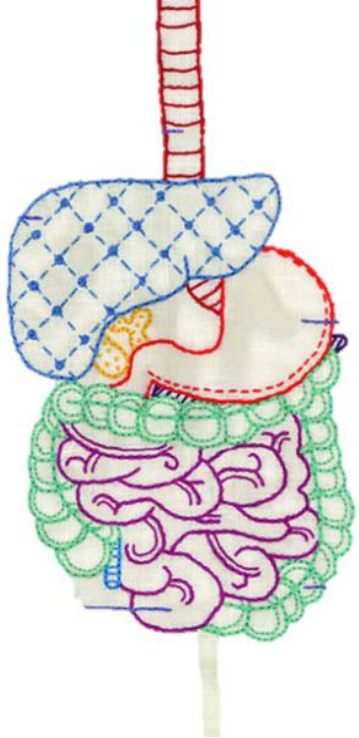


Anatomy practical
GIT Block
434

Make sure you check this Correction File before going through the content

A 57-year-old male brought to the ER where he diagnosed with perforated duodenal ulcer in the posterior wall of the first part of the duodenum.

• Which artery lies behind the ulcer in his case? (4marks)

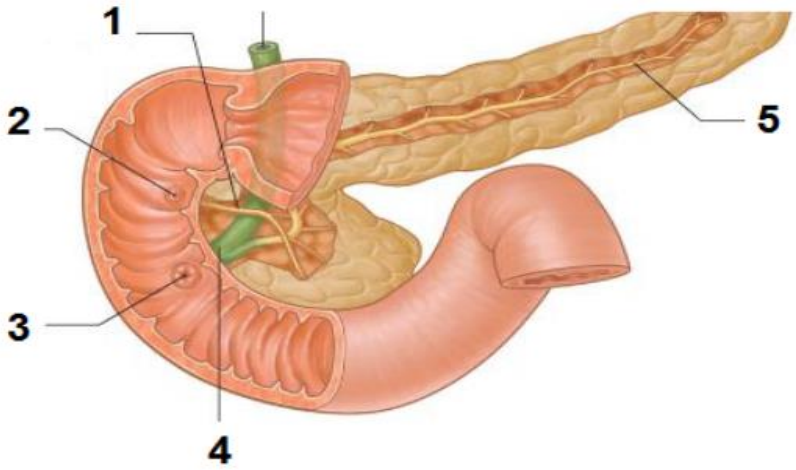
Gastroduodenal artery.

• Enumerates 3 different organs supplied by this artery? (2marks each)

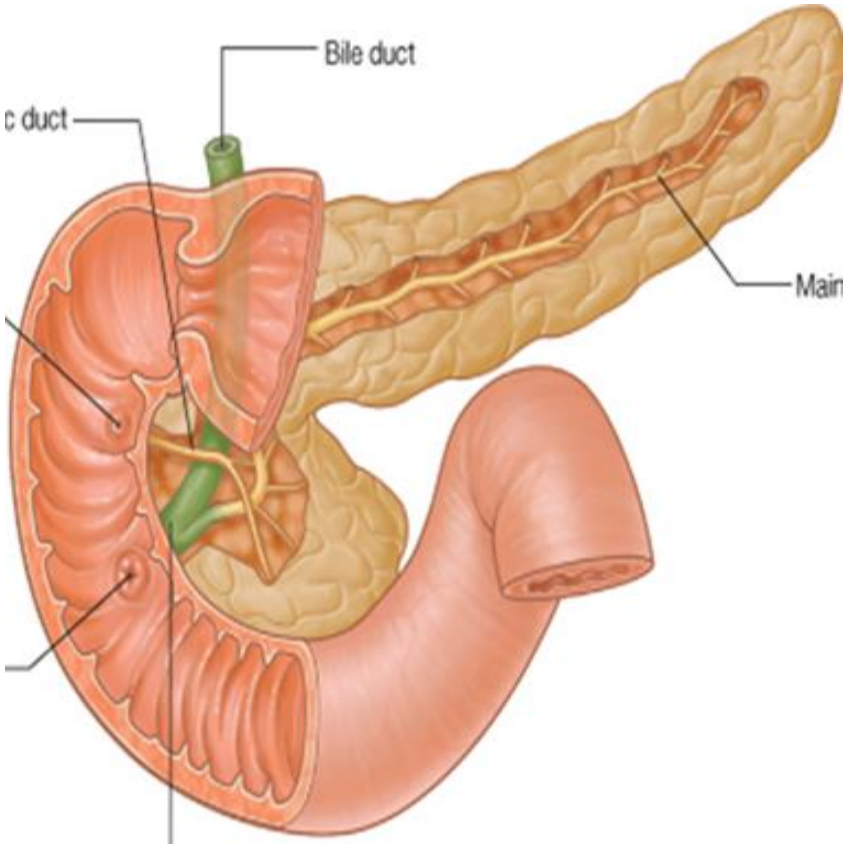
1-Stomach. 2-Duodenum. 3-Pancreas.

• IDENTIFY: (2marks each)

1- Accessory pancreatic duct.
2- Minor duodenal papilla.
3- Major duodenal papilla.
4- Bile duct.
5- Main pancreatic duct.



A 48-year-old man has lost 10 kilos over the last 3 months and present with upper abdominal pain that radiate to the back between the scapulae. During examination the doctor notice jaundice. CT scan reveals tumor of the head of the pancreas.



• List the arterial supply of the pancreas. (3marks)

1-Superior pancreaticoduodenal artery.
2-Inferior pancreaticoduodenal artery.
3-Splenic artery.

• Where the main pancreatic duct opens? (3 marks)

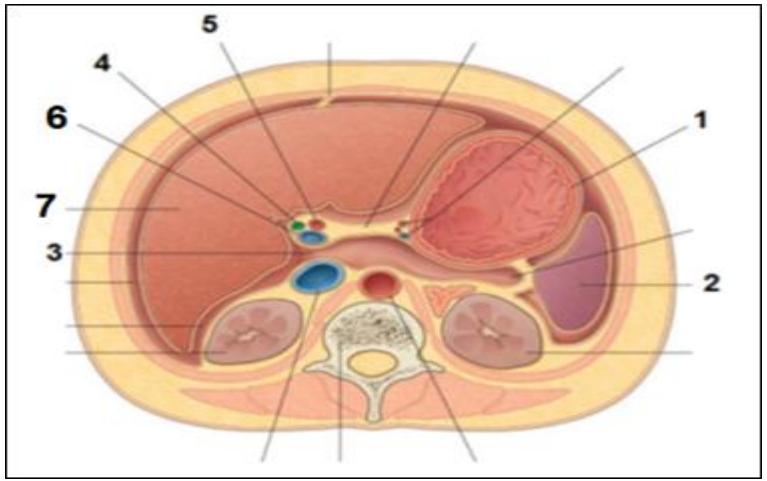
Major duodenal papilla in 2nd part of duodenum.

