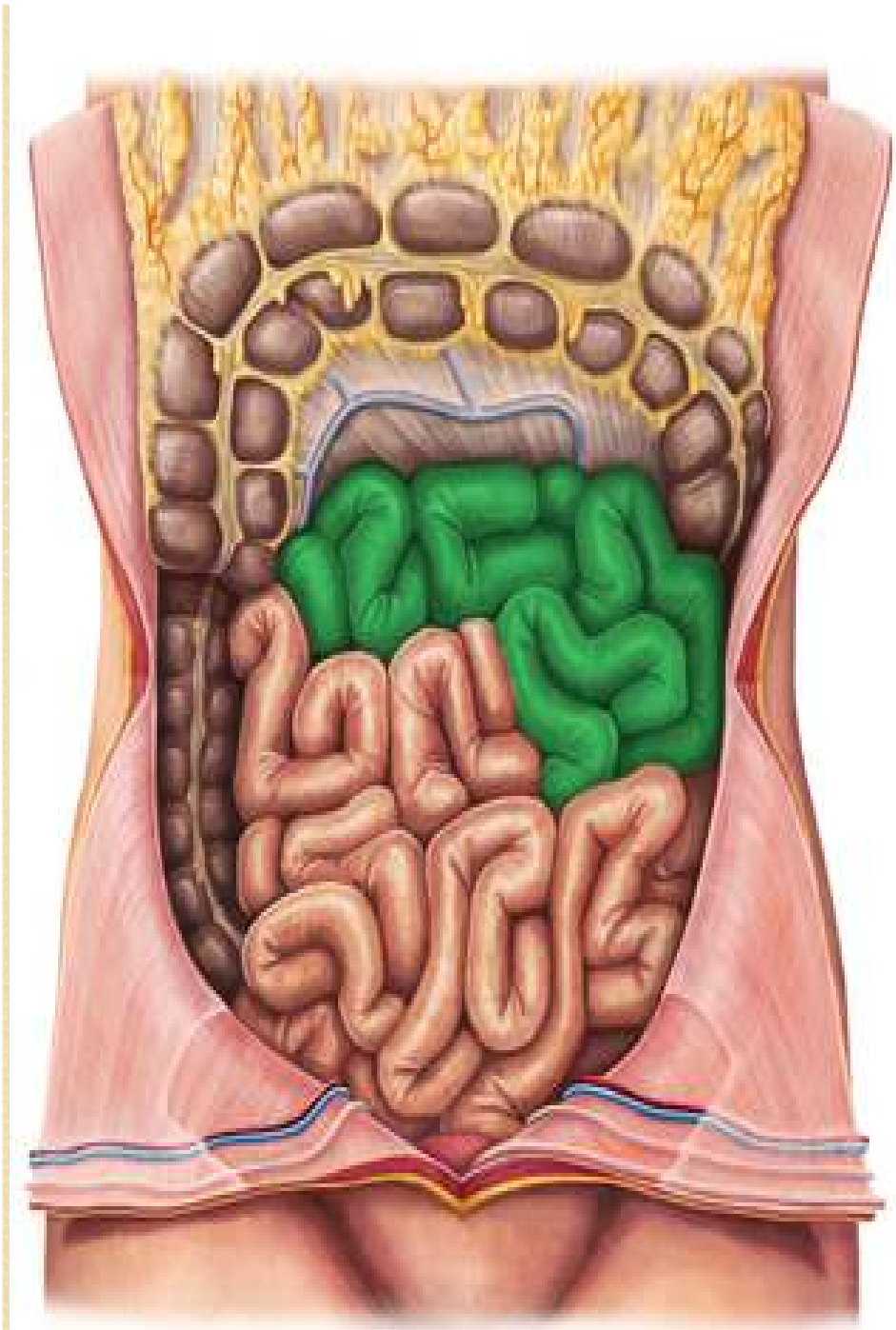
Nerve Supply:

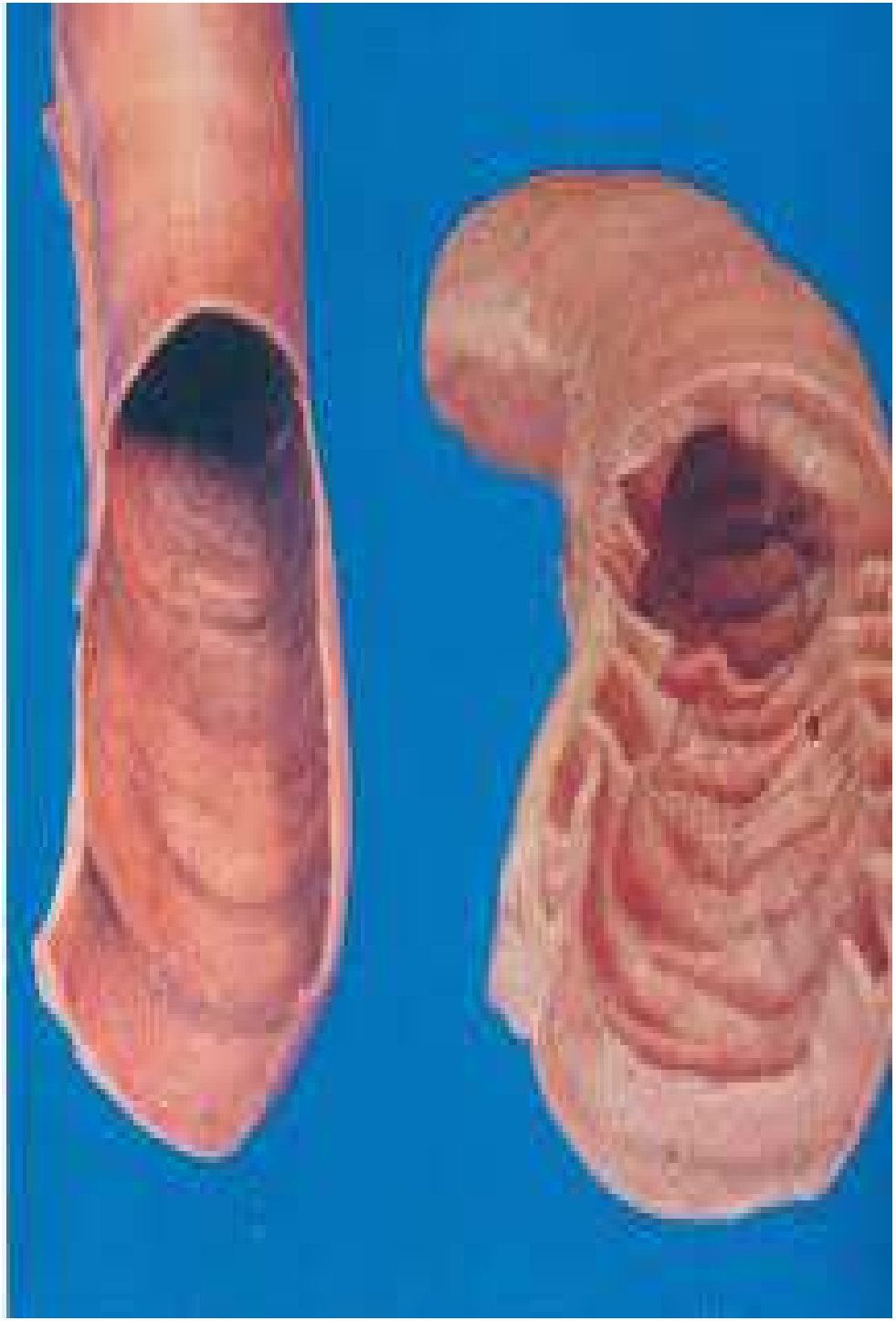
1) Sympathetic.
2) Parasympathetic (vagus) nerves from the superior mesenteric plexus.



