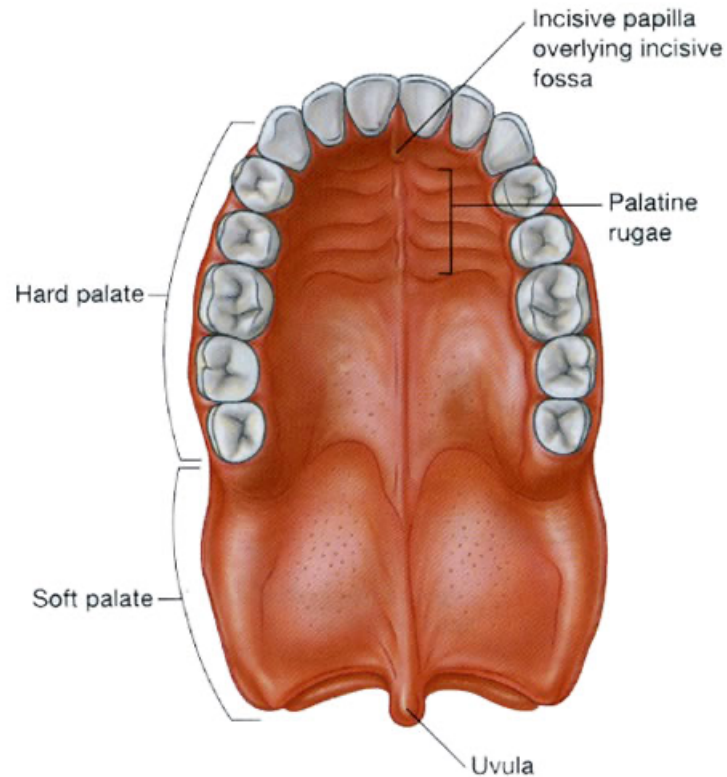


The Digestive System in the Head and Neck 2

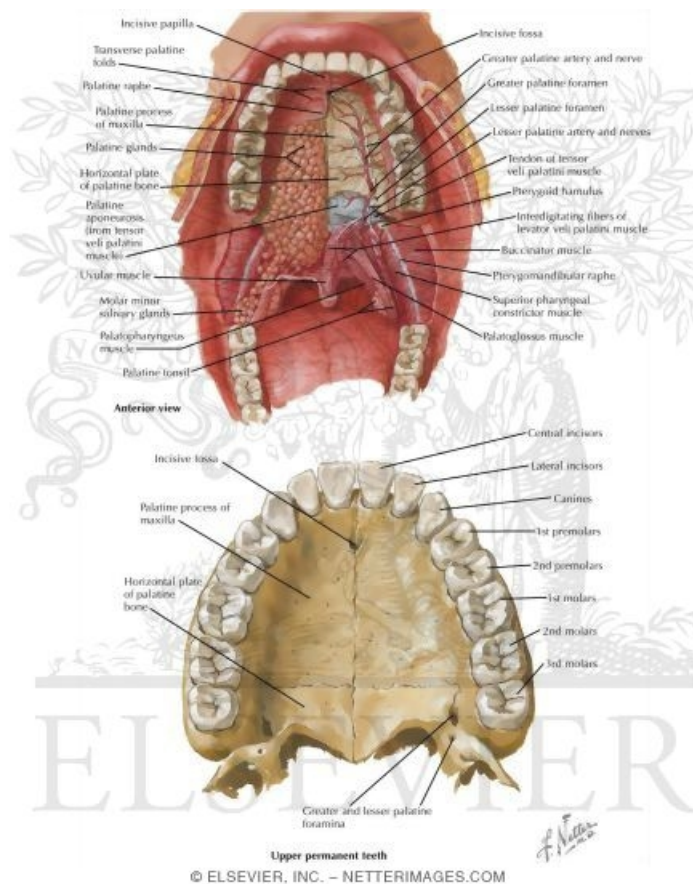
The Palate

- The palate forms the roof of the mouth and the floor of the nasal cavity.
- It is divided into two parts: the hard palate in front and the soft palate behind.



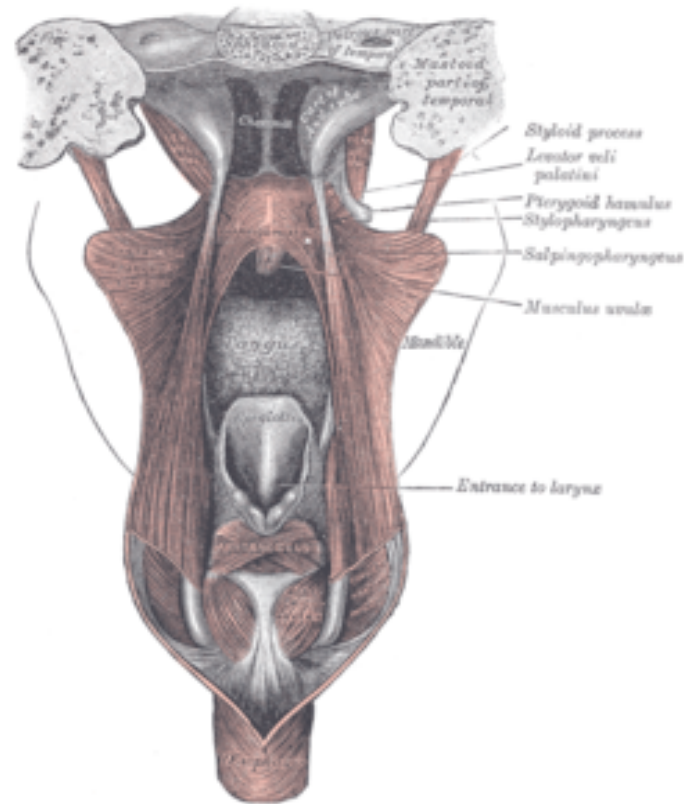
- The mucous membrane covers the upper and lower surfaces of the soft palate.

