



# Practice

**Curriculum: Phase 1/ Semester2/ TOB/  
Session 10**

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## Selected references



- **Histology Textbooks ‘Basic Histology’, Junqueira, 13 th Edition.**
- **‘Colour Atlas of Histology’ Gartner and Hiatt**



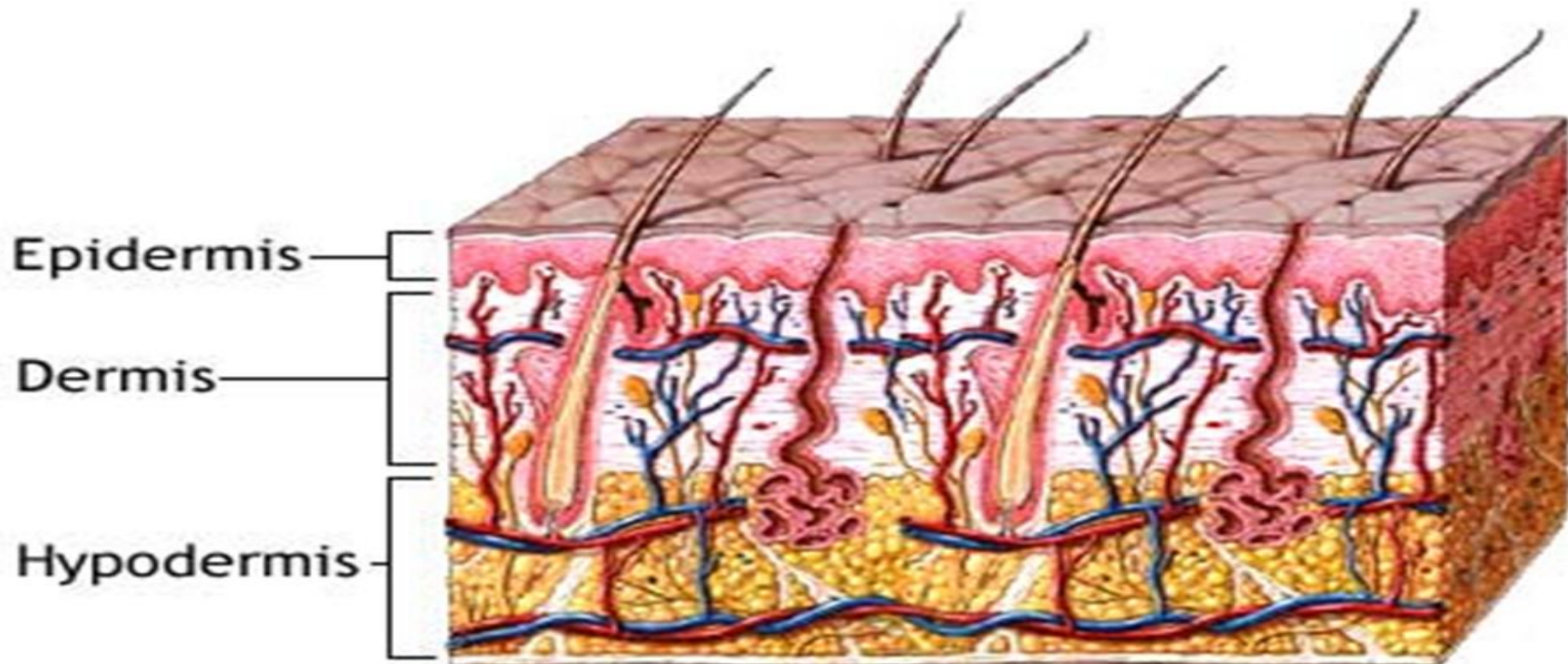
# LECTURE OBJECTIVES



- ❑ *recognise the following two types of skin in photomicrographs, discussing their anatomical locations and salient histological features in relation to their function:*
  - *hairy skin (i.e. skin bearing vellus or terminal hairs)*
  - *palmar and plantar skin (i.e. skin from palm of hand or sole of foot)*



The skin consists of an outer epidermis and a dermis, connected to underlying tissue by the subcutaneous layer (hypodermis)





