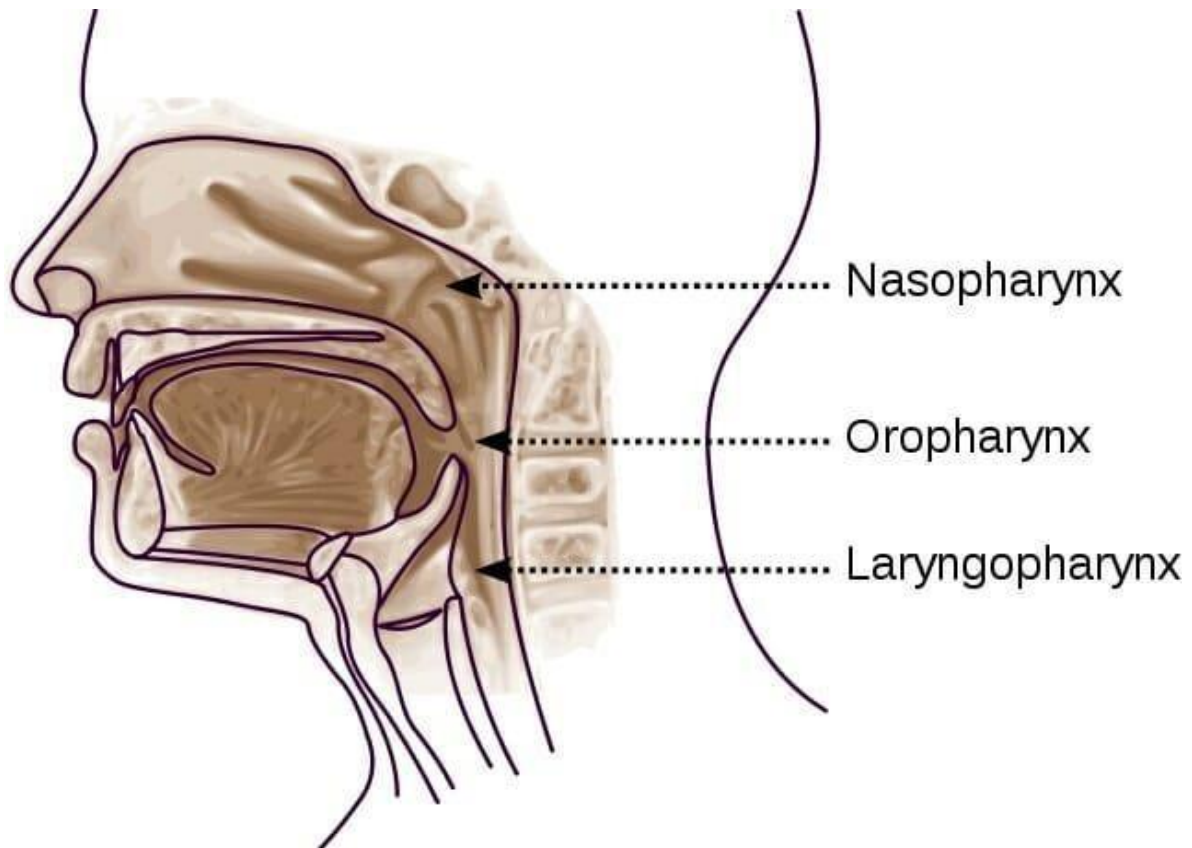


Pharynx



By

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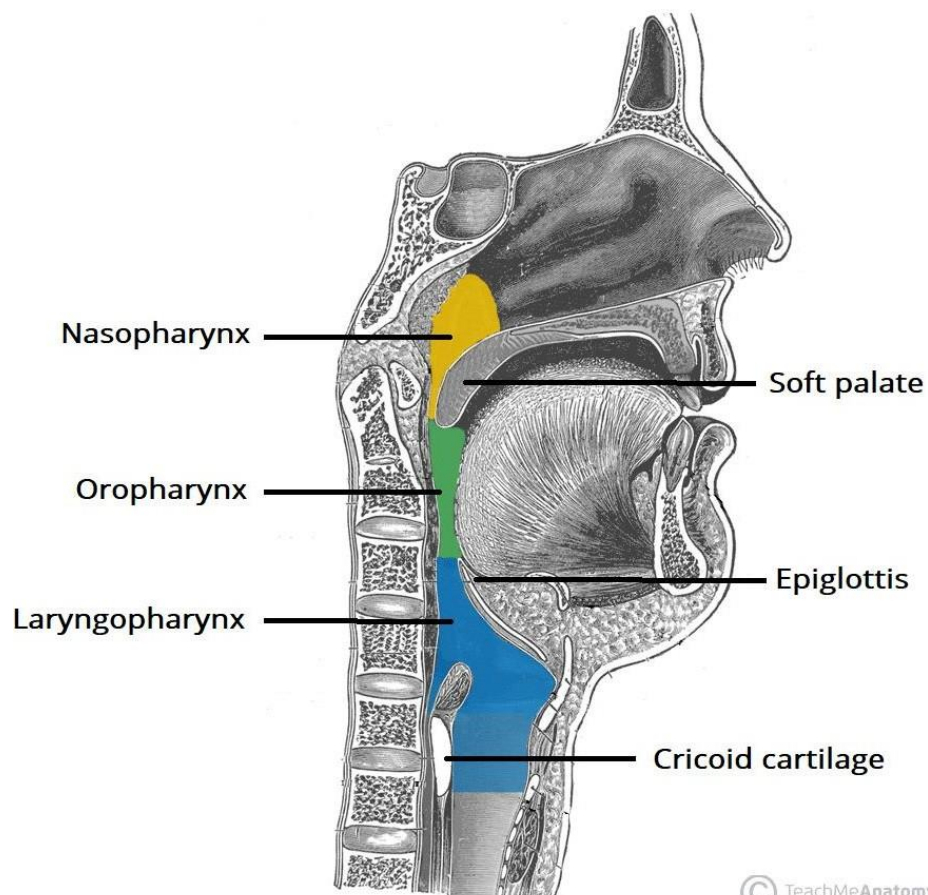
Extent:

- From: base of the skull (above).
- To: lower border c6 (below)
- Continuous: as esophagus.