- The palatine aponeurosis is a fibrous sheet

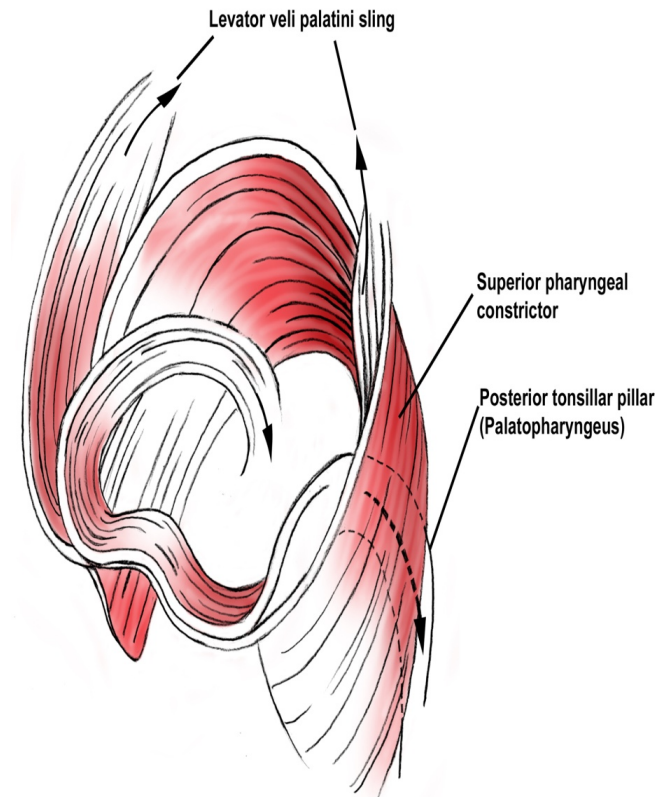


Muscles of the Soft Palate

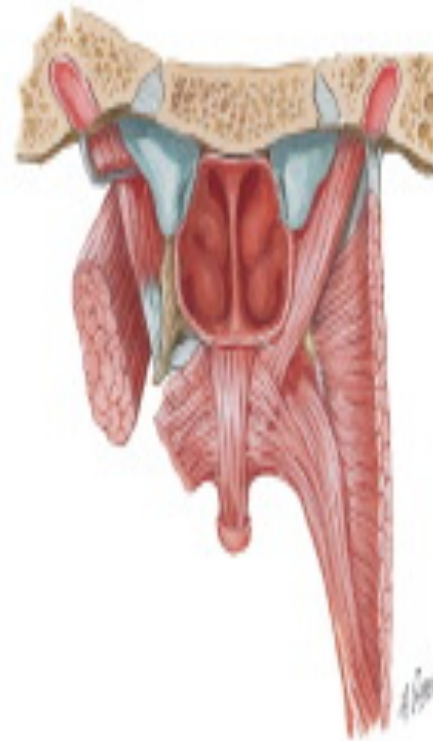
- The muscles of the soft palate are the tensor veli palatini, the levator veli palatini, the palatoglossus, the palatopharyngeus, and the musculus uvulae
- The muscle fibers of the tensor veli palatini converge as they



- Levator veli palatini :
- O: Petrous part of temporal bone, auditory tube
- I: Palatine aponeurosis
- Innerv.: Pharyngeal plexus
- Action: Raises soft palate

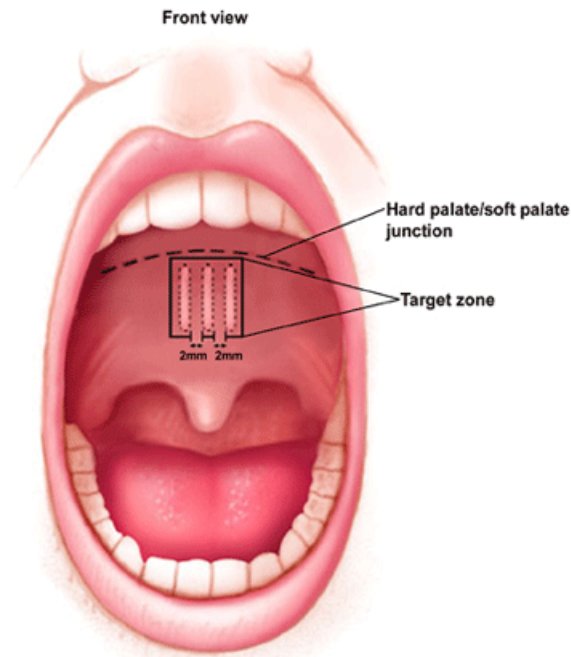


- Palatopharyngeus
- Palatine aponeurosis
- Posterior border of thyroid cartilage
- Pharyngeal plexus
- Elevates wall of pharynx, pulls palatopharyngeal