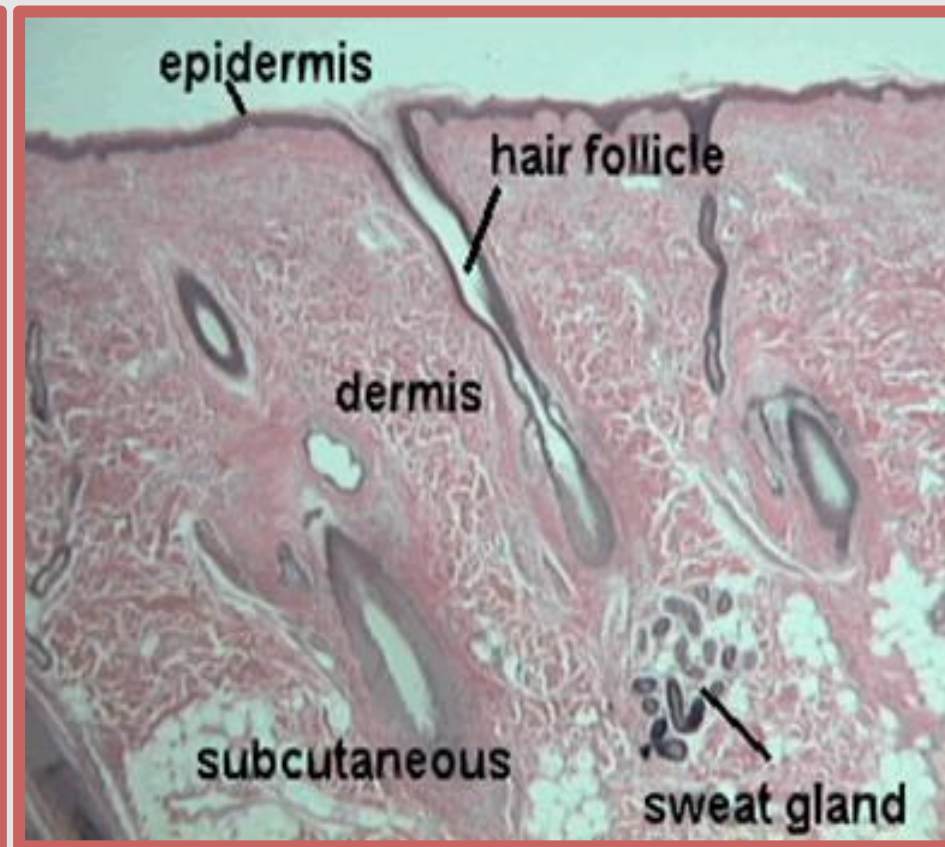
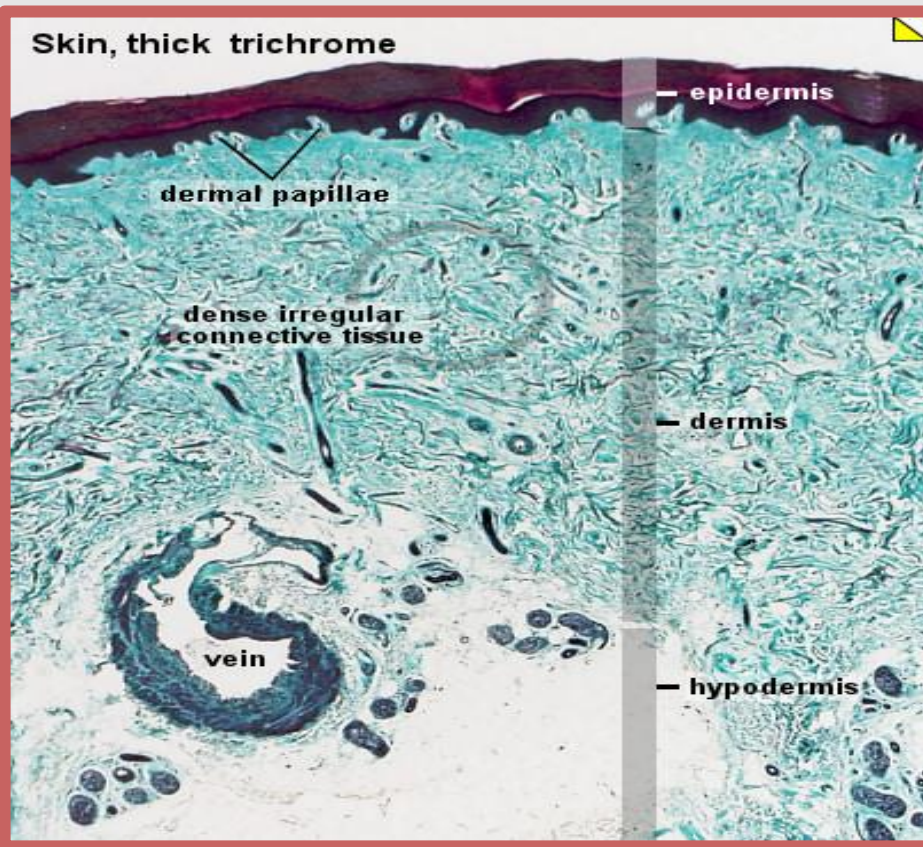
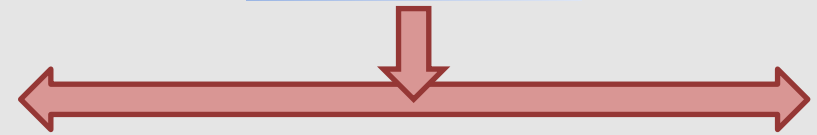
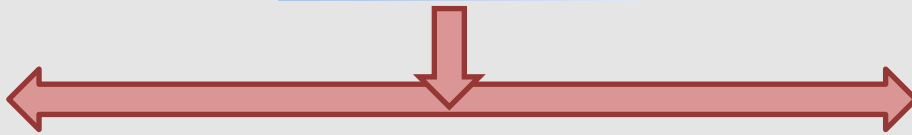


