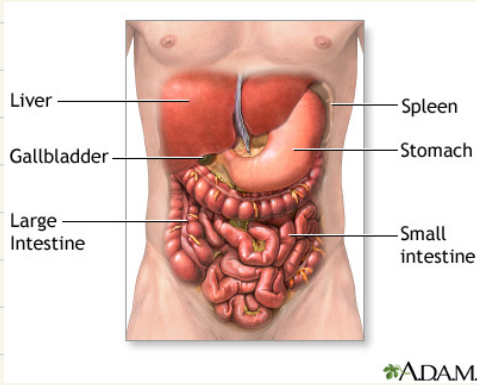
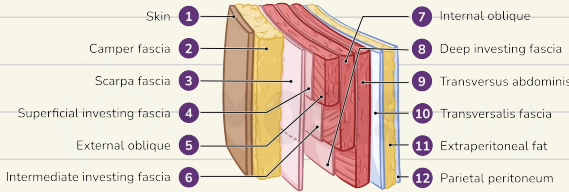


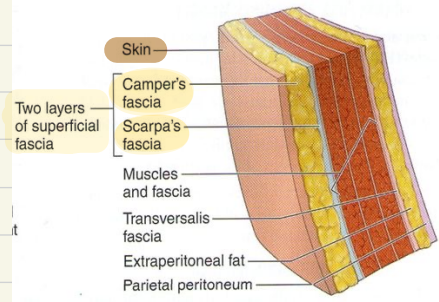


Abdomen



layers of the anterior abdominal wall

* **Skin**: Skin is loosely attached to underlying structures except umbilicus

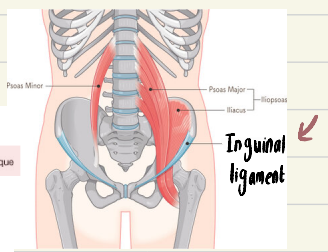
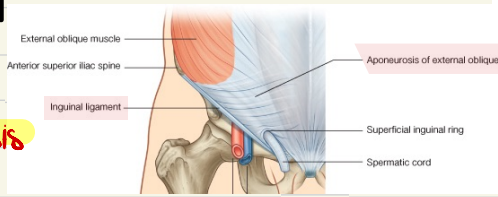


* **Superficial fascia**: divided into
 Superficial fatty layer (Camper's fascia) and deep membranous (Scarpa's fascia)

Note: deep fascia (being rich in collagen, is non stretchable) is absent from abdominal wall and perineum

Inguinal ligament

it is the lower border of external oblique aponeurosis



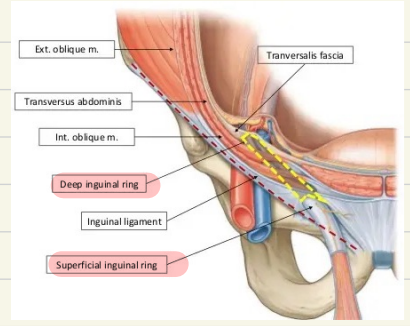
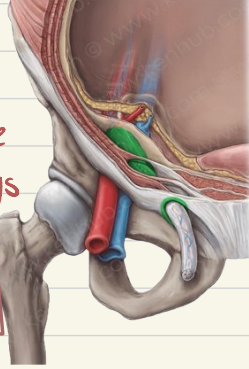
attachment: anterior superior iliac spine & pubic tubercle

inguinal canal

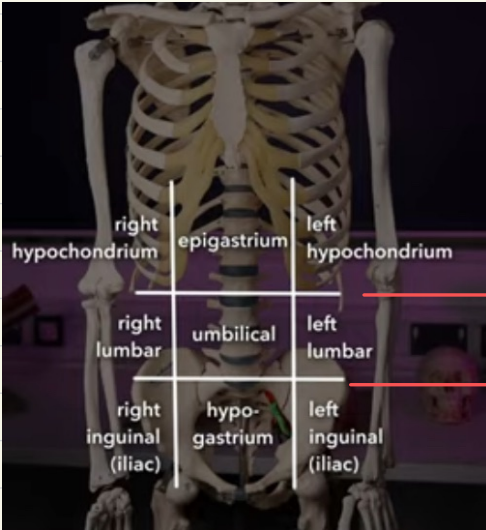
Oblique passage in lower part of anterior abdominal wall, just above medial 1/2 of the inguinal rings

