



# LECTURE 3: PARATHYROID GLANDS

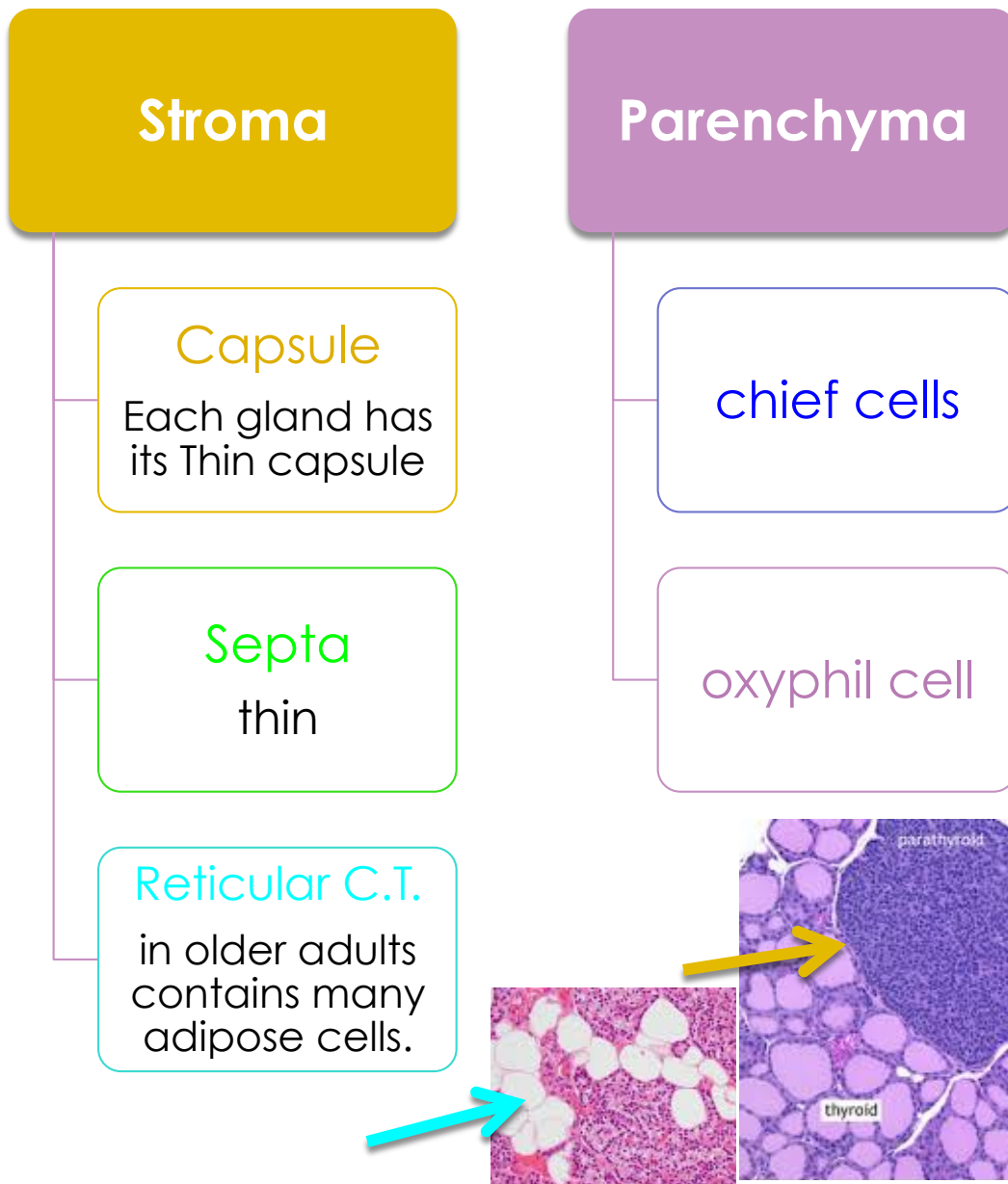
## ❑ Objectives:

### 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.
- It composed of :



# Parenchyma of Parathyroid gland

## 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**.

oxyphil cell	chief cells
<ul style="list-style-type: none"><li>• arranged in groups or clusters (<b>isolated cells</b>).</li><li>• deep eosinophilic (<b>acidophilic</b>)</li><li>• numerous mitochondria.</li><li>• less numerous but <b>larger</b> than chief cells</li><li>•</li></ul>	<ul style="list-style-type: none"><li>• slightly eosinophilic.</li><li>• rich in rER</li></ul>
unknown function ( <b>They may be inactivated chief cells</b> )	They secrete parathyroid hormone. ( <b>increase blood calcium</b> ).

# Questions

1- What activate **parathyroid hormone** secretion is :

a-high ca in blood

b- low ca in blood

c-high ca in gut

b- low ca in gut

2- parathyroid hormone is **secreted by** :

A-Parafollicular cell

B-follicular cell

c-chief cell

d-Oxyphil cell

3- which part of the **parenchyma** of PTG have rich in rER :

A-Parafollicular cell

B-follicular cell

c-chief cell

d-Oxyphil cell

4- it have **un-known function** and have more numerous **mitochondria** :

A-Parafollicular cell

B-follicular cell

c-chief cell

d-Oxyphil cell