

In The Name of God



(A PROJECT OF NEW LIFE COLLEGE OF NURSING KARACHI)

UNIT-4
**Assessment of Nose,
Mouth, & Pharynx.**

Shahzad Bashir

RN, BScN, DCHN

Instructor

New Life College of Nursing

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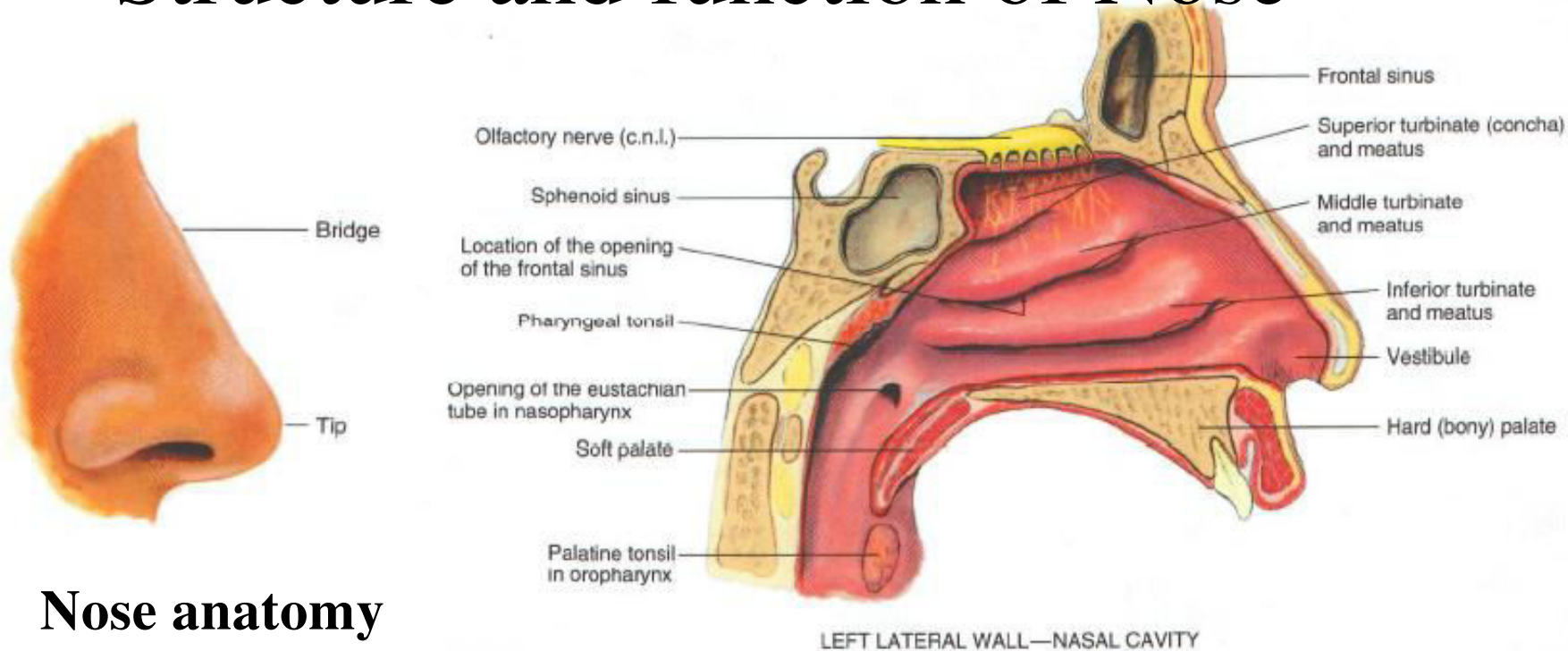
Objectives

- **By the end of this unit, learners will be able to:**
- Review the anatomy & physiology
- Describe the component of health history that should be elicited during the assessment of nose, mouth & pharynx.
- Identify the structural landmarks of the nose, mouth & pharynx.
- Describe specific assessment to be made during the physical examination of the above systems.
- Practice assessment skills of nose, mouth & pharynx.
- Documents findings.