Structures passing through canal

- ① spermatic cord in males or round ligament in females
- ② ilioinguinal nerve



Abdominal regions (9 regions)



Two vertical mid clavicular lines left & right

Subcostal:

through lower edge of 10th costal cartilage and 1st vertebra

Transumbilical:

through tubercle of iliac crest & 1st

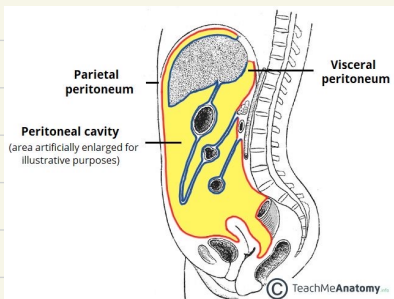
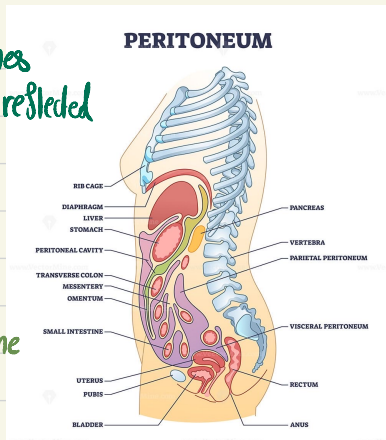
peritoneum

→ Serous membrane which lines the abdominal cavity and is reflected over viscera

peritoneum has two layers; Parietal and visceral with peritoneal cavity in between

Parietal → lines anterior & posterior abdominal walls, the lower surface of the diaphragm

visceral surrounds abdominal viscera



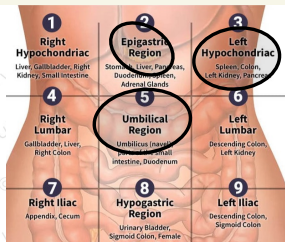
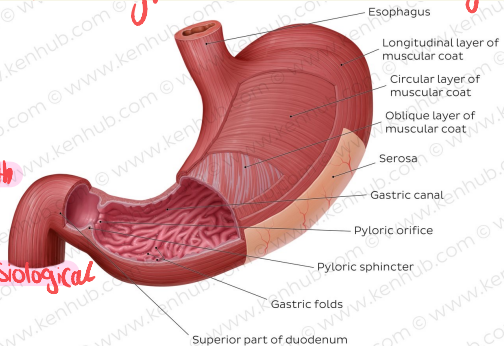
GI tract

The Stomach → widest part of digestive tube

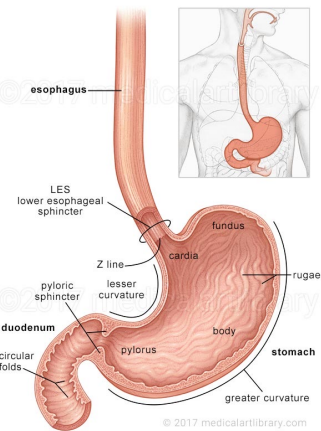
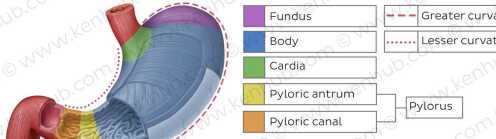
lies in epigastrium, left hypochondrium & umbilical region

2 ends

cardiac end: Connected with esophagus
*guarded with Physiological Sphincter



Pyloric end:
connected to duodenum
guarded by anatomical sphincter (thick circular fibers)



