Health Assessment

Lecture 2

Integumentary System

Second Stage

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Integumentary System

Integumentary System: Including (Skin , Hair and Nail)

Used Only 2 Techniques

1- Inspection

2- Palpation

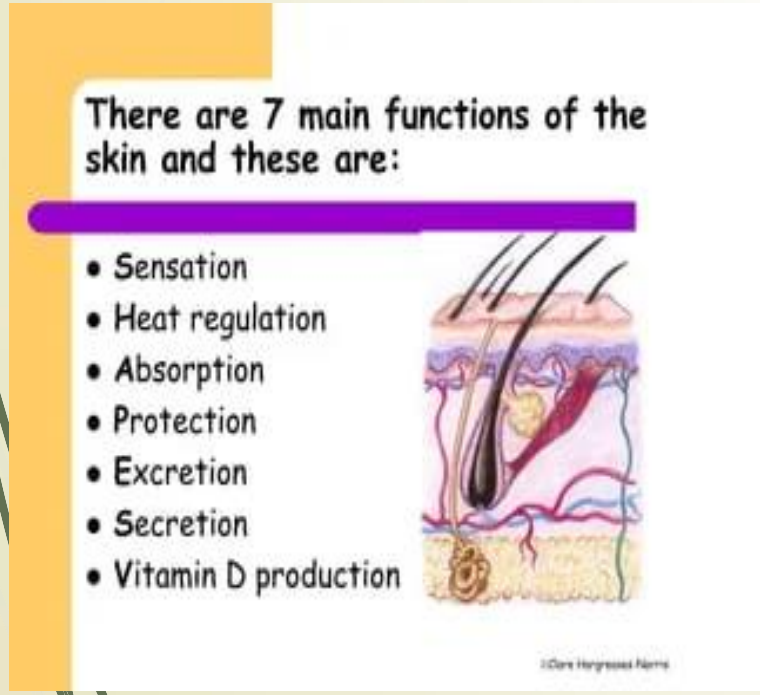
Skin

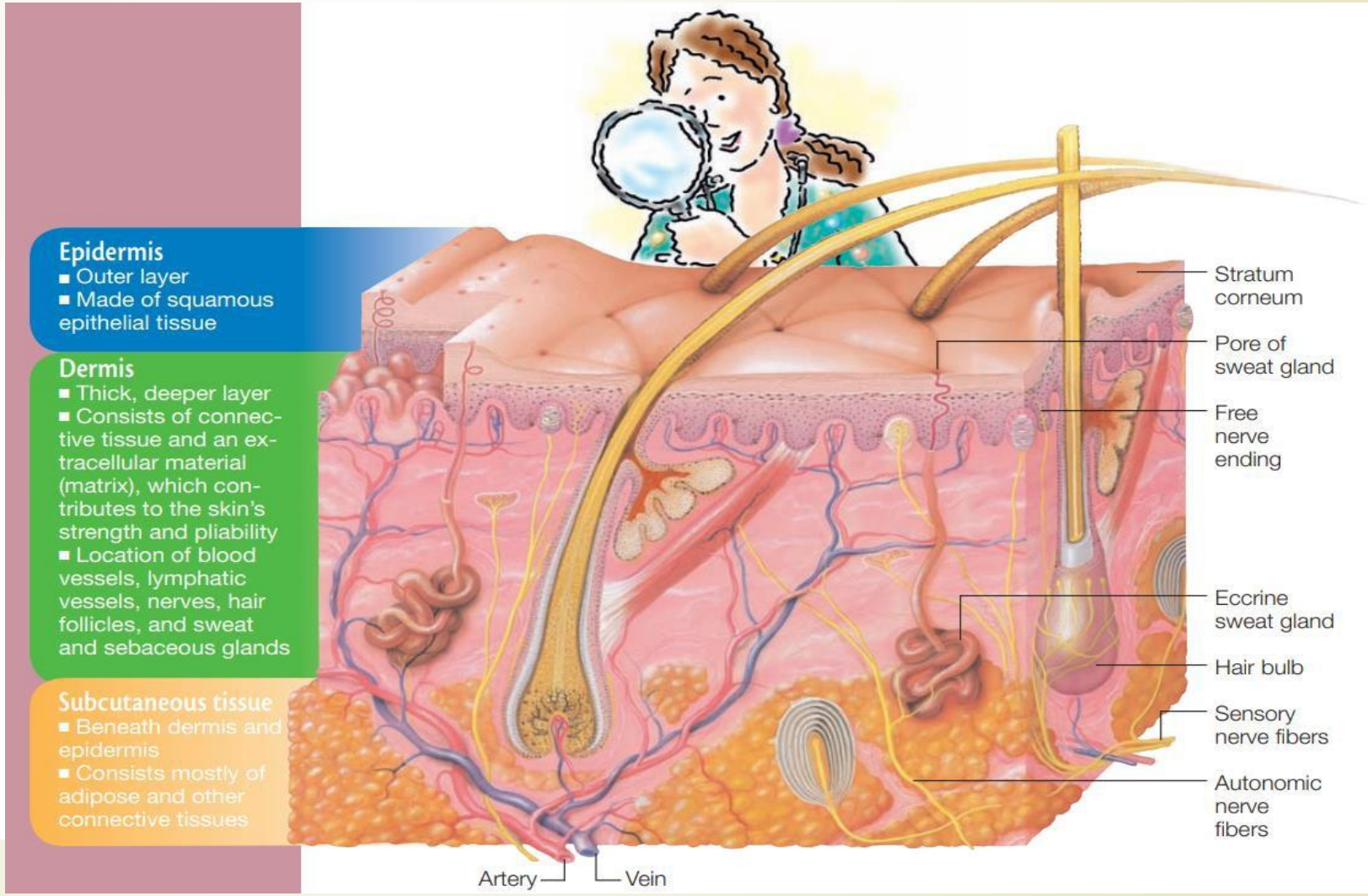
The skin covers and protects the internal structures of the body. It consists of layers:

Epidermis

Dermis

Subcutaneous tissue





Skin Assessment

Observe the skin’s overall appearance. Then inspect and palpate the skin area by area, focusing on

- Color
- moisture
- texture
- Turgor
- and temperature.