Structure and function of Nose

- Nose and paranasal sinuses are first segment of the respiratory system
- Responsible for receiving, filtering, warming, and moistening inhaled air
- Sensory organ for smell, because cranial nerve I (Olfactory) located in it.
- Nose consists of two portions.
 - External and Internal

Structure and function of Nose



- **Nose anatomy**

- *Bridge* is the superior part (nasal bone)
- *Tip* is the anterior part of nose (cartilage)
- Hair – Filter coarse matter from entering nasal cavity
- Ciliated mucous membrane filters dust and bacteria. The rich blood supply warms and humidifies the air
- Turbinates (conchae) increase the surface area of the nasal cavity so that more air is filtered, warmed, and humidified

External parts

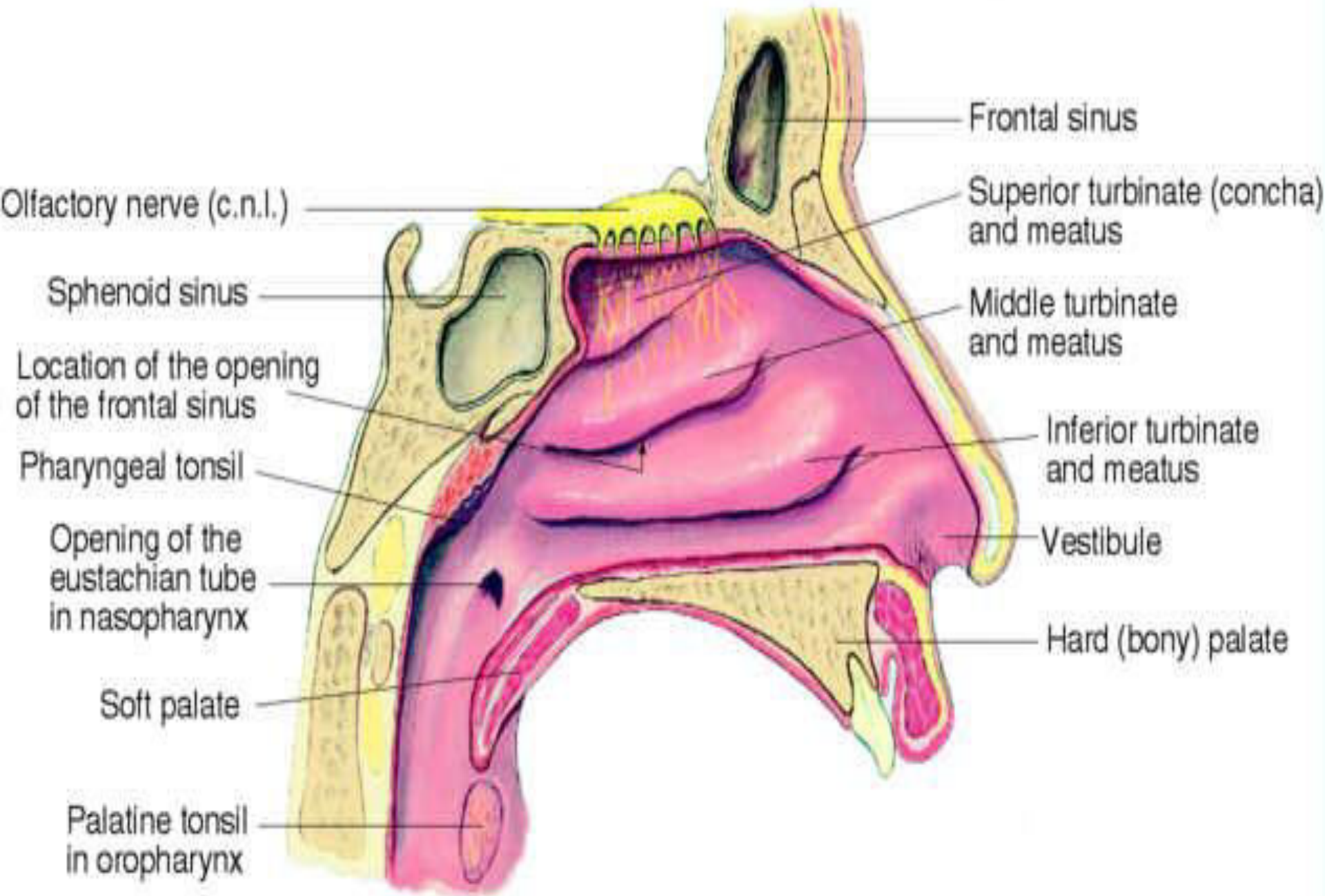
- Covered with Skin, and composed of bone and cartilage & is lined with mucous membrane.
- Bridge
- Tip
- Nares
- Vestibule -nares widen in to vestibule
- Columella divides the nares
- Ala –lateral outside wing of the nose bilaterally
- Upper 1/3 nose is bone; rest is cartilage

