សាកលវិទ្យាល័យ ពុទ្ធិសាស្ត្រ
UNIVERSITY OF PUTHISASTRA
គោរពខ្លួនឯង Honor Self
គោរពអ្នកដទៃ Respect Others
អភិវឌ្ឍសង្គម Develop Society

Faculty of health science
Nursing department

COURSE: ADULT NURSING 4

TOPIC: NURSING CARE OF PATIENT WITH WITH ABNORMAL SKIN CONDITION

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MAY 16, 2024

NURSING CARE PATIENT WITH ABNORMAL SKIN CONDITION (PART-1)

CONTENTS

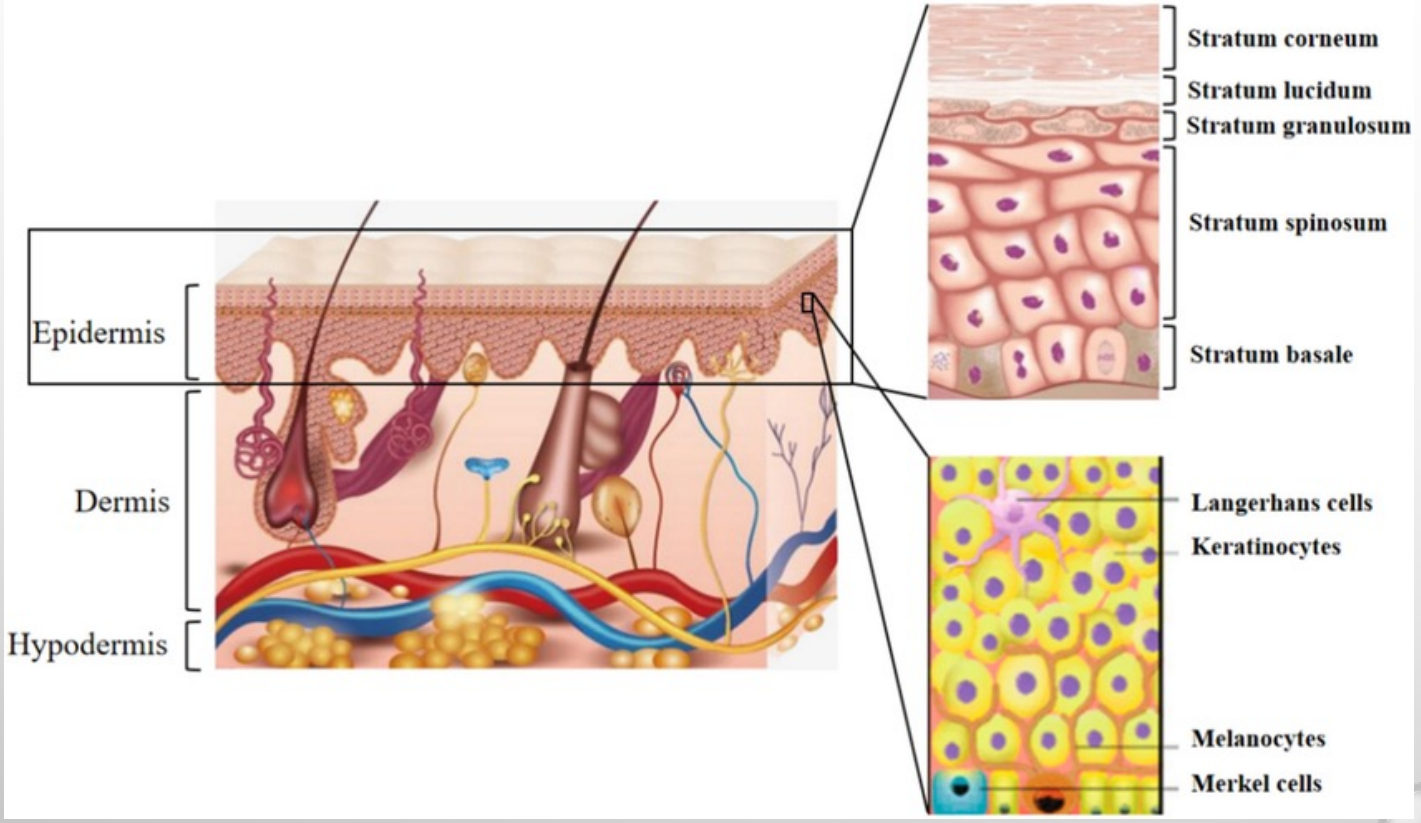
1. Objectives
2. Review anatomy of the skin
3. Review skin functions
4. Common skin problems
5. Assessment to skin
6. Medical diagnostic for skin disease
7. Nursing care process to patient with abnormal skin condition
8. References

