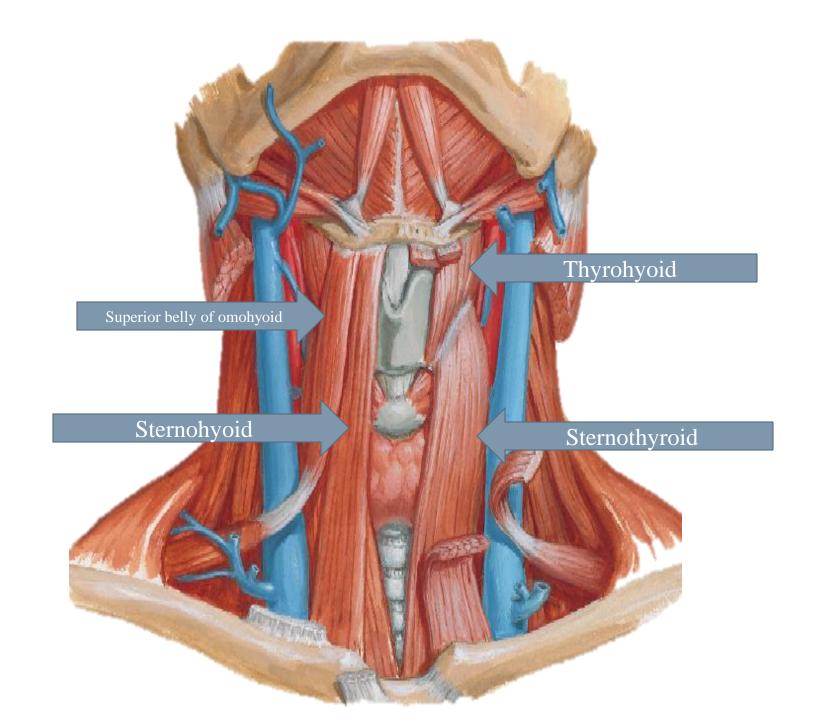
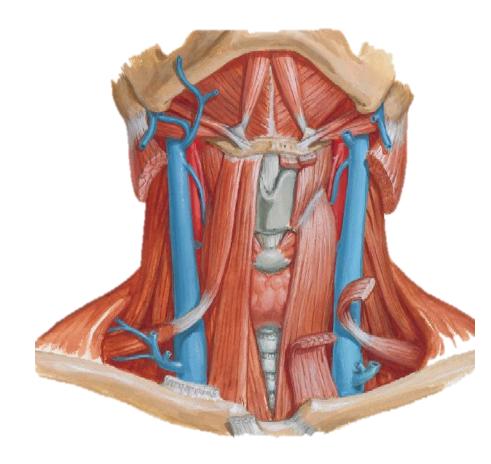
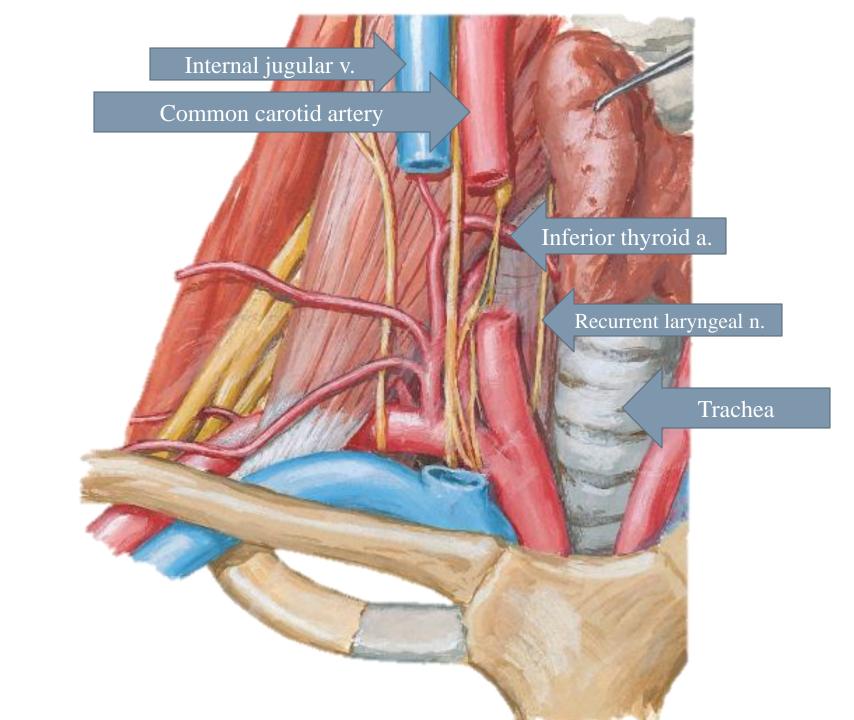
Thyroid Gland

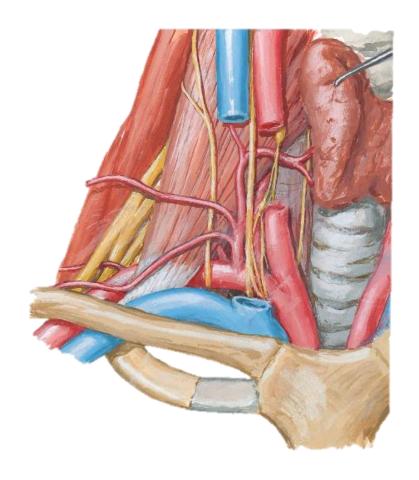


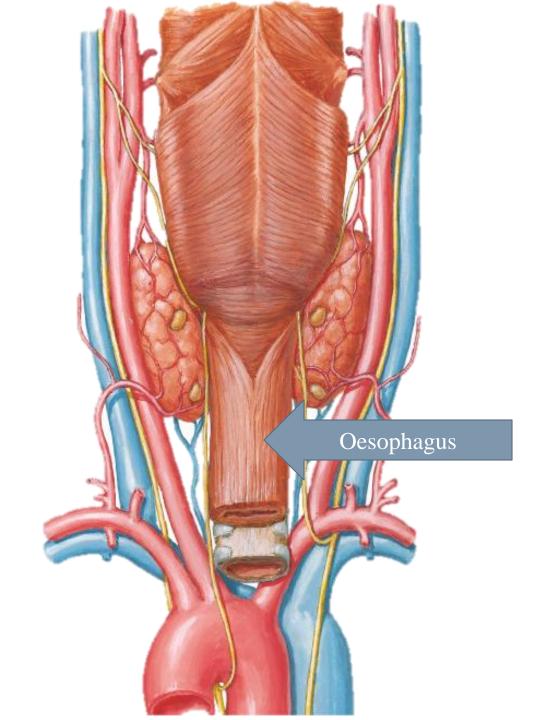
• Describe the anterolateral relations of the thyroid gland.



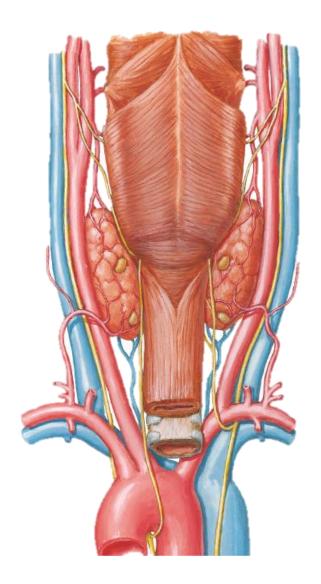


 Describe the medial relations of the thyroid gland





• What are the structures related to the trachea posteriorly?



Describe the embryological origin of the thyroid gland.