Movements of the Soft Palate

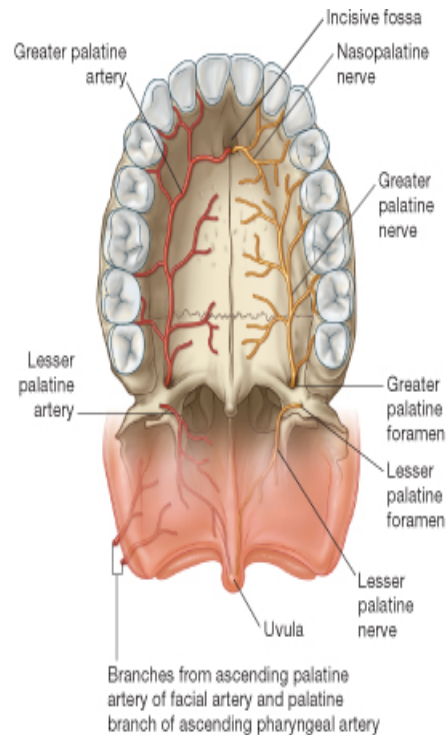
- The pharyngeal isthmus (the communicating channel between the nasal and oral parts of the pharynx) is closed by raising the soft palate.



• Closure occurs

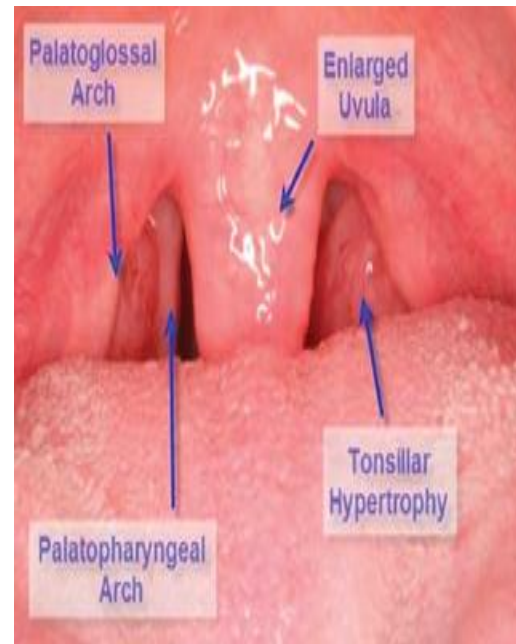
Nerve Supply of the Palate

- The greater and lesser palatine nerves from the maxillary division of the trigeminal nerve enter the palate through the greater and lesser palatine foramina



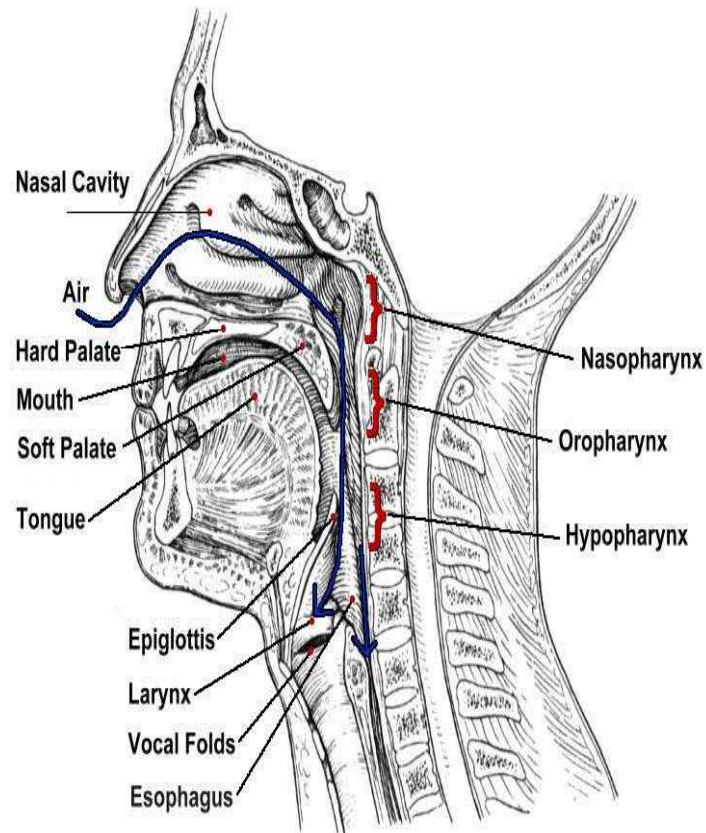
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- The palatoglossal arch is a fold of mucous membrane containing the palatoglossus muscle, which extends from the soft palate to the side of the tongue
- The palatoglossal arch marks where the mouth becomes the pharynx