A-Color

- Look for localized areas of bruising, cyanosis, pallor, and erythema. Check for uniformity of color and hypopigmented or hyperpigmented areas.

- Cyanosis → Examine the conjunctivae, palms, soles, buccal mucosa, and tongue. Look for dull, dark color.
- Edema → Examine the area for decreased color and palpate for tightness.
- Erythema → Palpate the area for warmth.

Cont…

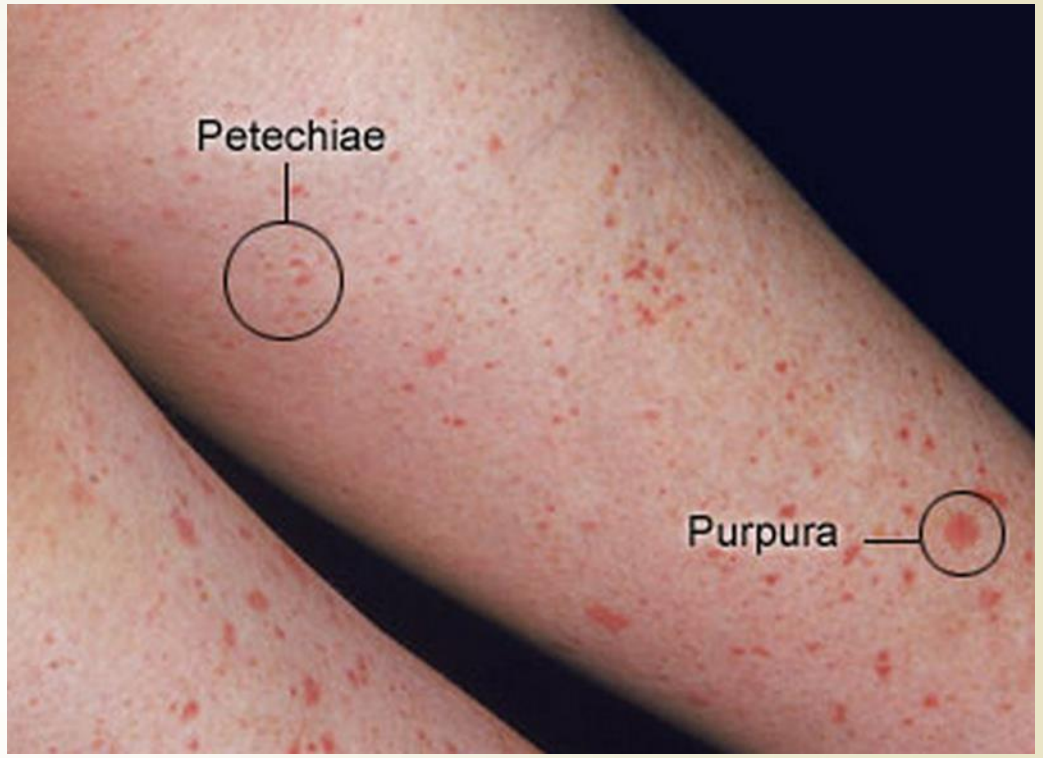
- Jaundice → Examine the sclerae and hard palate in natural, not fluorescent, light if possible. Look for a yellow color.
- Pallor → Examine the sclerae, conjunctivae, buccal mucosa, lips, tongue, nail beds, palms, and soles. Look for an ashen color.
- Petechiae → Examine areas of lighter pigmentation such as the abdomen. Look for tiny, purplish red dots.
- Rashes → Palpate the area for skin texture changes.

Pigmentation :