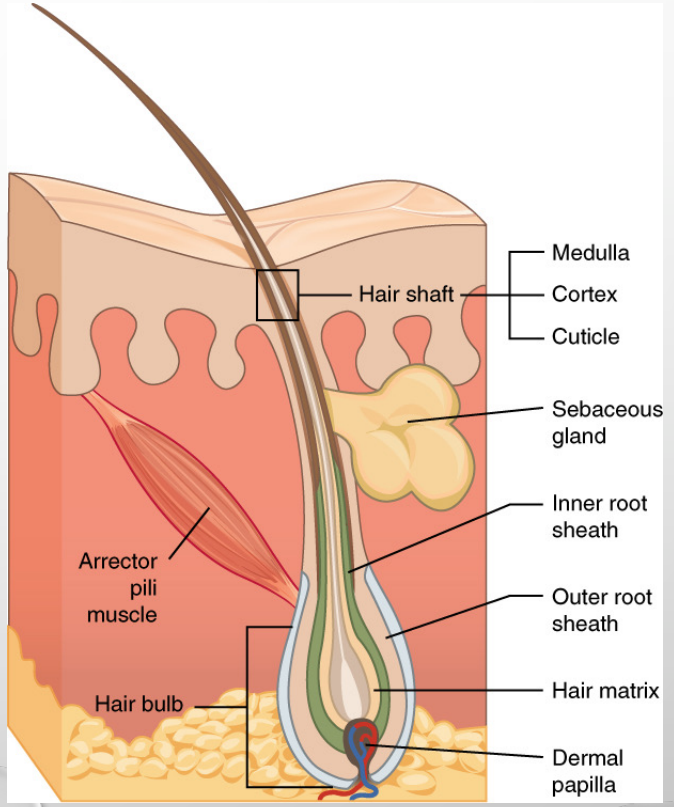
I. Objectives

At the end of the lecture, students will be able

- To descript about the functions of the skin
- To descript about common skin problem in adult people
- To descript about nursing care to patient with skin abnormality by following Nursing Care Process.

II. Review anatomy of the skin





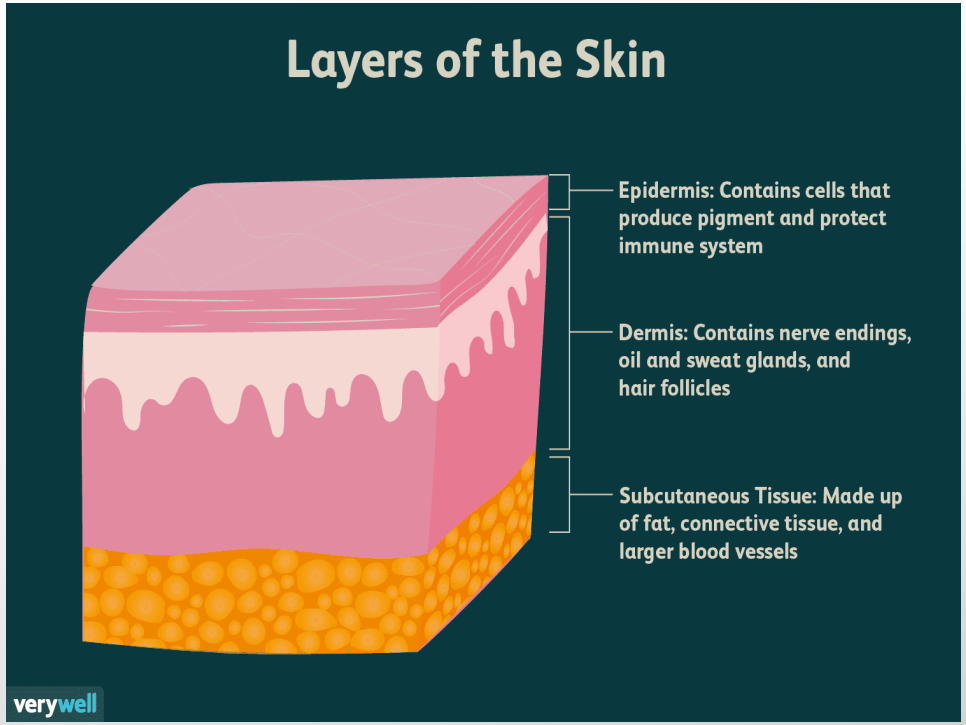
III. Review skin functions

- Integumentary system is included skin, hair, scalp and nails.
- Provide the body with external protection, regulate temperature, and a sensory organ for pain, temperature, and touch.
- Sebaceous and sweat glands are considered appendages of the skin.
- Nurse should routinely assess the skin of older and debilitated clients for primary lesions that may lead to the development of secondary lesion such as pressure ulcer.
- Skin is the largest organ system of the body. Lesion of the skin vary from superficial involving only the epidermis, to penetrating the dermis or subcutaneous layers of the skin.

III. Review skin functions. Cont.,

❖SKIN IS PRIMARY MADE UP BY THREE LAYERS

- The epidermis, the outermost layer of skin, provides a waterproof barrier and contributes to skin tone.
- The dermis, found beneath the epidermis, contains connective tissue, hair follicles, blood vessels, lymphatic vessels, and sweat glands.
- The deeper subcutaneous tissue (hypodermis) is made of fat and connective tissue



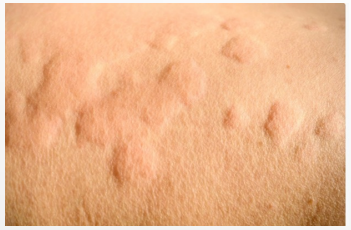
III. Review skin functions. Cont.,

❖The functions of the skin include:

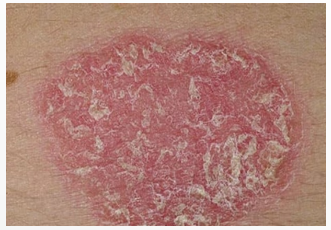
- **Protection** against microorganisms, dehydration, ultraviolet light, and mechanical damage.
- **Sensation** of pain, temperature, touch, and deep pressure.
- **Mobility:** allows smooth movement of the body.
- **Endocrine** activity: the skin initiates the biochemical processes involved in vitamin D production, which is essential for calcium absorption and normal bone metabolism.
- **Exocrine** activity: this occurs by the release of water, urea, and ammonia.
- **Immunity** development against pathogens and
- **Regulation** of temperature.