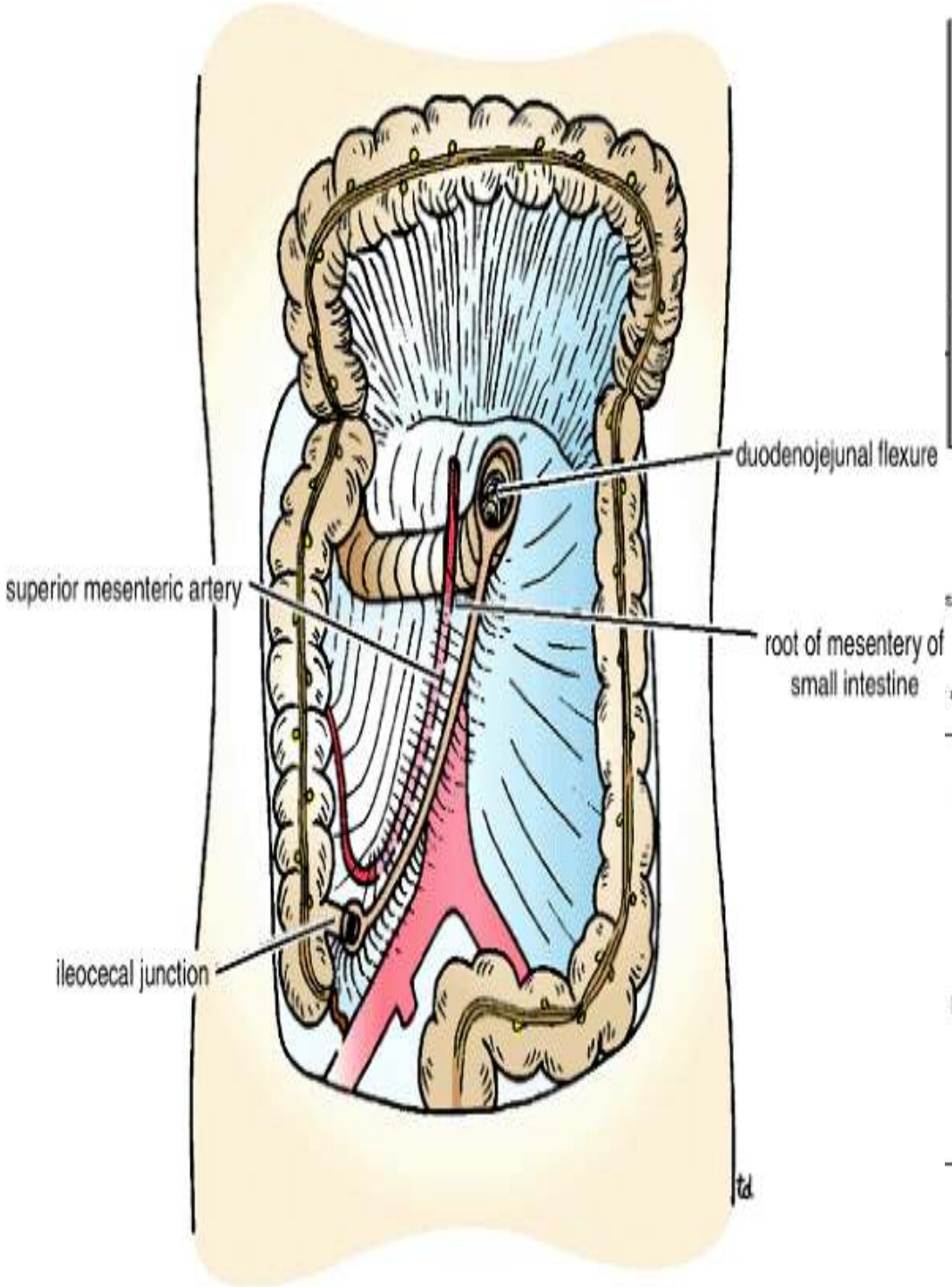
Jejunum & ileum differences

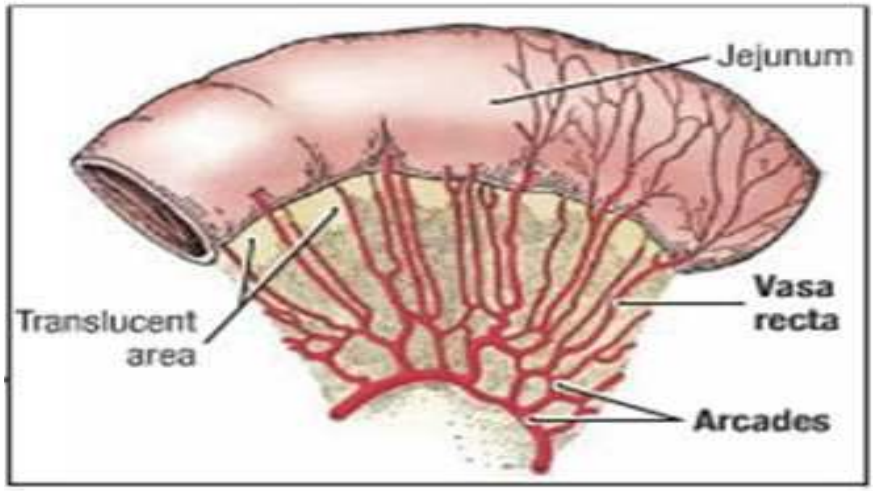
Jejunum	ileum
❖**Location:** upper part of peritoneal cavity.	❖**Location:** Lower part of peritoneal cavity & in pelvis.
❖Wider bored, thicker walled, & redder than ileum.	❖Narrow, thin wall, pink color.
❖The plicae circulares, are larger, more numerous & closely set in the jejunum	❖Upper part of ileum they are smaller & more widely separated & in lower part they began to absent.



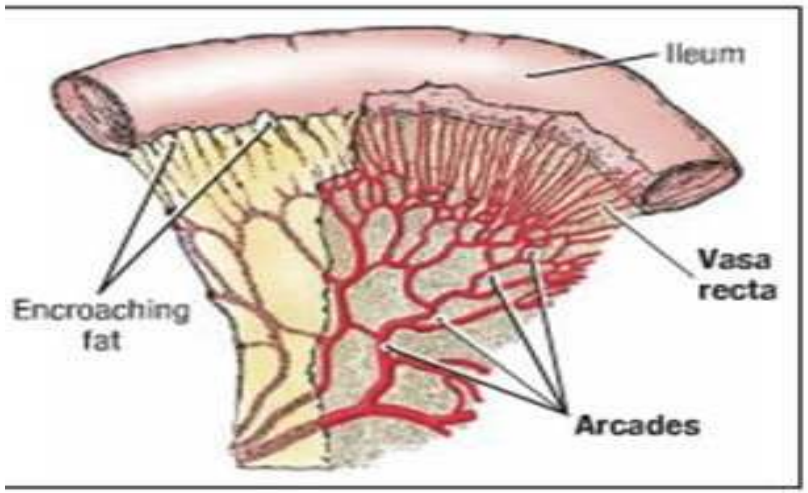


❖**Mesentery:** is attached to the posterior abdominal wall above & to left of aorta	❖**Mesentery:** Below and to right of the aorta.
❖ **Arcades :**jejunal mesenteric vessels form only 1 or 2 arcades, with long branches passing to intestinal wall .	❖ **Arcades :** ileum receives numerous short terminal vessels that arise from a series of 3 or 4 or even more arcades
❖No peyer's patches.	❖Aggregations of lymphoid tissue (Peyer's patches) are present in the mucous membrane of lower ileum
❖Jejunal end of the mesentery, the fat is deposited near the root and is scanty near intestinal wall	❖The fat is deposited throughout so that it extends from the root to intestinal wall