petechiae ;pin point red flat impalpable discoloration of skin

Purpura : hemorrhage into skin caused by decrease platelet ,liver dysfunction

Ecchymosis : discoloration of skin called black and blue mark due to trauma

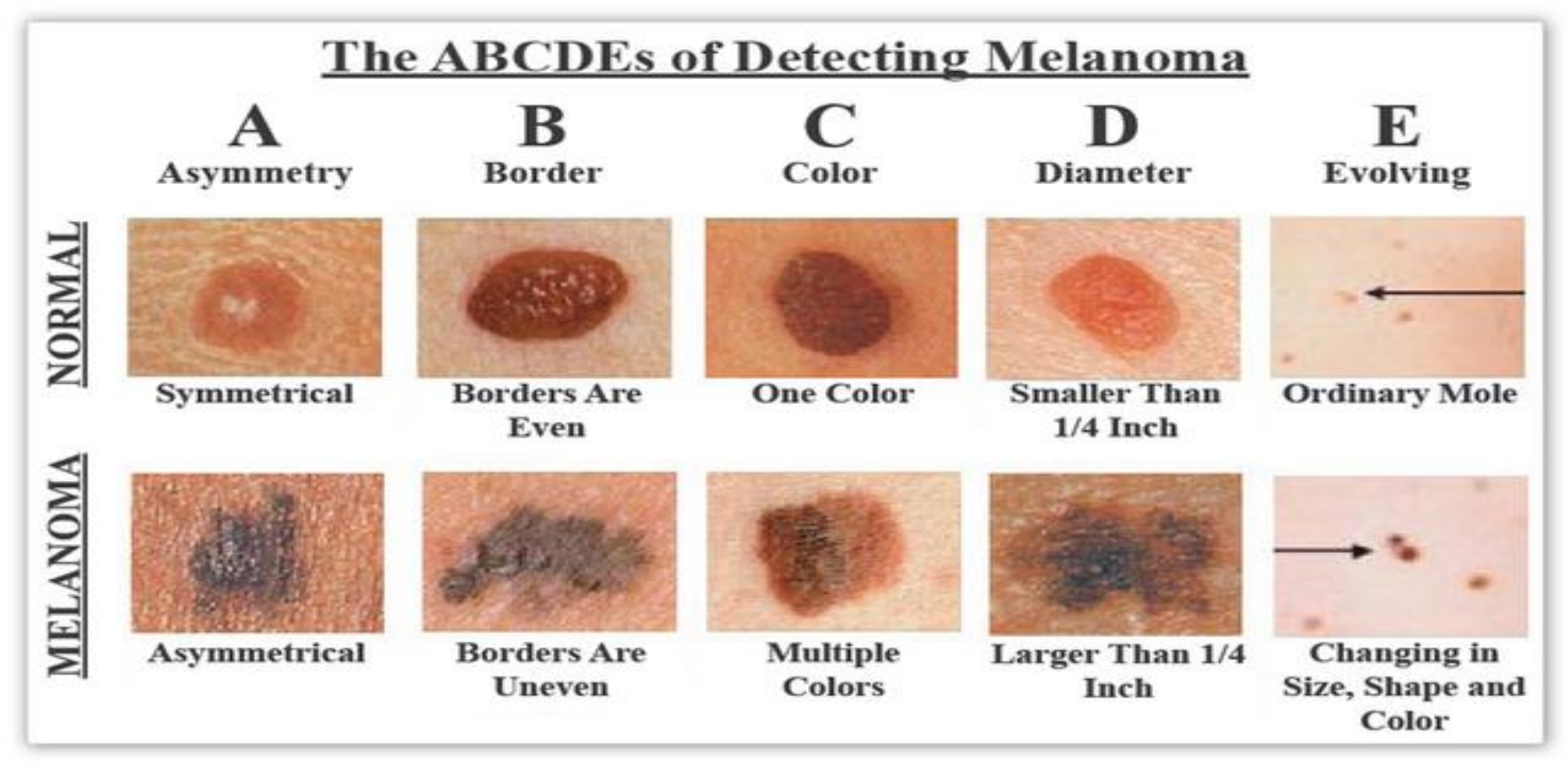


Vitiligo x albinism

Fig. 1 People with albinism have inherited genes that code for hypo-production of melanin. The result is little or no pigment in eyes, skin, and/or hair.

Freckles X birth mark

Changing Moles Or Navie And Pigmentation



B- Moisture

- Observe the skin’s moisture content. The skin should be relatively dry, with a minimal amount of perspiration.

C- Texture and turgor

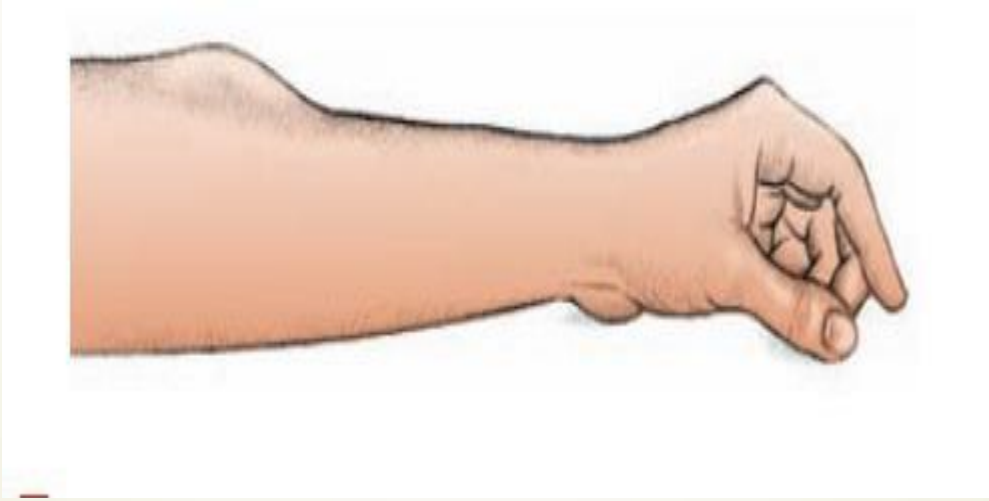
- Inspect and palpate the skin's texture, noting its thickness and mobility. It should look smooth and be intact.
- Gently squeeze the skin on the forearm or sternal area between thumb and forefinger, as shown.

Skin Turgor:

- Turgor = elasticity of skin.
- Pinch test
- Tenting: > 3 seconds to return to natural position.
- Dehydration and loss of skin elasticity → decreased turgor (tenting)

Cont…

- If the skin quickly returns to its original shape, the patient has normal turgor. If it returns to its original shape slowly over 30 seconds or maintains a tented position, as shown, the skin has poor turgor.



D- Temperature

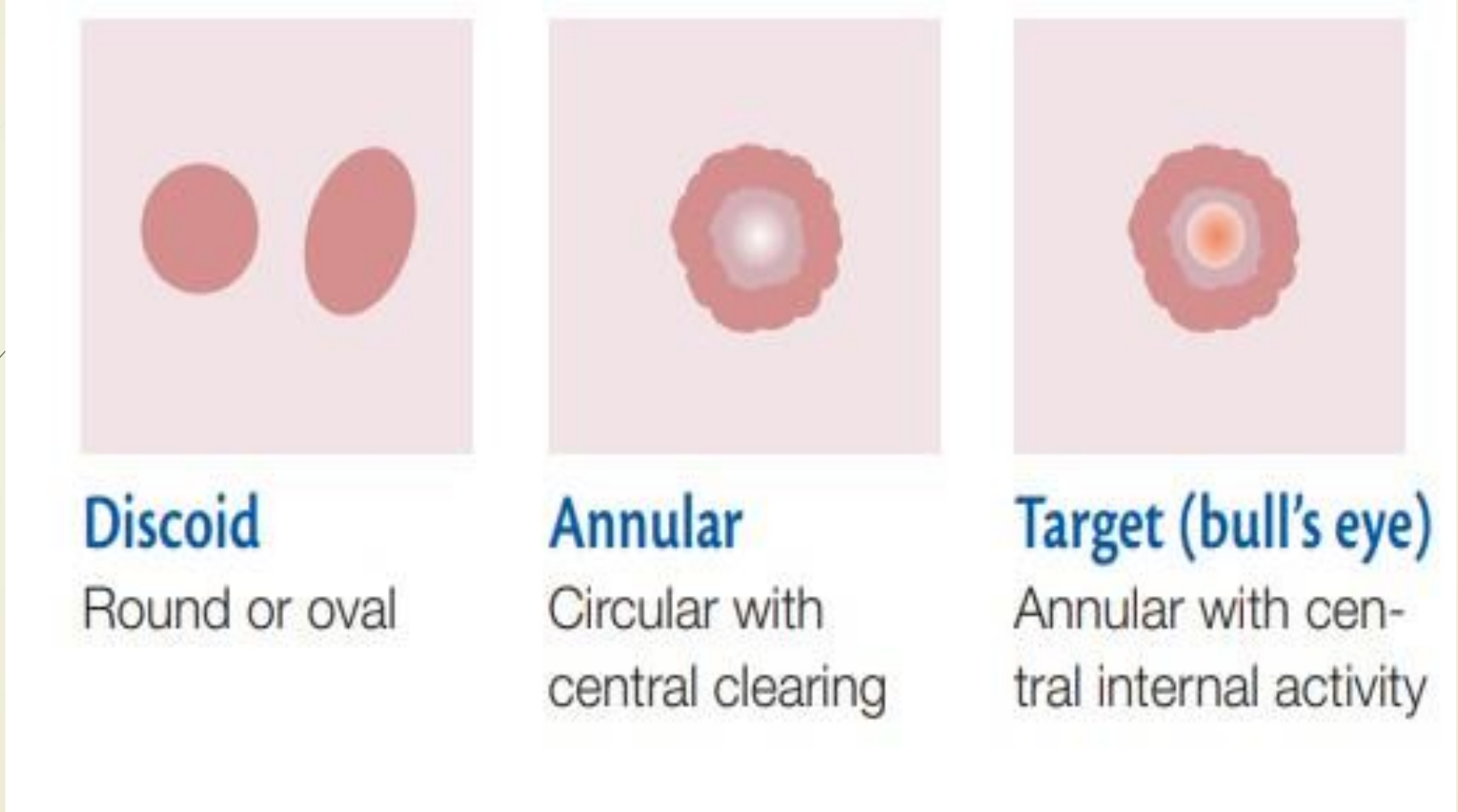
- Palpate the skin bilaterally for temperature using the dorsal surface of hands and fingers. The dorsal surface is the most sensitive to temperature changes. Warm skin suggests normal circulation; cool skin, a possible underlying disorder.

