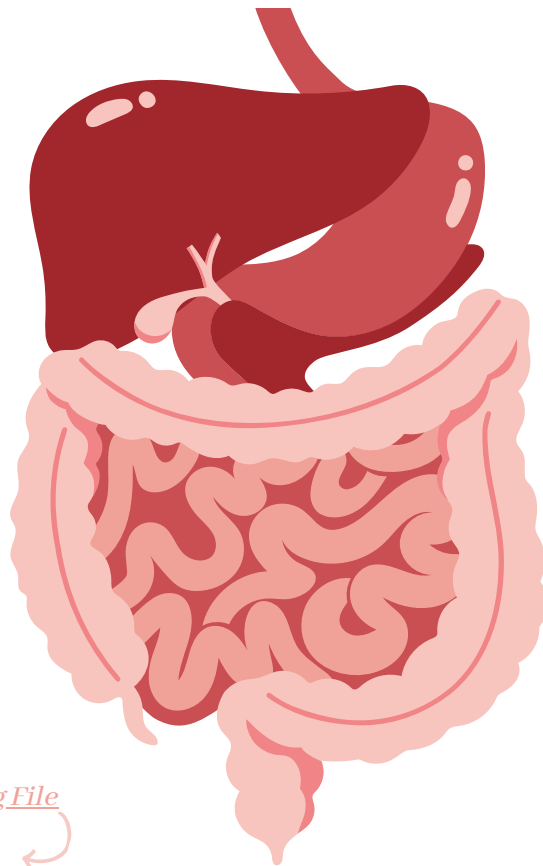




Anatomy of the Large Intestine

GNT Block



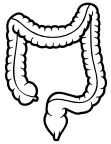
Color Index

- ◆ Main Text
- ◆ Female Slides
- ◆ Male Slides
- ◆ Drs' Notes
- ◆ Important
- ◆ Extra info

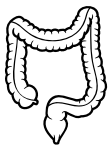
[The Editing File](#)



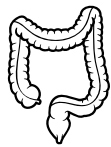
Objectives



List the different **parts** of large intestine



List the **characteristics features** of colon



Describe the anatomy of **different parts** of large intestine regarding:

- 1- The Surface Anatomy
- 2- Peritoneal Covering
- 3- Relations
- 4- Arterial & nerve supply

This lecture was presented by :

Prof. Ahmed Fathalla

Dr. Tahani Al Matrafi



You can find Atlas by [Clicking HERE!](#)

Large Intestines

Parts of Large Intestine

Abdomen

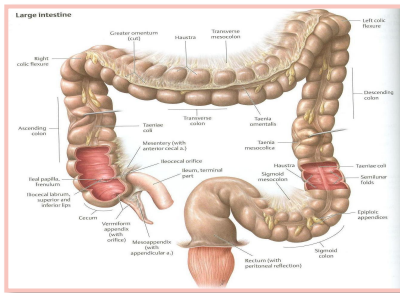
- Cecum
- Appendix
- Ascending colon
- Transverse colon
- Descending colon

Pelvis:

- Sigmoid Colon
- Rectum

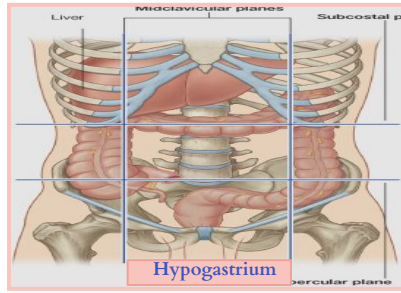
Perineum:

- Anal Canal



Right Lumbar Region

Right iliac Fossa



Left Lumbar Region

Left iliac Fossa

Peritoneal Covering

01

Parts with mesentery: **(movable)**

- Transverse colon
- Sigmoid colon
- Appendix
- Cecum

02

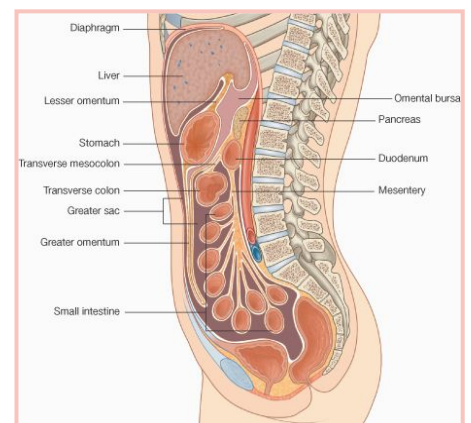
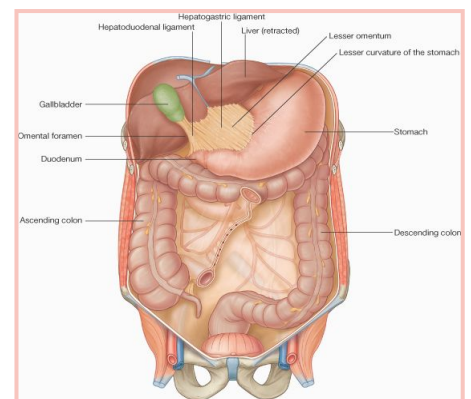
Retroperitoneal parts: **(not movable)**