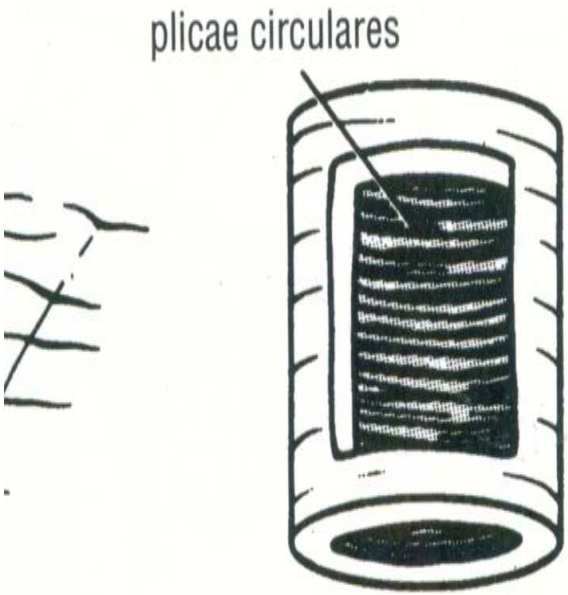




Jejunum

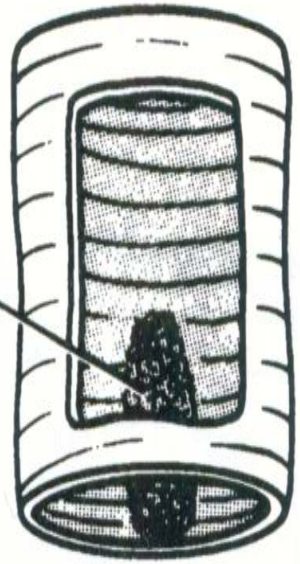


Ileum

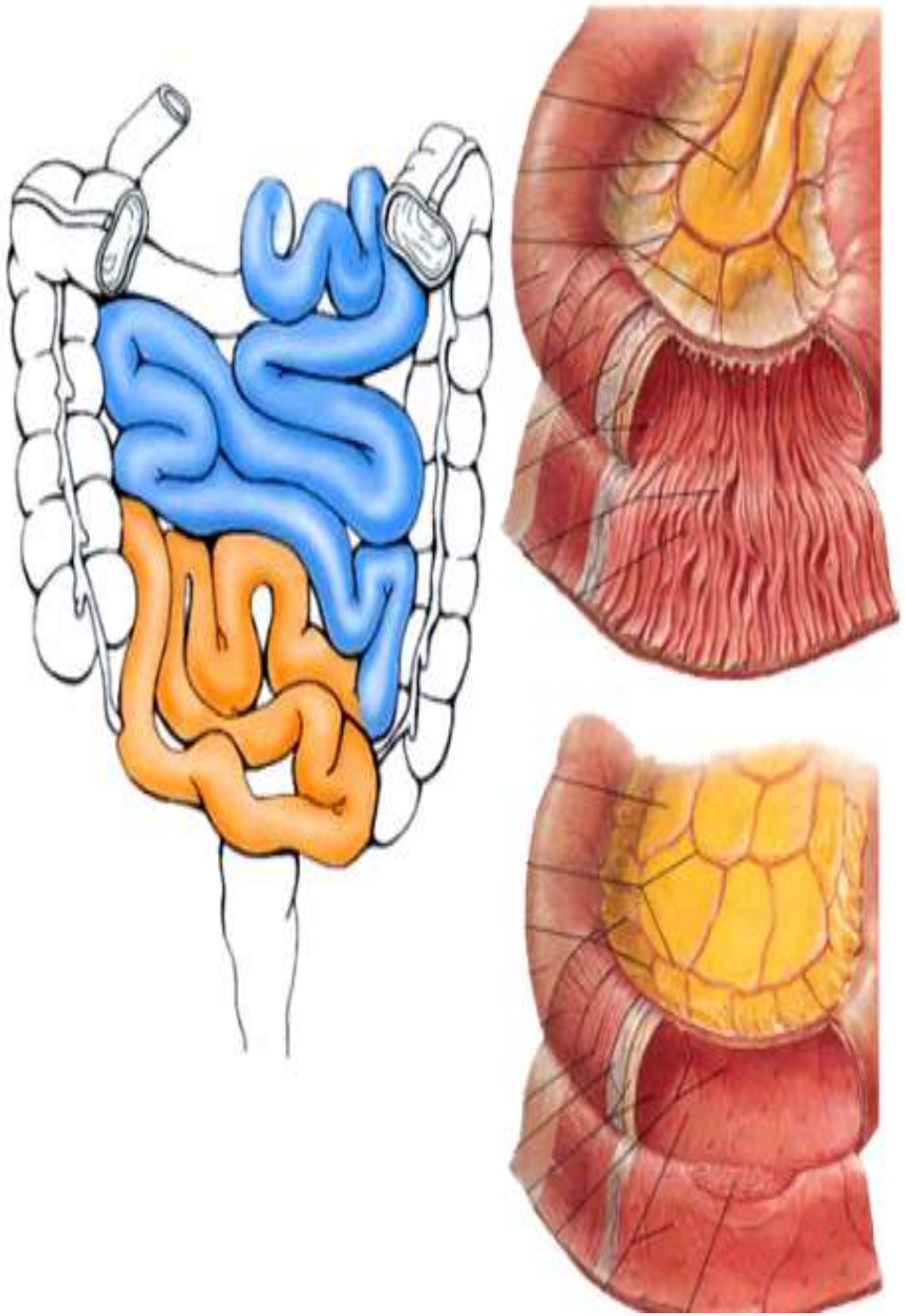


jejunum

l intestine



ileum



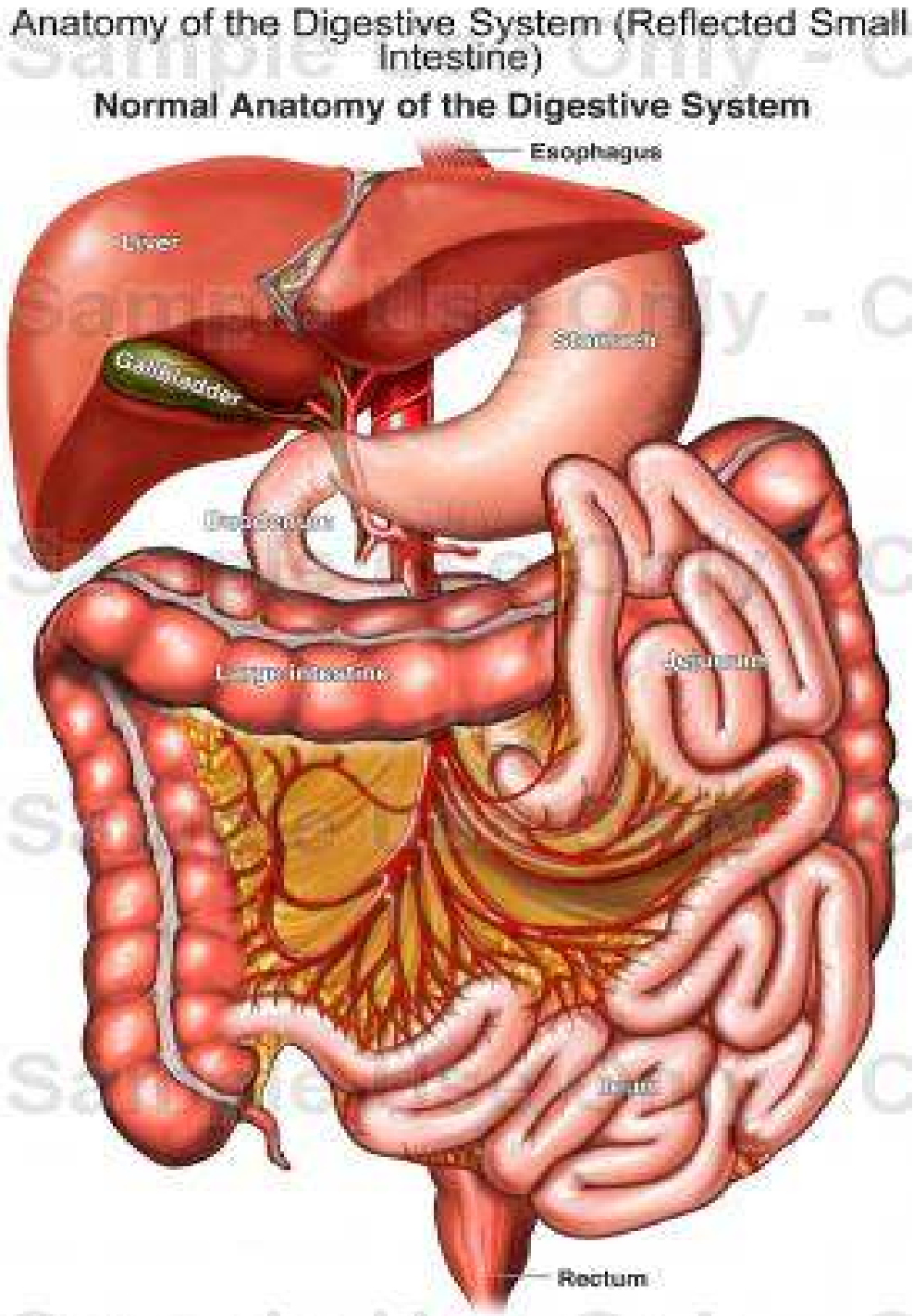
Large Intestine:

The large intestine extends from the ileum to the anus.

