



ENDOCRINE SYSTEM

[OSPE]



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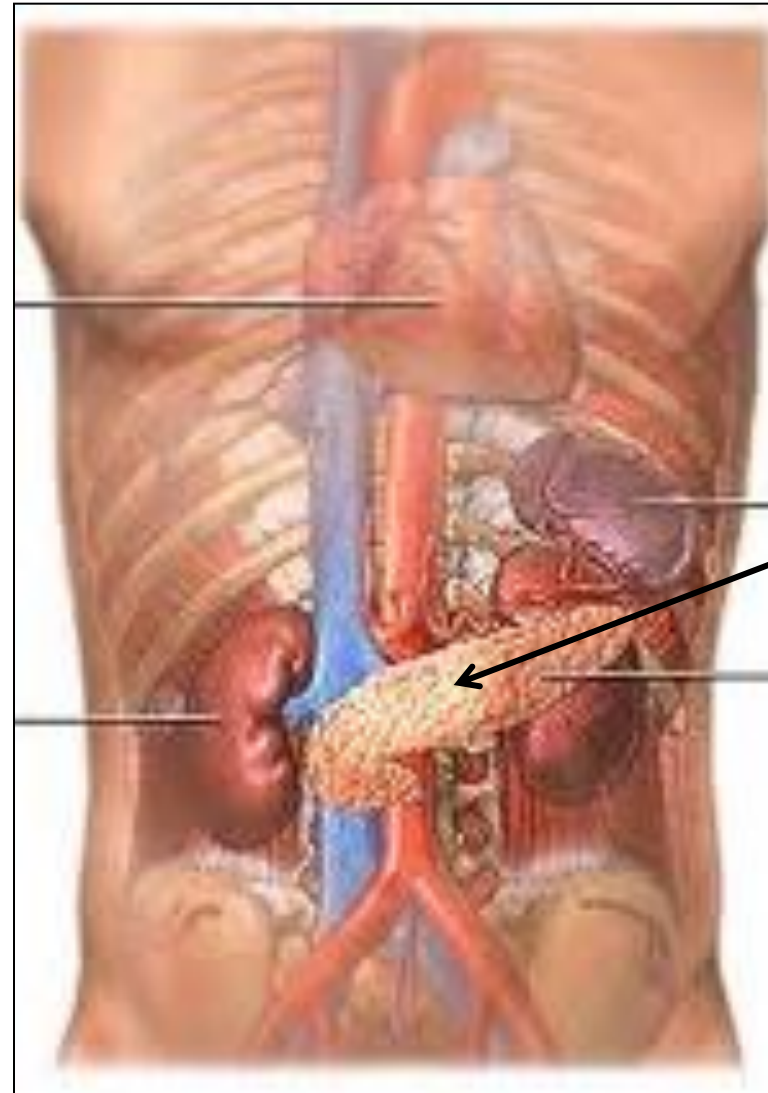
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Pancreas

1-Mention parts of the structure (A)?
head, neck, body, tail. Of pancreas

2- Mention its level?
(2nd lumbar vertebral).



Mention 3 structures related to the anterior surface of the body of the pancreas ?

A: Stomach.

B: Transverse colon.

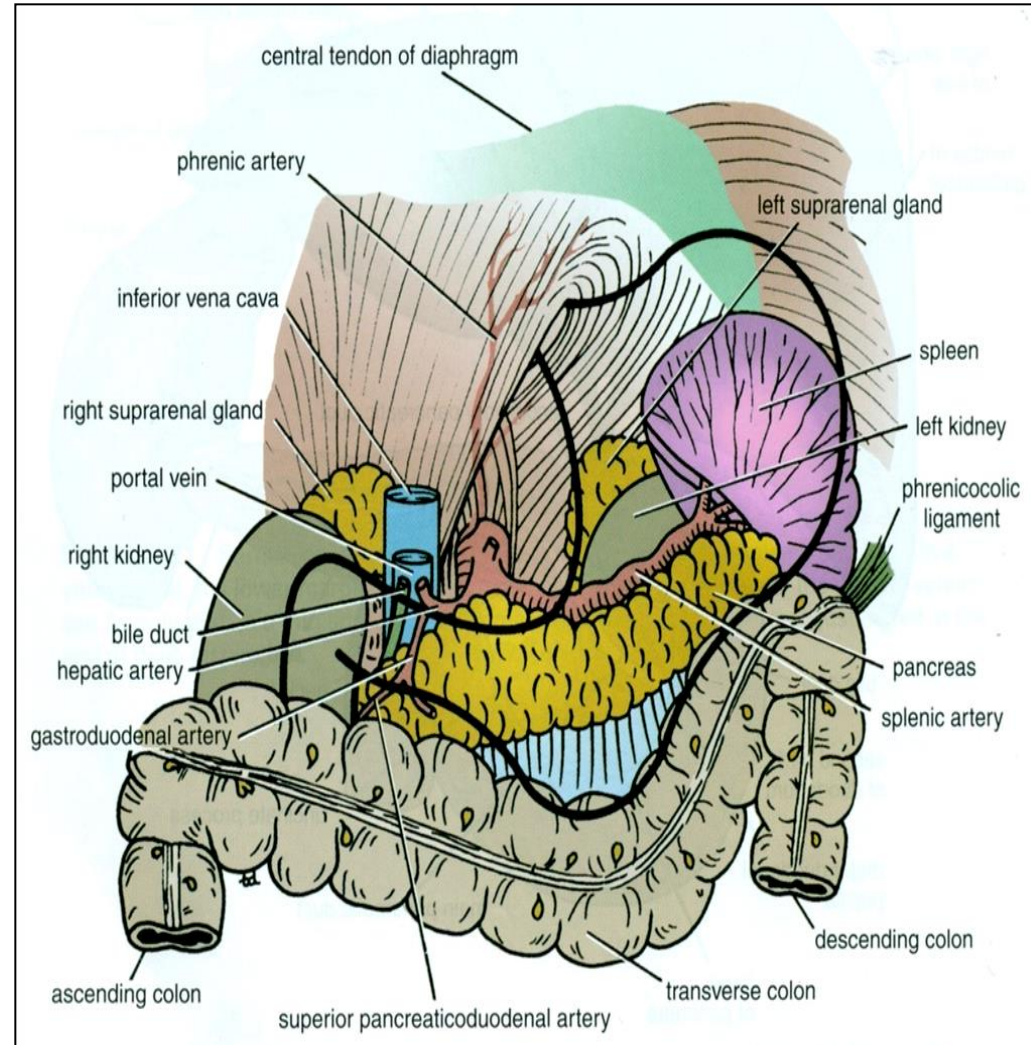
C: Lesser sac.

D: Transverse mesocolon .

Enumerates 2 veins related to its body?

1-Splenic .

2-Left renal vein .



Label the indicated arrows .

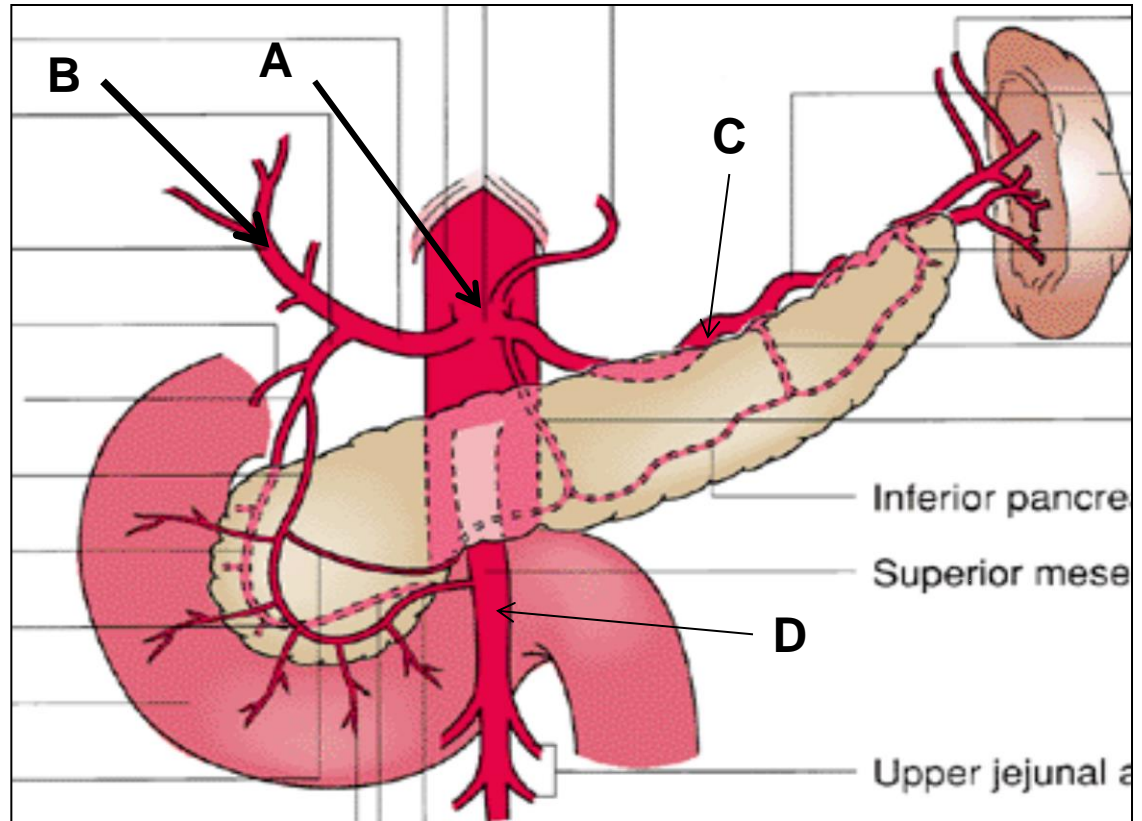
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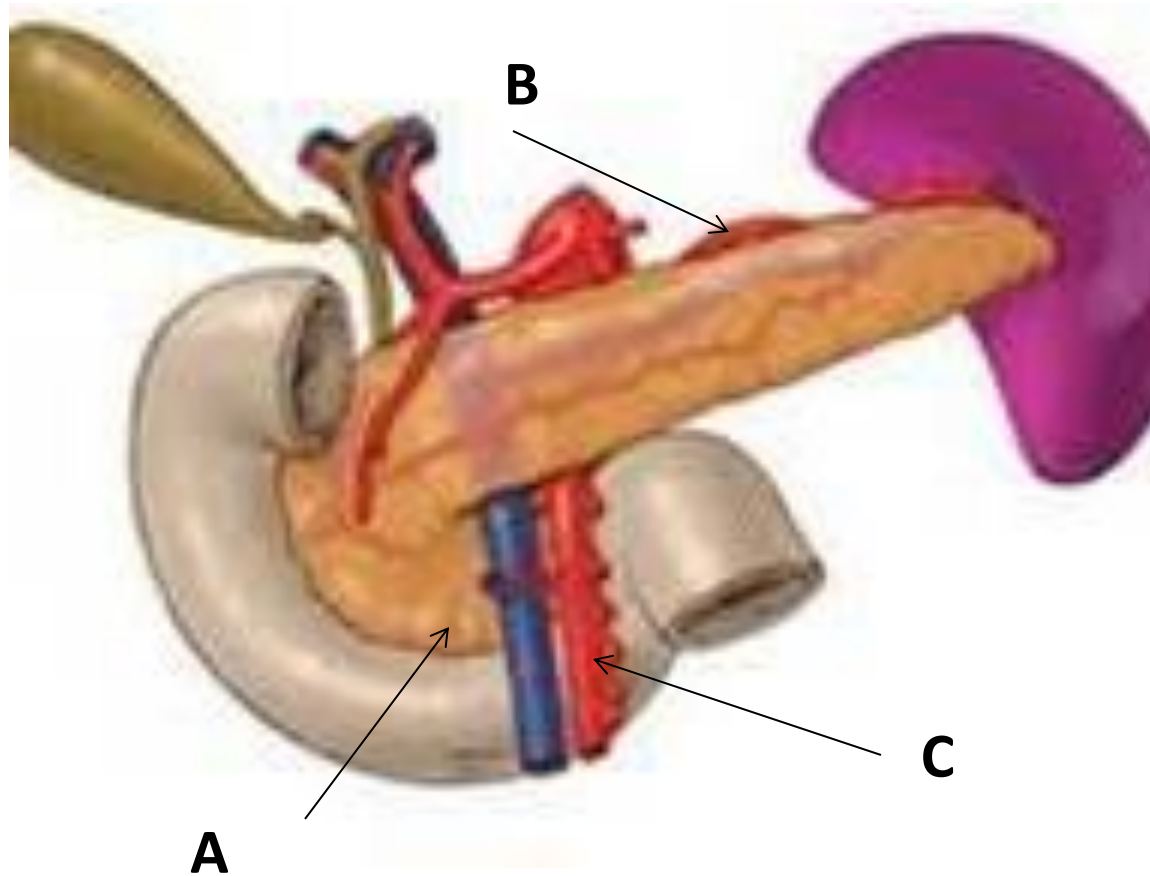
A: Celiac artery.