Internal parts

- Nasal cavity, extends back over the roof of the mouth
- Nasal hair, ciliated mucous membrane – red due to ↑ bld. supply
- Septum-divides cavity into 2 passages
 - Kiesselbach's area, most common site of nasal bleeding.

Internal

- Superior, middle, inferior turbinates - 3 parallel bony projections on lateral walls of each cavity
- Meatus - cleft underlying each turbinate. The sinuses drain into the middle, tears from the nasolacrimal duct drain into the inferior

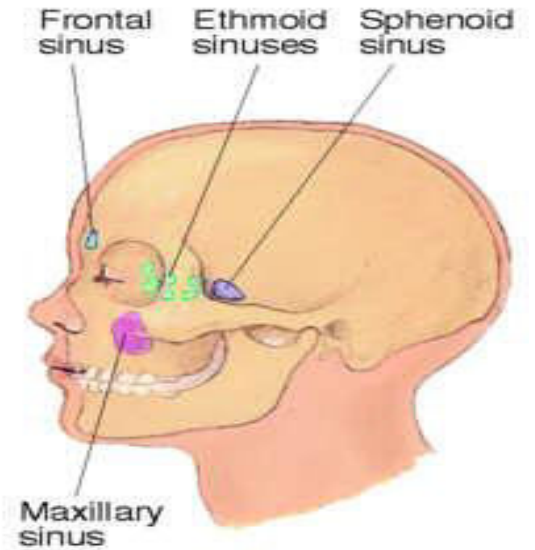
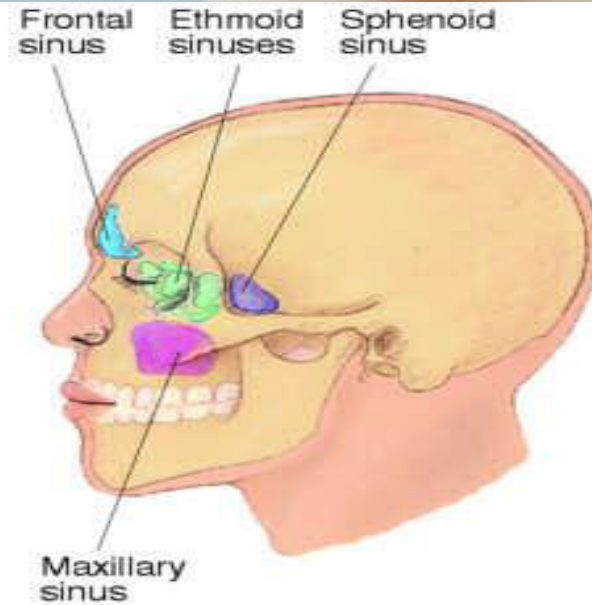
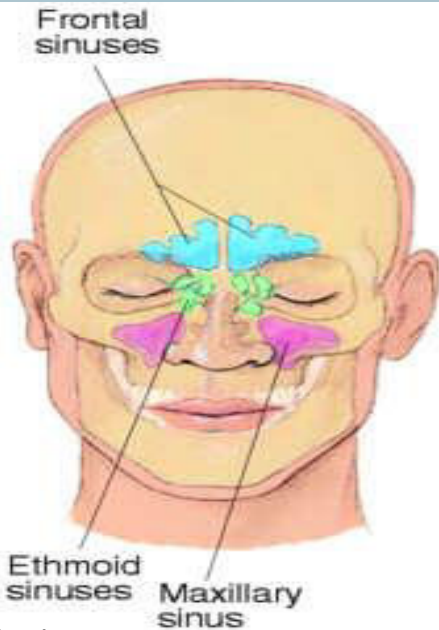