IV. Common skin problems

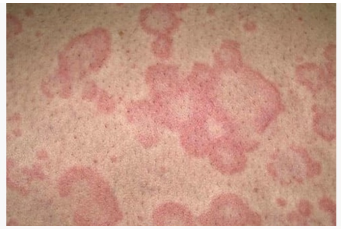
Allergy



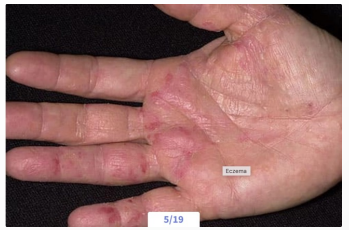
Psoriasis



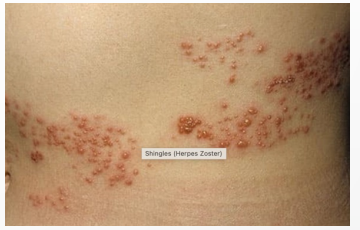
Urticaria



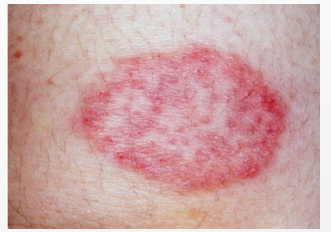
Ezcema



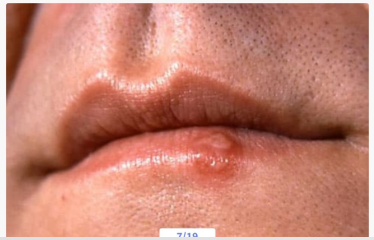
Herpes zoster



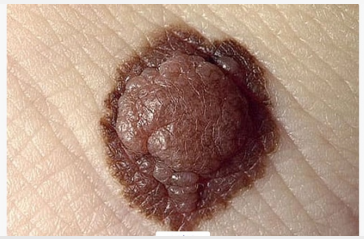
Ringworm



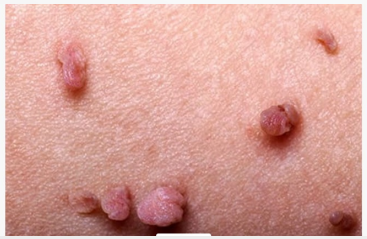
Cold sores/fever blisters



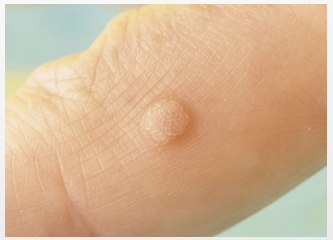
Skin mole



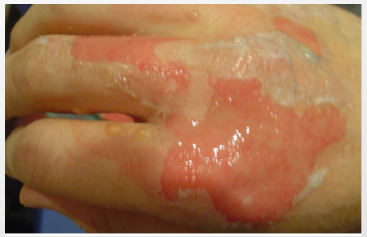
Skin tags



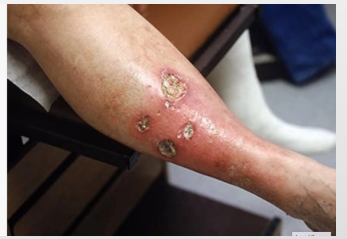
Warts



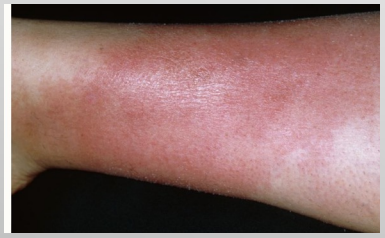
Burn



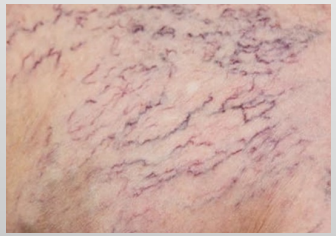
Ulcers



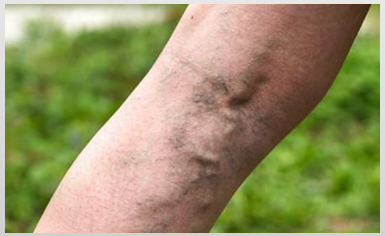
Cellulitis



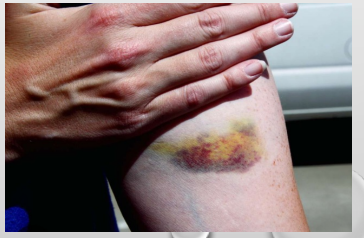
Spider veins



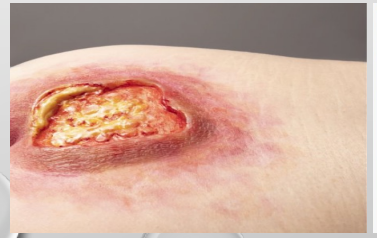
Varicose Veins



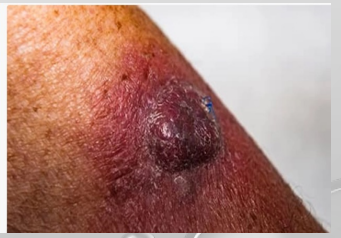
Bruising



Pressure ulcer



Skin cancer



V. Assessment to skin

- HOW TO ASSESS A SKIN CONDITION?