Skin abnormalities

1- Lesions

- When evaluating a lesion, you'll need to classify it as primary new or secondary a change in a primary lesion.
- Then determine if it's solid or fluid-filled and describe its characteristics, pattern, location, and distribution. Include a description of symmetry, borders, color, configuration, diameter, and drainage.

Lesion shapes



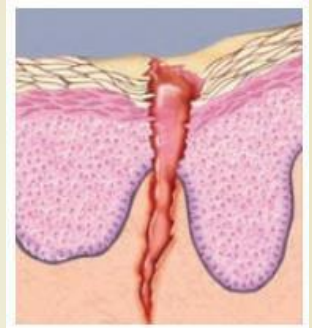
Lesion types

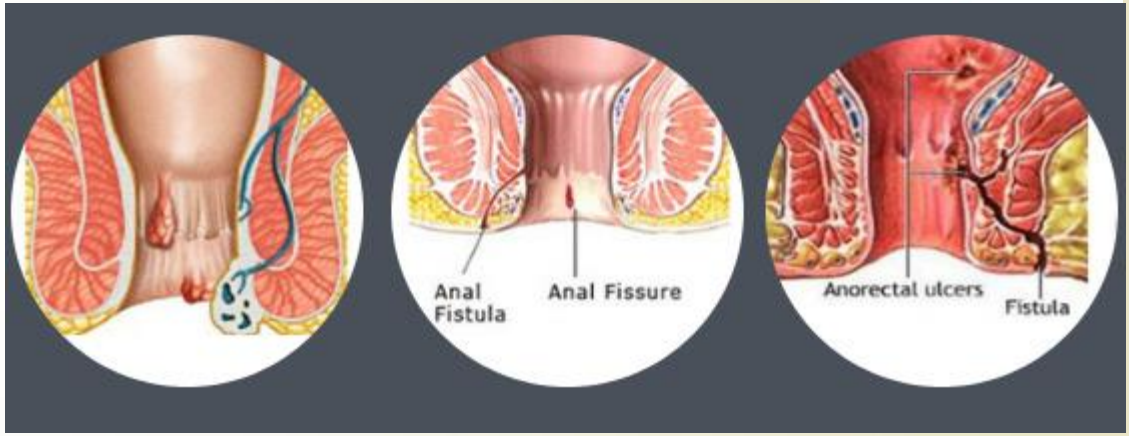
Pustule A small, pus-filled lesion called a follicular pustule if it contains a hair

Nodule A raised lesion detectable by touch that’s usually 1 cm or more in diameter

Lesion types

- **Fissure** A painful, cracklike lesion of the skin that extends at least into the dermis





- **Papule** A solid, raised lesion that's usually less than 1 cm in diameter

Psoriasis

- Psoriasis is a chronic disease of marked epidermal thickening.
- Plaques are symmetrical and generally appear as red bases topped with silvery scales.
- The lesions, which may connect with one another, occur most commonly on the scalp, elbows, and knees

Herpes zoster

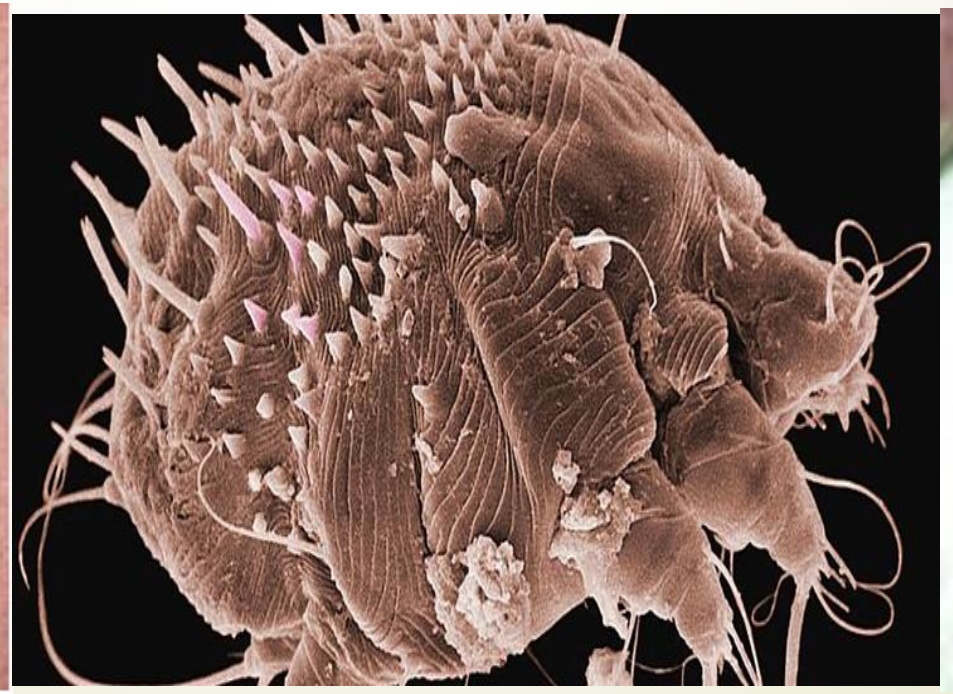
- Herpes zoster appears as a group of vesicles or crusted lesions along a nerve root. The vesicles are usually unilateral and appear mostly on the trunk. These lesions cause pain but not a rash.

