

Sigmoid colon

large bowel ← أمعاء سميكة في

■ Is of variable length **15 - 35 inch**.

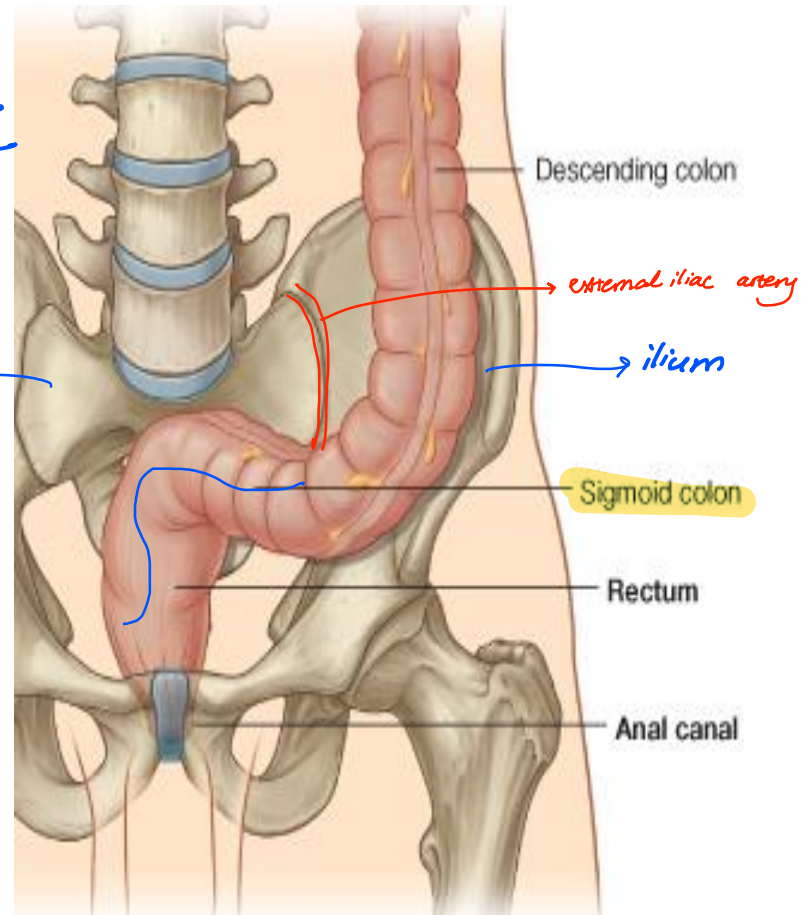
Volvelus of sigmoid colon. ← عتاء حيل عتاء يفت معاء نف. يعبراه ← 40 - 70 cm طویل
Stool ← سواد طویل

■ It start infront of **external iliac artery** at left side of pelvic inlet.

↓ ننتهي
↓ descending colon
↓ سواد
↓ Sigmoid colon.
sacrum ←

■ Ends at **3rd sacral piece** by becoming **rectum**.

■ Has **S shaped** course ,first to **Rt** then **downwards** , **backwards** and to **left**.



Relation of sigmoid colon

Urinary bladder below and in front.

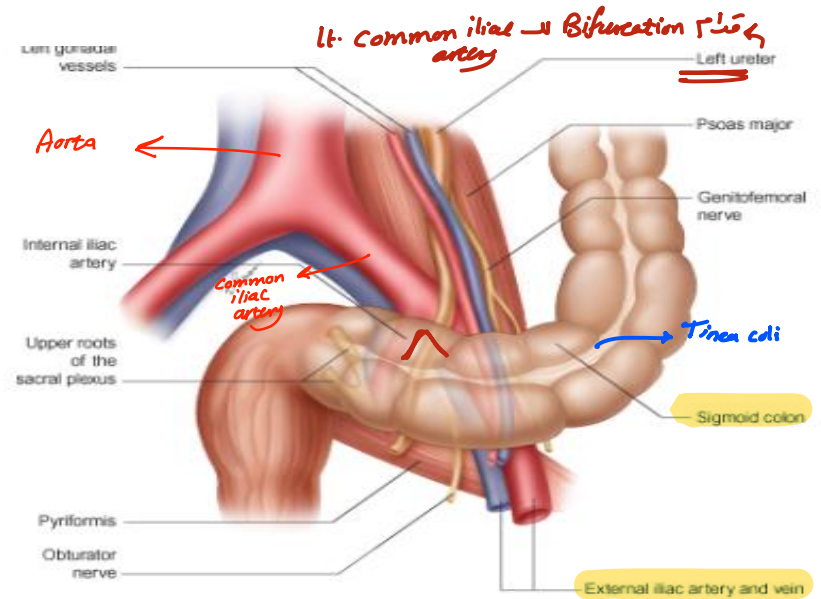
Rectum and sacrum behind.

Uterus separate it from bladder in females.

