

5) Facial (mimetic) Muscles –

paedogenesis –

corrugator effect –

valvular effect –

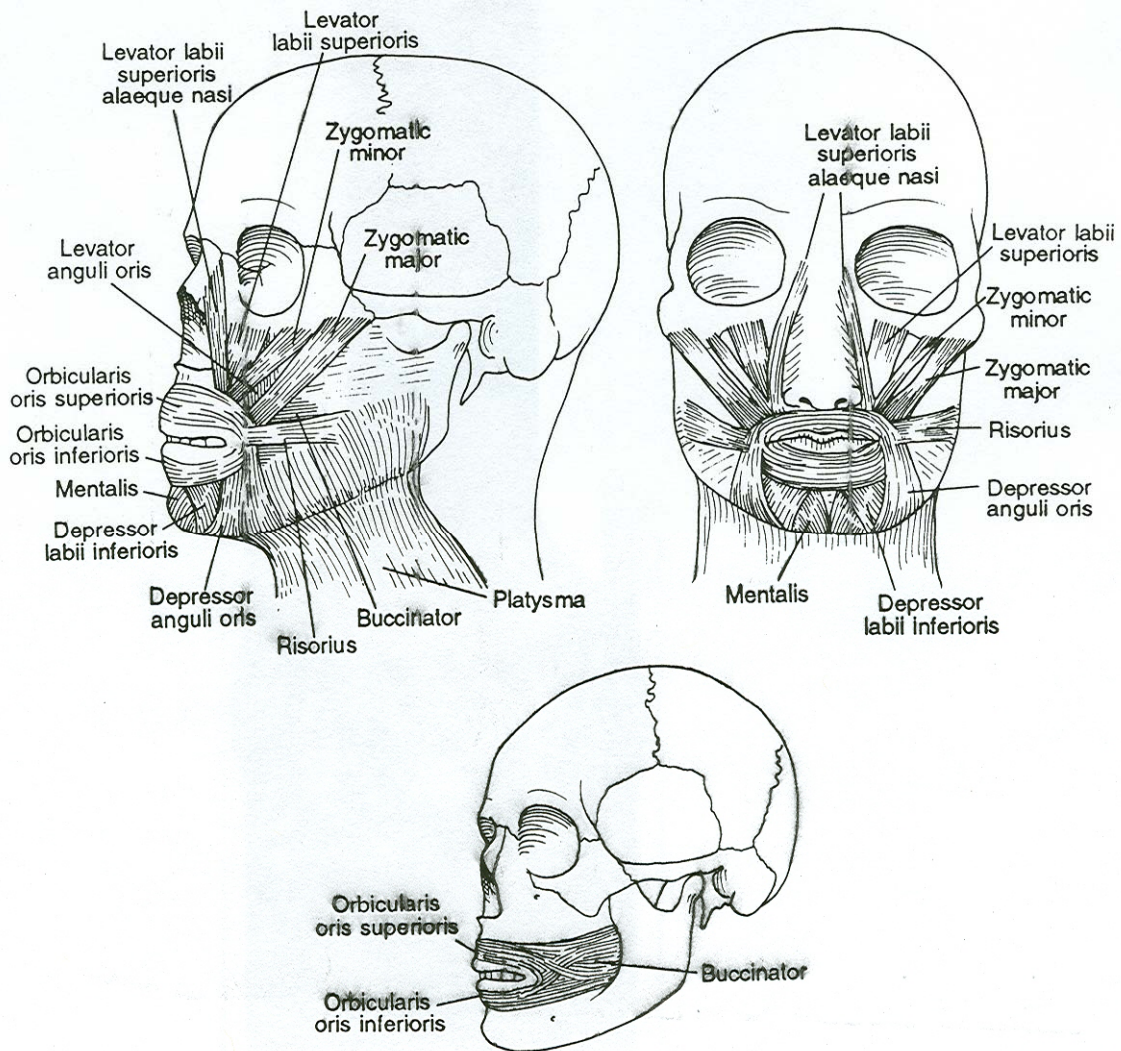


TABLE 1: MUSCLES OF FACIAL EXPRESSION

<u>Muscle</u>	<u>Origin</u>	<u>Insertion</u>	<u>Action</u>
Levator Labii Superior	Frontal process max. lower margin of orbit zgomatic bone	Upper lip at midline	Elevate upper lip
Levatpr anguli oris (AKA Canine)	Canine fossa or max.	Angle of mouth, upper lip	Elevate portion of upper lip
Zygomatic	Zygomatic bone	Angle of mouth upper lip	Draws corner of mouth up and back
Risorius	Fascia over masseter	Skin at angle of mouth	Retracts corner of mouth
Depressor anguli oris	Oblique line of mandible	Angle of mouth, lower lip	Depresses angle of mouth
Depressor labii inferioris	Oblique line of mandible	Lower lip at angle of mouth	Depresses and retracts lower lip
Mentalis	Incisive fossa of mandible	Integument of chin	Raises and protrudes lower lip
Orbicularis Oris	Sphincter muscle with no definite origins or insertions		Closes mouth and puckers lips
Buccinator	Alveolar ridges of maxilla and mandible, pterygo-mandibular rahpe	Angle of the mouth mingling with fibers of muscles forming lips.	Flattens cheek
Platysma	Thoracic fascia over pectoralis major, deltoid, and trapezius	Mental protuberance of the mandible, skin of cheek & corner of mouth	Depresses mandible: aids in pouting depress mouth corner wrinkle skin of neck, and chin