Parts:

The pharynx is divided into 3 parts.

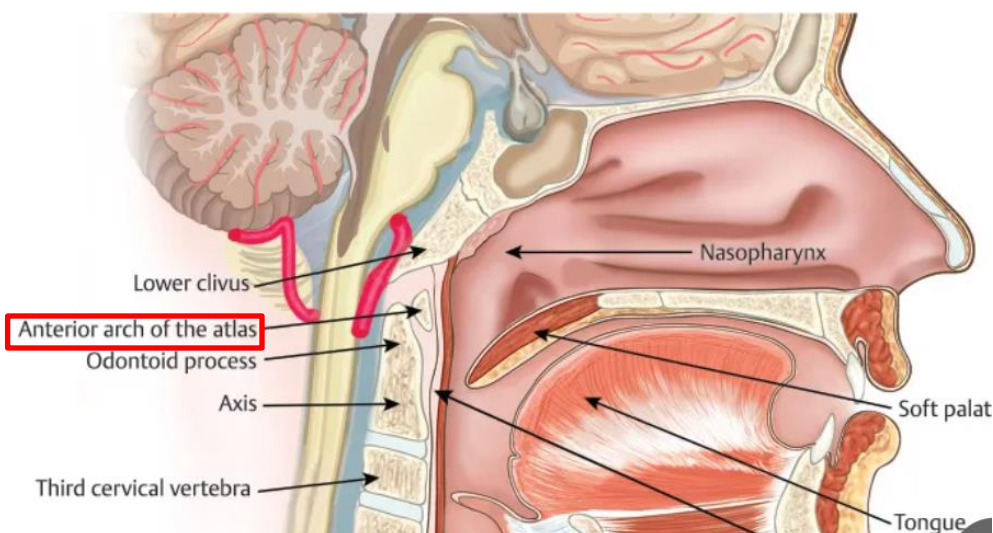
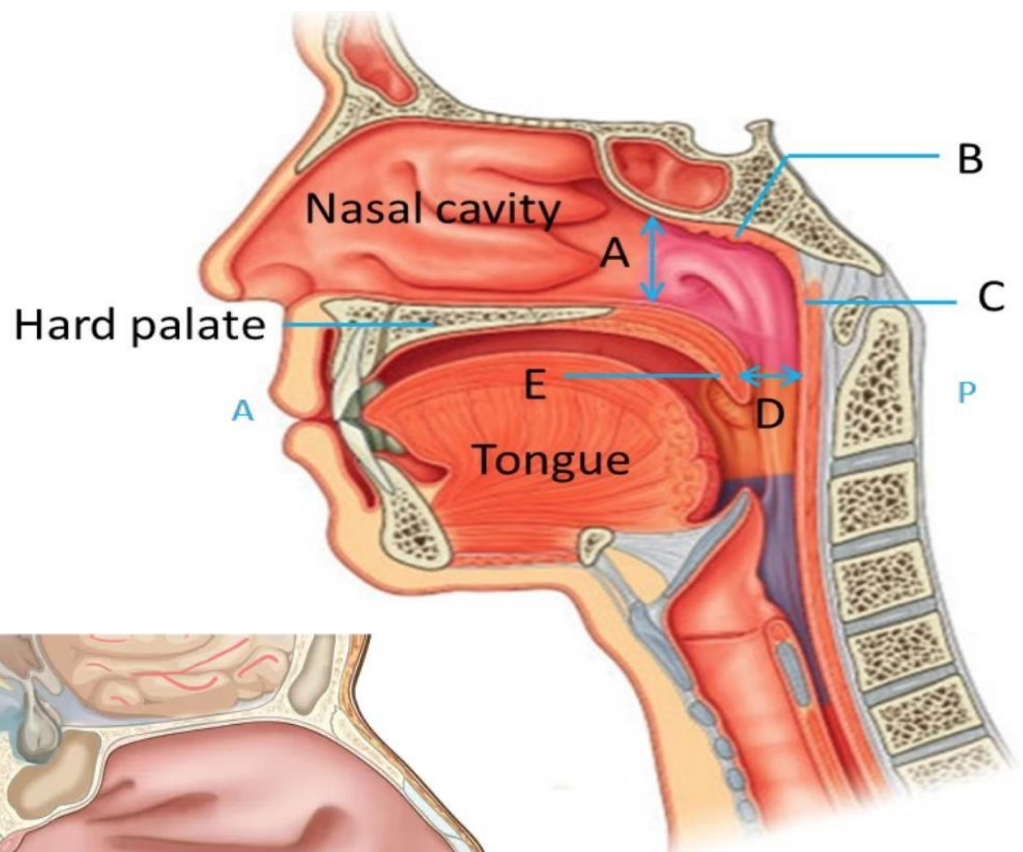
- Nasopharynx → behind nasal cavity.
- Oropharynx → behind oral cavity.
- Laryngopharynx → behind laryngeal cavity.