B: hepatic artery.

C: Splenic artery

D: superior mesenteric artery





IDENTIFY :

A - Uncinate process .

B - Splenic artery .

C - (It supplies which part of the pancreas)? Supplies the Head of the pancreas “ Superior mesenteric “

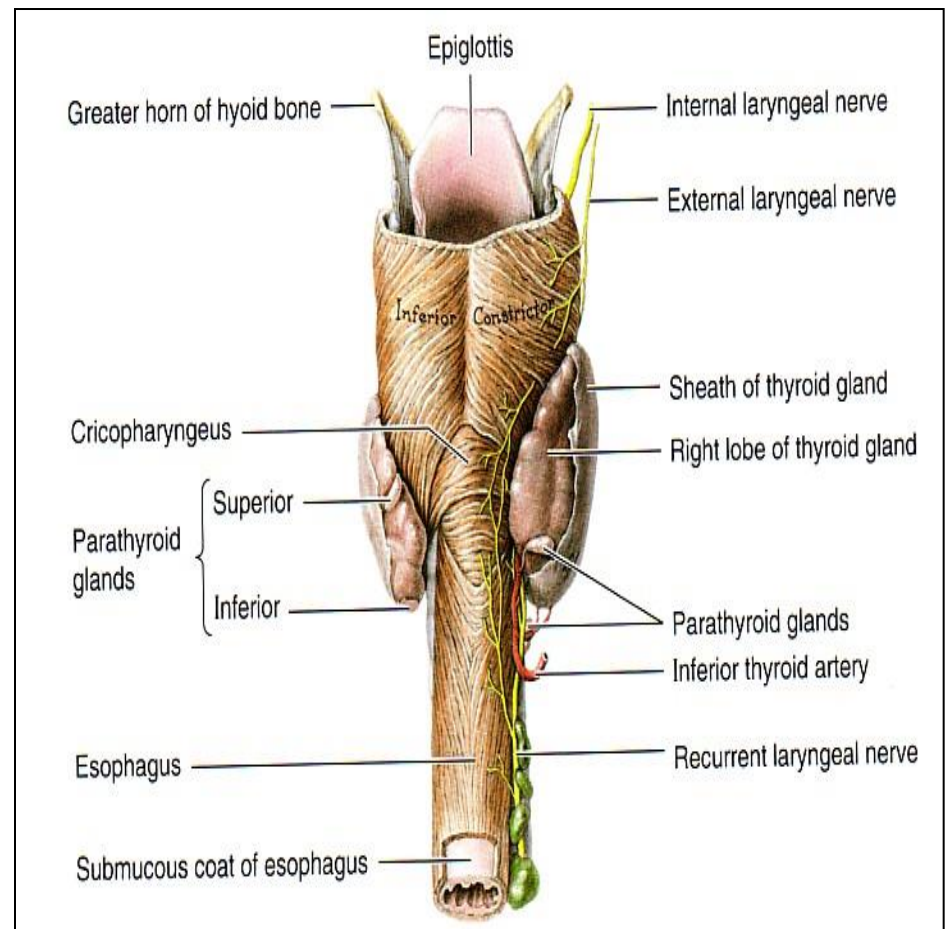
Relation of thyroid gland

Mention 2 nerves related to the thyroid gland?

- 1- Recurrent laryngeal nerve .
- 2- External laryngeal nerve.

Mention 2 muscles related to both isthmus and lobe of the thyroid gland.

- 1- Sternothyroid.
- 2- Sternohyoid.



In thyroidectomy operation

Mention;

A. 2 parts of the deep cervical fascia

which should be incised?

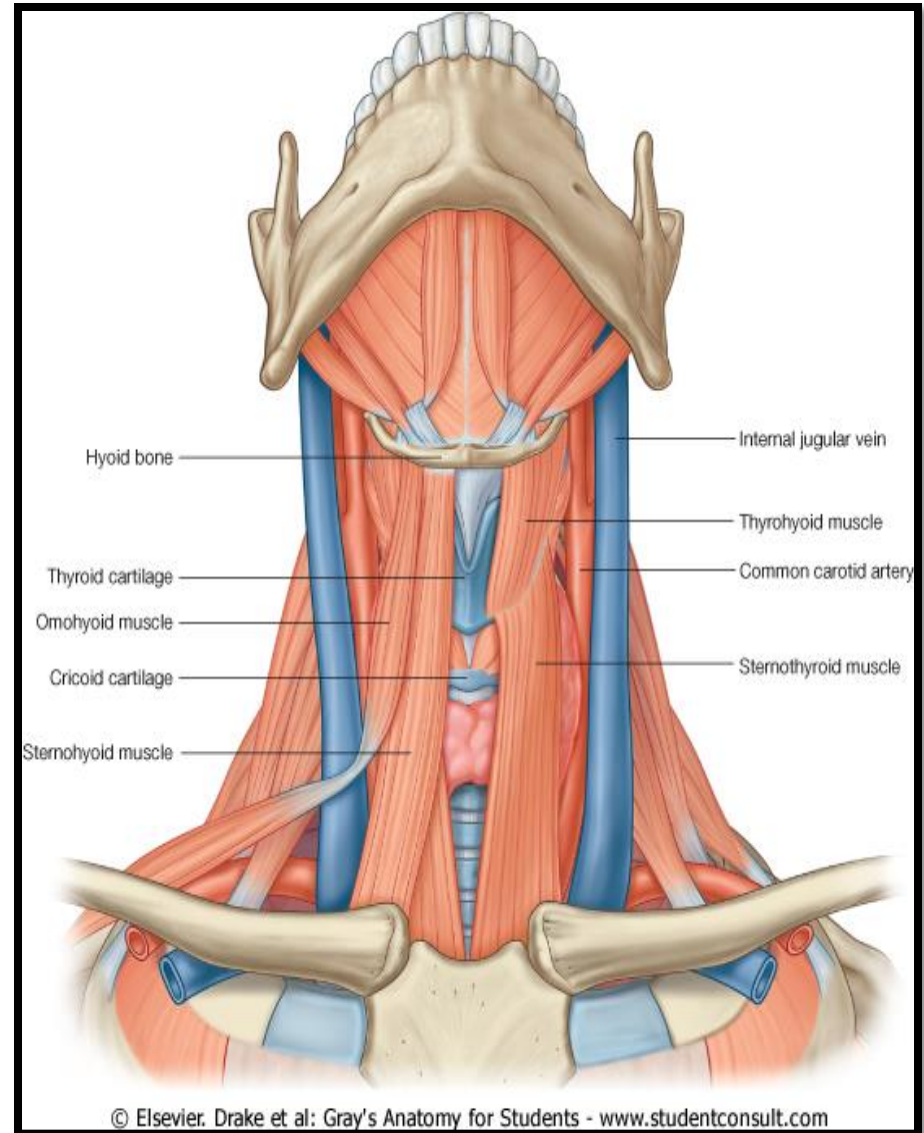
1- Investing layer.

2- Pretracheal layer

B. Mention 2 nerves in close relation to its blood supply?

1- The external laryngeal nerve.