chicken pox

Chickenpox (varicella) is a common illness that causes an itchy rash and red spots or blisters (pox) all over the body. It is most common in children. But most people will get chickenpox at some point in their lives if they haven't had the chickenpox vaccine.

Scabies

- Mites, which can be picked up from an infested person, burrow under the skin and cause scabies lesions. The lesions appear in a straight or zigzagging line about 3/8 (1 cm) long with a black dot at the end. Commonly seen between the fingers, at the bend of the elbow and knee, and around the groin, abdomen, or perineal area, scabies lesions itch and may cause a rash.

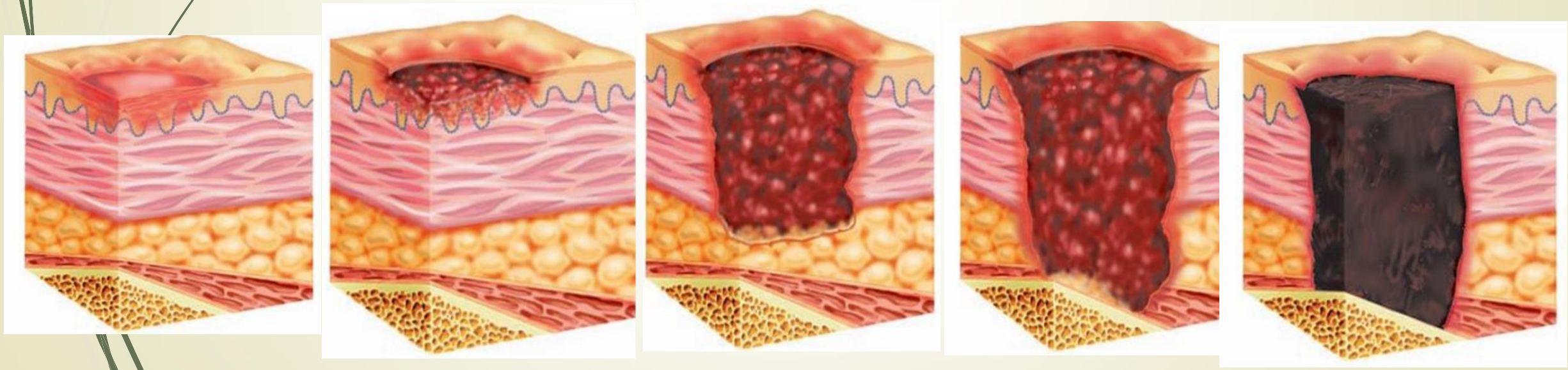


Pressure ulcers

- Pressure ulcers are localized areas of skin breakdown that occur as a result of prolonged pressure.
- Necrotic tissue develops because the vascular supply to the area is diminished.

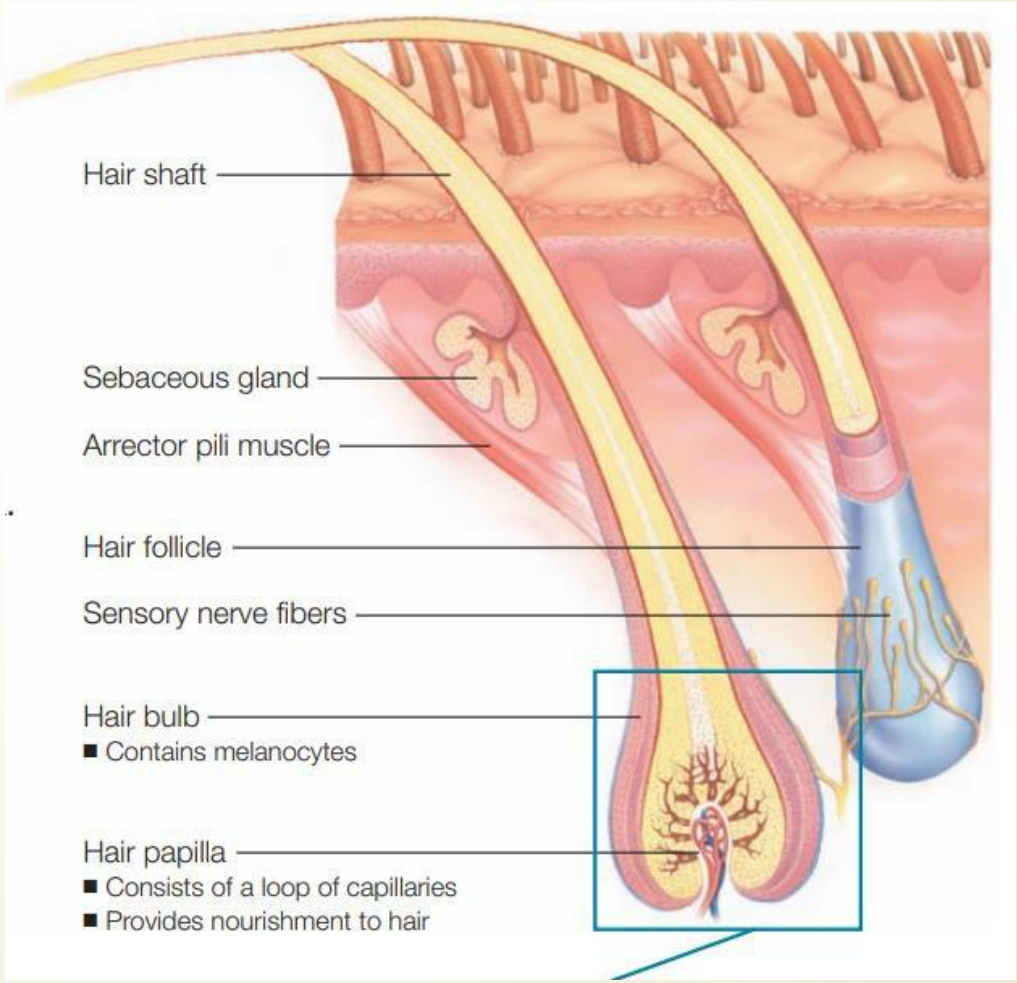
Staging pressure ulcers

- . Staging reflects the anatomic depth of exposed tissue. Keep in mind that if the wound contains necrotic tissue, you won’t be able to determine the stage until you can see the wound base.



