Nose, Mouth, and Throat

Prof. Suhair Al-Ghabeesh

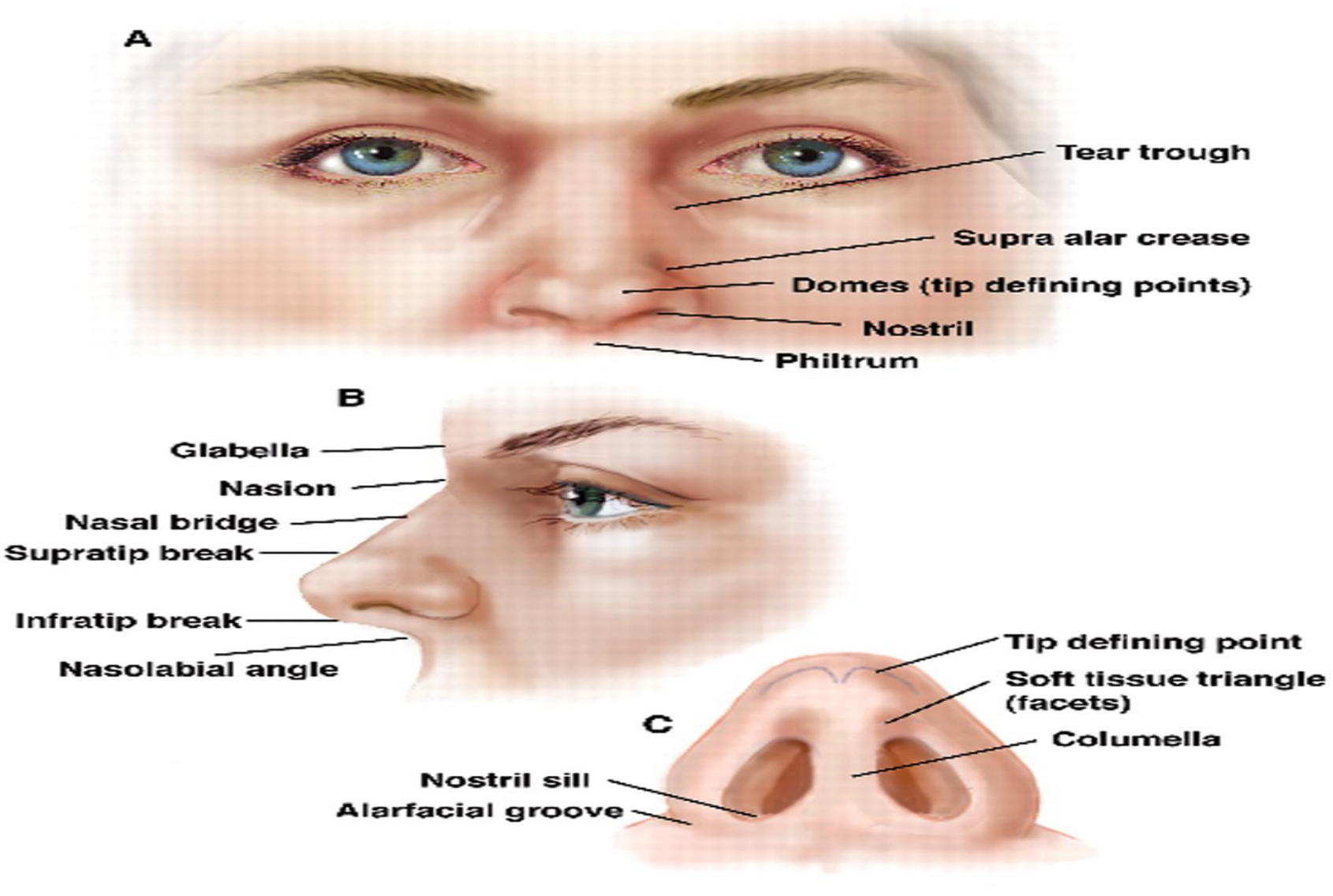
Nose

- The nose is the first segment of respiratory system.
- What are the functions of nose?

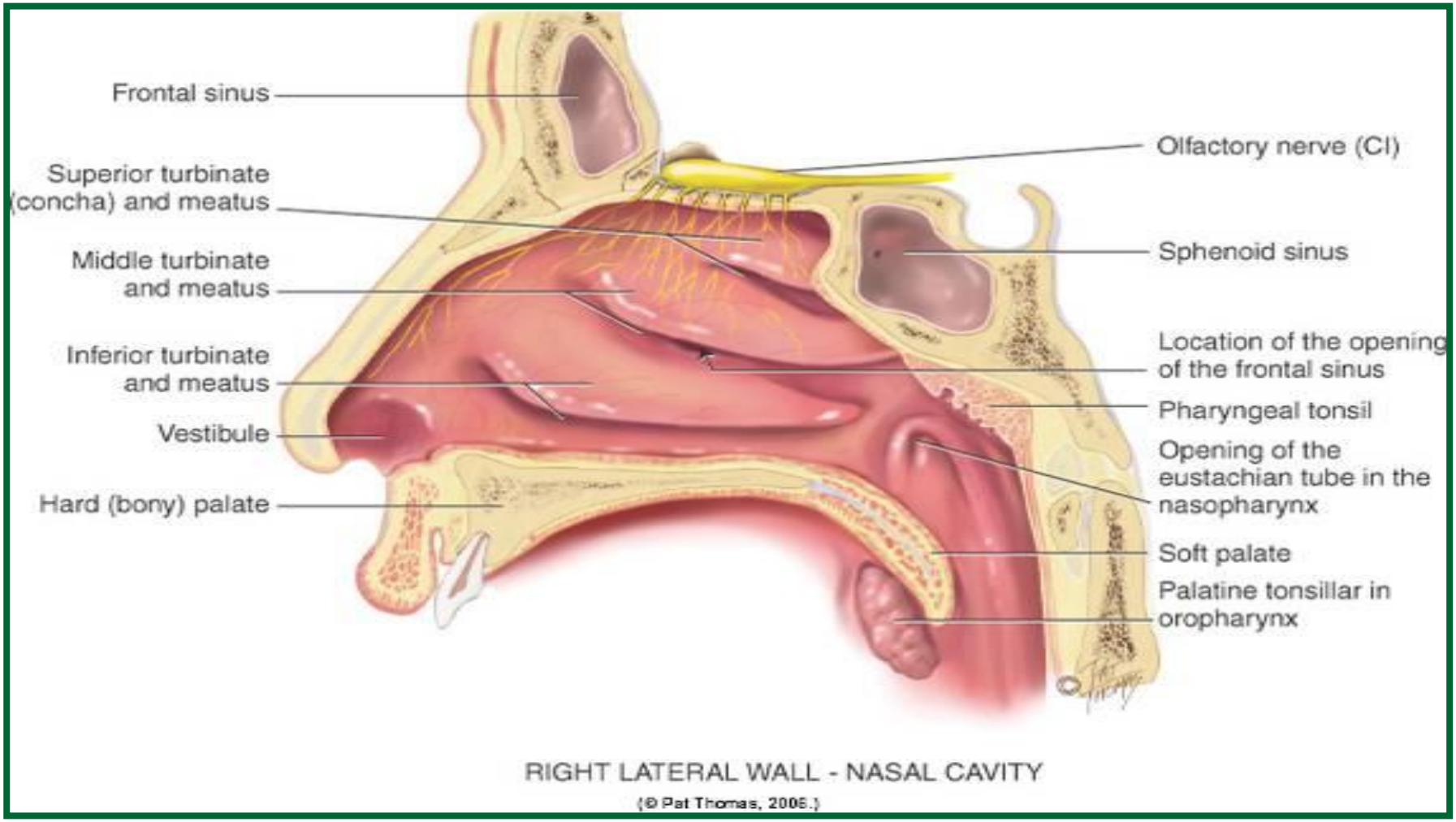
(it warms, moistens, and filters the inhaled air, and it is the sensory organ for smell)