2- The recurrent laryngeal nerve



Relations

Anterolaterally:

1. Sternothyroid.
2. Superior belly of omohyoid
3. Sternohyoid.
4. Sternomastoid.

Posterior:

Carotid sheath & its contents.

Medially:

Above:

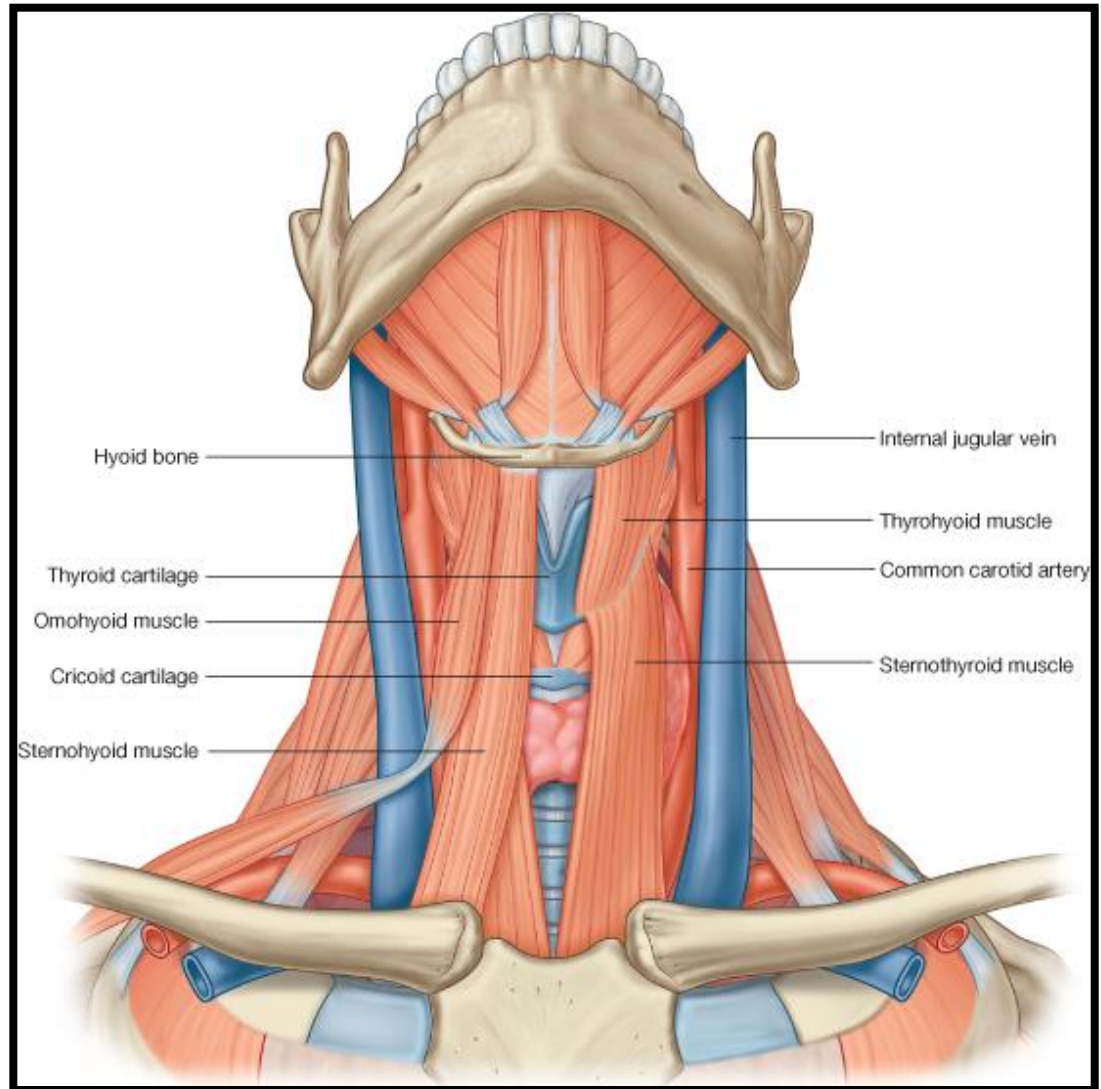
Larynx & pharynx .

Below:

Trachea & esophagus.

Recurrent laryngeal nerve in between.

Cricothyroid muscle & external laryngeal nerve.



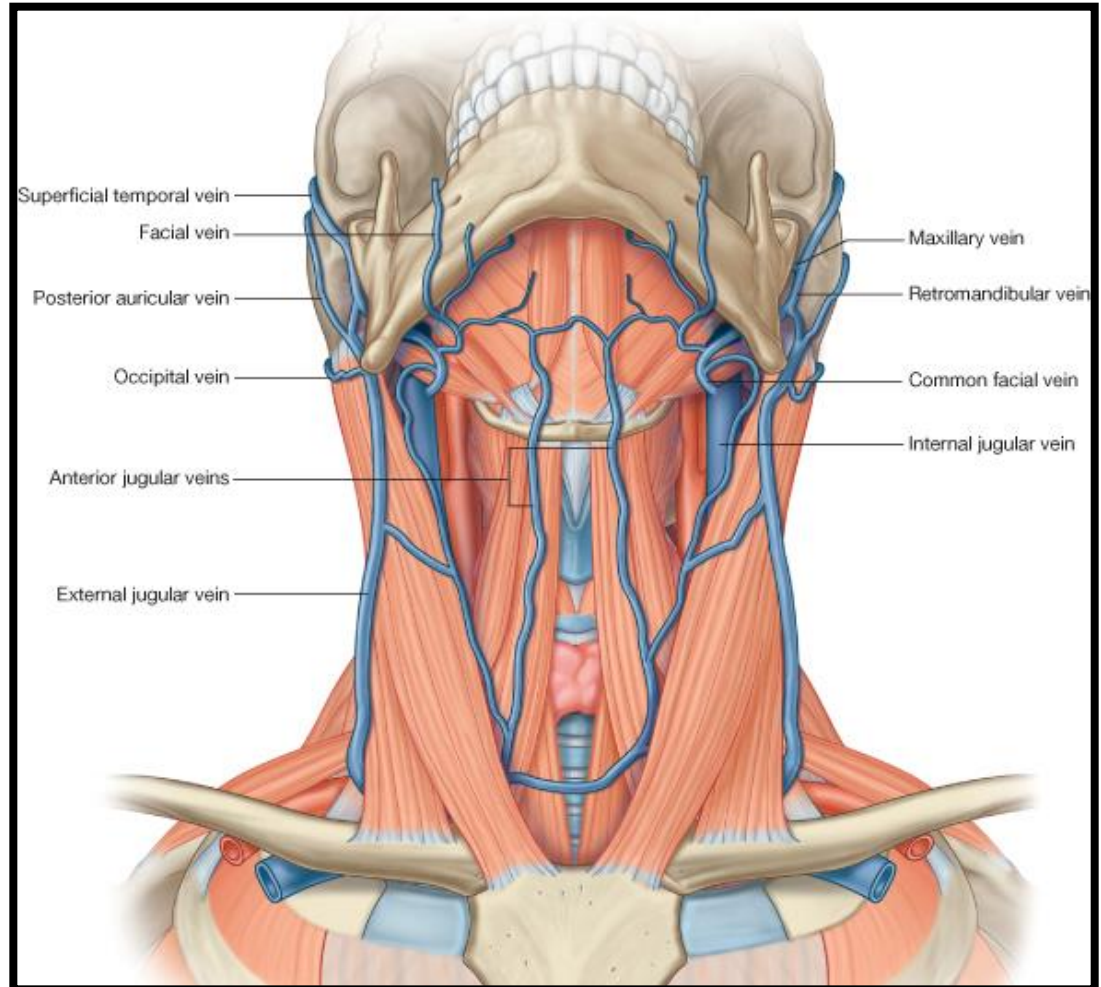
Relation of the isthmus :

Anteriorly:

- 1- Sternothyroid,
- 2- Sternohyoid,
- 3- Anterior jugular vein,
- 4- Fascia & skin.

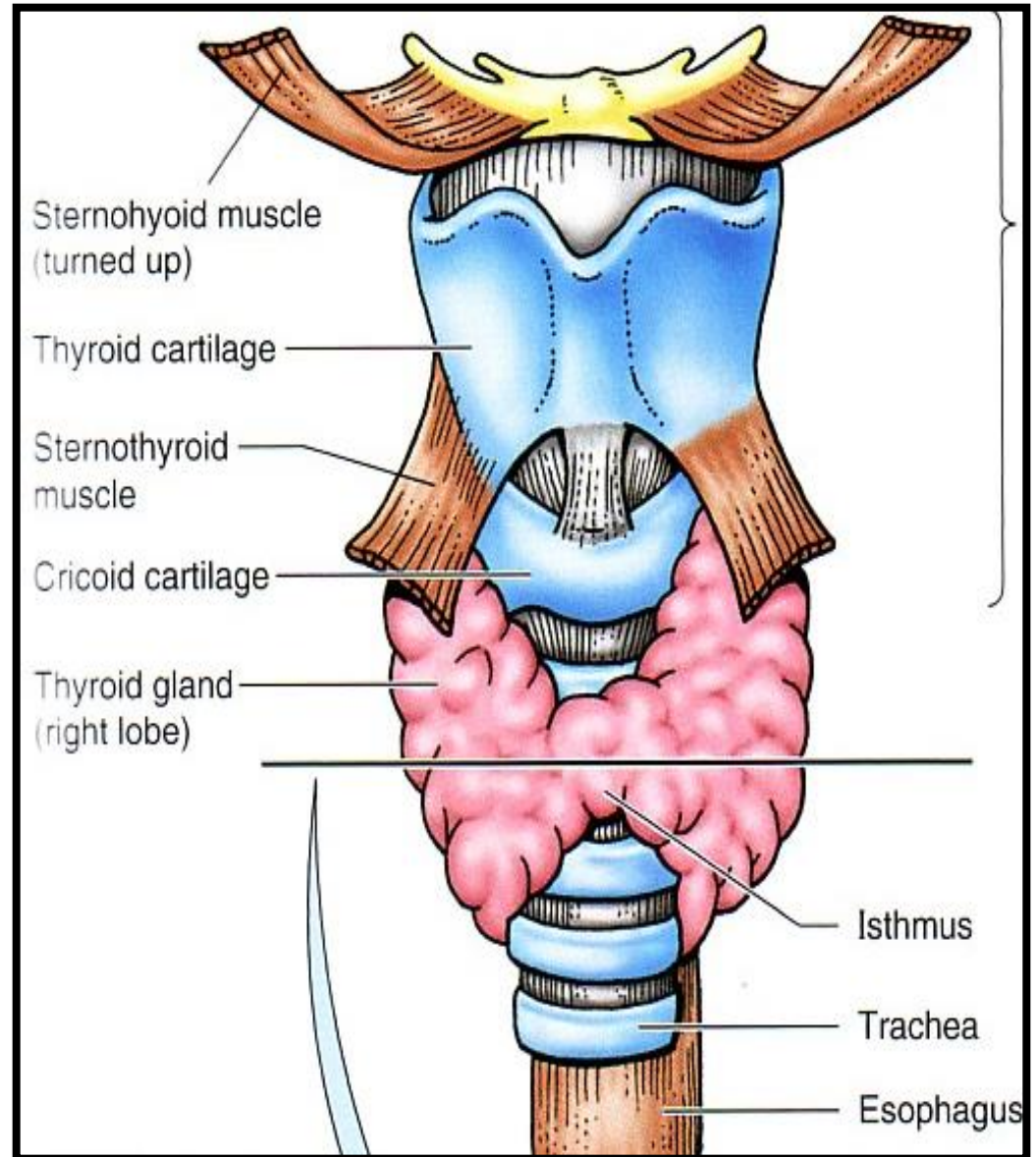
Posteriorly:

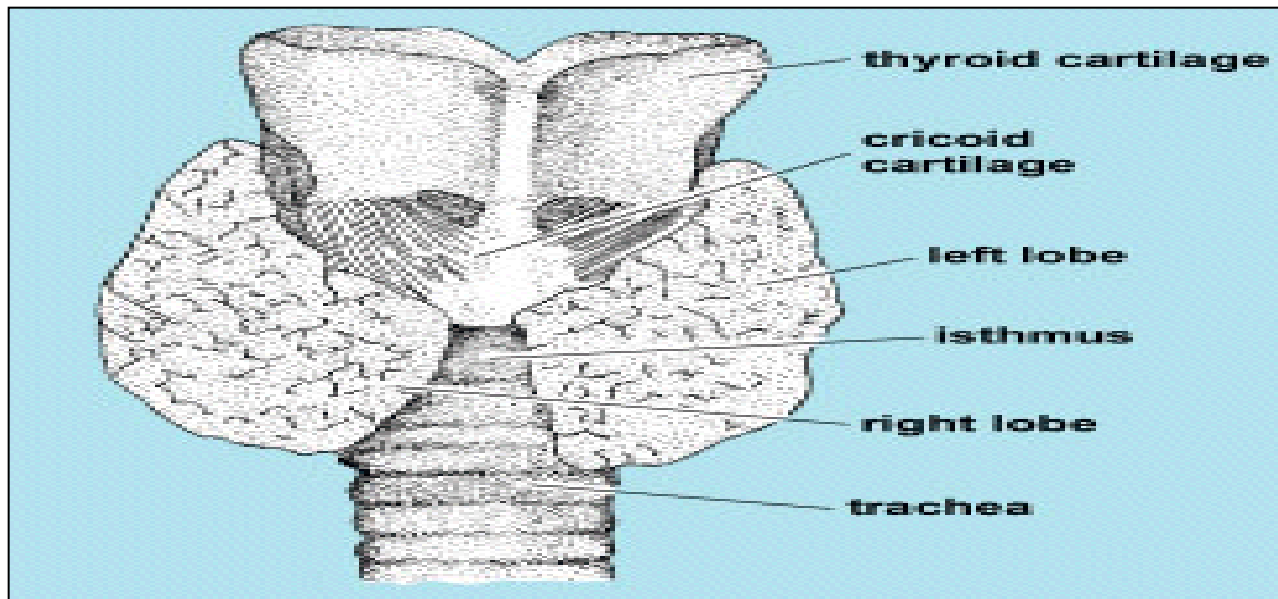
- 2nd, 3rd, & 4th tracheal rings
- Terminal branches of the two superior thyroid arteries as they anastomosis along the upper border.



431

- **Level of thyroid lobes?**
- Obliqu line**
- Level of 4-5 tracheal rings**
- **Level of thyroid Isthmus?**
- Front of 2- 3- 4- tracheal rings**





A 25-year-old woman complaining of a swelling on the front of the neck below the thyroid cartilage. She had difficulty in swallowing and breathing . The investigations suggested a diagnosis of adenoma of thyroid gland.

1. During thyroidectomy which nerve is endangered with ligation of the superior thyroid artery ?

External laryngeal nerve .

2. Name the fascial capsule of thyroid gland ?

Pretracheal cervical fascia

3. Mention 3 muscles are lying anterolaterally to the thyroid gland ?

1- Sternothyroid .

2- Superior belly of omohyoid .

3- Sternohyoid .

4- Sternomastoid .

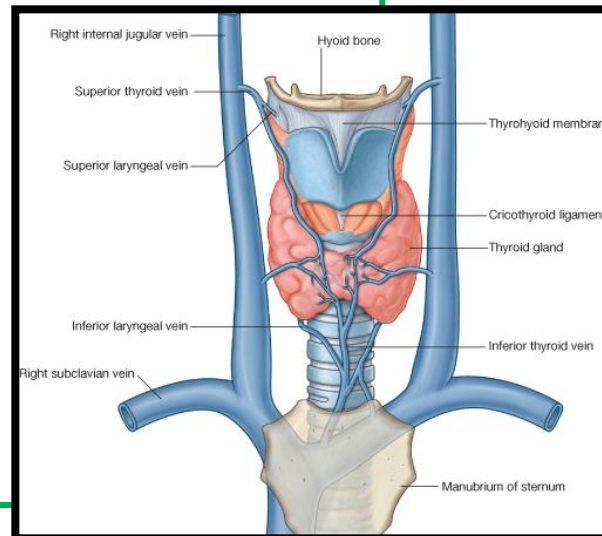
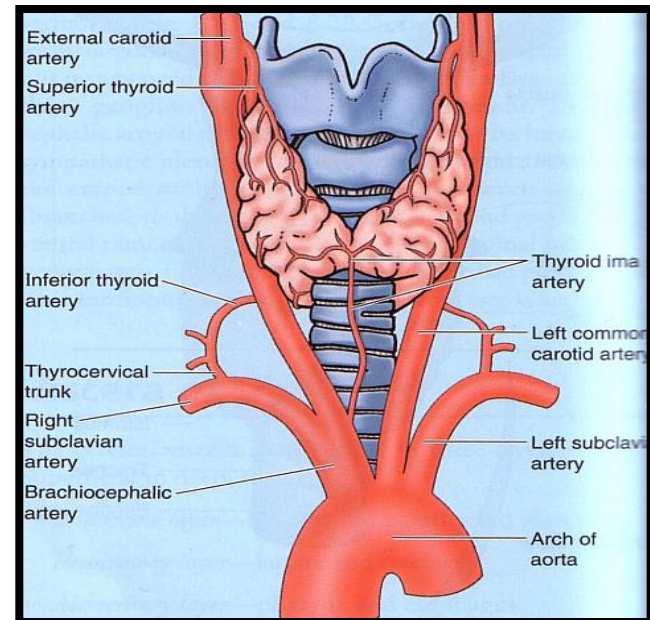
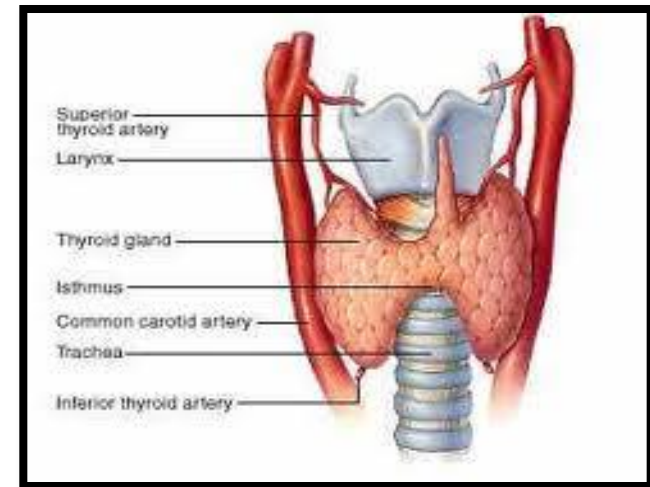
431

For the thyroid gland Mention:

- **origin of the arterial supply ?**
 - 1- external carotid artery .
 - 2- aortic arch or brachiocephalic artery.
 - 3- thyrocervical trunk of 1st part of subclavian artery.
- **end of the venous drainage.**
 - 1- internal jugular.
 - 2- left brachiocephalic