# Two types of skin in the human body:



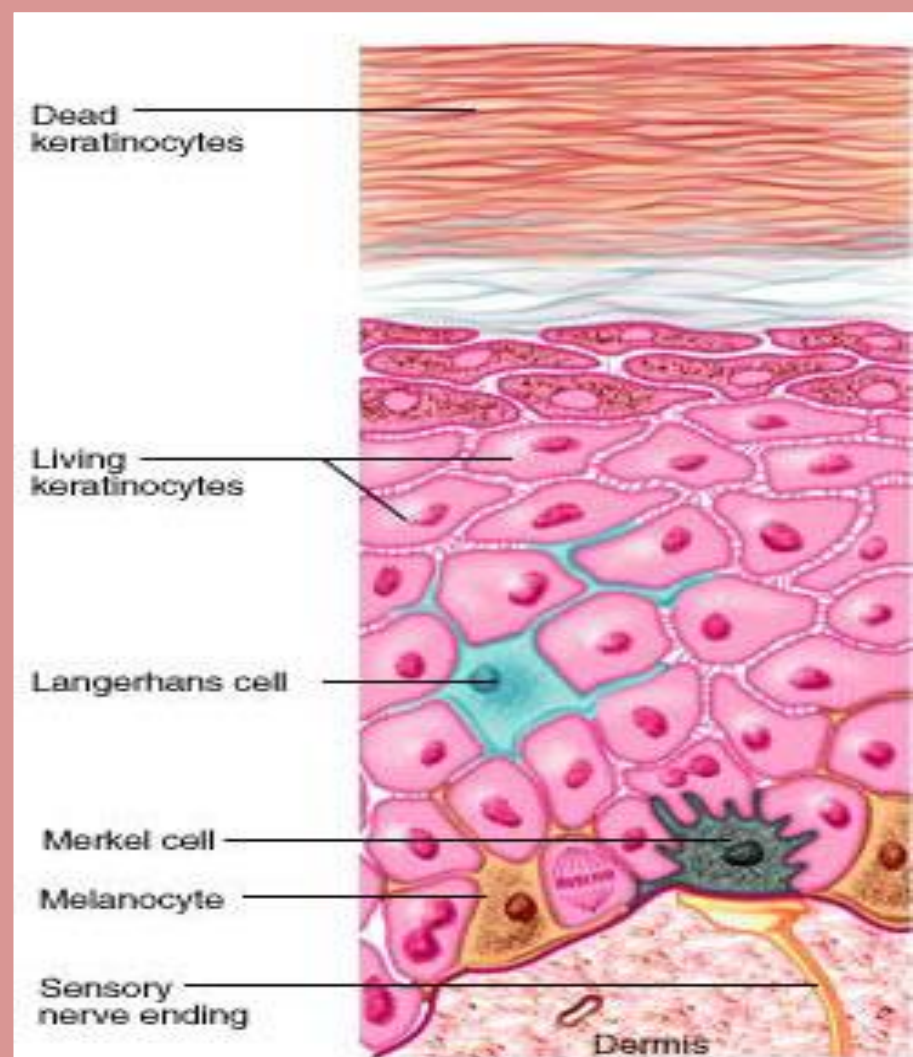
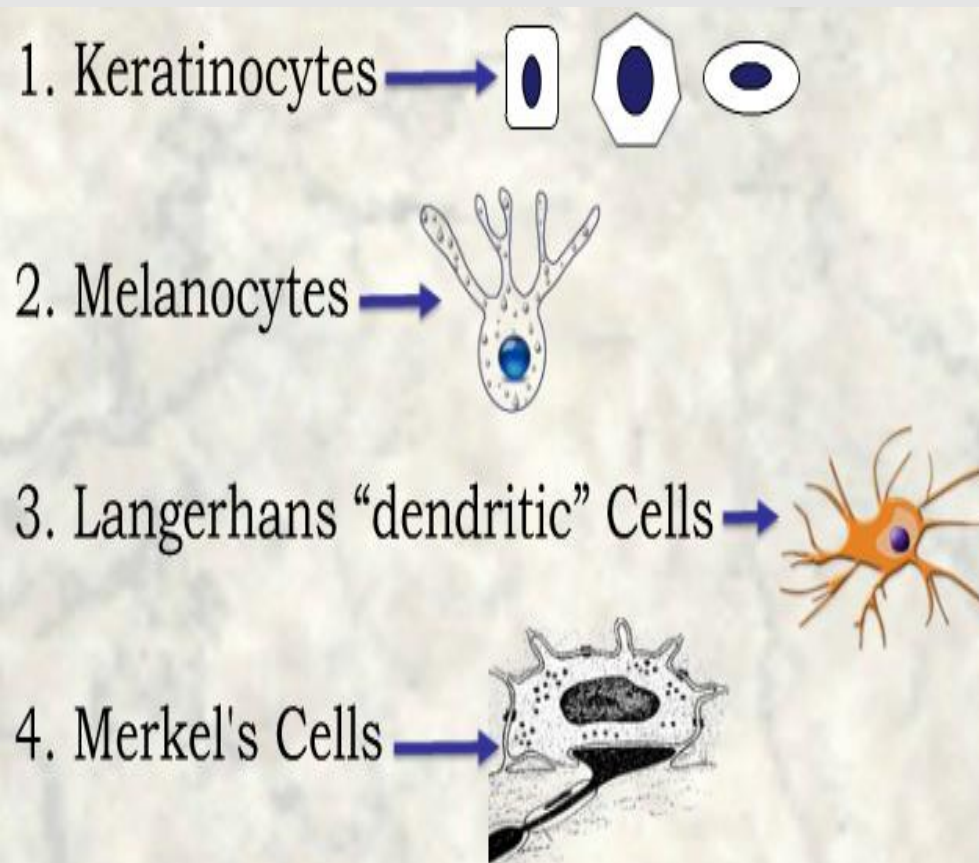
1-thick skin

2-thin skin



## Epidermis

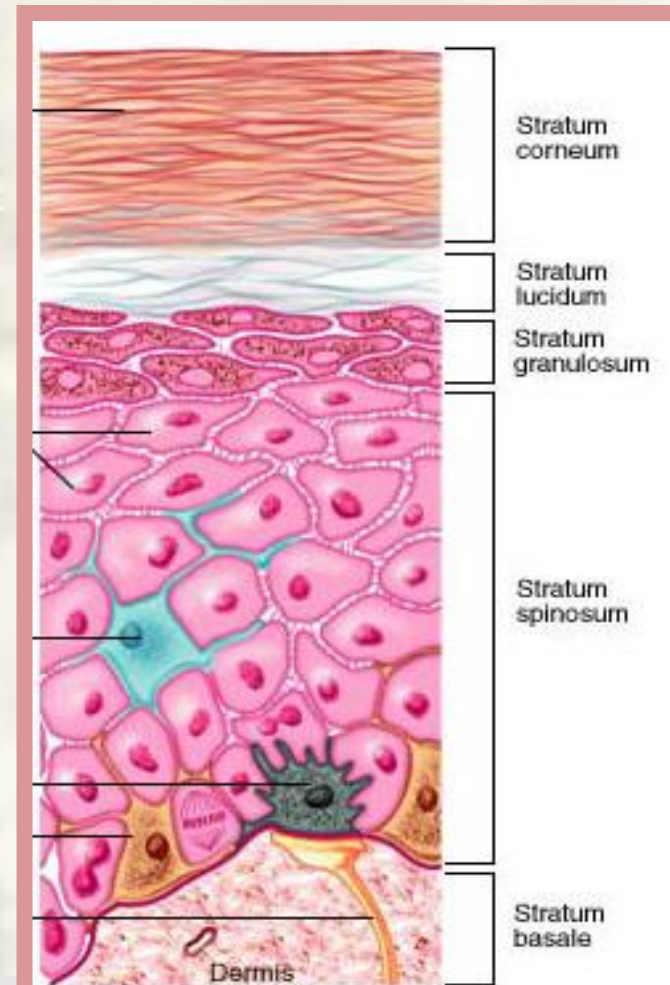
It consists of four types of cells:





The first type (keratinocytes) of the epidermis consists of 5 layers (stratum = layer)