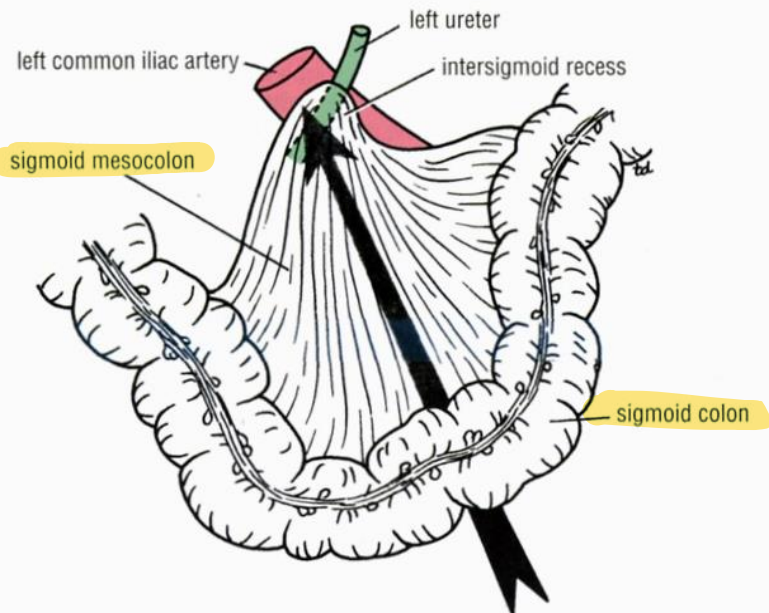
Terminal coils of ileum on its RT side

Pelvic mesocolon: inverted V shape, lateral ascending, medial descending limb

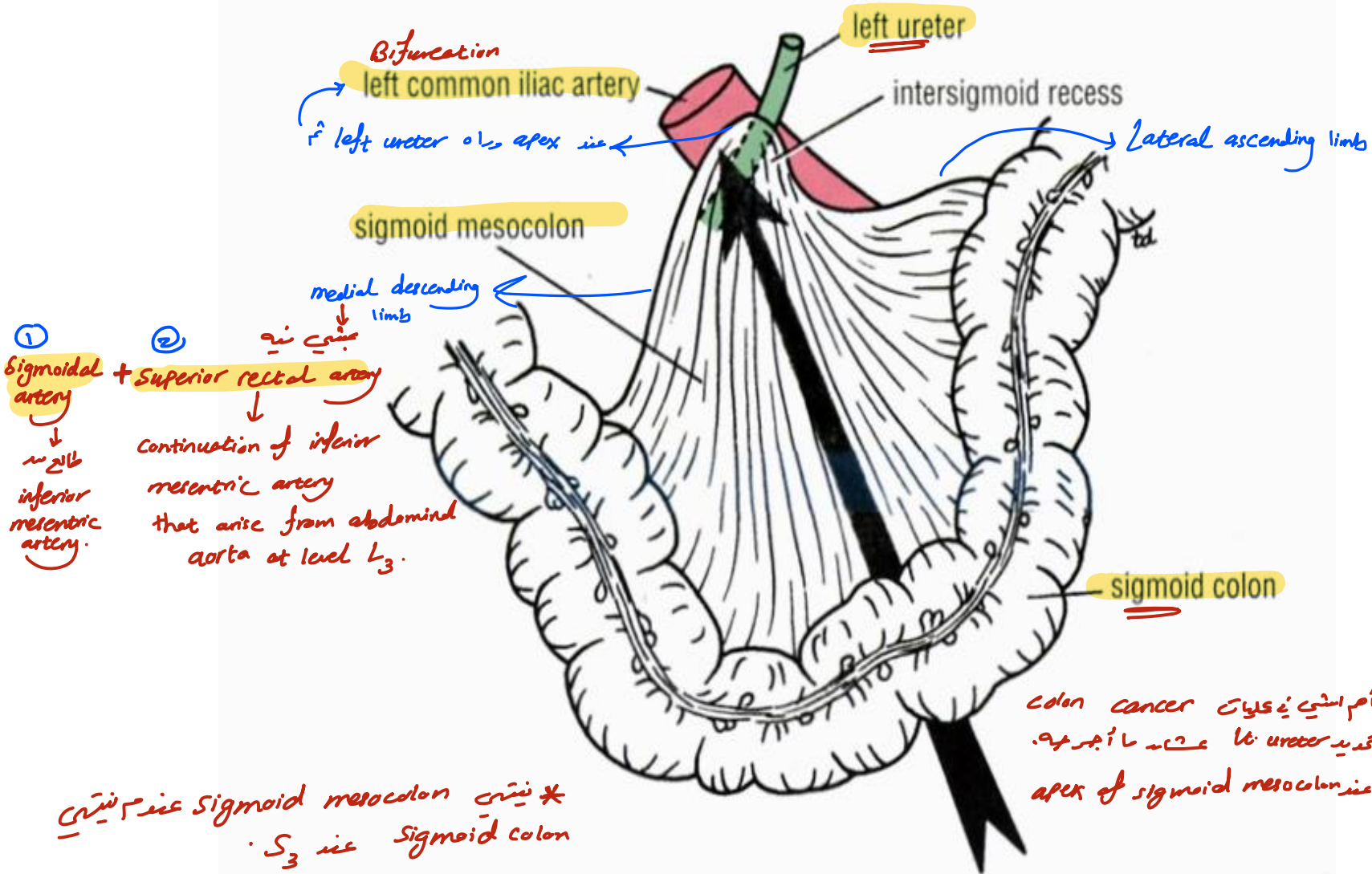
NB In apex of this fold lie left ureter, Sup rectal artery lie in descending limb.