Hair

- Hair is formed from keratin produced by matrix cells in the dermal layer of the skin. Each hair lies in a hair follicle.
- Hair When assessing the hair, note the distribution, quantity, texture, and color. Hair should be evenly distributed.



Hair abnormalities

- Typically stemming from other problems, hair abnormalities can cause patients emotional distress.
- Among the most common hair abnormalities are alopecia and hirsutism.

Alopecia

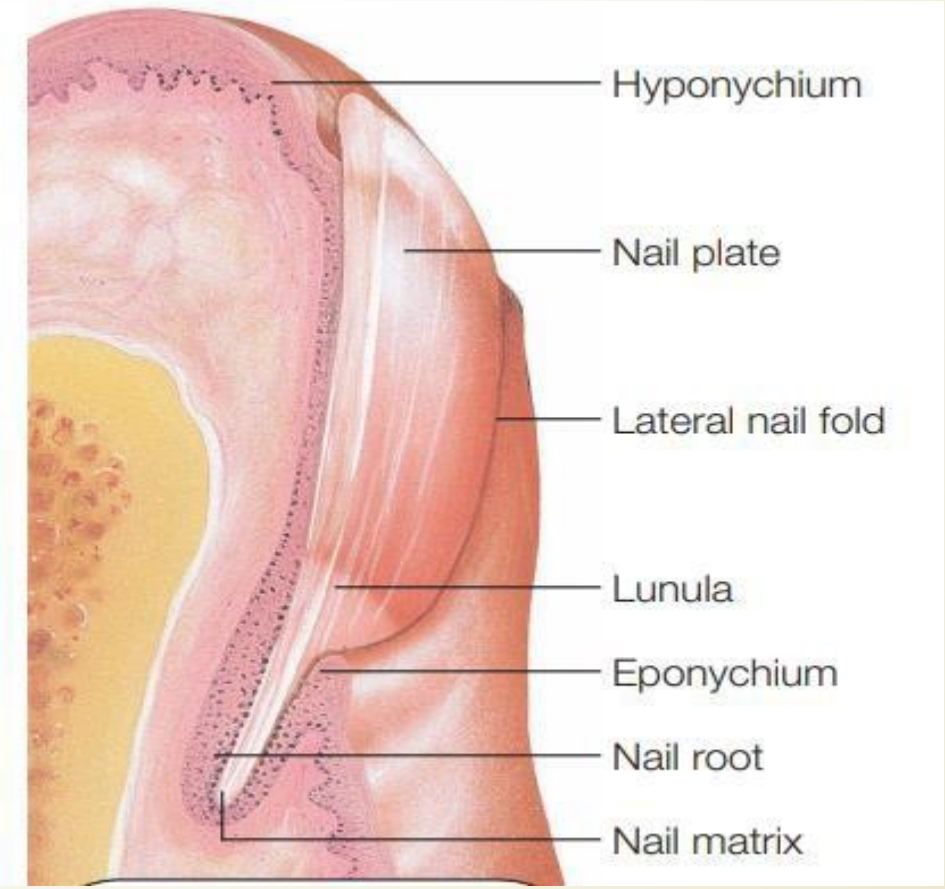
Hirsutism

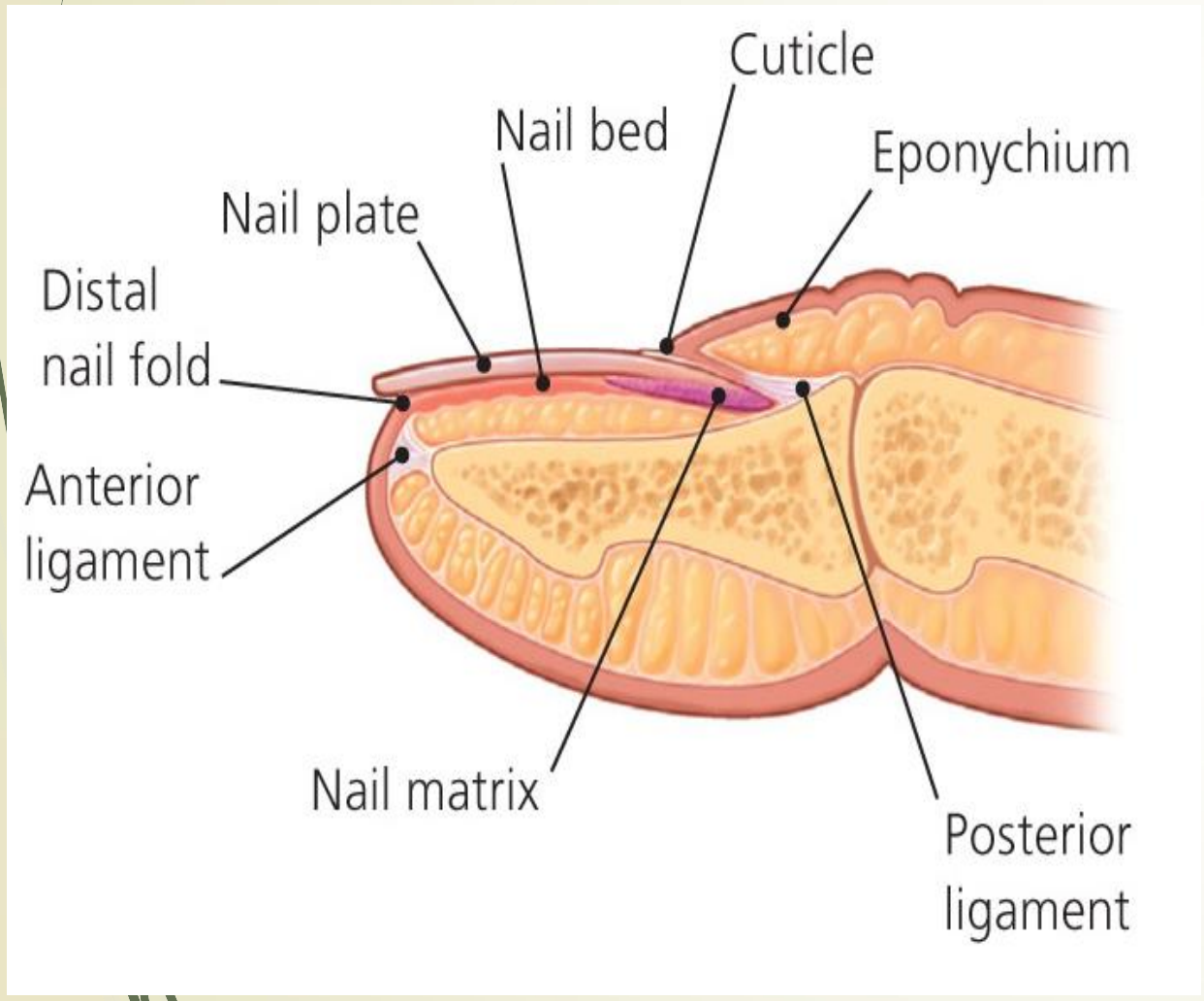
- Excessive hairiness in women, or hirsutism, can develop on the body and face, affecting the patient's self-image.
- Localized hirsutism may occur on pigmented nevi.
- Generalized hirsutism can result from certain drug therapy or from such endocrine problems as Cushing's syndrome, polycystic ovary syndrome, and acromegaly.
- Androgens are steroid hormone that regulates the development and maintenance of male characteristics