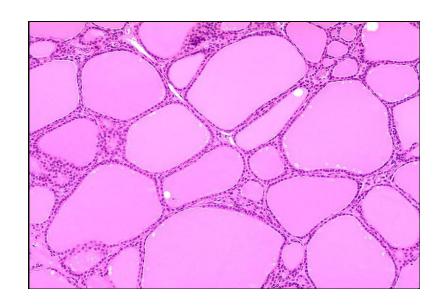
A 17 year old patient presented with a fluctuant swellings in the midline of the neck that moves upwards when the patient protrudes the tongue. He was diagnosed to have a thyroglossal cyst. Explain the relation between this swelling and the thyroid. Why is the cyst moving with swallowing? What is the treatment in your opinion?

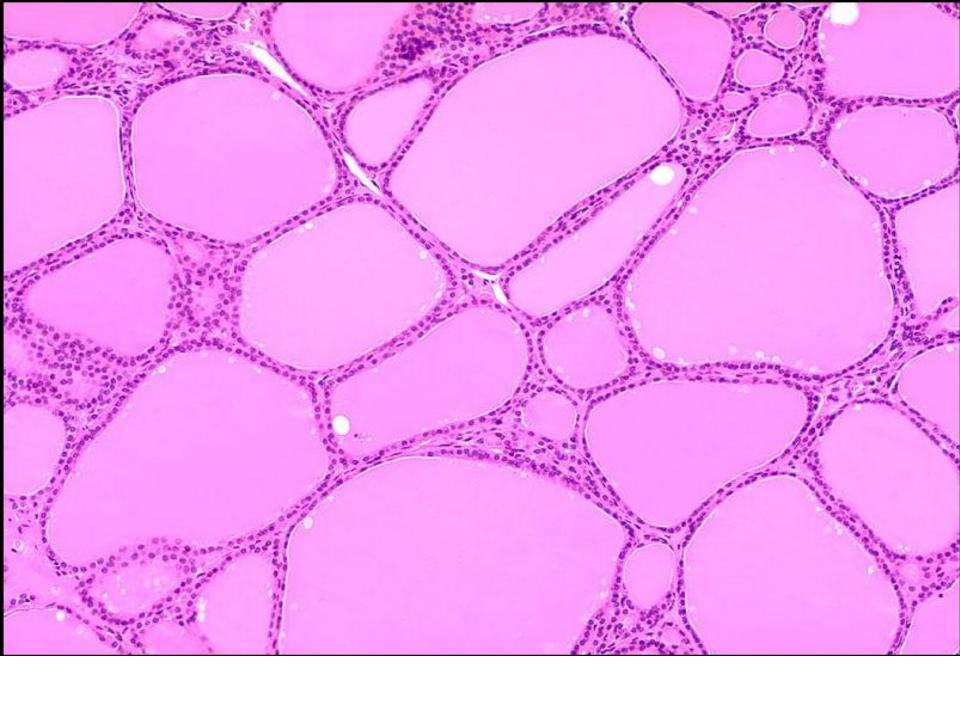
Thyroid gland

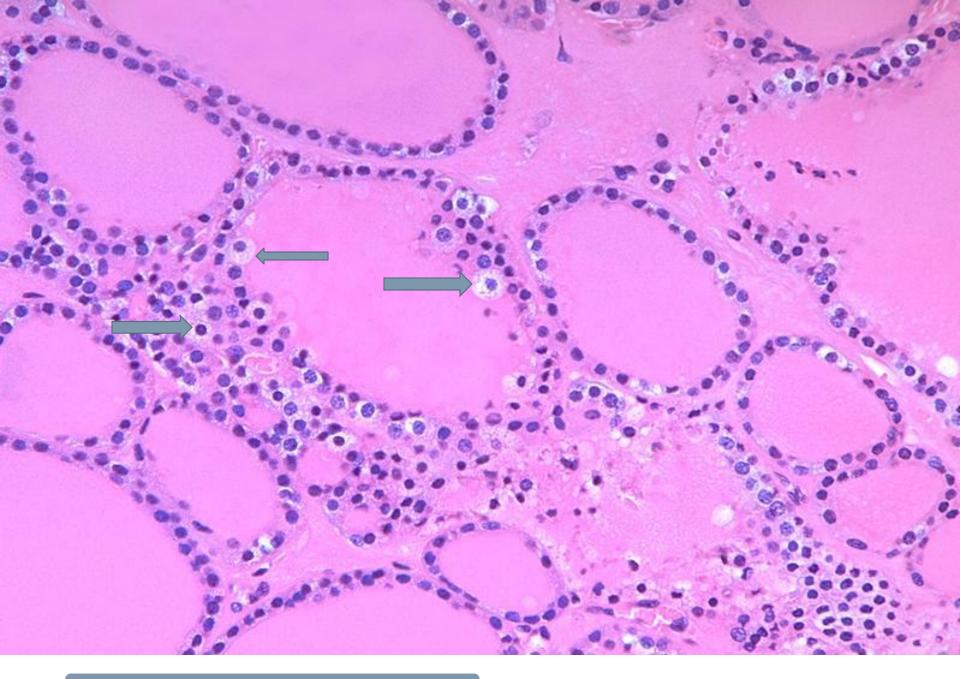
Describe the histological appearance of follicular cells.

Describe the ultrastructure of the follicular cells.

Typically, the follicular cells are cuboidal, when do they become columnar or squamous.



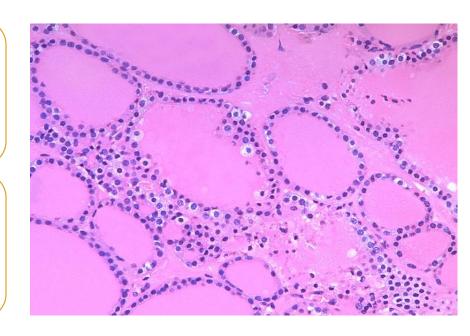




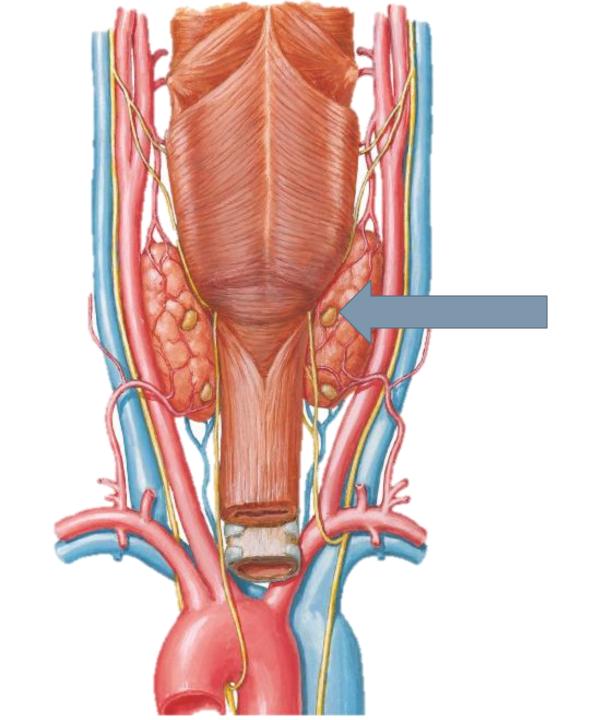
Parafollicular cells

* Parafolicular cells are origin.

* Describe their histological and ultrastructural appearances.



PARATHYROID GLAND



What is the embryological origin of the parathyroid glands.