• From where the arteries supplying the duodenum originate? (4marks)

1-Superior pancreaticoduodenal artery from: gastroduodenal of hepatic of celiac artery.
2-Inferior pancreaticoduodenal artery from: superior mesenteric artery.

• IDENTIFY: (2marks each)

1- Stomach.
2- Spleen.
3- Opening into lesser sac (epiploic foramen).
4- Bile duct.
5- Hepatic artery.
6- Portal vein.
7- Liver.



• IDENTIFY:

1- Stomach.

2- Descending colon.

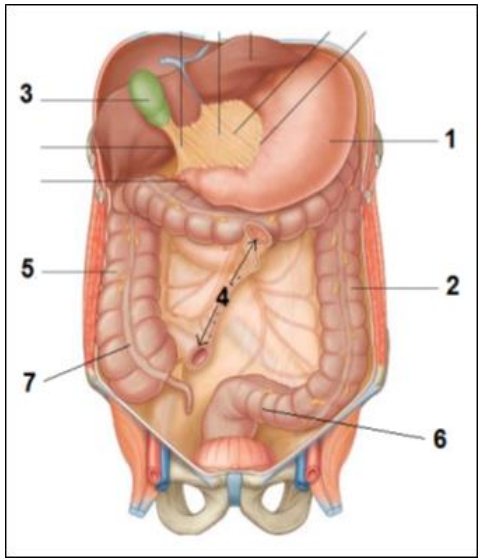
3- Gall bladder.

4- Root of the mesentery.

5- Ascending colon.

6- Sigmoid colon

7- Teniae coli.



A 52-year-old man has been unwell, he always feels tired. The doctor noticed that he is jaundiced. Abdominal examination showed splenomegaly, ascitis, caput medusa and increased abdominal girth. Investigations revealed chronic liver cell failure.

• In which abdominal regions the liver lies? (2marks)

Right & Left hypochondrium and epigastrium.

• Enumerates the contents of the porta hepatis in order (from anterior to posterior)? (2marks)

From anterior to posterior:

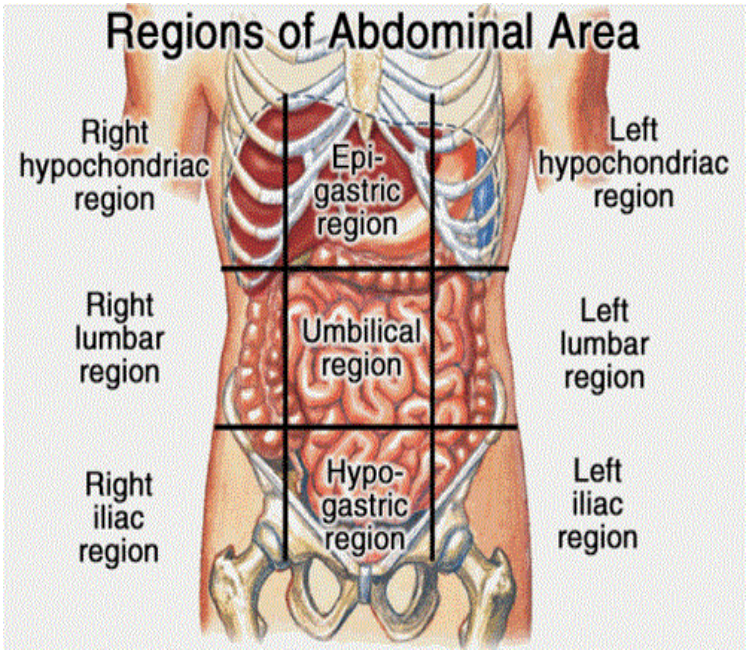
2 hepatic ducts, 2 hepatic artery & 2 branches of portal vein.

• From where the liver receives its blood supply? (4marks)

Hepatic artery (30%) portal vein (70%).

• Where the hepatic veins terminate? (2marks)

In the Inferior vena cava.



During cholecystectomy a resident damage the cystic artery before clamp is probably placed. The assistant surgeon applied pressure on the free margin of the lesser omentum, to stop bleeding.

- Which artery runs in the free margin of the lesser omentum? (2marks)

Hepatic artery.

- From which artery, the cystic artery usually arises? (2marks)

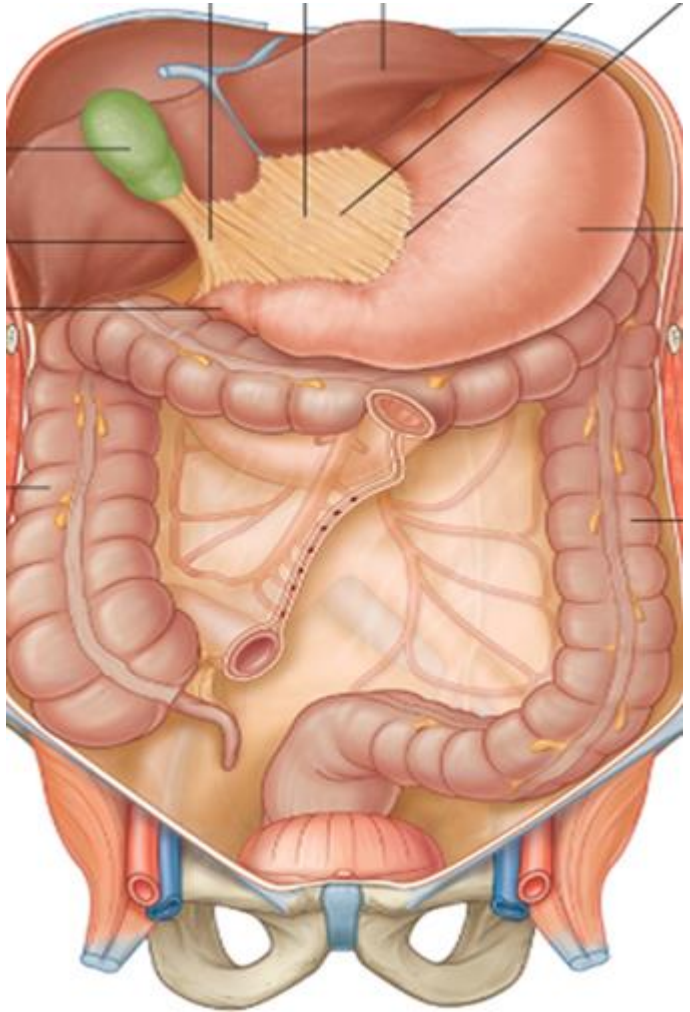
Right hepatic artery.