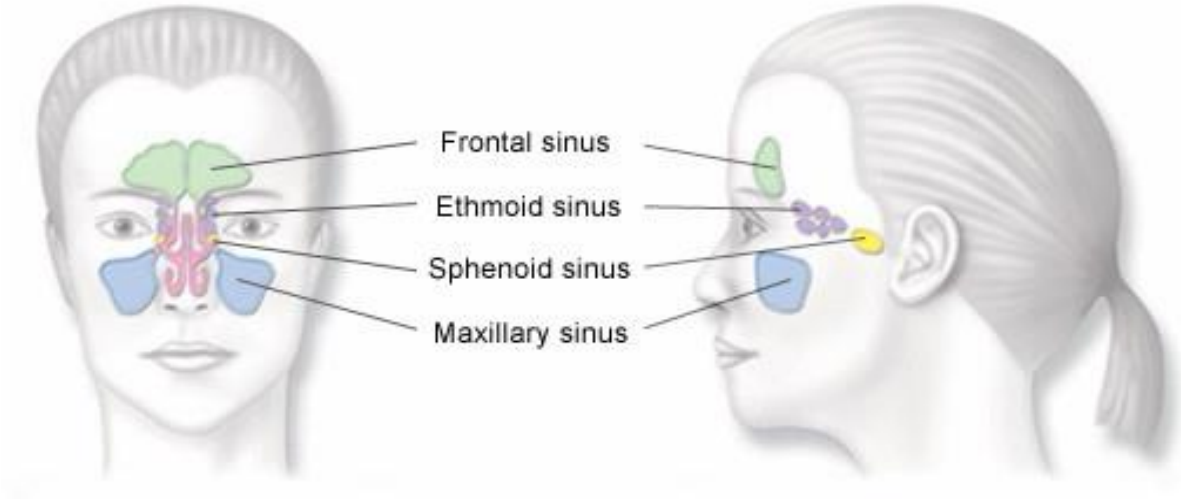
- Nasal mucosa appears redder than oral mucosa, why? to warm the inhaled air.
- The anterior part of septum holds a rich vascular network, Kiesselbach plexus, the most common site of nosebleeds.
- The lateral walls of each nasal cavity contain three parallel bony projections (superior, middle and inferior turbinates)
- The sense of smell enhancing the pleasure and taste of food.
- What are the functions of sinuses???? 1- lighten the weight of the skull bones, 2- serve as resonators for sound production, 3- provide mucous.
- Two pairs of sinuses accessible to examination (frontal and maxillary)
- Maxillary and ethmoid present at birth

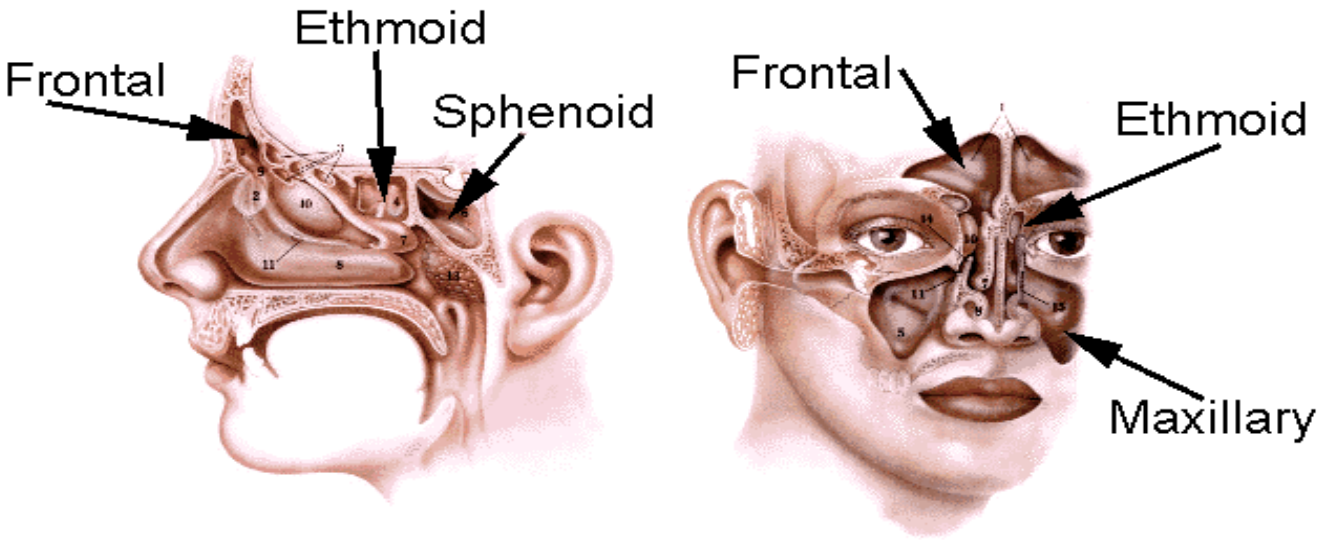
Nose


A
Tear trough
Supra alar crease
Domes (tip defining points)
Nostril
Philtrum
B
Glabella
Nasion
Nasal bridge
Supratip break
Infratip break
Nasolabial angle
C
Tip defining point
Soft tissue triangle (facets)
Columella
Nostril sill
Alarfacial groove

Anatomy: Nose and Sinuses







The maxillary, ethmoid, frontal and sphenoid sinuses. Note that the frontal and sphenoid sinuses are not well developed in young children.

Health history : Nose and Sinuses

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

Assessment: Nose and Sinuses

- PE technique
  - Inspection and palpation
- Equipment
  - Otoscope with short, wide-tipped nasal speculum.
  - Penlight.

- Clients needing PE are those with symptoms of:
  - upper respiratory infections
  - headaches
  - breathing obstruction

Assessment: Nose and Sinuses

- Inspection:
  - Shape and configuration of external structures
  - Position and integrity of nasal septum
  - color of mucosa, presence of discharge
  - Assess for patency of nares
  - Check for quality of sinuses transillumination

- Palpate and percuss for tenderness over frontal and maxillary sinuses.

Physical Examination of the Nose & Sinuses: Procedure

1. Inspect the external nose
   - Note shape and configuration
   - Observe nares during ventilation
   - If nasal discharge is present, note character (watery, purulent, mucoid), color, amount, and whether it is unilateral or bilateral

   Normal Finding:
   - Shape of the nose varies among people

   Deviations from normal:
   - Deviations in the shape or configuration of the external nose
   - Significant if (+) tenderness and/or secondary to trauma
   - Flaring of the nares
   - Nasal discharges (rhinitis) secondary to: common cold, allergy, rhinnorrhea, sinusitis, foreign body

2. Evaluate nasal patency

- Occlude one naris, ask the person to breath in and out with the mouth close.
- Repeat with other naris.

Normal finding:

- Quiet nasal breathing indicated patency.

Deviations from normal:

- Masses or foreign particles may interfere with airway patency.

3. Inspect the internal nose

- Tip the person's head back and look through the nares to view vestibule, septum, and turbinates. Use a penlight to enhance visualization.
- Note the color and condition of the nasal mucosa, appearance of turbinates and nasal septum.