It has 2 surfaces → Anterior & Posterior

it has 2 curvature

* lesser curvature → above & to the right

* greater curvature → below & to the left

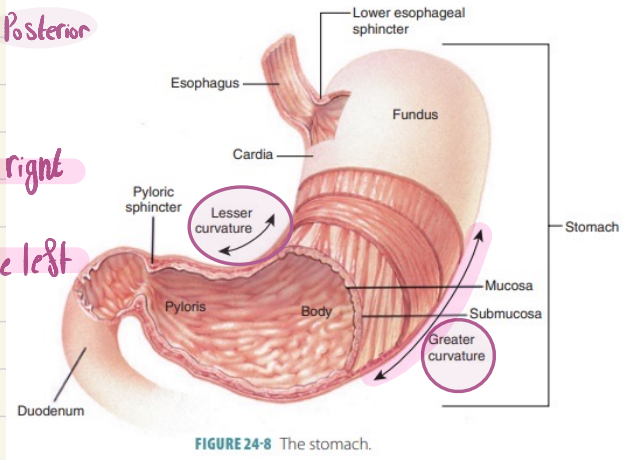
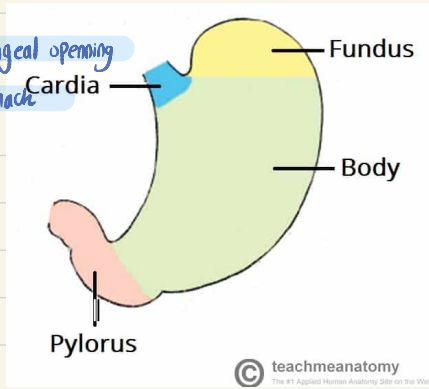


FIGURE 24-8 The stomach.

Regions of the stomach

Ⓐ Cardiac portion: * Fundus: above the level of esophageal opening
 * Cardia: uppermost part of stomach
 * Body

Ⓑ Pyloric portion



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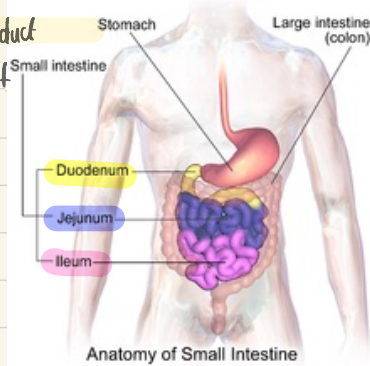
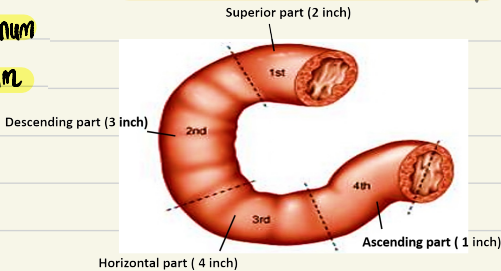
The small intestine

1. duodenum → divided into 4 parts (1st, 2nd, 3rd, 4th)

↳ receives opening of pancreatic & common bile duct in the middle of the 2nd part

2. jejunum

3. ileum



Anatomy of Small Intestine

Large intestine

↳ characterized by the presence of

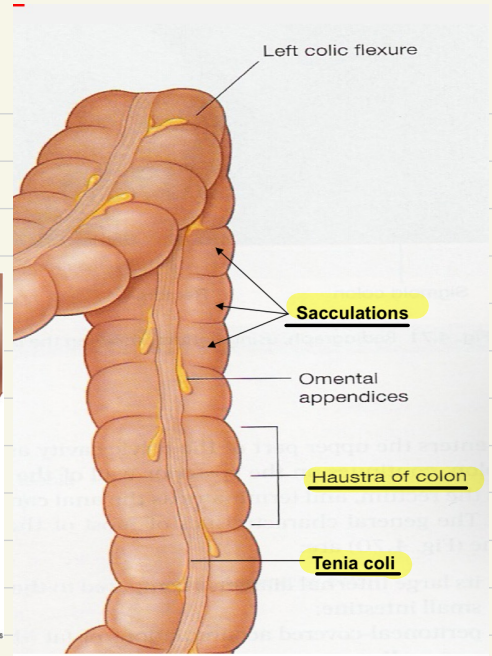
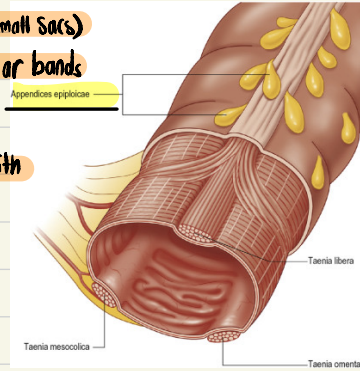
* Haustrations (grooves)

* Sacculations (divided into small sacs)