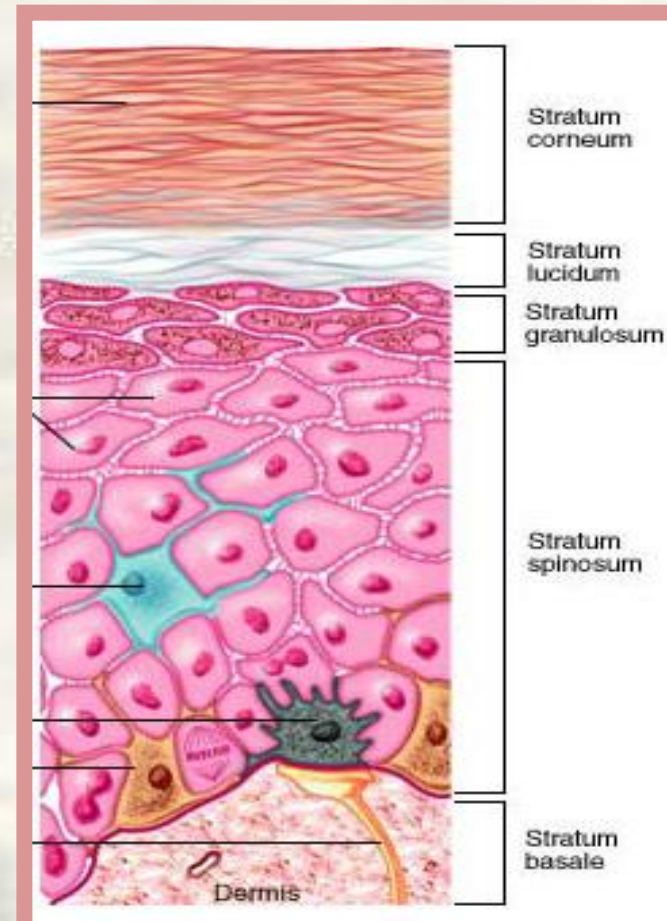
1. Stratum basale "germinativum"
2. Stratum spinosum
3. Stratum granulosum
4. Stratum lucidum  
(*only in thick skin*)
5. Stratum corneum



# The first type (keratinocytes) of the epidermis

consists of 5 layers (stratum = layer)

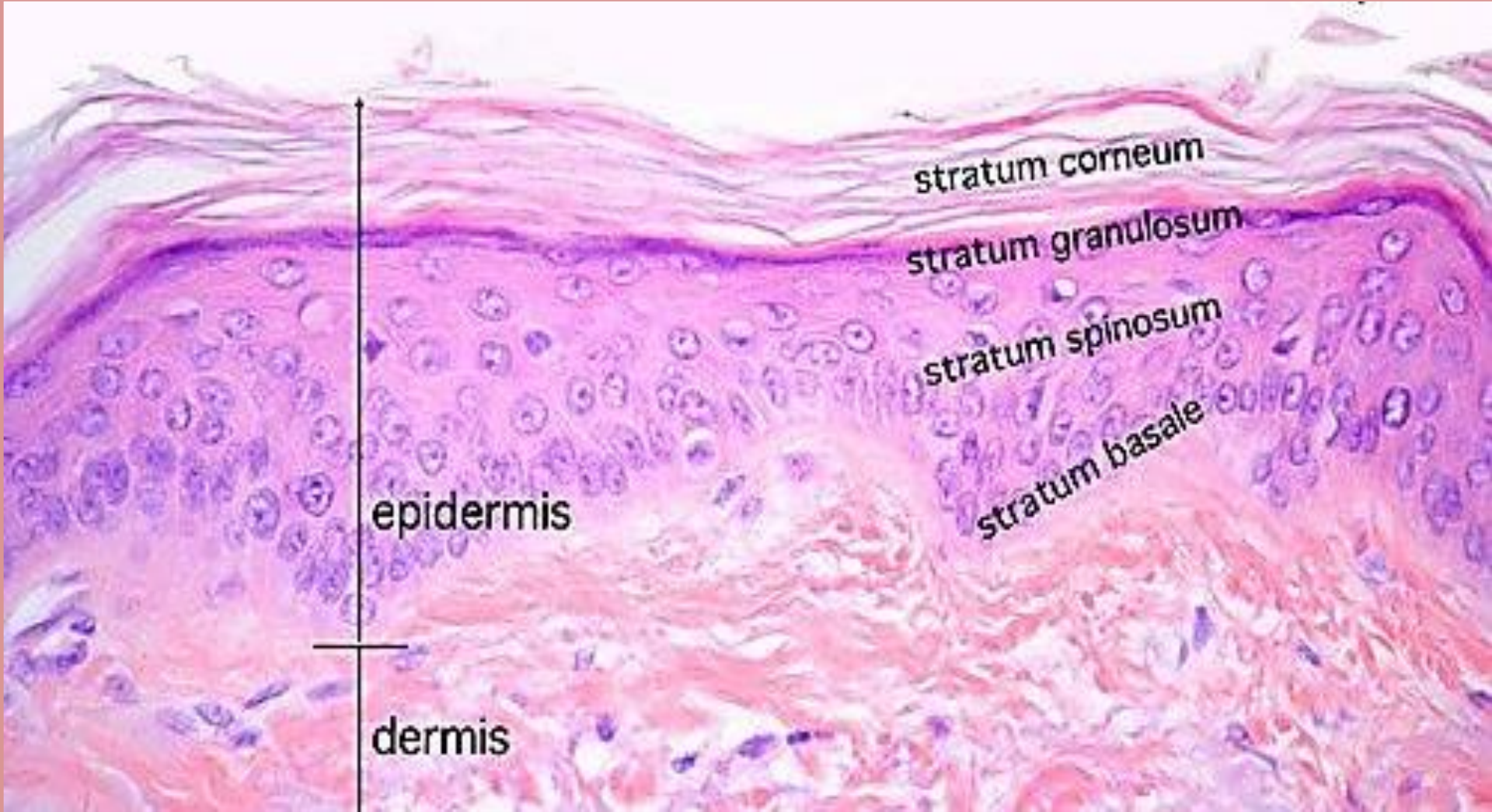
1. Stratum basale "germinativum"
2. Stratum spinosum
3. Stratum granulosum
4. Stratum lucidum  
(*only in thick skin*)
5. Stratum corneum