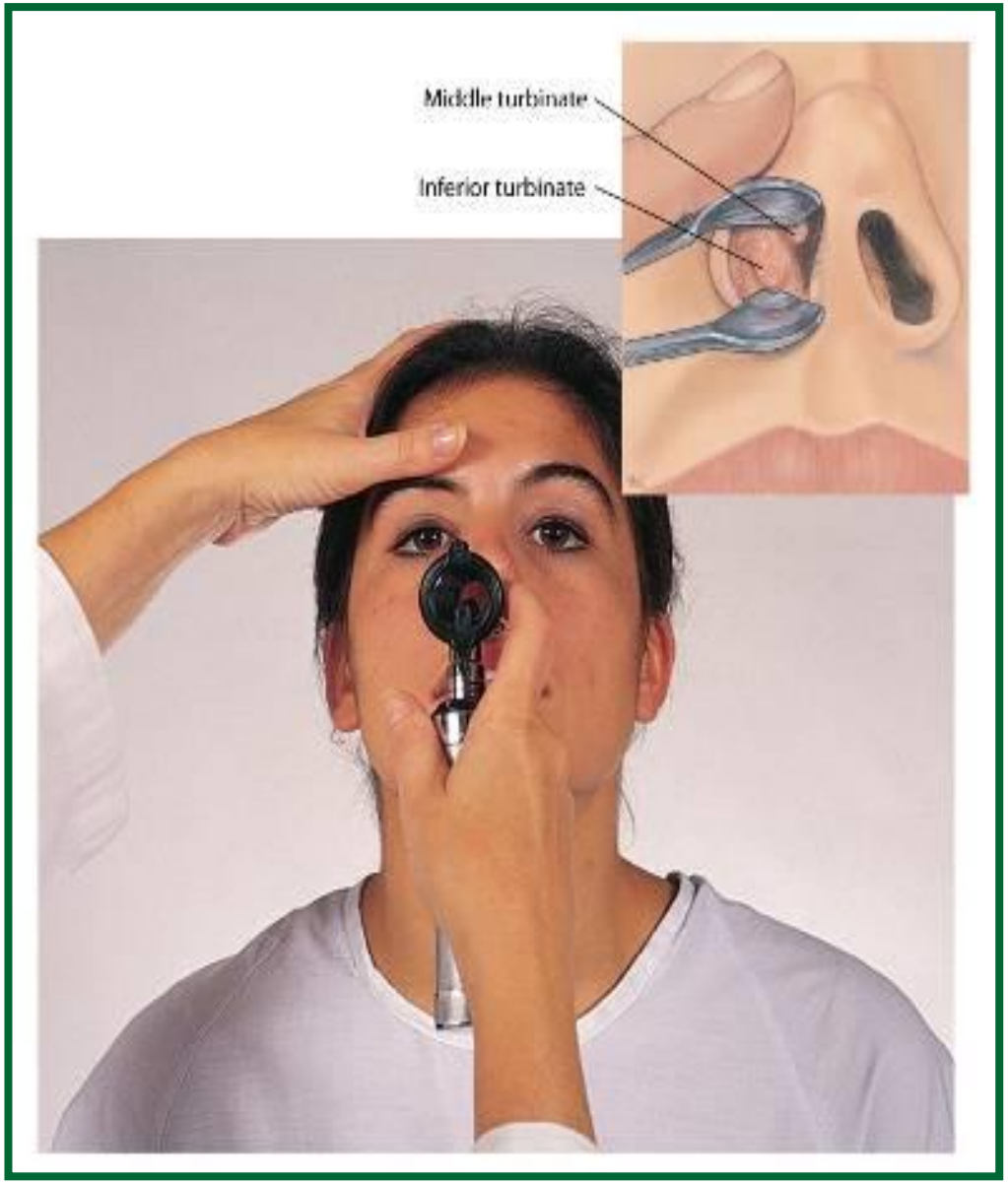
Nasal septum: deviated septum is common, and may interfere with patency, septum should not be perforated.

Nares: masses or foreign particles may interfere with patency.

Mucous membranes: color (pink or dull red), small amount of clear watery discharge is considered normal.

Turbinates: normal (no edematous, no masses, pink or dull red)

- Nasal polyps
- Epistaxis

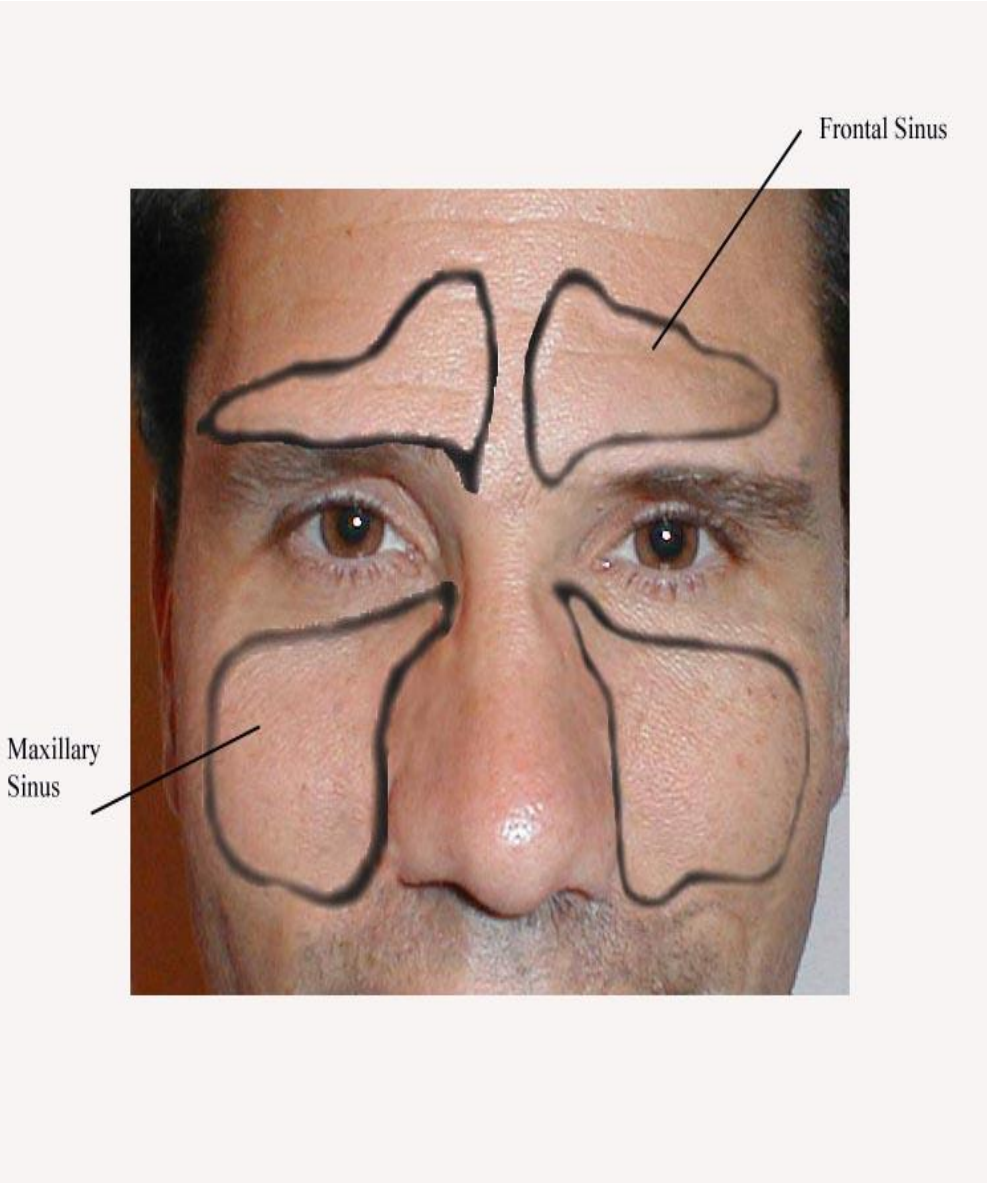


4. Palpate the sinuses

- Frontal sinuses: press upwards from the eyebrows with your thumbs. Pay attention with the eye orbits
- Maxillary sinuses: press upward under zygomatic process (cheekbones) with your finger or thumbs