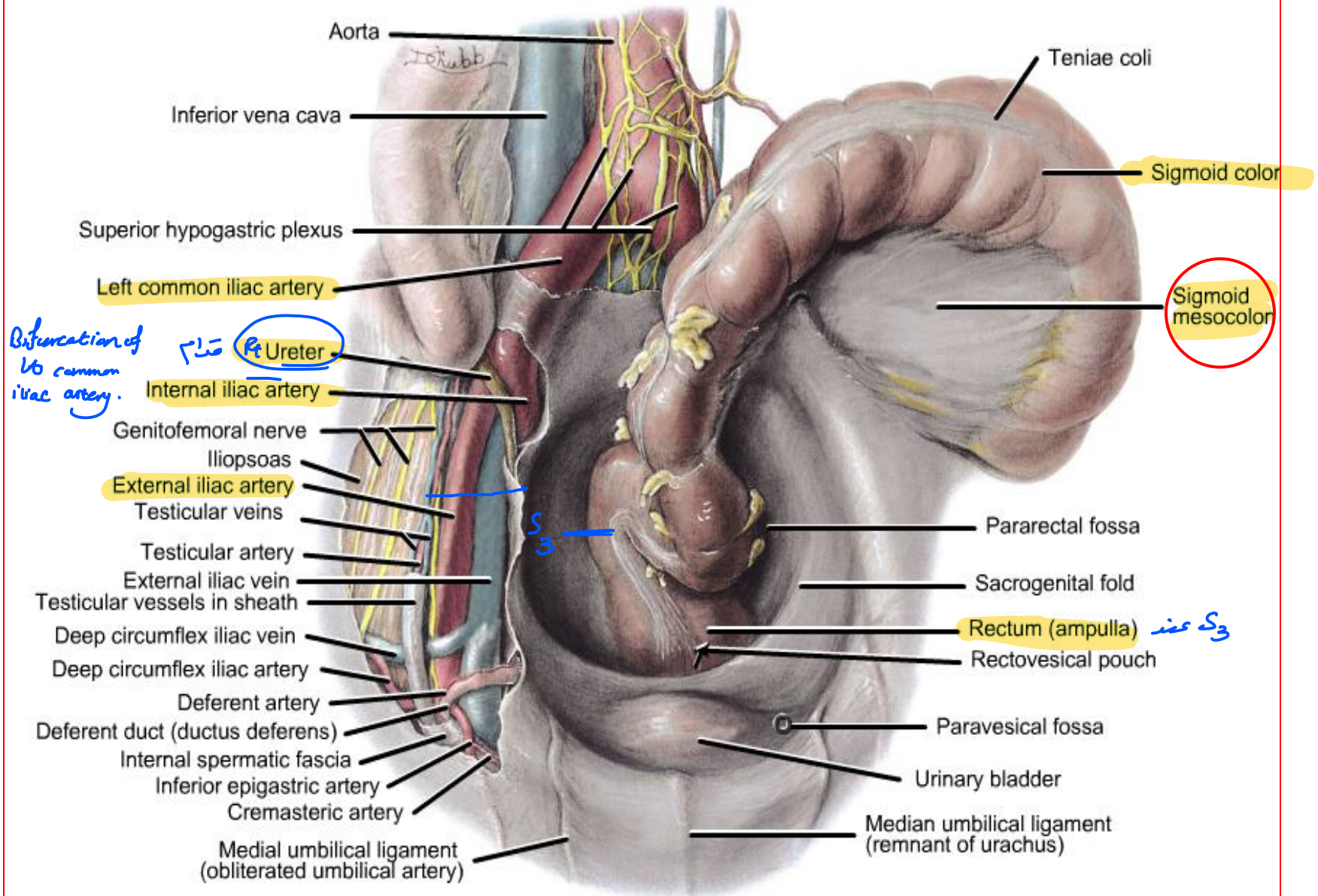
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ascending + descending ← not mobile ← retroperitoneum ← colon
 mobile ← intra-peritoneal ← mesentery ← transverse + sigmoid



colon cancer
 apex of sigmoid mesocolon
 ureter



Rectum ← آخر منطقة في colon

الطول ثابت

قبة ant. part → urinary bladder

- **5 inches long** occupy posterior part of pelvis.

- **Begins** in front 3rd sacral vertebra.

- **Descend** following concavity of sacrum.

- **End** one inch below and in front of coccyx by bending sharply downward and backward to form anal canal.