- What are the other structures that runs in the free margin of the lesser omentum? (4marks)

Bile duct.
Portal vein.
hepatic artery
lymphatics
hepatic plexus

- Enumerate 2 other structures that run in the lesser omentum along the lesser curvature of the stomach. (2marks)

1-Right gastric vessels.
2-Left gastric vessels.



A 52-year-old woman undergoes an open abdominal cholecystectomy.

During surgery her doctor inserts his index into the epiploic foramen..

Enumerate the 4 boundaries of the epiploic foramen?

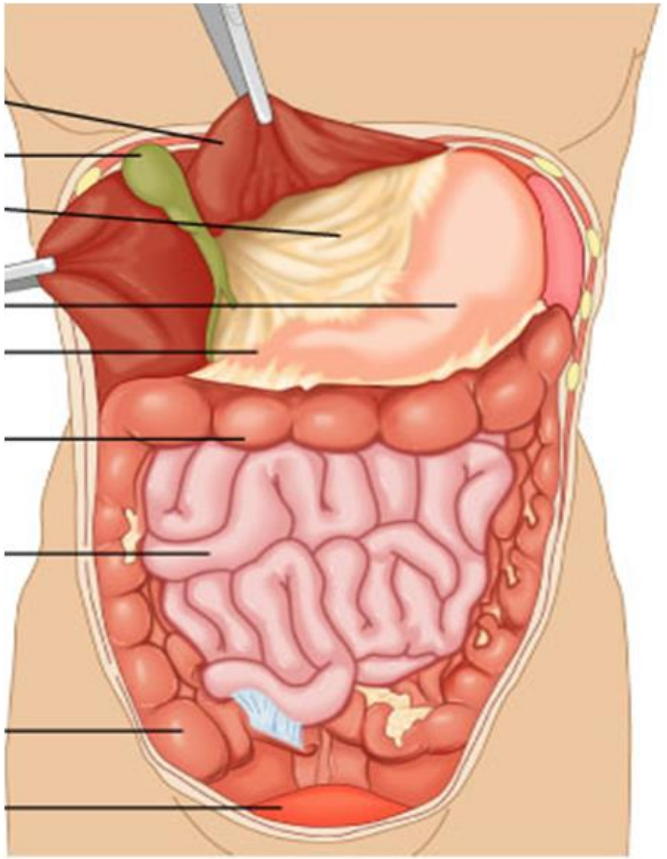
(2.5 marks each)

1.**Superior**: caudate process of caudate lobe of liver.

2.**Inferior**: 1st part of duodenum.

3.**Anterior**: free margin of lesser omentum & hepatic artery

4. **Posterior**: Peritoneum covering the IVC.



A heavy smoker 50-year old man has an upper abdominal pain and hurtburn that on and off for several months. 2 weeks ago he vomited dark blood. Gastroscopy examination revealed peptic ulcer.

1)Identify (1mark each)

A. Cardiac orifice

B. Pylorus.

C. Fundus.

2) What is the surface Anatomy of each of these 3 areas? (1mark each)

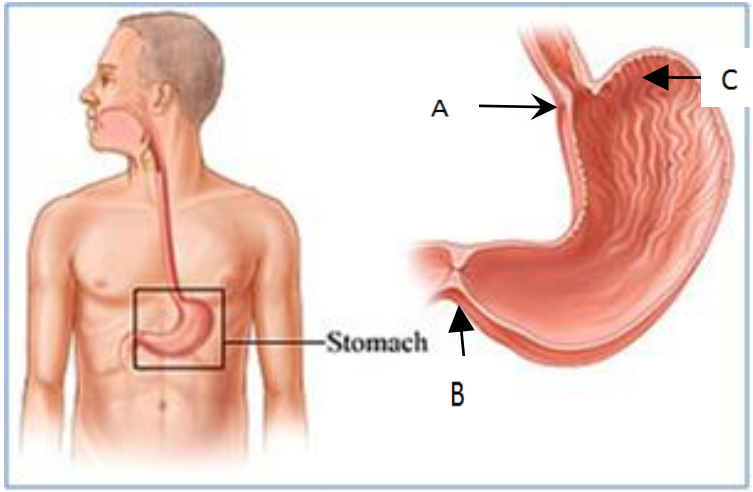
A. Left seventh costal cartilage 2.5 cm. from the sternum , (T10).

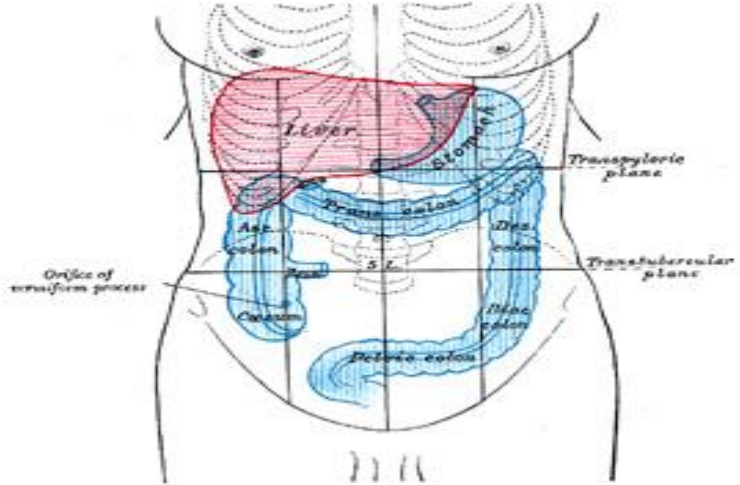
B- Transpyloric plane1 cm. to the right of the middle line, at the level of L1.

C. Left fifth intercostal space a little below the apex of the heart.

3) List 4 arteries supplying the stomach. (4 marks)

1. Left gastric.
2. Right gastric.
3. Left gastroepiploic.
4. right gastroepiploic.
5. Short gastric





During splenectomy the surgeon ligates the splenic artery at the hilum of the spleen.