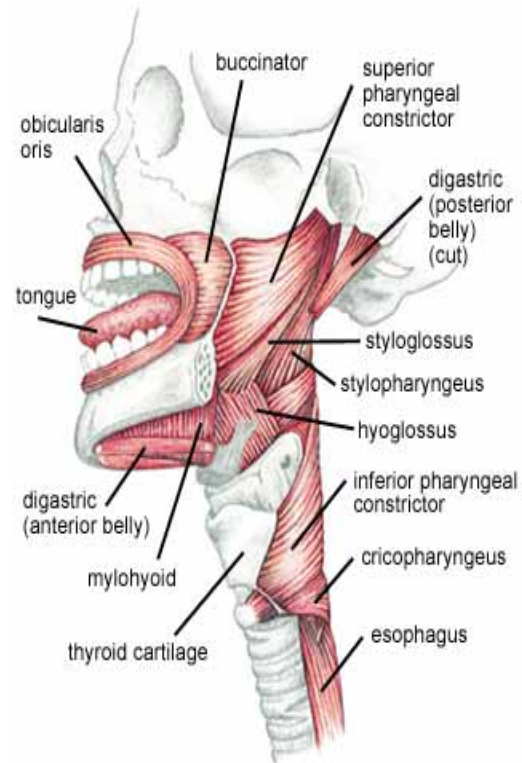
The Pharynx

- The pharynx is situated behind the nasal cavities, the mouth, and the larynx
- and may be divided into nasal, oral, and laryngeal parts

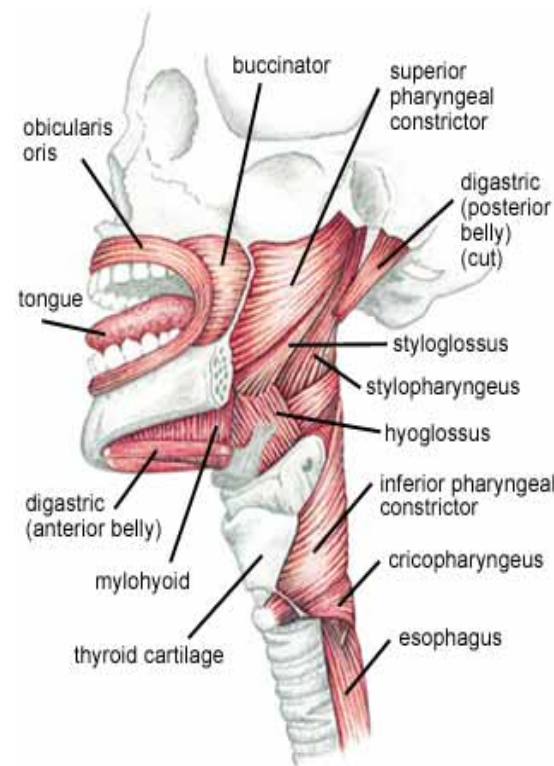


Muscles of the Pharynx

- The muscles in the wall of the pharynx consist of the superior, middle, and inferior constrictor muscles
- whose fibers run in a somewhat circular direction, and the stylopharyngeus and



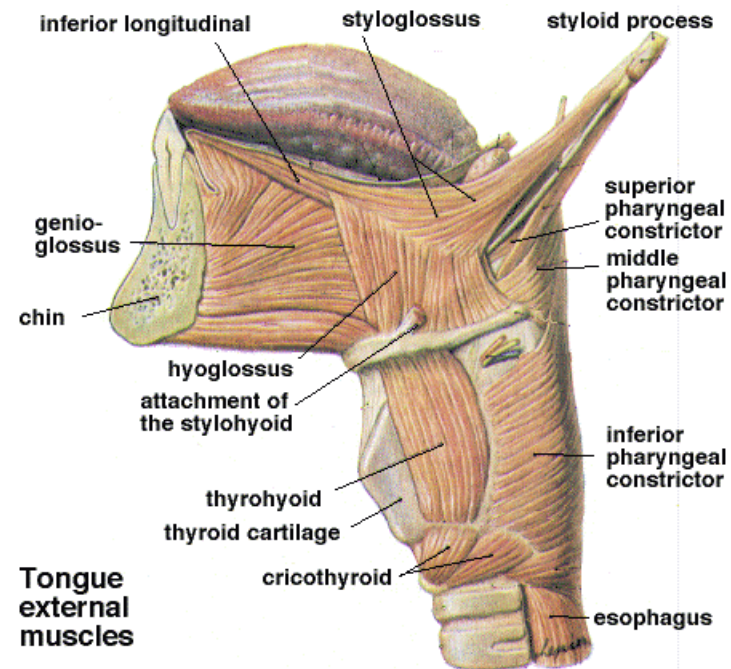
- The lower part of the inferior constrictor, which arises from the cricoid cartilage, is called the cricopharyngeus muscle