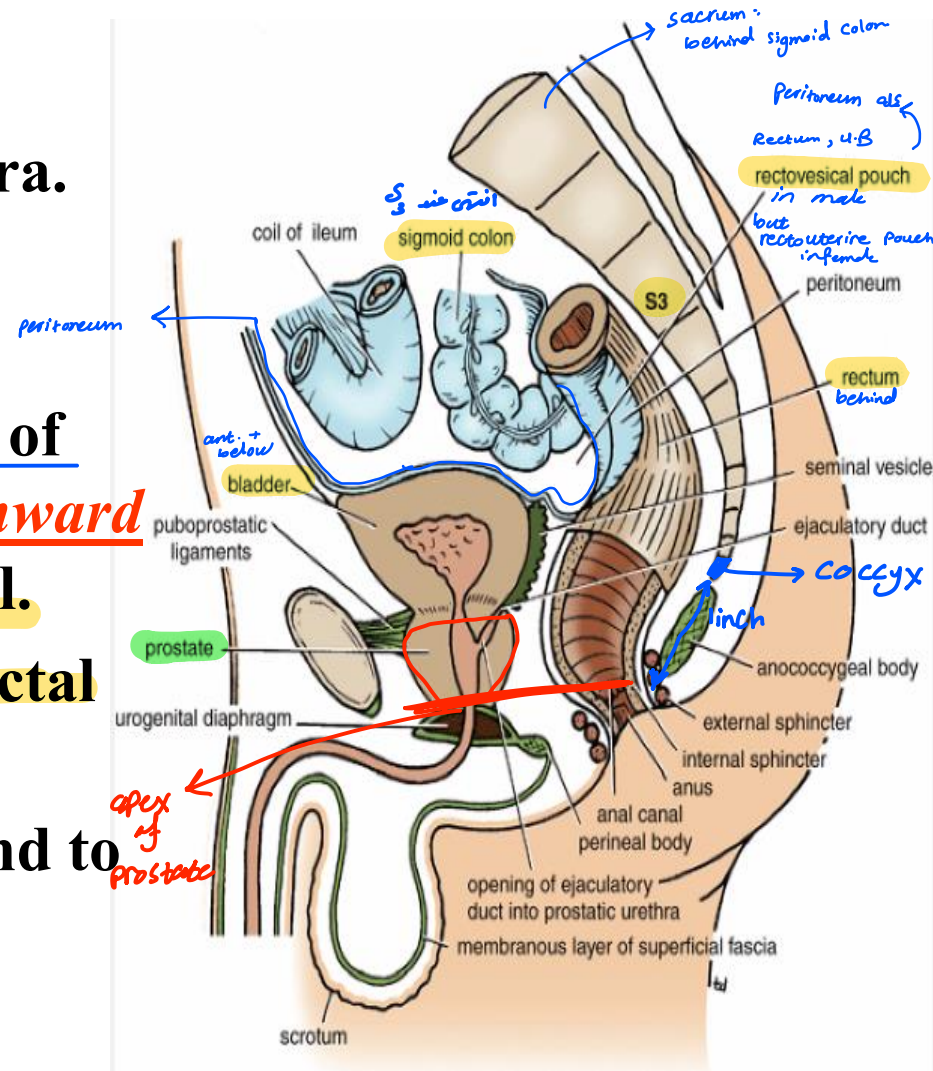
- Lower part is dilated to form **rectal ampulla**.

Rectum : Anus بين

- **NB: Recto-Anal angle** correspond to

- Apex of prostate in male .

- Lower ¼ of vagina in female.



* Male urethra (8 inch)

① prostatic urethra: dilated part inside prostate. (1.5 inch)

② membranous urethra (0.5 inch)

③ penile urethra (6 inch)

* Female urethra (1.5 inch).

Rectum

3 lateral flexions LRL
form valve of
Houston, pass 1/2 way wall
of rectum

Peritoneal covering:

Upper part front and
sides.

