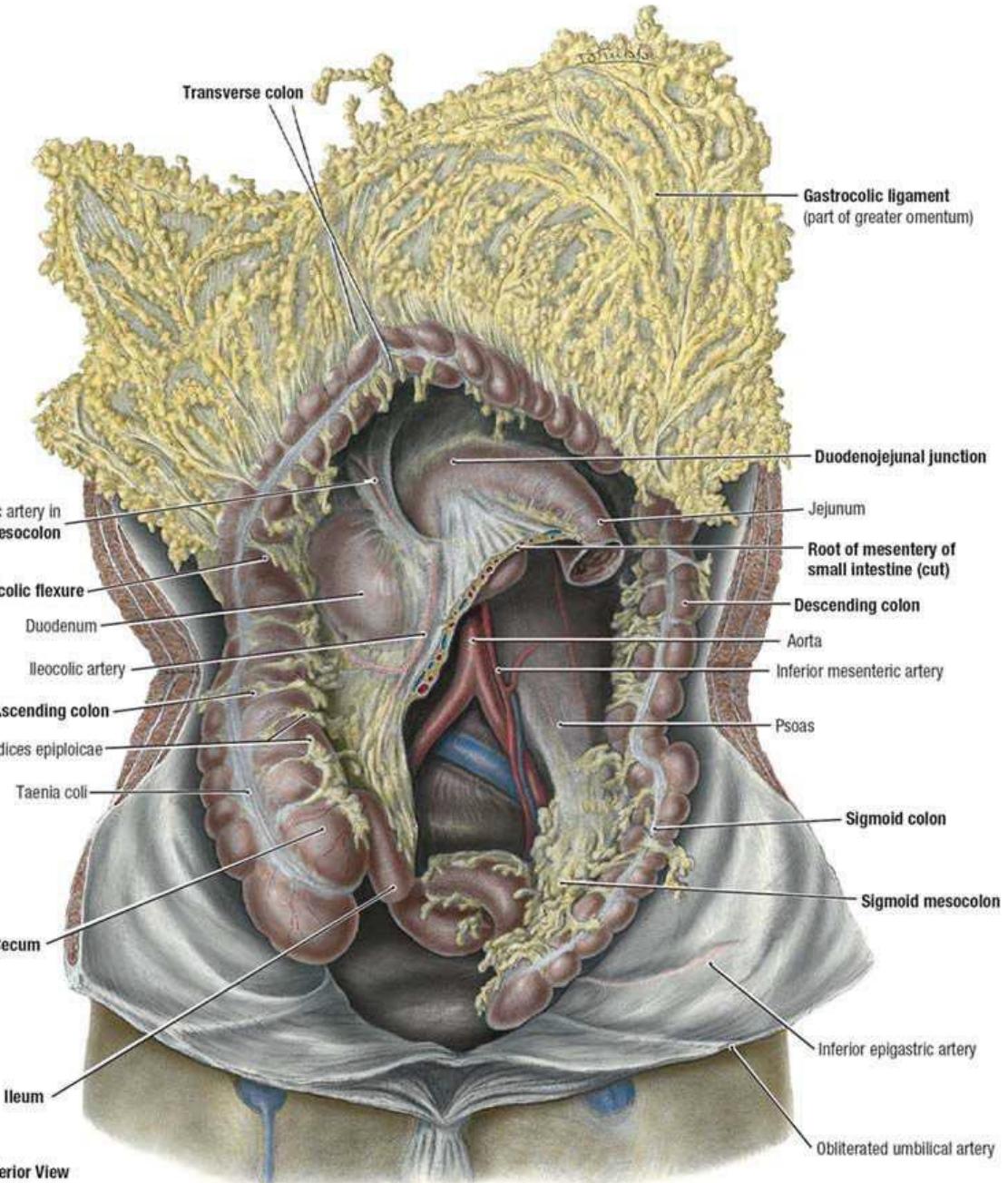
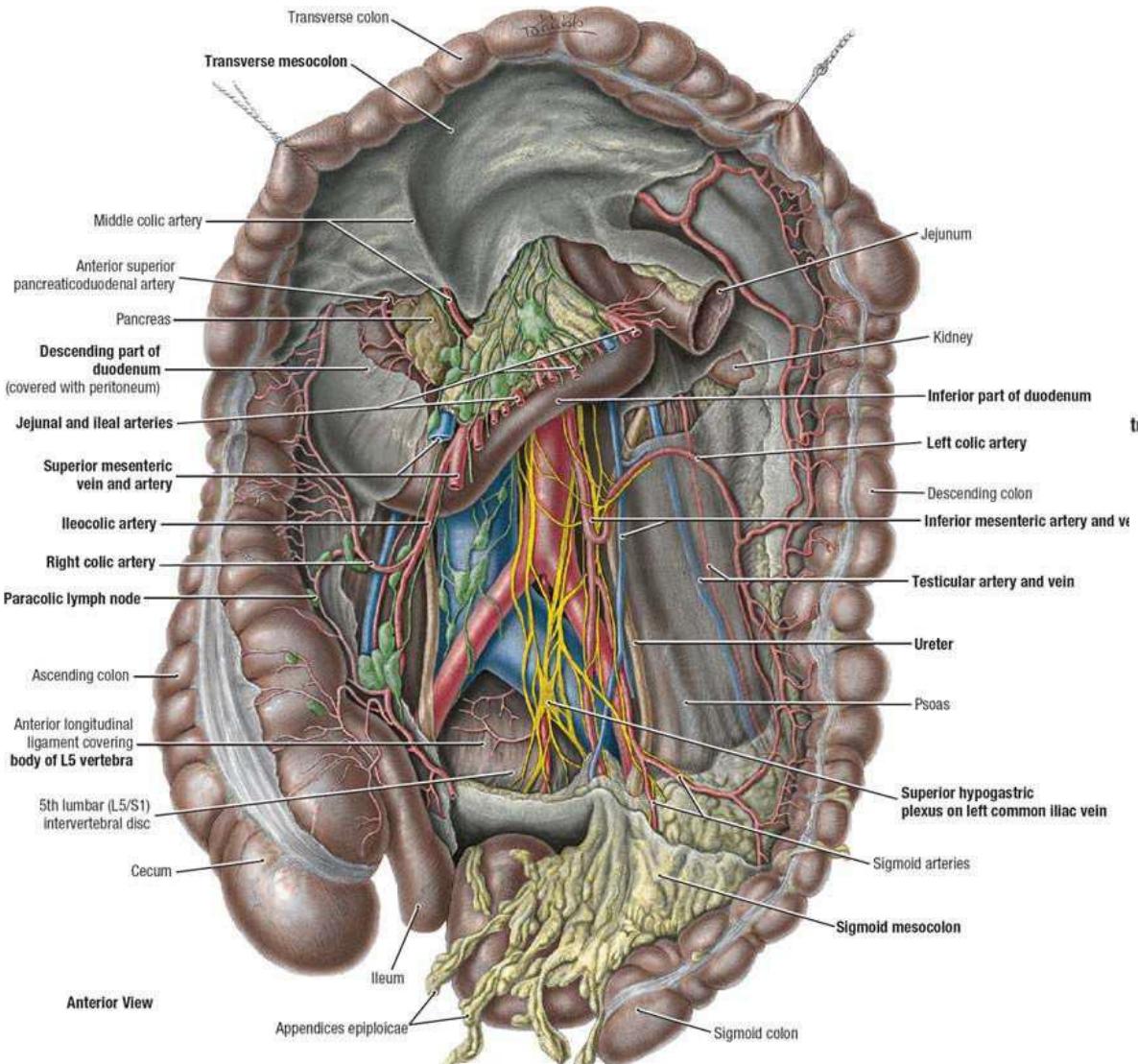
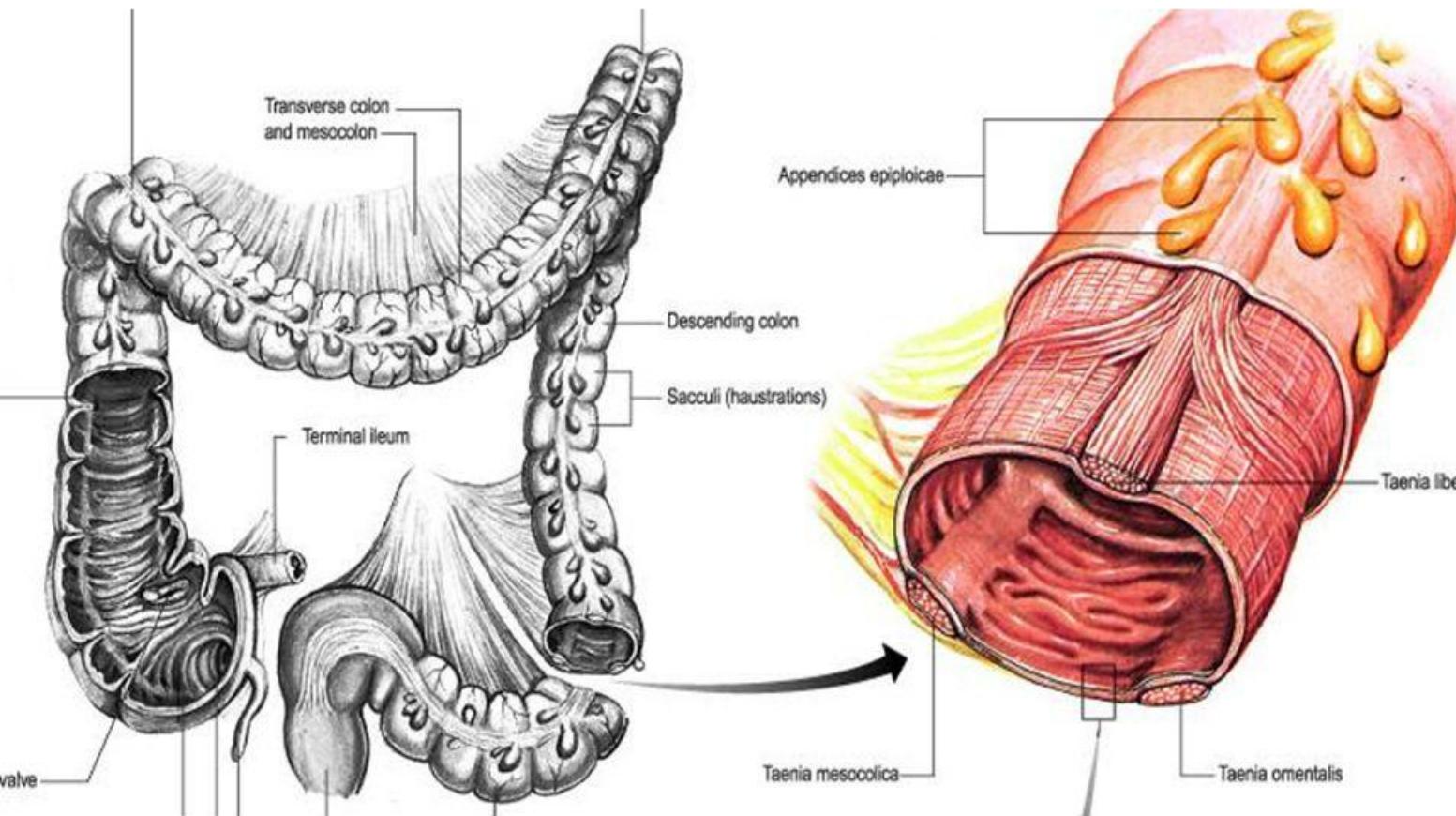