1) Improper placement of he ligature may lead to damage of which part of the stomach? (3marks)

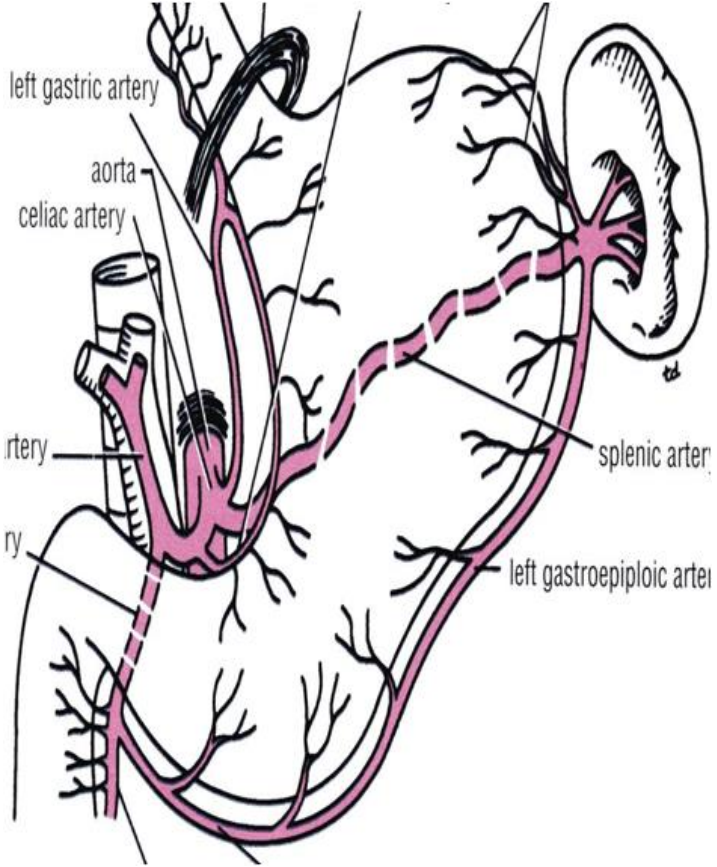
•Fundus or left part of greater curvature of the stomach.

2) Which ligament the surgeon carefully dissects to ligate the splenic vessels? (3marks)

•Lienorenal ligament (Lieno = spleen)

3) Which part of the pancreas is endanger is such operation? (4 marks)

•Tail of the pancreas.



IDENTIFY:(1mark each)

1. Transverse colon.

2-Left (splenic) flexure.

3-descending colon.(teniae coli is also correct)

4-Sigmoid or pelvic colon.

5-Appendix.

6-Ascending colon.

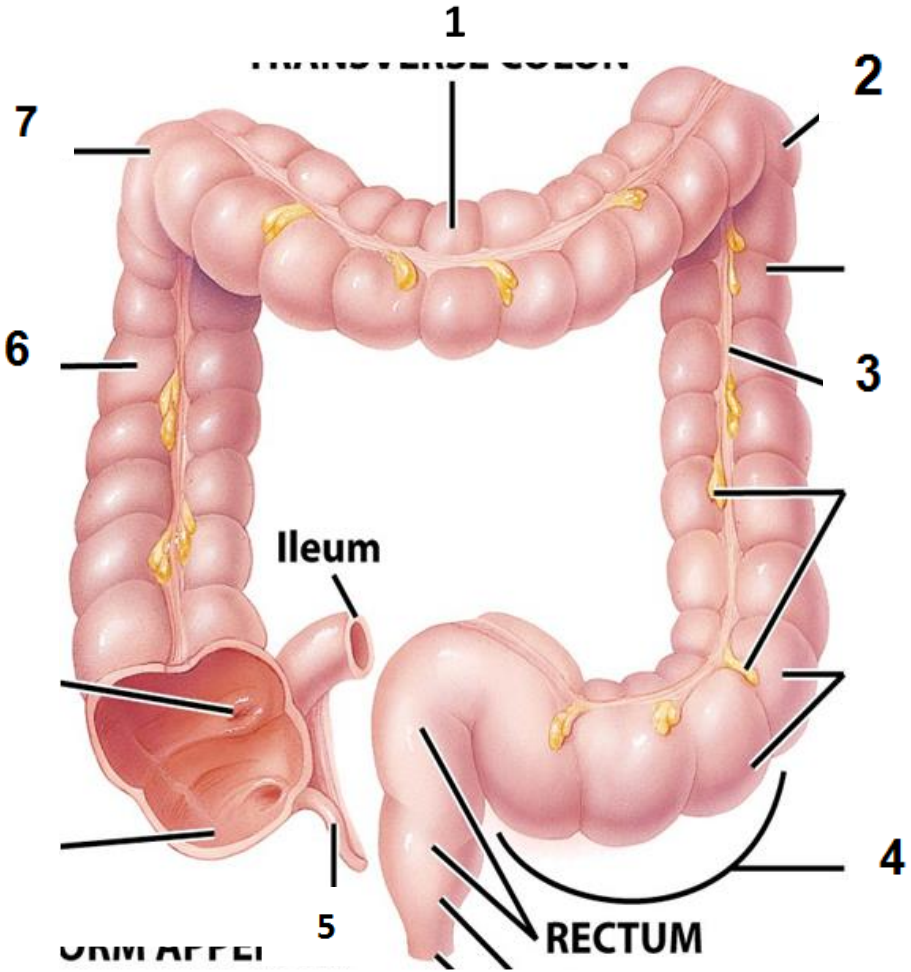
7-Right (hepatic) flexure.

