

# **Syrian Private University**

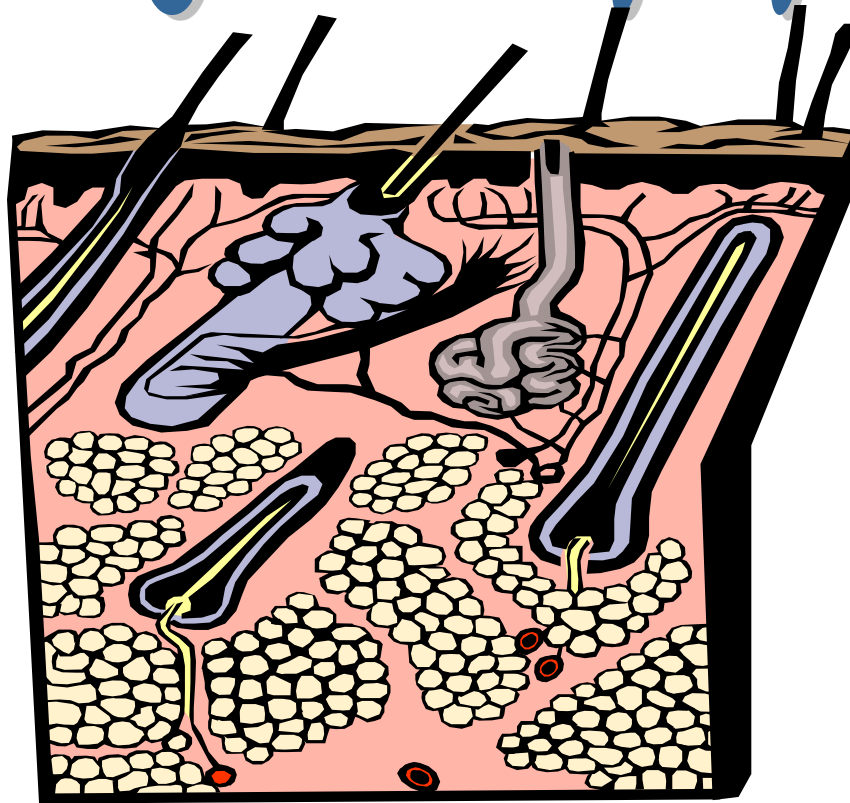
## **Medical Faculty**

### **Medical Terminology**

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**Lecture 3**

# The Integumentary System



# Objectives

- **Name the parts of the Integumentary system and discuss the function of each part.**
- **Define the combining forms used in building words that relate to the Integumentary system.**
- **Identify the meaning of related abbreviations.**
- **Name the common diagnoses, laboratory tests and clinical procedures used in testing and treating the Integumentary system.**

# Objectives cont'd

- **Define the major pathological conditions of the Integumentary system.**
- **Define surgical terms related to the Integumentary system.**
- **List common pharmacological agents used in treating the Integumentary system.**