# Large intestine – Intestinum crassum - overview

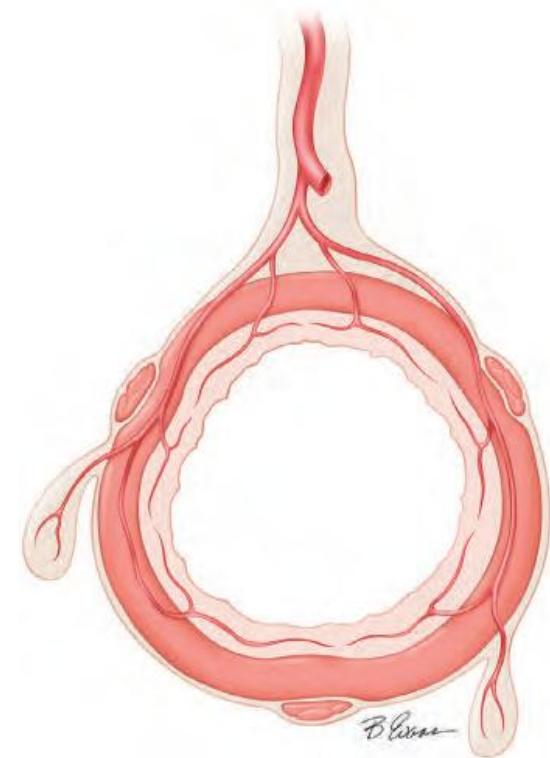
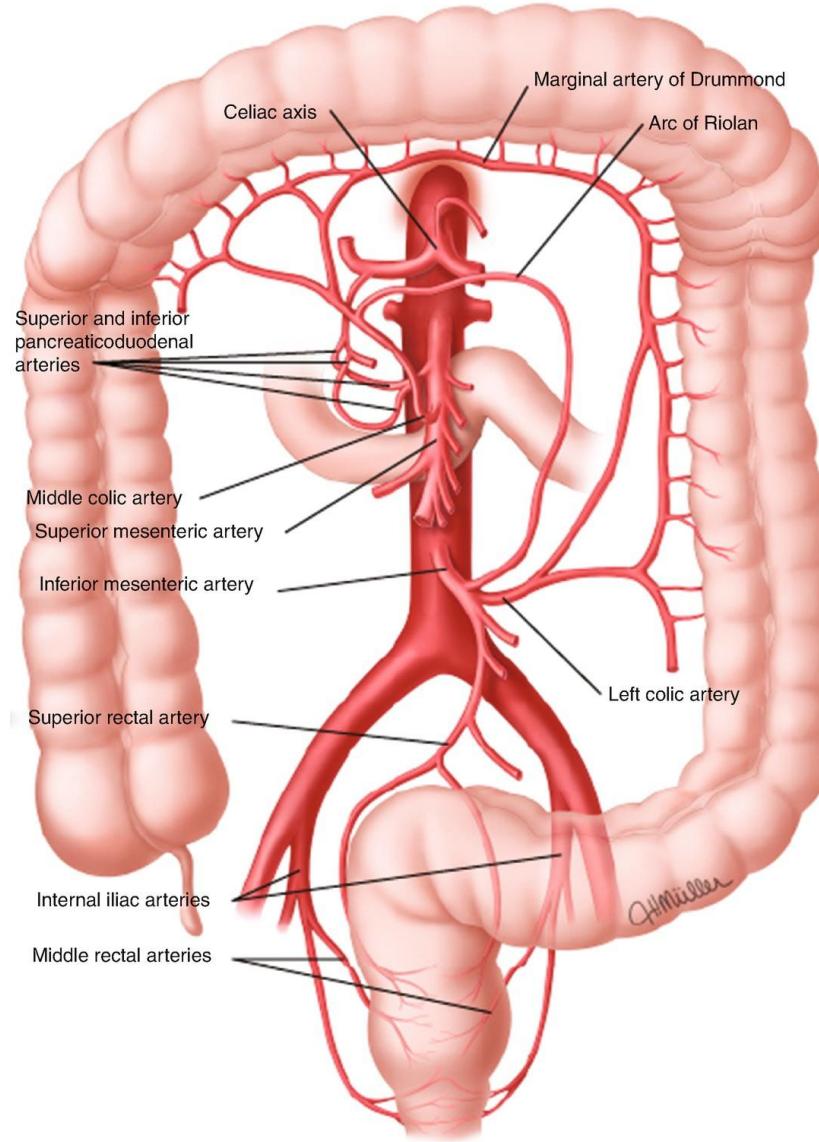
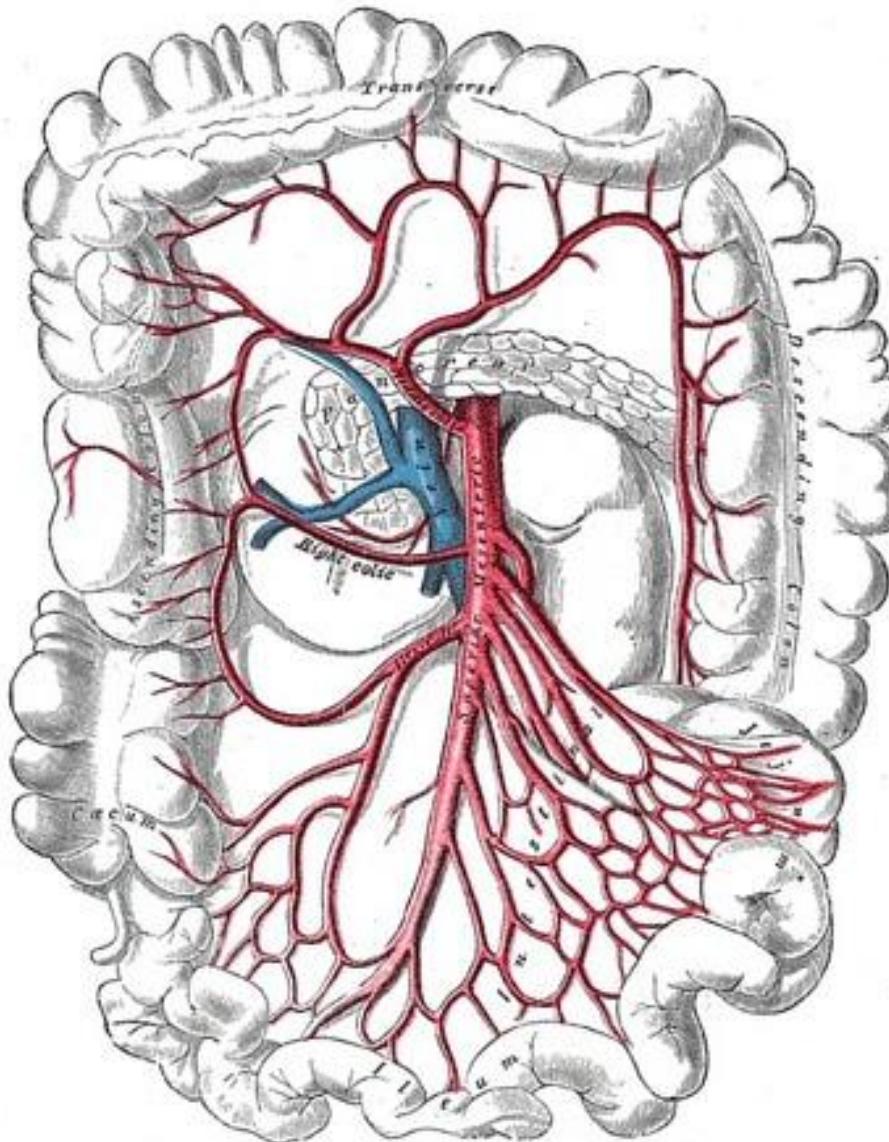


## Large intestine – general features

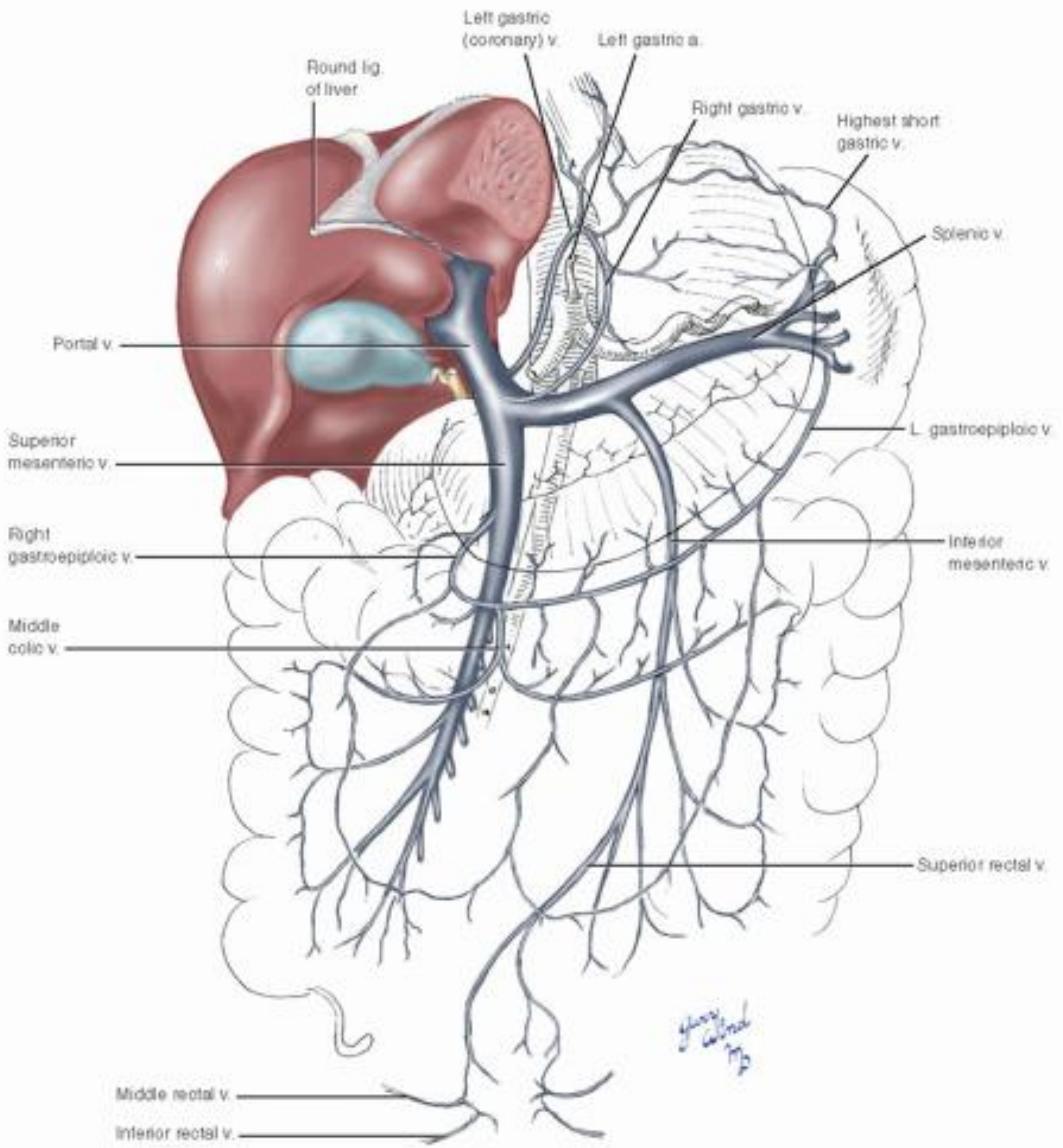
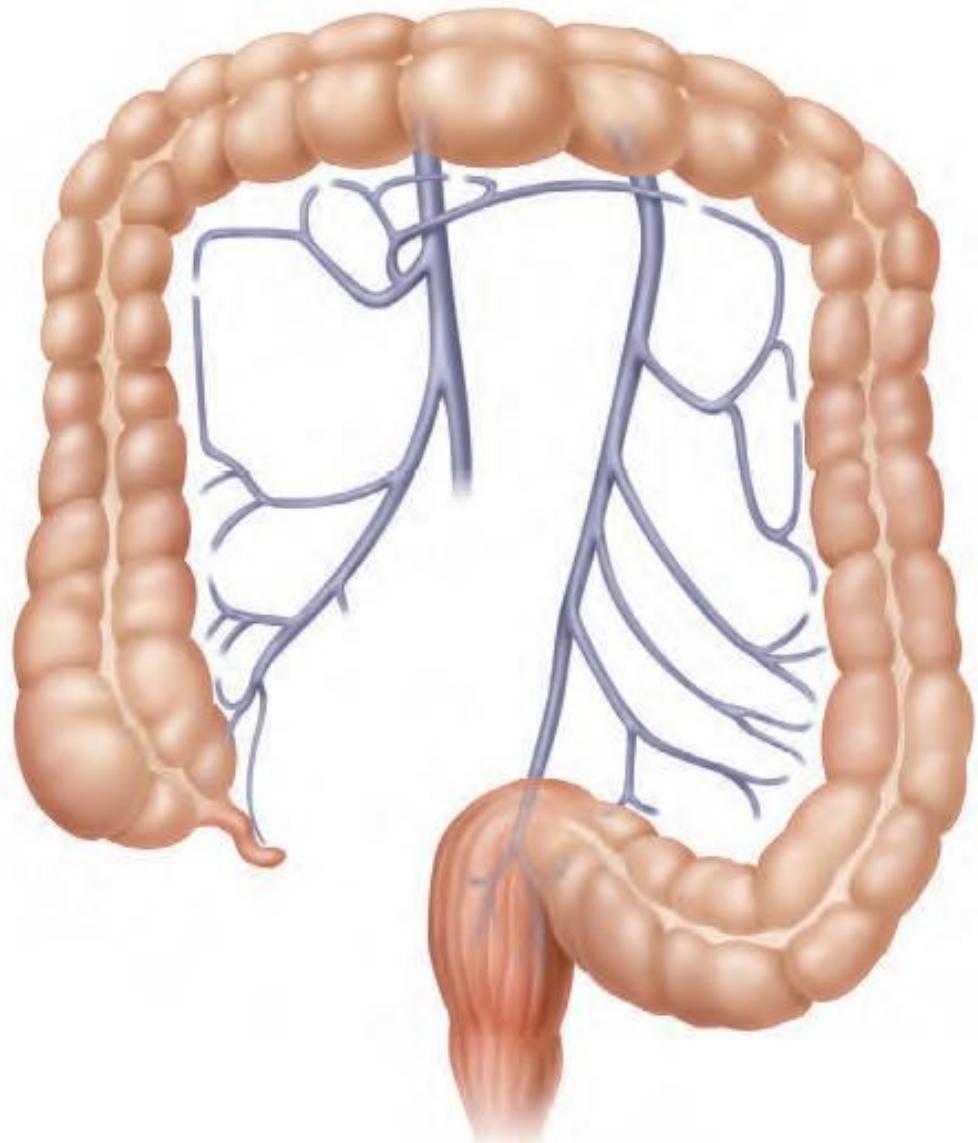
- Appendices epiploicae
- Haustration
- Taenia coli