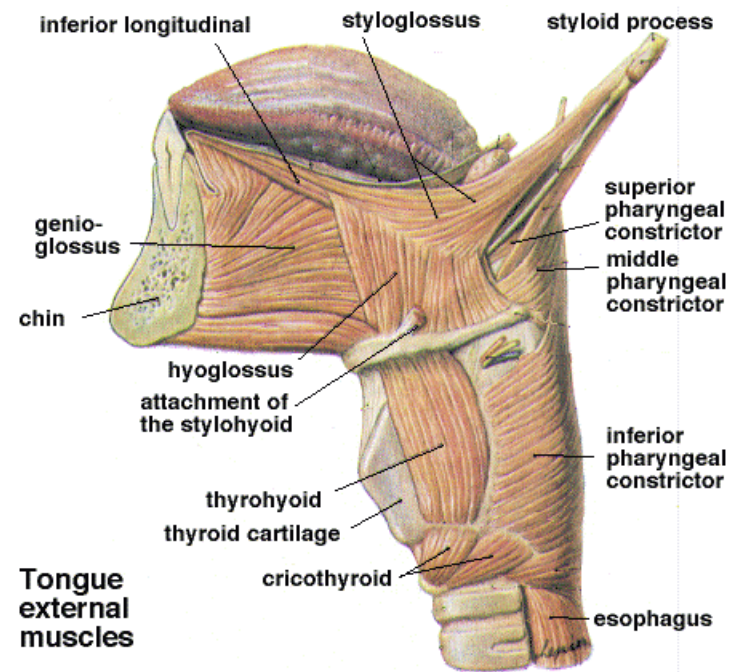
- The fibers of the cricopharyngeus

Muscles of the Pharynx

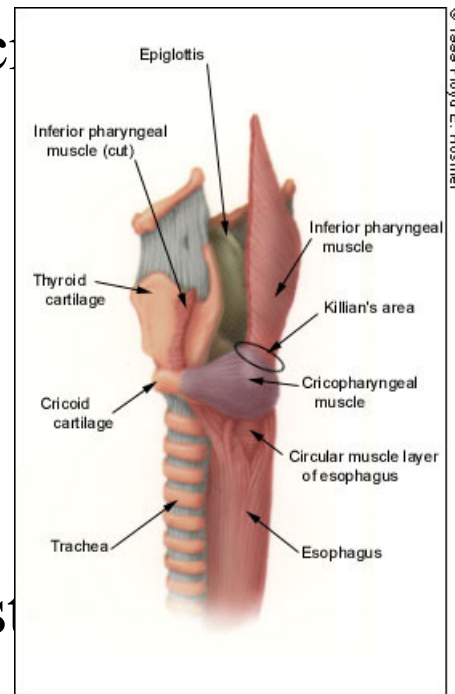
- Superior constrictor
- O: Medial pterygoid plate, pterygoid hamulus, pterygomandibular ligament, mylohyoid line of mandible
- Ins: Pharyngeal



- Middle constrictor
- Lower part of stylohyoid ligament, lesser and greater cornu of hyoid bone
- Pharyngeal raphe
- Pharyngeal plexus



- Inferior constrictor
 - Lamina of thyroid cartilage, c
 - Pharyngeal raphe
 - Pharyngeal plexus
 - Propels bolus downward
-
- Cricopharyngeus
 - Lowest fibers of inferior constrictor
 - Sphincter at lower end of pharynx



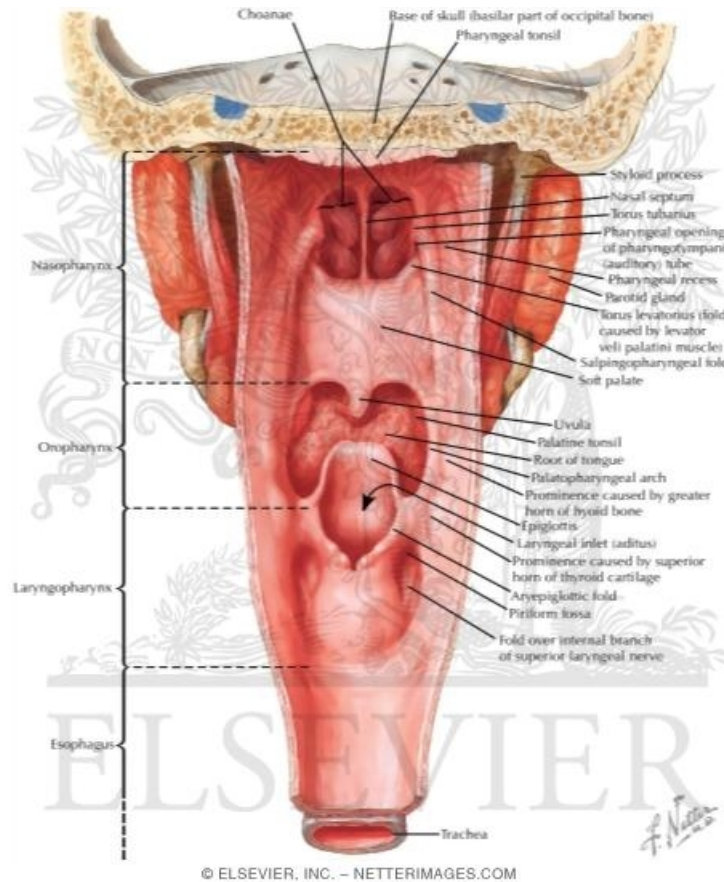
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- Salpingopharyngeus
 - Auditory tube
 - Blends with palatopharyngeus
 - Pharyngeal plexus
 - Elevates pharynx
-
- Palatopharyngeus
 - Palatine aponeurosis
 - Posterior border of thyroid cartilage