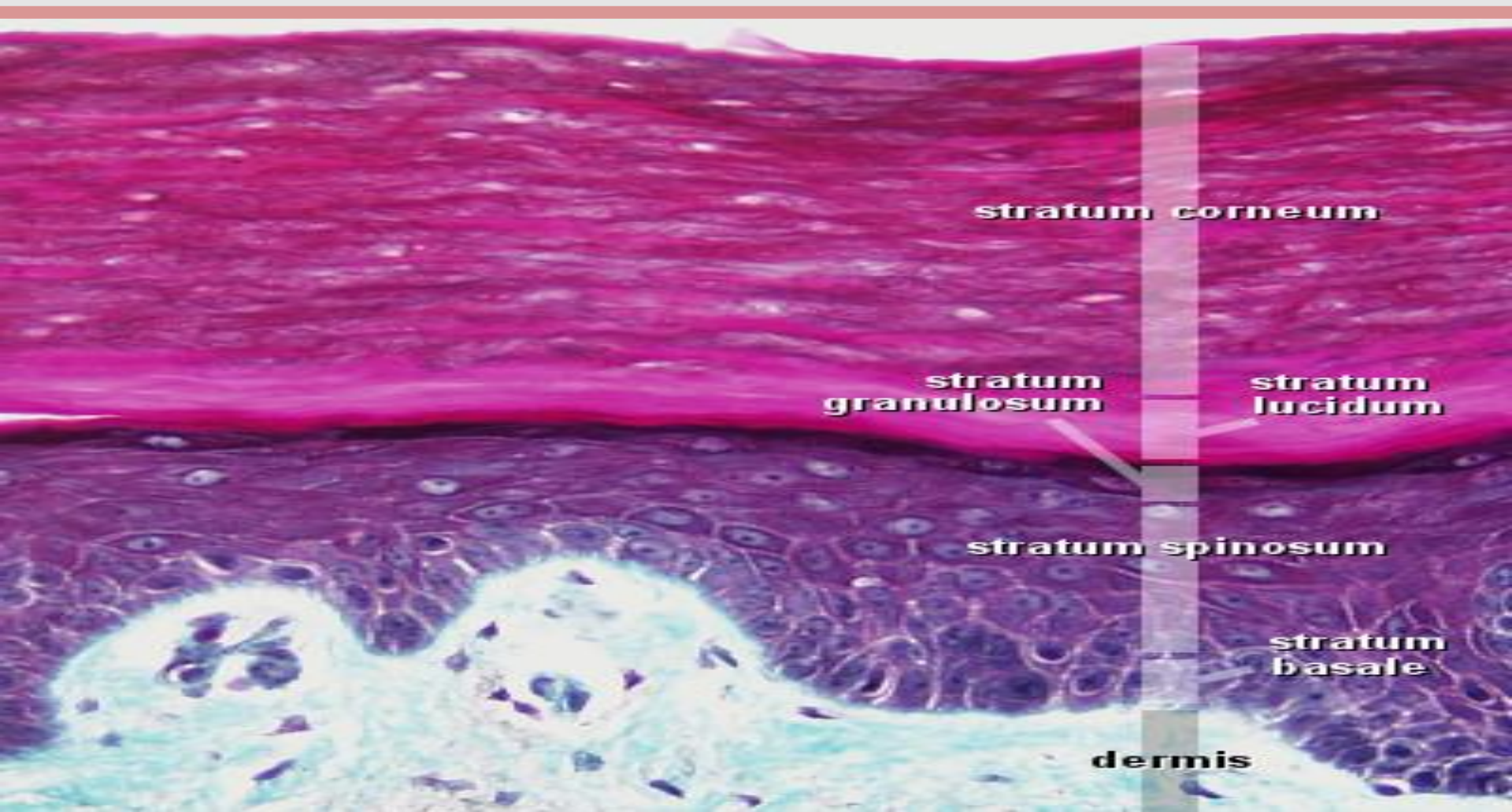
# Epidermis of thin skin







# Epidermis of thick skin



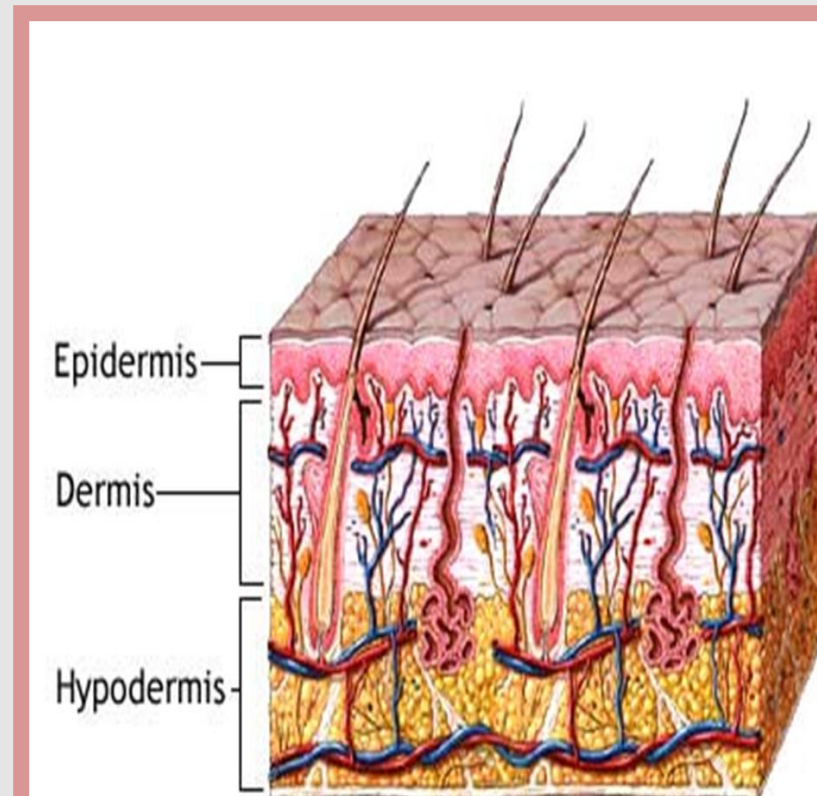


## Dermis

The dermis is a connective tissue, consists of (cells, fibers and ground substance can contain blood and lymphatic vessels, nerves and glands) that supports the epidermis and binds it to the subcutaneous tissue (hypodermis).

Thicker than the epidermis.