## Large intestine blood supply

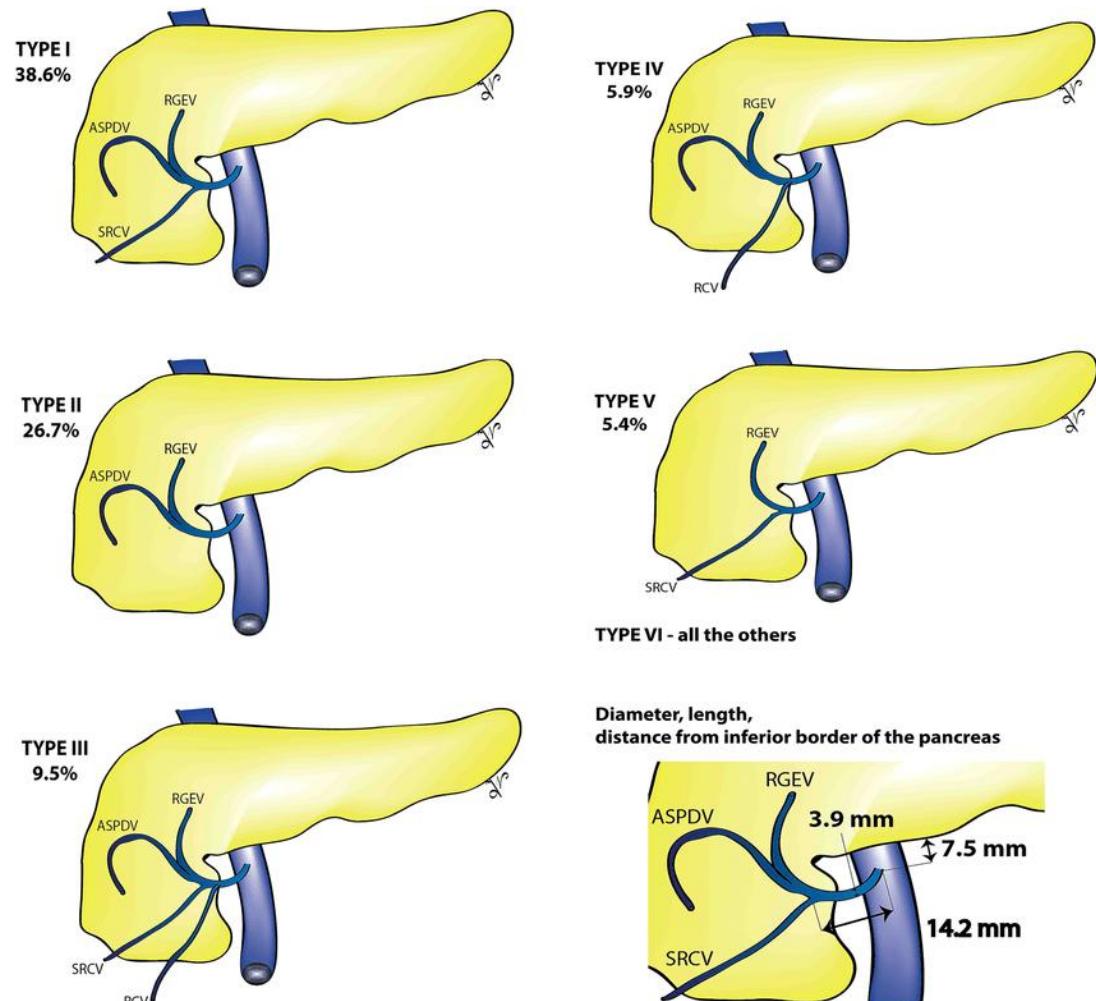


# Venous drainage of the colon and rectum

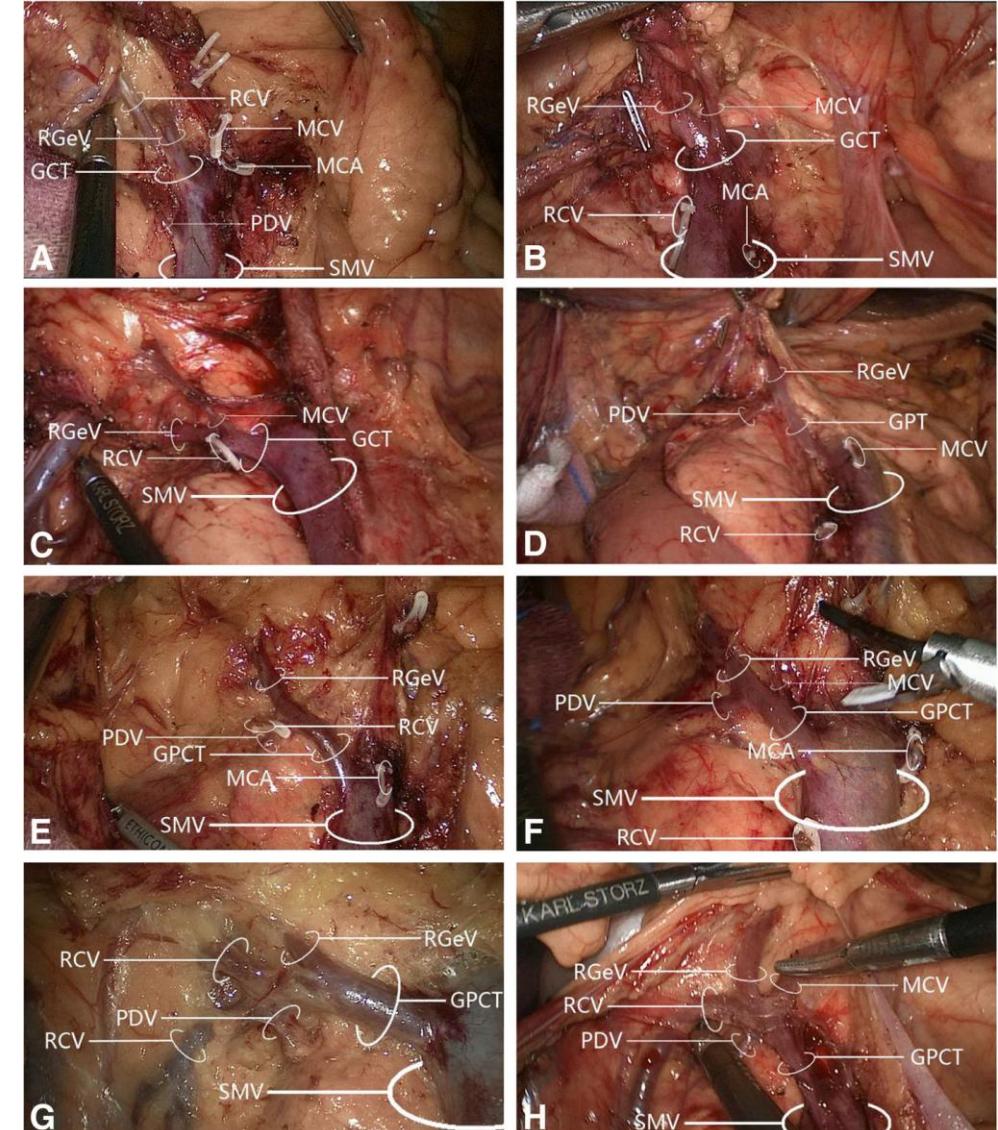


# Trunk of Henle

## Results from a meta-analysis



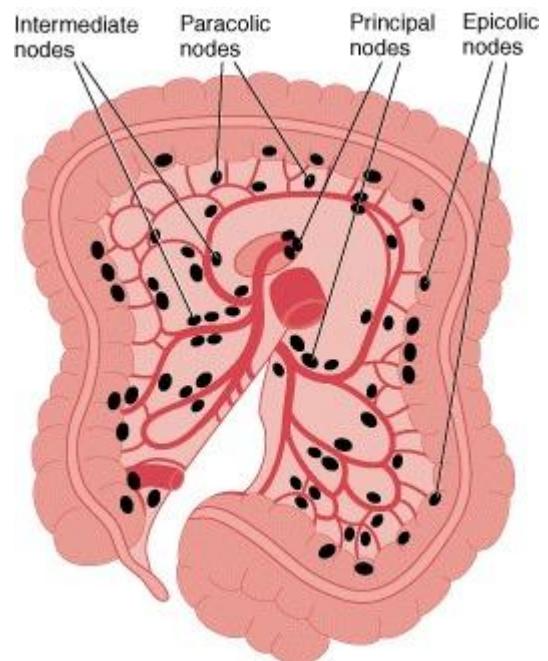
## Laparoscopic right hemicolectomy Intraoperative findings



Negoi, I., Beuran, M., Hostiuc, S., Negoi, R. I., & Inoue, Y. (2018). Surgical Anatomy of the Superior Mesenteric Vessels Related to Pancreaticoduodenectomy: a Systematic Review and Meta-Analysis. *Journal of Gastrointestinal Surgery*, 22(5), 802–817. doi:10.1007/s11605-018-3669-1