Middle part front only

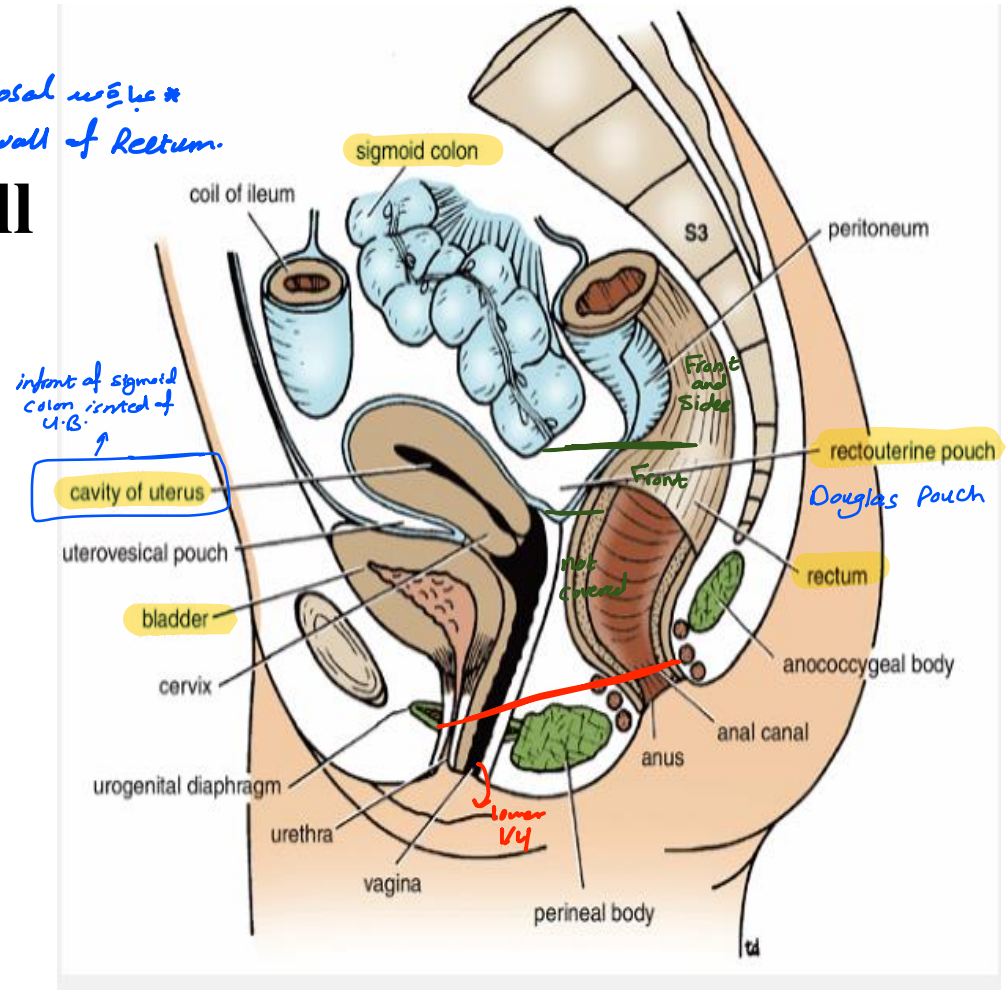
Lower part
Retroperitoneal

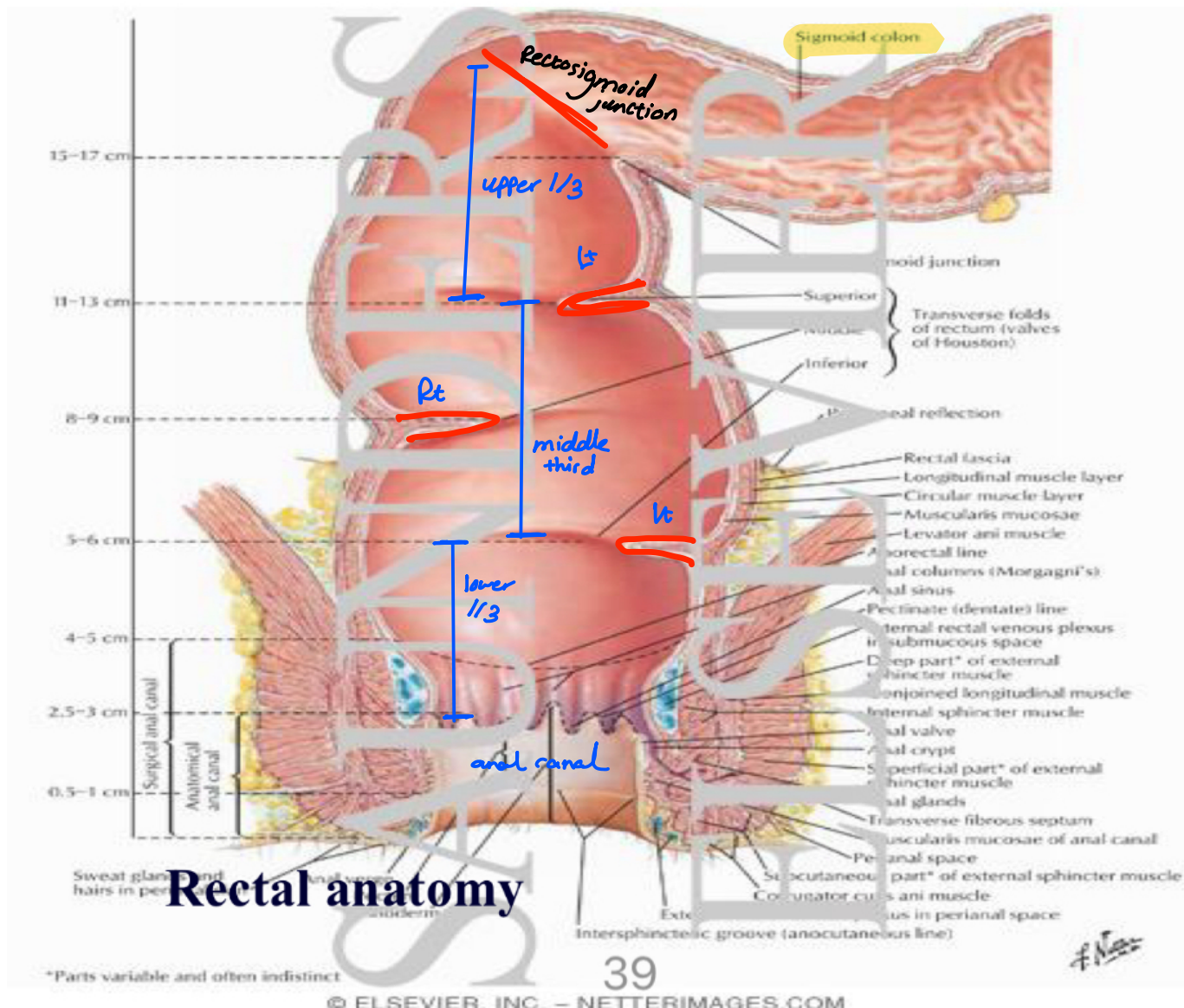
reflex of peritoneum

♀ ← uterus
or

♂ ← urinary bladder

* Rectovesical pouch و Douglas pouch
PR → per Rectum.
PV → per vagina.





* 3 Lateral flexures (valve of Houston):
Left Right Left

→ Function: sampling of stool

* ملأه خلج البراء تبعرف انه في براءه بال Rectum
+ بتفره بيه flatus (صواء رغافه) ربيبه
solid stool

Relation of rectum

Posterior relations

- Sacrum, coccyx, median sacral artery.
single artery arise from Aorta, pass behind Rectum

On each side :

- Piriformis m, sympathetic trunk, lateral sacral nerves, and vessels

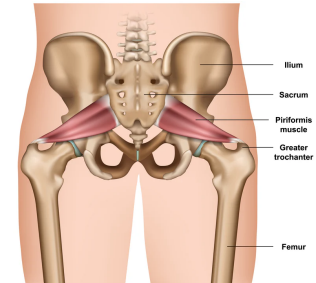
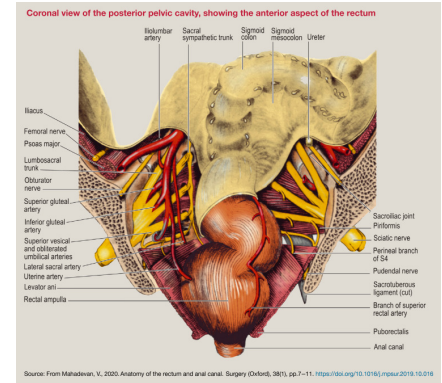
Anterior relations

• In males

- Upper 2/3 coils of small intestine. *lies in peritoneal pouch.*
- Lower 1/3 Post surface of urinary bladder.
- Ampulla of rectum prostate.