Sinuses

- Paranasal sinuses- air- filled pockets in the cranium
- Purpose
 - ↓ wt. of the skull
 - Serve as resonators for sound
 - Provide mucous for the nasal cavity
- Primary site of infection because they can easily become blocked & develop inflammation/sinusitis.
 - Frontal
 - Maxillary
 - Ethmoid
 - Sphenoid

} Accessible during examination

Paranasal Sinuses





A

2/26/2016

Shahzad Bashir, NLCON, Karachi.



B

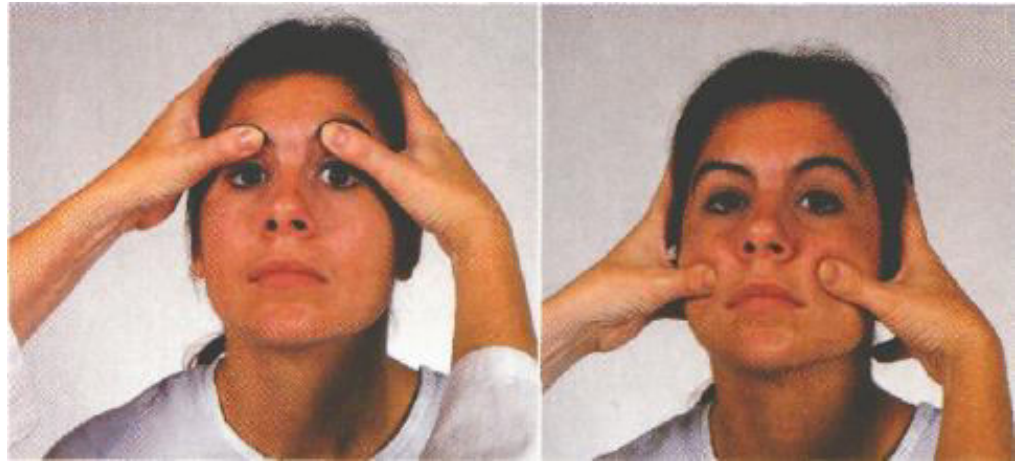


Assessing the Sinuses

- Palpation

- Using thumbs, palpate the frontal and maxillary sinuses

- Tenderness in persons with sinusitis or allergies



- Transillumination

- Using a pen light in a darkened room, place light under the superior orbital ridge, inferior to the frontal sinuses

- Clear sinuses should transilluminate



Inspection of Nose

Internal (Nasal Cavity):

- Mucosa:
 - Color
 - Condition swelling, exudates, bleed
- Septum:
 - Deviation, Perforation exudates.
- Turbinate:
 - Color, Swelling, Discharge, Polyp.