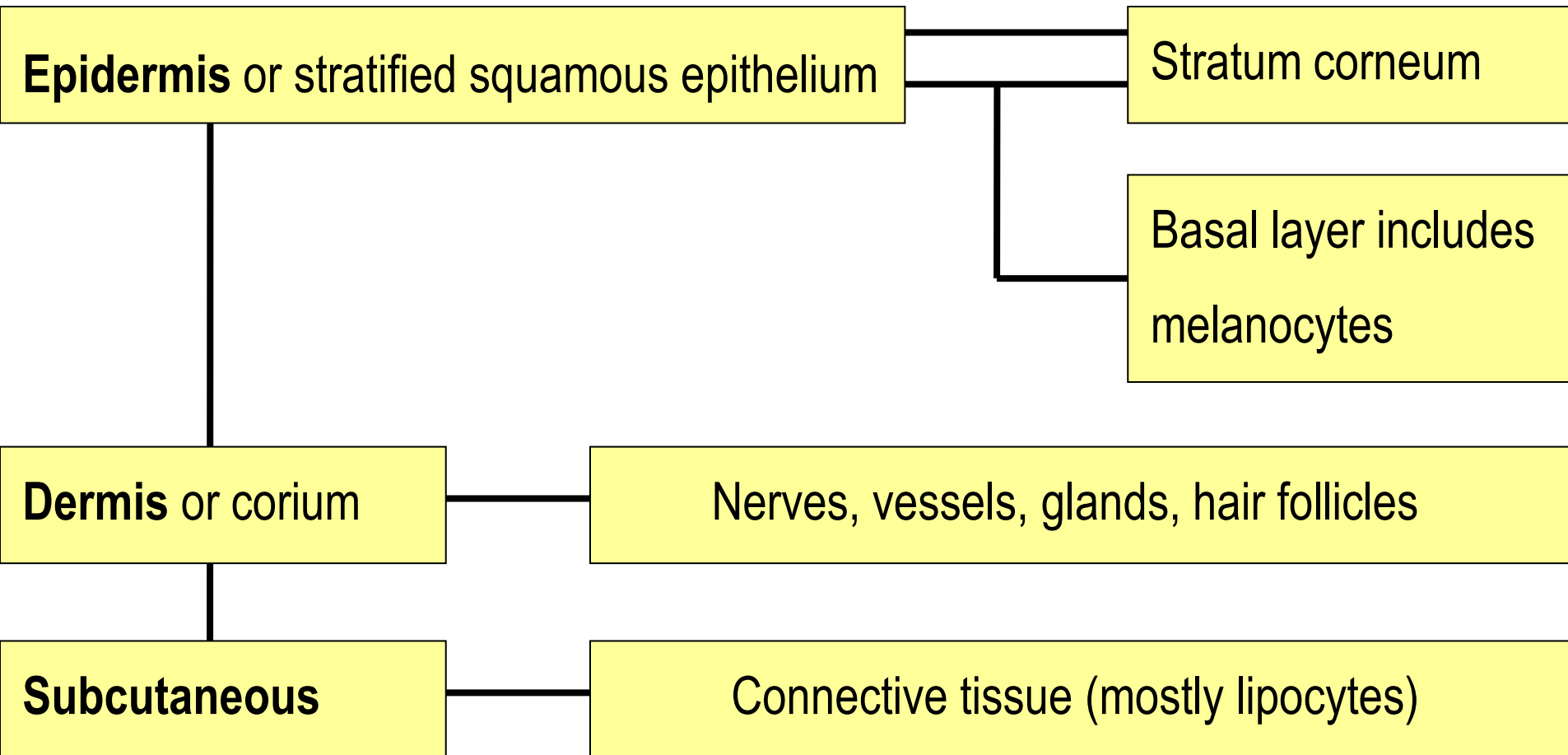
# Structure and Function

**Skin is the largest organ of the body, and serves to:**

- **Protect against injury**
- **Protect against the sun UV rays**
- **Prevent entry of harmful microorganisms**
- **Maintain the proper internal body temperature**
- **Excrete waste materials through perspiration**
- **Function as a sense organ**