- In females: Upper 2/3 coils of intestine *lies in peritoneal pouch.*

- Lower 1/3 back of vagina, cervix



Rectum

Arterial supply:

يقسم إلى 2 branches
دنياً anal canal

Superior 1/3 superior rectal artery → continuation of inferior mesenteric artery.

Middle 1/3 middle rectal artery → arise from anterior division of internal iliac artery.

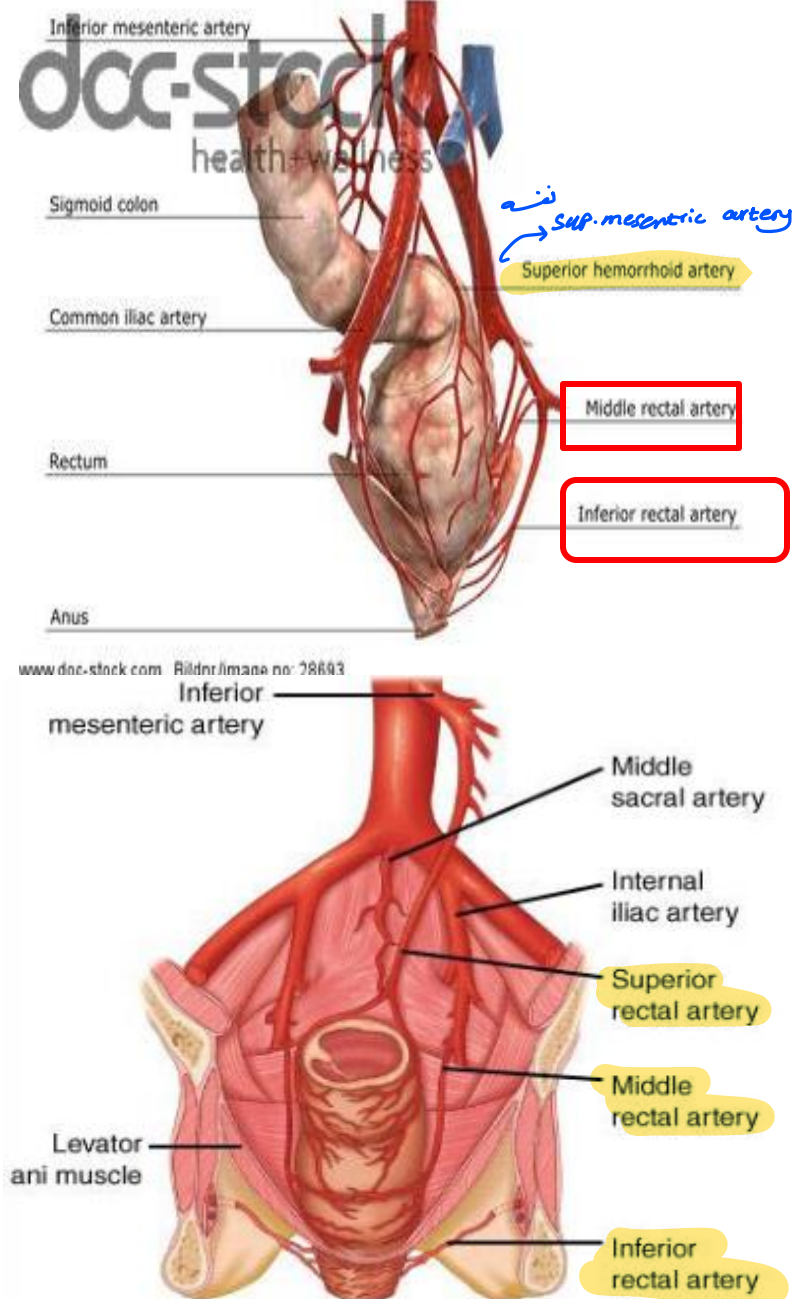
Lower 1/3 inferior rectal artery → arise from anterior division of internal iliac artery but from pudendal artery.

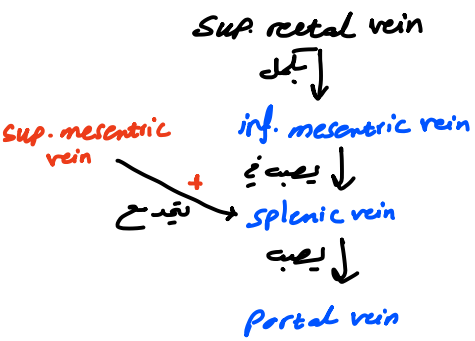
Venous drainage

liver & Celiac

Superior rectal vein portal venous system IMV → splenic vein.