6) Temporomandibular joint –

a) Types of movements –

b) Joint anatomy –

7) Muscles of Mastication –

a) protractor muscles
lateral pterygoid

b) depressors
digastric
mylohyoid
geniohyoid

c) elevators
masseter
temporalis
internal pterygoid

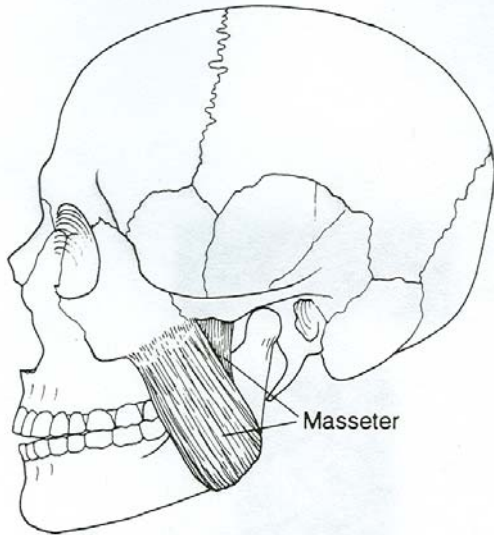
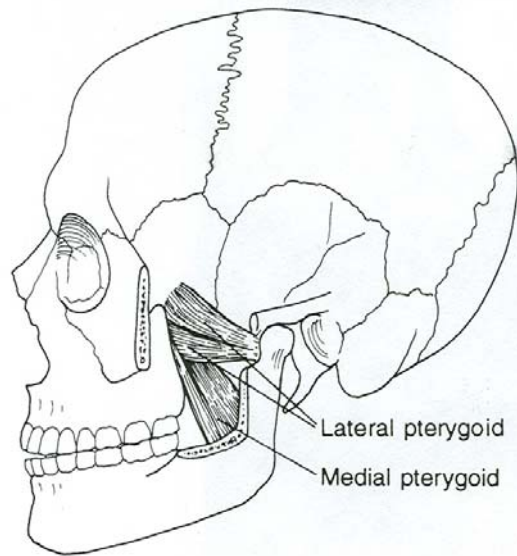
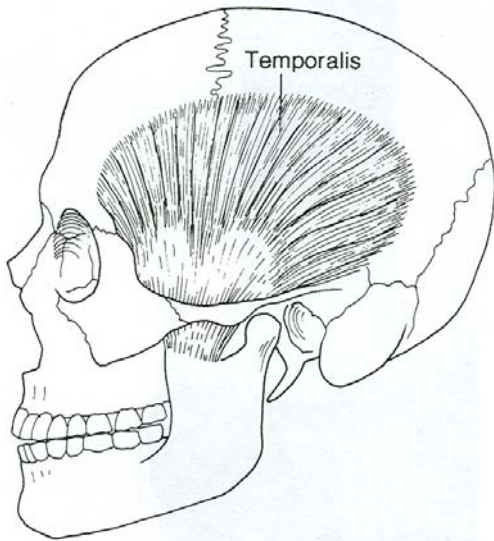


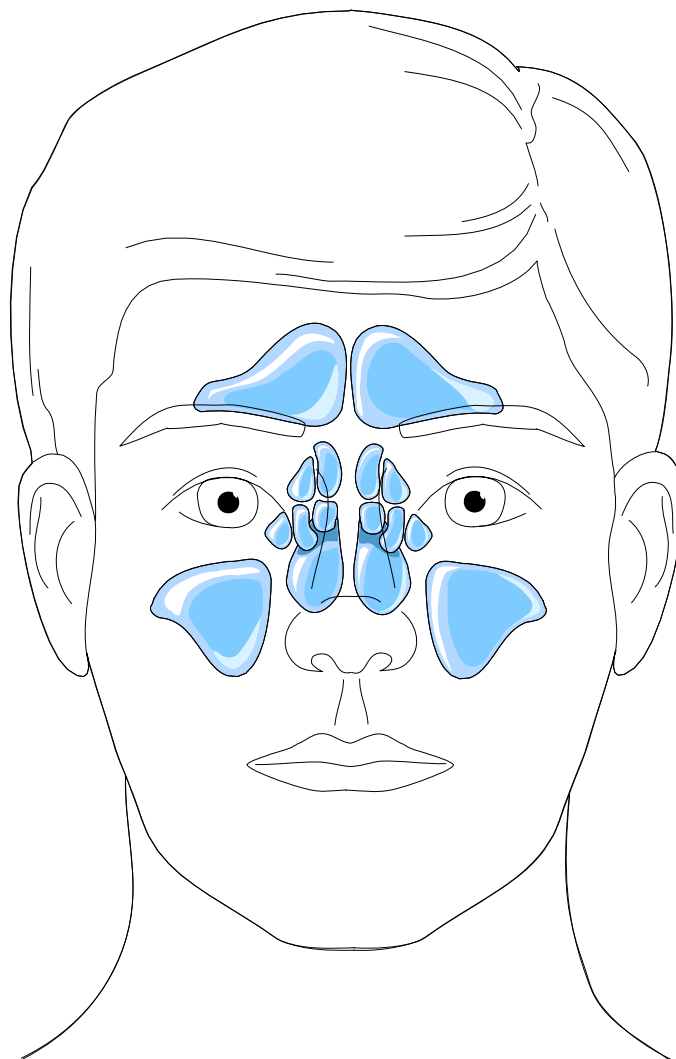
FIGURE 7-39. Graphic representation of masseter.