- Ascending colon
- Descending colon
- Upper 2/3 of rectum

03

Parts devoid of peritoneal covering: **(Not covered by peritoneum)**

- Lower 1/3 of rectum
- Anal canal



Colic Flexure

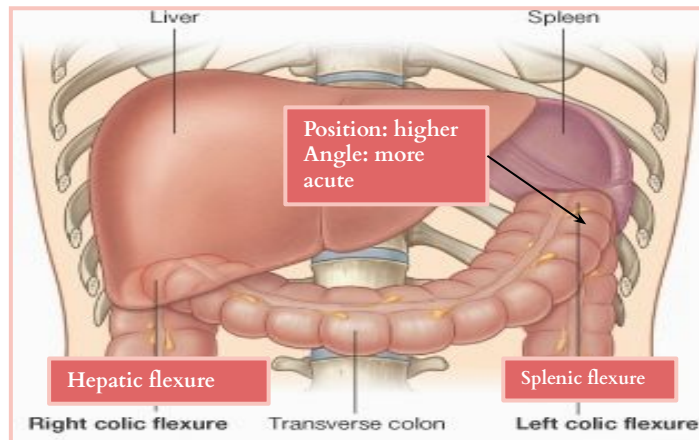
Colic Flexures

Hepatic Flexure:

(Right Colic Flexure):
Position: Lower (liver push it down)
Angle: wider

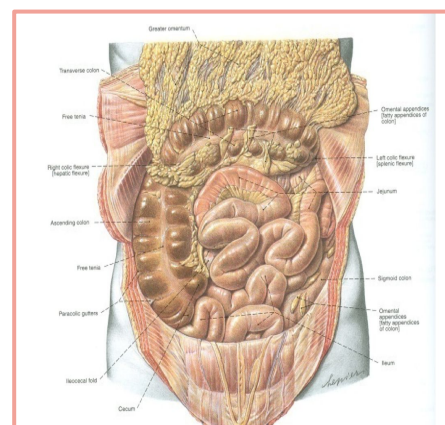
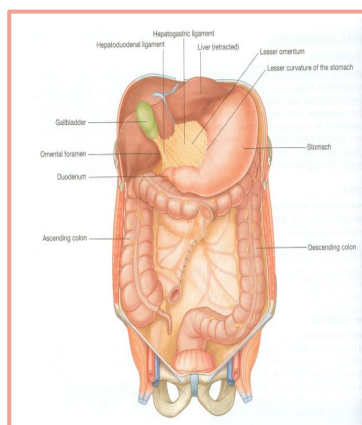
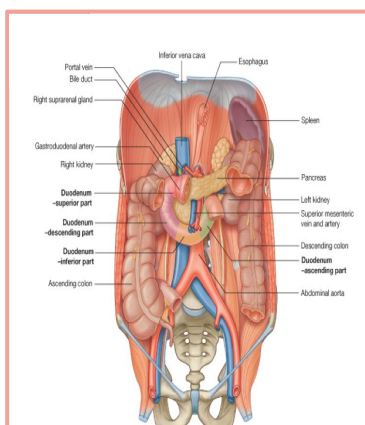
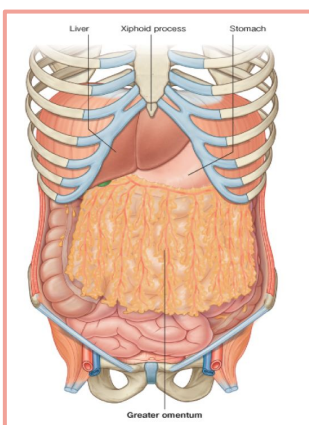
Splenic flexure:

(left colic flexure):
Position: higher
Angle: more acute



Transverse Colon Relations

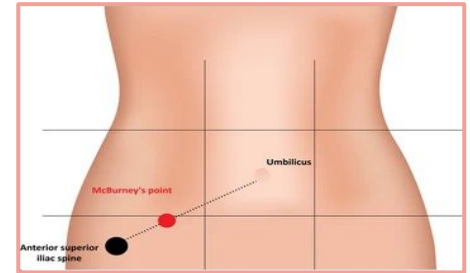
	Anterior Relation	Posterior Relation	Superior Relation	Inferior Relation
Transverse colon	<ul style="list-style-type: none"> - Greater omentum. - Anterior abdominal wall. 	<ul style="list-style-type: none"> - 2nd part of duodenum. - Head of pancreas. - Superior mesenteric vessels. - Coil of small intestine. 	<ul style="list-style-type: none"> - Liver. - Gallbladder. - stomach. 	<ul style="list-style-type: none"> - Coils of small intestines.