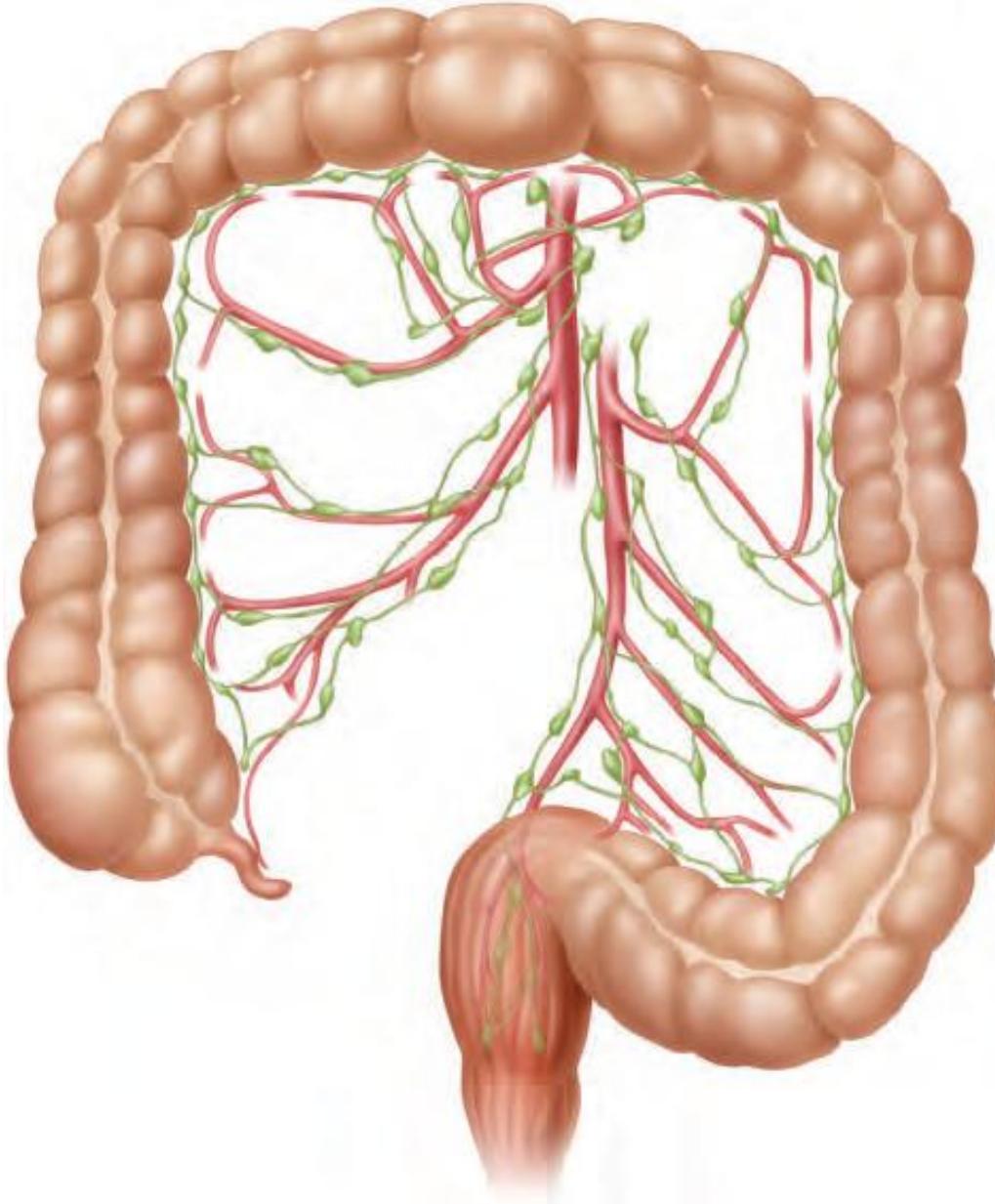
Wu, C., Ye, K., Wu, Y., Chen, Q., Xu, J., Lin, J., & Kang, W. (2019). Variations in right colic vascular anatomy observed during laparoscopic right colectomy. *World Journal of Surgical Oncology*, 17(1). doi:10.1186/s12957-019-1561-4

# Lymphatic drainage of the colon

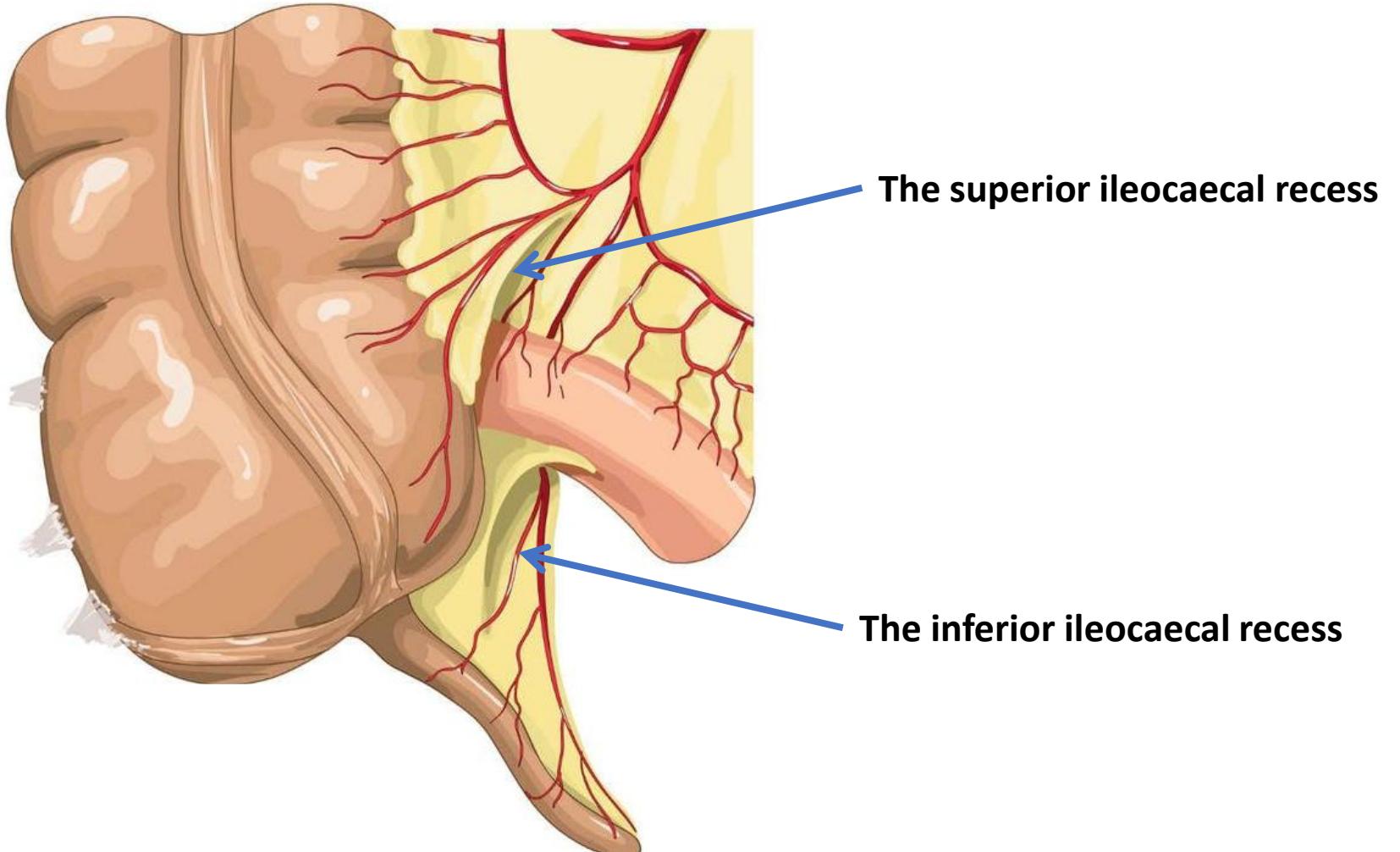


Four main groups:

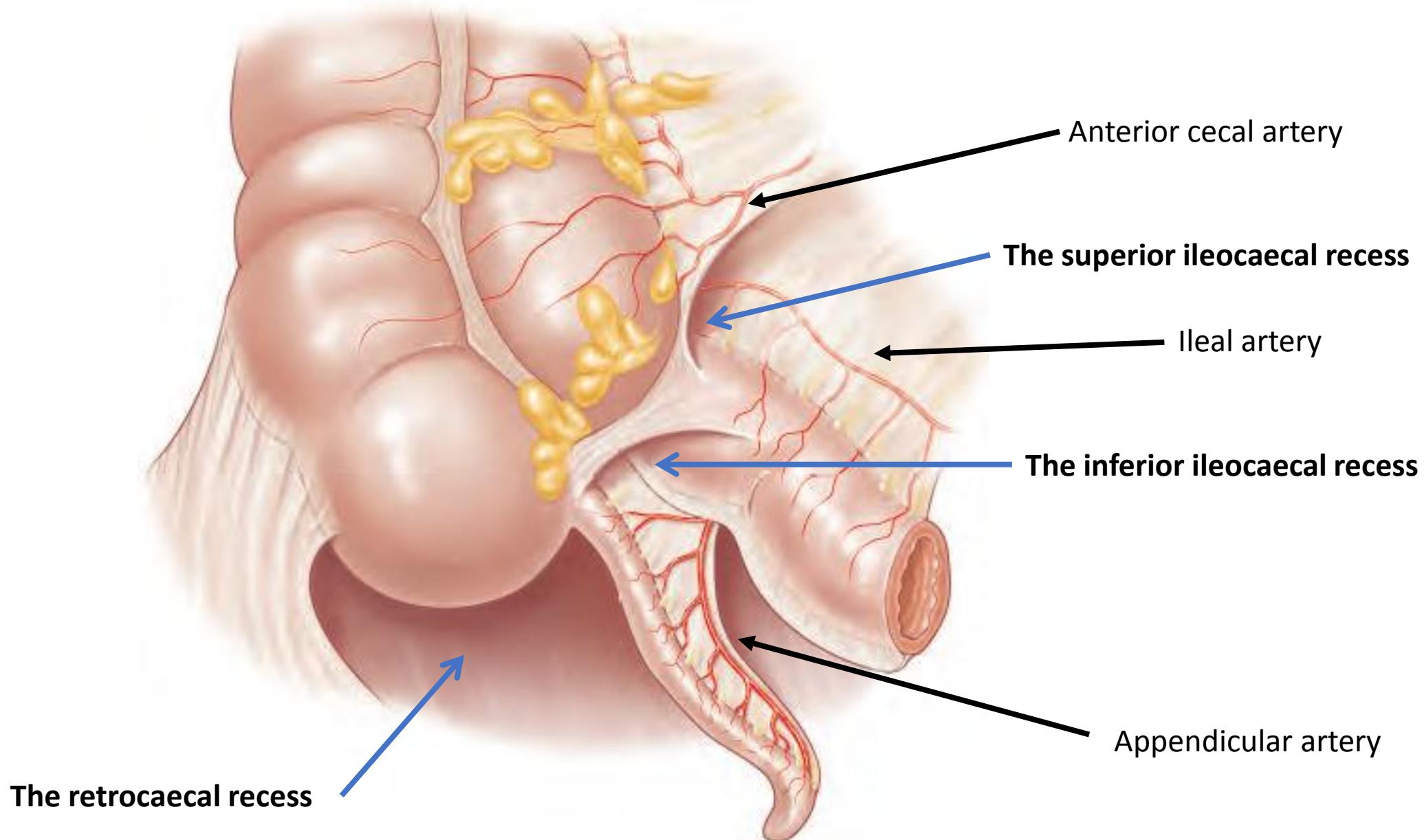
- Epicolic lymph nodes
- Paracolic lymph nodes
- Intermediate lymph nodes
- Preterminal lymph nodes