8) Paranasal Sinuses –

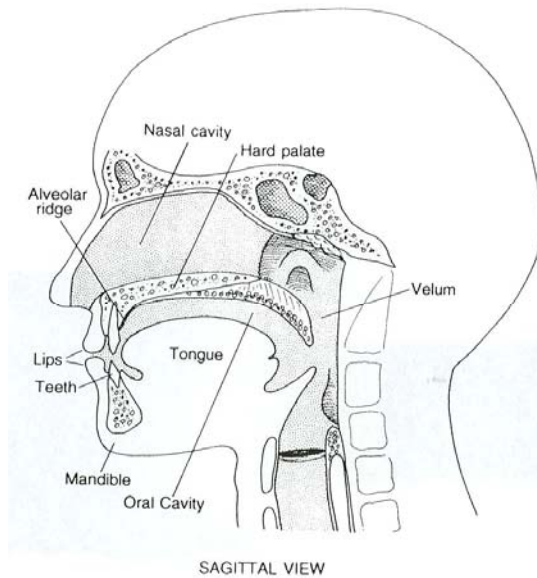
- Frontal
- Sphenoid
- Ethmoid (3-18)
- Maxillary
- Palatine (occasionally)

Epithelium –

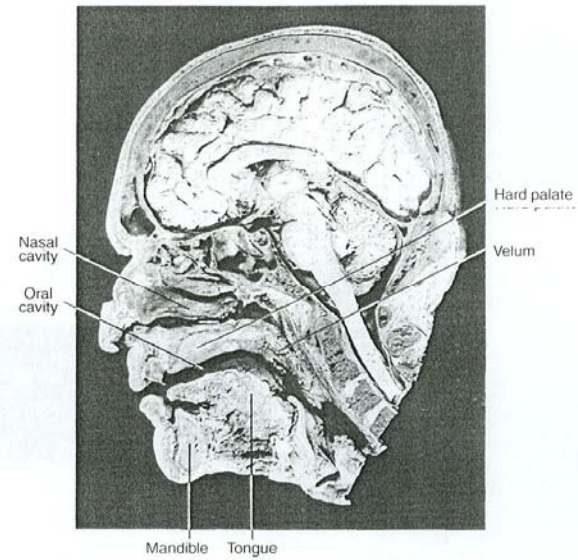


C. Cavities of the Vocal Tract

Buccal cavity
Oral cavity
Nasal cavity
Pharynx



A



B

Membranes or Structures that subdivide the Vocal Tract into Regions:

Lips –

Teeth –

External nares –

Internal nares –

Velum –

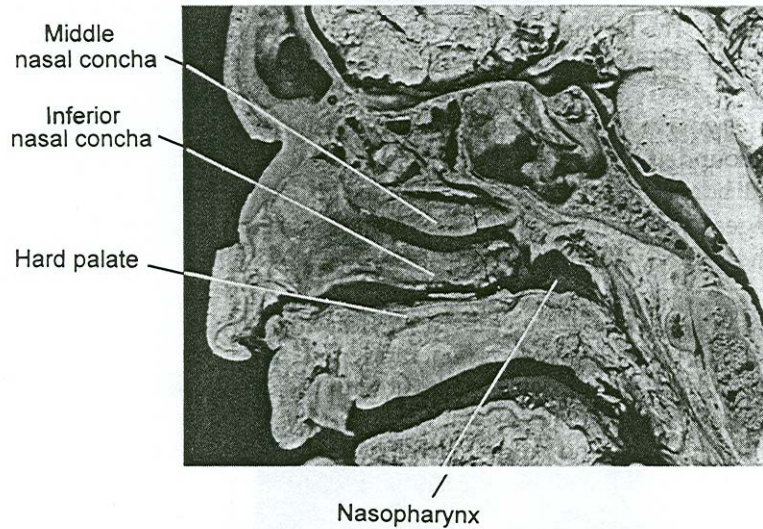
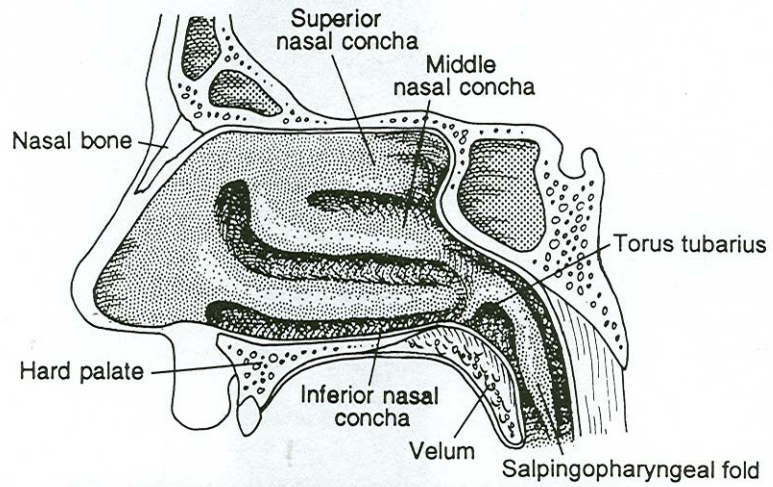
Anterior faucial pillars –

