

**In The Name of**



**(A PROJECT OF NEW LIFE COLLEGE OF NURSING KARACHI)**

# **Unit-3-B**

## **Assessment of the Skin, Head, and Neck, including Regional Lymphatics**

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**Acknowledge;**

**Sir, Hakim Shah**

**Director, DUHS ION**

# Objectives.

- By the end of the unit, the learner will be able to:
- Review the anatomy & physiology of Integumentary system.
- Describe the component of health history that should be elicited during the assessment of skin, head and neck.
- Describe specific assessments to be made during the physical examination of the above systems.
- Apply braden scale to assess the bed sores of patient
- Documents findings.
- Describe age related changes in the above systems and differences in assessments findings.

# Equipment

- Examination light
- Penlight
- Mirror for client's self-examination of skin
- Magnifying glass
- Centimeter ruler
- Gloves
- Wood's light
- Examination gown or drape

# Physical Assessment

- When preparing to examine the skin remember these key points:
- **Examination of Skin:**
  - Color
  - Vascularity
  - Texture: Roughness Eczema, Dermatitis.
  - Mobility: Decreased in case of edema, Obesity.
  - Turgor: Decreased due to dehydration.
  - Moisture:
    - Moisture: Dryness (hypothyroidism).
    - Sweating (hyperthyroidism).
    - Oily(acne).
  - Skin Lesions

# A. Color

## 1. Brown(deposition of melanin)

Genitital(it is generalized)

Sunlight(exposed areas)

Pregnancy(face, nipples ,areola,

Addison disease(exposed areas , pressure points, genitalia)

## 2. Blue (cyanosis)

- Peripheral: anxiety and cold: observed in extremities and Nail
- Central: lung and heart diseases (nails, lips, mucus membrane.



## 3.Red colour

- Increased visibility of oxyhemoglobin because of dilation of superficial blood vessels e.g. Fever, blushing and local inflammation.



## 3. Reddish blue

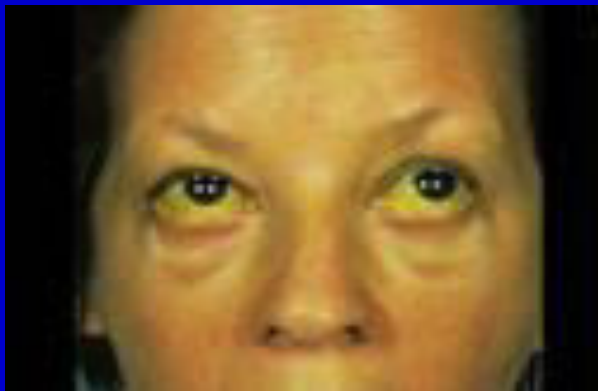
- Combination of increased in level of hemoglobin & reduced in hemoglobin & capillary stasis e.g. Polycythemia, observed on hands, feet, conjunctiva, mouth face etc





## 4. Yellow

- **Jundice**: increased level of bilirubin; first in sclera then mucus membrane & skin
- **Carotenemia**: increased level of carotenoids due to maxidema, hypopitutrism and diabetes observed on palm, sole and face does not involve sclera and mucus membrane



# Decreased Colour

- **Congenital (Albinism)**: Inability to form melanin it is generalized.
- **Acquired (vitiligo)**: patchy symmetrical often involved exposed area.
- **Anemia**: decreased level of hemoglobin evident in conjunctiva.



# Vascularity

## An evidence of bleeding and bruising

- **Petechia**: pin point hemorrhage beneath the skin usually 1-3mm round and flat this suggest increased bleeding tendency.
- **Echymosis**: purple, purplish blue and some time brown, larger then Petechia secondary to trauma and bleeding disorder.



# Examination of Skin.

- Lesions:
- Location/ Distribution.
- Configuration.
- **Morphology:**
- Primary
- Secondary
- Vascular
- Purpuric

# Examination of Head.

## SCALP:

- Scaliness
- Lumps
- Lesions.

## SKULL:

- Size
- Contours
- Deformities
- Lumps
- Tenderness
- Unusual Movement.

# Examination Of Mouth

Examination of mouth include Examination of:

- Lips
- Gums
- Teeth
- Tongue
- Palate
- Orophayrnx
- Mucus membrane
- Breath/smell

## Examination of lips

- **Colour:** Blue in Cyanosis pale in anemia, normal lips are smooth and pink.
- Any congenital abnormality i.e. Cleft lip