Appendix

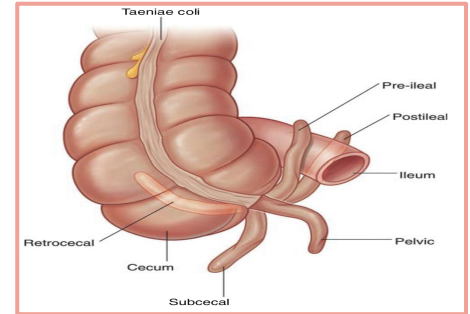
Surface area

The base of appendix is marked Surface by **McBurney's point**: A point at the junction of lateral 1/3 & medial 2/3 of a line traced from right anterior superior iliac spine to umbilicus.



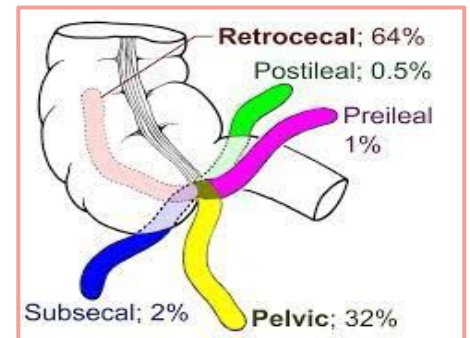
Opening

At posteromedial aspect of cecum, 1 inch below ileo-cecal junction.

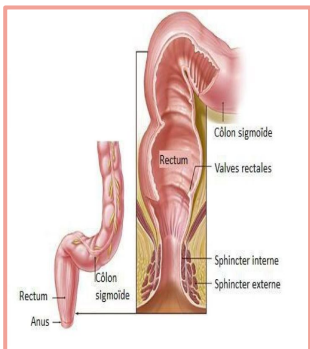


Positions

1. **Retrocecal**: (most common site for appendicitis)
 2. Pelvic.
 3. Subcecal.
 4. Preileal.
 5. **Postileal**: (least common.)
- if the appendix in any position rather than (1) the cecum will be without mesentery



Rectum



Beginning: As a continuation of sigmoid colon at **level of S3**

Termination: continues as anal canal, one inch below and in front of tip of coccyx. Its end is dilated to form the rectal ampulla.

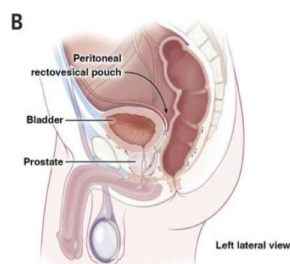
Length: 13 cm (5 inches).

Relations of Rectum in Pelvis

In males

Anterior :

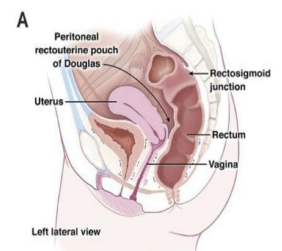
1. Posterior surfaces of urinary bladder
2. Seminal vesicles
3. Prostate gland



In females

Anterior:

Posterior wall of vagina



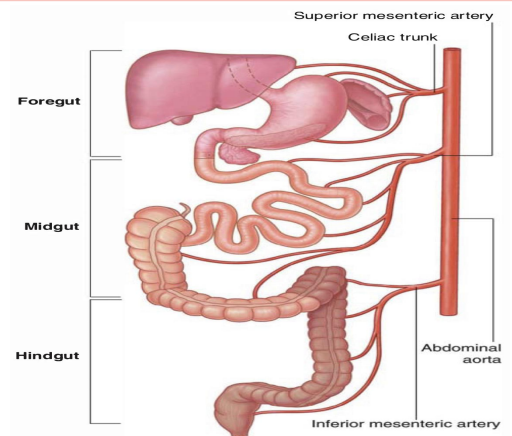
Posterior:

1. Sacral plexus
2. Sacrum
3. Coccyx

Relation Between Embryological Origin of GIT and Supply

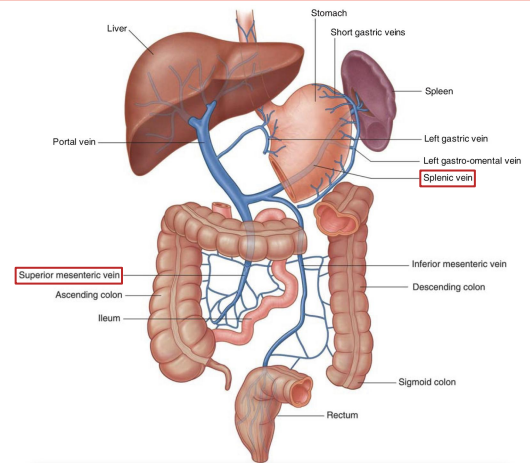
Arterial Supply

- 1-Foregut: **celiac trunk**
- 2-Midgut (endoderm): **Superior Mesenteric Artery**
- 3-Hindgut (endoderm): **Inferior Mesenteric Artery**
- 4-Ectoderm: **Inferior Rectal Artery**