AREA OF ASSESSMENT	NORMAL FINDINGS	SIGNIFICANT FINDINGS AND POSSIBLE CAUSES
Color: Inspect under natural light to ensure accurate findings.	Uniform color except in sun-exposed areas. In dark-skinned people, nail beds, palms, and lips are lighter than surrounding areas.	Redness (inflammation). Bluish coloration (hypoxia).
Lesions: Palpate for mobility, contour, and consistency. Note color, size, anatomic location, and distribution.	Freckles. Skin tags (especially in older adults). Some types of moles and birthmarks.	Primary skins lesions (i.e., vesicles) can lead to secondary lesions (i.e., erosion and crusting, as in chickenpox).
Moisture: Inspect for wetness and oiliness. Note amount and distribution.	Varies with: Activity Body temperature Ambient temperature Body part (e.g., skinfolds, axillae)	Excessive perspiration (hyperthermia, infection, hyperthyroidism, menopause, strong emotions). Excessive dryness (dehydration).
Temperature: Palpate with back of hand. Note uniformity of warmth.	Warm.	Hyperthermia: Generalized (fever) Localized (infection) Hypothermia: Generalized (shock) Localized (impaired circulation)

AREA OF ASSESSMENT	NORMAL FINDINGS	SIGNIFICANT FINDINGS AND POSSIBLE CAUSES
Texture: Palpate to determine quality, thickness, and suppleness.	Uneven texture (thicker on palms and soles). Wrinkled leathery skin results from normal aging effects (i.e., decreased collagen, subcutaneous fat).	Generalized roughness (hypothyroidism).
Mobility and turgor (elasticity): Apply pressure to dependent areas (e.g., sacrum, ankles, feet). Note areas of indentation (Figure 27-3). If indentation occurs, apply firm pressure for 5 seconds. Note degree of edema based on depth of pitting in millimeters. **Pitting Edema Scale** 1+ Indentation up to 2 mm 2+ Indentation of 4 mm 3+ Indentation of 6 mm 4+ Indentation of 8 mm	Absence of indentation in dependent areas. Resilient: Springs back to its previous state after being pinched.	Stretched, shiny skin of dependent areas (trauma, decreased venous blood return). "Tenting," failure of skin to spring back to normal shape (dehydration).

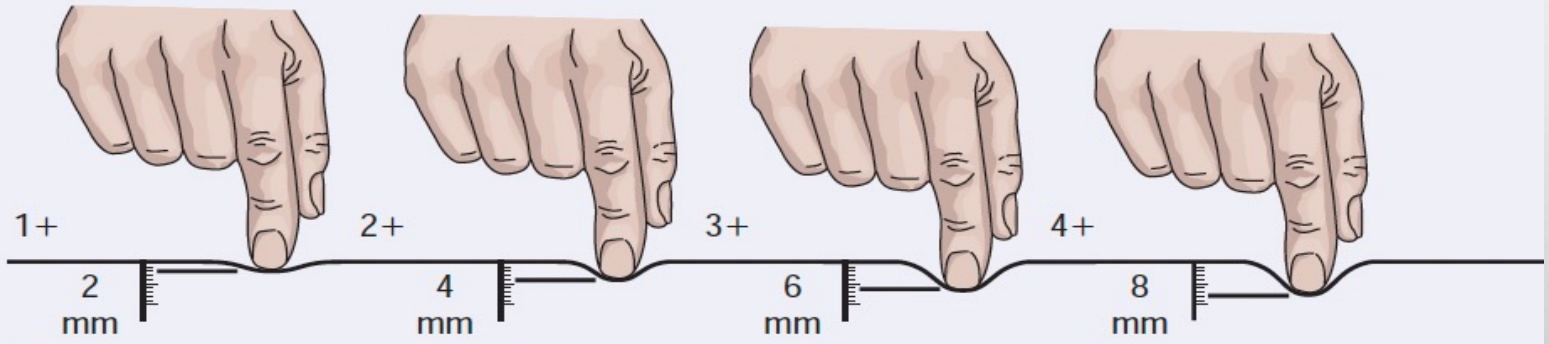
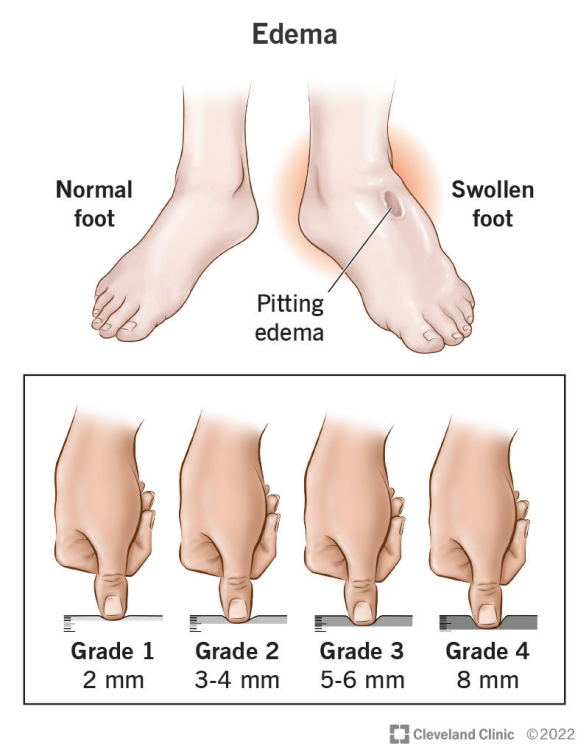
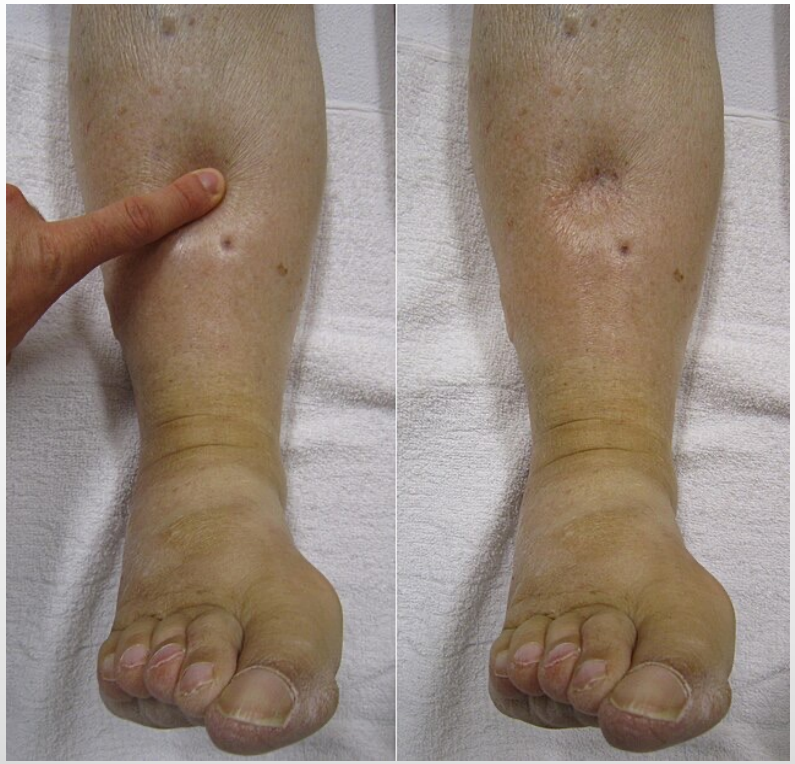