# Ulcers

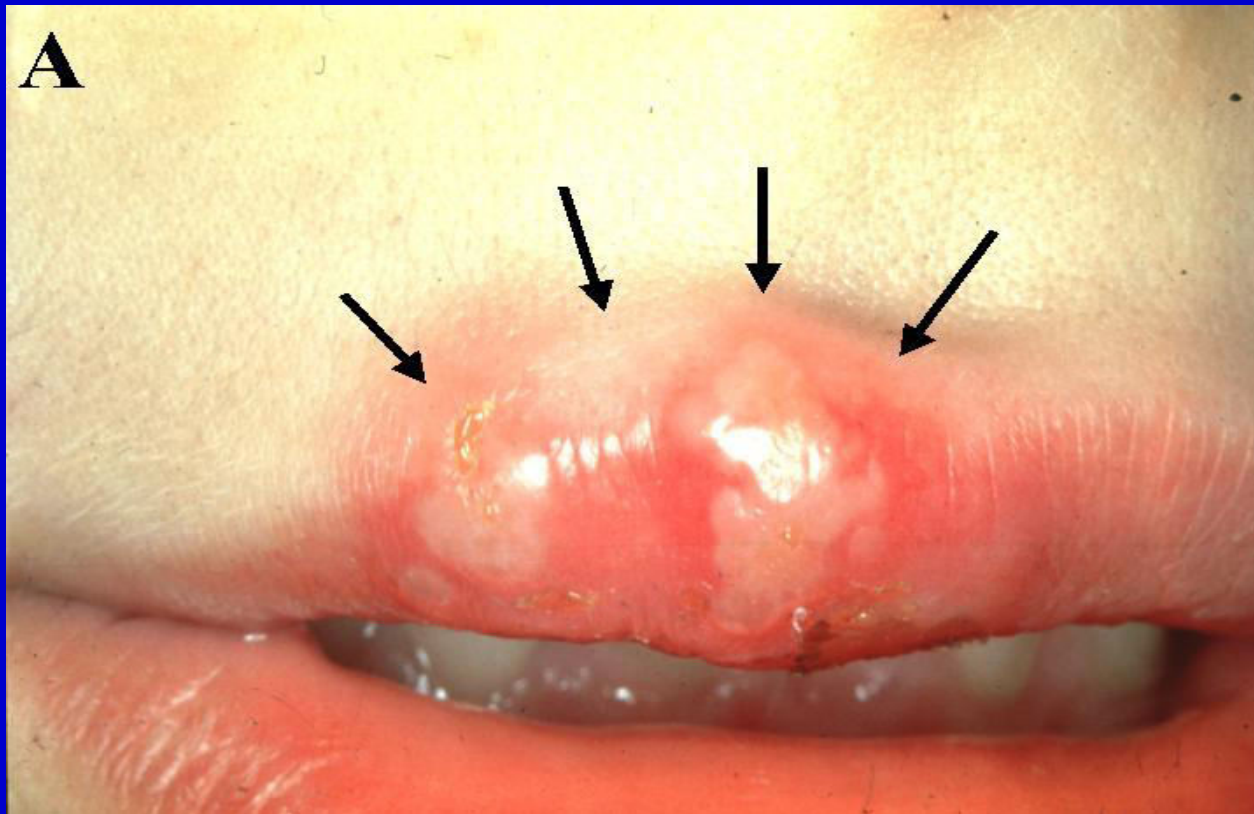
- Snail track ulcers are observed in syphilis.





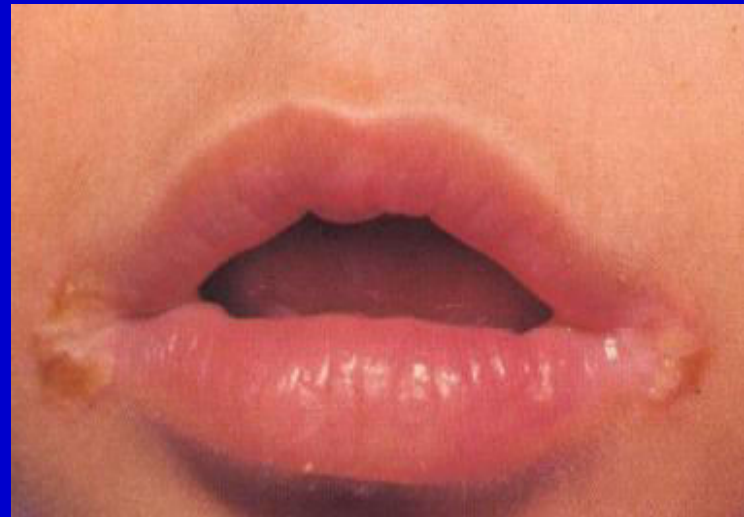
# Vesicles

- In herpes simplex infection produced grouped vesicles on lips with red base.



# Fissures

- Mostly seen in hot season, dehydration, and pathological in anemia



# Examination of Gums

- Blue line running along the edges of gum in ***lead poisoning***.
- Gums are swollen and spongy in case of ***scurvy***.
- In ***gingivitis*** the edges of gums are red and bleed easily
- ***Pyorrhea***: pus between teeth and gums

## gingivitis



## Scurvy



# Examination of Tongue

- **Colour:** Blue in Cyanosis pale in anemia
- **Red beefy tongue** in deficiency of riboflavin
- **Black tongue** in patient taking iron mixture. also in Addison diseases.



# Symmetry of tongue

- Slightly deviated normally from its mid line
- Grossly deviated towards its side due to 12<sup>th</sup> cranial nerve paralysis.
- Tremor: tremors of tongue in Parkinson diseases. And in severe thyrotoxicosis.

## Surface of tongue

- Dry tongue in case of anxiety and dehydration.
- Bald tongue in anemia (iron deficiency & pernicious).
- Furring of tongue in excessive smoking.



# Red strawberry tongue

- In scarlet fever .





# Ulcers

- Malignant ulcers
- T.B ulcers on tip of tongue
- Patches on tongue in thrush and leuokoplekia.



## Examination of under surface

- Ask the patient to touch the hard palate with the tip of the tongue
- In tongue tie he is unable to touch the palate



# Size of Tongue

- Enlarged tongue in hypersecretion of growth hormone.



# Palate

- Examine the palate , oropharynx, & mucous membrane for colour pigments and deformity etc.
- A dirty gray colored membrane (pseudo membrane)is observed in diphtheria.