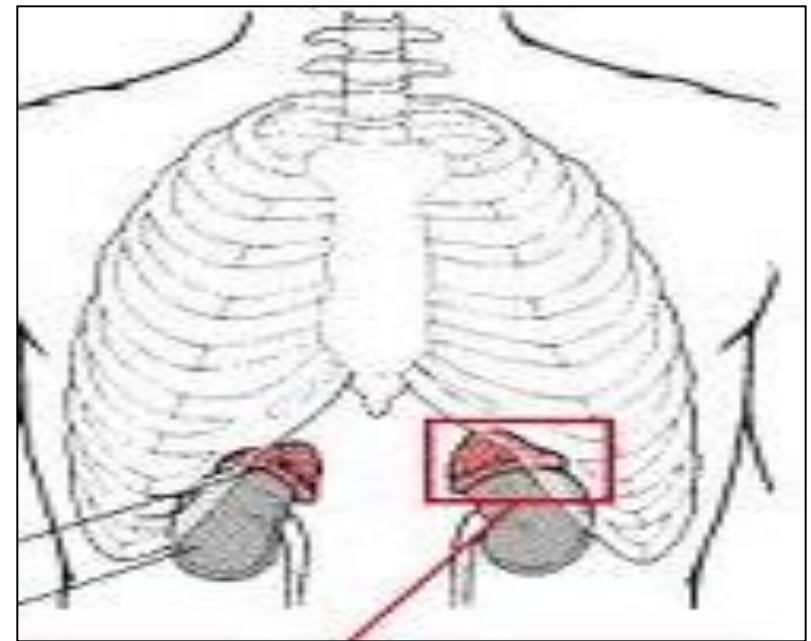
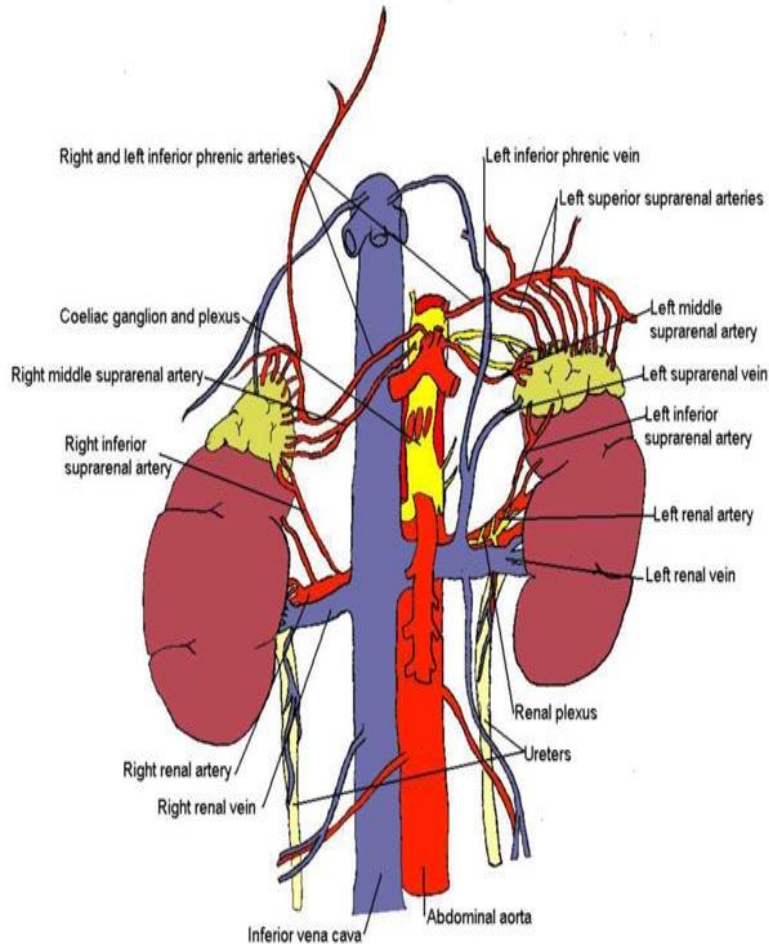
Veins of Thyroid Gland:

- 1-Superior thyroid vein >> internal jugular
- 2- Middle thyroid vein >> internal jugular
- 3- Inferior thyroid vein >> left brachiocephalic



1- Mention the anatomical level of the adrenal glands.

key: **T12**



2- Mention the arterial supply of the adrenal glands and the origin of each ?

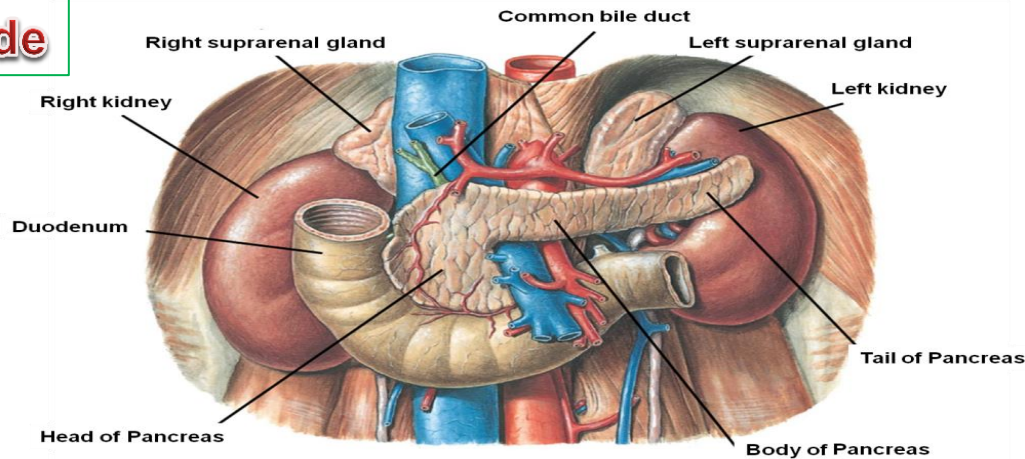
- a. Superior suprarenal → (inferior phrenic).
- b. middle suprarenal → (abdominal aorta).
- c. Inferior suprarenal → (renal arteries)

From 431 :

Mention the origin of the venous drainage of the adrenal glands ?

- a. the inferior vena cava on the right
- b. the left renal vein on the left.

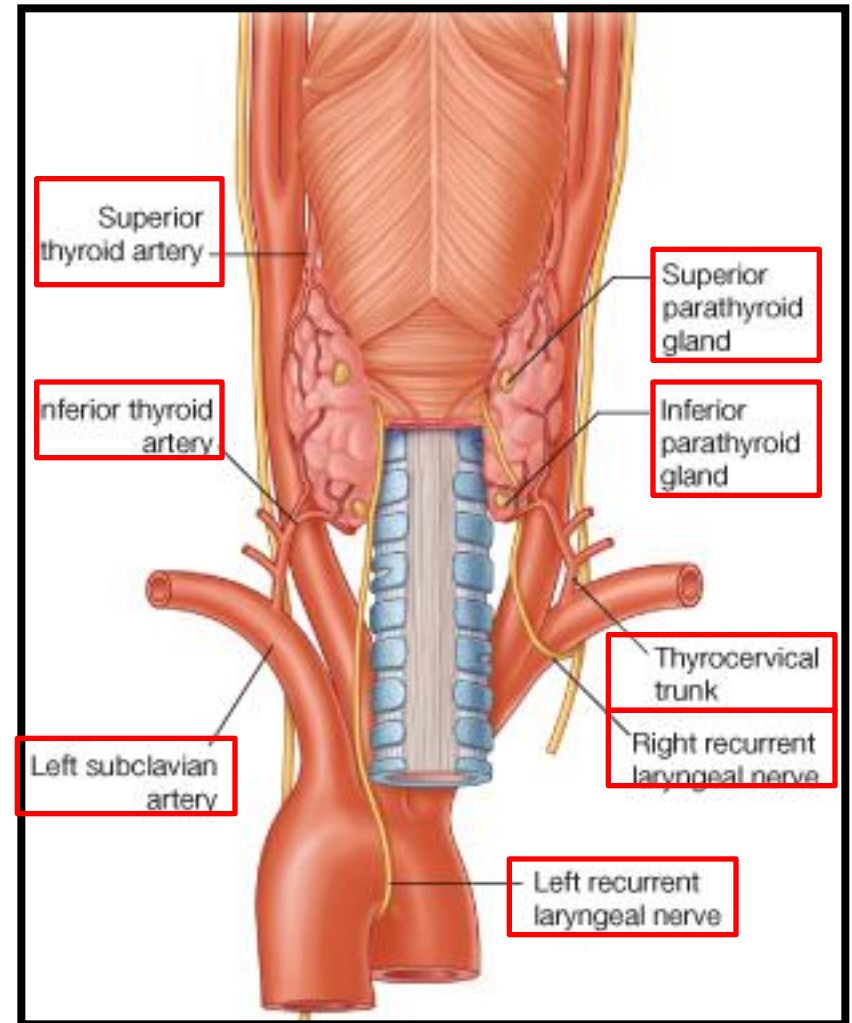
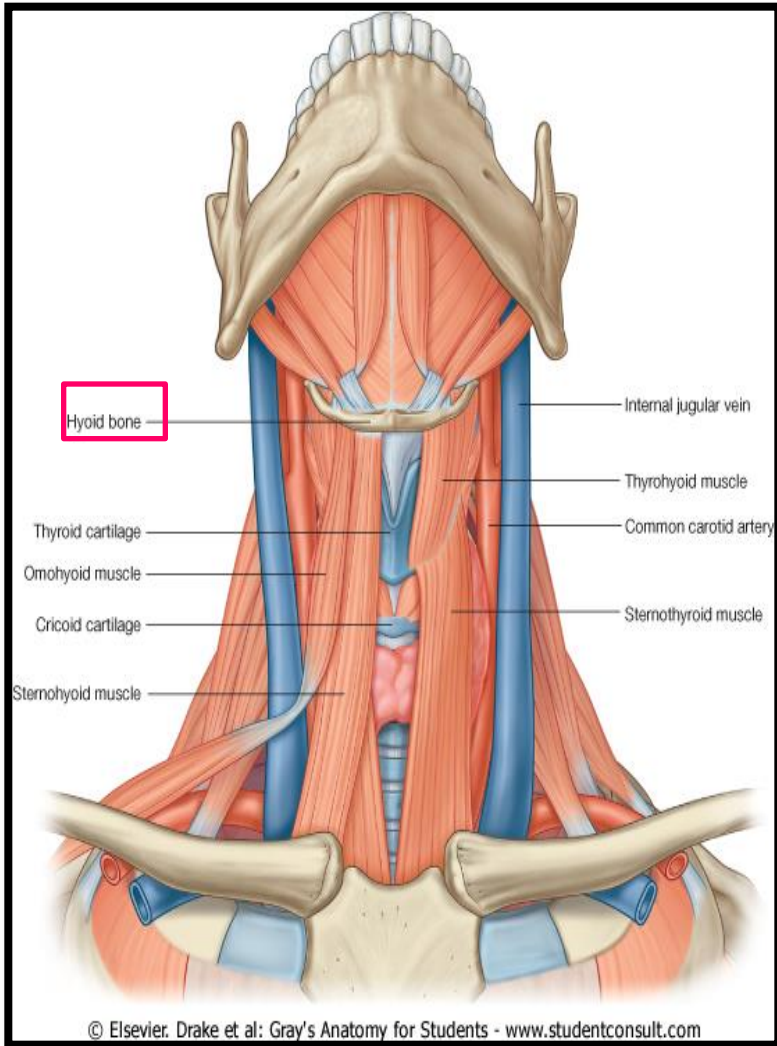
Additional slide



□ Differences between right and left adrenals

Right Gland	Left Gland
Is pyramid shaped and caps the upper pole of the right kidney	is crescent in shape and <u>extends along the medial border of the left kidney</u> from the upper pole to the hilus
<u>Anterior:</u> <ul style="list-style-type: none"> - right lobe of the liver - inferior vena cava (IVC). 	<u>Anterior:</u> <ul style="list-style-type: none"> - Pancreas - lesser sac - stomach
<u>Posterior:</u> <ul style="list-style-type: none"> - diaphragm. 	<u>Posterior:</u> <ul style="list-style-type: none"> - diaphragm.