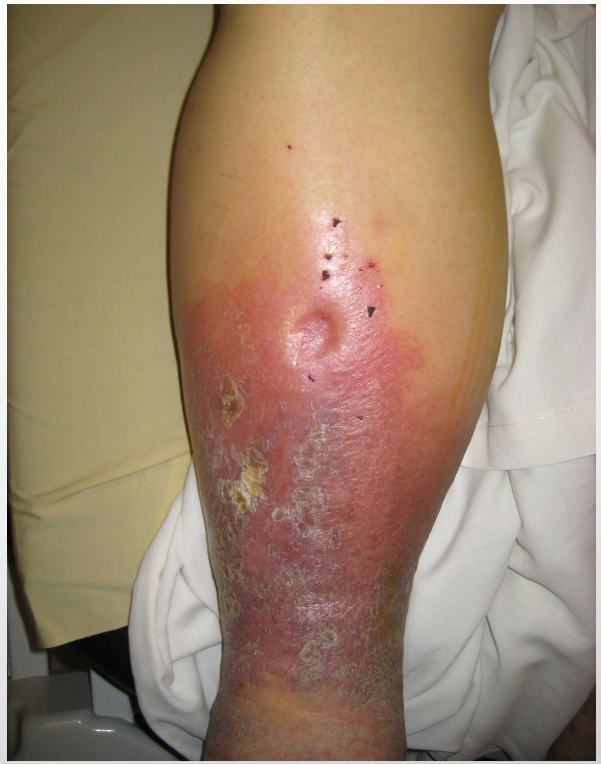
FIGURE 27-3 Assessing for Edema DELMAR/CENGAGE LEARNING

(Continues)

❖ Pitting edema of the skin







AREA OF ASSESSMENT	NORMAL FINDINGS	SIGNIFICANT FINDINGS AND POSSIBLE CAUSES
To assess turgor: Use thumb and forefinger to pinch a fold of skin on sternal area (Figure 27-4). Note speed at which skin returns to place.		

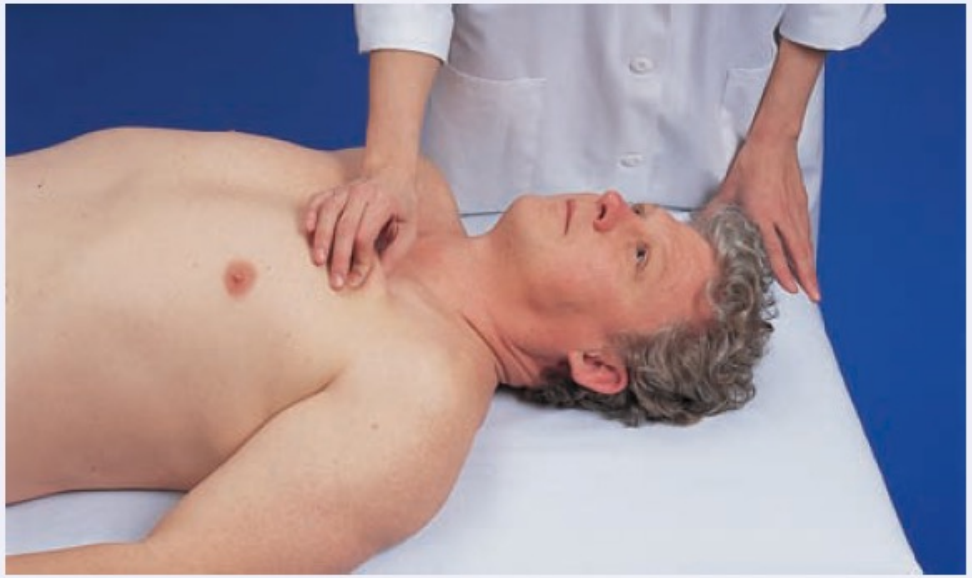


FIGURE 27-4 Assessing Skin Turgor DELMAR/CENGAGE LEARNING.