# Breaths/smell

- **Fishy:** Uremia
- **Mousy:** Liver cirrhosis
- **Fruity:** Diabetes
- **Foul:** In case of dirty teeth , mouth ulcers etc.

# Examination of Head.

- HAIR:
- Quality(Texture)
- Quantity
- Cleanliness
- Distribution
- Pattern of loss
- Infestation

# Examination of Nails.

- Color
- Contour
- Curvature/Angle
- Symmetry
- Cleanliness
- Adherence to nail bed
- Thickness

# Nails

- Normal: the angle between finger nail and nail bed is 160 degree.
- Abnormal Nails
  - Bluish colour: in Cyanosis
  - Decreased capillary refill in anemia.



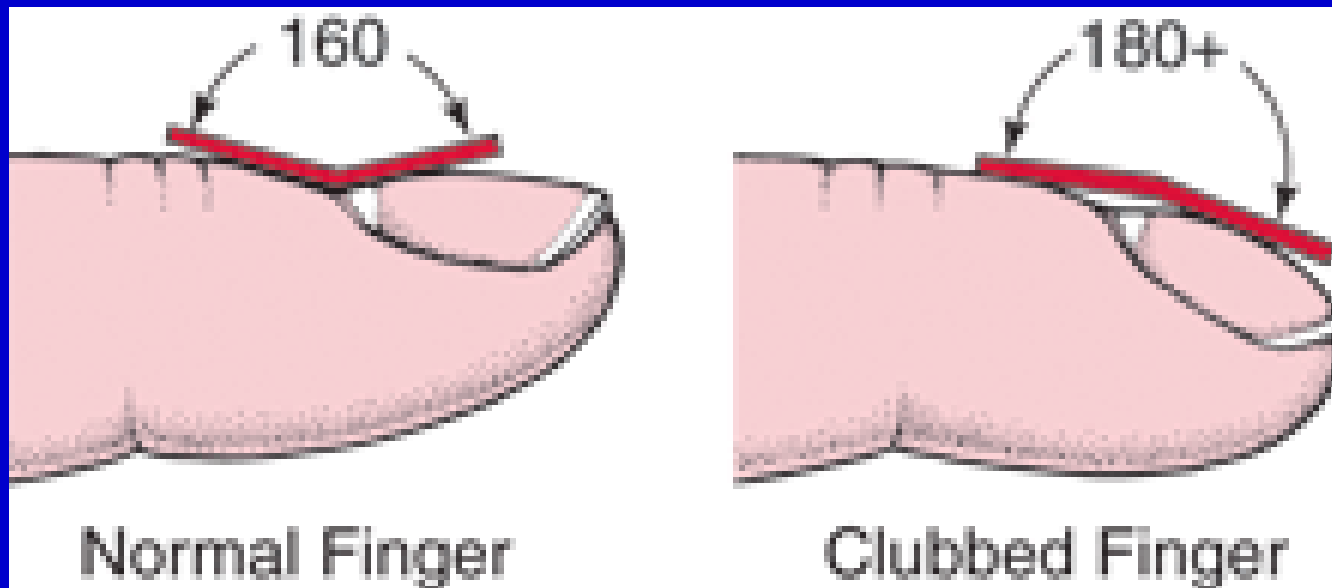
# Koilonychias

- Spoon Shaped Nails in Iron Deficiency Anemia



# Clubbing

- The Angle between Nail and base of nail is 180 degree or more e.g. cynosis



# Splinter hemorrhage

- Red or brown linear lines on nails due to trauma.



# Paronychia

- Inflammation of Skin around nails.



## Psoriasis

Symptoms, Causes and Treatment



[View Slideshow >>](#)

## Fungal Nails



# Examination of Face.

- Proportion/ Contour.
- Expression.
- Movement.
- Sensation.
- Lymph Nodes.
- Edema/Lesions/Masses.

# Examination of Neck.

- Symmetry.
- Trachea.
- Lymph Nodes.
- Thyroid gland.
- Movement
- Masses, Swelling, Skin discoloration.
- Arterial pulsation & Venous distension.

# Examination of Thyroid.

- Examination of lymph node.
- Describe enlarge node under the following terms.
  - Location
  - Size
  - Shape
  - Surface characteristics
  - Consistency
  - Mobility/ Fixation
  - Sign of Inflammation

