

# PARATHYROID GLANDS

## Objectives:

Students should be able to:

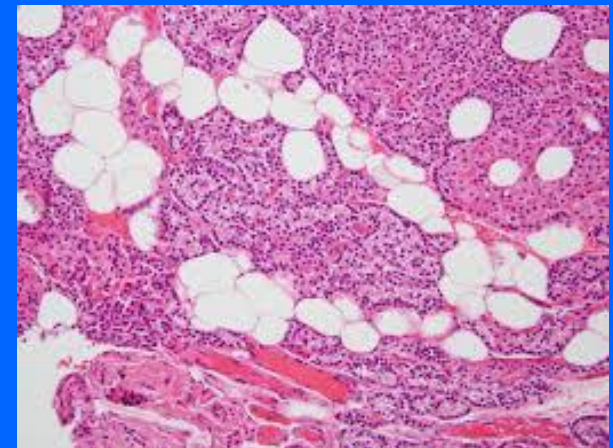
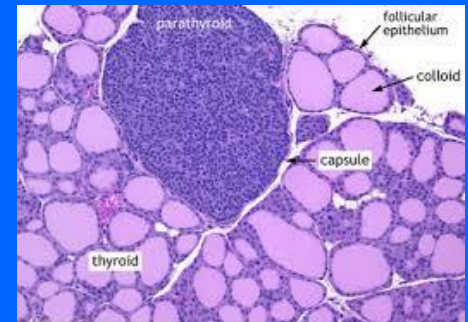
1. Describe the microscopic structure of the parathyroid gland.
2. Describe the functional structure of the parathyroid cells.

# Parathyroid glands

- They are 4 glands on the post. of thyroid gland.

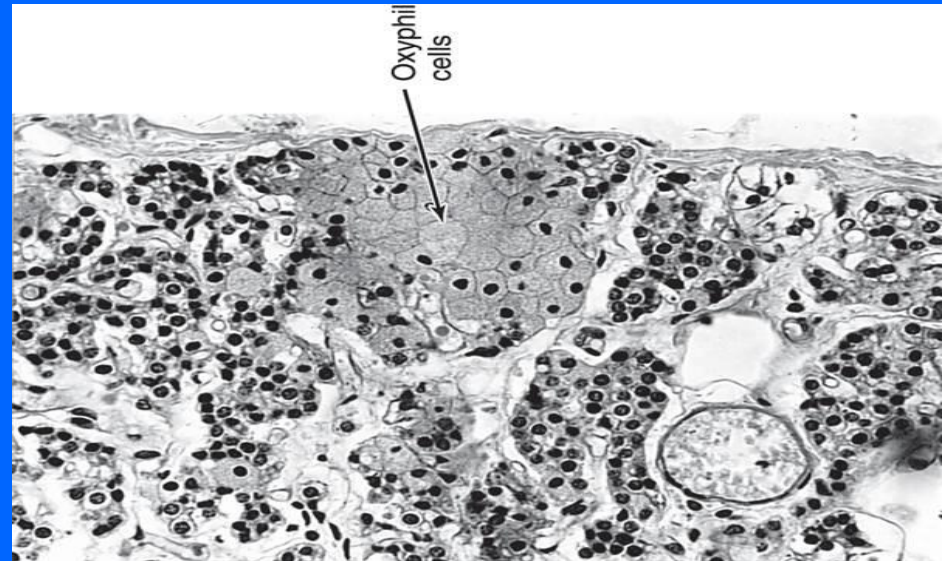
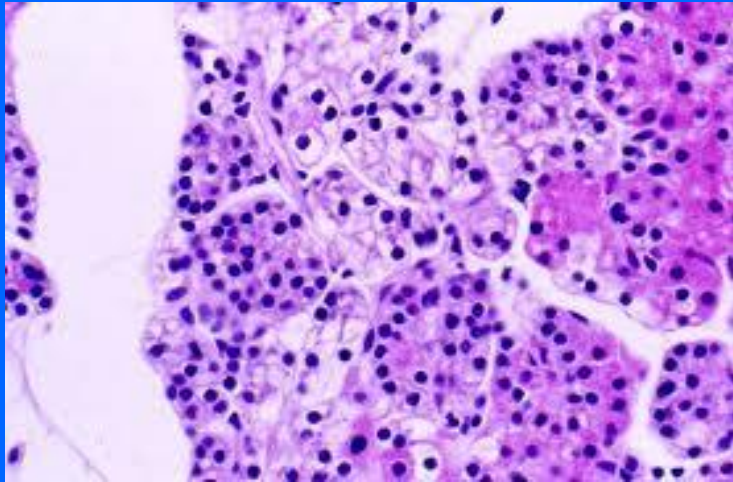
- (A) Stroma of parathyroid gland:

- 1- Capsule: Each gland has its Thin capsule.
  2. Septa: thin.
  3. Reticular C.T.
- C.T. stroma in older adults often contains many adipose cells.



## **(B) Parenchyma of Parathyroid gland**

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.



## **(B) Parenchyma of Parathyroid gland**

**1. Chief cells:** are slightly eosinophilic.  
are rich in rER.

They secrete parathyroid hormone (↑  
blood calcium).

**2. Oxyphil cells:**

They are arranged in groups or clusters  
or as isolated cells.

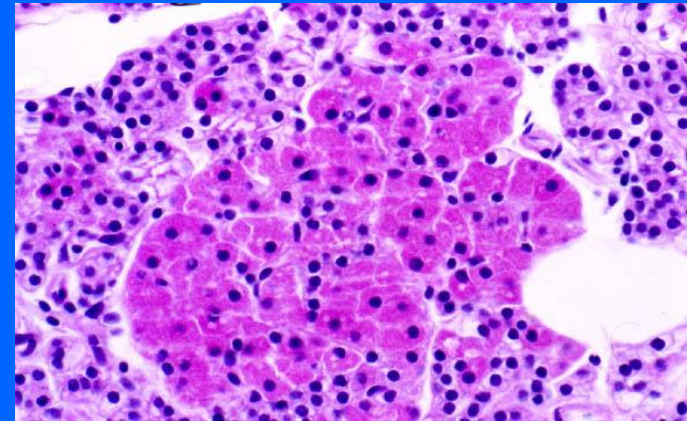
They are deep eosinophilic (acidophilic)

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).



**BEST WISHES**