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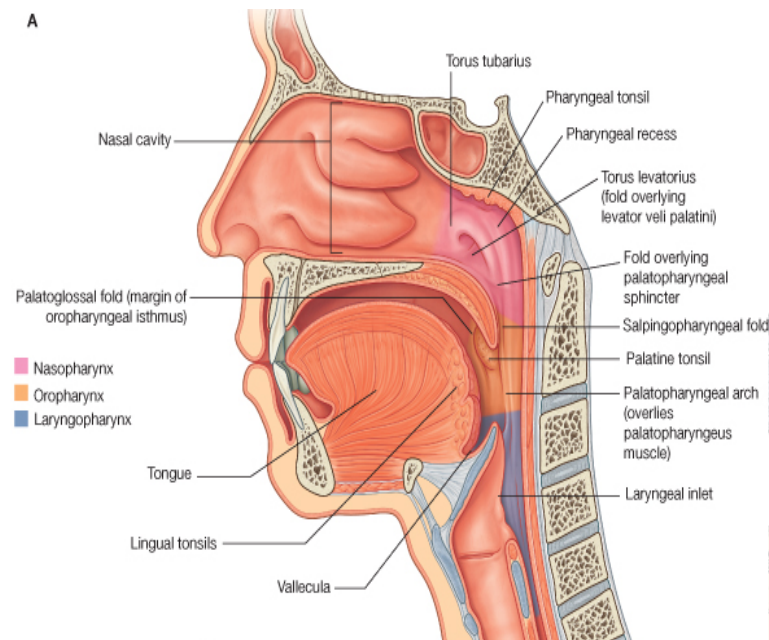
Interior of the Pharynx

- The pharynx is divided into three parts: the nasal pharynx, the oral pharynx, and the laryngeal pharynx.
- Nasal Pharynx
- This lies above the soft palate and



Oral Pharynx

- This lies behind the oral cavity
- The floor is formed by the posterior one third of the tongue and the interval between the tongue and epiglottis