1. Nasopharynx

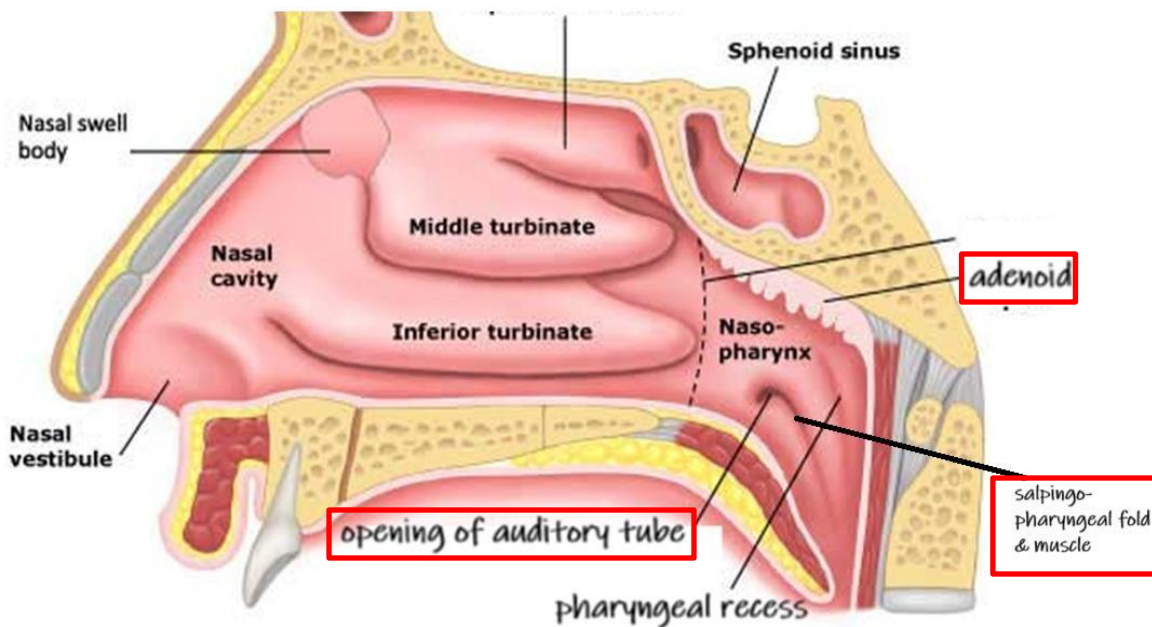
Boundaries:

- Superior → base of the skull.
- Inferior → communicates with oropharynx through pharyngeal isthmus.
- Anterior → communicates with nasal cavity through posterior nasal opening.
- Posterior → anterior arch of atlas.



Features:

- **Opening of the auditory tube** → one on each side communicate it with the middle ear.
- **Tubal elevation** → cartilage bound opening of auditory tube.
- **Salpingo-pharyngeal fold** → contains salpingopharyngeus muscle.
- **Pharyngeal tonsil (adenoid)** → on posterior wall.



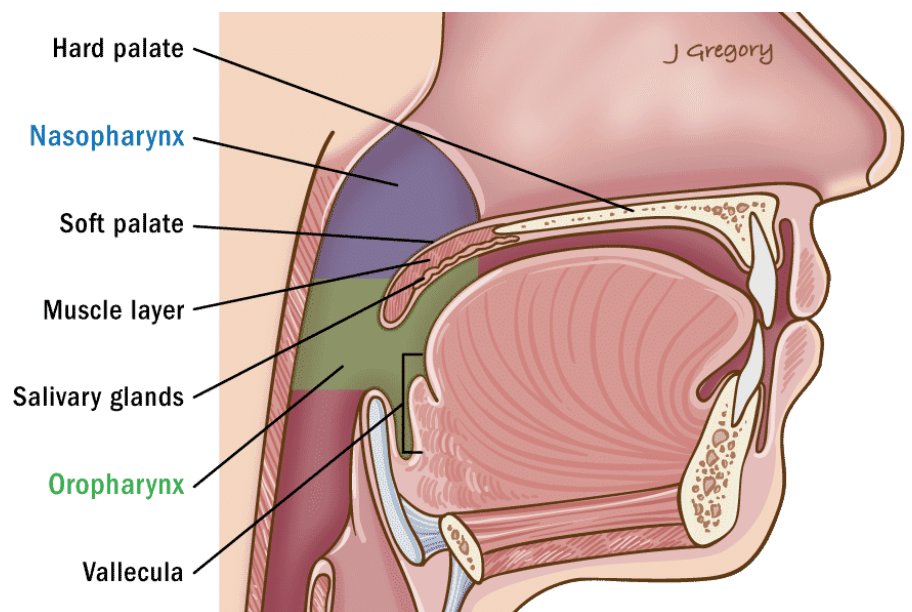
2. Oropharynx

Boundaries:

- **Superior** → communicates with nasopharynx at soft palate.
- **Inferior** → communicates with laryngopharynx at epiglottis.
- **Anterior** → communicates with oral cavity (through oropharyngeal isthmus).
- **Posterior** → 2nd & 3rd cervical vertebrae.