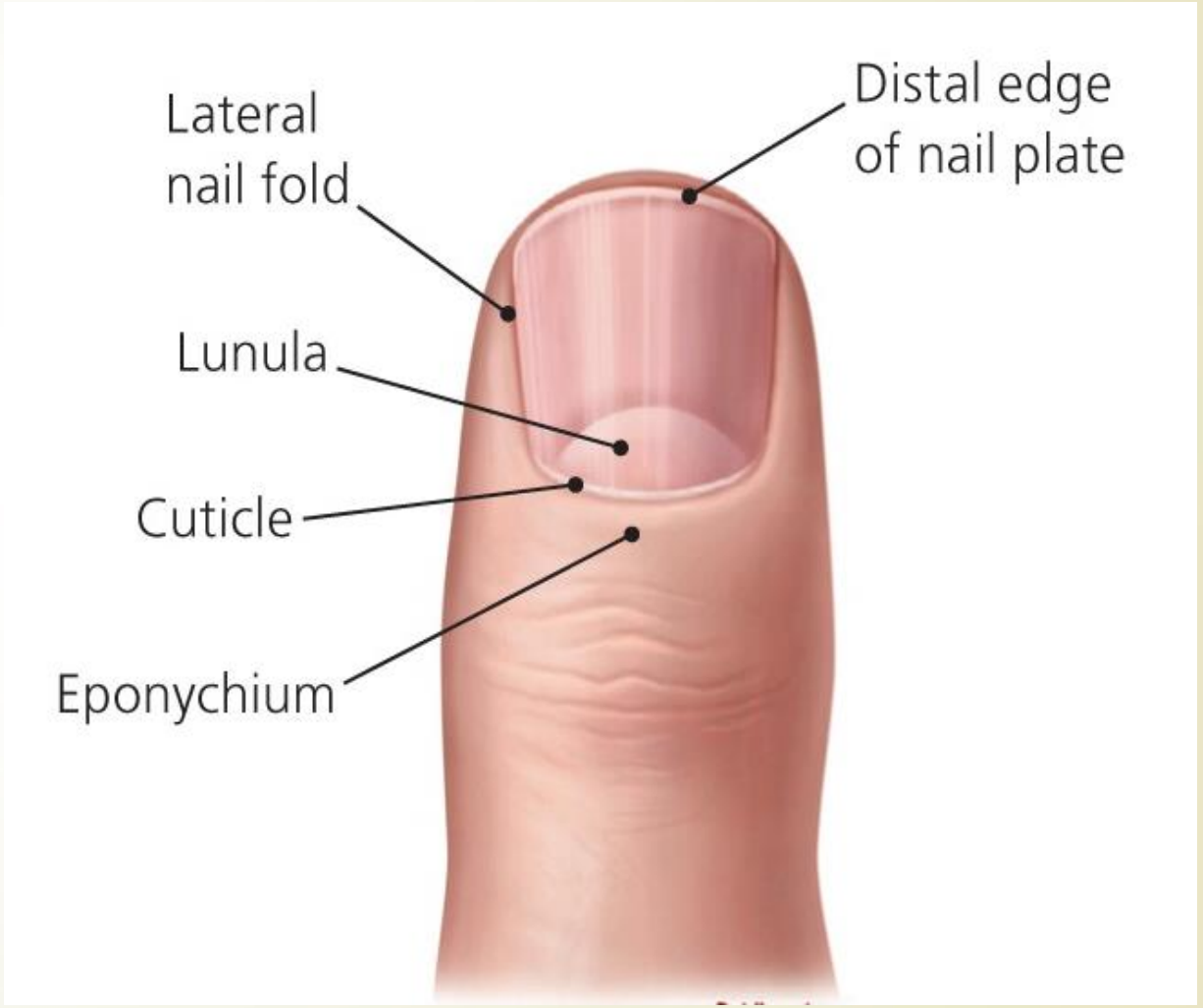
Nails

- Nails are formed when epidermal cells are converted into hard plates of keratin.

- Examine the nails for color, shape, thickness, consistency, and contour.
- Nail color is pink in light-skinned people and brown in dark- skinned people.
- The nail surface should be slightly curved or flat and the edges smooth and rounded.