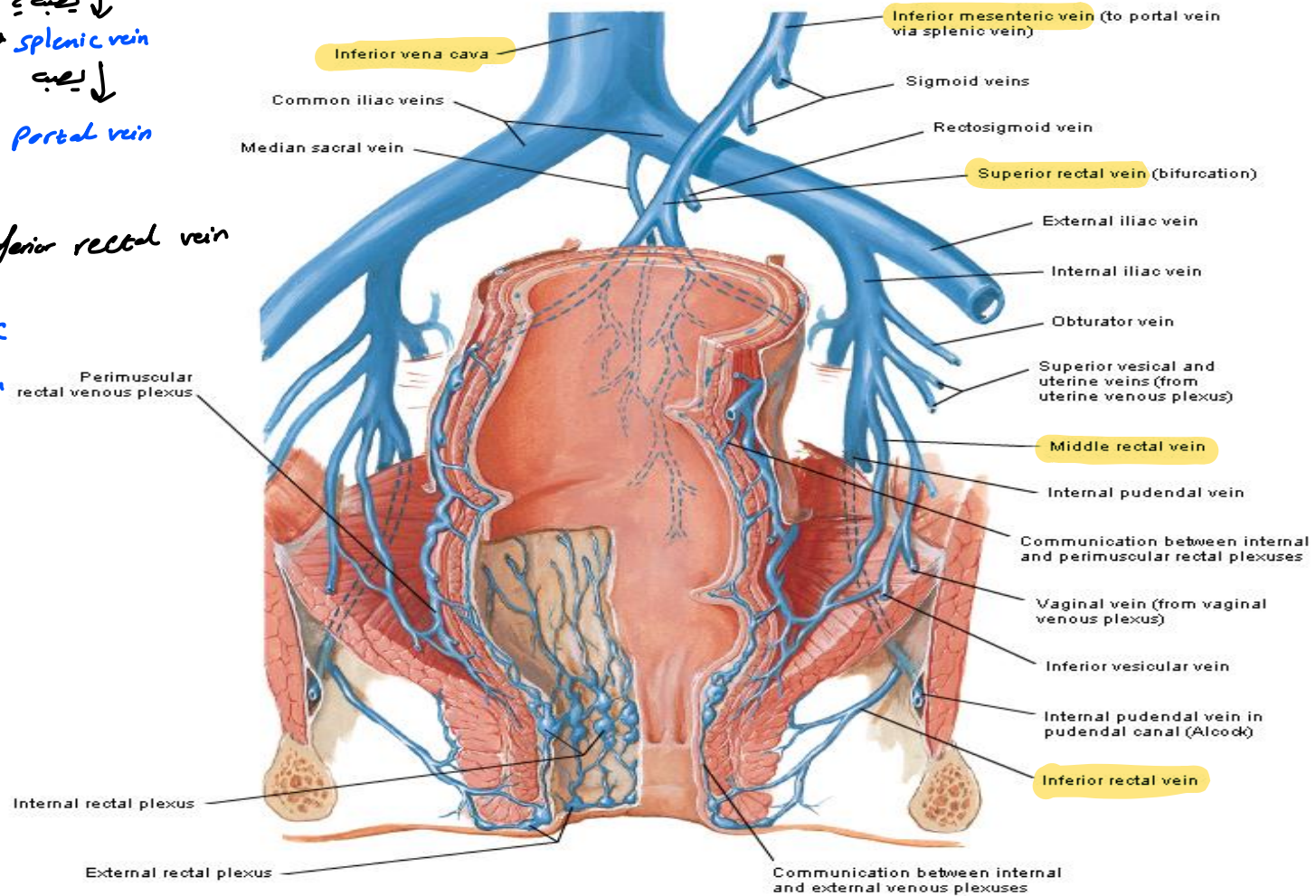
Middle, Inferior veins to systemic veins. (IVC)