* Teniae coli: 3 muscular bands

* Appendices epiploicae:

Small appendices filled with fat



Components of large intestine

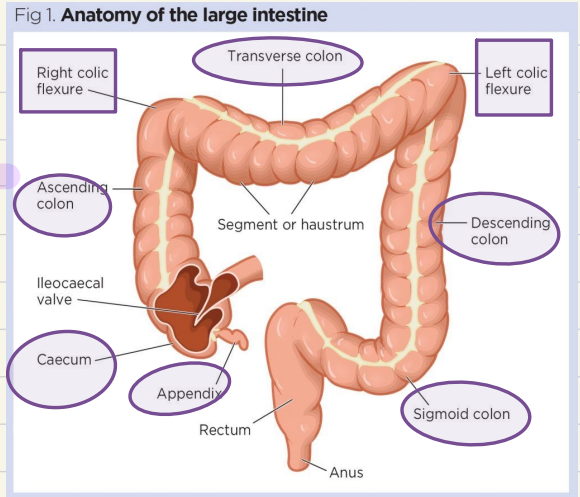
* Caecum & Vermiform appendix

* Colon (ascending, transverse, descending)

* Right & left colic flexures

* Rectum

* anal canal

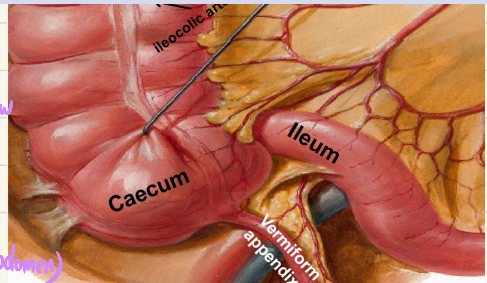


Vermiform appendix

↳ attached to caecum about one inch below ileocaecal junction

* lies in right inguinal region

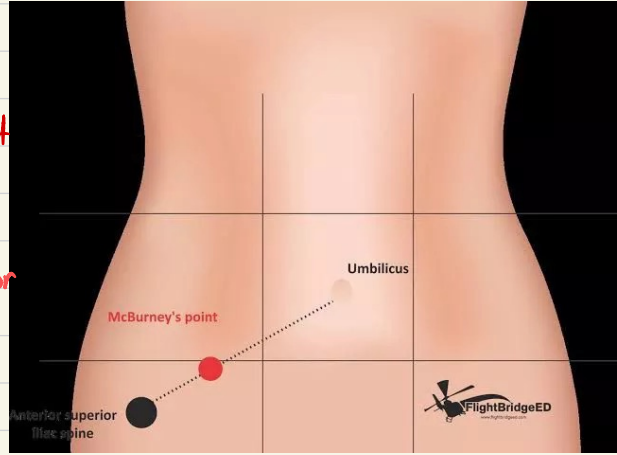
* very rich in lymphoid follicle (Tonsil of abdomen)



Surface anatomy of appendix

Base of appendix → McBurney's point

the point at the junction of lateral 1/3 & medial 2/3 of a line extending between anterior superior iliac spine (ASIS) & umbilicus



anal Canal

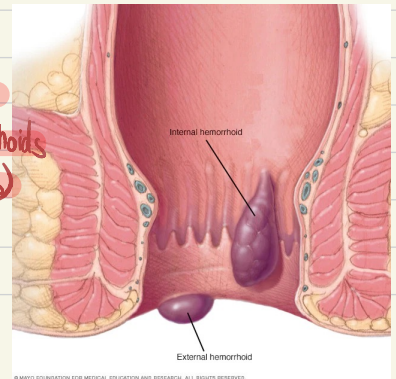
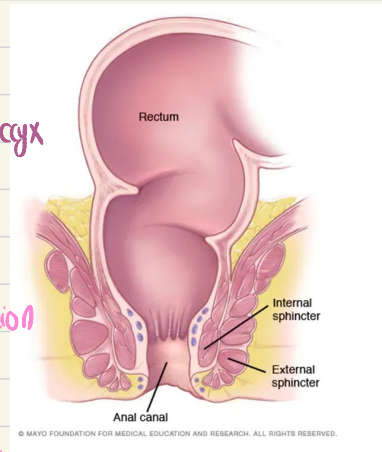
begins one inch below & in front of coccyx

directed downward & backward

upper part → insensitive to general sensation
& supplied by autonomic fibers

lower part → sensitive to general sensation
(supplied by somatic fibers)