Features:

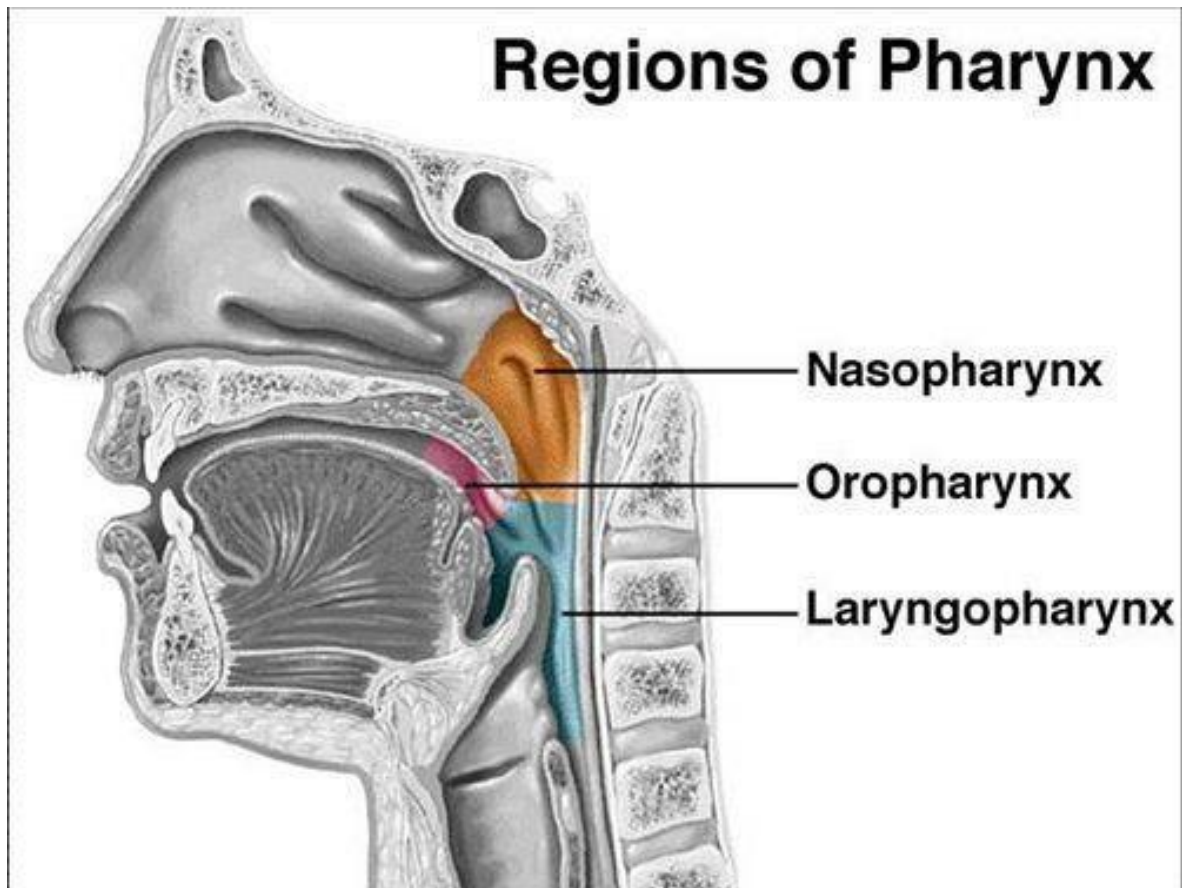
- **Palatine tonsil**
- **Tonsillar fossa**

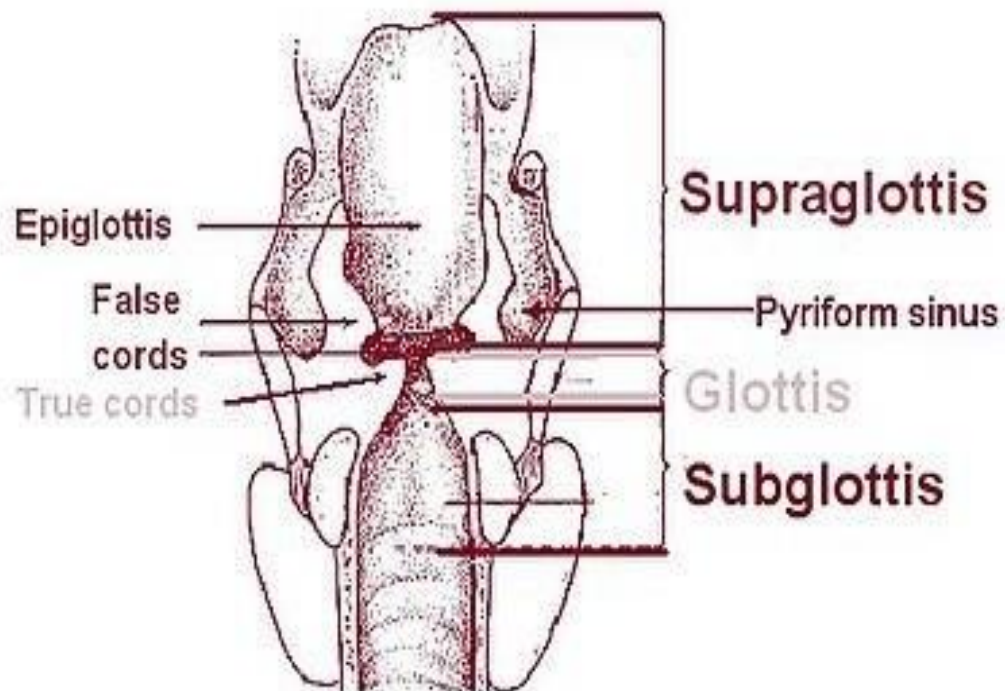


3. Laryngo-pharynx

Boundaries:

- **Superior** → communicates with oropharynx at epiglottis.
- **Inferior** → esophagus at lower border of C6.
- **Anterior** → laryngeal inlet.
- **Posterior** → Cx 4th, 5th and 6th





Muscles of the pharynx

A) External muscles of the pharynx

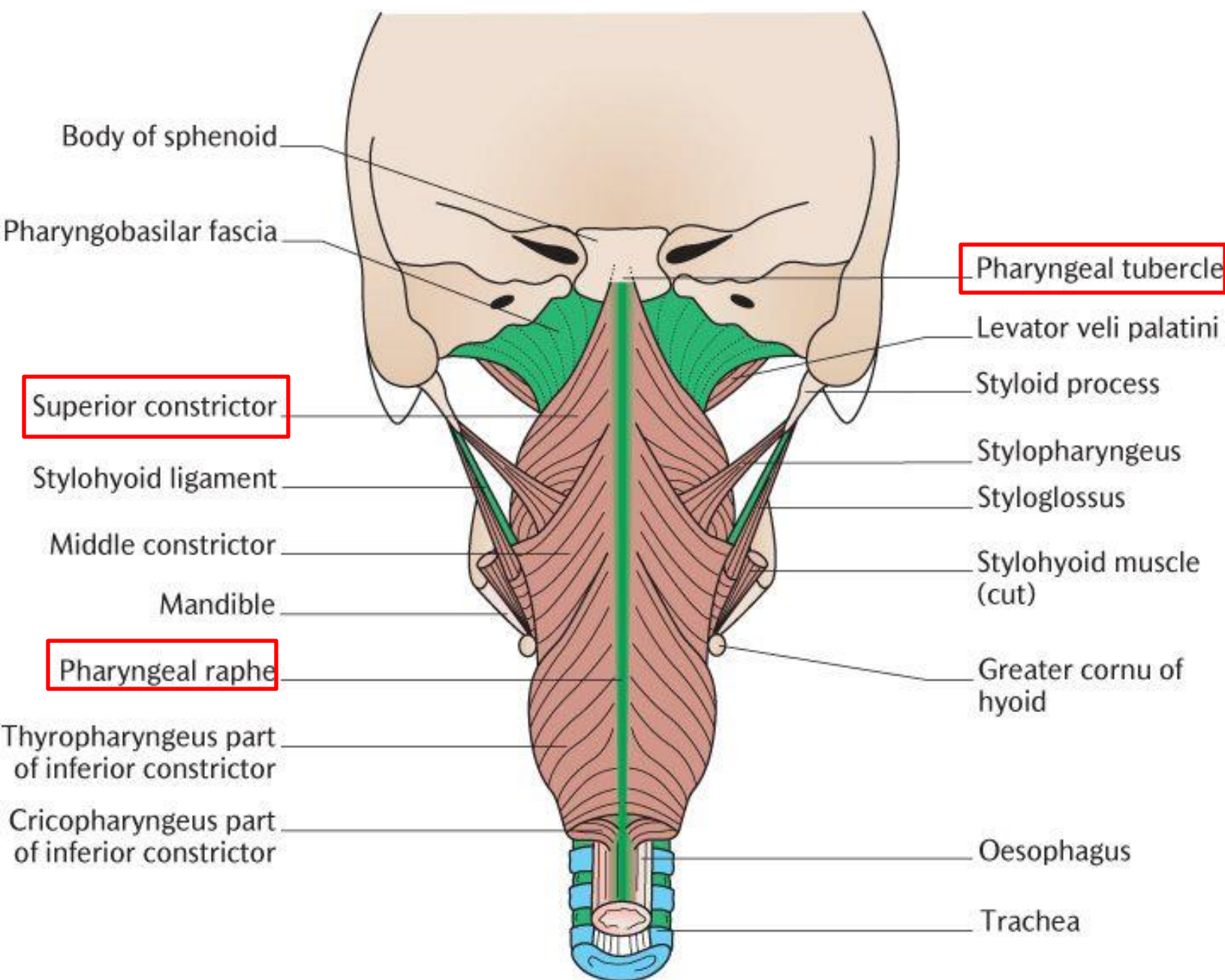
1- Superior constrictor muscle

Origin:

- medial pterygoid plate.
- Pterygoid hamulus.
- Pterygomandibular ligament.
- mylohyoid line.

Insertion:

- The upper fibers → pharyngeal tubercle.
- The remainder → posterior median raphe.