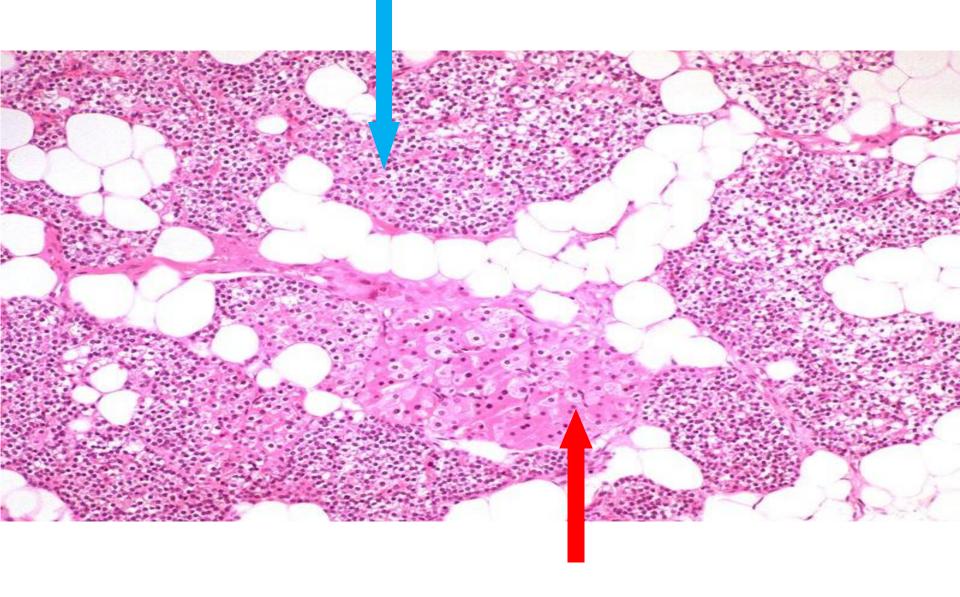
The prathyroids receive their blood supply from the arteries.

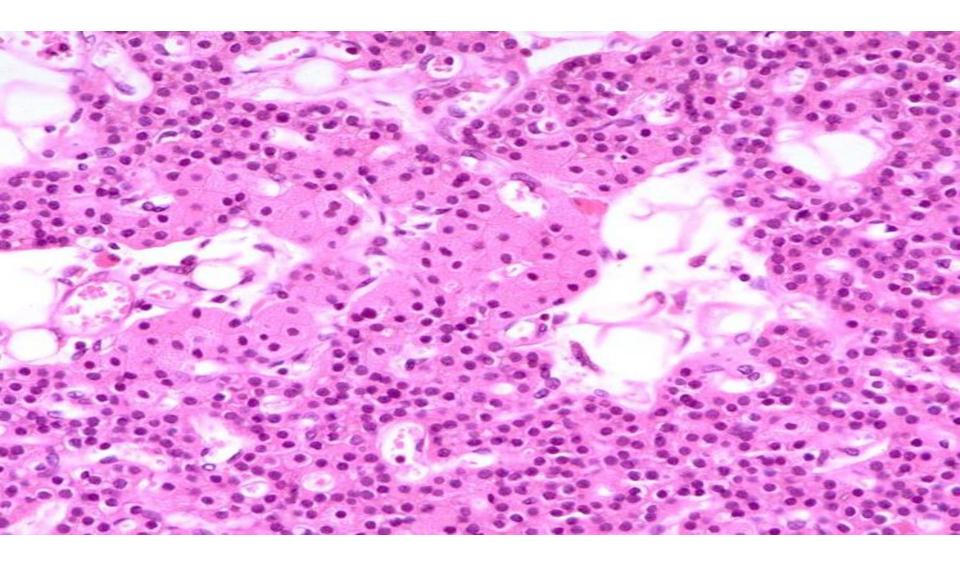
Describe the histological appearance and ultrastructure of the chief and oxyphil cells, what other cells can be seen in the parathyroids?

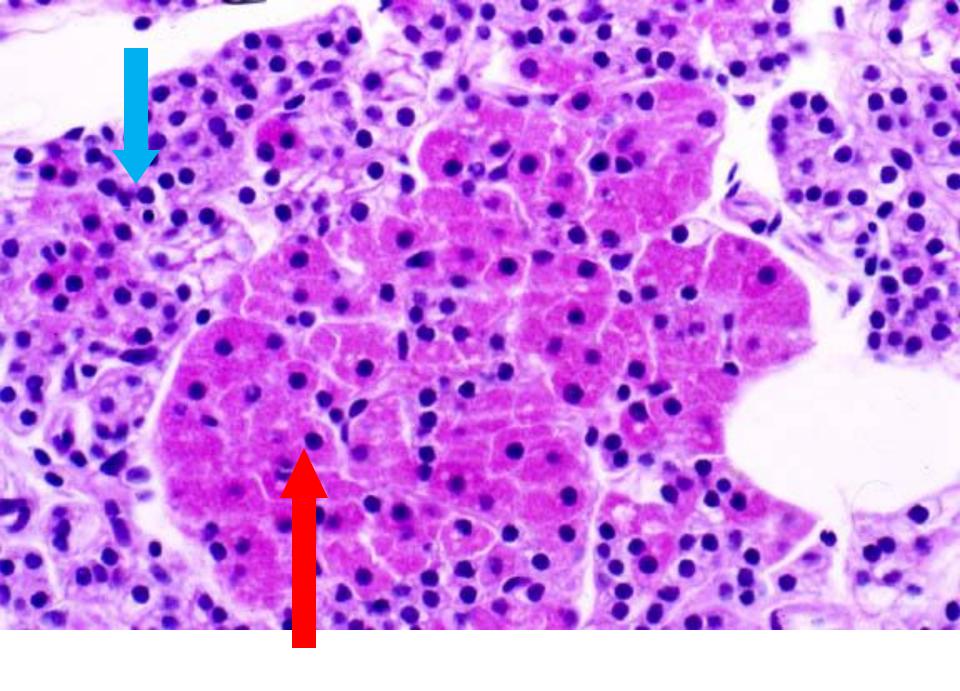
What is relation of the superior and inferior parathyroids to the external laryngeal an recurrent laryngeal nerves?

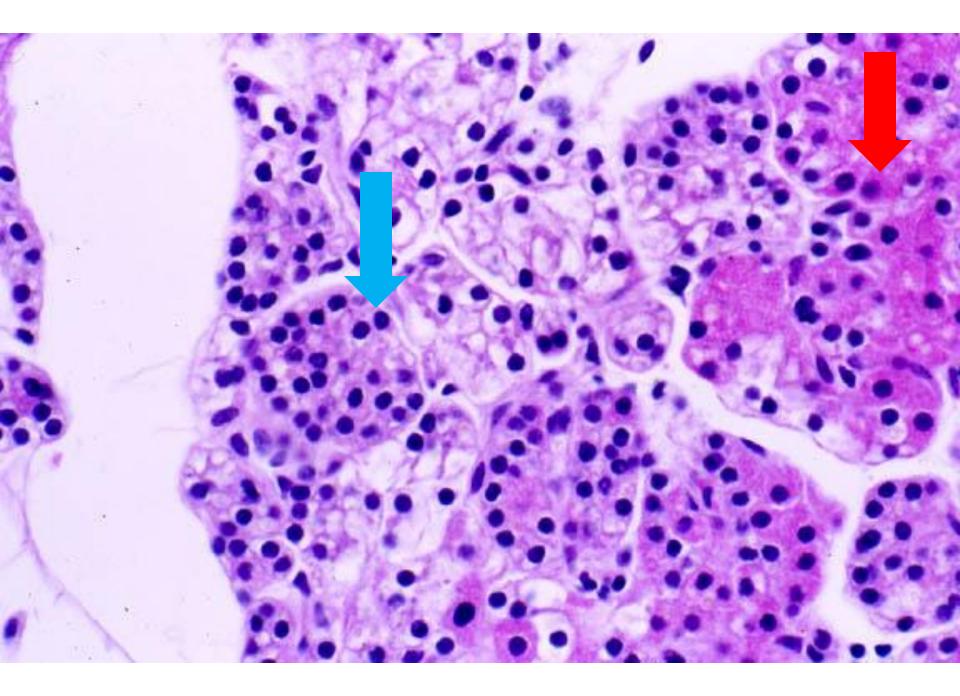
What is (are) the function(s) of the chief and oxyphil cells?