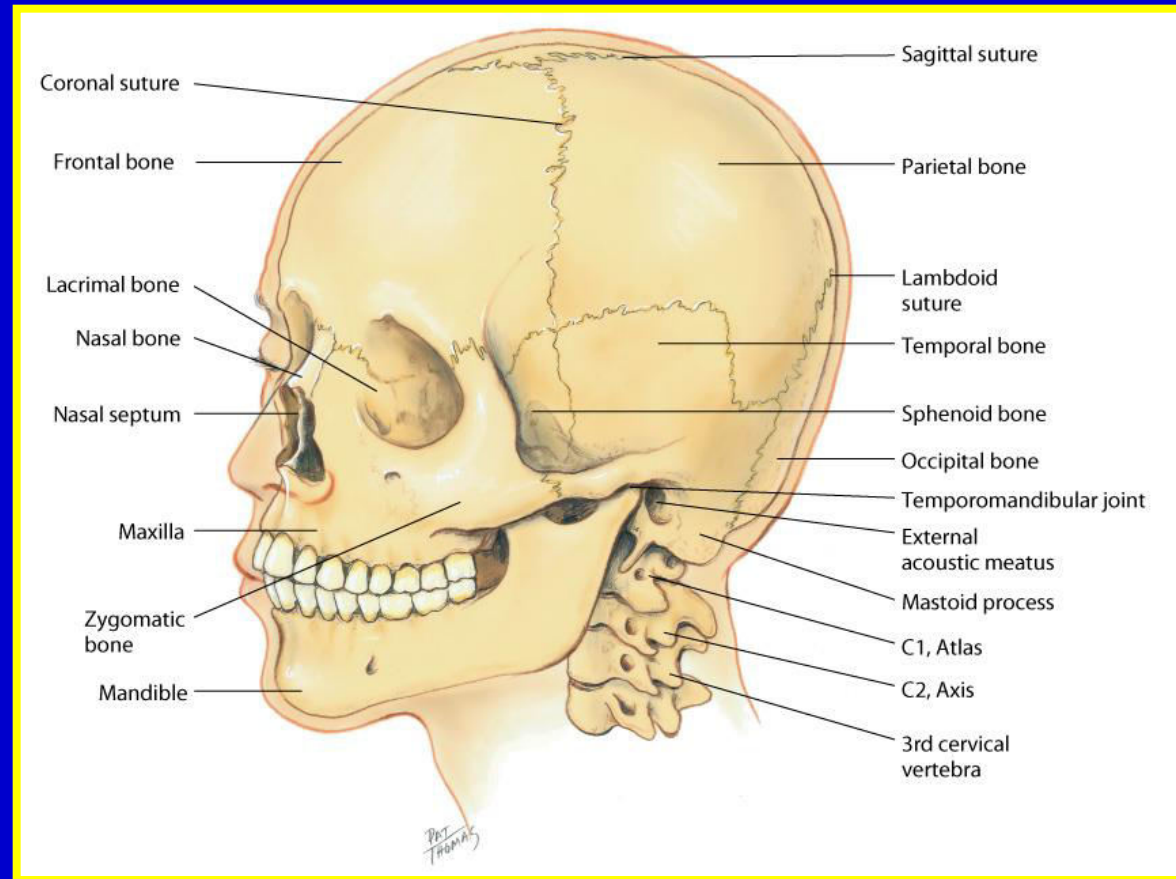


- Structure and Function
- Subjective Data—Health History Questions
- Objective Data—Physical Exam
- Abnormal Findings

# Structure and Function

## Head

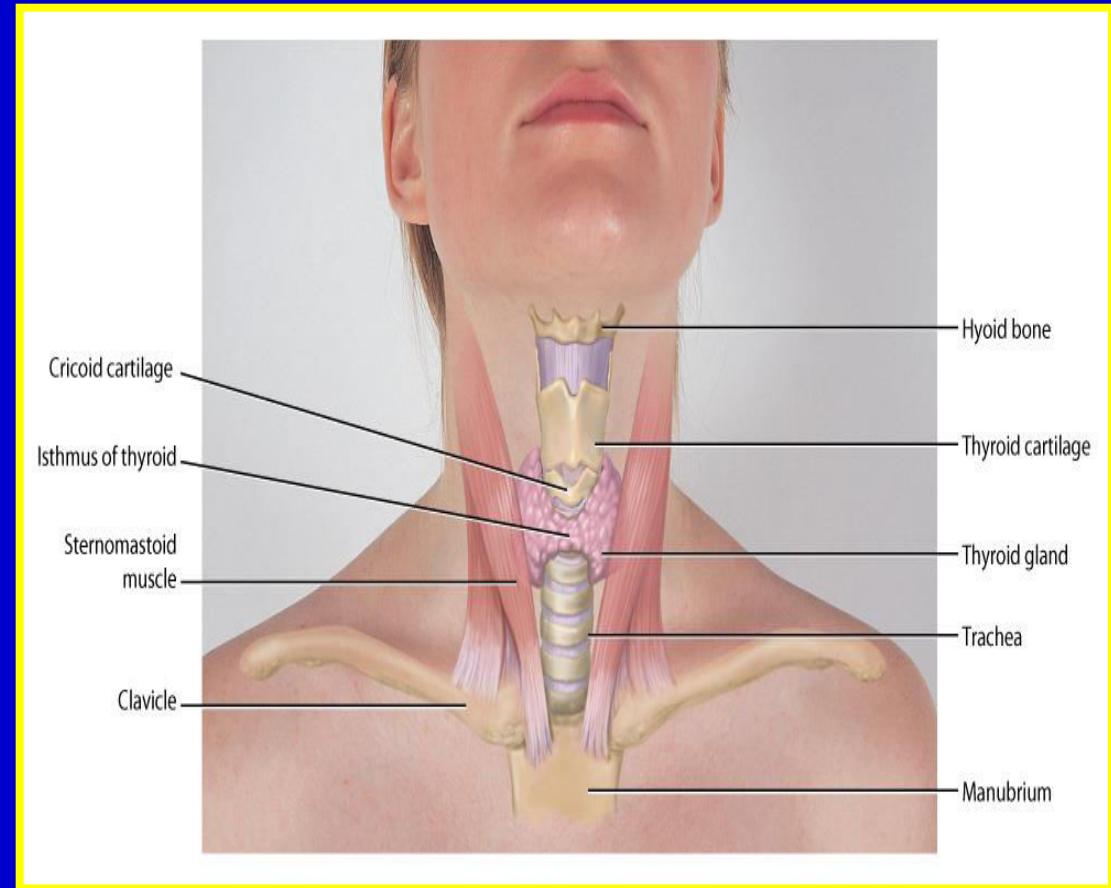
- Cranial bones
- Sutures
- Facial bones
- Facial muscles
- Salivary glands