- The dermis is divided into two layers:
  - 1-the papillary layers.
  - 2-the reticular layers.
- The surface of the dermis is very irregular and has many projections (dermal papillae) that interdigitate with the evaginations (epidermal ridges) of the epidermis







# Skin appendages

## 1- The Hair

Hair follicle composed of :

1-medulla

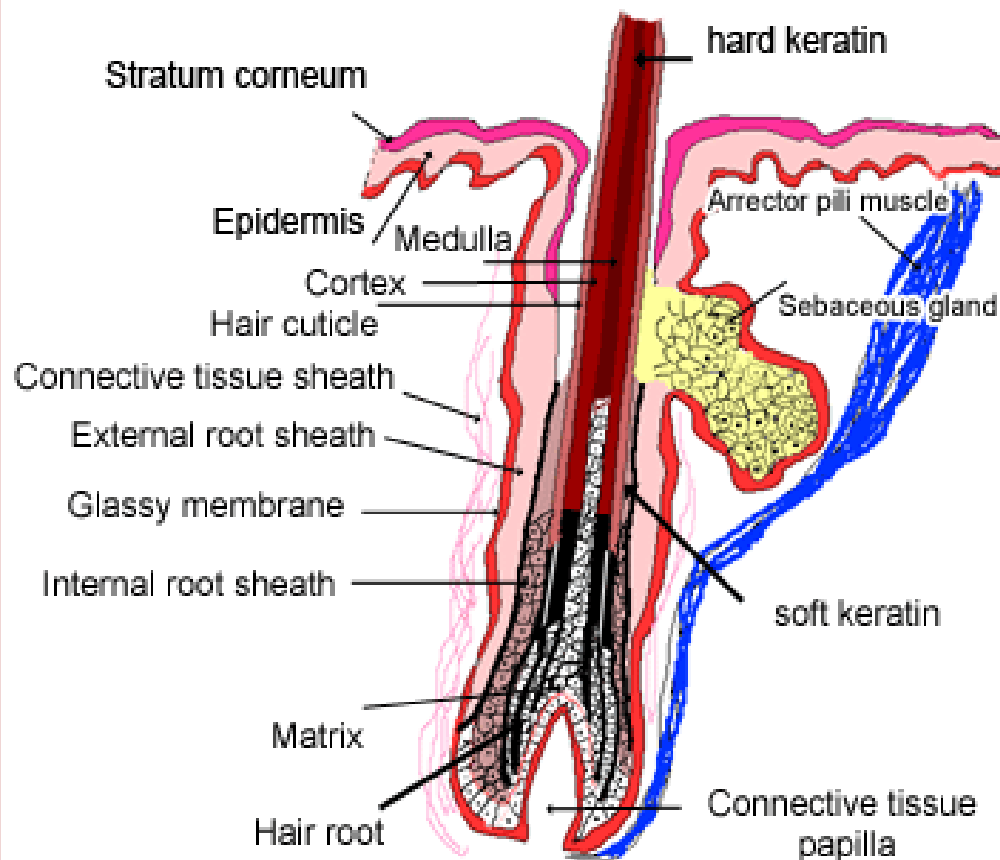
2-cortex

3-cuticle layer

4-internal root sheath

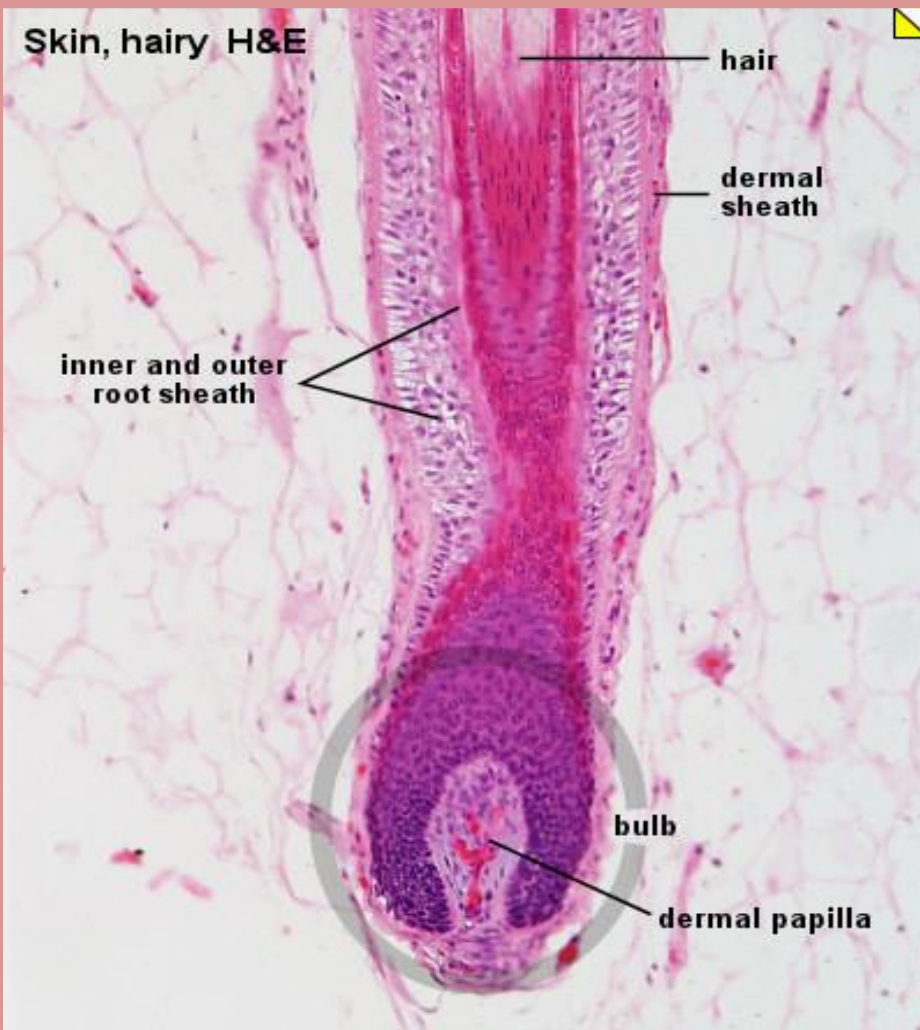
5-external root sheath

6-glassy membrane





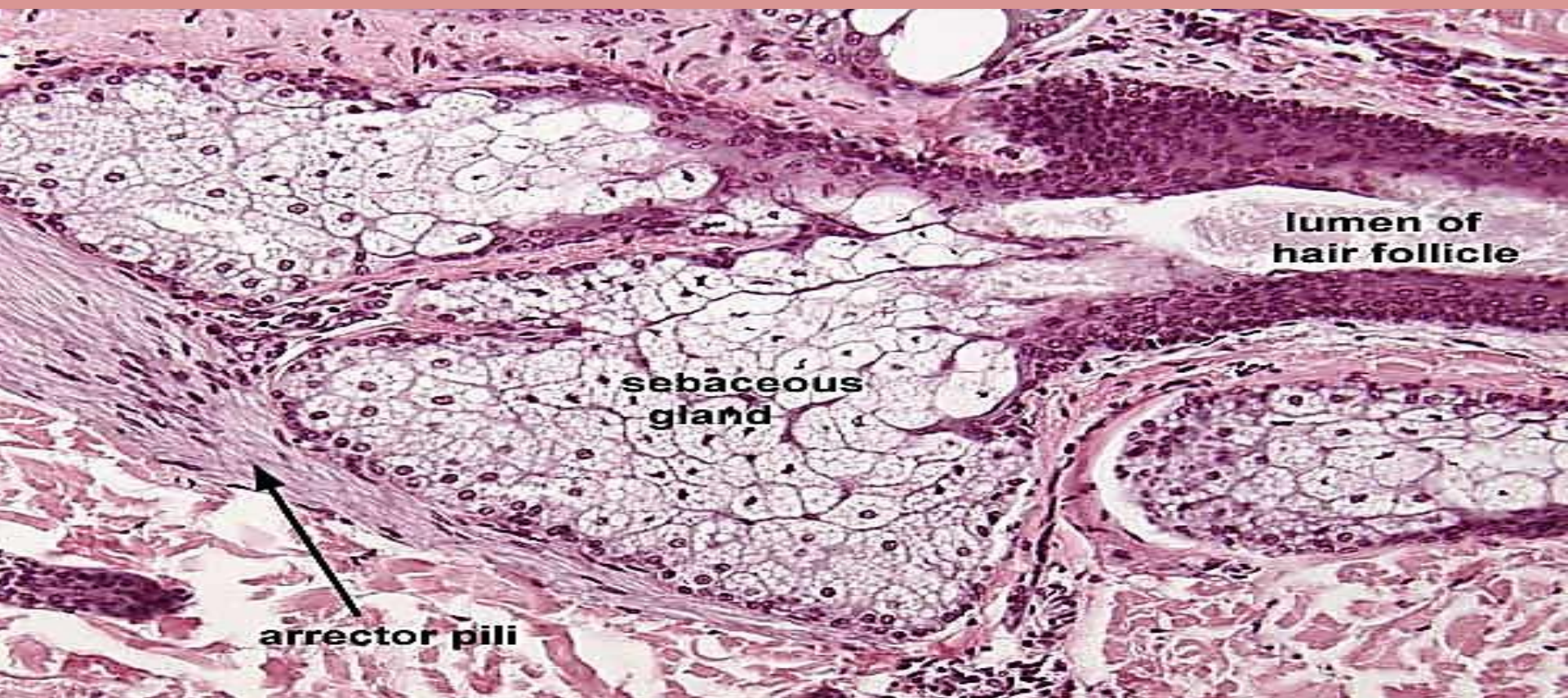
# The Hair







**2-Sebaceous gland** is a simple branched acinus gland, holocrine gland, composed of small