# Structure and Function

## Three Layers of the Skin

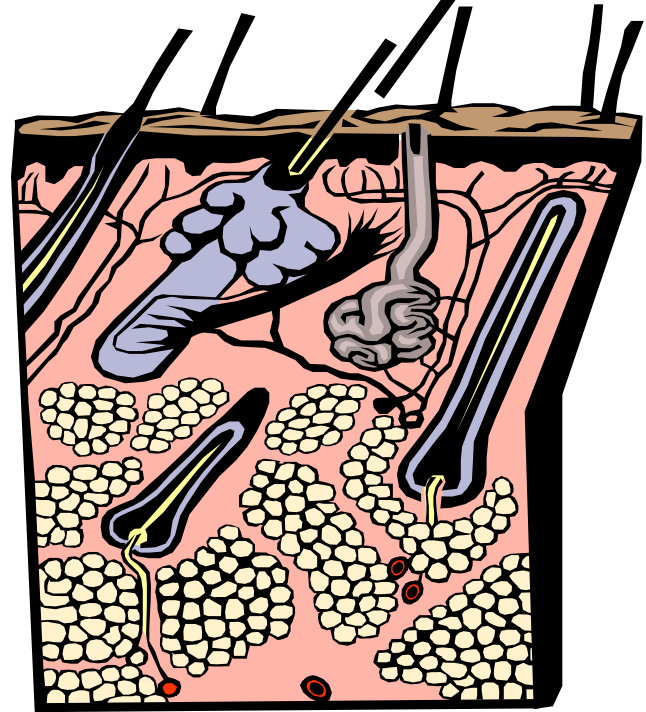


# Structure and Function

epidermis

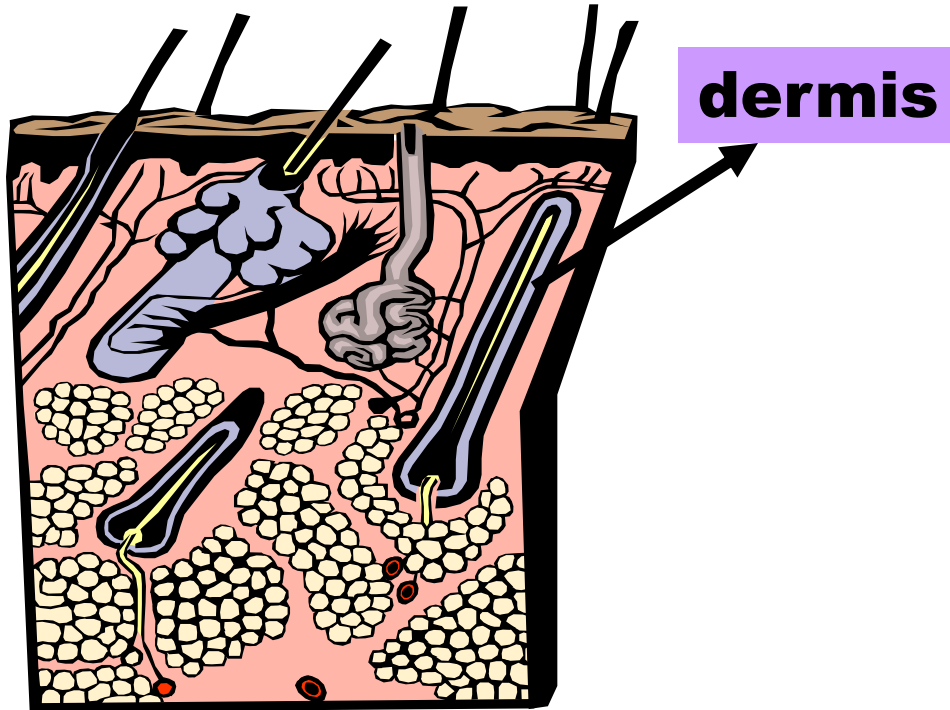
## Epidermal Layer

- **Outermost skin layer**
- **Consists of several sublayers**
- **Top sublayer is called the stratum corneum**
- **Nonvascular**
- **Keratin is found in the cells**



- **Stratum germinativum is the bottom sublayer where new cells are produced that push up toward the stratum corneum**

# Structure and Function



## Dermal Layer

- Also called the **corium**
- Contains two sublayers the **papillary** layer and the **reticular** layer
- Holds many capillaries, lymph cells, nerve endings, sebaceous and sweat glands and hair follicles

• Collagen fibers are found in the connective tissue and when collagen fibers stretch, they form **striae**