The function :

1) Absorption of water and electrolytes .

2) Storage of undigested material until it can be expelled from the body as feces.



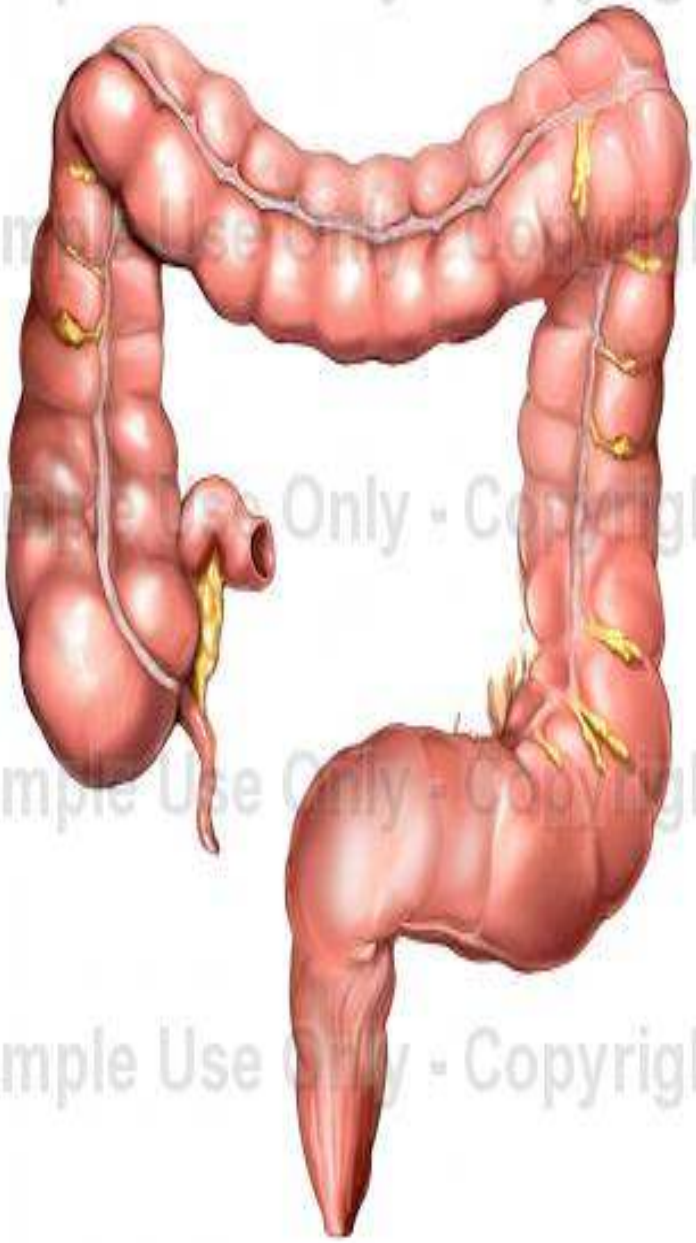
Cecum

Location:

Right iliac fossa

Description:

- It is a blind-ended pouch **about 6 cm long**. It possesses a considerable amount of mobility, although it does not have a mesentery. The appendix attached to posteromedial surface of cecum.



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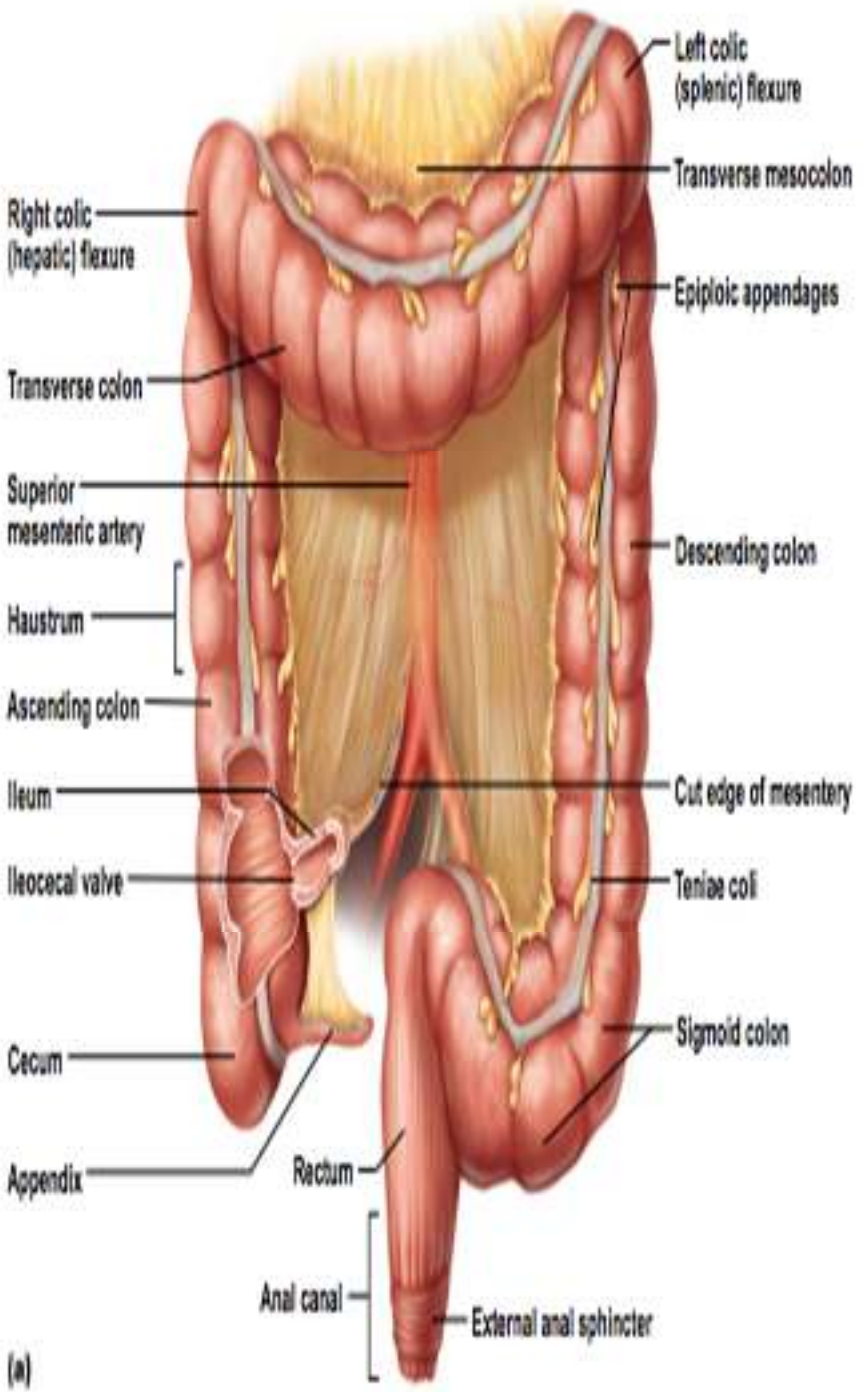
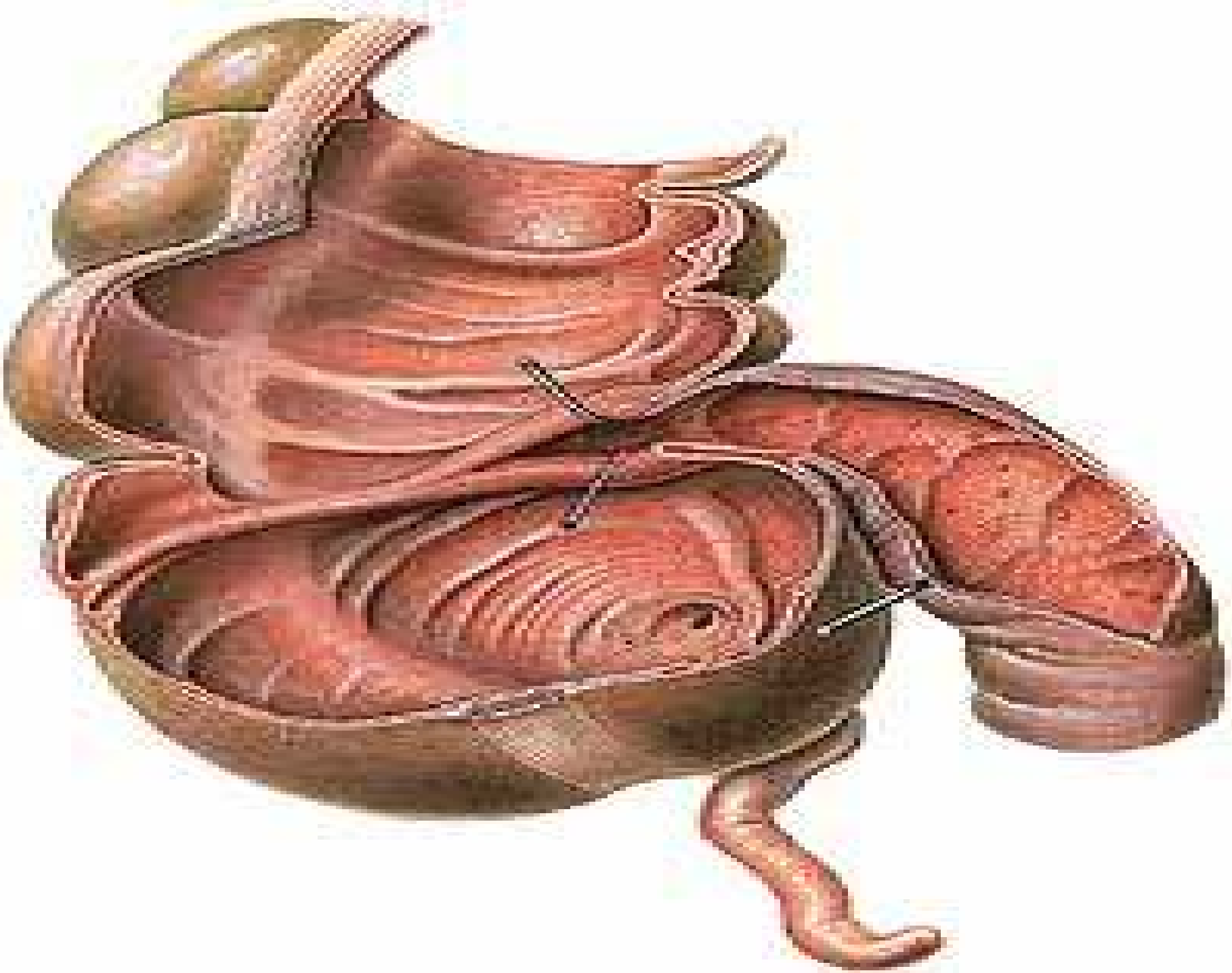
- The longitudinal muscle is restricted to 3 flat bands **teniae coli** which converge on base of appendix.
- The cecum is often distended with gas.
- The opening between elium & cecum is provided with two folds **ileocecal valve** .
- The appendix communicates with cavity of cecum through opening located below & behind ileocecal opening.