Deviations from normal:

(+) tenderness on palpation



5. Transilluminate the sinuses (done if (+) tenderness on palpation)

- Darken the room
- Frontal sinuses: Press a bright light source firmly against the medial supraorbital rim
- Maxillary sinus: Ask the person to tilt head back and open mouth
- Press light source against the skin just below the medial aspect of the eye

Normal findings:

Frontal sinuses:

- A glow above the eye

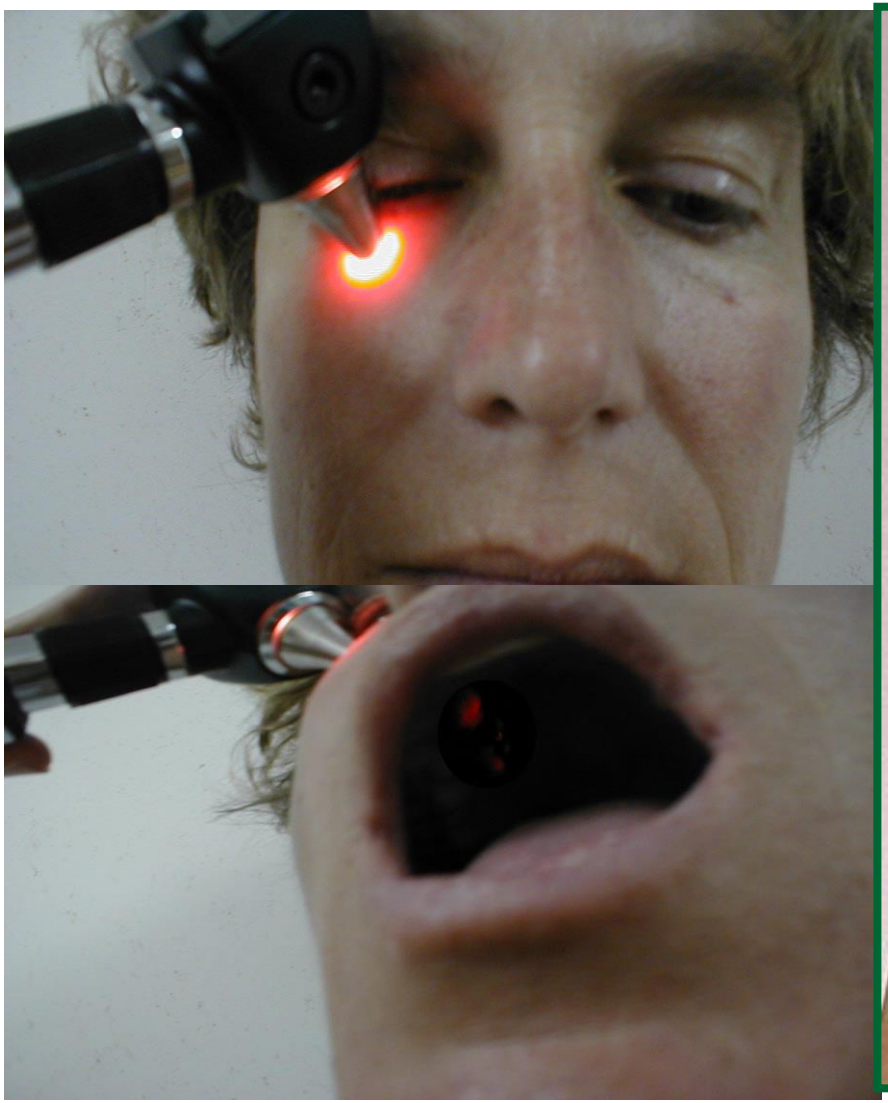
Maxillary sinus:

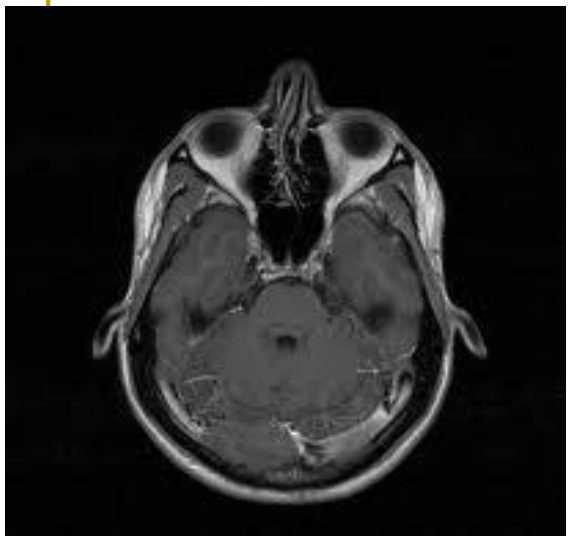
- A glow should be noted in the area of the hard palate

Deviations from normal:

- Absence of glow (may indicate fluid in the sinuses)