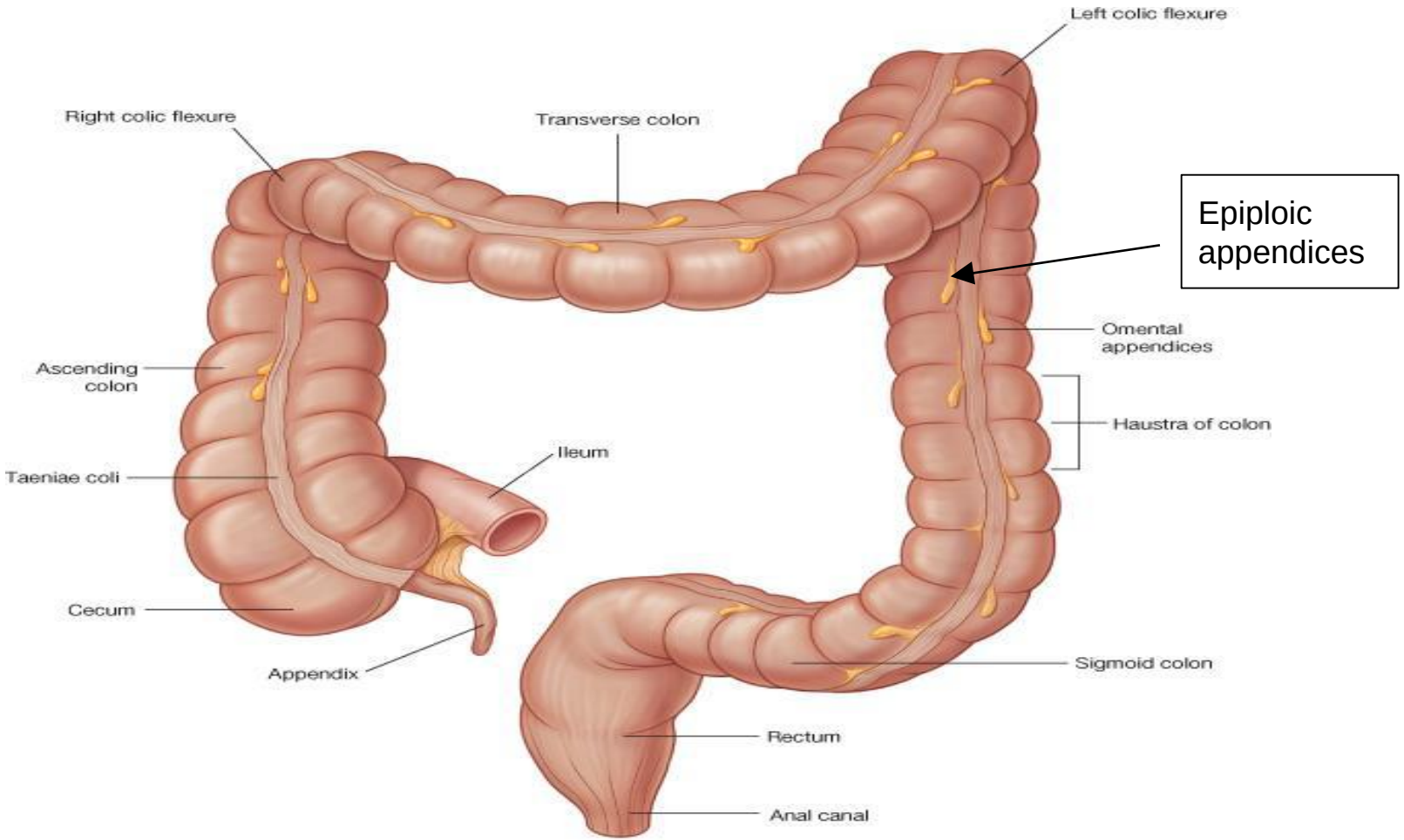
What is the level of the beginning of the rectum? (3marks)

S3 (infront of 3rd sacral vertebra).

What is the length of the rectum?

13 cm (5 inches)





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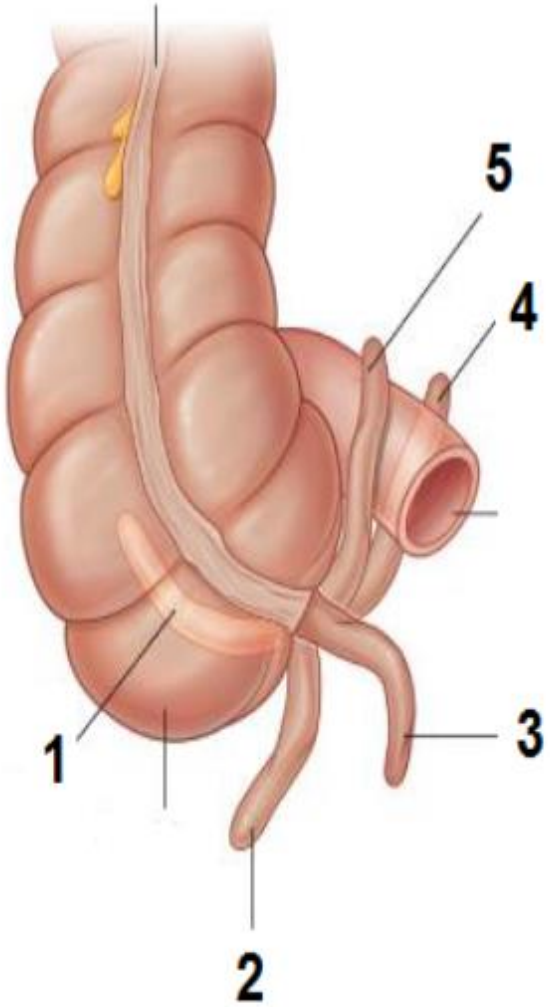
A 12-year- old boy is brought to ER with a fever, nausea, and abdominal pain. Investigation revealed leukocytosis. The case is diagnosed an acute appendicitis.

• Identify the position of the appendix: (1marks each)
1- Retrocecal.
2- Subcecal.
3- Pelvic.
4- Postileal.
5- Preileal.

• What is the most common site? (2marks)
Retrocecal.

• What artery will need to be ligated during appenicectomy operation? (2marks)
Appendicular artery.

•From where this artery arises? (2marks)
Ileocolic of superior mesenteric artery.



A 46-year-old male brought to ER with hematemesis. Investigation revealed liver cirrhosis and portal hypertension.

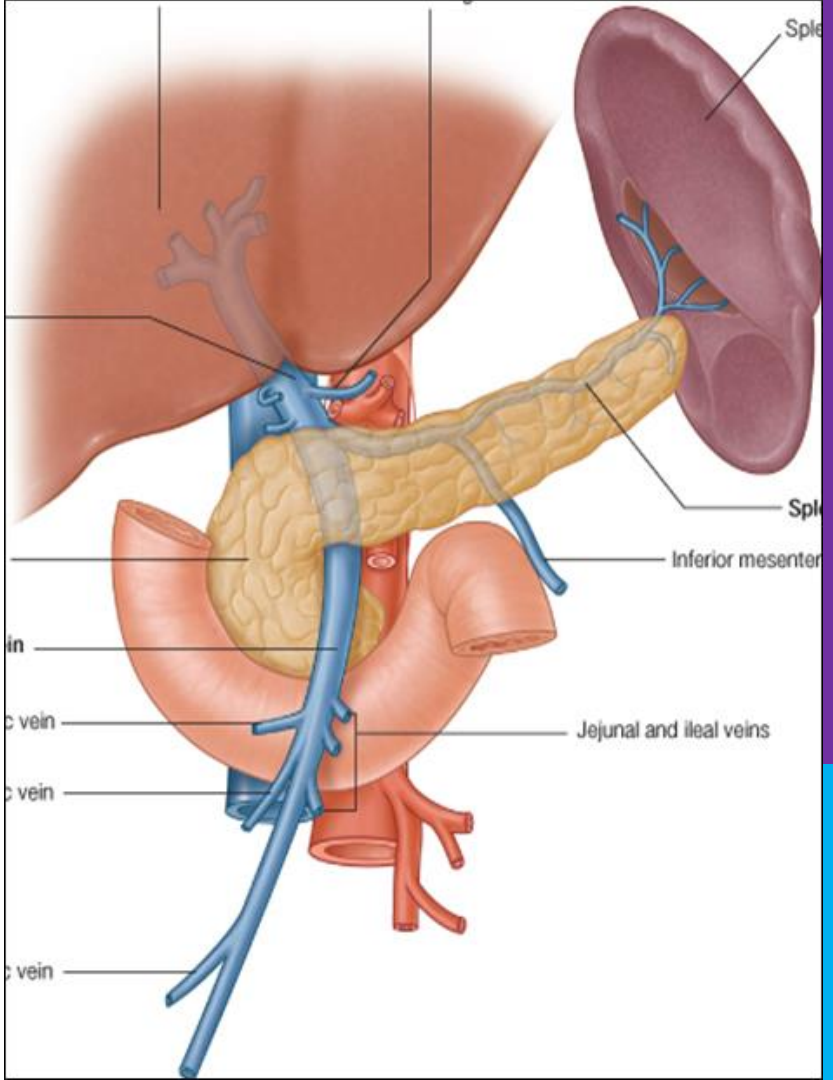
• How the portal vein is formed? (2marks)
Union of superior mesenteric and splenic veins

