

Nerve Receptors in Dermis

- **Sensory nerves – heat, cold, touch, pain and pressure**
- **Touch receptors close to the surface**
- **Pressure receptors are deeper**

Subcutaneous Layer

- **Lies under the dermis (not really part of integumentary system)**
- **Made up of loose connective tissue**
- **Contains half of the body's stored fat**

Appendages of the Skin

HAIR

- **Almost everywhere on the body**
- **Length, thickness, type and color varies**

Outer layer = CORTEX

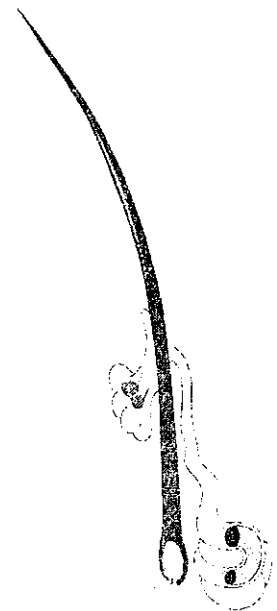
Inner layer = MEDULLA

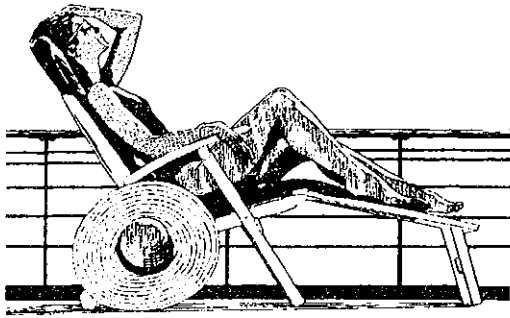
Part under the skin = ROOT

Part outside the skin = SHAFT

FOLLICLE = pocket in epidermis, hair inside

PAPILLA = tuft of tissue in root, contains capillaries





Tanning

Sunlight stimulates melanocytes to make more melanin

Tanning produced by UV rays.



Prolonged exposure may lead to skin cancer!

PAPILLAE

- **Ridges in stratum germinativum that arise from dermis**
- **Create permanent ridges in fingers, palms and soles of feet**
- **These “friction ridges” help with grip**
- **Cause “fingerprints”**

STRUCTURE OF THE SKIN

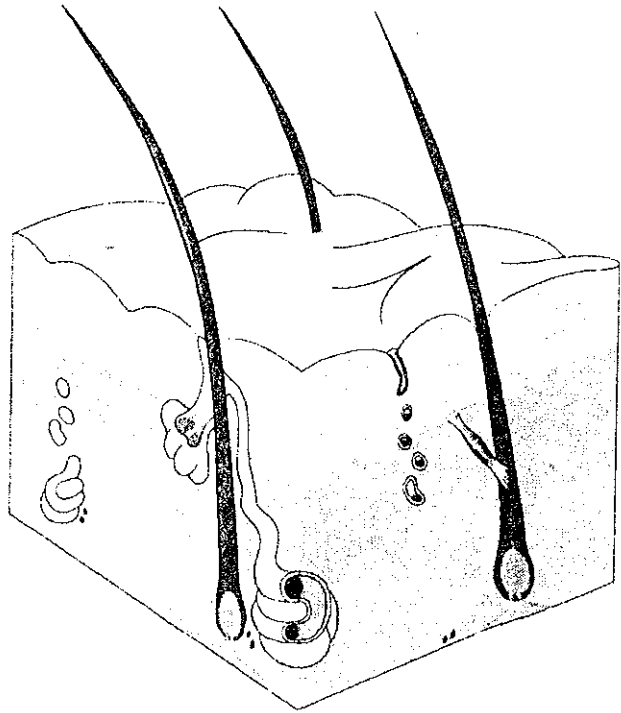
2 basic layers

Epidermis

- Outermost covering
- Epithelial cells
- Avascular

Dermis

- True skin
- Connective tissue
- Vascular



EPIDERMIS

2 (of 3) epidermal layers are:

- Stratum corneum
- Stratum germinativum

4. Sensory perception
 5. Storage
 6. Sun screen
 7. Absorption
- B. Glands
1. Sudoriferous glands (sweat glands)
 - a. Perspiration is 99% water
 - b. Distributed over the entire skin surface, large numbers under the arms, palms of hands, soles of feet and forehead
 - c. Perspiration excreted through pores
 - d. May be activated by heat, pain, fever and nervousness
 - e. Underarm odor caused by bacteria mixed with sweat
 - f. Ave fluid loss = 500 cc/day
 2. Sebaceous glands
 - a. Sebum - oil
 - b. Protects and lubricates skin

1H04.03 Discuss characteristics and treatment of common skin disorders.

- A. Acne
1. Disorder of sebaceous glands
 2. Sebum plugs pores and area fills with leukocytes
 3. Also, blackheads, cysts, pimples and scarring
- B. Albinism – absence of melanin
- C. Alopecia – baldness
- D. Athlete's foot
1. Contagious fungal infection
 2. Usually contracted in public baths and showers
 3. Rx – antifungal agents
- E. Dermatitis
1. Non-specific skin inflammation
 2. Rash – reaction to soap, plants, etc.
 3. Skin blotches – caused by stress
- F. Herpes
1. Genital herpes
 - a. Viral blister in genital area
 - b. Spread through sexual contact
 - c. Periods of remission and exacerbation
 - d. Rx – Acyclovir
 - e. Can be passed to newborn during genital delivery
- G. Skin cancer
1. Associated with exposure to sun (UV rays)
 2. Most common type of cancer in people
 3. Melanoma
 - a. Malignant
 - b. Occurs in melanocytes
 - c. Metastasizes to other areas quickly
 - d. Brown or black irregular patch that occurs suddenly
 - e. Change in existing wart or mole may indicate melanoma
 - f. Rx – surgical removal of melanoma and surrounding area and chemotherapy