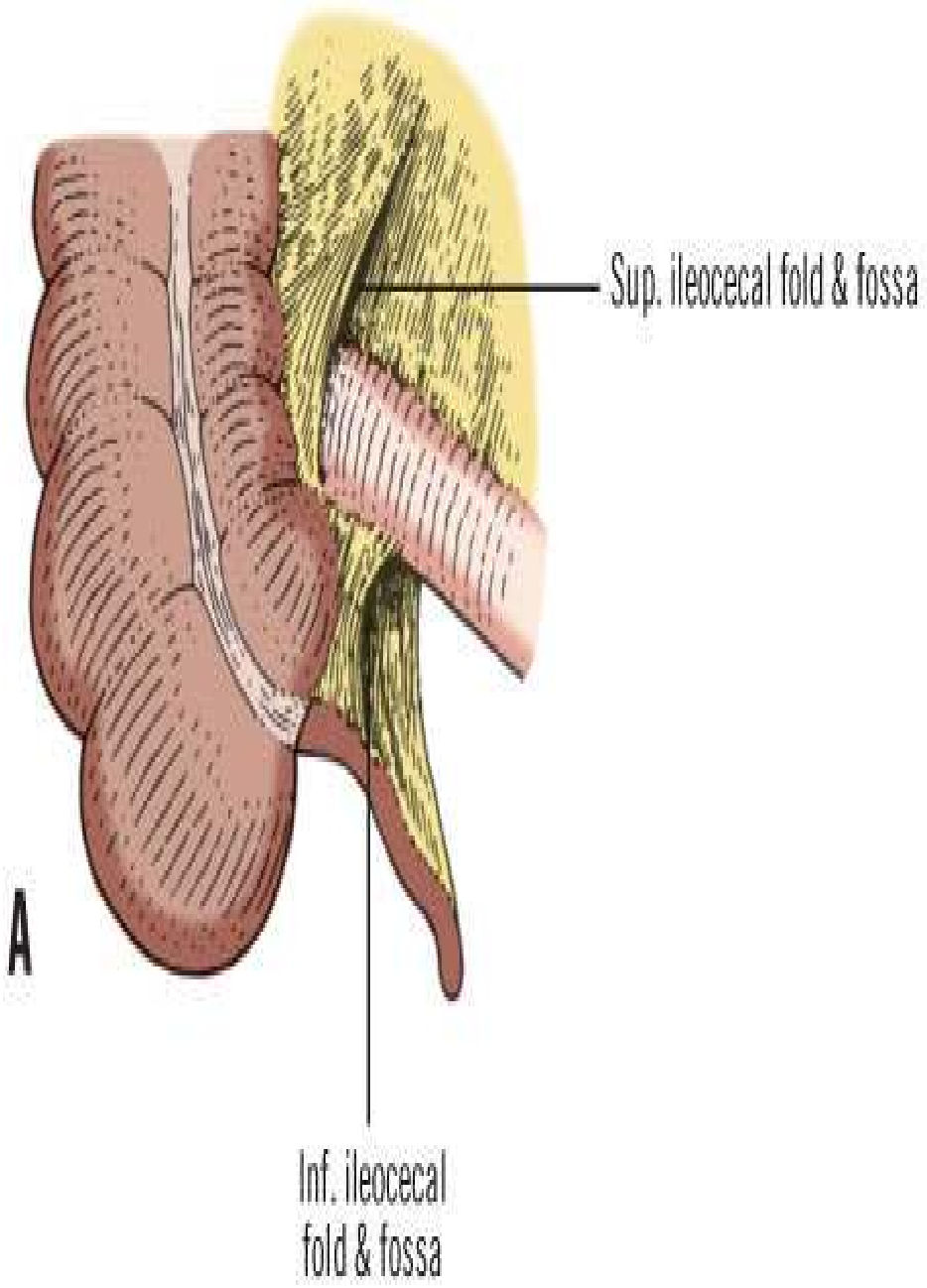




Peritoneal relation:

1) It completely covered with peritoneum.