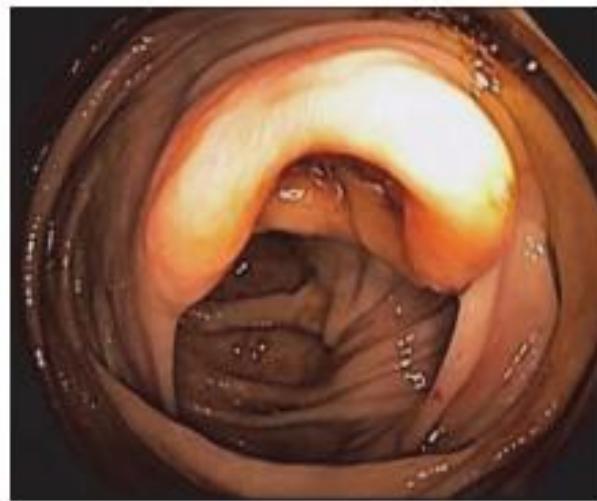
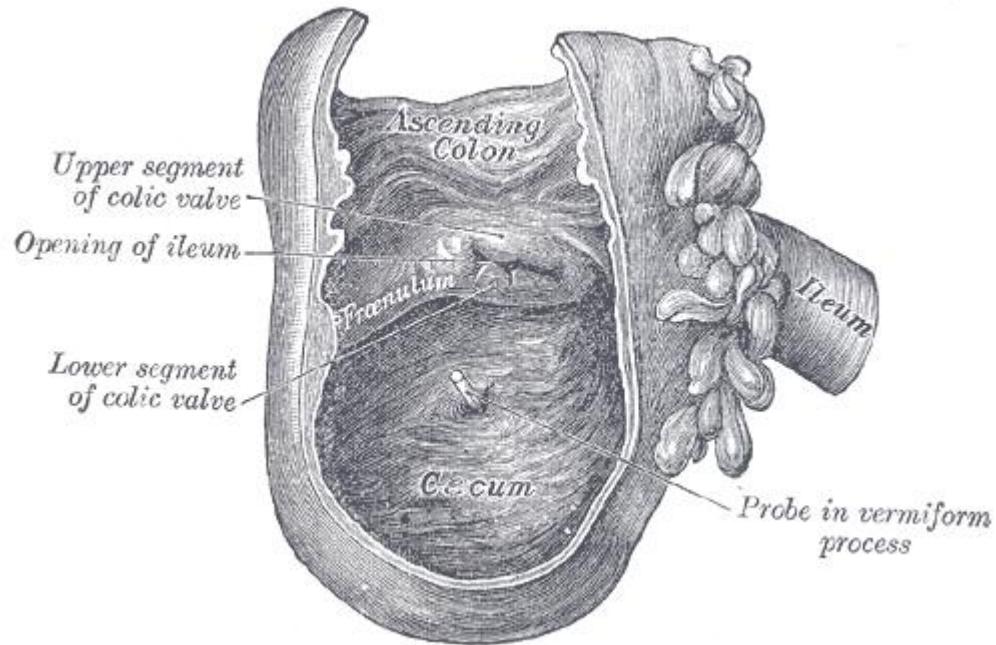
## The caecum 1



## The caecum 2



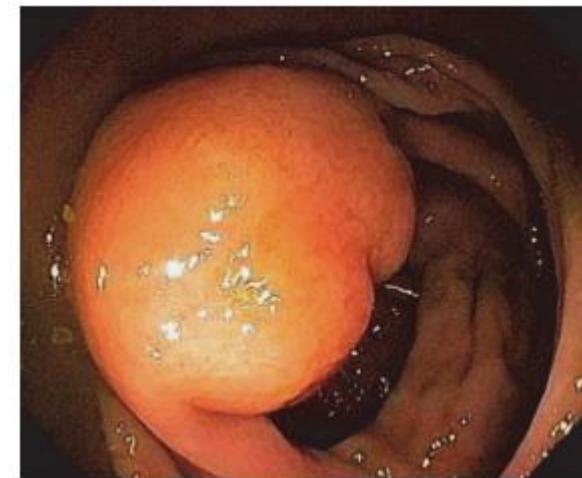
## Ileocecal valve / Bauhin's valve



Labial



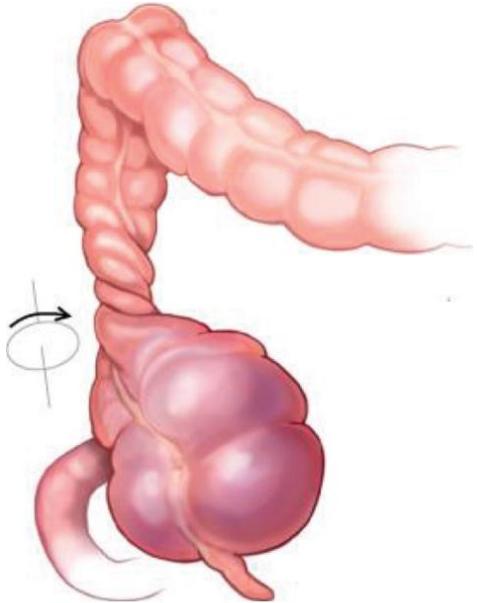
Papillary



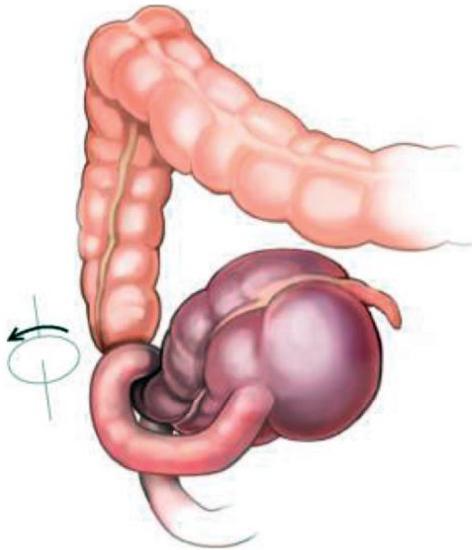
Lipomatous

# Caecal volvulus

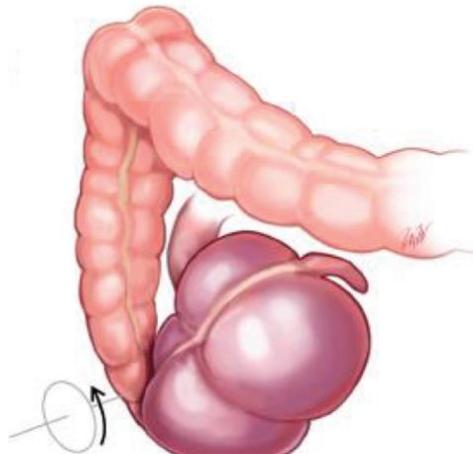
Occurs when the caecum is mobile!



(a) Type I: axial cecal volvulus

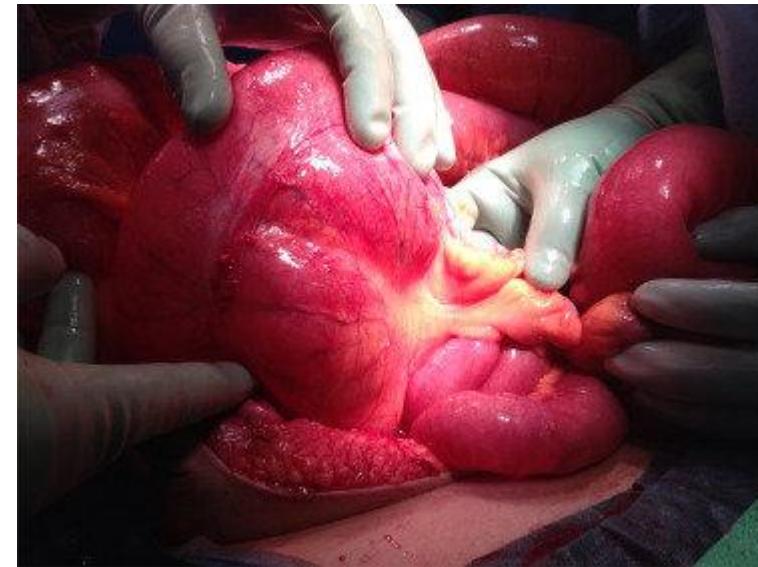


(b) Type II: loop cecal volvulus



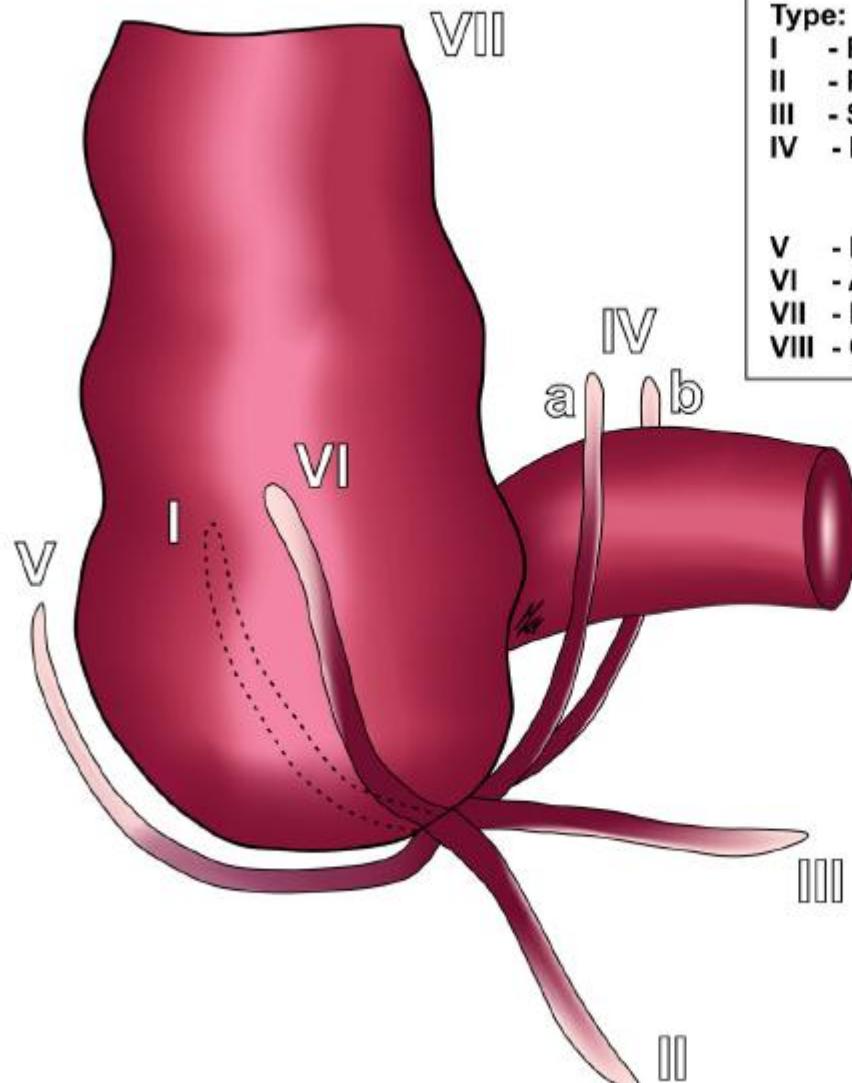
(c) Type III: cecal bascule

## Intraoperative photo – a caecal bascule



Ishida, Y., McLean, S. F., & Tyroch, A. H. (2016). Cecal bascule after spinal cord injury: A case series report. *International Journal of Surgery Case Reports*, 22, 94–97. doi:10.1016/j.ijscr.2016.03.040

# The vermiform appendix



Type:	Pooled Prevalence (95% CI)
I - Retrocecal	32.1% (29.2–35.1)
II - Pelvic	28.5% (26.7–30.4)
III - Subcecal	13.2% (10.6–16.4)
IV - Ileal	14.5% (11.8–17.7)
IVa - pre-ileal	9.7% (7.5–12.5)
IVb - post-ileal	5.4% (4.1–7.0)
V - Paracecal	7.5% (5.7–9.7)
VI - Anterocecal	4.0% (2.4–6.6)
VII - Hepatic	2.4% (1.9–3.1)
VIII - Other	3.0% (1.7–5.1)