• What structure lies infront of the beginning of the portal vein? (2marks)
Neck of the pancreas.

• What structure lies behind the beginning of the portal vein? (2marks)
Inferior vena cava.

• What is the cause of bleeding in this case? (2marks)
Esophageal varices.

• List 2 other site of portosystemic anastomosis. (2marks) 1-upper part of anal canal. 2-Anterior abdominal wall.
3/Esophagus 4/paraumbilical region 5/retroperitoneal 6/intrahepatic



• Identify the structures related to the marked impressions:

1.stomach and duodenum

2.Esophagus

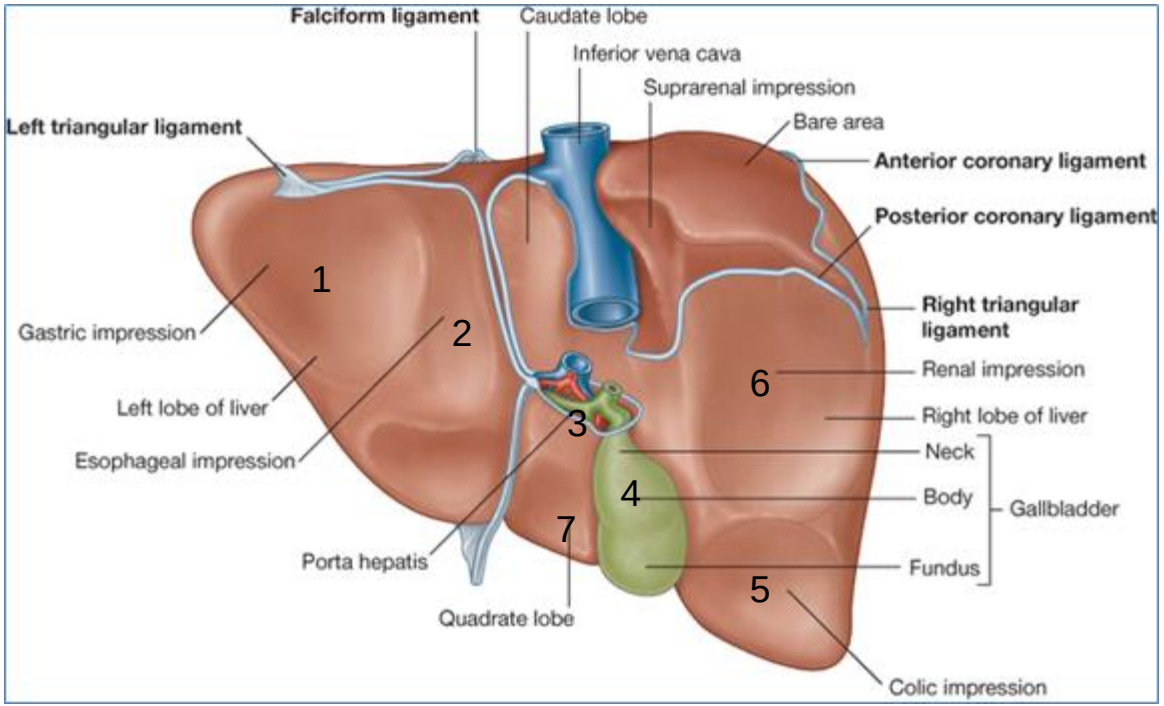
3.lesser omentum

4.gallbladder

5.right colic flexure

6.right kidney and right suprarenal gland

7. Transvers colon

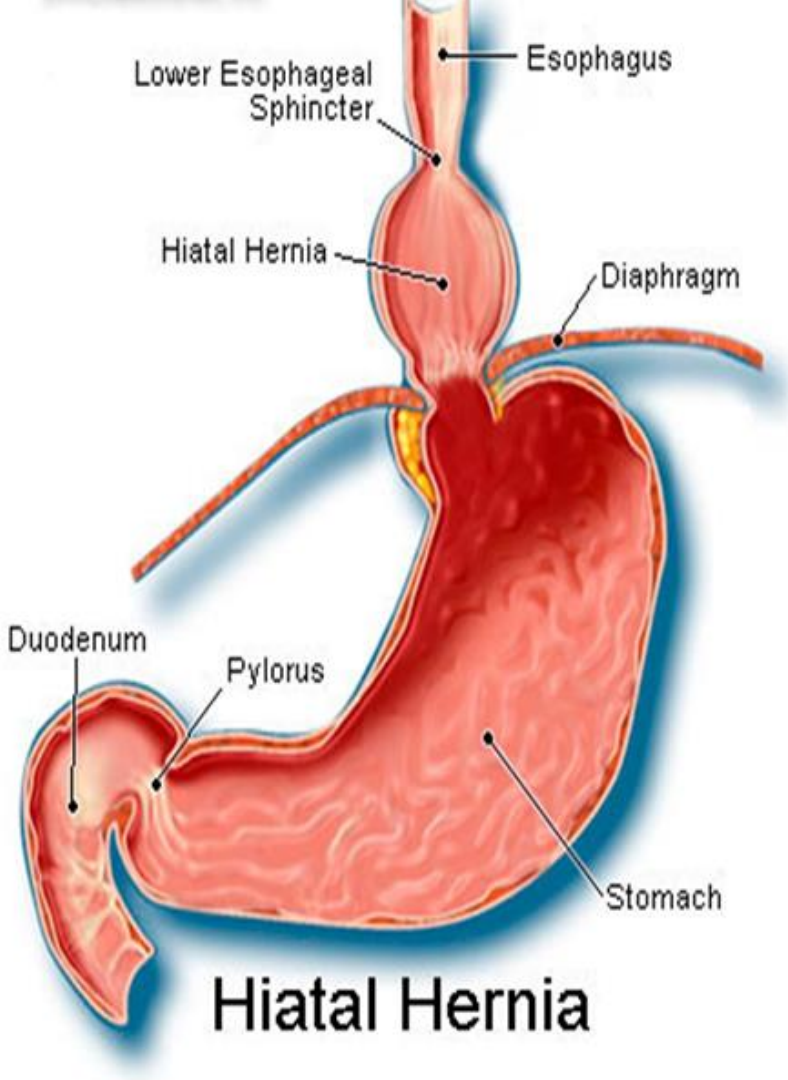


A 55-year- old woman develops a hiatal hernia in which the fundus of the stomach protrudes through the esophageal hiatus of the diaphragm into the thorax.

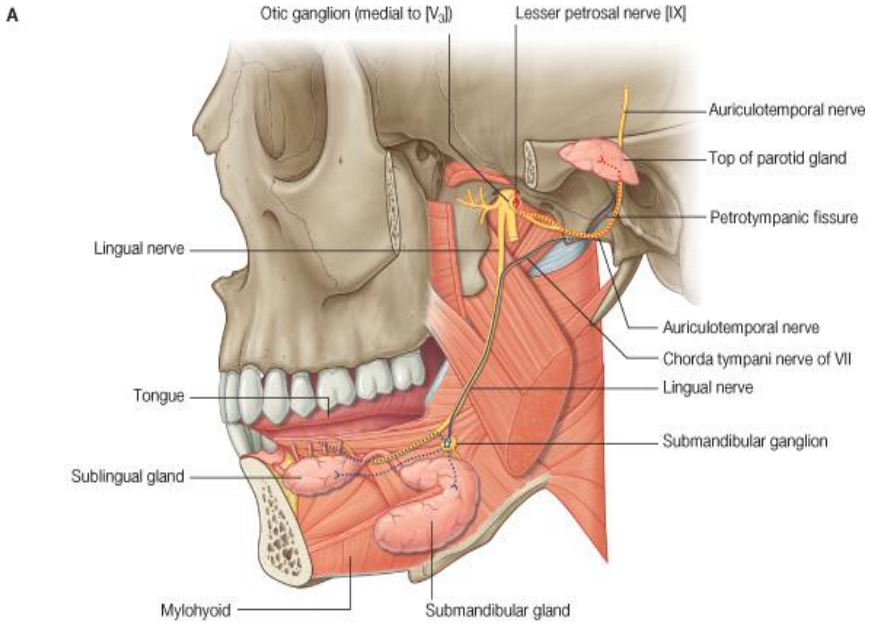
• What is the level of the esophageal opening of the diaphragm? (5 marks).
Thoracic 10.

• What structure is at great risk of injury during surgical repair in this case? (3 marks).
Vagus nerve.