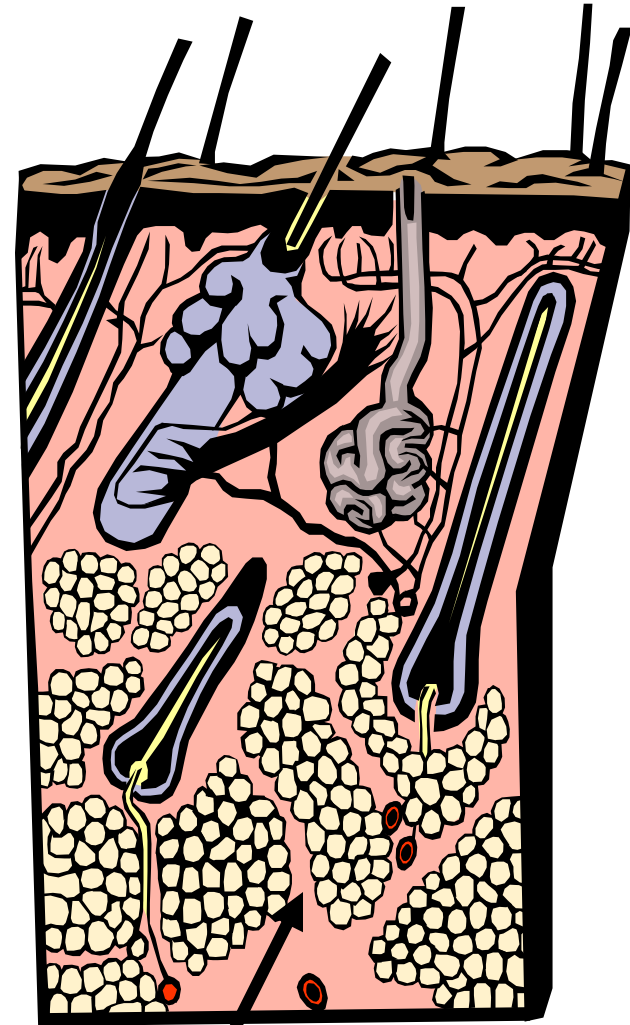


# Structure and Function

## Subcutaneous Layer

- **Also called the hypodermis**
- **Found between the dermal layer and the inner organs**
- **Consists of adipose or fatty tissue and some fibrous tissue**

- **Fatty tissue protects inner organs and maintains body temperature**
- **Blood vessels and nerves are present**



**subcutaneous**

# Structure and Function

## Hair

- Hair grows out of the epidermis to cover parts of the body.
- The *shaft* is what we see and the *root* lies below the surface of the skin.



Hair color is determined by the presence of melanin.

Baldness or *alopecia* may result from heredity, disease, injury, or chemotherapy.

# Structure and Function

## Nails

- **Nails are plates made of hard keratin that cover the dorsal surface of the fingers and toes.**



- **At the base of most nails a lunula or whitish half-moon is an area where keratin and other cells have mixed with air.**
- **The cuticle is a narrow band of epidermis that surrounds the base or bottom of nails.**

# Structure and Function

## Glands

- **Sudoriferous** glands, also known as sweat glands, secrete outward toward the surface of the body (**exocrine**) and are located almost everywhere on the body.

### Types of exocrine glands



- The excretion of sweat is called **diaphoresis**.

# Combining Forms

## Combining Form

## Meaning

•adip(o)	→	fatty
•dermat(o)	→	skin
•hidr(o)	→	sweat, sweat glands
•ichthy(o)	→	fish, scaly
•kerat(o)	→	horny tissue
•lip(o)	→	fatty

# Combining Forms

## Combining Form

•melan(o) →

•myc(o) →

•onych(o) →

•pil(o) →

•seb(o) →

•steat(o) →

•trich(o) →

## Meaning

**black, very dark**

**fungus**

**nail**

**hair**

**sebum**

**fat**

**hair**

# Diagnostic, Procedural and Laboratory Tests



**The field of **Dermatology** studies, diagnoses, and treats ailments of the skin.**

# Diagnostic, Procedural and Laboratory Tests

- **Exudate** (pus) is material that passes out of tissues. The laboratory can use this to determine the types of bacteria present.



- A scraping can also be done and placed on a growth medium to identify the presence of **fungi**.