Blue arrow (top) = chief cell Red arrow (bottom)= oxyphil cell



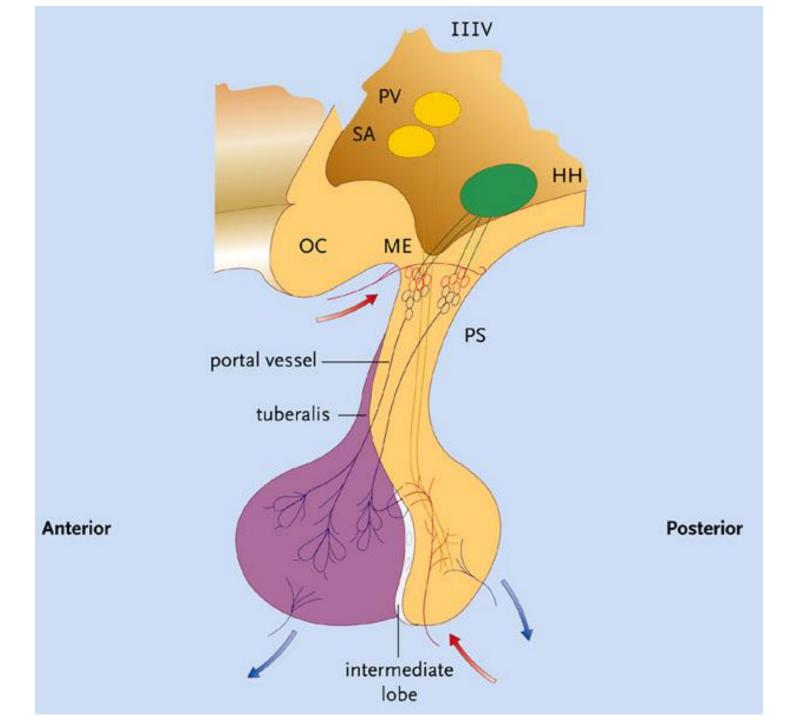






Pituitary Gland

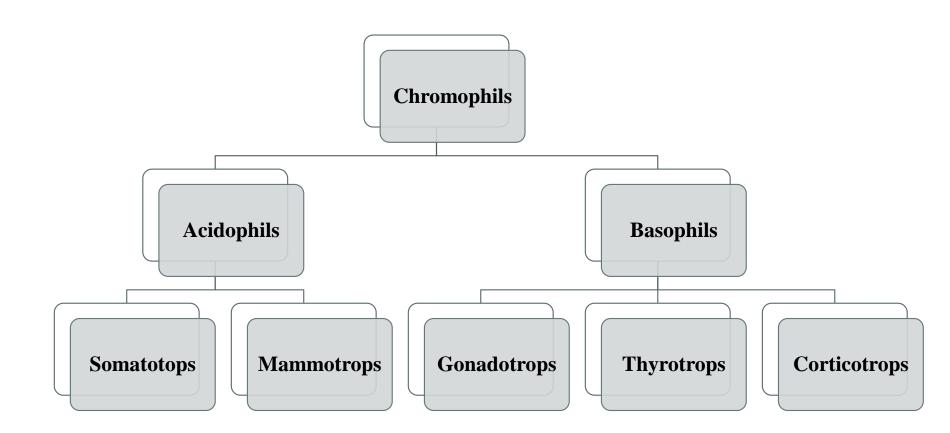
(Hypophysis Cerebri)

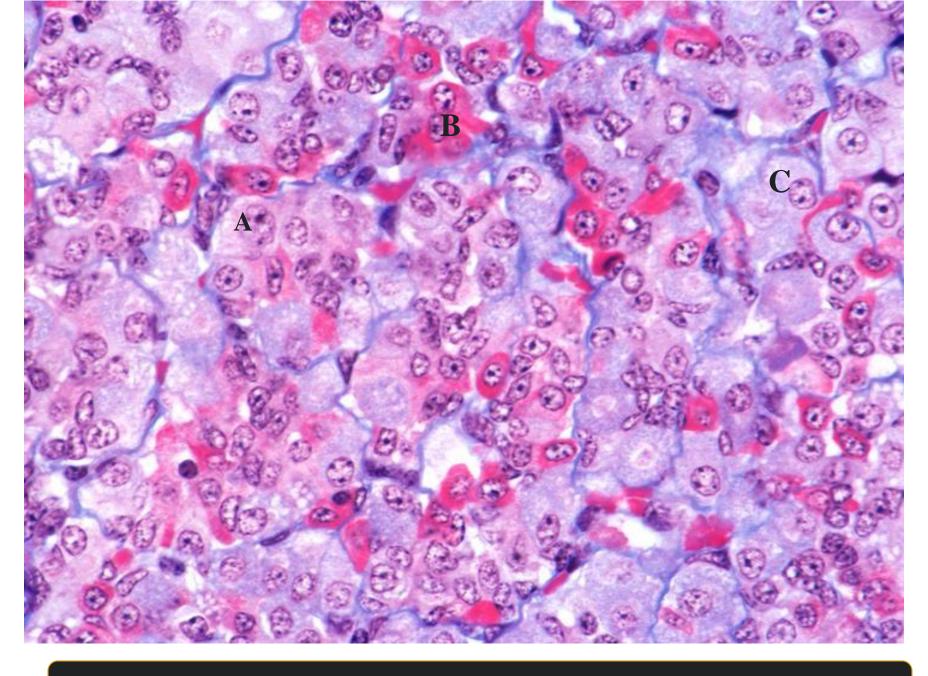


Pituitary Gland

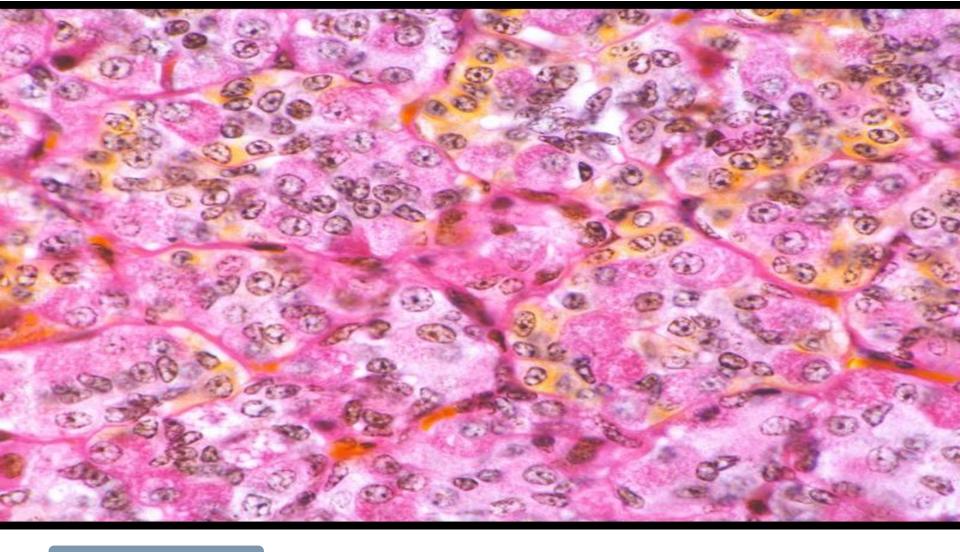
Describe the:

- Anatomical relations of the pituitary gland.
- Embryology of the pituitary gland.
- The arterial blood supply and venous drainage.
- The histological and ultrastructural features of each cell type in the adenohypophysis.
- Hering bodies.
- Pituicytes.