2) The presence of peritoneal folds in the vicinity of the cecum creates the **superior ileocecal, inferior ileocecal, and retrocecal recesses**



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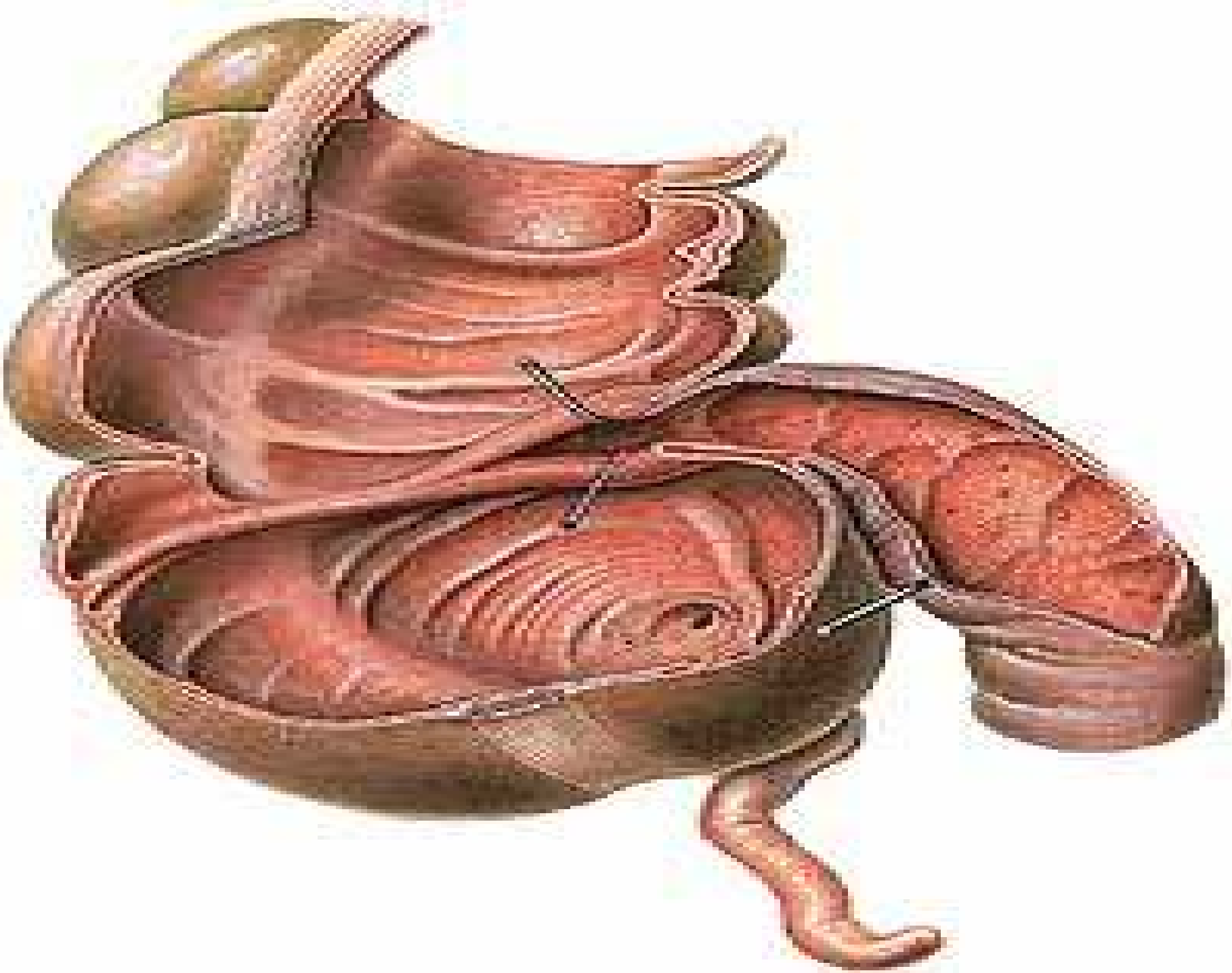
Ileocecal Valve:

- The ileocecal valve consists of **2** horizontal folds of mucous membrane that project around orifice of ileum.
- The circular muscle of lower end of ileum called **ileocecal sphincter** serves as a sphincter &controls flow of contents from ileum into colon.
- The smooth muscle tone is reflexly increased when cecum is distended; the hormone **gastrin** which is produced by stomach causes relaxation of muscle tone.