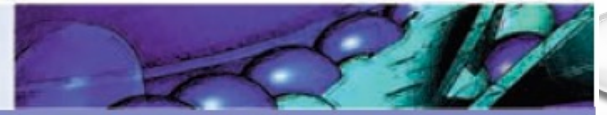
Data from D'Amico, D., and Barbarito, C. (2007). *Health & physical assessment in nursing.* Upper Saddle River, NJ: Pearson Prentice Hall; Estes, M. E. Z. (2010). *Health assessment and physical examination* (4th ed.). Clifton Park, NY: Delmar/Cengage Learning.

TABLE 27-6 Assessment of Hair and Scalp

AREA OF ASSESSMENT	NORMAL FINDINGS	SIGNIFICANT FINDINGS AND POSSIBLE CAUSES
Inspect and palpate scalp to determine quality, distribution, and pattern of hair loss.	Thick and even distribution	Thin and brittle (hypothyroidism) Alopecia (aging, chemotherapeutic drugs, hair grooming products) Hirsutism (genetic, some medications)
Inspect for parasitic infestation.	Free of infestation	White ovoid nits (*Pediculus capitis, P. corporis,* and *P. pubis*)
Part the hair all over the scalp; inspect for scales and scars.	Shiny and smooth without lesions, lumps, or masses	Masses or lumps (sebaceous cysts, trauma, tumors)
Beginning at front of scalp, palpate down midline and each side. Note any tenderness, pain, lesions, lumps, or masses.	Absence of pain, redness, or scales	Dry flaking scales (seborrhea) Red patches covered by thick, dry, silvery, adherent scales (psoriasis)

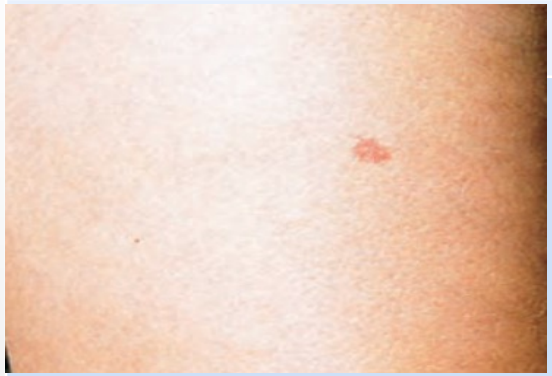
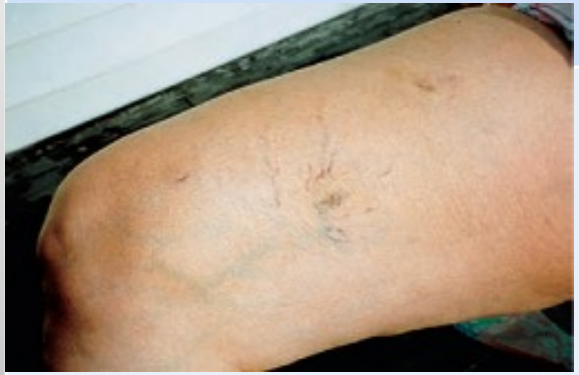
Data from Estes, M. E. Z. (2010). *Health assessment and physical examination* (4th ed.). Clifton Park, NY: Delmar/Cengage Learning.

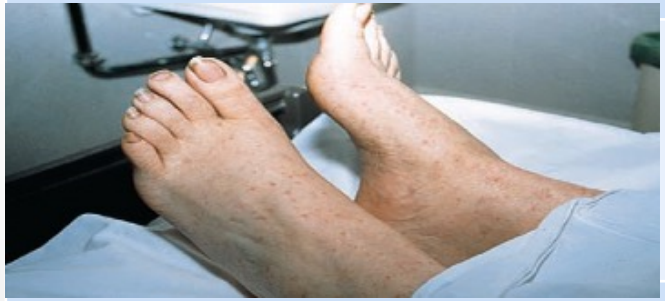
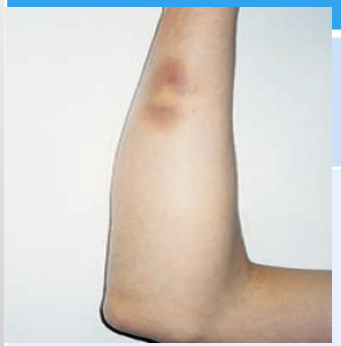
TABLE 27-7 Assessment of the Nails



AREA OF ASSESSMENT	NORMAL FINDINGS	SIGNIFICANT FINDINGS AND POSSIBLE CAUSES
Inspect and palpate nails and nail beds, noting color, shape, and texture.	Firm when palpated. Pinkish color in light-skinned people. Longitudinal streaks of brown or black pigmentation in dark-skinned people. Angle between nail and base of finger is 160°.	See Table 27-8 on page 553 for variations and abnormalities of nail bed.
Test for capillary refill: Press nail between your thumb and index finger. Note degree of blanching and return of normal color.	Nail promptly returns to its normal color when pressure is released.	Delayed return of color to nail bed (circulatory impairment).
Inspect tissue surrounding nails. Note any lesions.	Tissue is intact.	Paronychia (inflammation of skin around the nails).

Data from Estes, M. E. Z. (2010). *Health assessment and physical examination* (4th ed.). Clifton Park, NY: Delmar/Cengage Learning.

