

Function of the Skin

1. Protection – waterproof, tough, nearly impervious barrier
 - Keratin – waterproofing agent, prevents fluid loss
 - Stratum corneum – protects against pathogenic, chemical entry, prevents tears
 - Melanin – prevents harmful ultraviolet rays from penetrating the body



2. Production of Vitamin D
3. Identification – facial characteristics, hair, skin color, fingerprints
4. Communication – sensory areas for touch, pain, temperature, and pressure
5. Temp Control - heat is released through sweat glands and stored through subcutaneous insulation



General Skin Pathologies

1. **Dermatitis** – an inflammation of the skin that may be associated with an allergic reaction from contact with an allergen or ingestion of a particular food or drug



2. Atopic dermatitis – a chronic inflammation of the skin caused by an allergy; ex: Psoriasis



3. Hemangioma – a collection of blood vessels near the epidermis, giving a red appearance.



4. Skin CA –

1. Basal cell carcinoma – most common, skin-colored papule
2. Squamous cell carcinoma – scaly appearance, sharp margins, sun exposure areas are most vulnerable
3. Malignant melanoma – dark, raised, can metastasize quickly



Benign

Malignant

A. Asymmetry



Symmetrical



Asymmetrical

B. Border

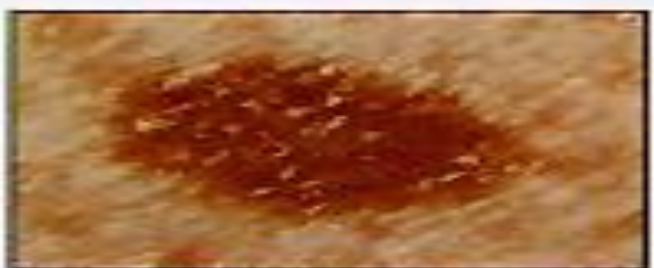


Even edges



Uneven edges

C. Color



One shade



Two or more shades

D. Diameter



Smaller than 6 mm



Larger than 6 mm



4. **Acne** – sebaceous glands produce excess oil

a) Open comedones – black heads

b) Closed comedones – white heads

Acne appears as papules or pustules,
aka, primary lesions.

MILD

MODERATE

SEVERE



normal hair
follicle



open comedo
(blackhead)



closed comedo
(whitehead)



papule



pustule

Secondary Skin Lesions

1. Crust - thickened dry area, i.e. scab



2. Excoriation - reddened abrasions, i.e. scabies, insect bites



3. Fissures - cracks in skin, i.e. athletes' foot, corners of mouth



4. Scales - flaky, dry shedding of keratin, i.e. ringworm, eczema



5. Scar - connective tissue that remains after healing takes place, i.e. acne



6. Ulcer – depression extending into dermis, i.e. Chancre, pressure sores



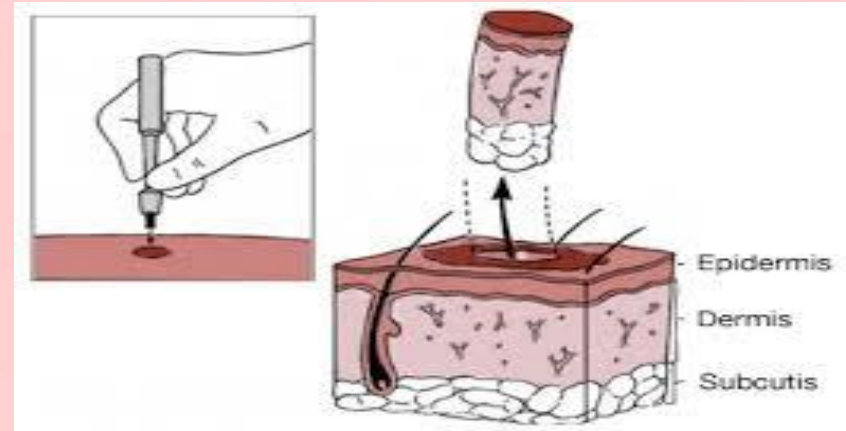
Conditions of Nails and Hair

1. Hirsutism – abnormal growth of hair usually in face, arms, back, chest
2. Alopecia – absence of hair, baldness
3. Paronychia – painful, swollen, red, inflammation of the skin surrounding the nail



Integumentary Surgical Procedures

1. Biopsy – removal of a sample of affected tissue for testing



2. Patch test – performed to identify allergens



3. Debridement – used in burn victims to remove dead skin



4. Laser treatment –
beam of light to remove
skin lesions, unwanted
hair, varicose veins, and
other types of scarring



5. Dermabrasion – uses
an abrasive device to rub
against the skin to
remove the outer layer of
skin to remove scars,
acne scars, tattoos.