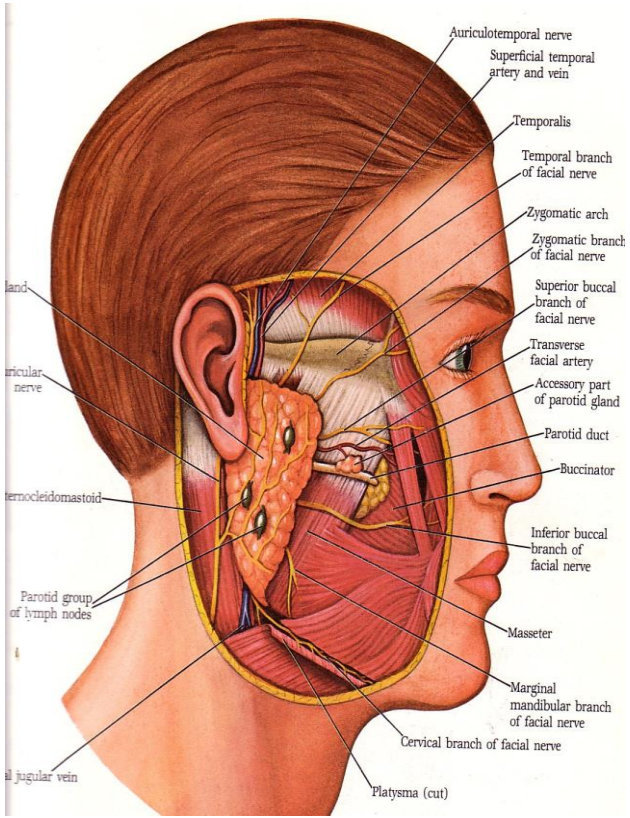
• Enumerate 2 other structure that pass through the esophageal opening of the diaphragm? (2 marks).
1. Branches of left gastric vessels. 2. lymph vessels



Sublingual & submandibular salivary glands

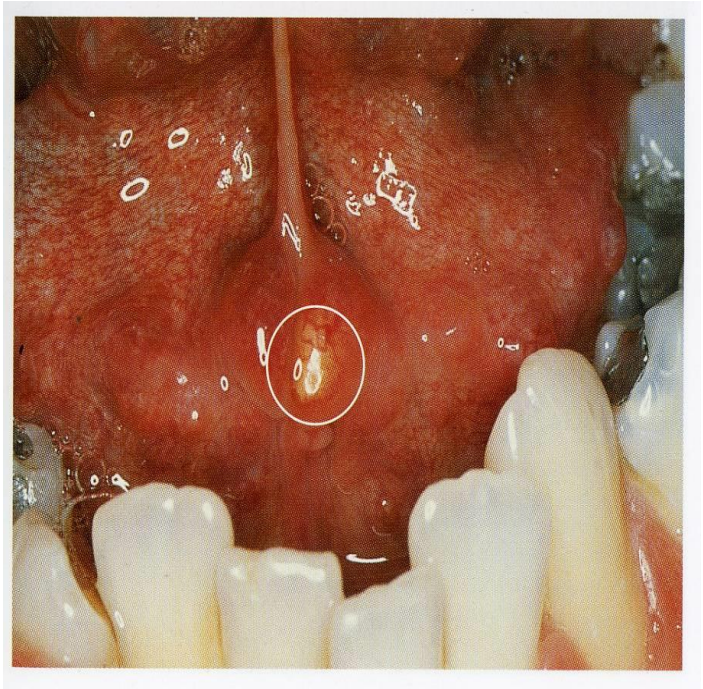


Parotid gland & its accessory part



Salivary glands	
parotid	submandibular
Capsule: Tight, derived from deep cervical fascia of the neck.	crossed laterally by the lingual nerve
The gland is divided into superficial & deep parts, by the Facial nerve fibers.	duct can be palpated through the floor of the mouth alongside the tongue
Structures within the Parotid gland, from superficial to deep: • Facial nerve • Retromandibular vein • ECA	common site of calculus formation: tense swelling below the body of the mandible, which is greatest before or during a meal and is reduced in size or absent between meals. Examination of the floor of the mouth will reveal absence of ejection of saliva from the orifice of the duct of the affected gland.
	The calcified stone (appears as a yellowish mass) can be palpated in the duct, which lies below the mucous membrane of the floor of the mouth.