# Structure and Function (cont.)

## Neck

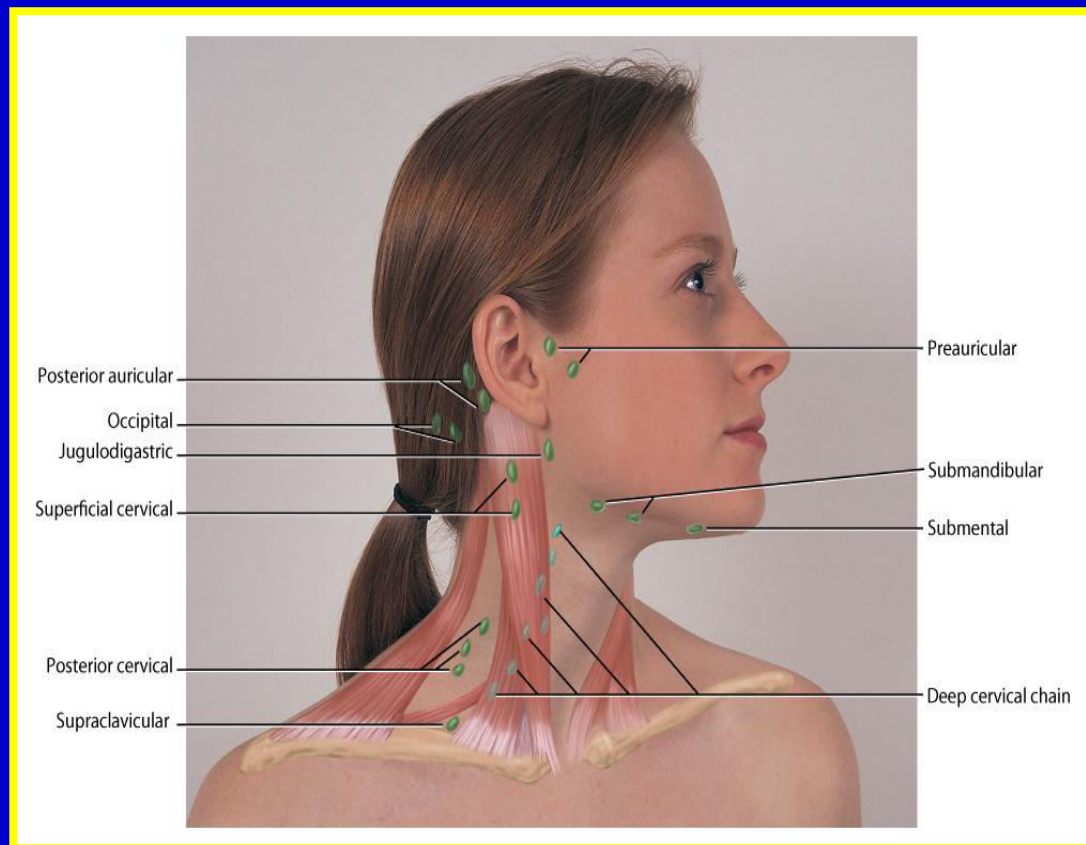
- Neck muscles
- Anterior and posterior triangles
- Thyroid gland



# Structure and Function (cont.)

## Lymphatics

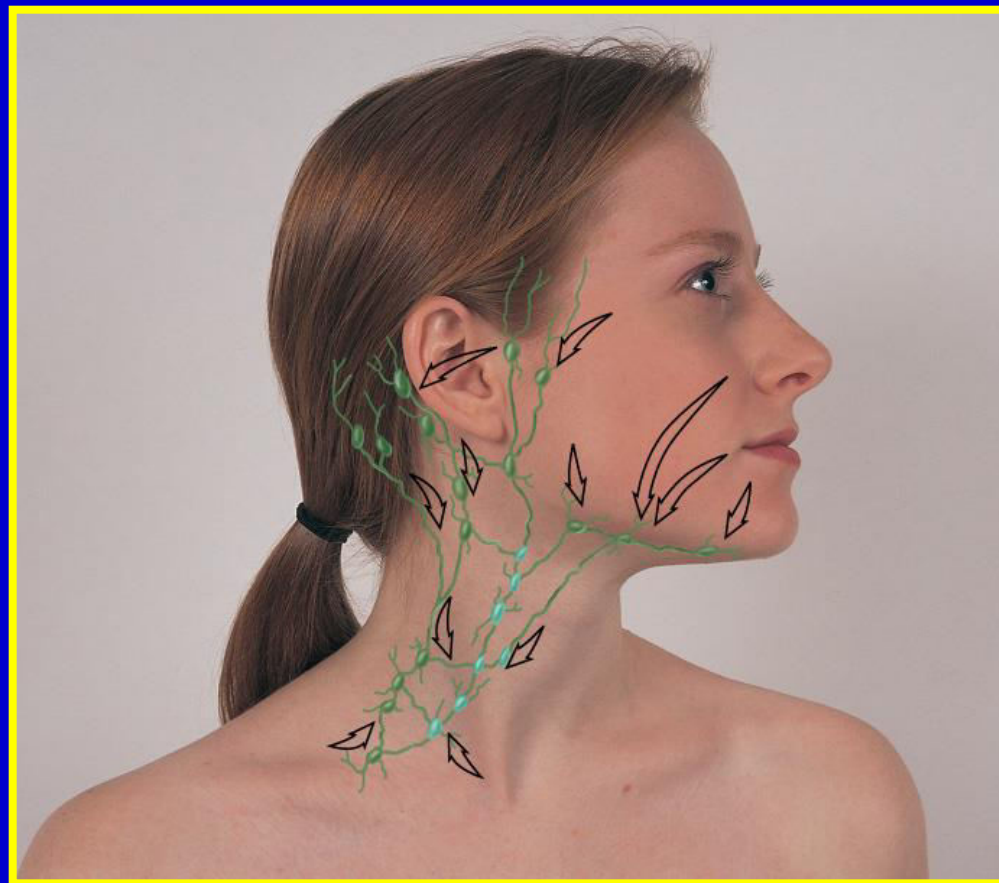
- Preauricular
- Posterior auricular (mastoid)
- Occipital
- Jugulodigastric
- Superficial cervical
- Submental
- Submandibular
- Supraclavicular