Additional slide

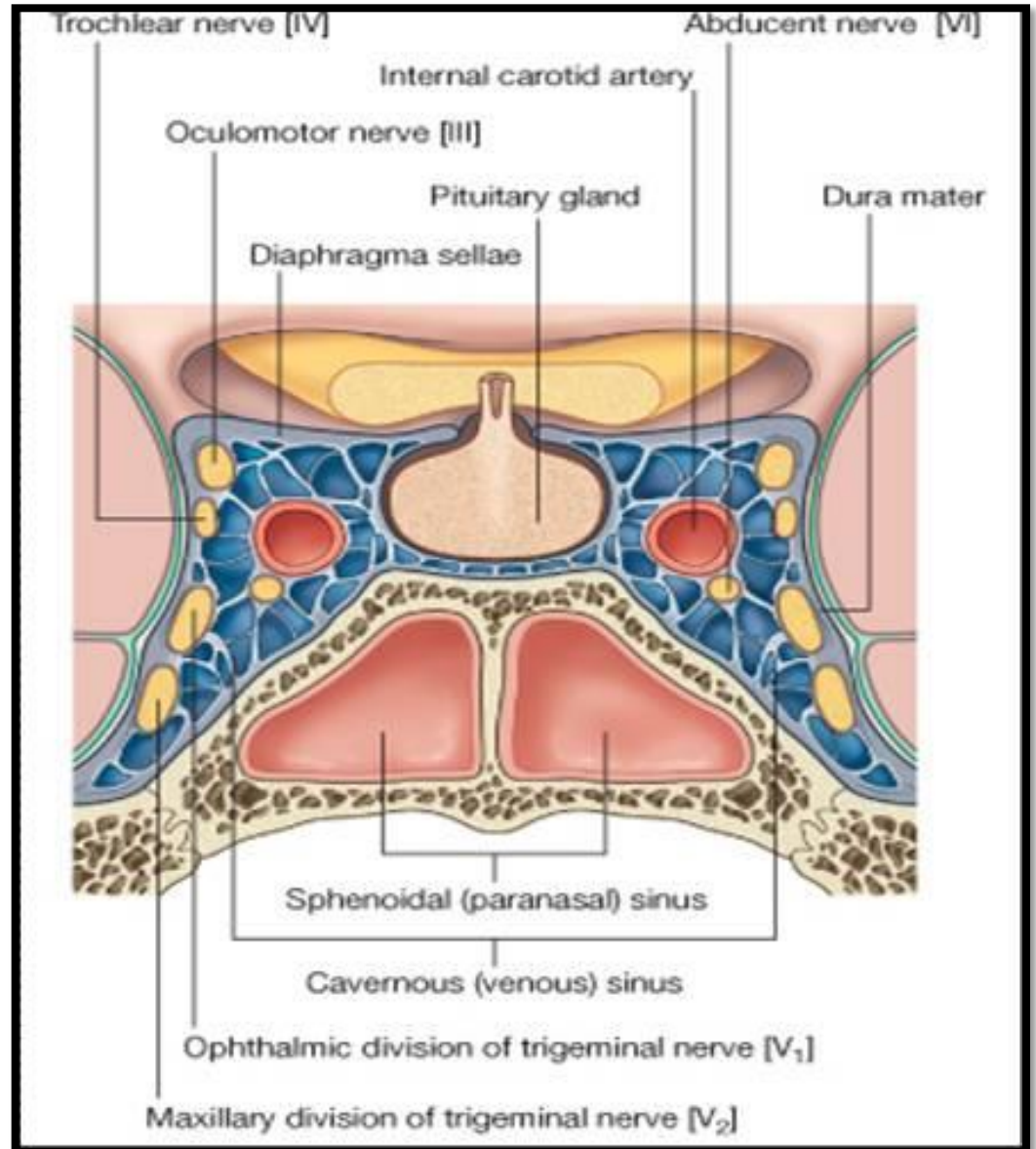


431

Relations

Mention important lateral , superior , posterior and inferior relations of pituitary gland :

- Superior: Diaphragma sellae
- Inferior: Sphenoidal air sinuses
- Lateral: Cavernous sinuses
- Anteriorly: optic chiasma
- Posteriorly: mamillary bodies).



431

Blood supply :

Arterial supply

Arteries:

Superior & inferior hypophyseal arteries .

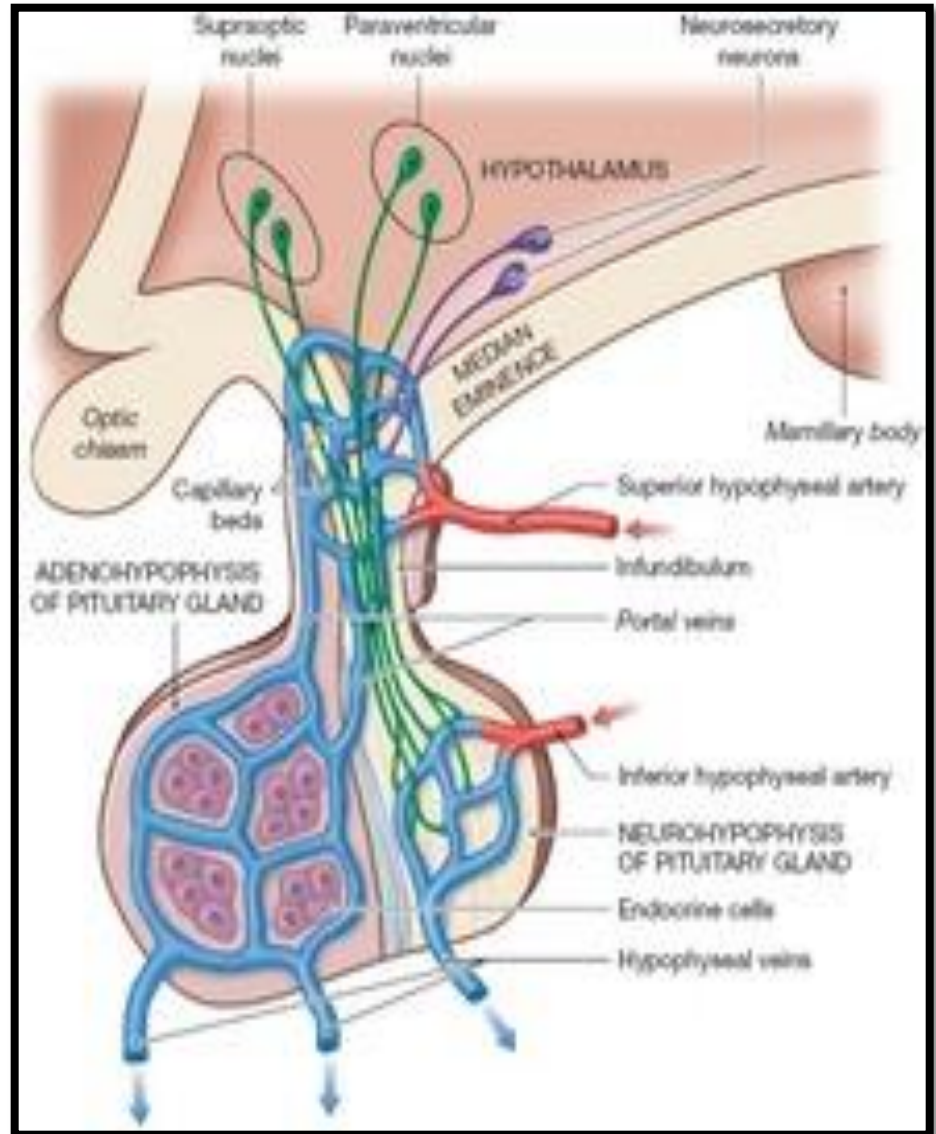
(branches of internal carotid artery).

Venous drainage

Veins:

hypophyseal veins

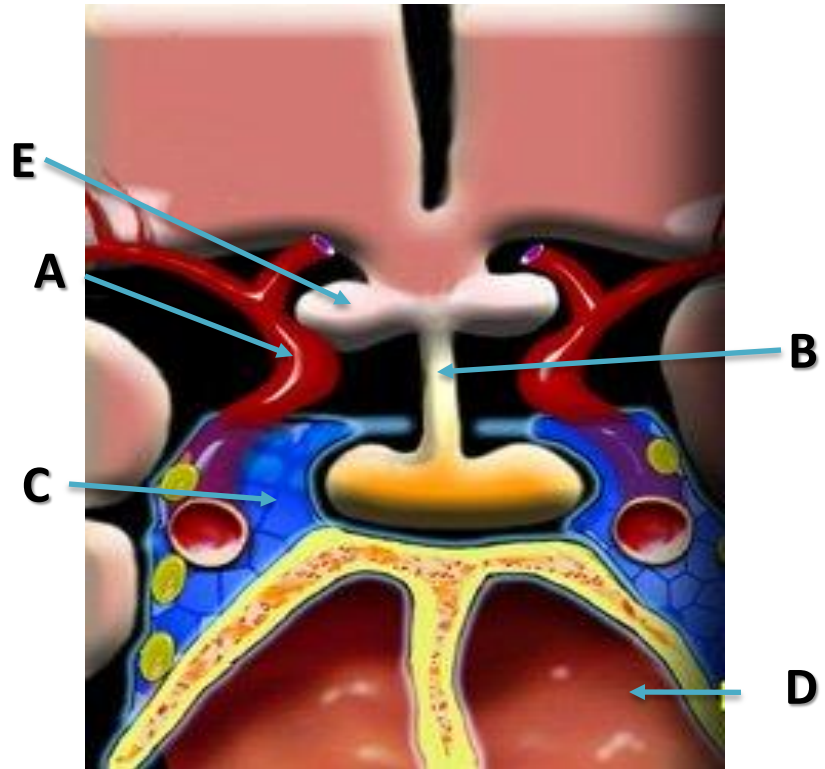
drain into cavernous sinuses ..