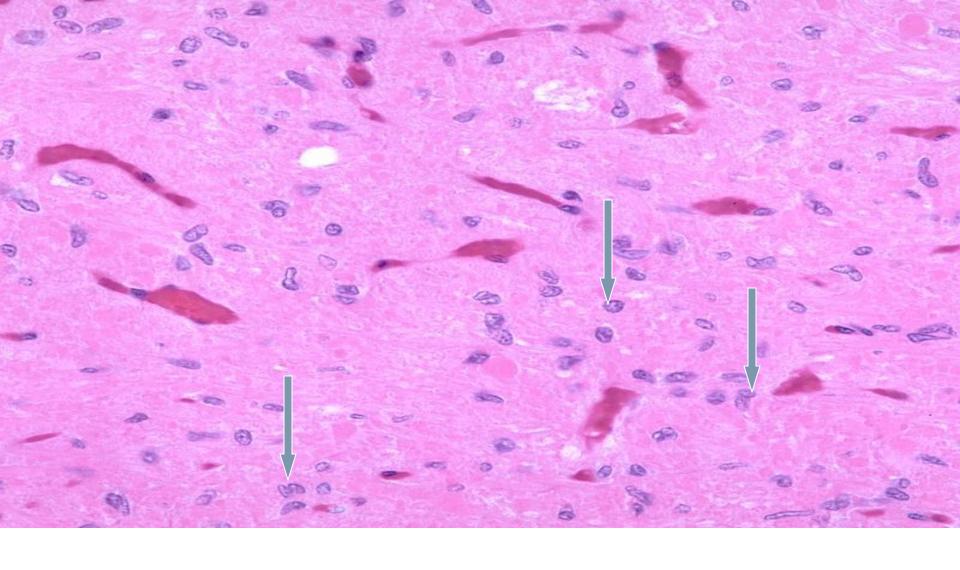


Anterior pituitary, A= Acidophil B= Basophil C= Chromophobe

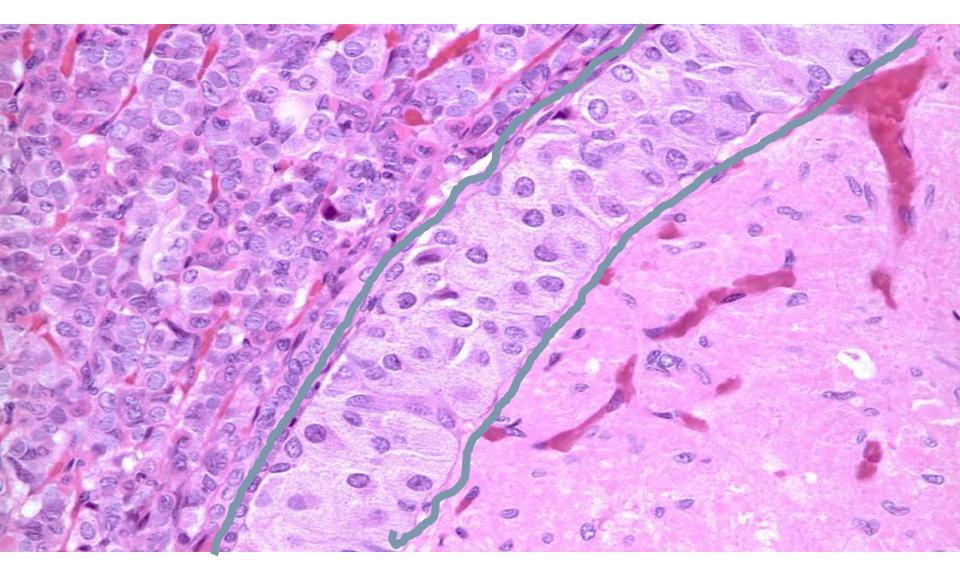


PAS-Orange G stain

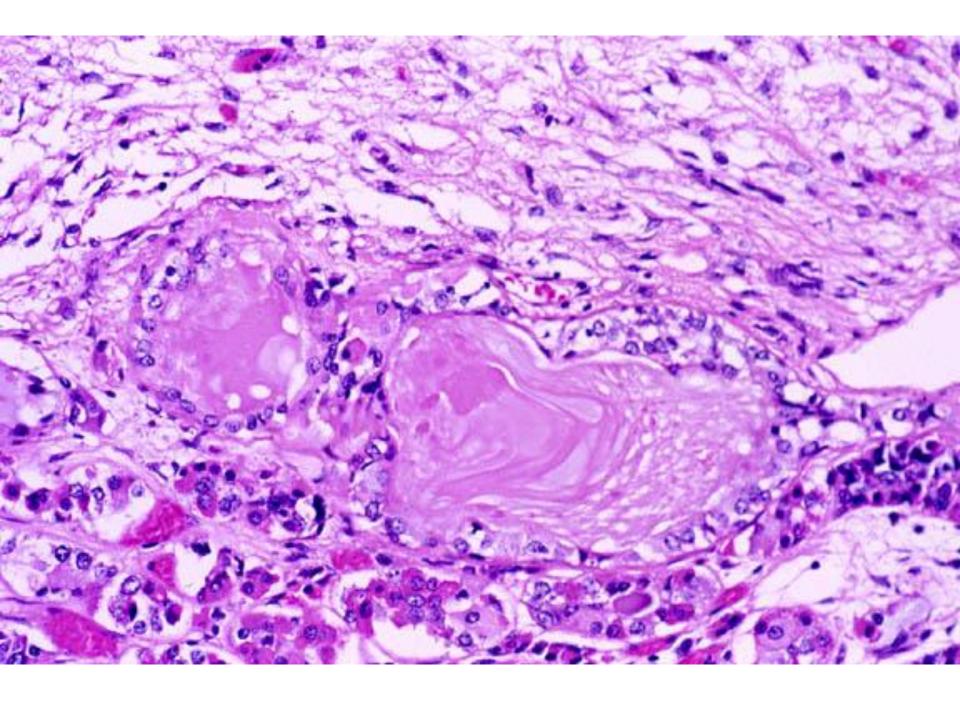
Acidophils = Orange, Basophils = Pink, Chromphobes = ?gray