Subjective data Nose

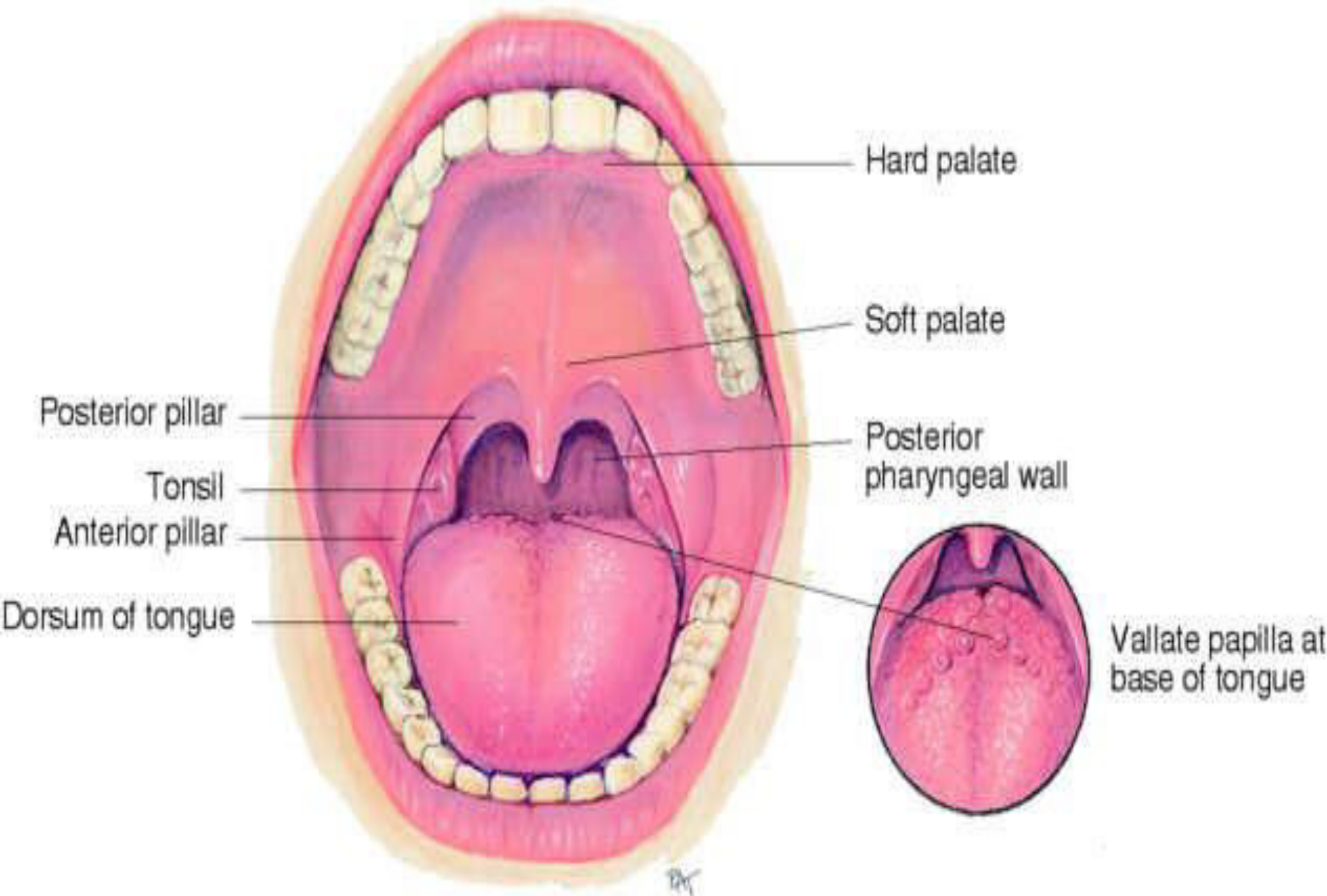
- Discharge
- Frequent colds
- Sinus pain
- Trauma
- Epistaxis
- Allergies
- Altered smell

Mouth

- Mouth and throat (pharynx), first segment of the digestive system
- Responsible for receiving food (ingestion), taste, preparing food for digestion, & aiding in speech.
- Airway for the respiratory system
- ORAL CAVITY
 - Lips, cheeks
 - Palate
 1. Hard
 2. Soft
 3. Uvula – hangs down from the soft palate