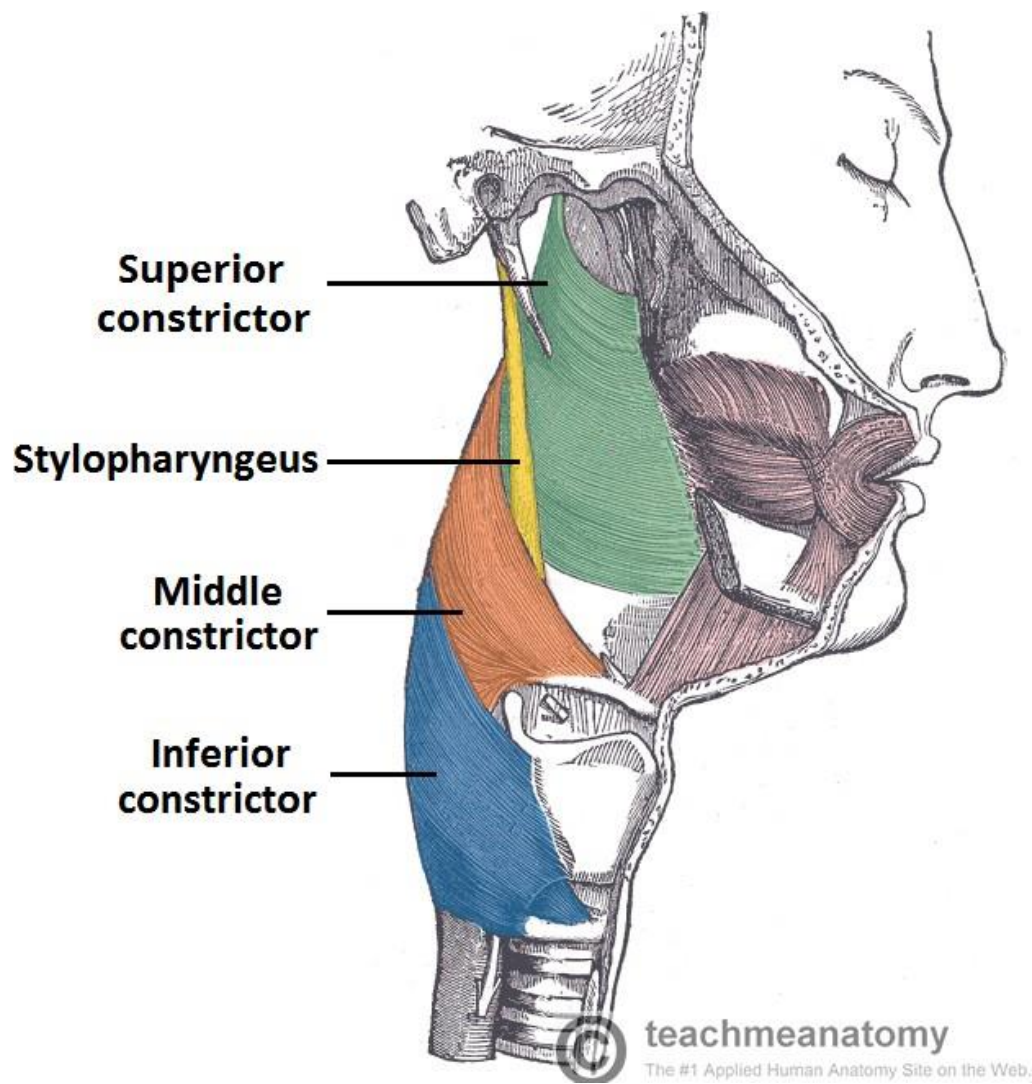


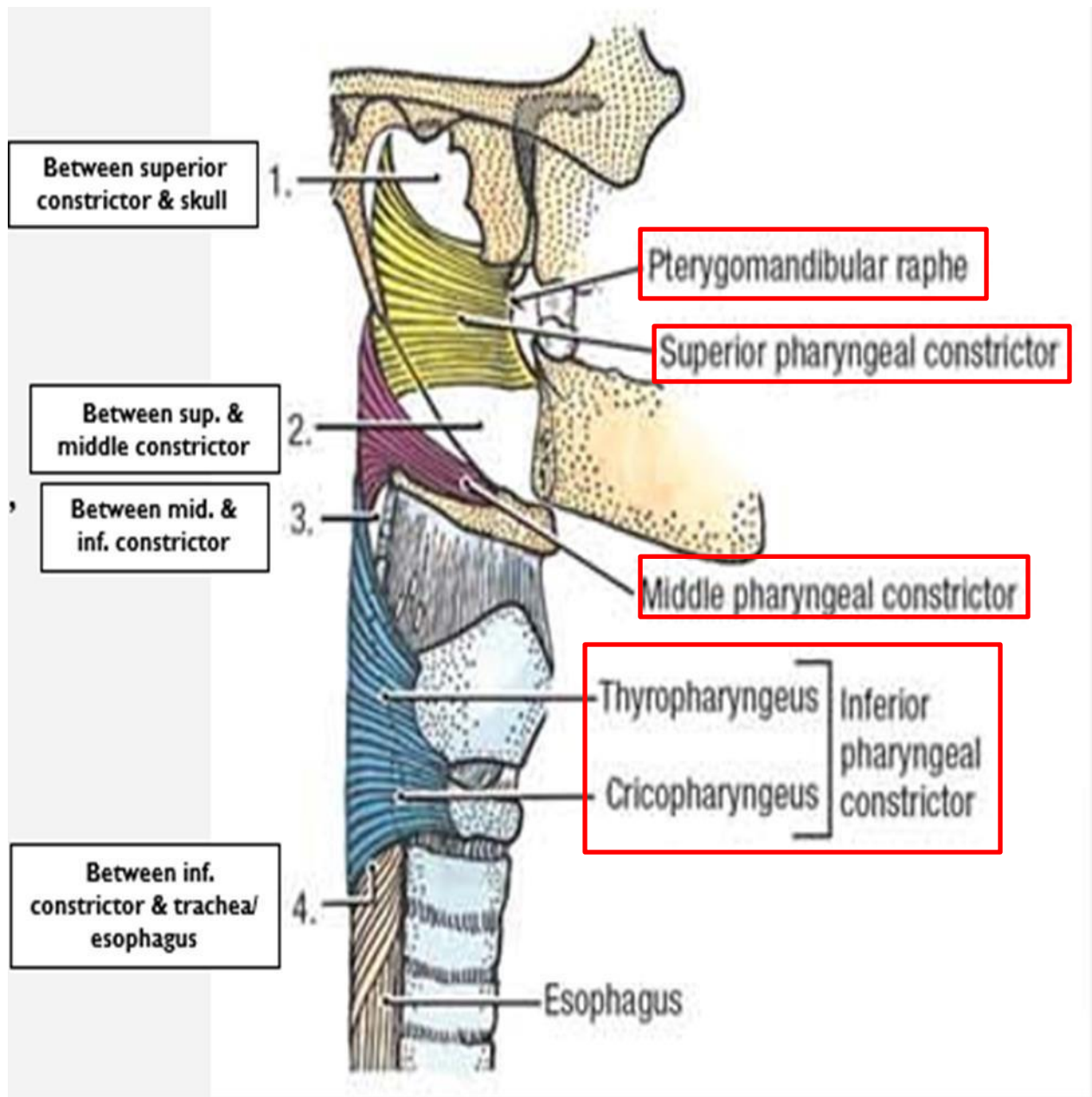
Nerve supply:

- Pharyngeal plexus.

Action:

- close nasopharynx during swallowing.





2- Middle constrictor muscle

Origin:

- Hyoid bone (greater and lesser horn).

Insertion:

- Posterior median raphe

Nerve supply:

- Pharyngeal plexus.

Act on:

- Constriction of oropharynx during swallowing.

3- Inferior constrictor muscle

Origin:

- Thyroid cartilage (oblique line and inferior horn).
- Cricoid cartilage.

Insertion:

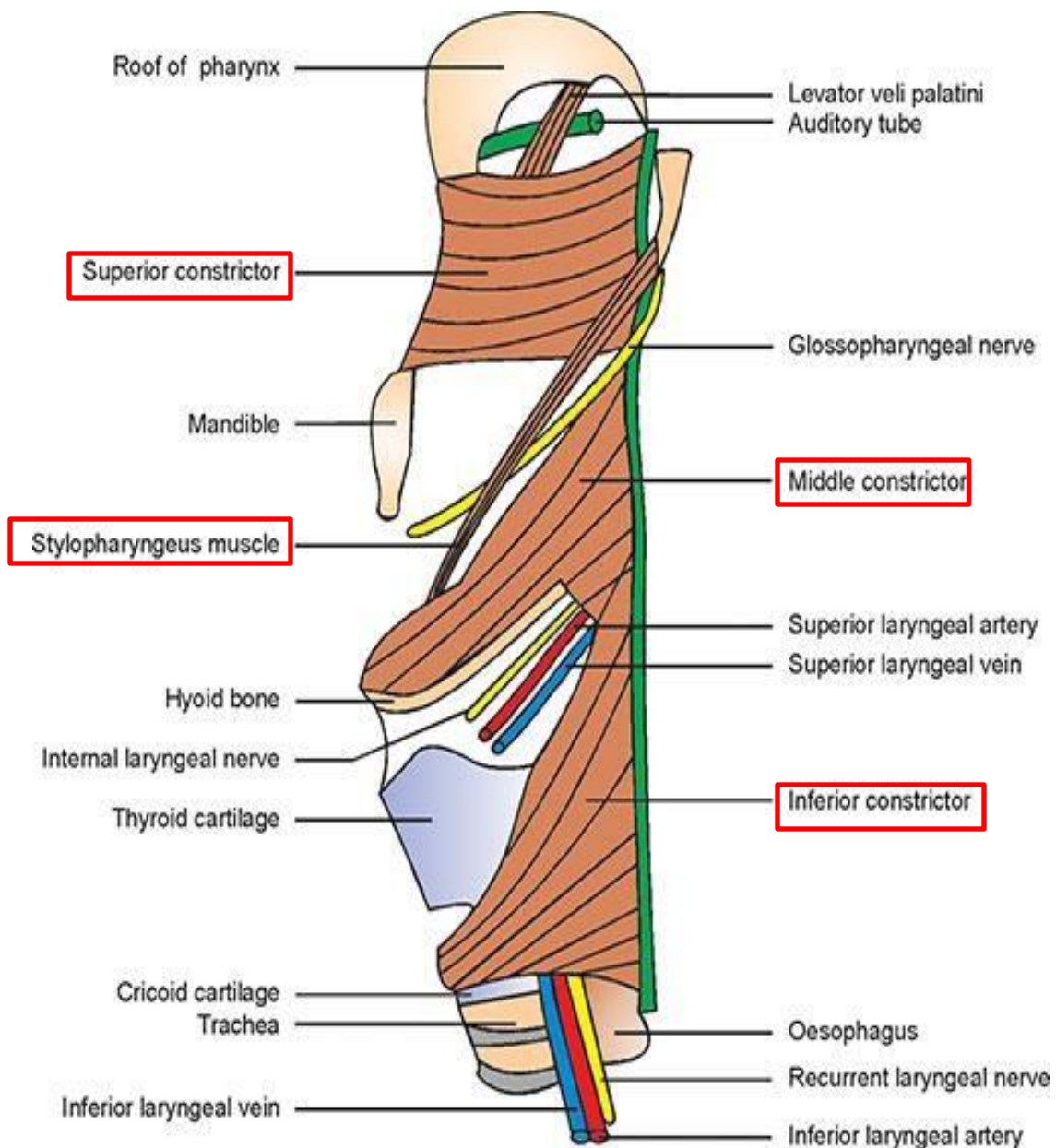
- Thyropharyngeal part → posterior median raphe.
- Cricopharyngeal part → continuous with esophagus.