Transillumination of the sinuses

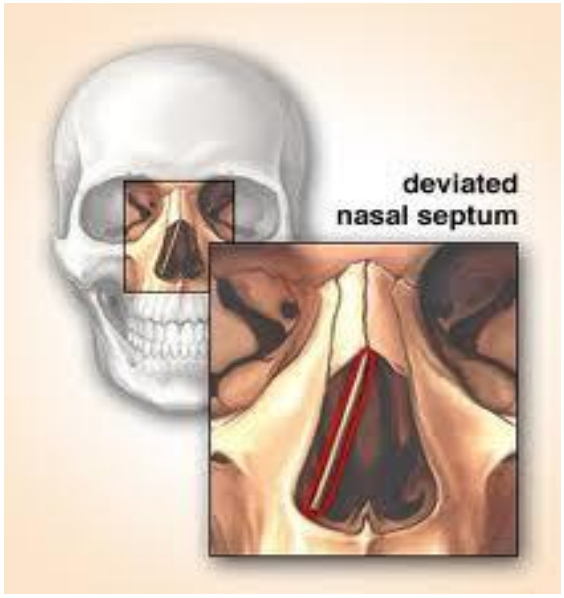


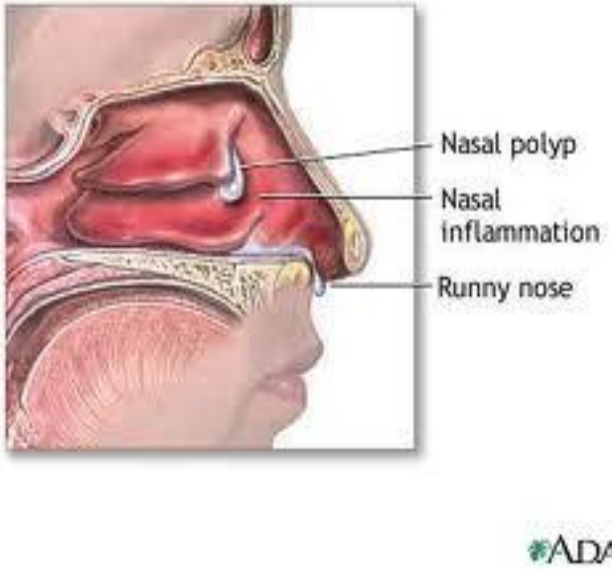


deviated nasal septum

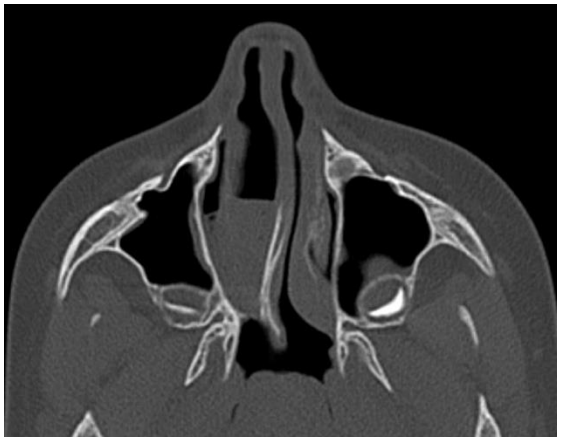
rhinitis

nasal polyps



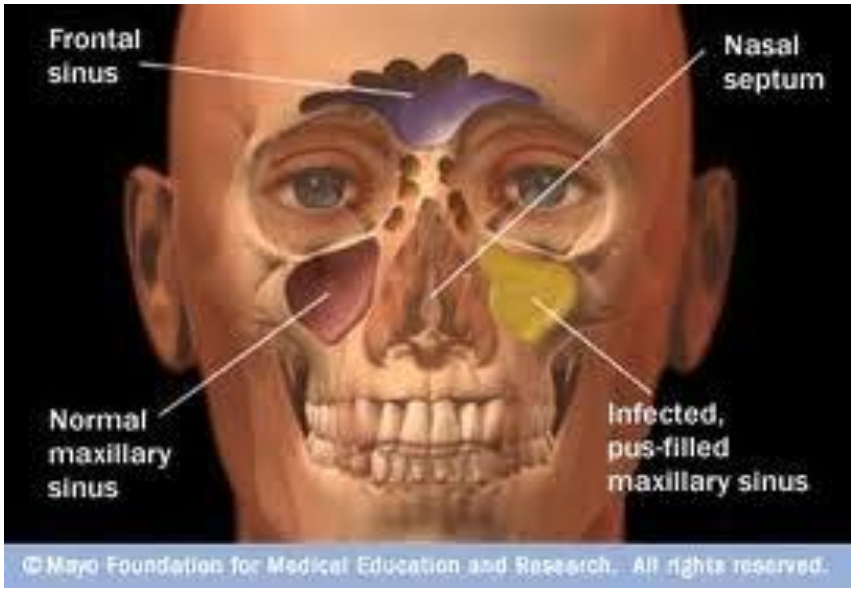


perforated septum

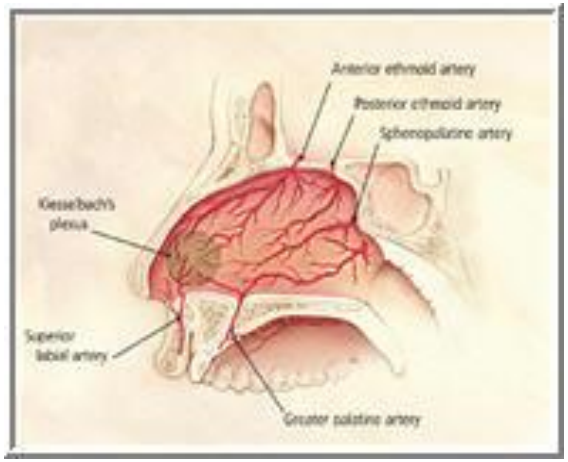


choanal atresia

sinusitis



epistaxis



Sample Charting

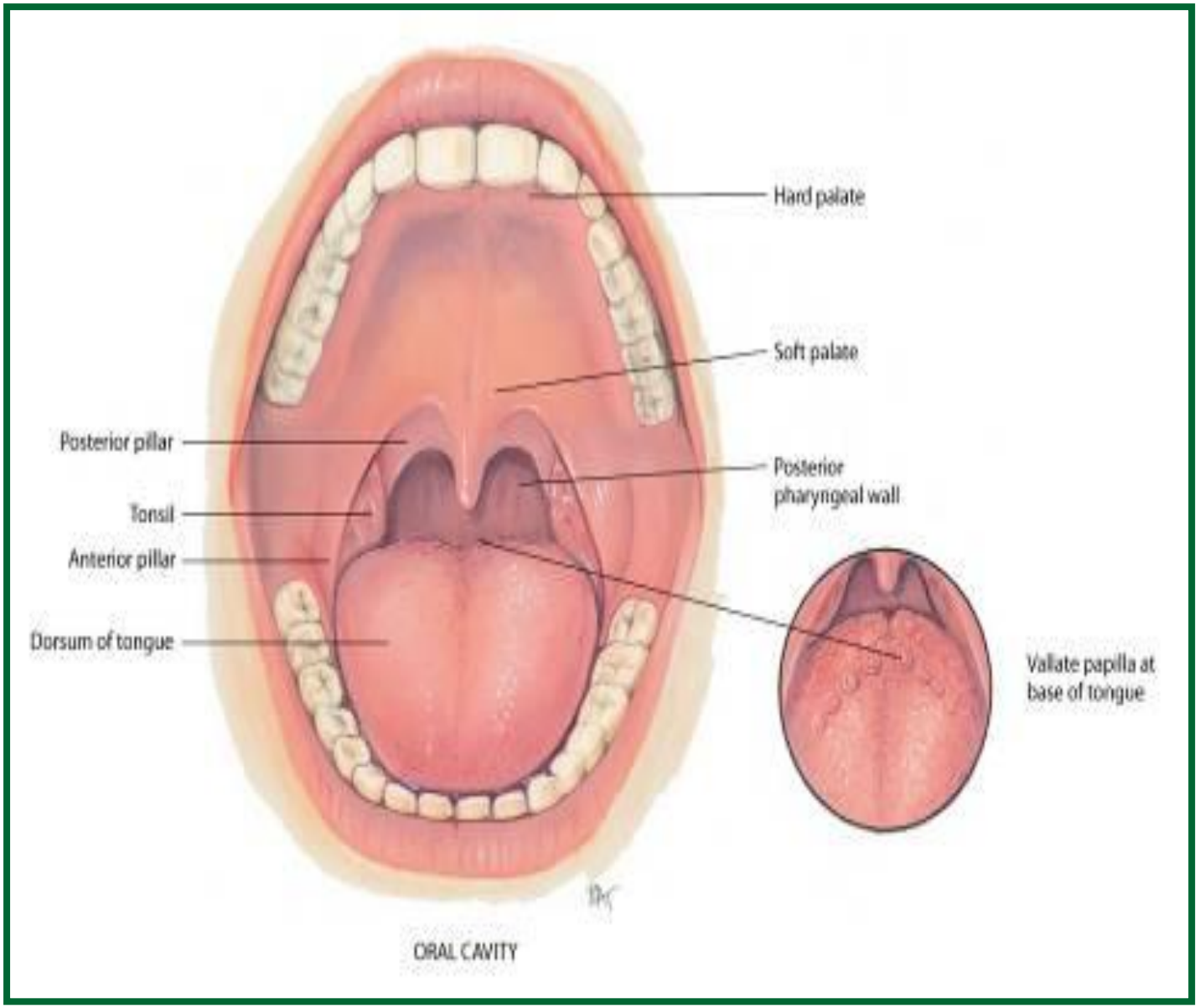
- **Subjective:**
  - Nose – no history of discharge, sinus problems, obstruction, epistaxis, or allergy. Colds 1-2 / yr, mild. Fractured nose during high school sports, treated by MD.
- **Objective:**
  - Nose – symmetric, no deformity or skin lesions. Nares patent. Mucosa pink, no discharges, lesions, or polyps; no septal deviation or perforation.
  - Sinuses – no tenderness to palpation