# Structure and Function (cont.)

## Lymphatics (cont.)

- Jugulodigastric
- Superficial cervical
- Deep cervical
- Posterior cervical
- Supraclavicular



# Structure and Function (cont.)

## Developmental care

- Infants and children
  - Fontanelles
  - Head growth
  - Lymphatic system
- Pregnant female
- Aging adult

# Subjective Data— Health History Questions

- Headache
- Head injury
- Dizziness
- Neck pain or limitation of motion
- Lumps or swelling
- History of head or neck surgery

# Subjective Data— Health History Questions (cont.)

## Additional history for infants and children

- Maternal alcohol or drug use
- Type of delivery
- Growth pattern

## Additional history for aging adult

- Dizziness
- Neck pain



# Objective Data— Physical Exam

Head—*Inspect and palpate the skull*

- Size and shape
- Temporal area

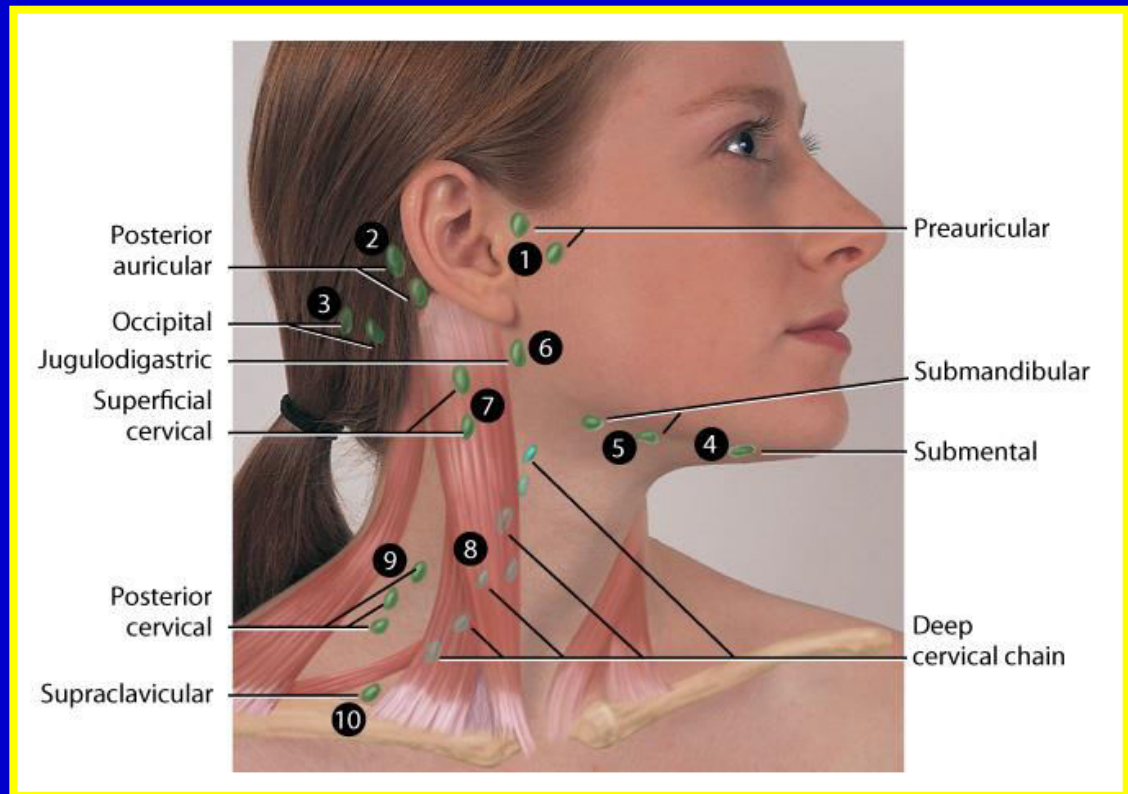
Head—*Inspect the face*

- Facial structures

# Objective Data—Physical Exam (cont.)

## Neck—*Inspect and palpate*

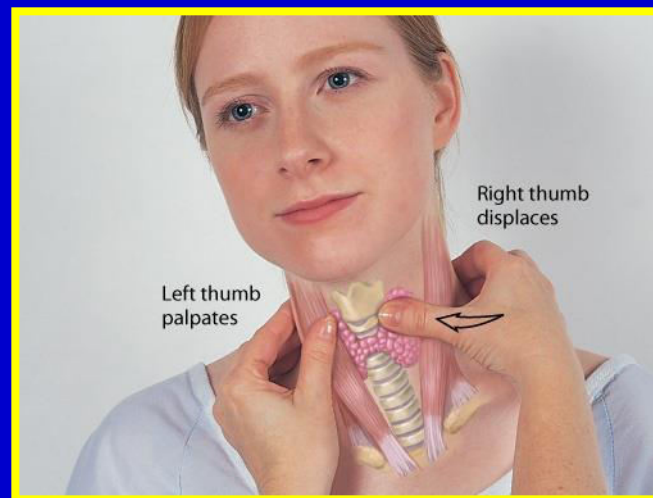