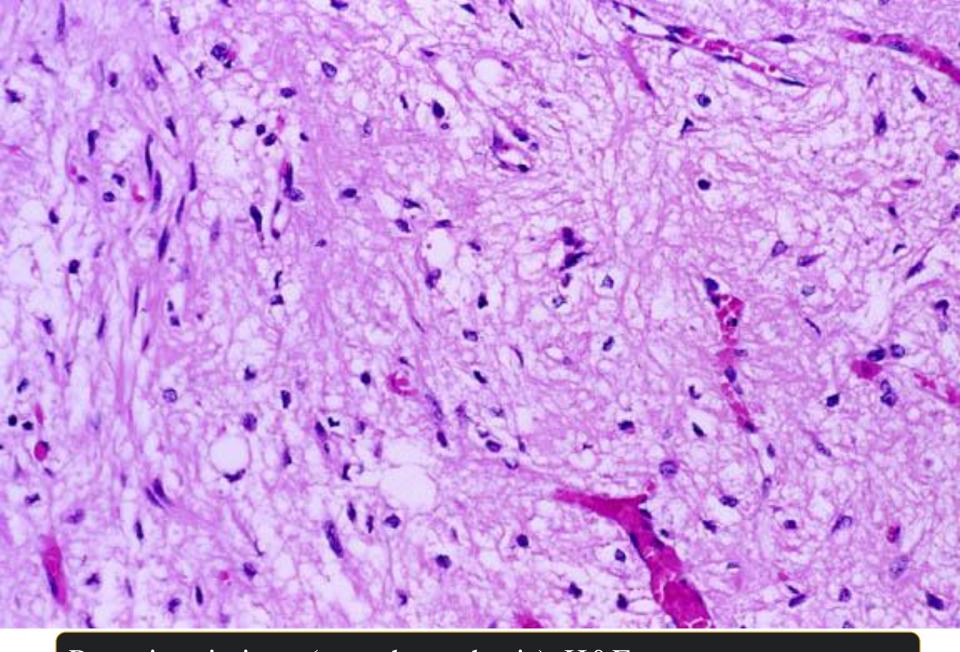


Posterior Pituitary, Arrows = Pituicytes

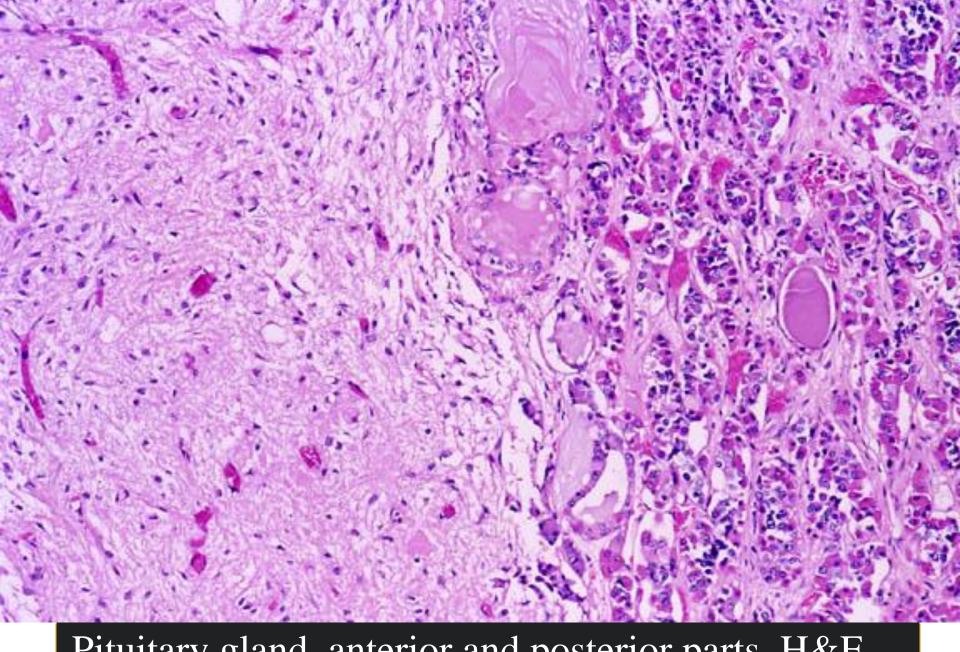


Intermediate lobe

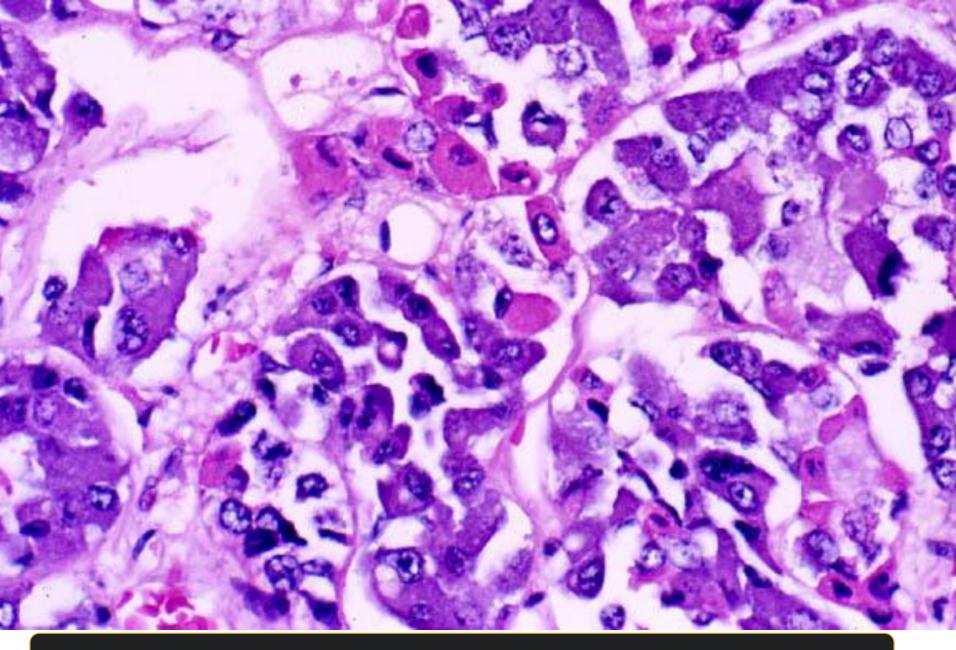




Posterior pituitary (neurohypophysis), H&E



Pituitary gland, anterior and posterior parts, H&E

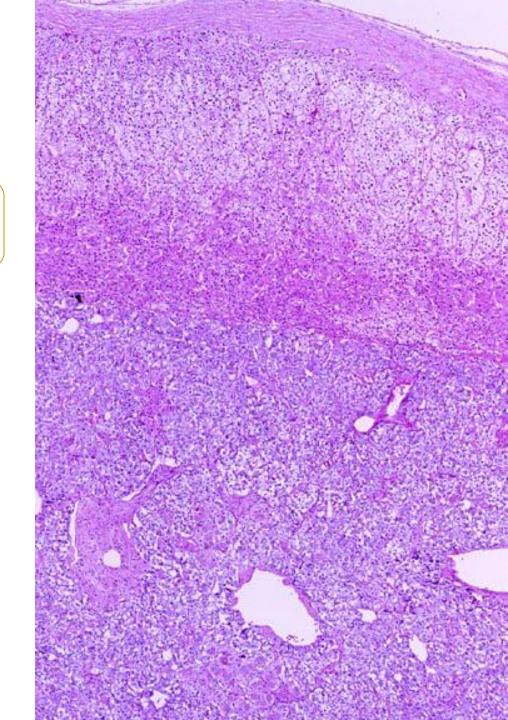