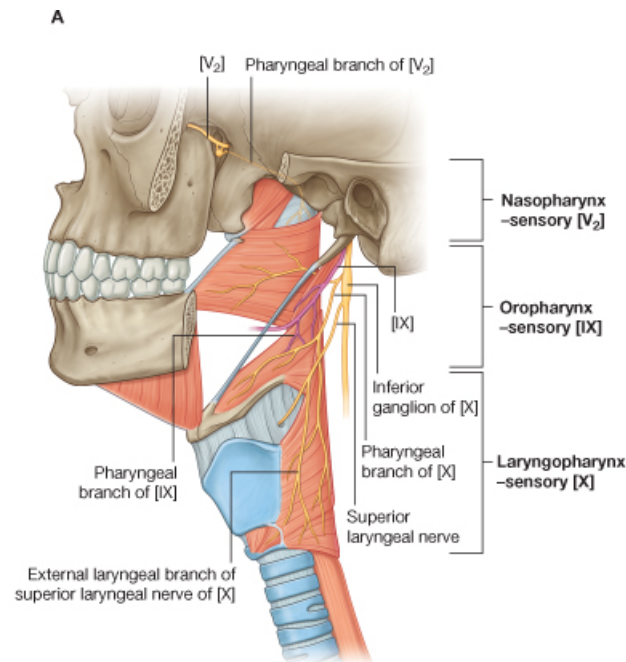


Laryngeal Pharynx

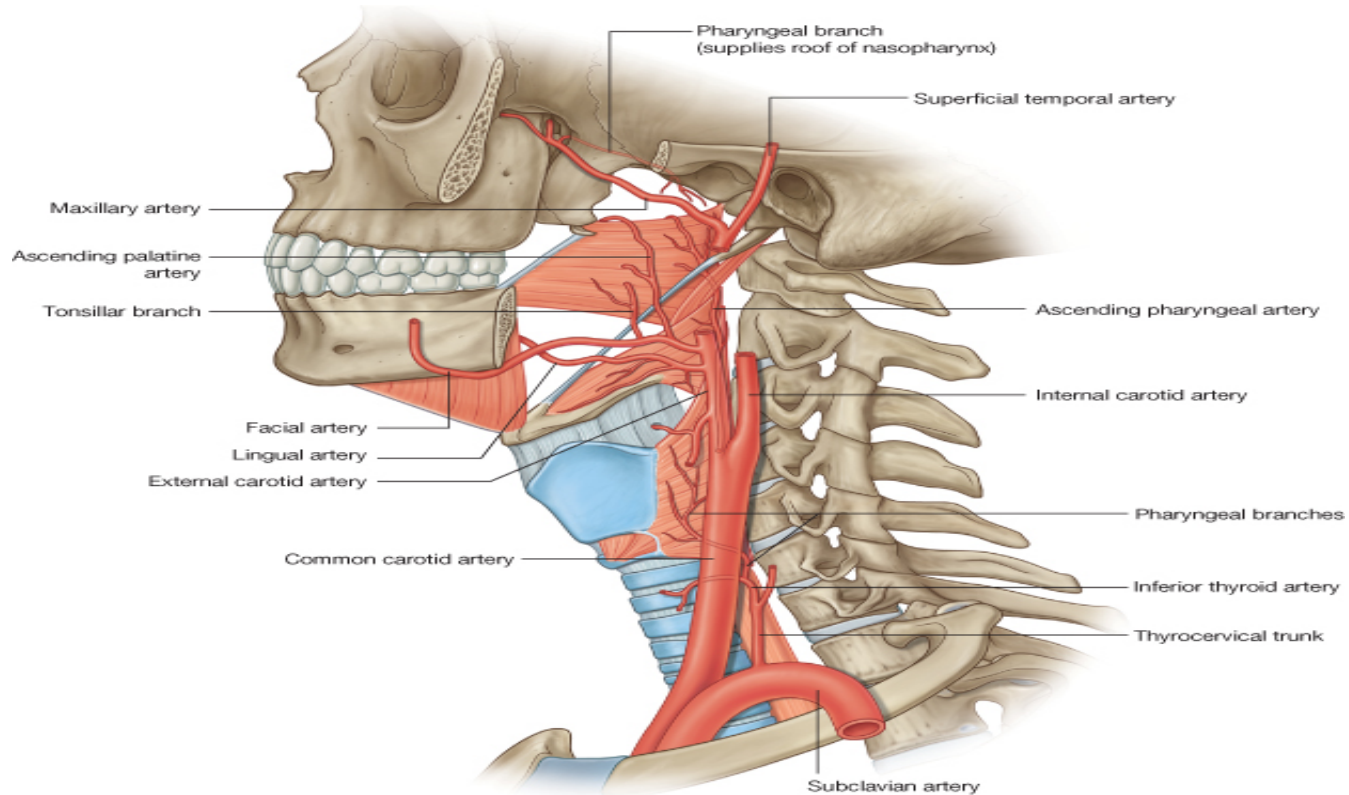
- This lies behind the opening into the larynx
- The lateral wall is formed by the thyroid cartilage and the thyrohyoid membrane
- The piriform fossa is a depression in the mucous membrane on each side of the laryngeal inlet

Sensory Nerve Supply of the Pharyngeal Mucous Membrane

- Nasal pharynx: The maxillary nerve (V₂)
- Oral pharynx: The glossopharyngeal nerve
- Laryngeal pharynx (around the entrance into the larynx): The internal laryngeal branch of the vagus



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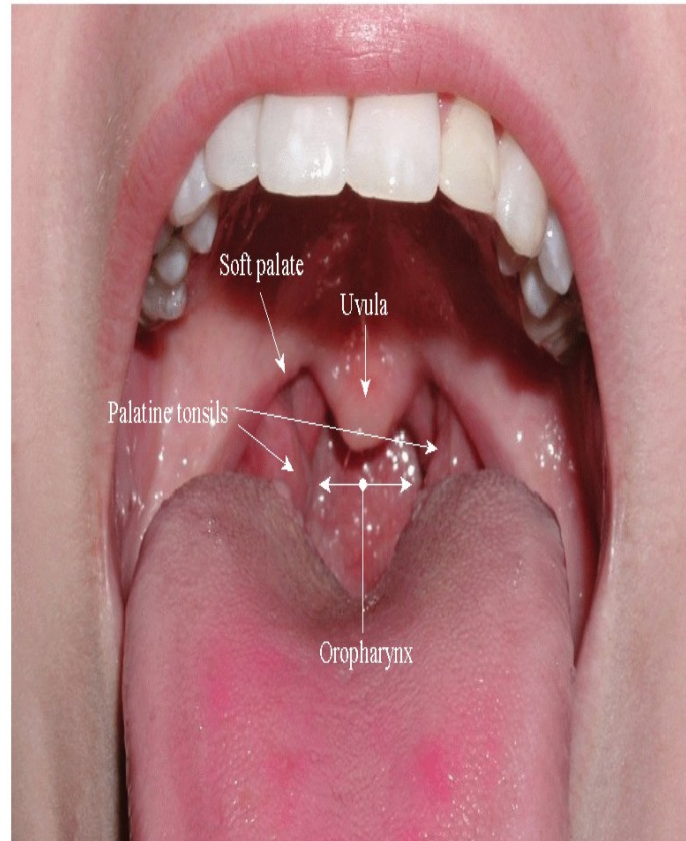
The Process of Swallowing (Deglutition)