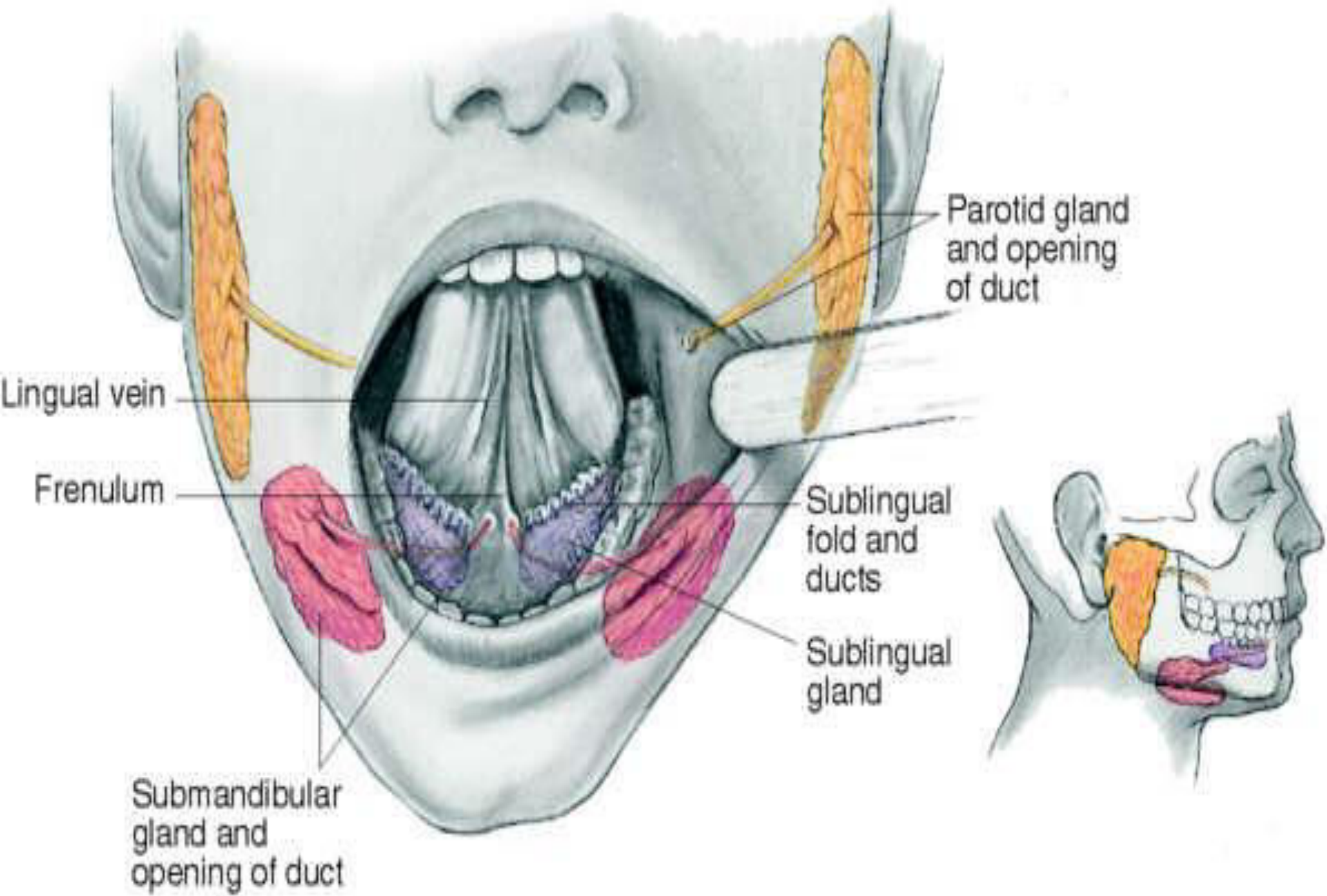
Mouth

- Cheeks- side walls of cavity
- Tongue
 1. Papillae- rough, bumpy elevations on dorsal
 2. Frenulum
 3. Taste buds
- Teeth – 32 permanent