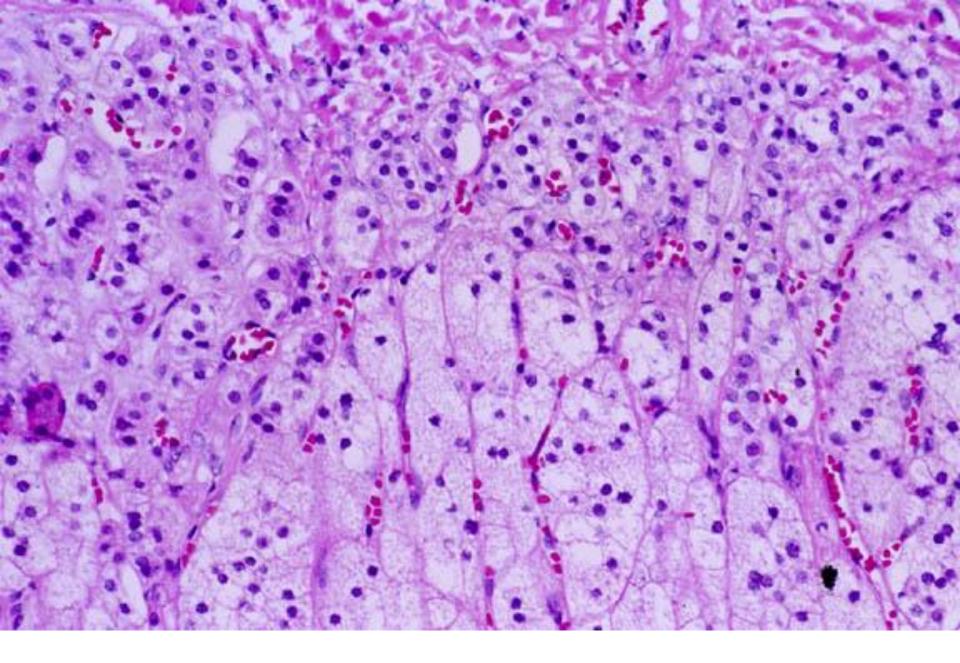
Anterior pituitary, basophils, acidophils, and chromophobes, H&E

Adrenal Gland

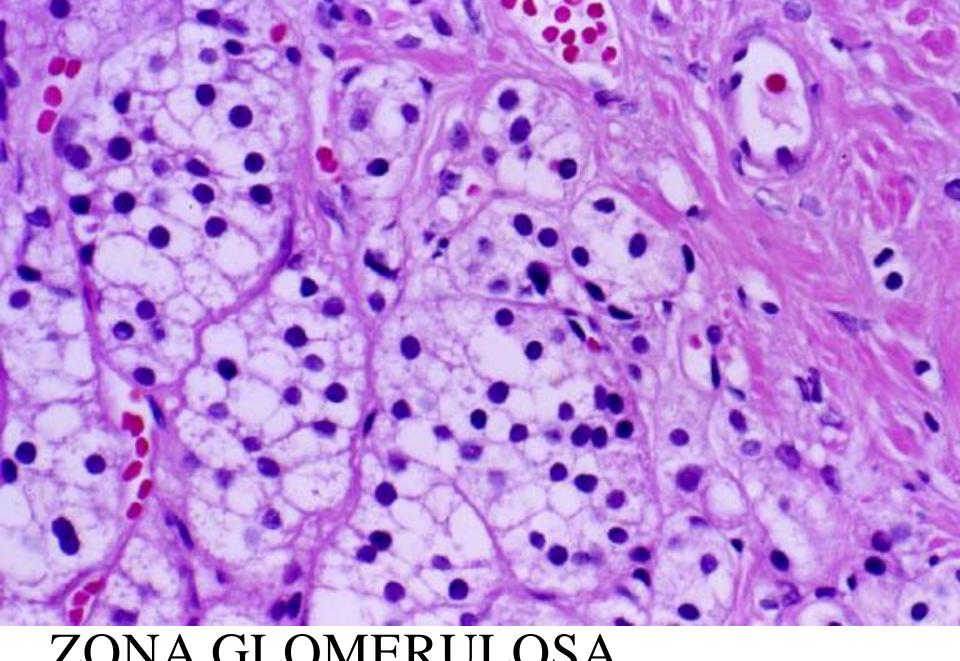
Describe the:

- Histological, ultrastructure and function of the cells of the adrenal cortex.
- Histological, ultrastructure and function of the cells of the adrenal medulla.