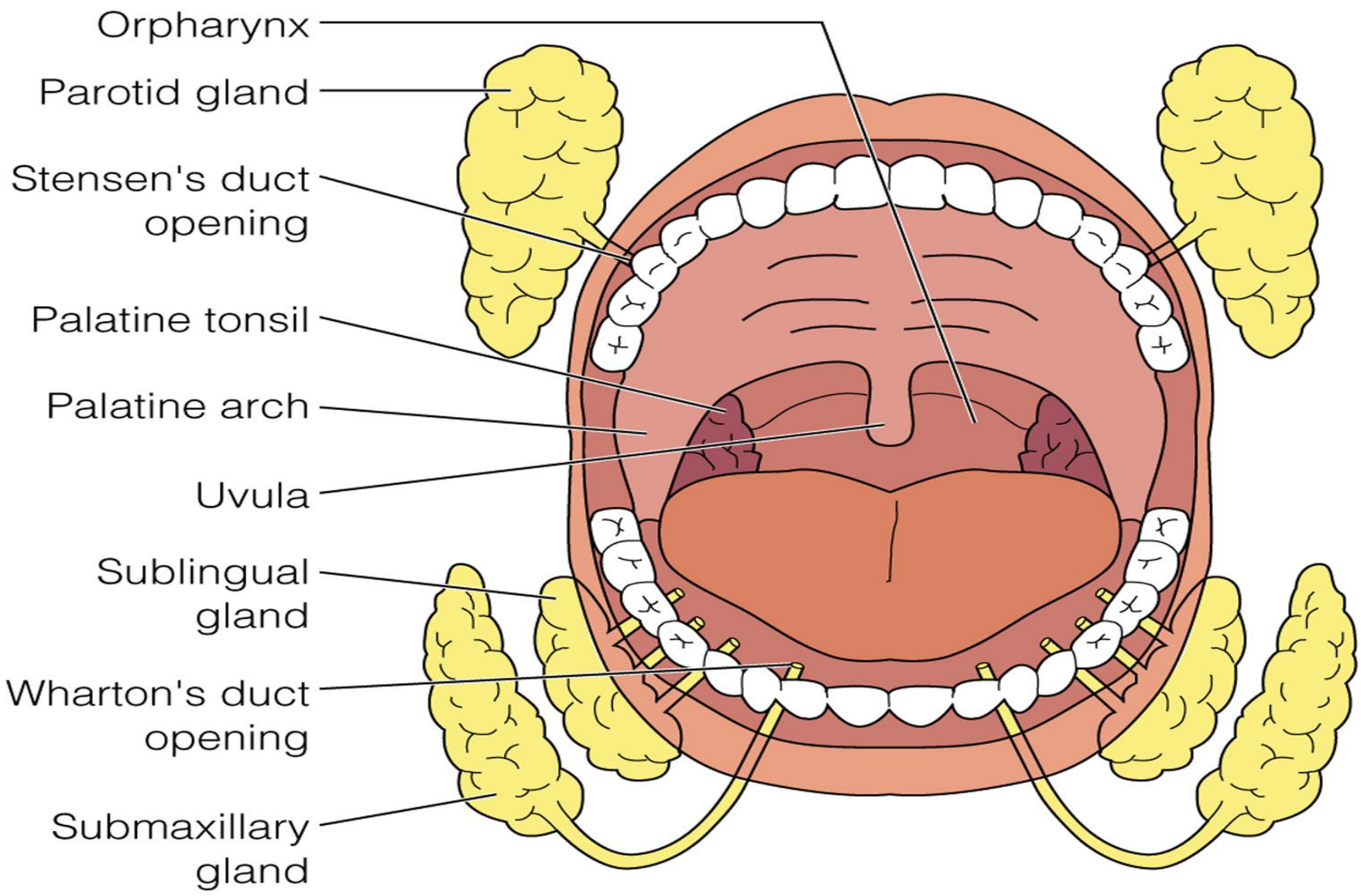
Mouth and Throat

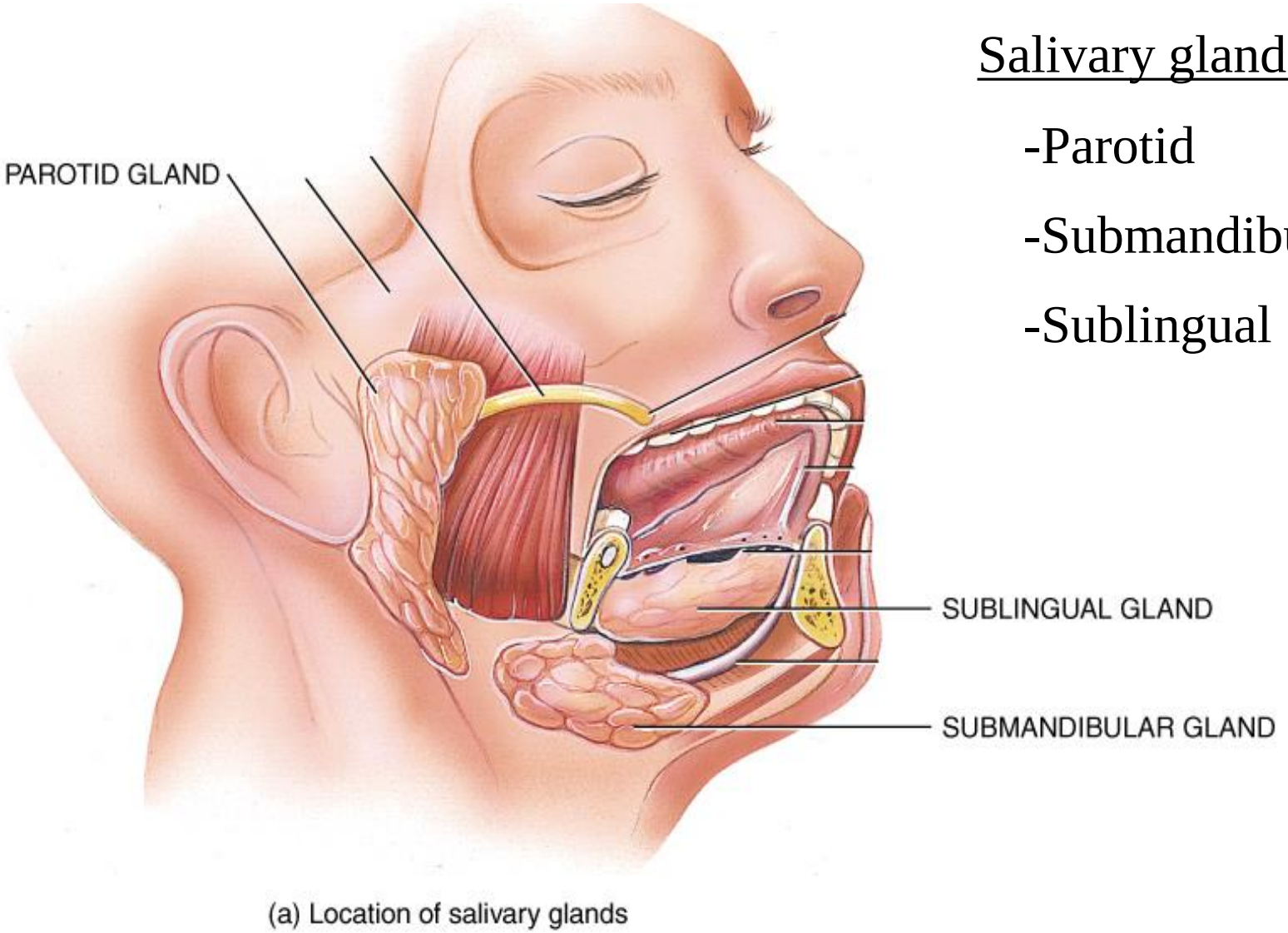
Mouth

- The mouth is the first segment of digestive system and an airway for respiratory system.
- It contains the teeth and gums, tongue, and salivary glands.
- The arching roof of the mouth is the palate, it is divided into anterior hard palate (bone and whitish color) and posterior soft palate (muscle and pinker in color and mobile)
- Uvula is the free projection hanging down from the middle of soft palate.
- Tongue is a muscle which can change shape and position.
- Frenulum is a midline fold of tissue that connects the tongue to the floor of the mouth.
- What are the functions of tongue??? (mastication, swallowing, teeth cleaning, speech formation)
- Three pairs of salivary glands (mentioned previously)