Nerve supply:

- Pharyngeal plexus.

Action:

- Constriction of laryngopharynx during swallowing.



B) Internal muscles of the pharynx

1- Stylopharyngeus muscle

Origin:

- styloid process.

Insertion:

- posterior border of thyroid cartilage.

Nerve supply:

- Glossopharyngeal nerve.

Action:

- Elevation of pharyngeal wall.

2 Palato-pharyngeus muscle

see palate

3- Salpingopharyngeus muscle

Origin:

- tubal elevation

Insertion:

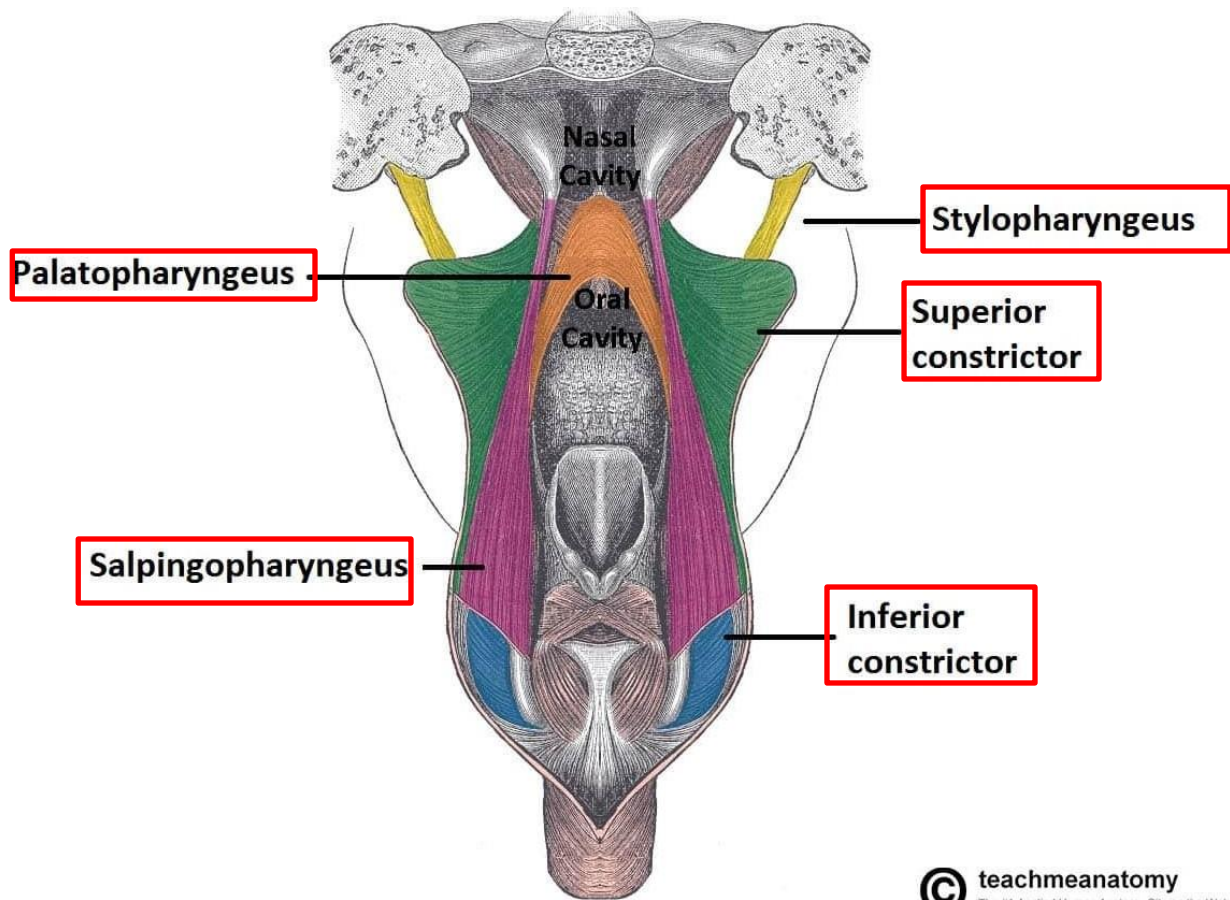
- posterior border thyroid cartilage.

Nerve supply:

- Pharyngeal plexus

Action:

- Opening of auditory tube during swallowing.



Arterial supply of the pharynx

- ✓ Ascending pharyngeal: from external carotid artery).
- ✓ Tonsillar: from the facial artery).
- ✓ Greater palatine: from the maxillary artery).
- ✓ Dorsal lingual: from lingual artery).

Venous drainage of the pharynx

- pharyngeal venous plexus drains into internal jugular vein.

Lymphatic drainage of the pharynx

Upper & lower deep cervical lymph nodes.

Nerve supply of the pharynx

Motor:

- All muscles of the pharynx supplied by pharyngeal plexus
- Except stylopharyngeus supplied by glossopharyngeal nerve.

Sensory:

- **Nasopharynx:** maxillary nerve.
- **Oropharynx:** glossopharyngeal nerve.
- **Laryngopharynx:** internal laryngeal branch of vagus nerve.

Autonomic:

- **Sympathetic:** from superior cervical sympathetic ganglion.
- **Parasympathetic:** from facial nerve.