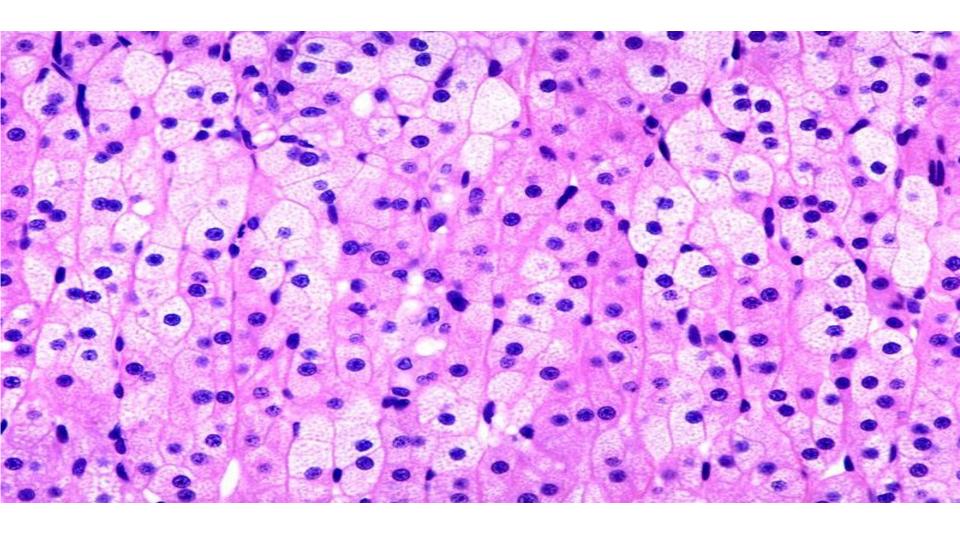




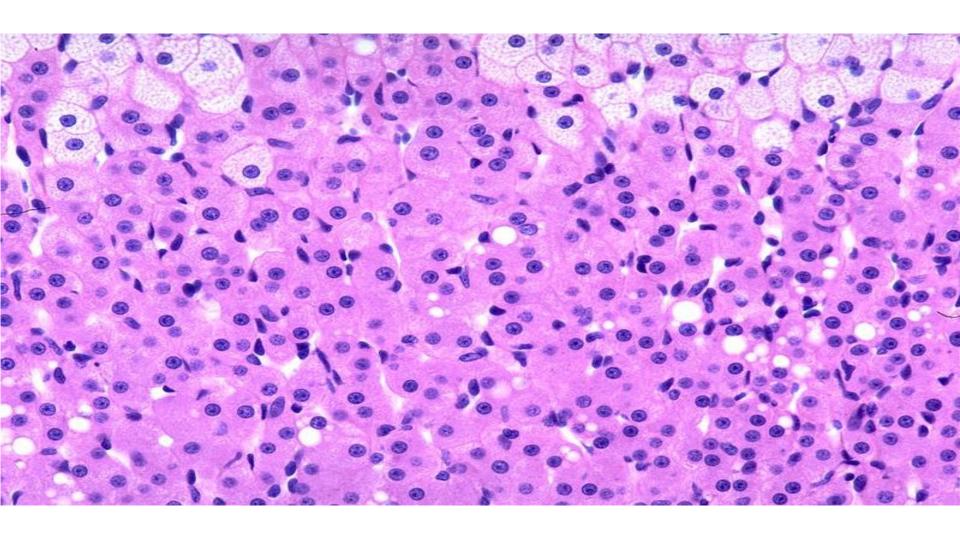
ADRENAL CORTEX



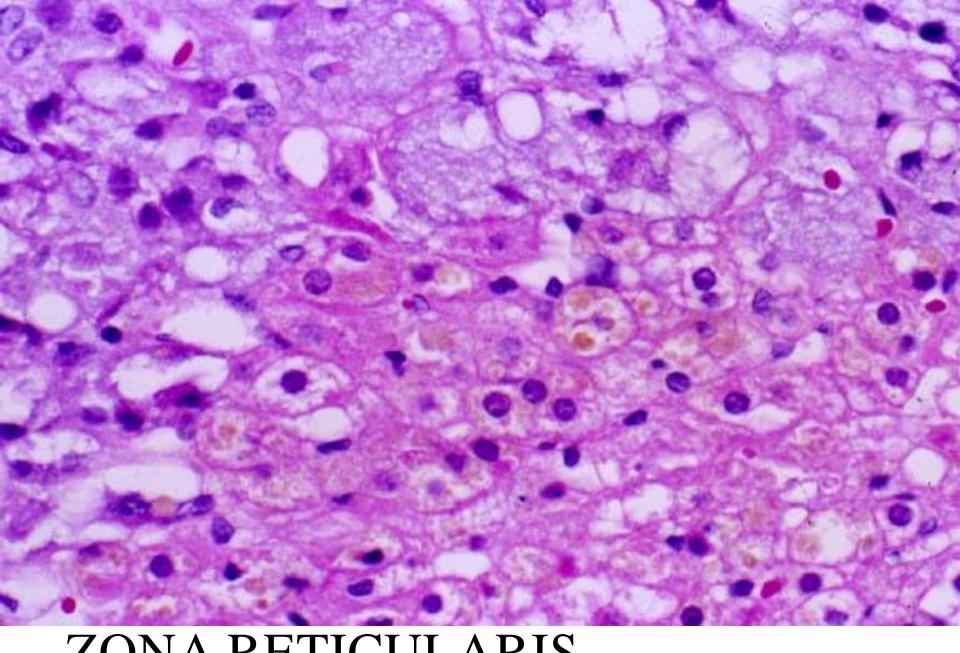
ZONA GLOMERULOSA



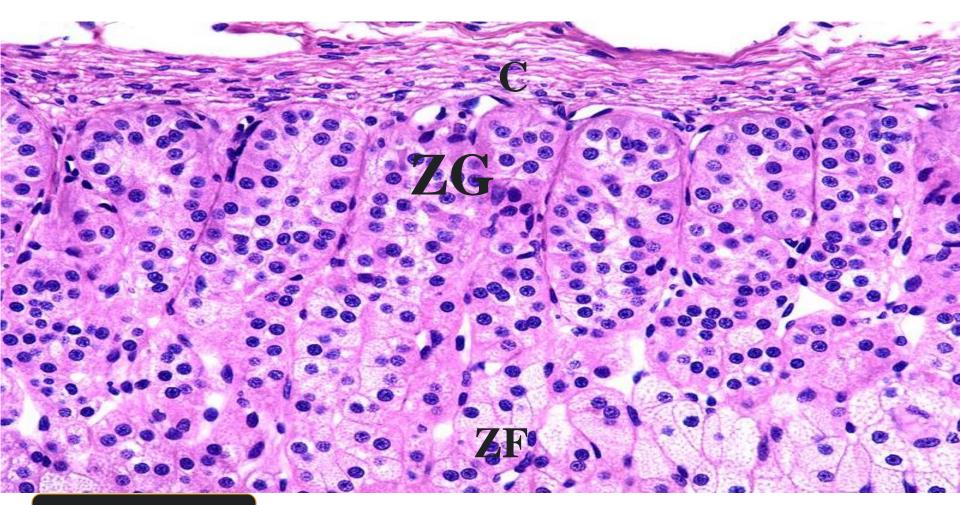
THE ZONA FASCICULATA



THE ZONA RETICULARIS

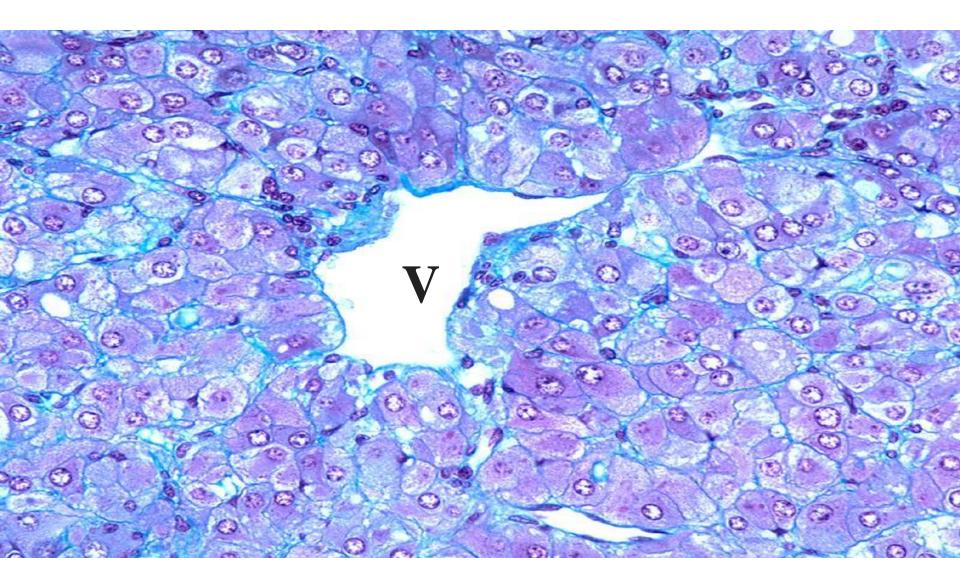


ZONA RETICULARIS

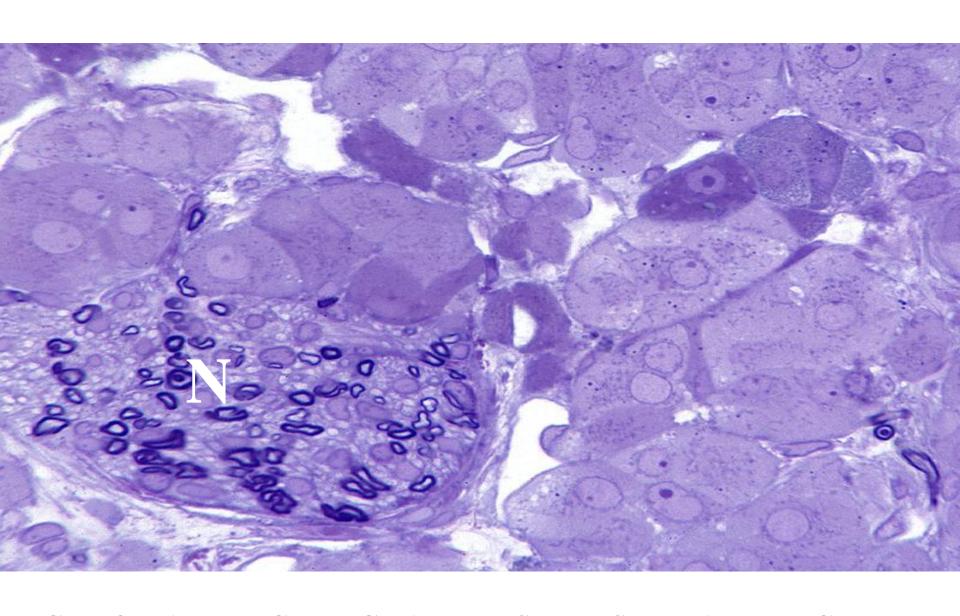


Adrenal Cortex

C = Capsule, ZG = Zona Glomerulosa, ZF = Zona Fasciculata



The Adrenal Medulla



CHROMAFFIN CELL GRANULES, N = SYMPATHETIC NERVE FIBRES

Endocrine Pancreas

Describe the:

- Distribution of the endocrine cells of the pancreas
- Function(s) of each of the cells of the endocrine pancreas