## New classification (2020, Clinical Anatomy)

89,887 subjects (cadavers, patients)

Retrocecal and pelvic are the most common locations

Mean length – 80.29mm

Mean diameter – 5.84mm (healthy),  
10.64 (inflamed)

CLINICAL ANATOMY

AA B<sup>A</sup>CA

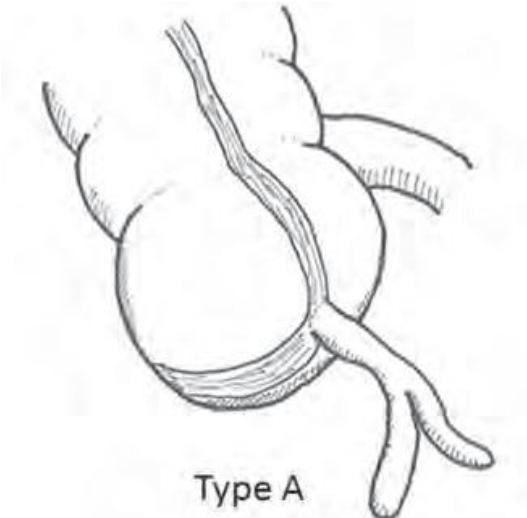
Review

Variations and morphometric features of the vermiform appendix: A systematic review and meta-analysis of 114,080 subjects with clinical implications

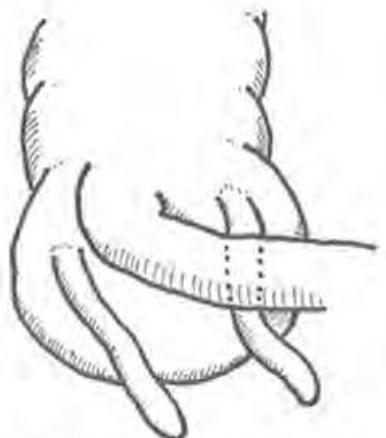
Artur Kacprzyk, Jakub Droś, Tomasz Stefura, Marta Krzysztofik, Katarzyna Jasińska, Michał Pędziwiatr, Piotr Major, Mateusz K. Holda ✉

First published: 01 October 2019 | <https://doi.org/10.1002/ca.23474> | Citations: 2

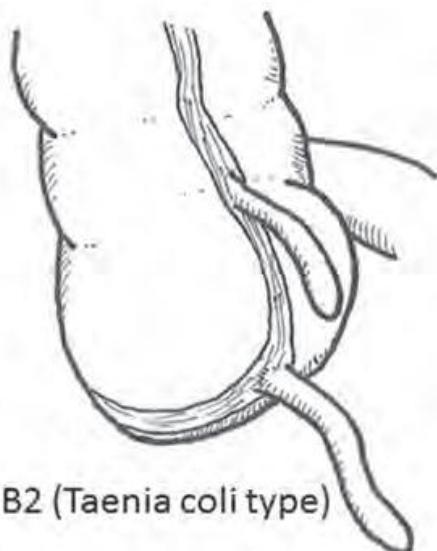
## The vermiform appendix - duplications



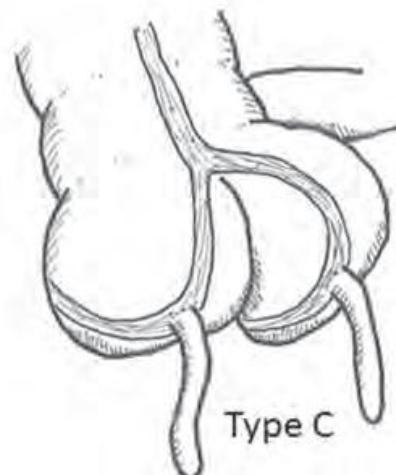
Type A



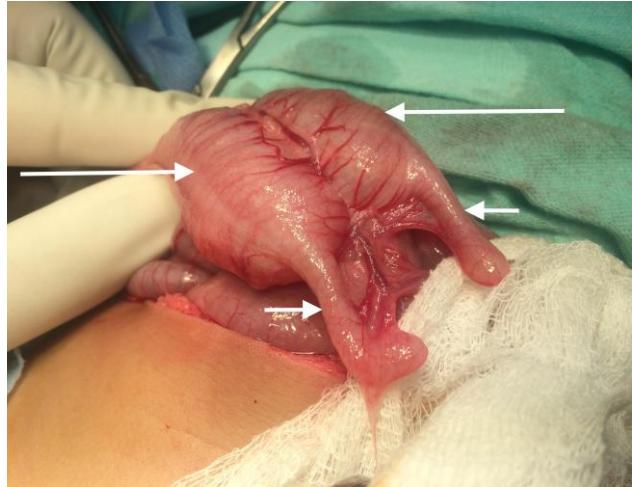
Type B1 (Avian type)



Type B2 (Taenia coli type)



Type C

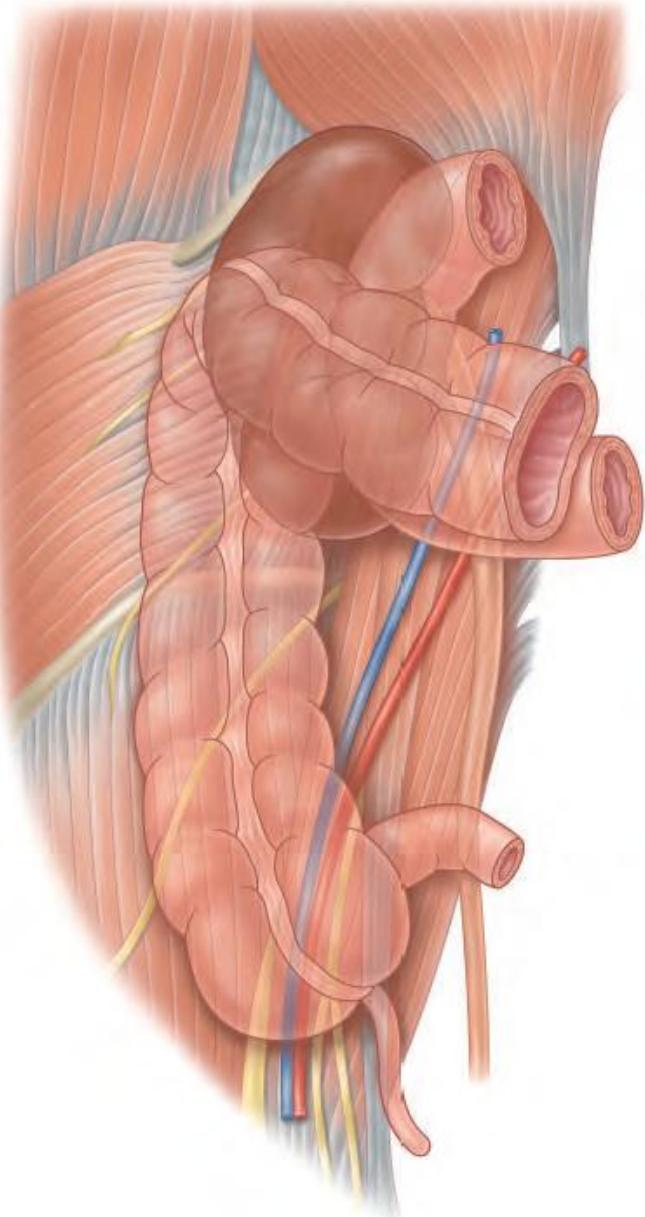


Haq S, Nasrullah A, Ahmed I, et al. (July 06, 2017) Hindgut Duplication: A Unique Case of Six Perineal Openings. *Cureus* 9(7): e1433. doi:10.7759/cureus.1433



Singh CH, Nyuwi KT, Rangaswamy R, Ezung YS, Singh, HM. Horseshoe Appendix: An Extremely Rare Appendiceal Anomaly. *J Clin Diagn Res*. 2016 Mar; 10(3): PD25–PD26.

# The ascending colon and hepatic flexure



## Ascending colon

Posterior

- Transversus abdominis, quadratus lumborum, iliacus, renal fascia and kidney

Nerves running along the quadratus lumborum and transversus abdominis:

Subcostal, iliohypogastric, iloinguinal

## Relation to the peritoneum

- Normal retroperitoneal location
- Deep paracolic gutter
- Mobile mesentery

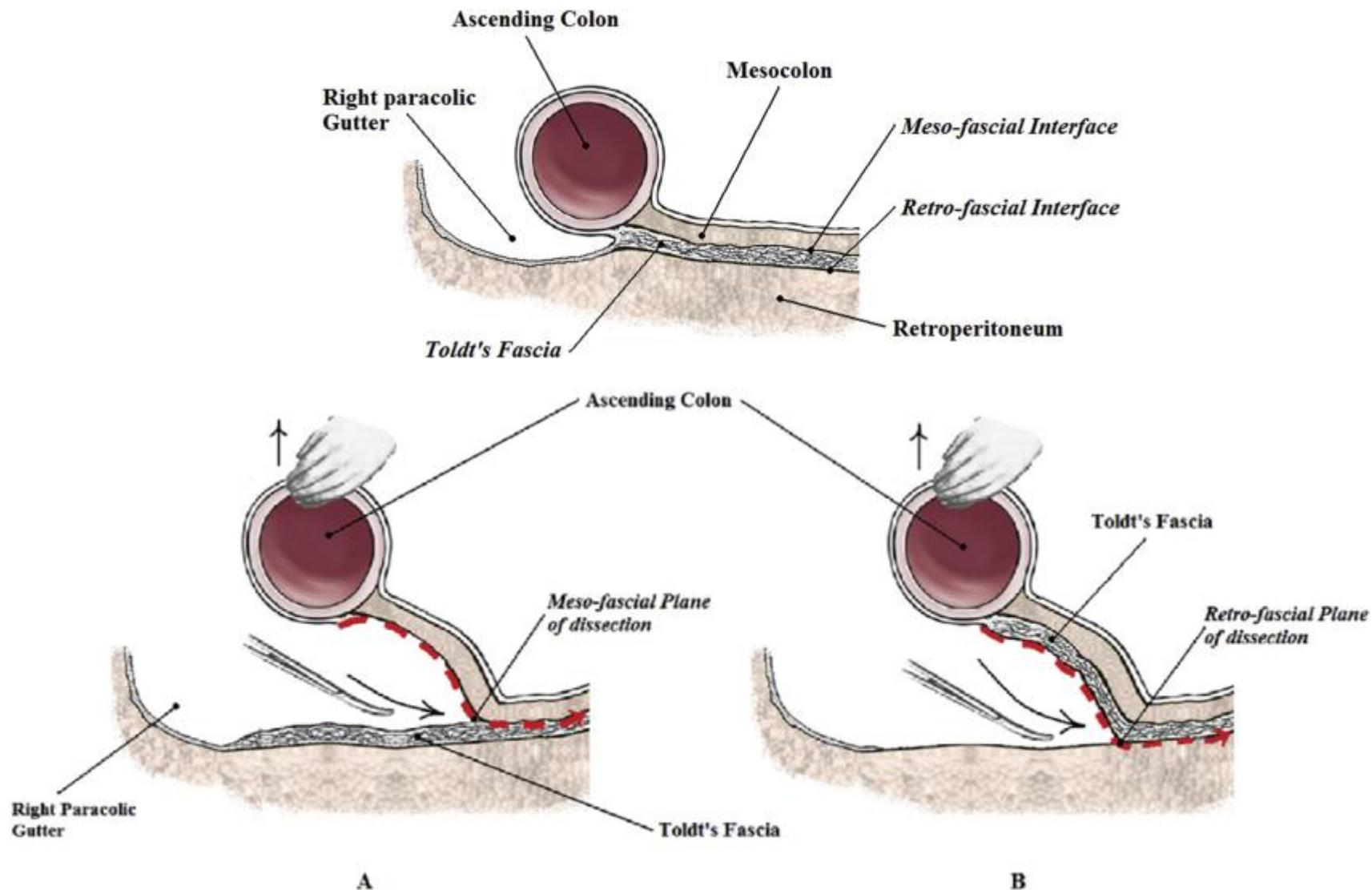
## Hepatic flexure

Posterior is the renal fascia

Above is the right lobe of liver and gallbladder

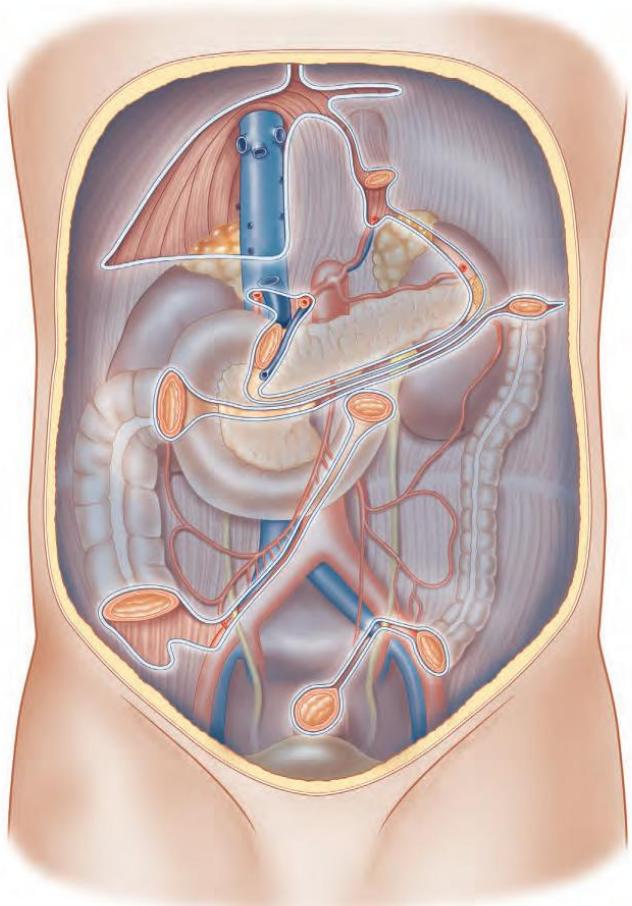
Medial is the duodenum

# The ascending mesocolon

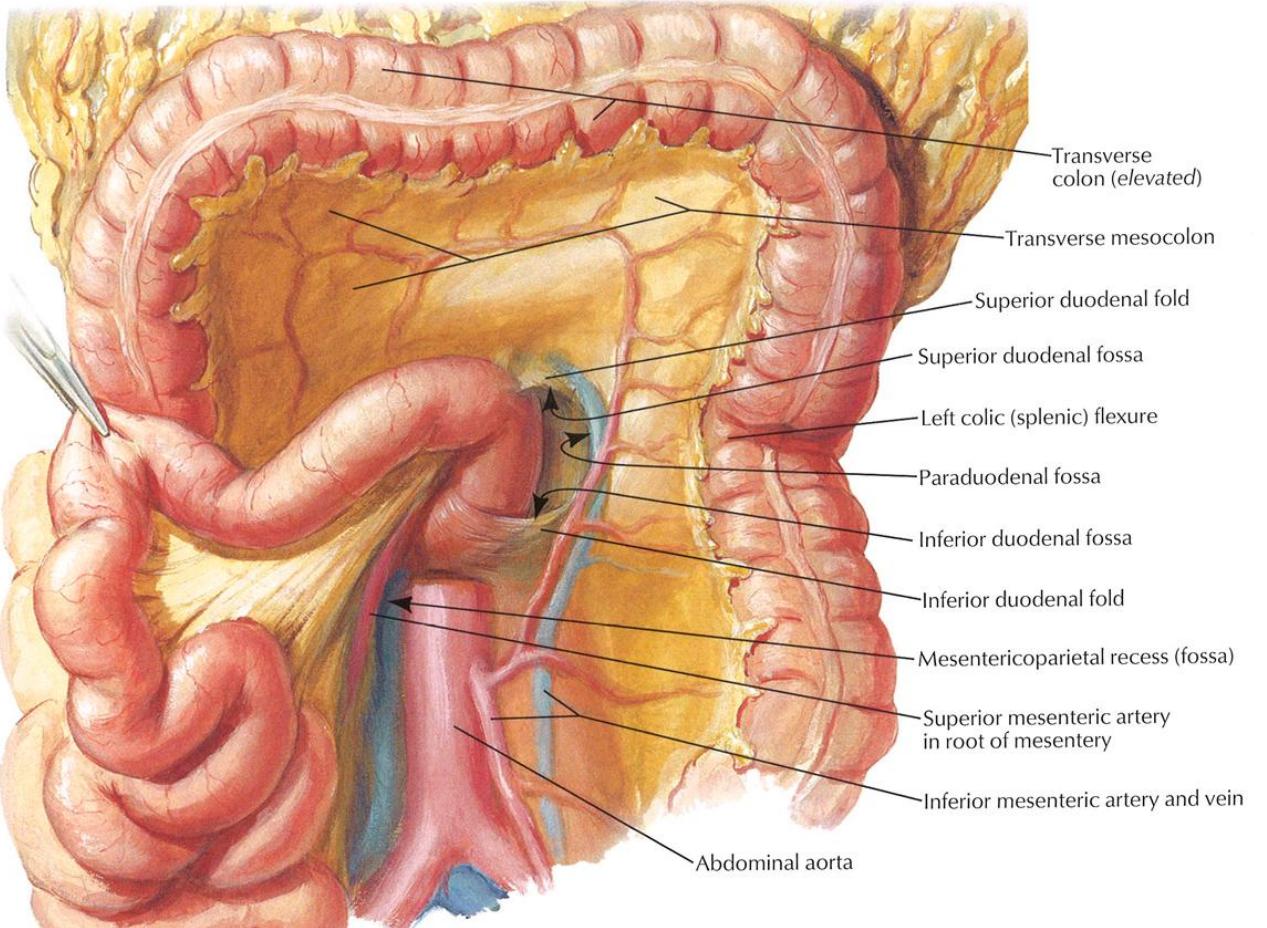


Siani, L. M., & Garulli, G. (2017). The importance of the mesofascial interface in complete mesocolic excision. *The Surgeon*, 15(4), 240–249.

## The transverse colon

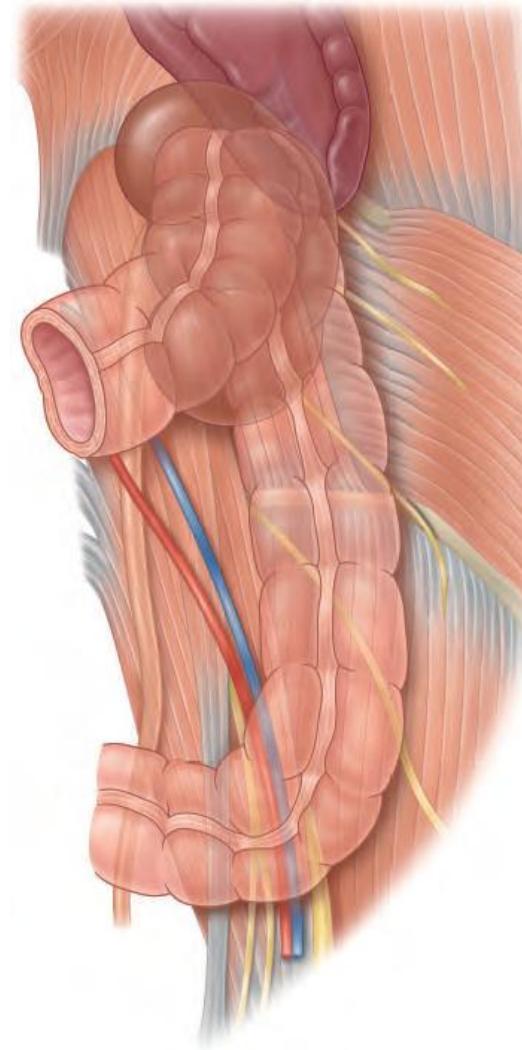
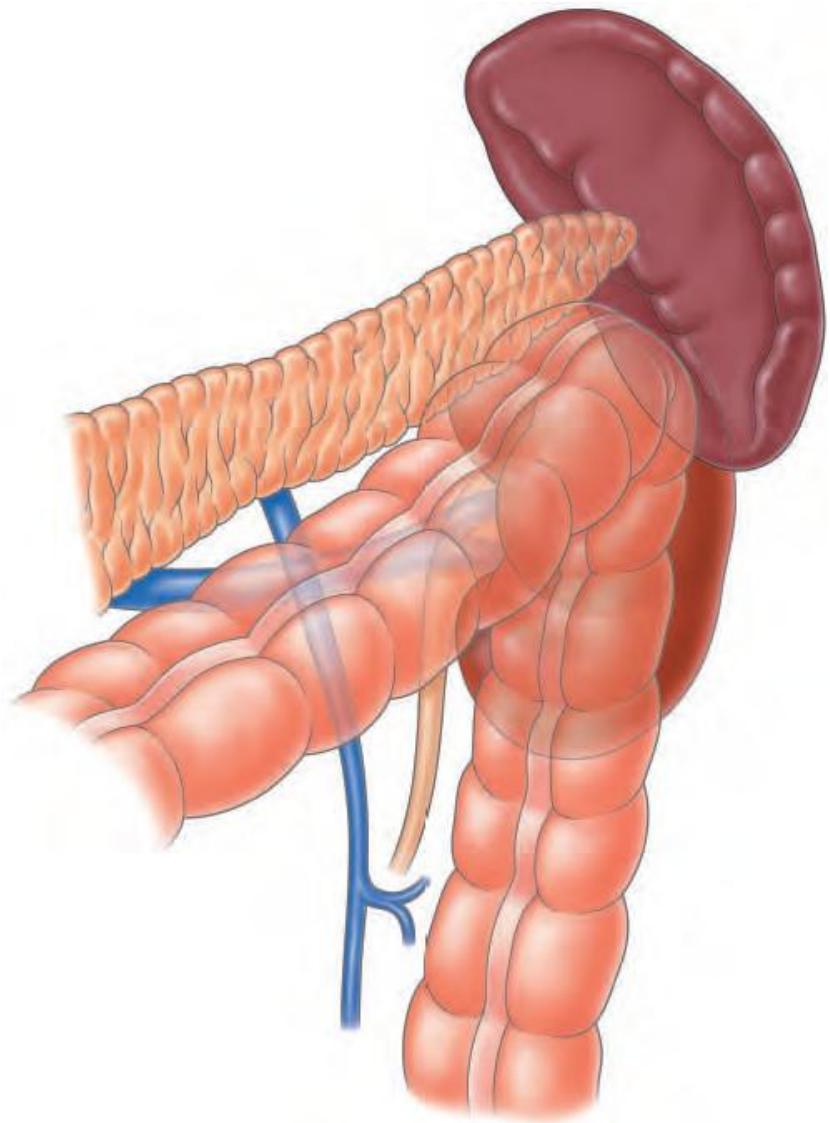