- The given diagram is a coronal section of the skull showing the relation of the pituitary gland.
- **Identify: A, B, C & D**

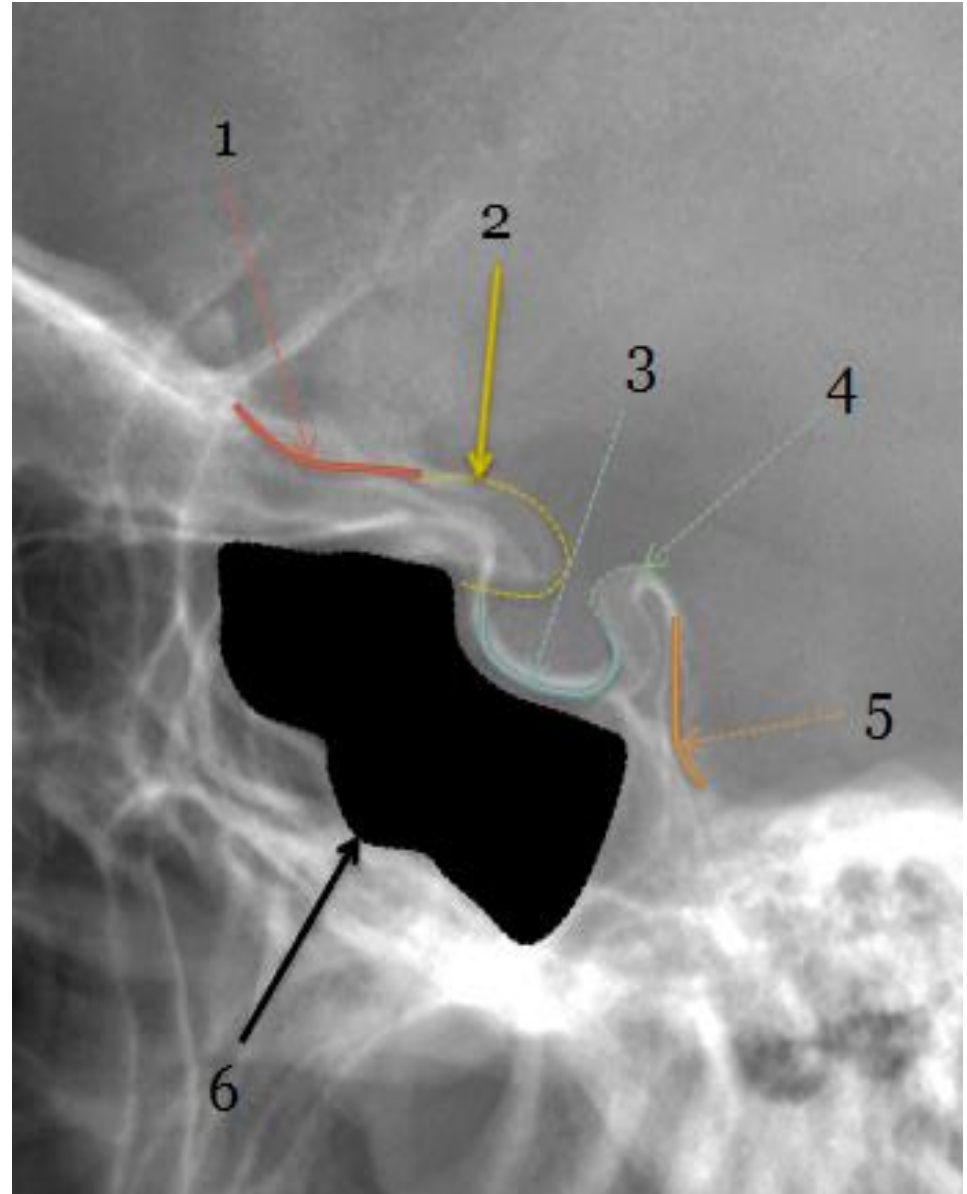
KEY

- A. Internal carotid artery**
- B. Pituitary stalk**
- C. Cavernous sinus**
- D. Sphenoidal air sinus**
- E. Optic chiasm**