Posterior faucial pillars –

Epiglottis –

1) Nasal Cavity –

epithelium –



Olfactory nerve endings:

Homework Assignment: Read the following clinical boxes and answer the questions that follow. You may ask questions about any of these clinical boxes in lecture or feel free to visit with me about these at my office.

Mandibular hypoplasia and micrognathia (p. 280):

Define congenital mandibular hypoplasia –

Define micrognathia –

What surgery may be performed to correct the abnormality?

Cleft lip and Cleft Palate (p. 291):

What bone is involved in cleft palate or cleft lip?

Does cleft lip involve soft (muscle, cutaneous membrane), hard tissues (bone) or both hard and soft tissues?

Does cleft palate involve soft (muscle, cutaneous membrane), hard tissues (bone) or both hard and soft tissues?

What disorder above may cause a mechanical interference with development of the palate? Explain.

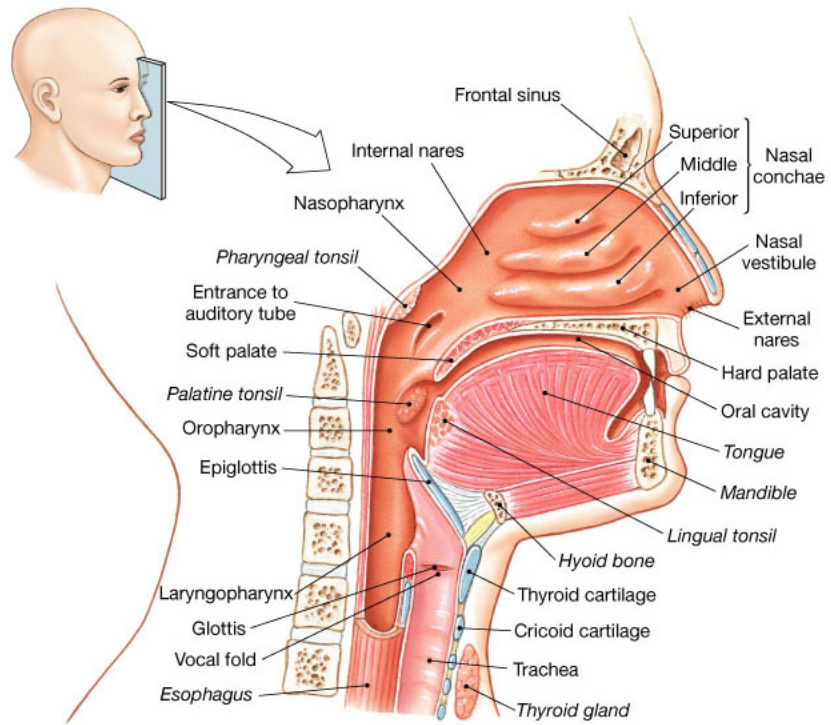
Dental Anomalies (p. 308): Define the following terms.

Supernumerary teeth –

Microdontia –

Amelogenesis imperfecta –

2. Pharynx –



(c)

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Three Regions of the Pharynx:

a) Nasopharynx –

Eustachian tube:

Adenoids:

b) Oropharynx –

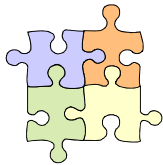
Anterior faucial pillars:

Palatine tonsils:

c) Laryngopharynx –

⇒ Functions of the Pharynx –

*Swallowing –

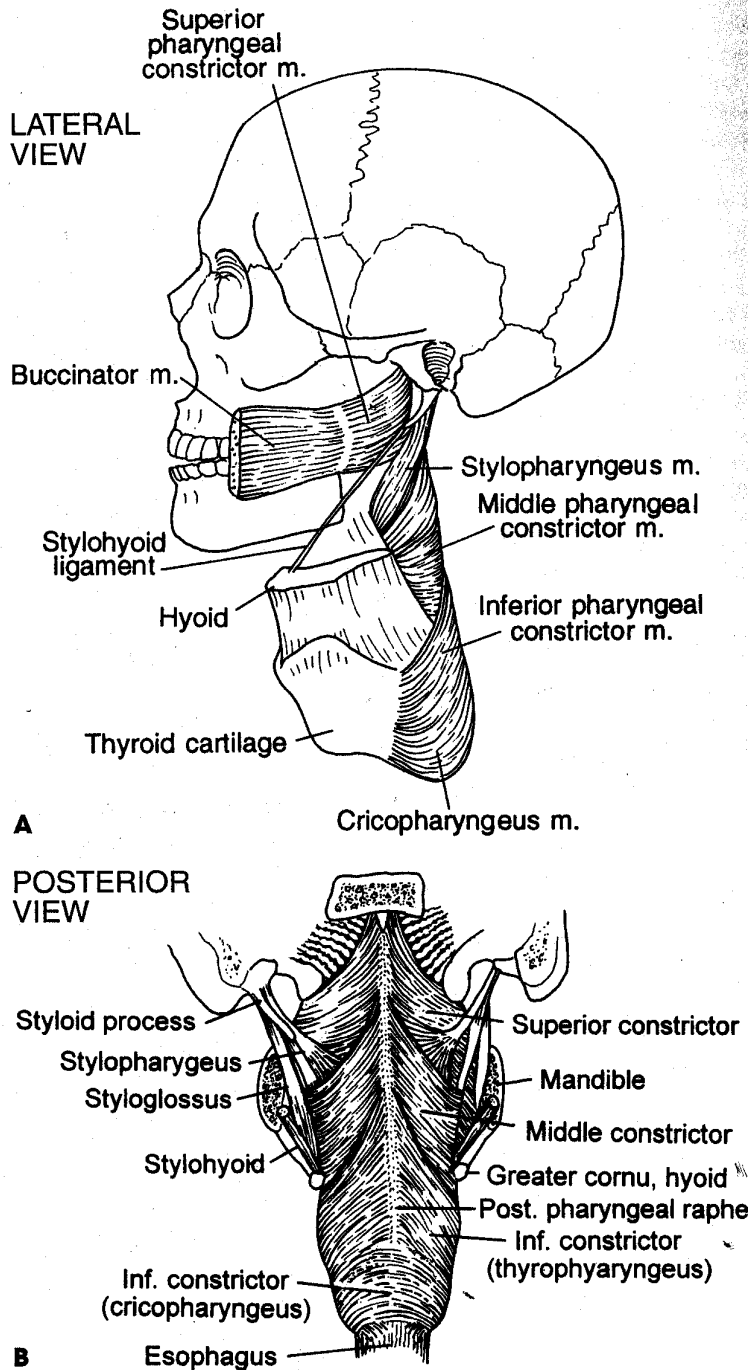


PUZZLER: Why do nursing babies have a higher frequency of middle ear infections than babies on soft food?

*Pitch change –

D. Muscles of the Pharynx (Figures 7-43 & 7-44 in Seikel et al., pages 338-340)

1) Pharyngeal constrictors (superior, middle, and inferior pharyngeal constrictors)