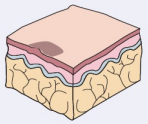
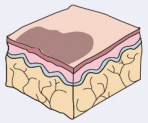
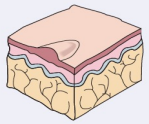
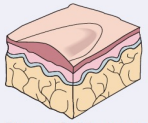
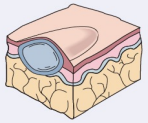
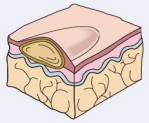
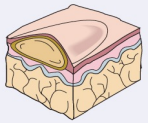
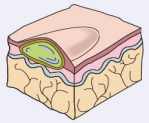
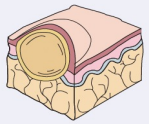
Finding	Body area	Key points
Vascular lesion 	Trunk and extremities	Pressure with a points edge cause partial blanching. Increase in size and number and may become brownish with age
Chery angioma		
Spider angioma		
	*Face, neck, arms, legs, and upper trunk*	*Occurs normally in some people. May occur with pregnancy, vitamin B deficiency, or liver disease.*

Finding	Body area	Key points
Purpuric lesion  Reddish purple, flats round lesion 1-3mm in size	*Areas with superficial blood supply*	May indicate Vit-C deficiency, blood clotting disorder, liver diseases, drug reaction
Bruise (ecchymosis)  Purplish blue, fading are to green, yellow and brown in time	Area of blood vessel trauma	Resulting from injury or bleeding disorders

❖Skin lesions

- Primary lesion

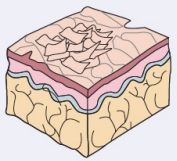
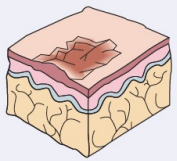
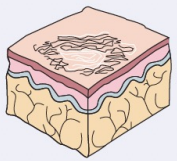
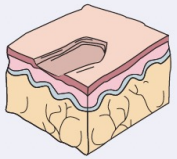
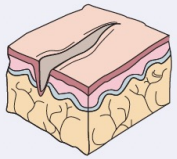
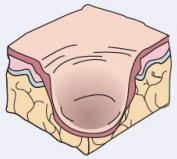
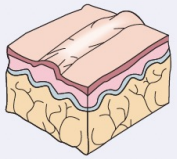
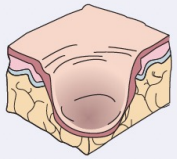
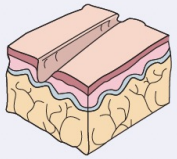
PRIMARY LESIONS

NONPALPABLE	PALPABLE	FLUID-FILLED CAVITIES WITHIN THE SKIN
 Macule: Localized changes in skin color greater than 1 cm in diameter (e.g., freckles, measles)	 Papule: Solid, elevated lesion 0.5 cm in diameter (e.g., elevated nevi)	 Vesicle: Elevated mass containing serous fluid accumulation between the upper layers of the skin (e.g., herpes simplex and zoster, chickenpox, second-degree burns)
 Plaque: Solid, elevated lesion wider than 1 cm in diameter (e.g., psoriasis)	 Patch: Localized changes in skin of 1 cm (e.g., vitiligo, stage 1 pressure ulcer)	 Bullae: Same as vesicle, larger than 1 cm (e.g., contact dermatitis, large second-degree burns, bulbous impetigo, pemphigus)
	 Nodule: Solid and elevated; extends deeper than papule into the dermis or subcutaneous tissues, 0.5–2.0 cm (e.g., lipoma, erythema, cyst)	 Pustule: Pus-filled vesicle or bulla, 0.5 cm in diameter (e.g., acne, impetigo, carbuncles)
		 Cyst: Subcutaneous or dermis mass (e.g., sebaceous or epidermoid cyst)

(Continues)

- Secondary lesion

SECONDARY LESIONS

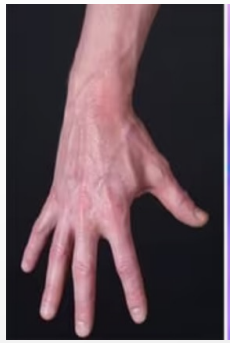
ABOVE THE SKIN SURFACE	BELOW THE SKIN SURFACE	BELOW THE SKIN SURFACE
 Scales: Flaking of the skin's surface (e.g., dandruff, psoriasis)	 Erosion: Loss of epidermis (e.g., ruptured chickenpox vesicle)	 Atrophy: Thinning of skin surface and loss of markings (e.g., striae, aged skin)
 Crust: Dried serum, blood, or pus on skin's surface (e.g., impetigo)	 Fissure: Linear crack in the epidermis that can extend into the dermis (e.g., chapped hands or lips, athlete's foot)	 Ulcer: Depressed lesion of the epidermis and upper papillary layer of the dermis (e.g., stage 2 pressure ulcer)
 Scar: Fibrous tissue that replaces dermal tissue after injury (e.g., surgical incision)	 Keloid: Enlarging of a scar past wound edges due to excess collagen formation (more prevalent in dark-skinned persons)	 Excoriation: Loss of epidermal layers exposing the dermis (e.g., abrasion)