- Masticated food is formed into a ball or bolus on the dorsum of the tongue and voluntarily pushed upward and backward against the undersurface of the hard palate
- This is brought about by the contraction of the styloglossus muscles on both sides, which pull the root of the tongue upward and backward
- The palatoglossus muscles then squeeze the

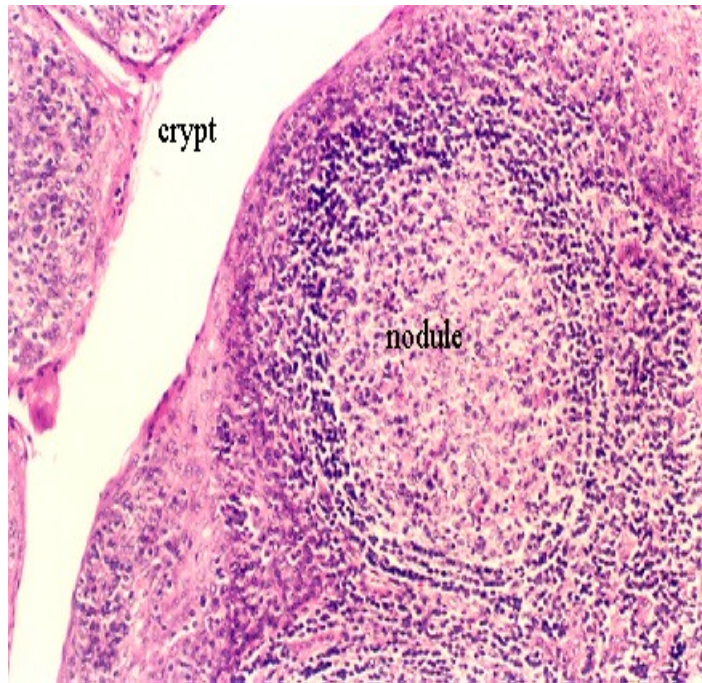
- The larynx and the laryngeal part of the pharynx are pulled upward by the contraction of the stylopharyngeus, salpingopharyngeus, thyrohyoid, and palatopharyngeus muscles
- The main part of the larynx is thus elevated to the posterior surface of the epiglottis, and the entrance into the larynx is closed
- The laryngeal entrance is made smaller by the

Palatine Tonsils

- The palatine tonsils are two masses of lymphoid tissue, each located in the depression on the lateral wall of the oral part of the pharynx between the palatoglossal and palatopharyngeal arches



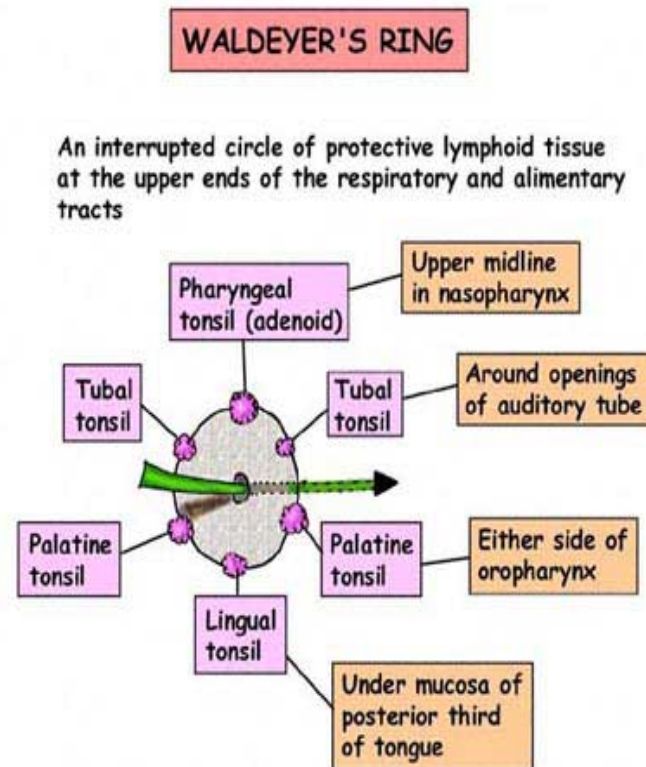
- Blood Supply
- The tonsillar branch of the facial artery. The veins pierce the superior constrictor muscle and join the external palatine, the pharyngeal, or the facial veins.



1 2 3 4 5 6

Waldeyer's Ring of Lymphoid Tissue

- The lymphoid tissue that surrounds the opening into the respiratory and digestive systems forms a ring
- The lateral part of the ring is formed by the palatine tonsils and tubal tonsils



Anatomy, Histology & Embryology

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