Cuticle
Nail bed
Eponychium
Nail plate
Distal
nail fold
Anterior
ligament
Nail matrix
Posterior
ligament

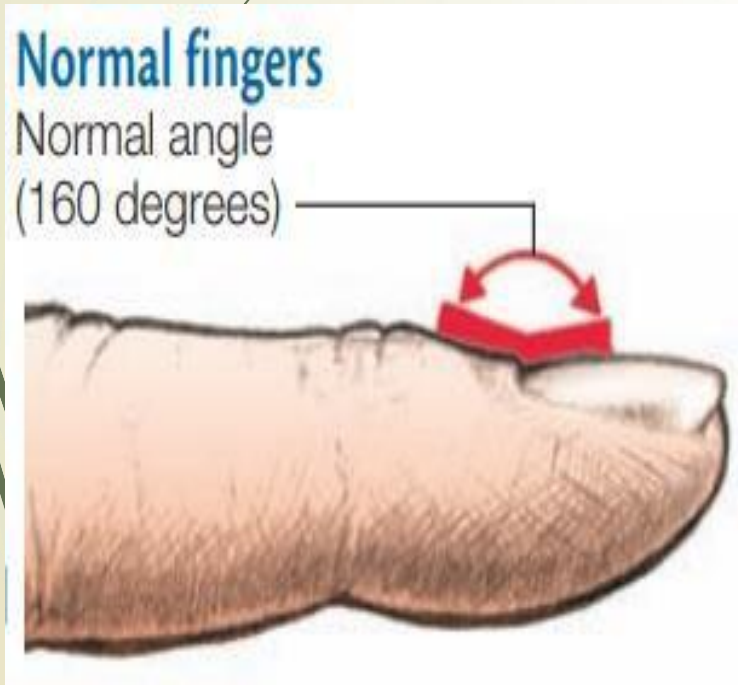

Distal edge
of nail plate
Lateral
nail fold
Lunula
Cuticle
Eponychium

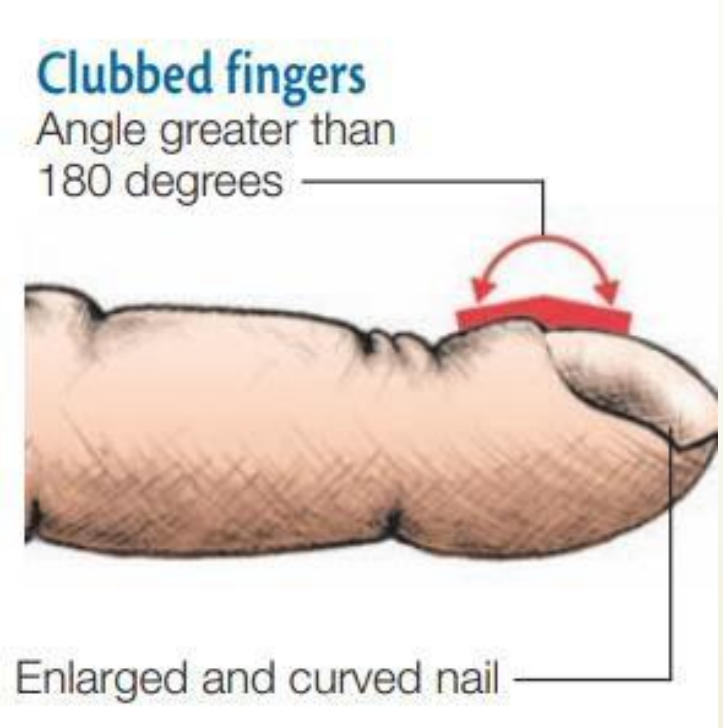
Nail abnormalities

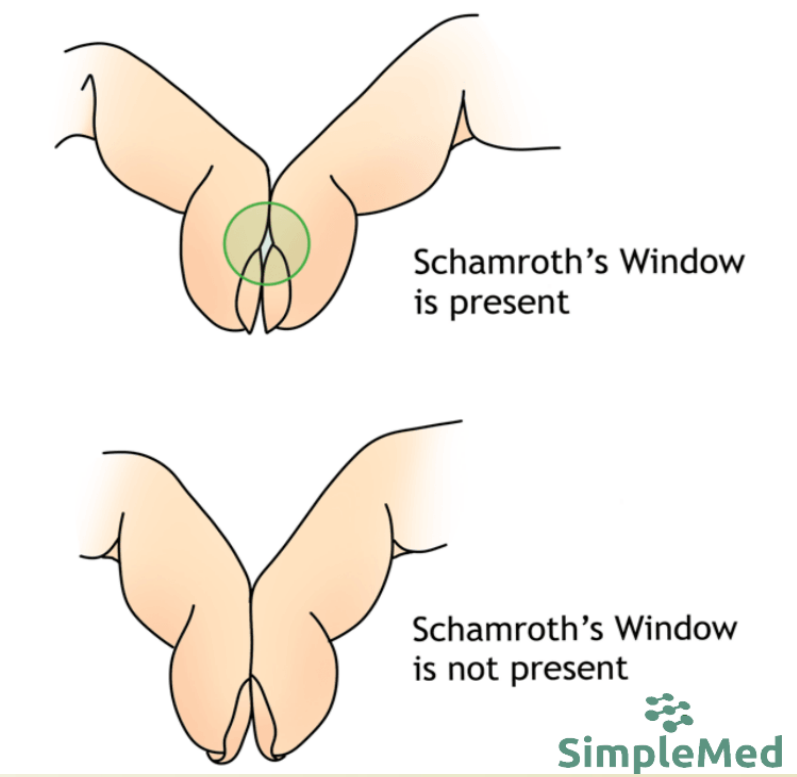
- Although many nail abnormalities are harmless, some point to serious underlying problems.
- Nail abnormalities include clubbed fingers, splinter hemorrhages of the nail bed, and Muehrcke’s lines.

-1Clubbed fingers

- Clubbed fingers can result from chronic tissue hypoxia. Normally, the angle between the fingernail and the point where the nail enters the skin is about 160 degrees. Clubbing occurs when that angle increases to 180 degrees or more.







-2Splinter hemorrhages

- Splinter hemorrhages are reddish brown narrow streaks under the nails. They run in the same direction as nail growth and are caused by minor trauma. They can also occur in patients with bacterial endocarditis.

-3Muehrcke's lines

- Muehrcke's lines or leukonychia striata are longitudinal white lines that can indicate trauma but may also be associated with metabolic stress, which impairs the body from using protein.