cells (stem cells) near the connective tissue capsule which proliferate and give rise to . an acinus composed of large sebocytes







### 3- Sweat gland:

It is an epithelial (epidermal) derivatives embedded in the dermis.

- Sweat gland is a **simple tubular coiled gland**, has two parts: **secretory portion** and **duct**, the duct is smaller than the secretory portion, has narrow lumen and consists of two layers (**stratified cuboidal**) of more acidophilic epithelial cells filled with mitochondria.

- There are **two types** of sweat glands:

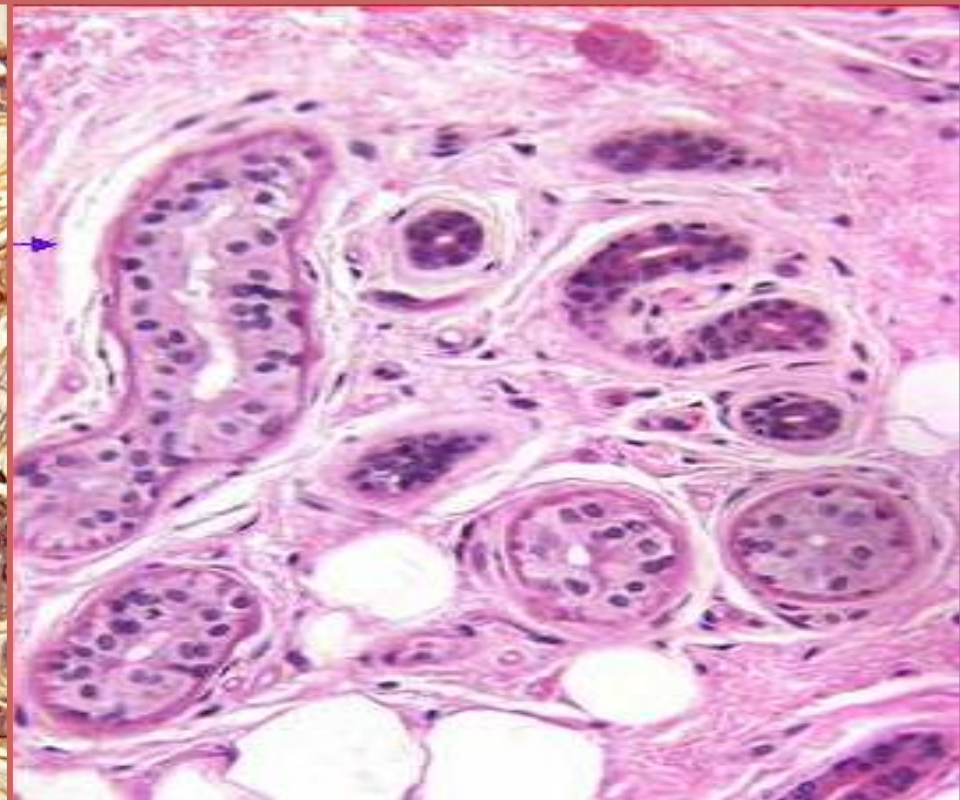
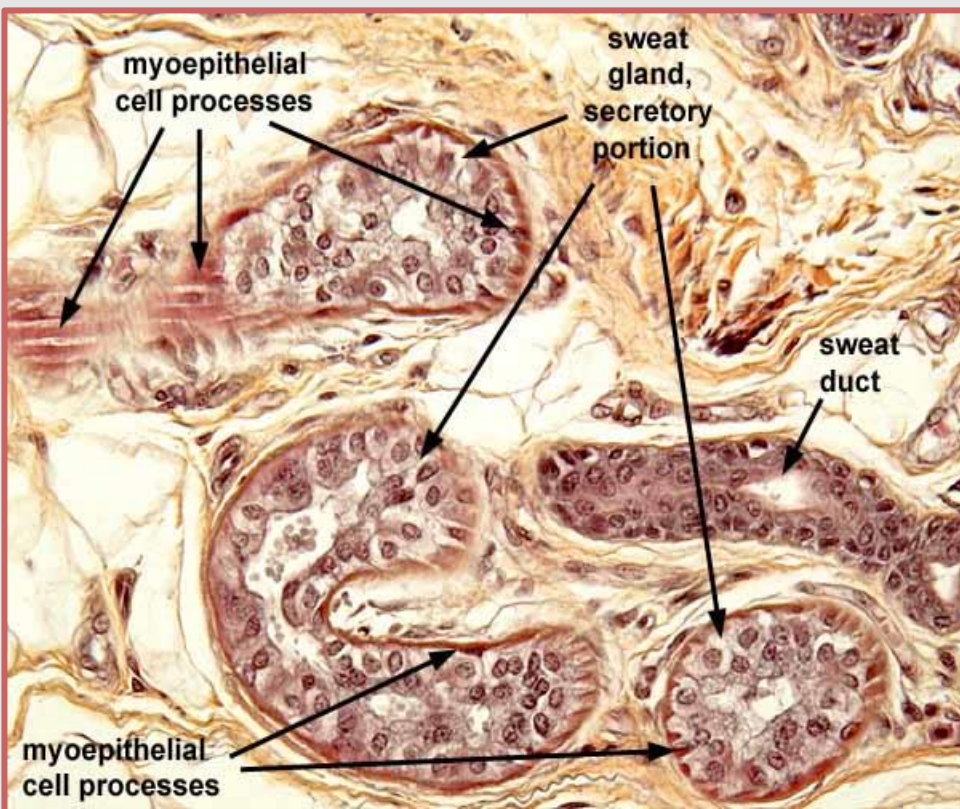
**A:** Merocrine (Eccrine) sweat gland.