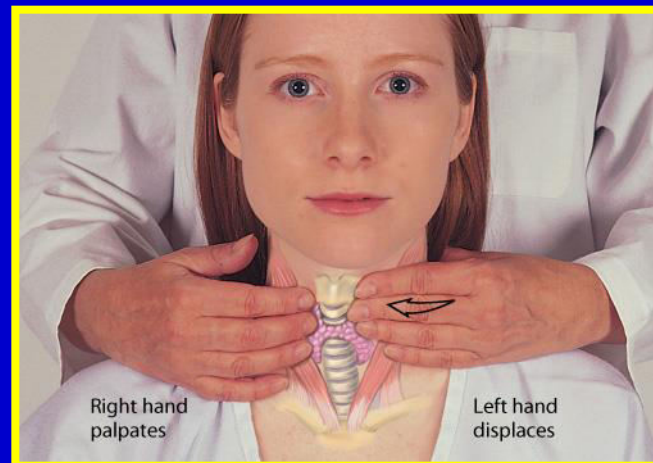
- Symmetry
- Range of motion
- Lymph nodes



# Objective Data—Physical Exam (cont.)

## Neck—*Inspect and palpate* (cont.)

- Trachea
- Thyroid gland
  - Posterior approach
  - Anterior approach
  - Auscultate



# Objective Data—Physical Exam (cont.)

## Developmental care

- Infants and children
  - Skull
  - Face
  - Neck
  - Special procedures
- Pregnant female
- Aging adult

# Sample Charting

- *SUBJECTIVE*

- *Denies any unusually frequent or severe headache; no history of head injury, dizziness, or syncope; no neck pain, limitation of motion, lumps, or swelling.*

# Sample Charting (cont.)

- OBJECTIVE

- Head—Normocephalic, no lumps, no lesions, no tenderness.

- Face—Symmetric, no weakness or drooping, no involuntary movements.

- Neck—Supple with full ROM, no pain. Symmetric, no lymphadenopathy or masses. Trachea midline, thyroid not palpable. No bruits.

# Sample Charting (cont.)

- ASSESSEMENT

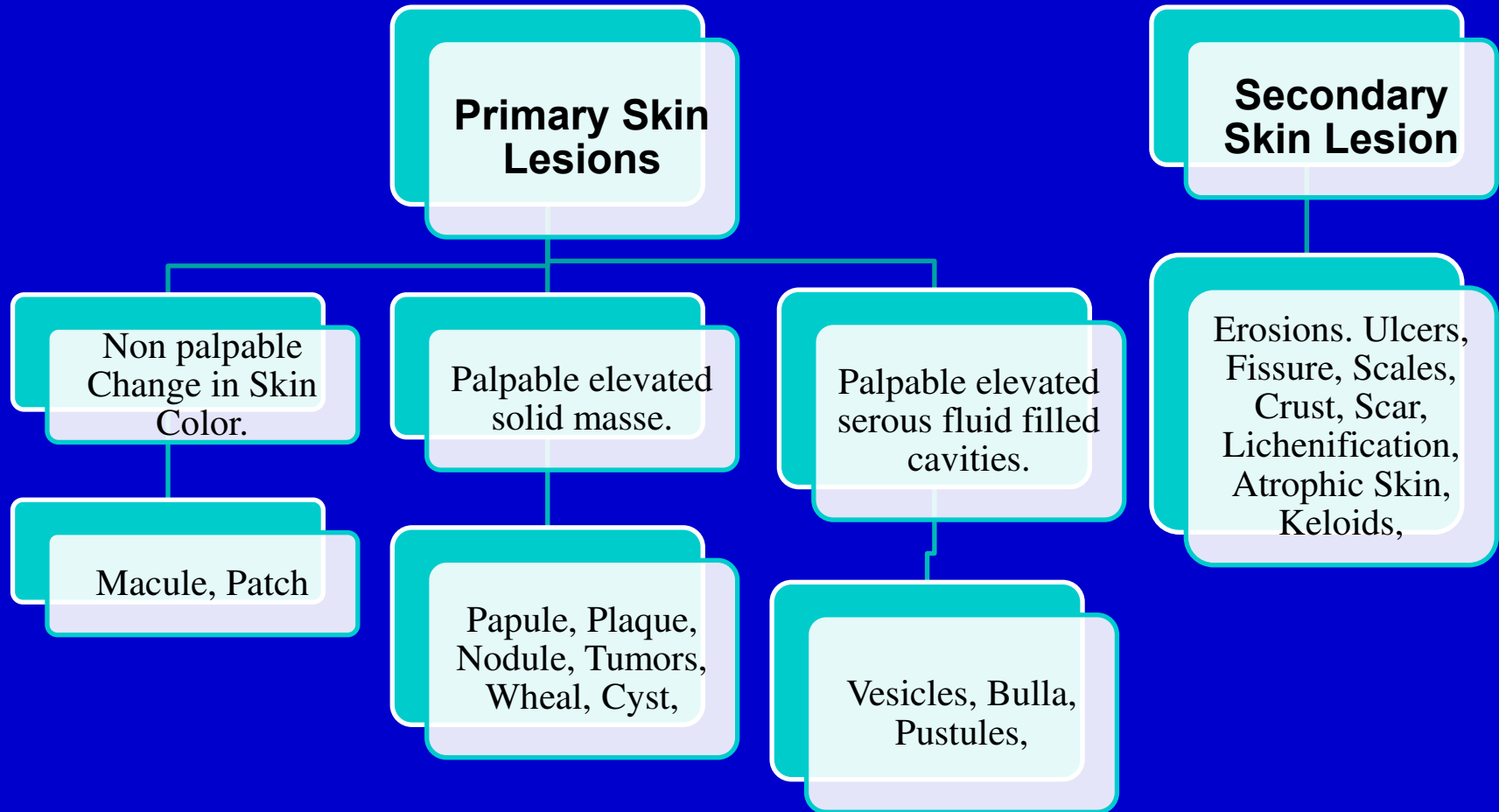
- *Normocephalic, symmetric head and neck.*