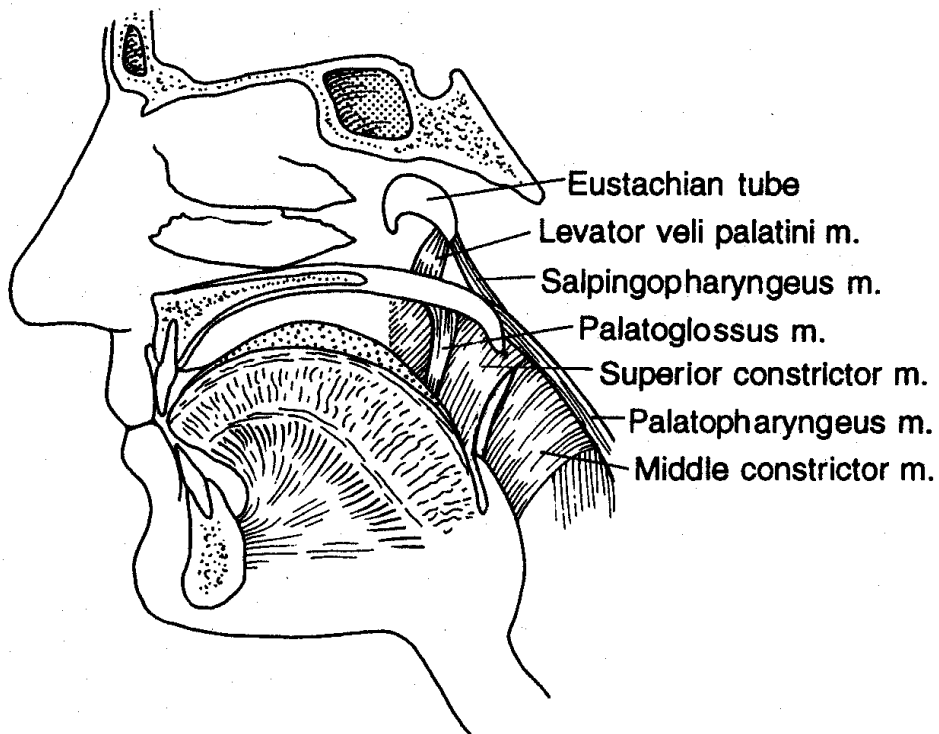


2) Longitudinal Muscles

Salpingopharyngeus –

Stylopharyngeus –

Palatopharyngeus –

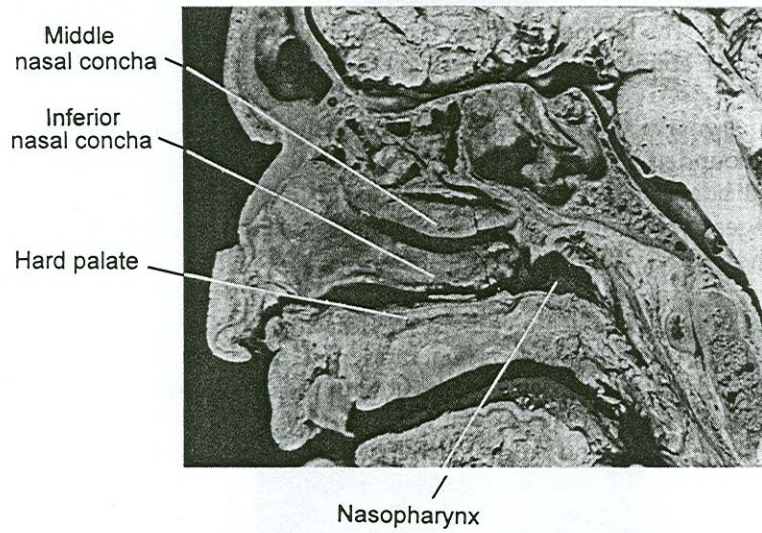
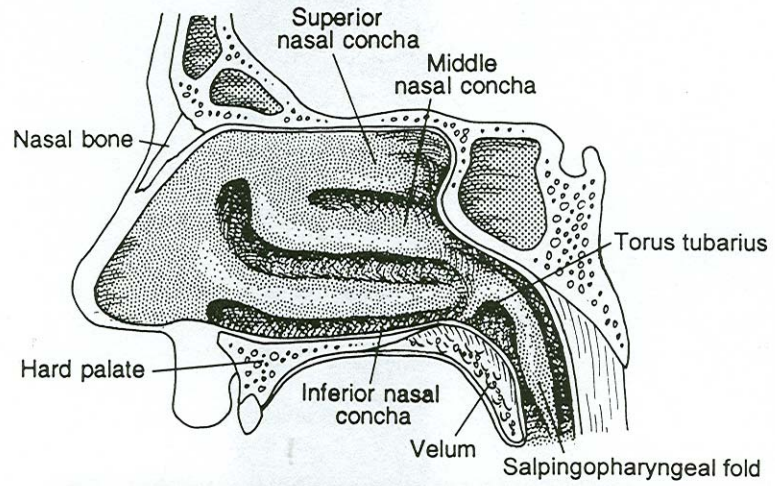