- Hard and soft palates
- Uvula
- Tongue
- Teeth




Orpharynx
Parotid gland
Stensen's duct opening
Palatine tonsil
Palatine arch
Uvula
Sublingual gland
Wharton's duct opening
Submaxillary gland



(a) Location of salivary glands

Salivary glands

-Parotid

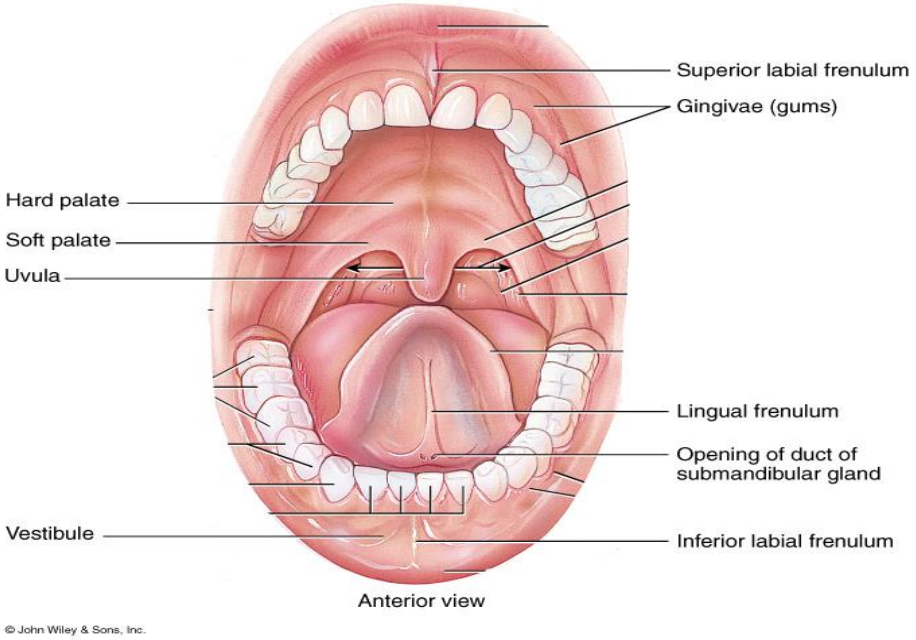
-Submandibular

-Sublingual

Subjective Data / Health History Questions

Mouth and throat

- Bleeding gums
- Sore throat
- Toothache
- Hoarseness
- Dysphagia
- Altered taste
- Smoking, alcohol consumption
- Self-care behaviors



Nursing History

History Items:

1- Do you experience tongue or mouth sores or lesions?

Current Symptoms:

2-redness,swelling,bleeding,pain in the gums, mouth.

3-Nosebleed,frequent clear or mucous drainage from the nose.

4-Breath from 2 nostrils.

5-Change in smell or taste

6-Diffculty chewing, swallowing.

7-Sore throat, hoarseness.

Past History:

any oral, nasal, sinus surgery?

Family History:

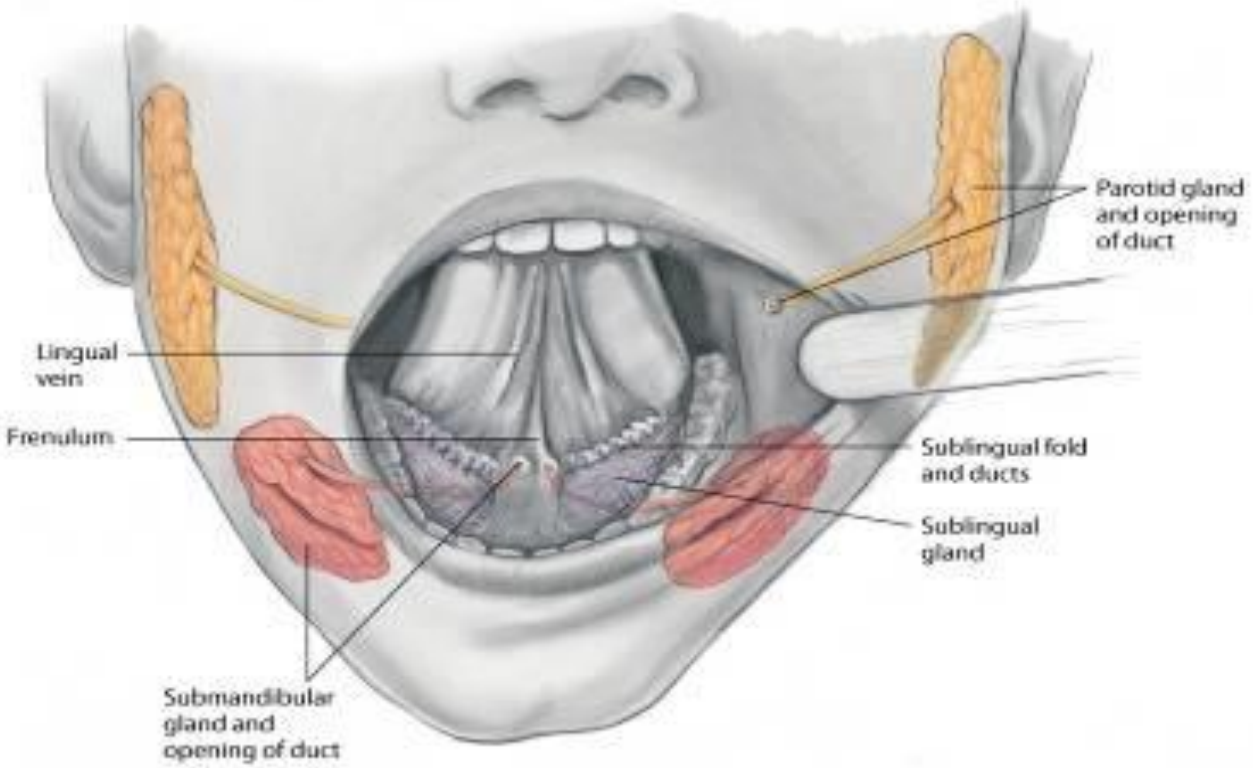
history of mouth, throat, nose, sinus cancer.