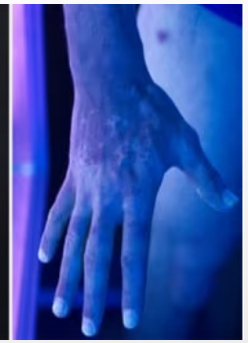
Delmar/Cengage Learning

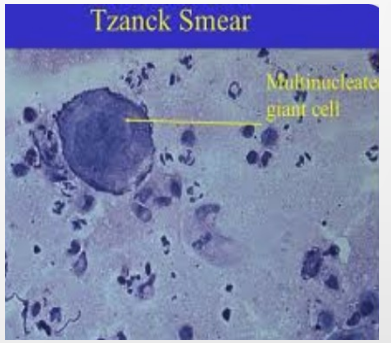
VI. Medical diagnostic for skin disease

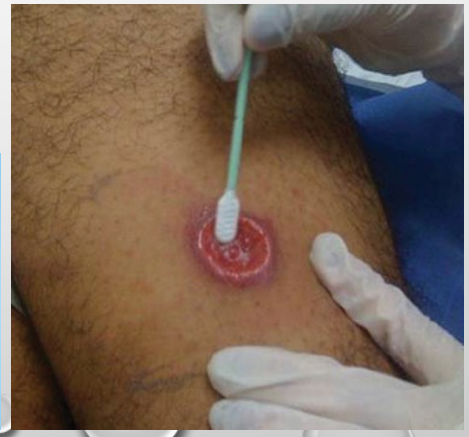
Diagnostic tests are indicated when the cause of a skin lesion or disease is not obvious from history and physical examination. These include:

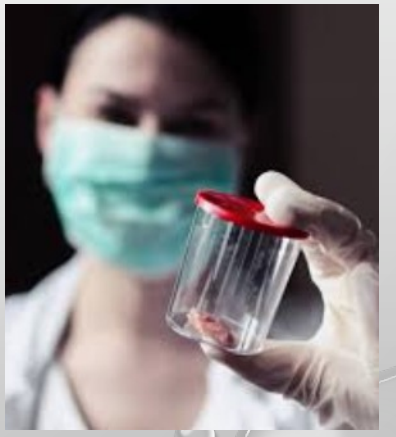
- Patch testing or allergens test
- Biopsy (cut for examination)
- Scrapings (Remove in small pieces)
- Examination by wood light
- Tzanck testing (Cytology/Tzanck smear)
- Diascopy (microscope is pressed against a lesion)
- Other blood tests











VII. Nursing care process to patient with abnormal skin condition

- NURSING ASSESSMENT
  - Color
  - Lesion
  - Moisture
  - Temperature (Skin temperature and body temperature)
  - Texture
  - Mobility and turgor
  - Para clinic/ Laboratory results (high level of WBC & CRP)

VII. Nursing care process to patient with abnormal skin condition. Cont.,

❖NURSING DIAGNOSIS

- Impaired skin integrity r/t
  - Trauma
  - Temperature extremes
  - Altered circulation
  - Chemical irritation/radiation
  - Nutritional deficits or extremes
  - Impaired mobility

❖NURSING DIAGNOSIS

- Risk for skin damaged r/t
  - Malnutrition present in low serum albumin
  - Secretion incontinence
- Risk for skin infection r/t
  - Open wound/surgical site
  - Immune compromise present in malnutrition
- Anxiety r/t skin abnormality and discomfort

VII. Nursing care process to patient with abnormal skin condition. Cont.,

❖NURSING CARE PLAN/OUT COME

- Patient maintains optimal peripheral tissue perfusion as evidenced by strong palpable peripheral pulses, reduction or absent of pain, warm and dry extremities, adequate capillary refill (less than 2 seconds) and prevent of ulceration
- Patient no any experience of skin trouble or injury
- No evident of skin infection

VII. Nursing care process to patient with abnormal skin condition. Cont.,

❖NURSING INTERVENTION

- Assess for sign of decreased tissue perfusion and its possible cause, such as indwelling catheters, constricting, restraint, embolism or thrombus and positioning
- Para clinic for malnutrition and bleeding cause finding
- Disinfection and prevention by keep it cleaned, wash/take shower and disinfect
- Cover by sterilize materials/gauze
- Release pressure/change position q2h
- Wound care based on cases
- Antibiotic

➢ Ealy detection of cause facilitate prompt and effective treatment

VII. Nursing care process to patient with abnormal skin condition. Cont.,

❖NURSING INTERVENTION

- Promote active/passive ROM exercise
- Apply topical agents (moisture products, Vaseline, cream and medicine…)
- Provide frequently perianal/genital care
- Shave hair around the wound, as needed (except eyebrows)
- Treat blister as ordered
- Provide IV fluid and nutrition

➢ Also select medical disorder care plans that focus on specific cause for tissue impairment…

VII. Nursing care process to patient with abnormal skin condition. Cont.,

❖ EVALUATION

- Skin condition is moisture and warm
- Skin redness and swelling is getting improved. Pitting edema is decreased from 3+ to 1+.
- Skin no itchy, no tightness
- Skin no damaged developed
- Re-Check laboratory data such as CBC, Electrolyte, blood sugar, infection marker…
- Assess skin or incision site. Is there any infection sign?

VIII. References

- Sue C. Delaune and patricia K. Ladner, **Fundamental of nursing**, Standard & Practice, Fourth Edition, 2010. P. 545-552.
- Meg Gulanick and Judith L. Myers. **Nursing Care Plans**, Diagnosis, Interventions, and Outcomes, Eighth Edition, 2014. P. 197-198 and 937-970.
- MSD Manual professional version, diagnostic for skin test disorders, by Julia Benedetti MD, Harvard medical school, reviewed/revised January 2024.

Questions

- What are component of integumentary system?
- What is the largest organ in human body?
- What is the skin problem when it is abnormal skin color of redness?
- How long for applying pressure to dependent areas of the skin for assessment of pitting edema?
- What are signs of skin infection?
- What are indication problems of reddish purple, flat round lesion, 1-3 nm in size?
- What is the rational of position change q2h for bedridden patient?

Practice & Assignment

- Make group assignment in to 5 groups
- Create a scenario or fine one case who has skin abnormality and apply nursing process to that case
- Make a presentation 10 minutes including Q&A in June 19, 2024


Thank
you !