**B:** Apocrine sweat gland.



## A. Merocrine (Eccrine) sweat gland:

The secretory part is generally more pale-staining than the ducts and has stratified cuboidal epithelium consisting of three cell types: clear cells, dark cells and myoepithelial cells

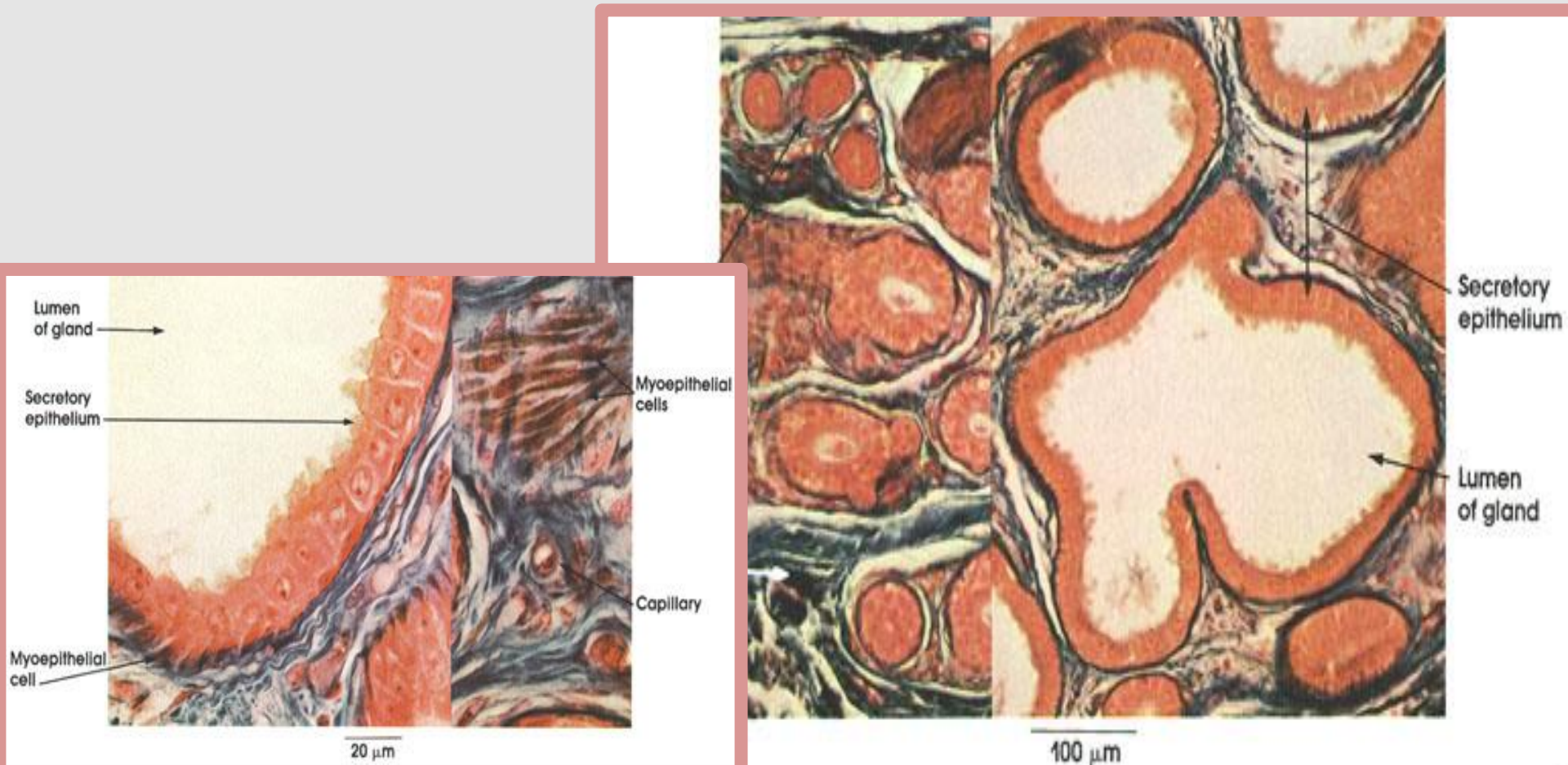






## B. Apocrine sweat gland:

It is confined to the axillary and genital regions, much larger lumen of apocrine glands and its secretory portion consists of simple cuboidal, eosinophilic cells.







# Lip



In lip one side covered by typical oral mucosa and the opposite side covered by thin skin, containing hair follicles (F) and associated glands. Between the oral portion of the lips and thin skin is the striated muscle (found in the core)