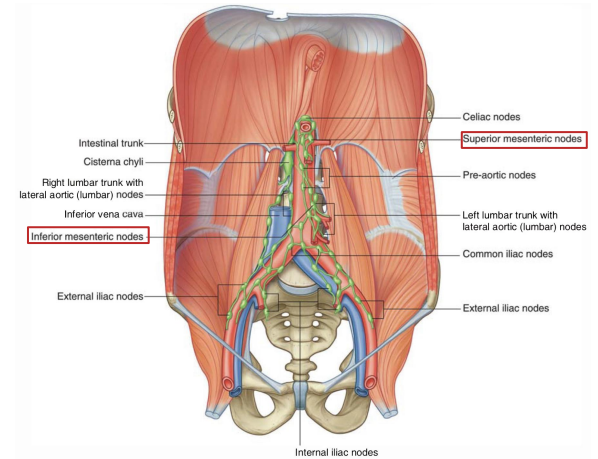
Venous Drainage

The veins of the gut form the tributaries of the portal vein which enters the liver and drains into the **Portal Circulation**.
 Either direct to the portal vein or from Superior mesenteric vein or Inferior mesenteric vein to the Portal.



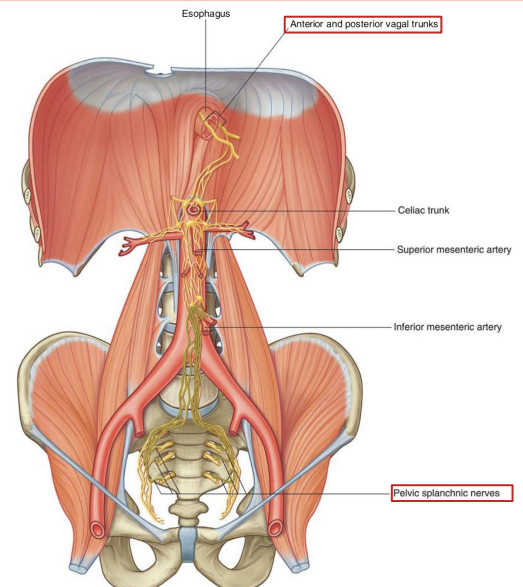
Lymph Drainage of GIT

- The lymph vessels follow the arteries.
- Ultimately, all the lymph is collected at the **Preaortic lymph nodes** (Superior & Inferior mesenteric).
- Then to **Celiac LN**



Nerve Supply & Its Embryological Origin

- **Origin:** Midgut (endoderm)
- **Nerve supply :**(Autonomic) Sympathetic + **Vagus**
- **Origin:** Hindgut (endoderm)
- **Nerve supply:**(Autonomic) Sympathetic + **pelvic splanchnic nerves (S2,S3,S4)**.
- **Origin:** **ectoderm (lower 1/3 of anal canal)**.
- **Nerve Supply:** **Somatic (inferior rectal)** (branch of pudendal nerve).



MCQs

Q1. Which of the following is NOT a part of the large intestine?

A. Cecum

B. Sigmoid colon

C. Jejunum

D. Ascending colon

Q2. Which of the following is completely covered by the peritoneum?

A. Ascending colon

B. Cecum

C. Lower $\frac{1}{3}$ of the rectum

D. All of the above

Q3. The splenic flexure is positioned higher and has a more acute angle compared to the?

A. Hepatic flexure

B. Rectosigmoid flexure

C. Ileocecal valve

D. Sigmoid flexure

Q4. McBurney's point, used to locate the base of the appendix, is found at the junction of?

A. Right anterior superior iliac spine and umbilicus

B. Left anterior superior iliac spine and umbilicus

C. Right anterior superior iliac spine and pubic symphysis

D. Left anterior superior iliac spine and pubic symphysis

Q5. The rectum terminates and continues as the?

A. Descending colon

B. Sigmoid colon

C. Cecum

D. Anal canal

Q6. The arterial supply to the hindgut (endoderm) is provided by the?

A. Celiac trunk

B. Superior mesenteric artery

C. Inferior mesenteric artery

D. Inferior rectal artery

A1. C A2. B A3. A A4. A A5. D A6. C

FOR ANKI FLASHCARDS



OR [CLICK HERE](#)

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