Life style:

brush tongue, wear dentures

Assessment: Mouth and Throat

- Inspection, palpation
- Inspect and palpate the jaw and oral cavity:
  - Oral mucosa
  - Tongue
  - lips
  - Salivary glands
  - Tongue and taste buds
  - Gum and teeth
  - Palate
  - Oropharynx



SALIVARY GLANDS

Physical Examination of the Oral Cavity

- General Approach:
  - Technique: Inspection and Palpation
  - Use gloves when palpating oral cavity
  - Interview the client to elicit further information
- Equipment:
  - tongue blades, gauze pads (4”x 4”), gloves, penlight or flashlight
- Examination and documentation focus:
  - Mucous membranes
  - Structural integrity
  - Functional ability

Physical Examination of the Oral Cavity: Procedure

- Inspect and palpate the outer structure s of the oral cavity
  - Assess for mal occlussion
  - Palpate temporomandibular joint
  - inspect and palpate skin over the parotid gland
  - Inspect and palpate lips
- Normal findings
  - Upper and lower teeth should align when jaw is clenched
  - Full-range of voluntary motion
  - Parotid gland enlargement, unilateral or bilateral
  - Lips are symmetric
- Deviations
  - Missing teeth, deviate from alignment

Physical Examination of the Oral Cavity: Procedure

- Deviations from normal (dorsal surface of the tongue
  - Appearance of tongue mucosa is altered with malnutrition, inflammation, and inflammatory states
    - whitish cast is a form of protective mechanism
  - Loss of symmetry may indicate pathologic processes involving the nervous system
    - CN XII; CN X – innervates soft palate

Physical Examination of the Oral Cavity: Procedure

- Examine the dorsal surface of the tongue
  - Ask the client to extend tongue and say “ah”
  - Note symmetry of the tongue and uvula when the tongue is protruded
  - Observe the motion of the soft palate when the client says “ah”

Normal tongue

Physical Examination of the Oral Cavity: Procedure

- Inspect the hard and soft palate
  - Ask the person to tilt the head back with mouth open, and examine the palate with a light or dental mirror
- Normal findings
  - Anterior surface of hard palate is corrugated (uneven)
  - Palate symmetric
  - Structural abnormalities often genetic

Physical Examination of the Oral Cavity: Procedure

- Examine the oropharynx, posterior tongue, and uvula
  - Gently press tongue with tongue blade (if required)
  - Inspect the uvula
  - Elicit a gag reflex by touching the posterior wall of the pharynx with the tongue blade

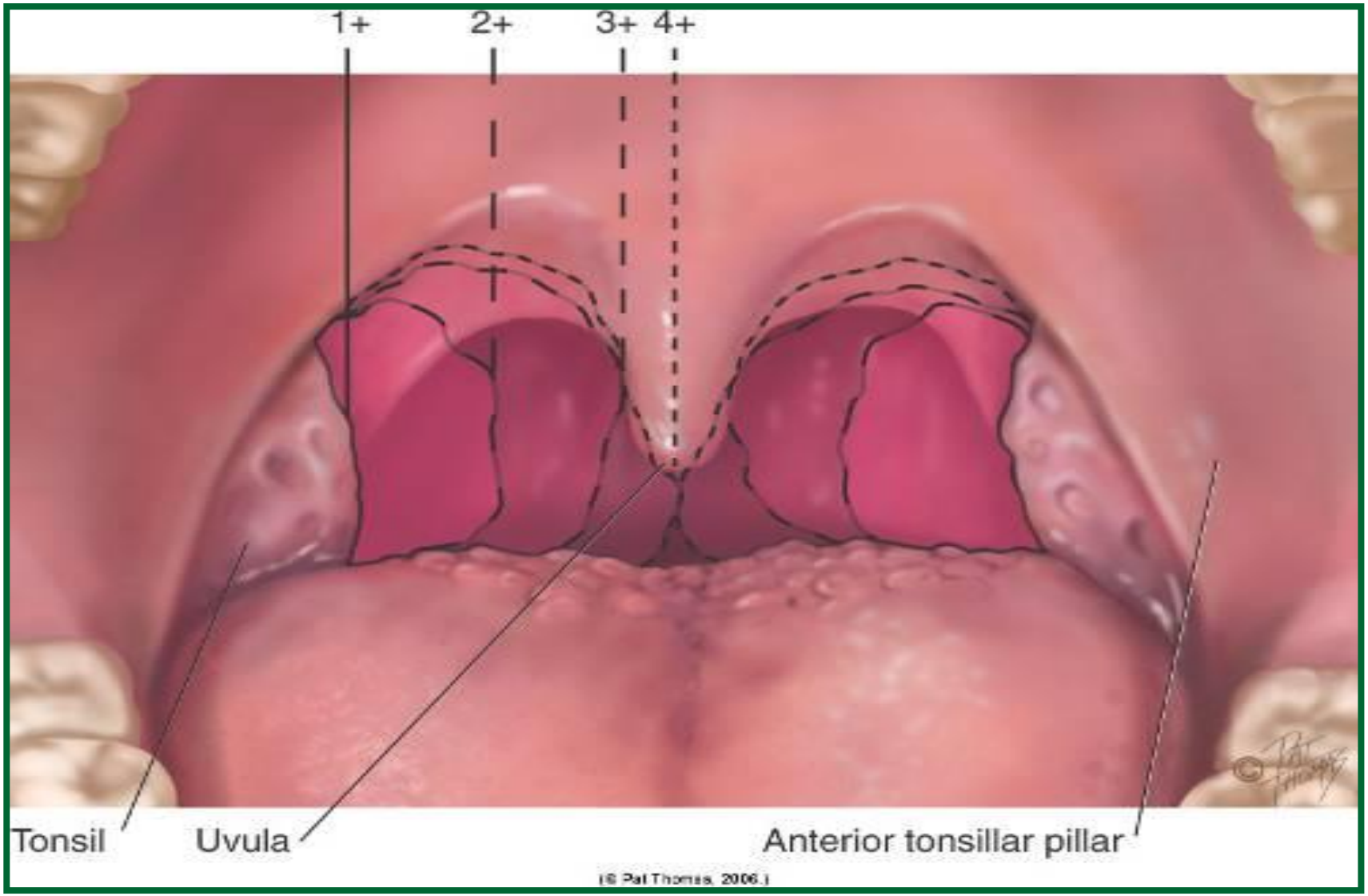
Physical Examination of the Oral Cavity: Procedure

- Examine the lip and cheek (buccal) oral mucosa
  - Examine the underside of the lips and anterior surface of the gums
  - Examine the inner cheek by using a tongue blade or gloved finger

- Deviations from normal
  - Abnormal color changes
    - erythema, cyanosis
  - Stomatitis
  - Xerostomia
    - excessive dryness of oral mucosa

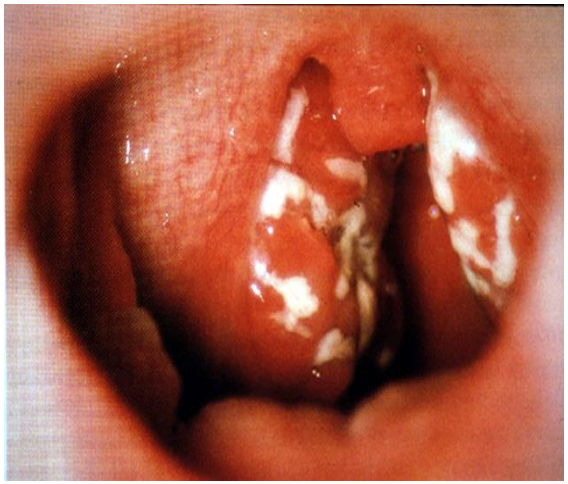
Physical Examination of the Oral Cavity: Procedure

- Examine the lateral and ventral tongue surfaces
  - Inspect the mucosa by displacing the tongue laterally
  - Ask the person to touch the hard palate with tongue tip, and examine the ventral surface
  - Palpate oral mucosa of the mouth floor with glove finger



Tonsils grading

Glossitis



Pharyngitis

Stomatitis

Thrush

Oral herpes

Oral Cancer

herpes simplex

cheilitis

koplik's spots

cleft lip

cleft palate

epulis

malocclusion

Malocclusion with overbite

Malocclusion with underbite

dental caries

gingival hyperplasia

gingivitis

Thank you for listening