Mouth

- Salivary glands
 1. Parotid- largest of the glands, located in the cheeks, front of the ear. Stenson's duct opens in buccal mucosa
 2. Submandibular - walnut size, beneath the mandible at the angle of the jaw. Wharton's duct either side of the frenulum
 3. Sublingual –smallest, almond shape, under tongue



Mouth & Pharynx

- Use gloves, tongue depressor, light
- Position & Equipments:
- **Inspection & Palpation:**
- **LIPS:**
 - Color
 - Shape, Symmetry
 - Condition, moist, cracks, edema.
 - Lesions. Lumps, ulcers or fissures (Herpes, Chancre, Cheilosis/ Angular stomatitis, Chelitis, Mucocele, Carcinoma)

Conti....

- Throat
 - Oropharynx
 - Tonsils
 - Nasopharynx

Equipment for examination of Nose, Mouth and Throat

- Otoscope with short, wide-tipped nasal speculum
- Pen light
- Two tongue blades
- Cotton gauze pad
- Gloves

Inspection and palpation of nose

- **External nose**
 - Tenderness, discharge, trauma, bleeding, lesions, masses, swelling, asymmetry
 - Test patency of nostril
- **Inspection of internal nose**
 - Speculum or otoscope with nasal speculum
 - Nasal cavity
 - Nasal septum
 - Turbinates
 - Sinus Areas- Palpate
 - Frontal and maxillary sinuses
 - Transillumination

- **Normal findings**
 - Located in midline of face
 - No swelling, bleeding, lesions, or masses
 - Both nostrils patent
 - Septum midline
 - Nasal mucosa is pink or dull red

- **Abnormal findings**
 - Broken, misshapen, swollen nose
 - Occluded nasal passages
 - Septum is deviated
 - Nasal mucosa is red and swollen
 - Purulent drainage

Assessment of the Sinuses

- Inspection (**Sinus Transillumination**)
- Palpation and percussion
- Normal findings
 - No discomfort during palpation or percussion
 - Resonance heard on percussion

Assessment of the Mouth

Inspect Mouth

- Lips
- Teeth and gums
- Tongue
- U-shaped areas under the tongue
- Buccal mucosa
- Uvula
- Hard and soft palate

Mouth inspection and palpation

- **LIPS** inspect for color, moisture, cracking, or lesions. Palpate lips, and face for mass and tenderness
- **TEETH/gums** note any diseased absent, loose teeth gums should be pink, check for swelling, retraction of gum margins spongy, bleeding discolored gums.
- **TONGUE** color pink and even dorsal side roughened, ventral smooth, glistening, shows veins Inspect under tongue for nodules, lesions, ulcerations

Cont...

- Buccal mucosa looks pink, smooth, moist, dark skinned people may have patchy hyperpigmentation
- Uvula fleshy pendant midline uvula and soft palate rise with “ahhh” sound. anterior hard palate is white with irregular transverse rugae the posterior soft palate is pinker smooth, and upwardly movable.

- **Normal findings of Mouth**
 - Breath is fresh
 - Pink, moist lips
 - Tongue midline, symmetrical, with adequate movement
 - No pockets between gums and teeth
 - No bleeding
 - Smooth, white teeth; proper alignment, no dental caries

- **Abnormal findings of Mouth**
 - Lesions, growths
 - Dry, cracked lips
 - Vesicles or blisters
 - Red, tender, inflamed tongue, gums, buccal mucosa
 - Thrush
 - Coating on tongue
 - Red, tender, swollen gingiva
 - Bleeding gums