E. Innervation of the Pharynx

F. Blood Vessels of the Pharynx

G. Lymphatic Drainage

H. Palate



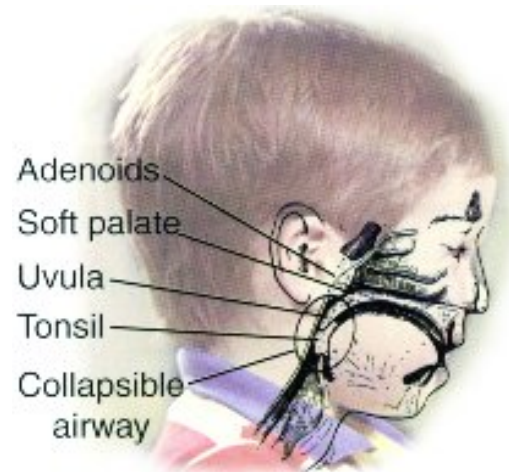
Hard palate –

Soft palate –

Palatal vault –

Velopharyngeal port –

I. Tonsils –



1) Pharyngeal tonsil –

2) Tubal tonsils –

3) Palatine tonsils –

4) Lingual tonsils –

J. Muscles of the soft palate and the upper pharynx

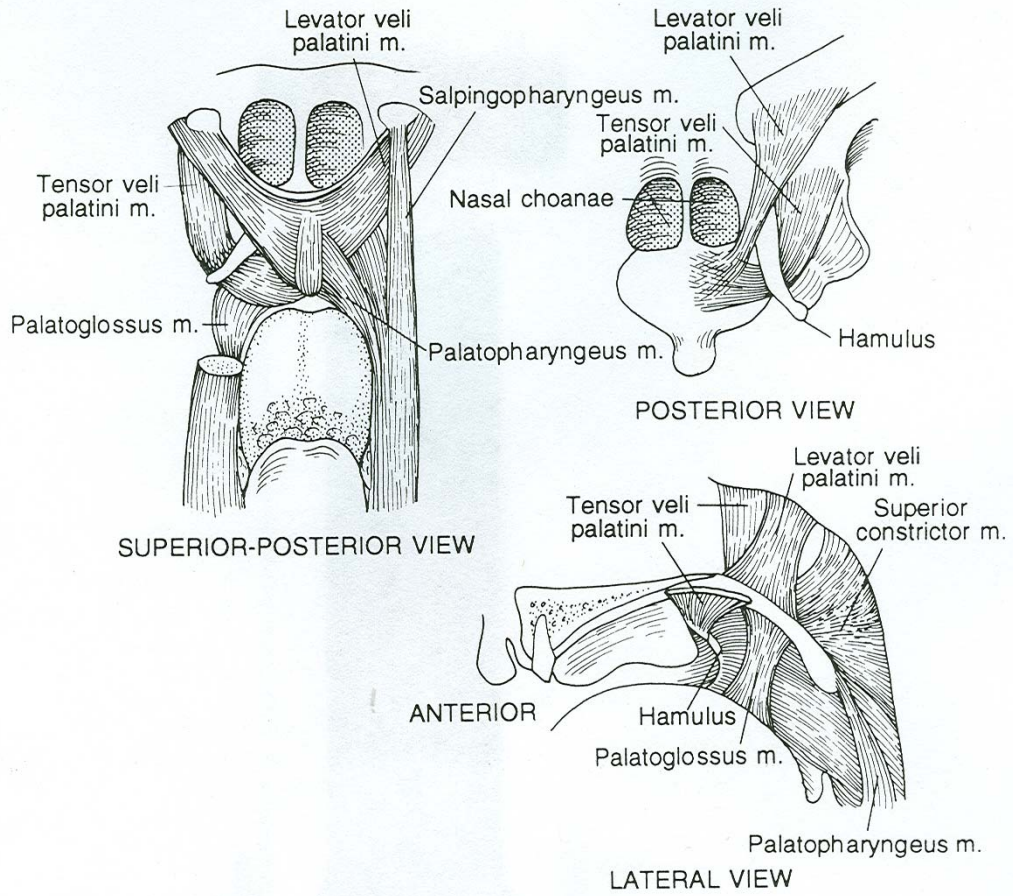
1) Muscle groups:

palatal elevators –

palatal depressors –

palatal tensors –

pharynx modifiers –



2) Levator veli palatine

3) uvulae

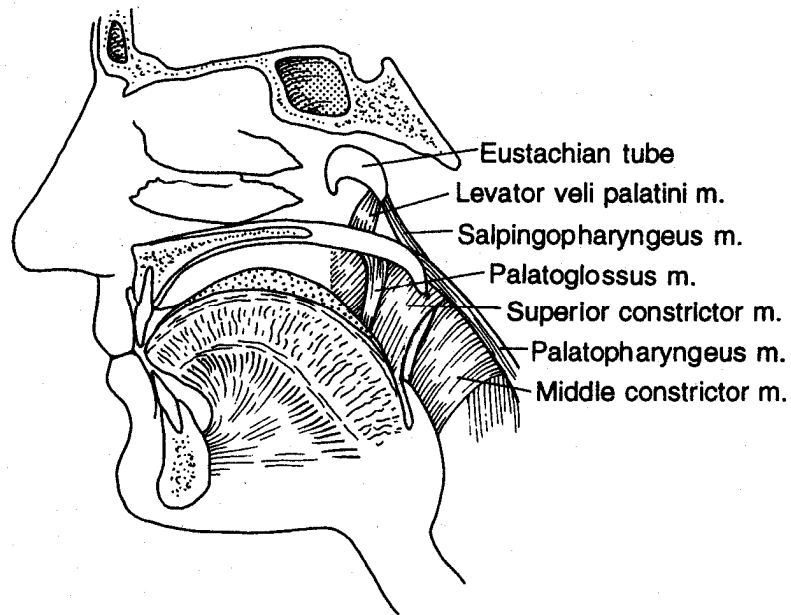
4) tensor veli palatine

Part I –

Part II –

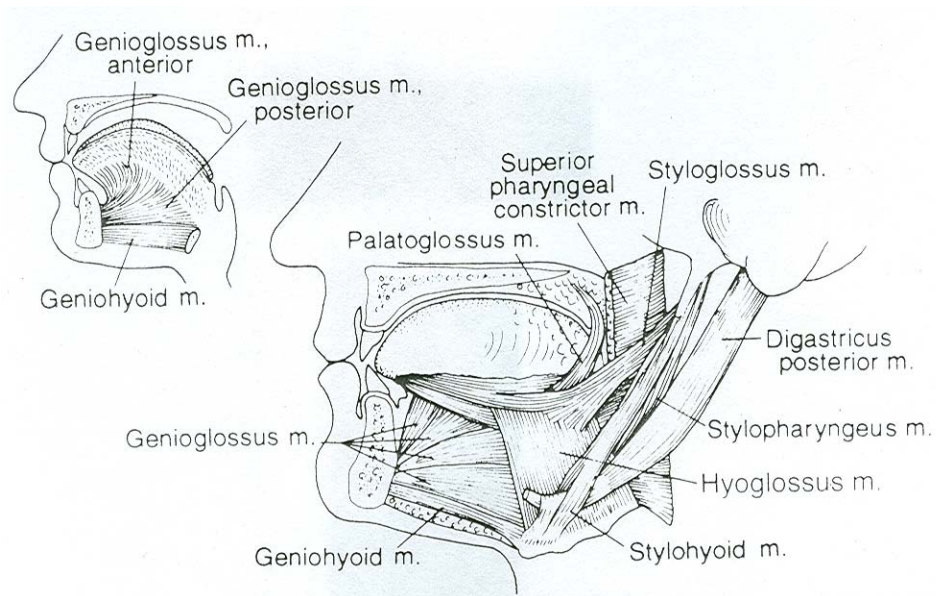
5) Palatoglossus –

6) Palatopharyngeus –



7) Salpingopharyngeus –

8) Stylopharyngeus –



H. Summary of Palatal and Pharyngeal Muscle Actions –

Close velopharyngeal port

Raise the oropharynx

Make speech sounds

ACTION	MUSCLES
Palatal elevators	Levator veli palatine Uvulae
Palatal depressors	Palatoglossus Palatopharyngeus
Tensor of soft palate	Tensor veli palatine
Change cross-sectional diameter and length	Stylopharyngeus Salpingopharyngeus Pharyngeal constrictors

1) Modification of sound:

a) Soft palate depressed:

b) Soft palate elevated:

“Bobby ate an apple pie” VS “Mommy sings nicely”

Lecture Guide Study Questions

1. What is articulation? Distinguish between the immobile and mobile articulators.
2. Describe the source filter theory of articulation.
3. What bones make up the bony nasal septum? Face? Cranium? Palate? Which bones house teeth?
4. What is the eleiden? The vermilion zone of the lips? Cupid's bow?
5. What are the functions of the lips?
6. What is the mouth? Distinguish between the two cavities that make up the mouth: buccal cavity and oral cavity.
7. What is the epithelium of the face? The buccae? Why is one dry and the other moist?
8. Describe the structures that you might find in an oral exam: teeth, buccae, tongue, anterior faucial pillars, hard palate, soft palate.
9. Know the general anatomy of the face, mouth, and tongue: lips, mucous membranes, vermilion zone, buccae, buccal cavity, oral cavity, salivary glands, external epithelium of the face vs internal epithelium of the mouth, frenula, tonsils, faucial pillars, and teeth.
10. What are mimetic muscles?
11. Where are the salivary glands located? What are the functions of the salivary glands? What do they secrete?
12. Where are tonsils located in the vocal tract? What is the function of the tonsils? What is a tonsil?
13. Draw a tongue on a piece of paper. Indicate where the tastes bitter, sweet, sour, and salty would be located on a tongue map.
14. What is the difference between the intrinsic and extrinsic muscles of the tongue? Know the locations and actions of the intrinsic tongue muscles. Know the locations, origin, insertion, action, and nerves of the extrinsic tongue muscles.
15. What is enamel of a tooth? Define: crown, neck, root, pulp cavity, gingivitis, caries, and cementum.
16. How many sets of teeth do humans usually have? What are the names of these sets? When do teeth first begin to appear (erupt) in babies? Do teeth usually erupt front to back or back to front? Approximately at what age should a baby/child have a complete set of teeth? At what age will a child begin replacing teeth? At what age will a child have a complete set of replacement teeth (minus the wisdom teeth)? At what age might you expect the wisdom teeth to erupt?
17. What is the dental formula for adults and juveniles? Identify the teeth, their shapes, name their tooth surfaces, and functions.
18. What is Class I Occlusion? Class II? Class III?
19. Describe the structure and movements of the temporomandibular joint. Which muscles are used to move the jaw anteriorly? Posteriorly? Elevate the jaw? Depress the jaw?
20. What are the paranasal sinuses? What cranial bones are they located in? What is their function?
21. Know the cavities of the vocal tract and their anatomy: nasal cavity, nasal epithelial tissues, olfactory nerve endings, palate (hard and soft), palatal vault, rugae, tonsils, and muscles.
22. Know the locations, origin, insertions, and actions of the muscle facial muscles, pharyngeal muscles, and muscles of mastication.

23. Which muscles elevate the palate? depress the palate? Tense the palate? Modify the pharynx?
24. How is sound modified by closing the velopharyngeal port? Can you say: Bobby ate an apple? Mommy sings nicely?

Text Study Questions (p. 356-364)

Lab topics: 1-5

Lecture topics: 6-11

CD-ROM Activities:

Lab Topics: Lessons 07-01 and 07-02

Lecture Topics: Lessons 07-03 through 07-09