Root of the transverse mesocolon

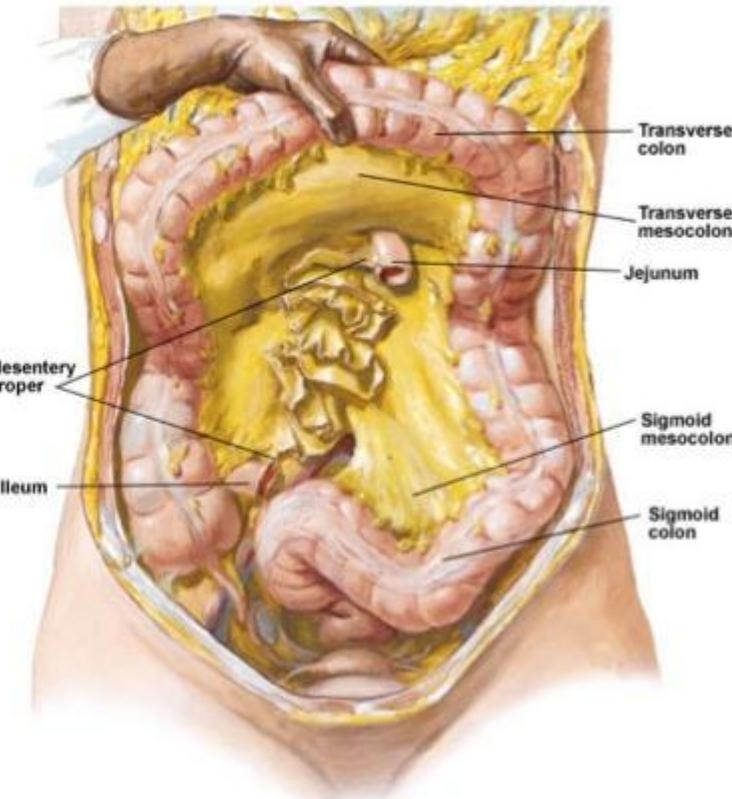
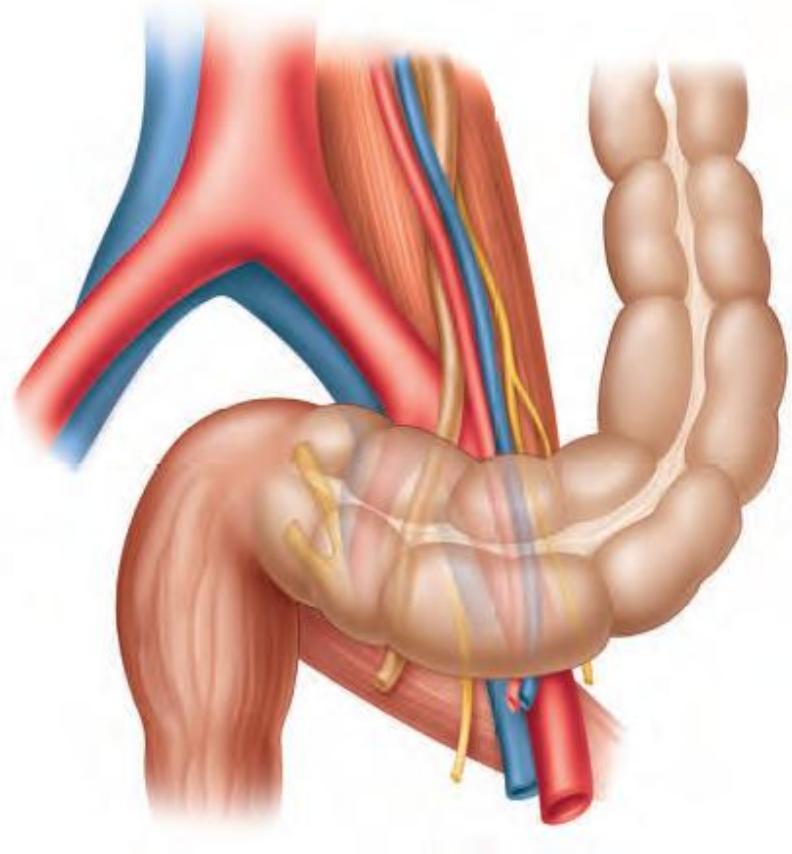


The transverse colon is intraperitoneal  
The hepatic and splenic flexures are retroperitoneal

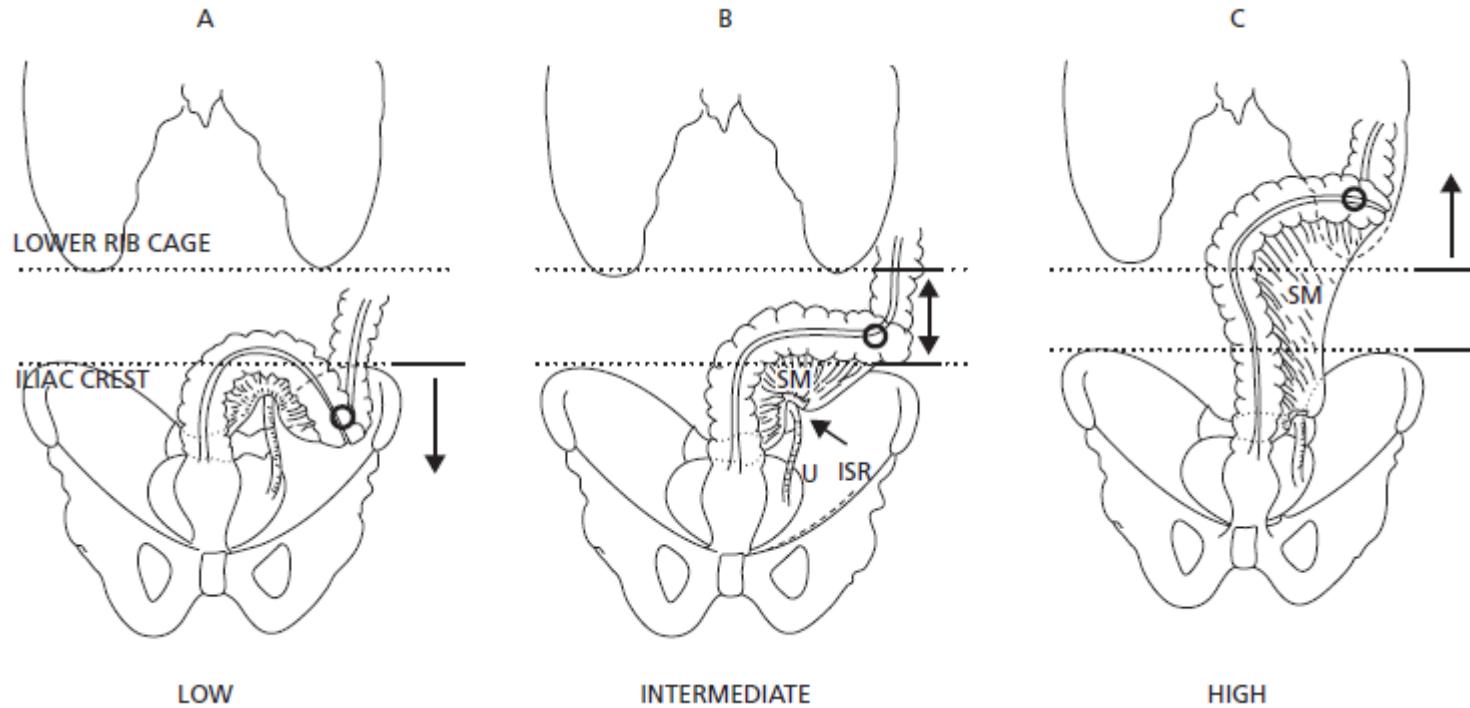
## The splenic flexure and descending colon



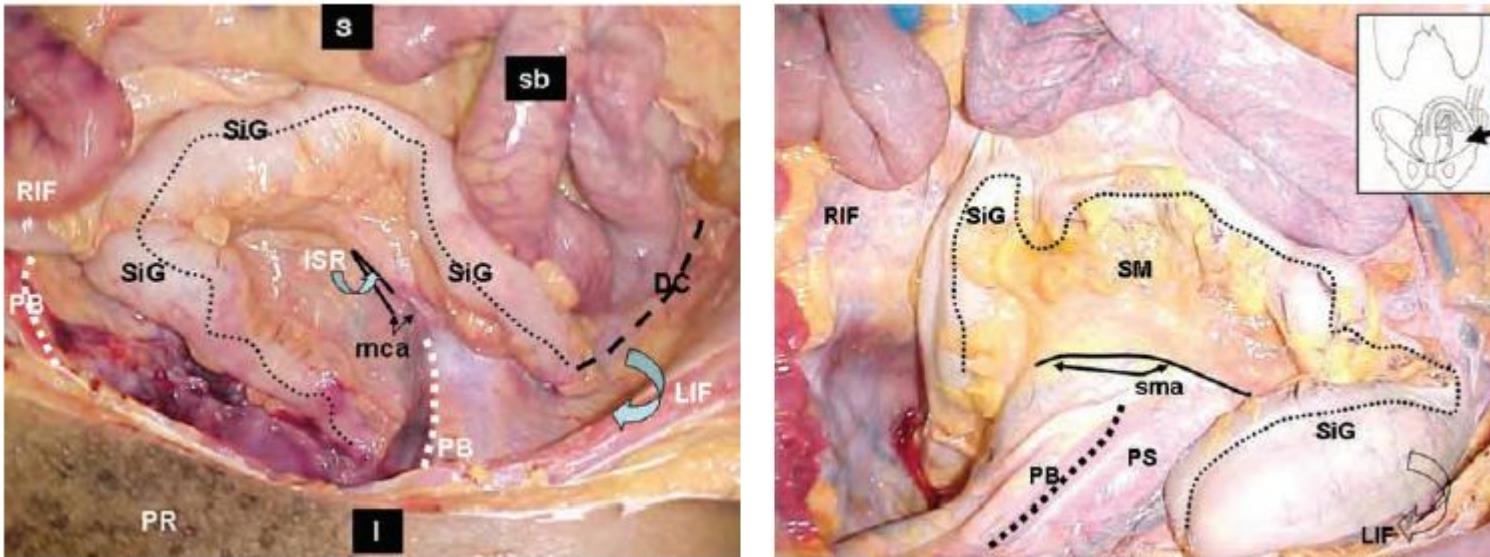
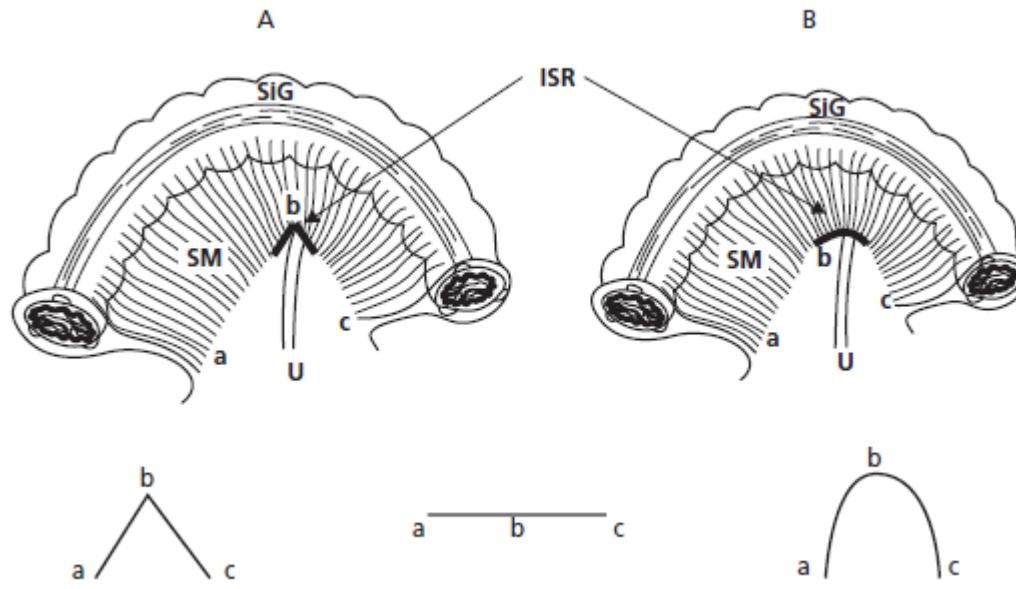
## Sigmoid colon – topographical relations



## Sigmoid colon – variations in origin



## Intersigmoid recess – a potential site of internal herniation



## Rectum and mesorectum