Dilation of submucosal venous plexus of rectum & anal canal → internal or external hemorrhoids (Piles)

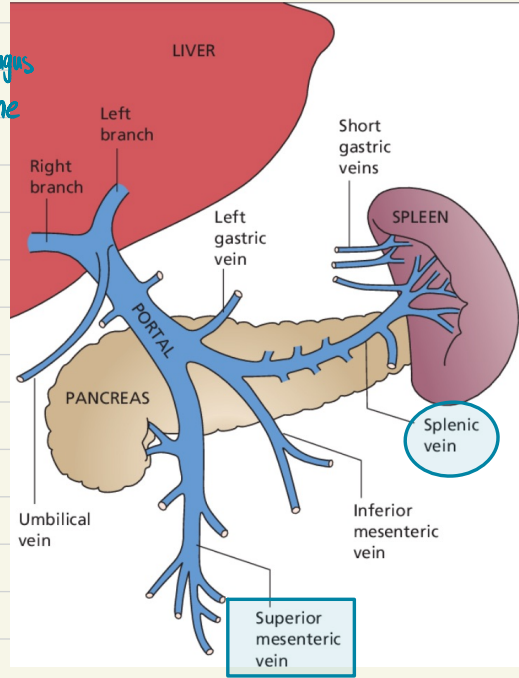
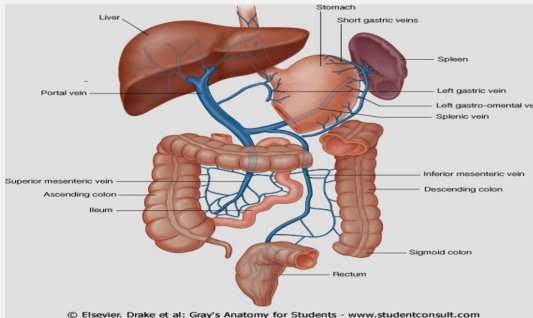


Portal Circulation

Portal vein drains the alimentary canal from esophagus to upper 1/2 of anal canal, pancreas & spleen to the liver

Portal vein: → union of splenic & superior mesenteric veins behind neck of pancreas

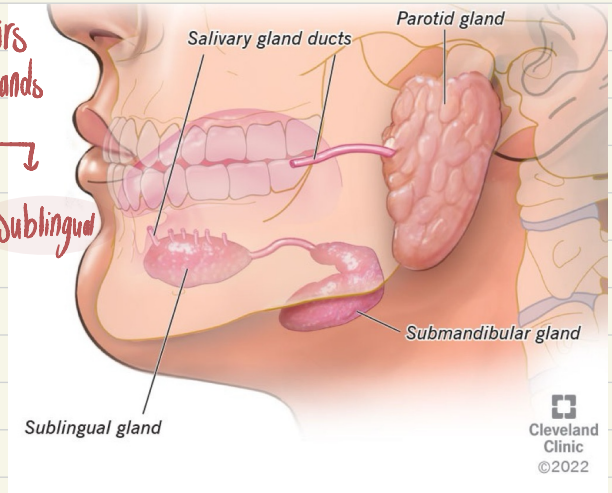
*ends in porta hepatis



Salivary glands

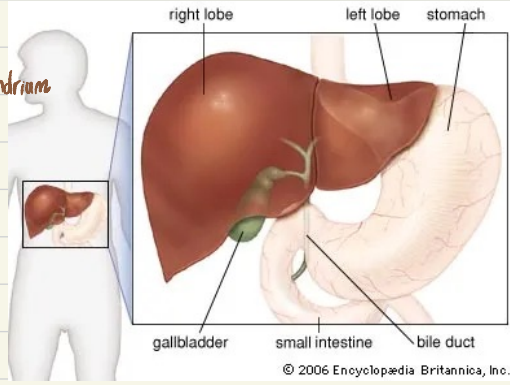
→ There are 3 pairs of Salivary glands

- Parotid
- Submandibular
- Sublingual



liver → largest organ in the body

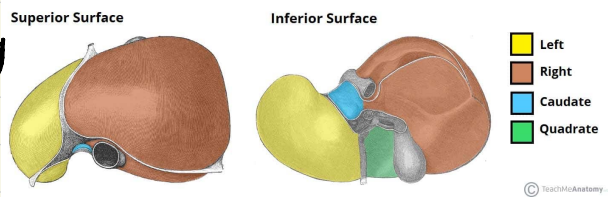
- * lies in right hypochondrium, epigastrium & left hypochondrium
- * divided into large & small lobes
- * The right lobe contains 2 additional lobes