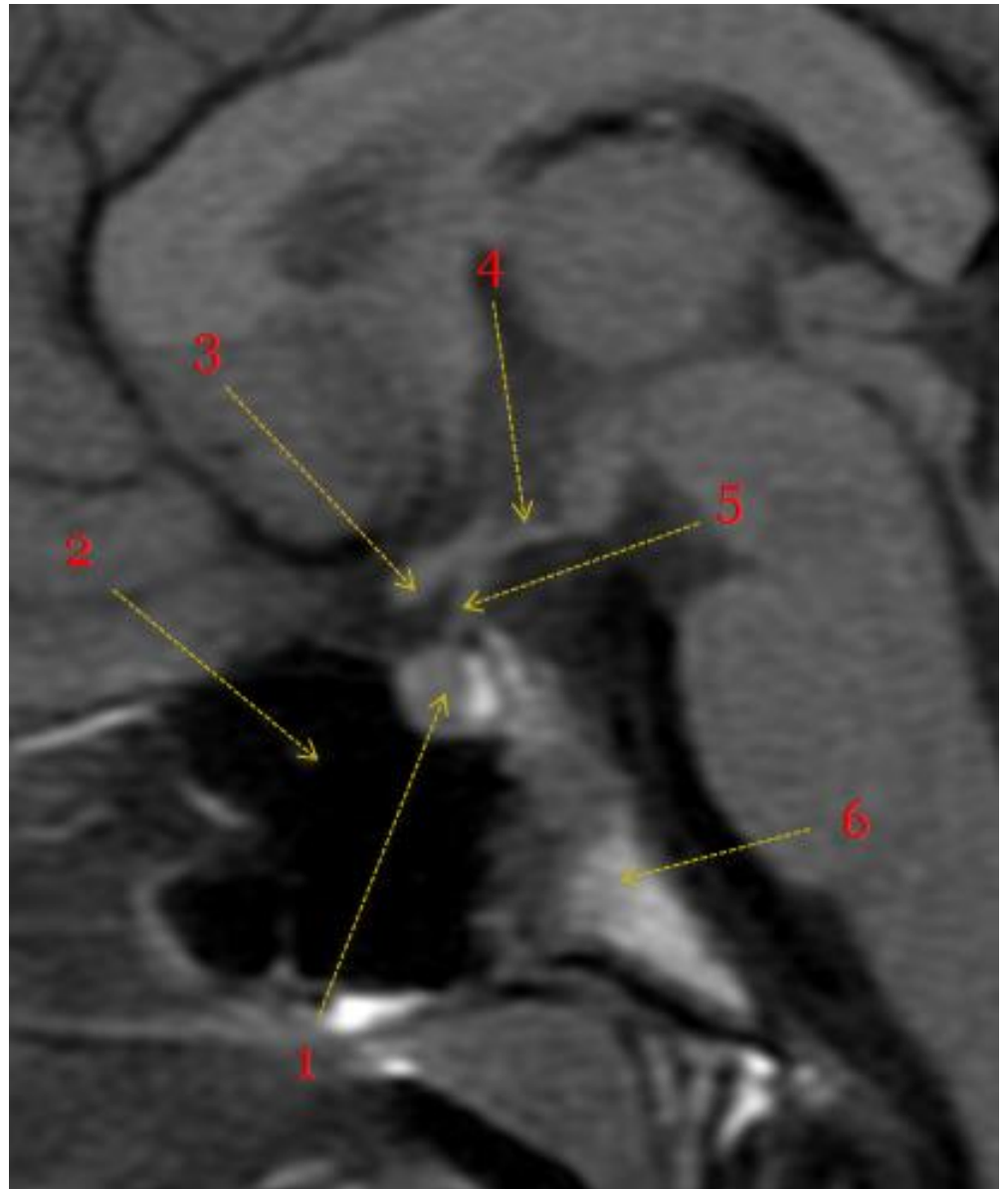


Radiology

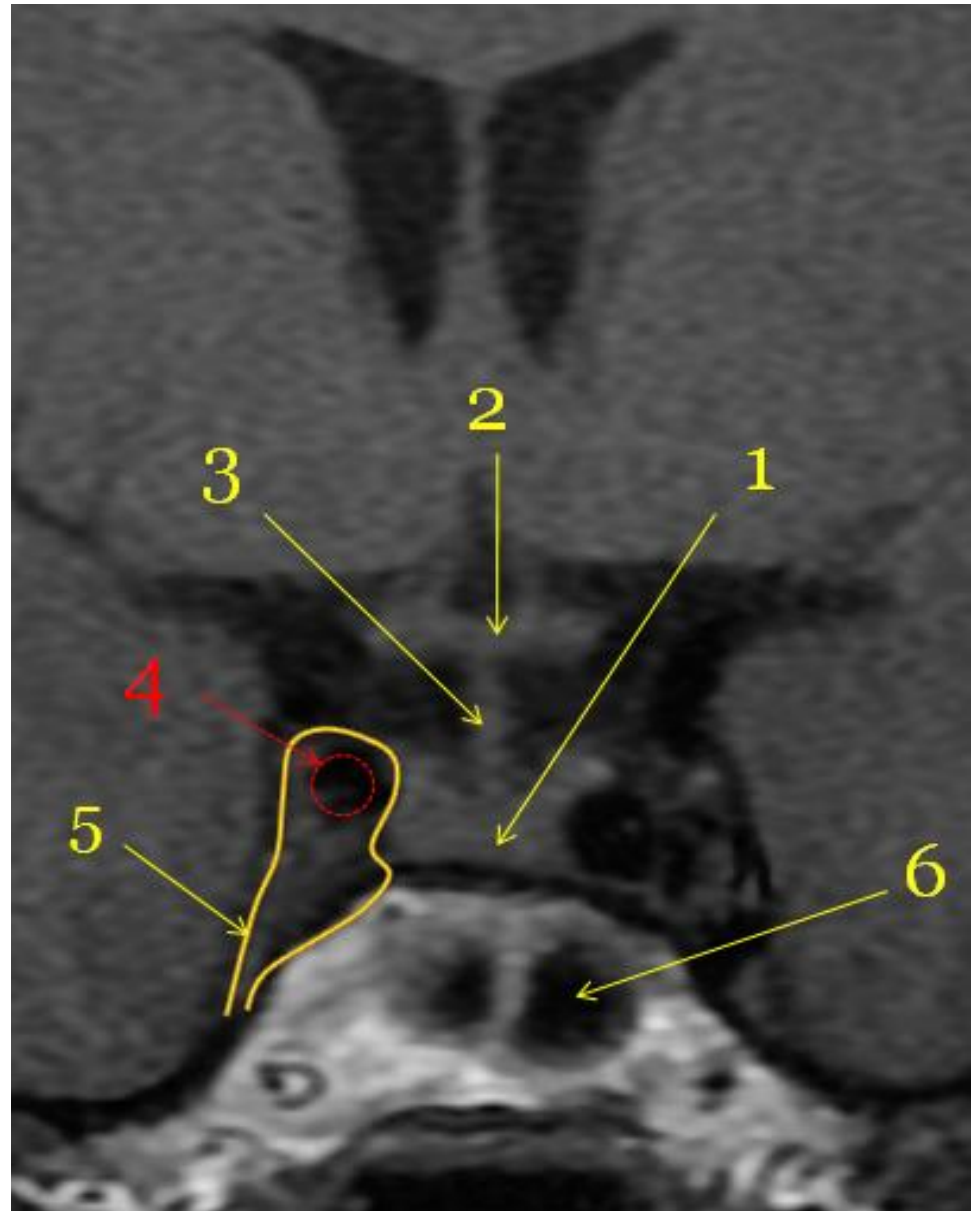
- 1- Optic sulcus
- 2- Anterior clinoid process
- 3- Floor of sella turcica
(Pituitary fossa)
- 4- Posterior clinoid process
- 5- Dorsum sella
- 6- Sphenoid sinus



- 1- pituitary gland
- 2- sphenoid sinus
- 3- optic chiasm
- 4- hypothalamus
- 5- pituitary stalk
- 6- clivus



- 1- Pituitary gland
- 2- Optic chiasm
- 3- Pituitary stalk
- 4- Carotid artery
- 5- Cavernous sinuses
- 6- Sphenoid sinuses



1- Liver

2- Spleen

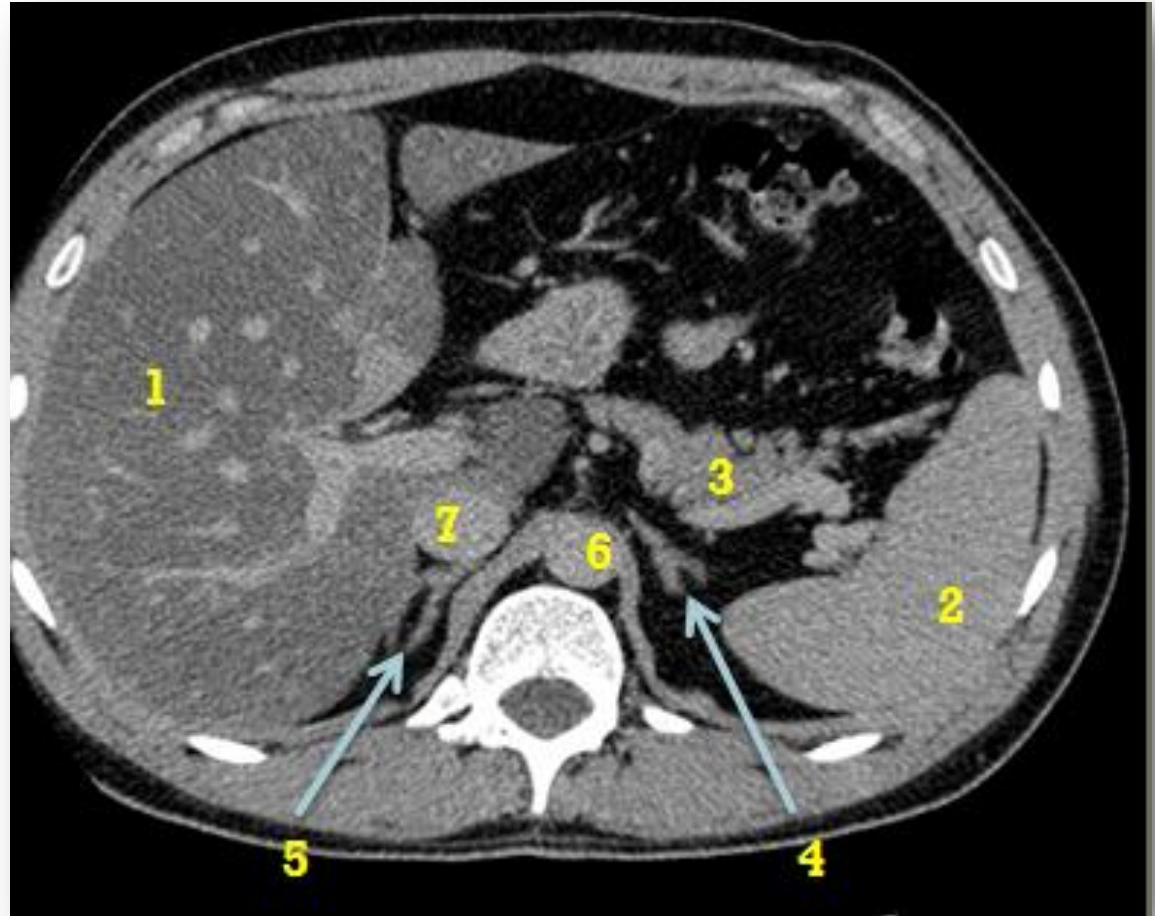
3- Pancreas

4- Left adrenal gland

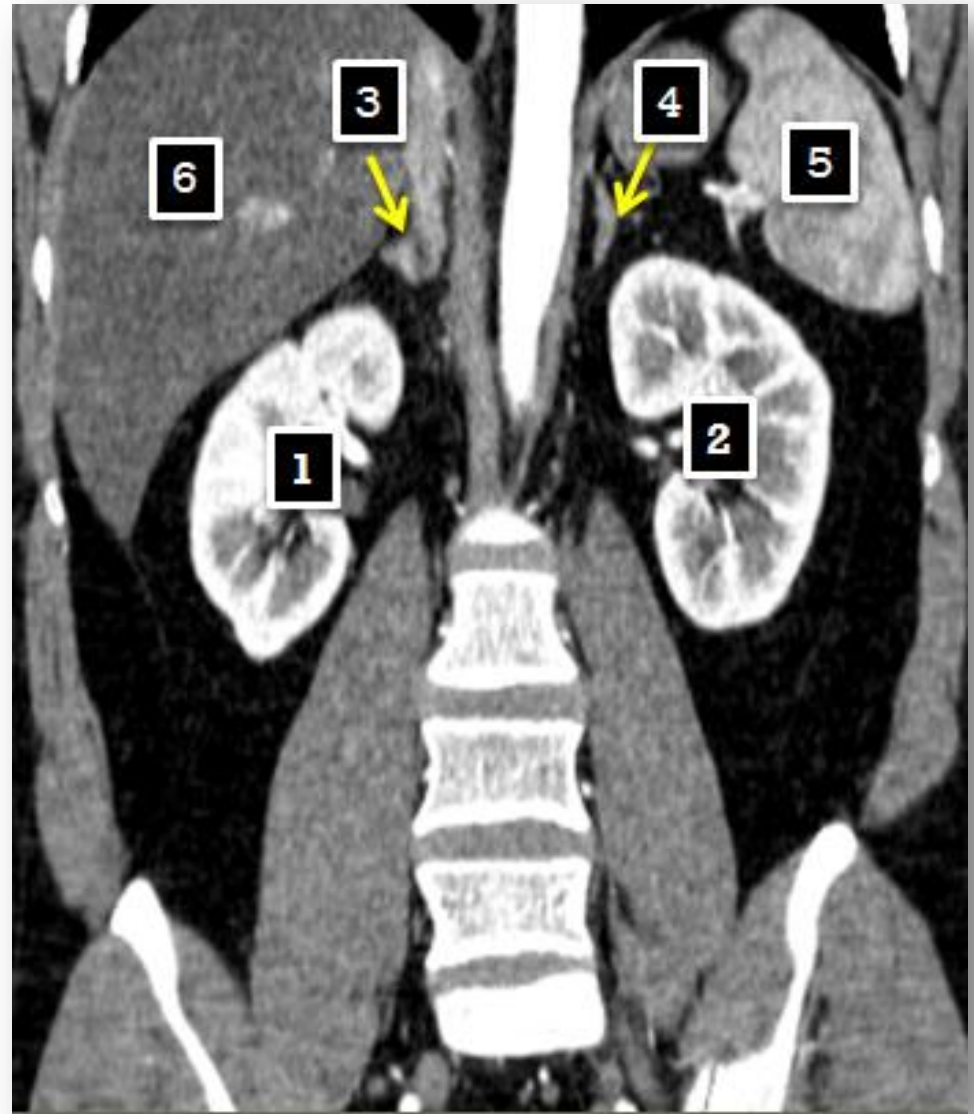
5- Right adrenal gland

6- Aorta

7- IVC



- 1- Right kidney
- 2- Left kidney
- 3- Right adrenal gland
- 4- Left adrenal
- 5- Spleen
- 6- Liver



GOOD LUCK 😊

Do not give up, the beginning is
always the hardest.