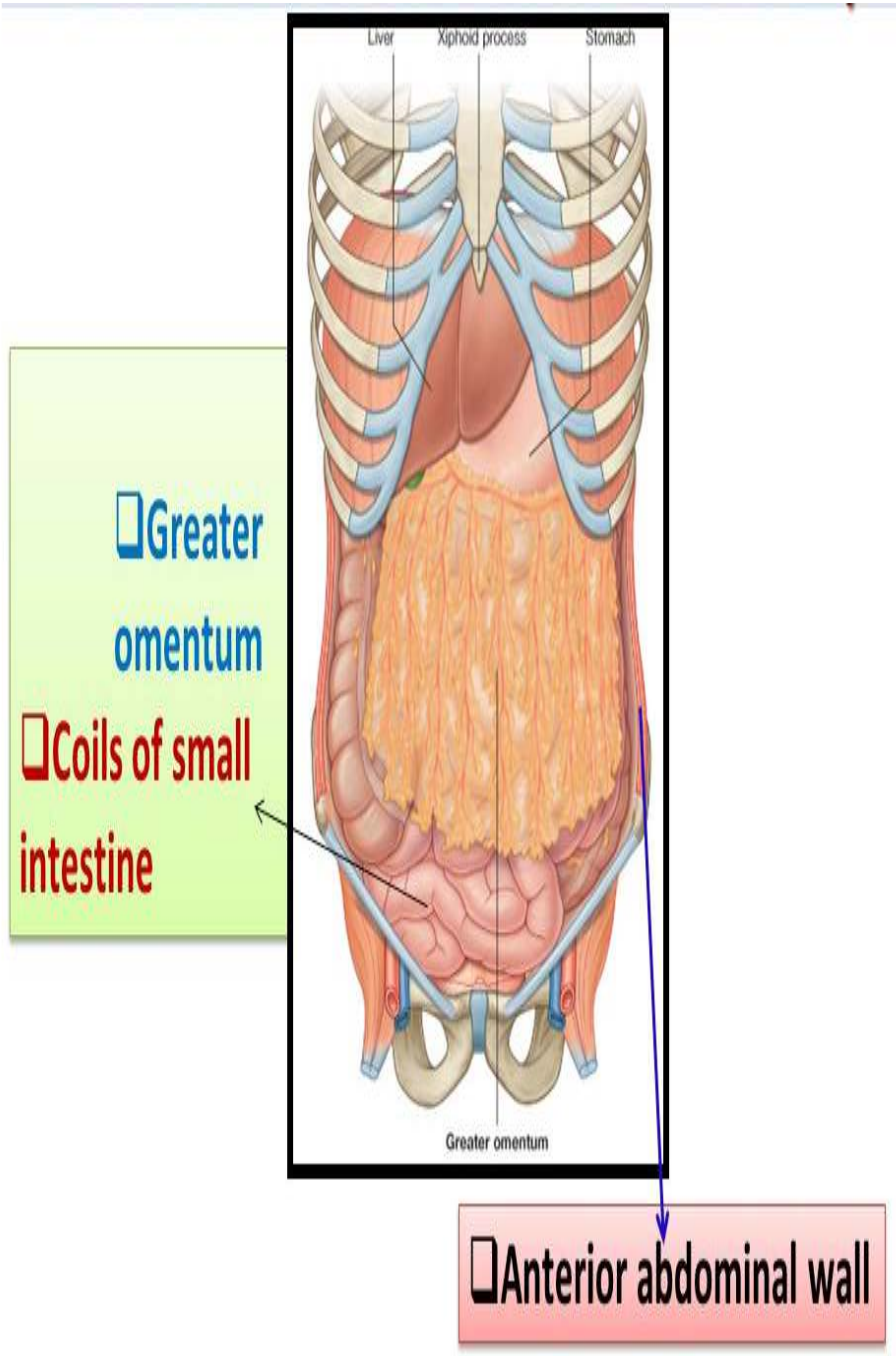


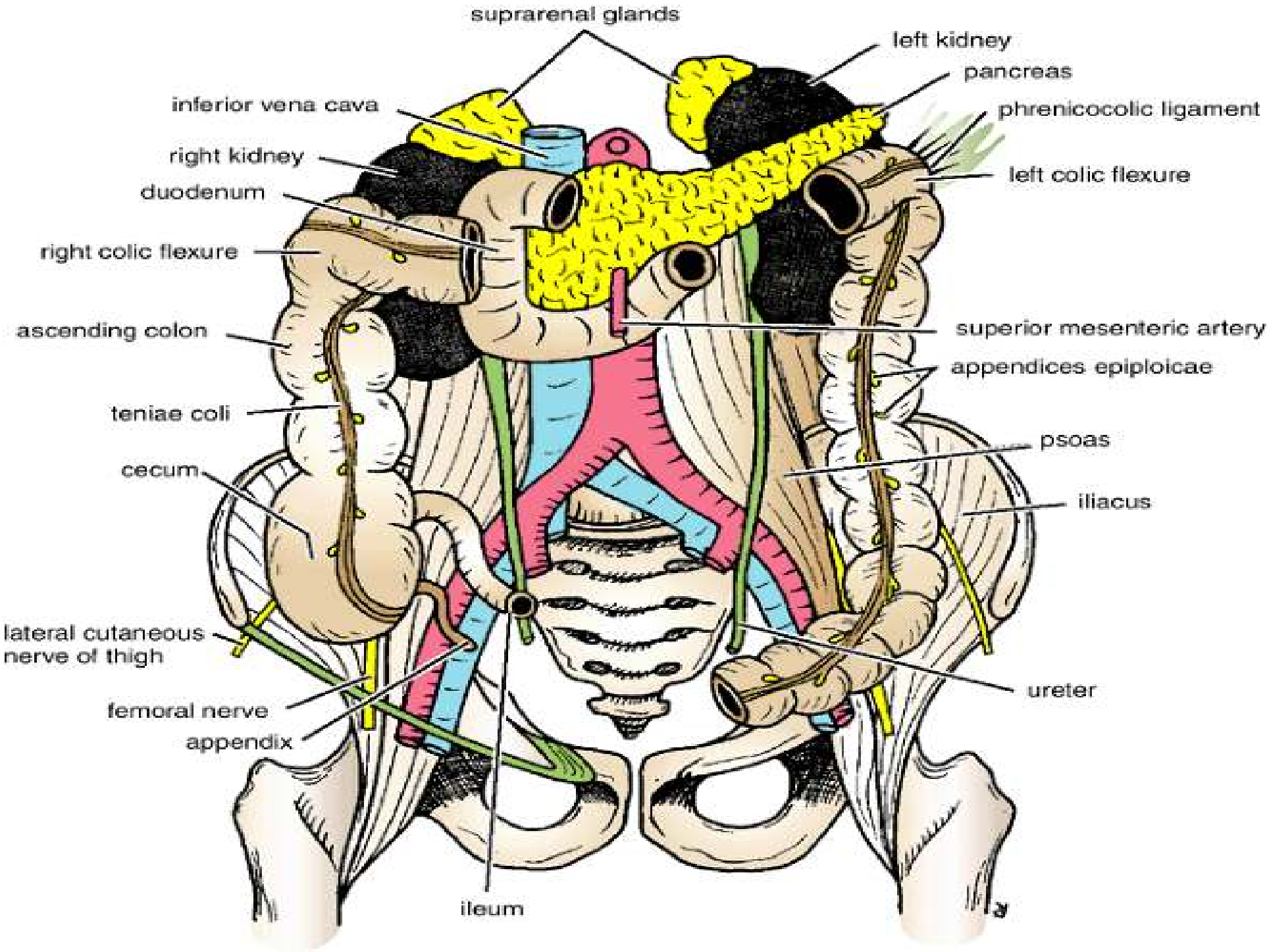
Relations:

Anteriorly: anterior abdominal wall , greater omentum & Coils of small intestine.

Posteriorly: The psoas & iliacus muscles, femoral nerve, lateral cutaneous nerve of thigh , appendix is **commonly** found behind Cecum.

Medially: The appendix origin .




suprarenal glands
left kidney
pancreas
inferior vena cava
phrenicocolic ligament
right kidney
left colic flexure
duodenum
right colic flexure
ascending colon
superior mesenteric artery
appendices epiploicae
teniae coli
psoas
cecum
iliacus
lateral cutaneous nerve of thigh
ureter
femoral nerve
appendix
ileum

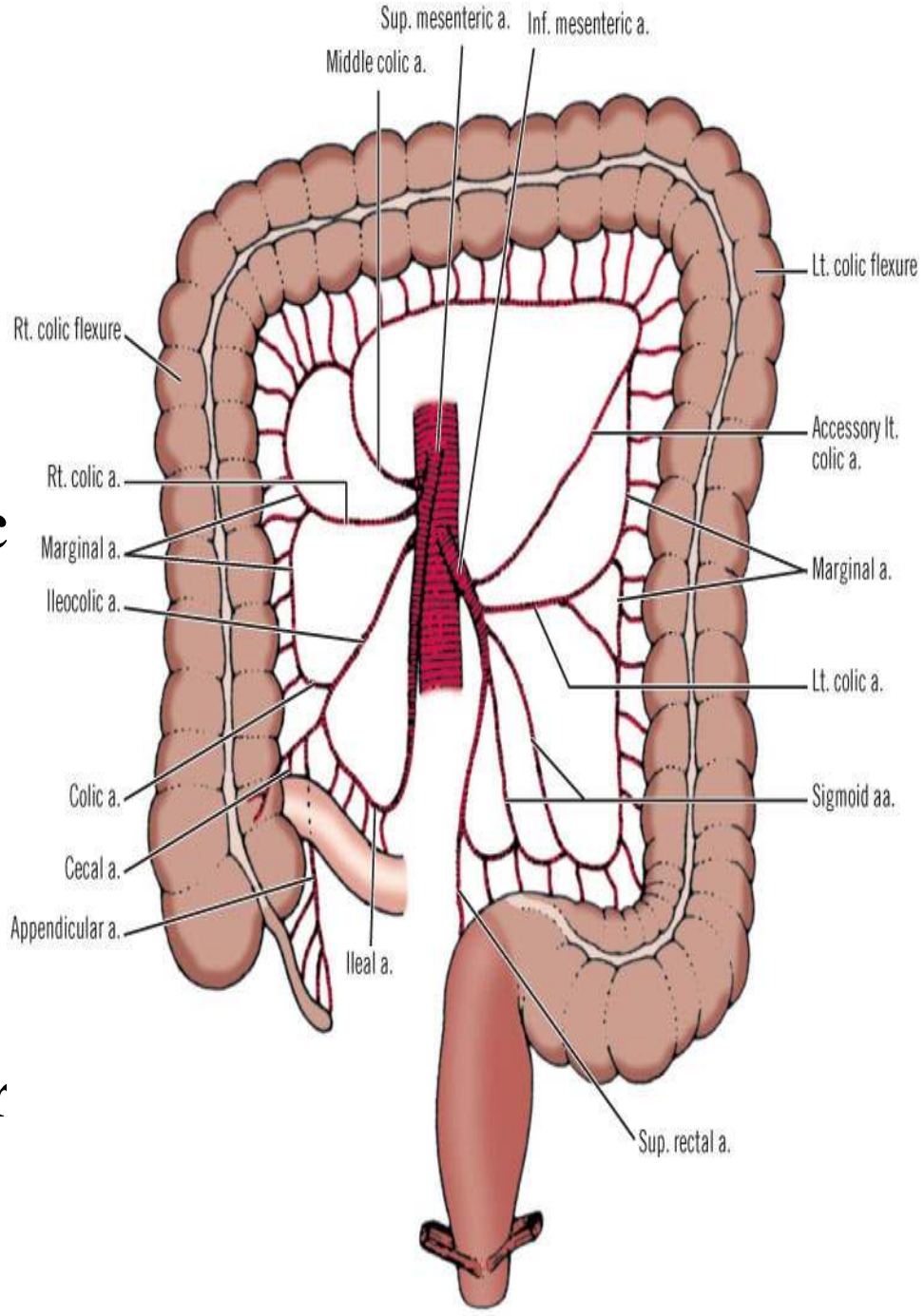
Blood Supply:

Arteries:

Aorta ----- superior mesenteric artery-----ileocolic artery-----Anterior & posterior cecal arteries

Veins:

The veins correspond to arteries & drain into superior mesenteric vein--- portal vein.