# PRIMARY & SECONDARY SKIN LESIONS

- Lesions should be observed for
  - Anatomical location
  - Arrangement and grouping
  - Type of skin lesion
  - Color of lesion
- **Primary skin lesions** are original lesions arising from previously normal skin.
- **Secondary lesions** can originate from primary lesions.



# Conti...



# Primary Skin Lesions

- There are three types of primary lesions
- Non palpable Change in Skin Color.
- Palpable elevated solid masse.
- Palpable elevated serous fluid filled cavities.

# 1. Non palpable Change in skin colour

- **Macule:** <1cm circumscribed boarder e.g. Mole, patachia.



**Patch**:>1cm may have irregular border  
e.g. Vitiligo, Freckles, Echymosis



Macule and patches are non palpable skin changes. colour may be brown, white, Purple red etc.

## 2. Palpable Elevated Solid Masses

- **Papule:** <0.5 cm Elevated Navi, Warts



**Plaque**: >0.5 cm with circumscribed boarder e.g. Psoriasis, actinic karatosis



**Nodule**: 0.5-2cm with circumscribed borders e.g Lipomas, Squamous cell Carcinoma.



Tumors: .1-2 cm (>2cm extends deeper into the tissue)

e.g. Large lipomas Carcinomas.





**Wheal:** Elevated mass with transient borders caused by movement of serous fluid in dermis does not contain free fluids in cavities like vesicles e.g. insect bite, Urticaria.



**Cyst**: Encapsulated fluid filled or semi solid masses in the subcutaneous tissue or dermis e.g. Sebaceous cyst

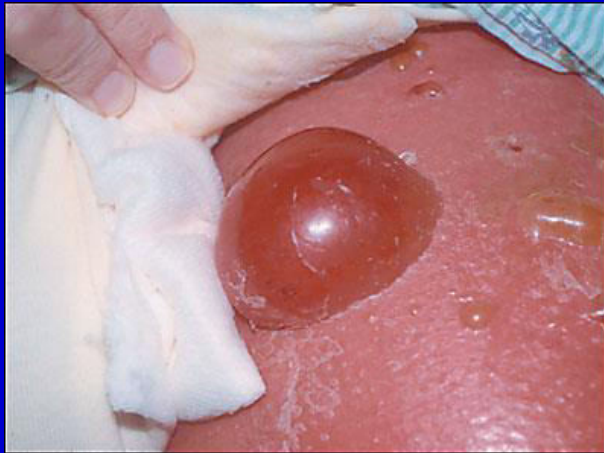


## C. Palpable elevated fluid filled cavities

- Vesicles: <math><0.5\text{ cm}</math> with circumscribed boarder e.g. Chicken pox, 2<sup>nd</sup> degree burn blister.



**Bulla:** >0.5cm Circumscribed boarder e.g  
Large burn blister, contact dermatitis,  
Bullous impetigo



**Pustules:** pus filled vesicles or bulla e.g Impetigo, furuncle



# Secondary Lesions

- **Erosions**: loss of superficial epidermis, does not extend to dermis , with moist area e.g. Scratch marks, ruptured vesicles.



## Ulcers: Skin extends to dermis e.g. Pressure ulcers



## Fissure: linear cracks in skin e.g. athletes foot



**Scales:** Flakes secondary to dead epithelium  
e.g. psoriasis, dry skin, pityriasis rosea.





**Crust:** Dried residue of serum blood or pus e.g residual left following Vesicles, impetigo, eczema



## Scar: Skin mark after wound Healing



**Lichenification**: Thickening & Roughening of the skin .Contact Dermatitis, Eczema.



**Atrophic Skin:** Thin , dry, transparent appearance of Epidermis e.g. Aged Skin



**Keloids:** Hypertrophic scar tissue secondary to excessive collagen formation during healing.



# References.

- Bicklay, L. S. (1999). *Bates' guide to physical examination and history taking* (7<sup>th</sup> ed). Philadelphia: J.B. Lippincott.
- Weber, J. & Kelley, J.(2007). *Health assessment in nursing* (3<sup>rd</sup> ed). Williams & Wilkins: Lippincott.