



Motivational Corner:

“There will always be things you don't know. Don't fear not knowing. Know where to find answers.”

Please check out the [editing file](#) before starting the lecture.



Objectives:

By the end of this lecture, the student should

be able to:

1. Describe the microscopic structure of the parathyroid gland.
2. Describe the functional structure of the parathyroid cells.

3-

parathyroid gland.

Extra notes: Gray

Important notes: Red

Revised by

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+ Parathyroid Glands



They are 4 glands on the posterior of thyroid

(A) Stroma of parathyroid gland:

(B) Parenchyma of Parathyroid gland:

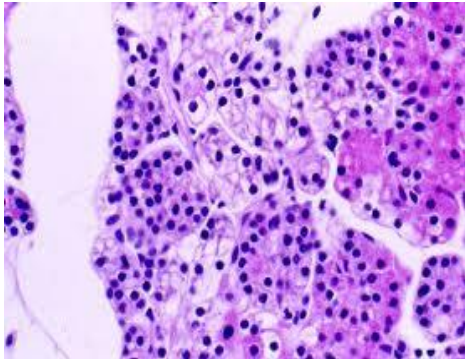
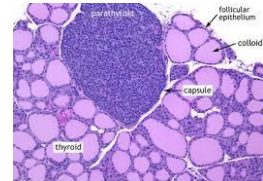
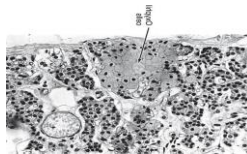
- 1- Capsule: Each gland has its Thin capsule.
- 2- Septa: thin.
- 3- Reticular C.T.

The parenchyma is formed of cords or clusters of epithelial cells (**chief cells & oxyphil cell**) with blood capillaries in between. These cells are surrounded by reticular fibers.

C.T. stroma in older adults often contains many adipose cells.

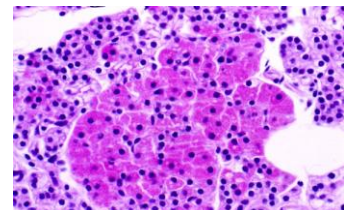
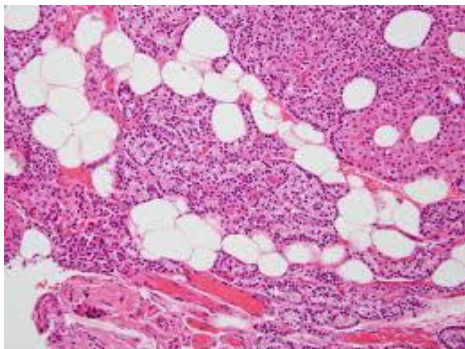
1. Chief cells:

- are slightly **eosinophilic**.
- are rich in rough endoplasmic reticulum.
- They secrete parathyroid hormone (**Increase blood calcium**).



2. Oxyphil cells:

- They are arranged in groups or clusters or as isolated cells.
- They are deep eosinophilic (**acidophilic**)
- They have more **numerous mitochondria**.
- They are less numerous but larger than chief cells.
- They are of unknown function.
- N.B. (They may be inactivated chief cells).





MCQs

6
5
4
3
2
1

1) Which one of these features does not found in para-follicular cells?

- a. Their apices do not reach the lumen of the follicle.
- b. larger than follicular cells
- c. Their apices reaches the lumen of the thyroid follicle

2) What is the epithelium lining of thyroid gland?

- a. simple squamous epithelium
- b. Simple Columnar Epithelium
- c. -Simple Cuboidal Epithelium

3) Why the nucleus of the colloid does not appeared?

- a. Because it's not exist.
- b. Due to its homogenous mixture

4) which one of the following secrete Calcitonin?

- a. Parafollicular cells
- b. Follicles

5- Which of the following is not a histological structure found in parathyroid gland?

- a. fenestrated blood capillaries
- b. colloid
- c. reticular fibers.

6) which one of the following cells secrete parathyroid hormone?

- a) Oxyphil cell
- b) Parafollicular cells
- c) Chief cells



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Thanks you for checking
our work, Good luck.
-Team histology.



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