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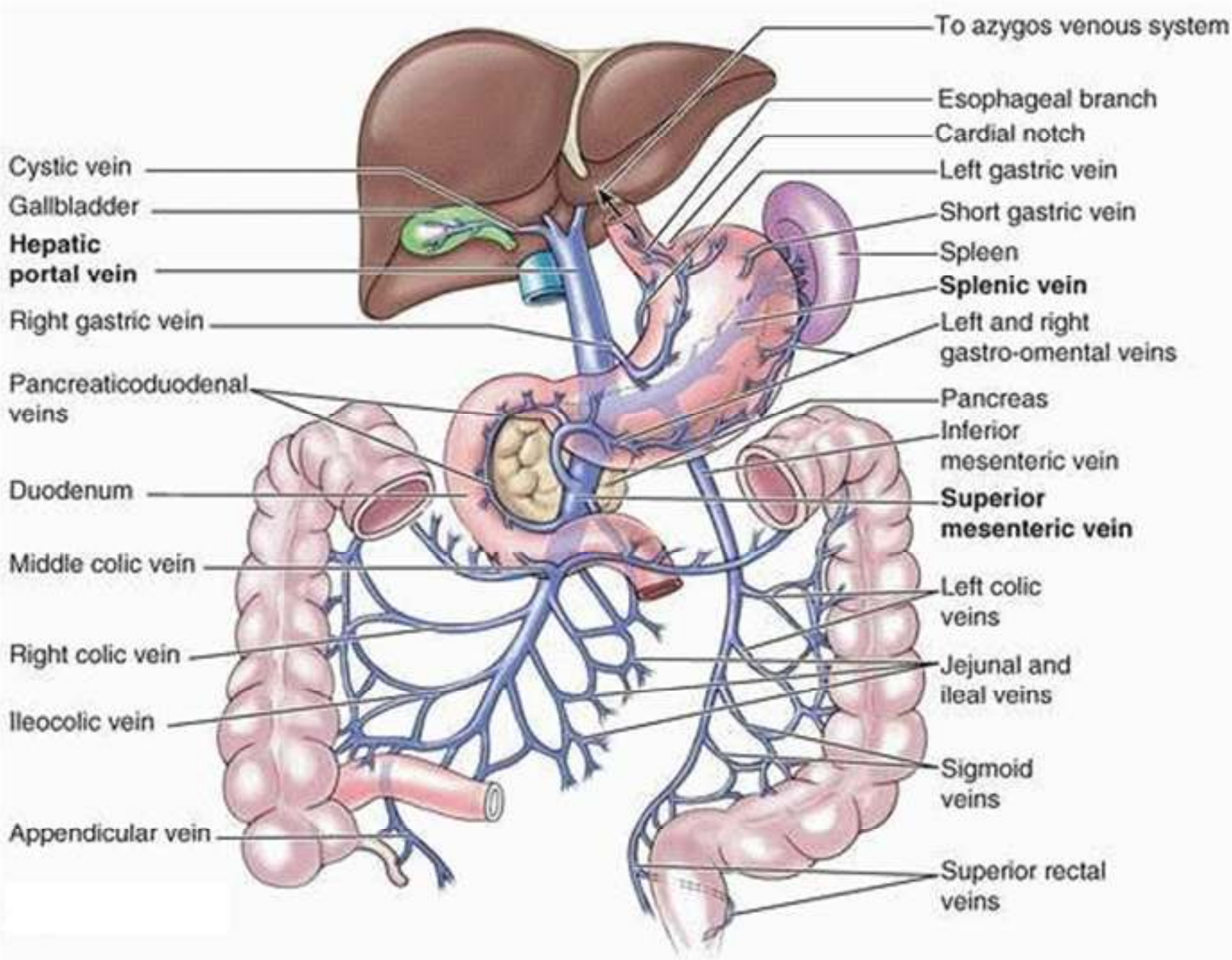
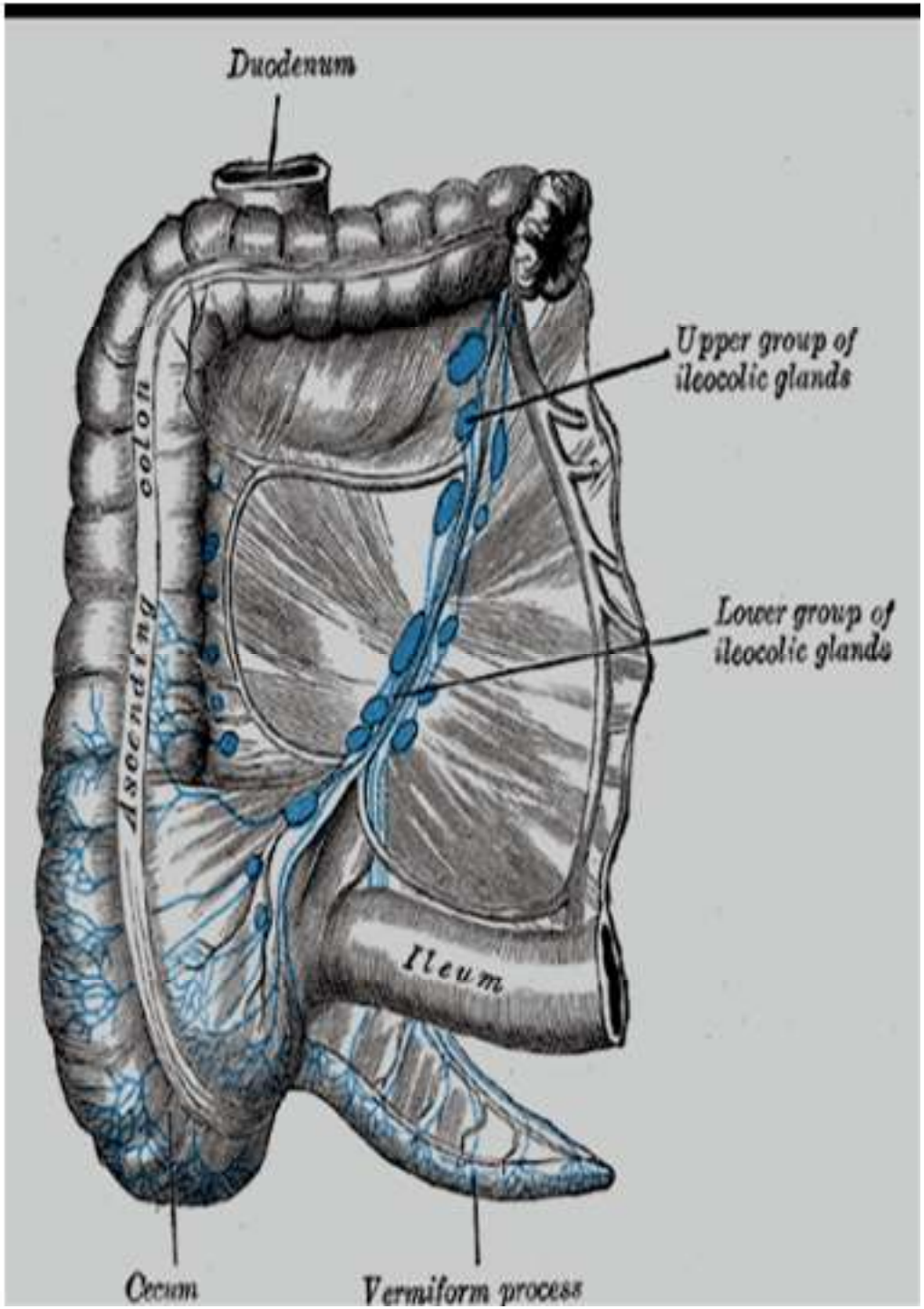

To azygos venous system
Esophageal branch
Cardial notch
Left gastric vein
Short gastric vein
Spleen
Splenic vein
Left and right gastro-omental veins
Pancreas
Inferior mesenteric vein
Superior mesenteric vein
Left colic veins
Jejunal and ileal veins
Sigmoid veins
Superior rectal veins
Cystic vein
Gallbladder
Hepatic portal vein
Right gastric vein
Pancreaticoduodenal veins
Duodenum
Middle colic vein
Right colic vein
Ileocolic vein
Appendicular vein

Lymph Drainage:

superior mesenteric nodes.

Nerve Supply:

1)sympathetic .

2)parasympathetic (vagus) nerves form the superior mesenteric plexus..