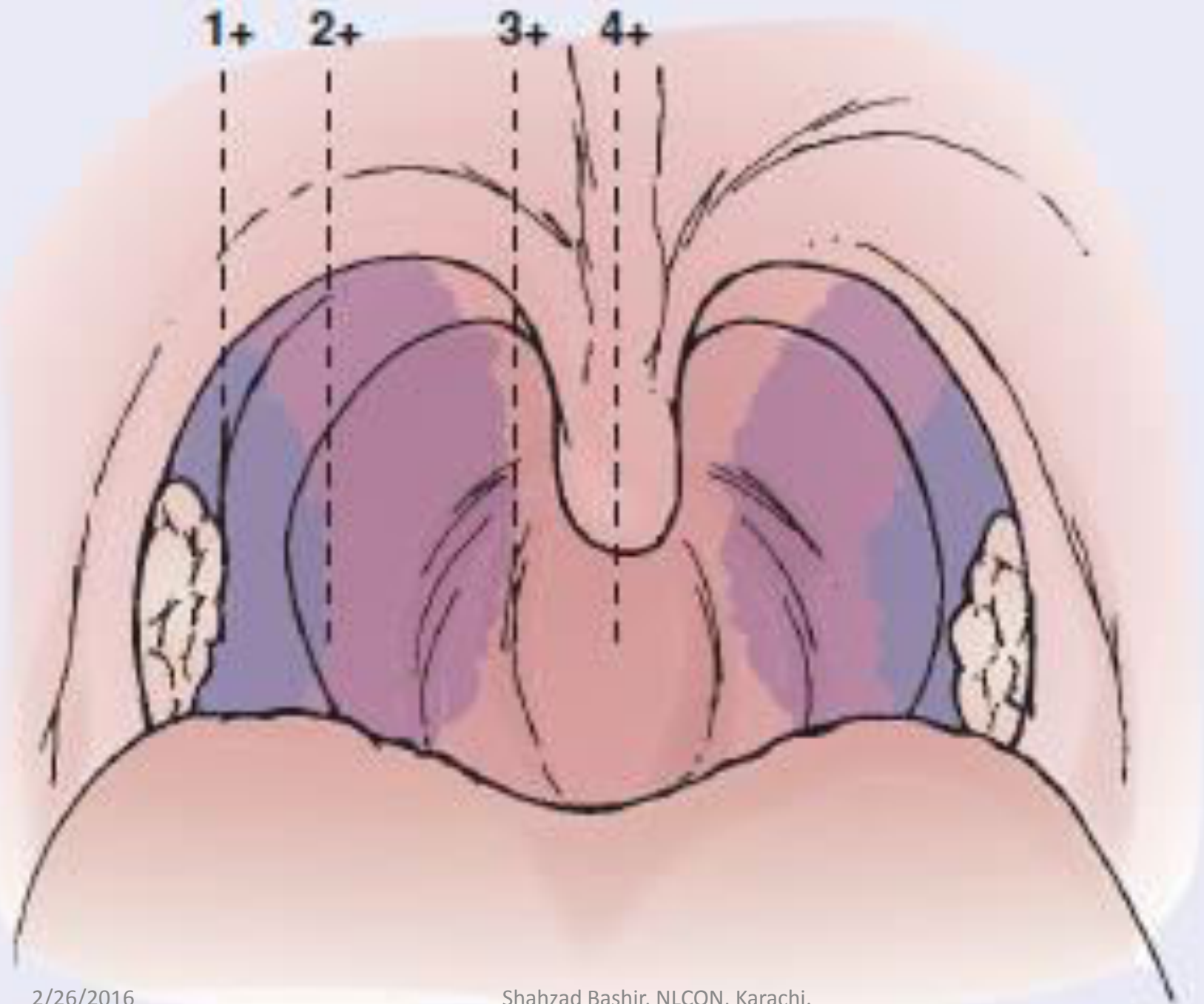
Inspection of the Throat

- Position, size, color, and general appearance of tonsils and uvula
- Gag reflex
- Color of oropharynx
- Presence of swelling, exudate, lesions

Assessment of tonsils

– Enlarged tonsils **are graded**

- **Grade 1 – wnl**
- **Grade 2 – tonsils b/w pillars and uvula**
- **Grade 3 – tonsils touching uvula**
- **Grade 4 – tonsils touching each other (kissing tonsils)**



References

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2. Weber, Kelley's. (2007). *Health Assessment in Nursing, 3rd Ed: North American Edition*. Lippincott Williams & Wilkins. Chapter No.14 &15 p.n 239-294