Quadrate

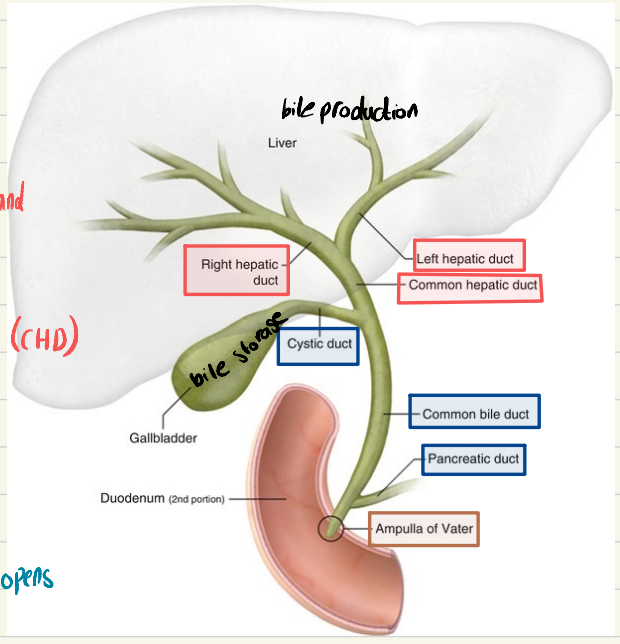
Caudate

- * portal vein + hepatic artery → Blood supply
- * hepatic drainage



The biliary system

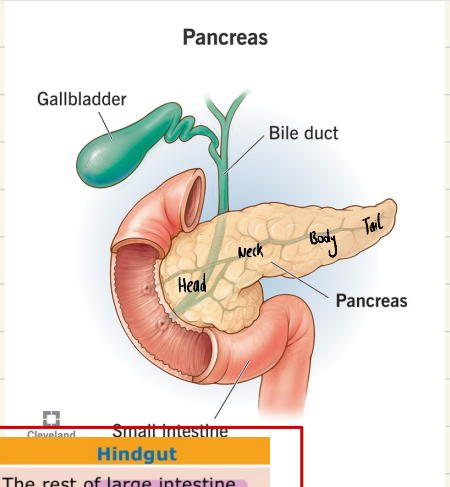
- * gallbladder
- * right and left hepatic ducts from right and left lobes of liver
- * They join to form common hepatic duct (CHD)
- * CHD joins cystic duct and form common bile duct (CBD)
- * CBD joins the main pancreatic duct that opens in middle of second part of duodenum



Pancreas

- * it is both exocrine & endocrine gland
- * 4 parts: head, neck, body & tail

General topography Foregut, Midgut, Hindgut



	Foregut	Midgut	Small Intestine Hindgut
Components	Abdominal end of esophagus, stomach, duodenum down to entrance of bile duct, liver, spleen, pancreas	Lower 1/2 of the duodenum, jejunum, ileum, large intestine as far as the right 2/3 of the transverse colon	The rest of large intestine down to the pectinate line of the anal canal
Arterial supply	Coeliac artery	Superior mesenteric artery	Inferior mesenteric artery

Venous drainage	End in the portal venous system EXCEPT lower part of anal canal		
(READ ONLY)	Parasympathetic Vagus nerve	Parasympathetic Vagus nerve	Parasympathetic Pelvic splanchnic nerves (S2, 3, 4)
Autonomic nerve supply (READ ONLY)	Sympathetic T5-T11 segments of the spinal cord → greater and lesser splanchnic nerves	Sympathetic T5 -T11 segments of the spinal cord → greater and lesser splanchnic nerves	Sympathetic L1, L2 segments → lumbar splanchnic nerves