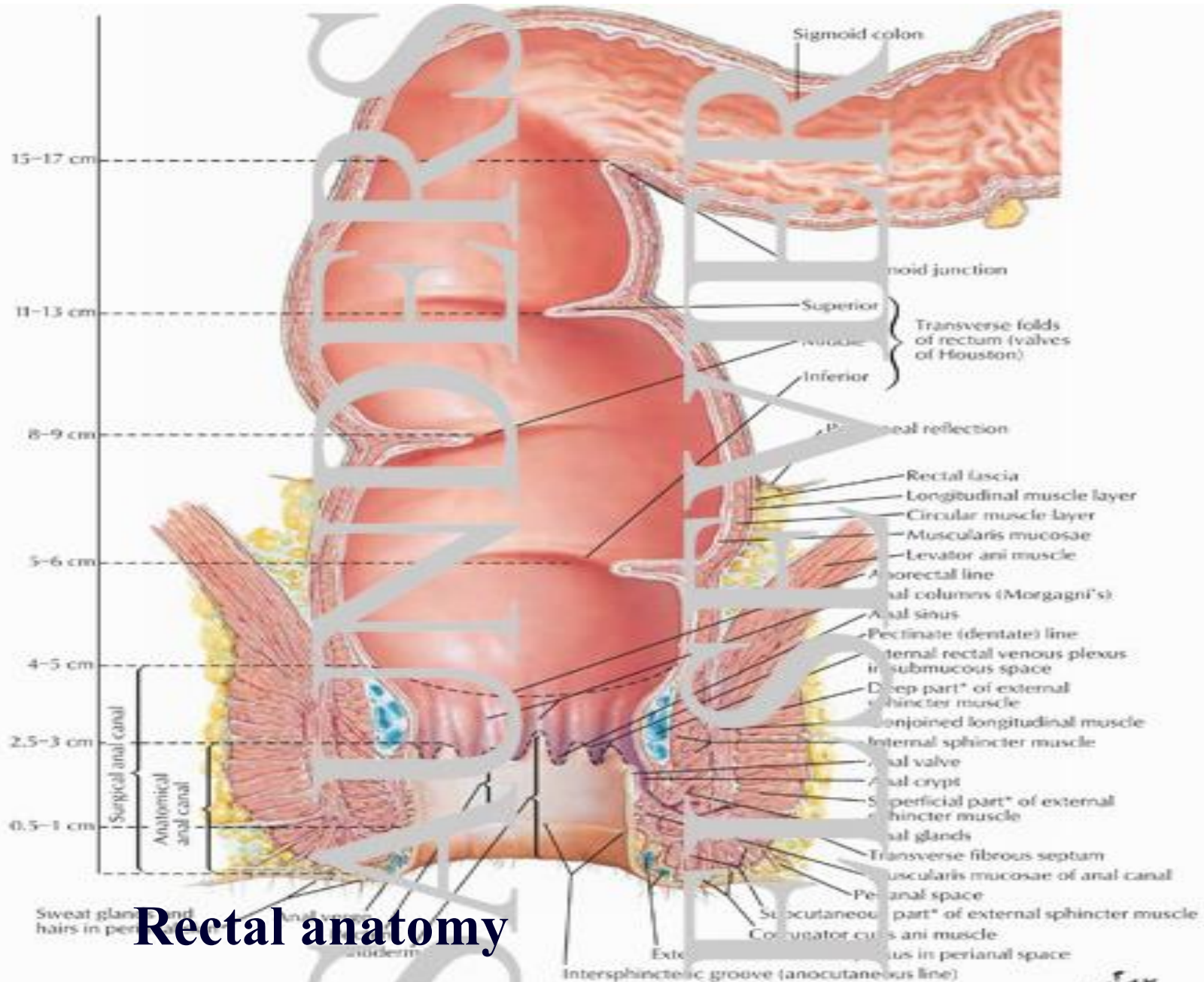


Veins of Rectum and Anal Canal

Anterior View



* Middle, inferior rectal vein
 ↓
 IVC
 ↓
 Ri. atrium



Rectal anatomy

*Parts variable and often indistinct

Difference between small and large intestine

■ Taenia coli:

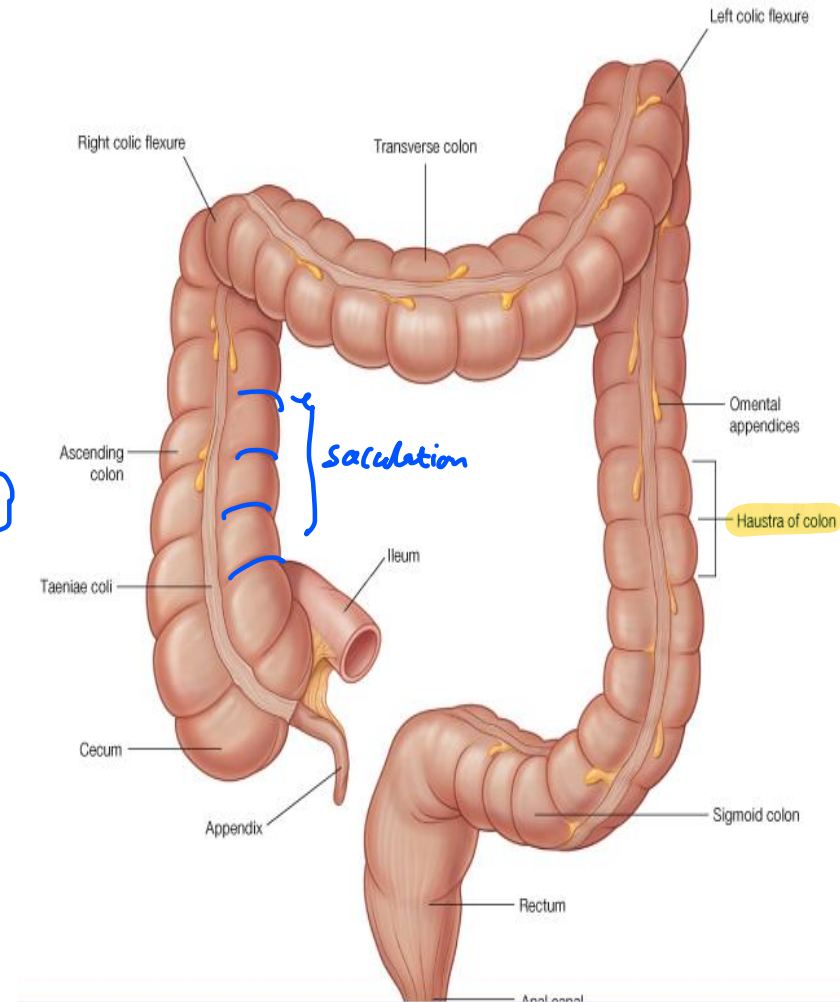
Outer long . muscle layer forming three bands, begins at base of appendix, end at junction of sigmoid and rectum. not found in appendix , or rectum. *or small intestine.*

■ Sacculations (Haustration):

Due to one foot short of Taenia coli , than colon.

■ Appendices epiploicae:

Peritoneal bag of fat, not found in rectum, caecum , appendix.



السيفير بين Rectum و sigmoid
mesentery الـ Rectum
mesentery الـ sigmoid