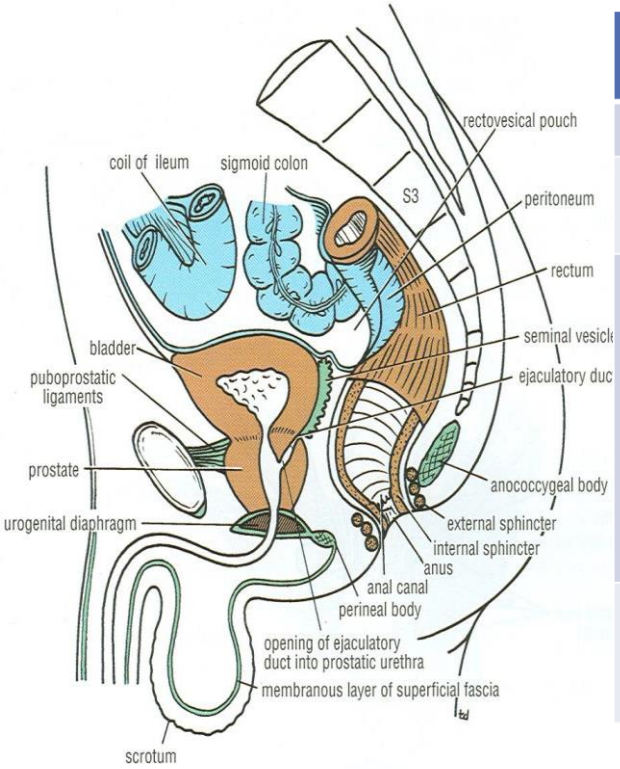
Submandibular calculus



GLANDS	artery	drainage	lymphatic	Nerve Supply	
				sympathetic	parasympathetic
Parotid serous	**ECA*** Most deep Branches: • Maxillary • superficial temporal arteries	Retromandibular intermediate Formed by the union of: • maxillary • superficial temporal veins.	parotid & deep cervical	from plexus around external carotid artery.	Nucleus: inferior salivary Nerve: glossopharyngeal> tympanic plexus> lesser petrosal Ganglion: otic Branch: auriculotemporal
Submandibular mixed serous & mucous	Facial artery	Facial vein.	Submandibular	parasympathetic	
Sublingual predominantly mucous				Nucleus: Superior salivary Nerve: facial (7th) nerve. Ganglion: Submandibular branches: chorda tympani & lingual Postganglionic fibers reach either directly or along the duct	

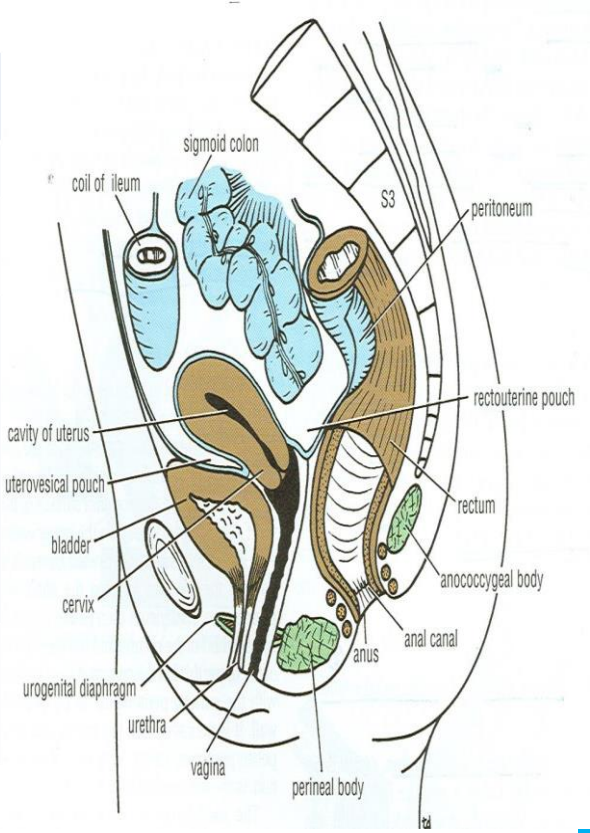
additional slide

male



Rectum		
Relations in rectum		
	Male pelvis	Female pelvis
anterior	• seminal vesicles & vas deferens (both are on the base of urinary bladder) • Posterior surfaces of urinary bladder • prostate gland	posterior wall of vagina
posterior	• Sacrum • sacral plexus • coccyx	

female



Doctors' notes in Theoretical lectures :

•The caudate lobe is connected to the right lobe by the **caudate process.**

***relation of spleen:**

•Anteriorly: Stomach, tail of pancreas, left colic flexure & left kidney

•Posteriorly: Diaphragm, that separates it from the left pleura (left costo-diaphragmatic recess), left lung & 9, 10 & 11 ribs

•Inferiorly: Left colic flexure.

•Medially: Left kidney.

Arterial supply to the spleen:

•Largest branch of the **celiac artery**

•Runs a **tortuous course** along the **upper border of the pancreas**

•**Passes within** the **lienorenal ligament**

•**The lack of anastomosis** of these **arterial vessels** within the spleen **results in** the formation of **vascular segments of the spleen** with relatively avascular planes between them, enabling **subtotal splenectomy.**

venous drainage of spleen:

•**Runs behind** the **tail** & **body** of the pancreas

•Reaches **behind the neck** of **pancreas**, where **it joins** the **superior mesenteric vein** to form the **portal vein**

•**Tributaries:**

•Short gastric vein

•left gastroepiploic vein

•Pancreatic veins

•Inferior mesenteric vein

Thank you for checking our team

Hope it was helpful ☺

Done By:

الهام الغامدي

نجلاء الرباح

ندى العمري

خلود العنزي