

Anatomy of Pharynx

Dr. AMAL ALBTOOSH

PHARYNX

It is fibromuscular tube, about 10-15 cm in adults.

Extends from base of skull to level of 6th cervical vertebra.

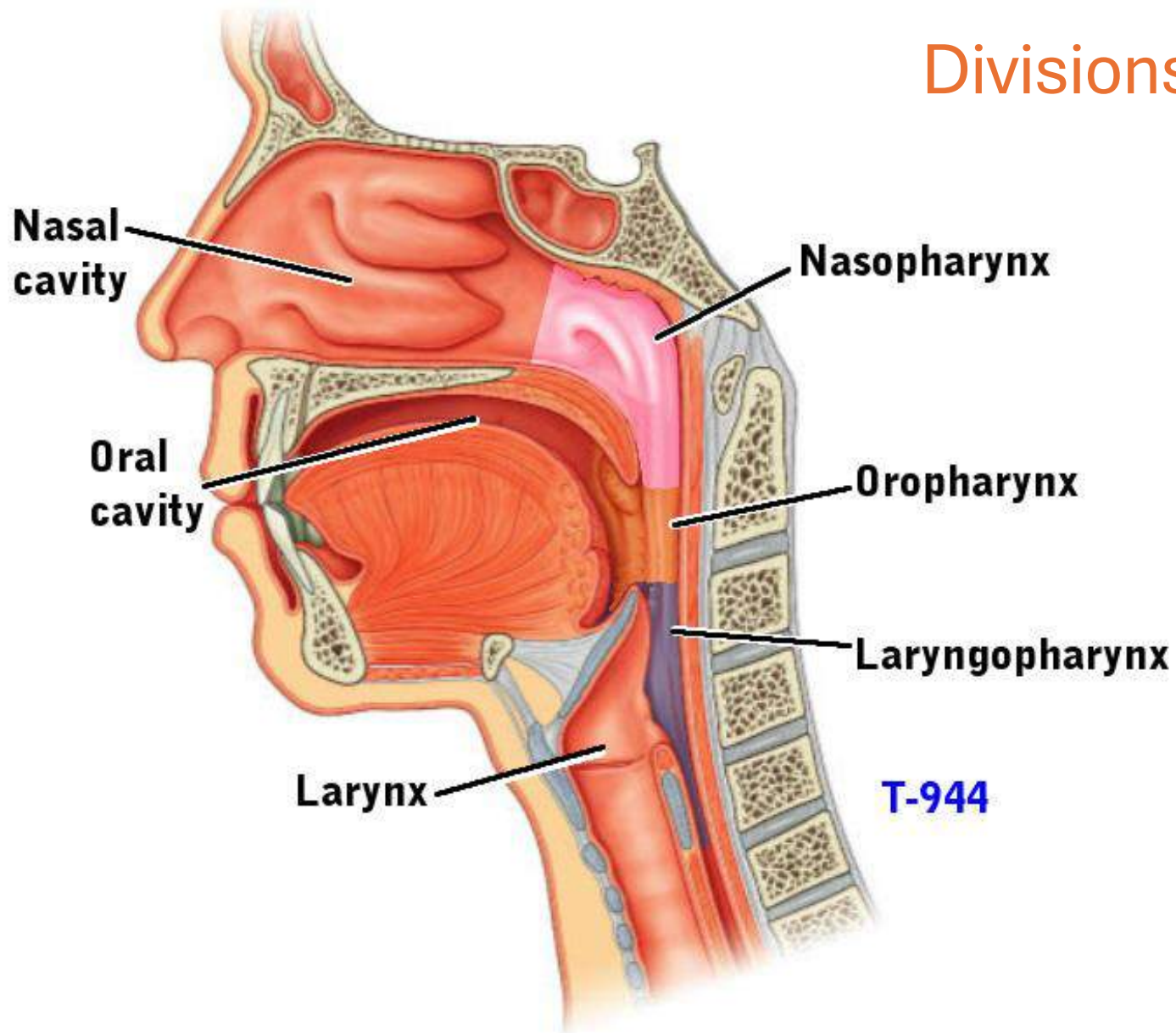
It is divided into 3 parts:

-Nasopharynx.

- Oropharynx.

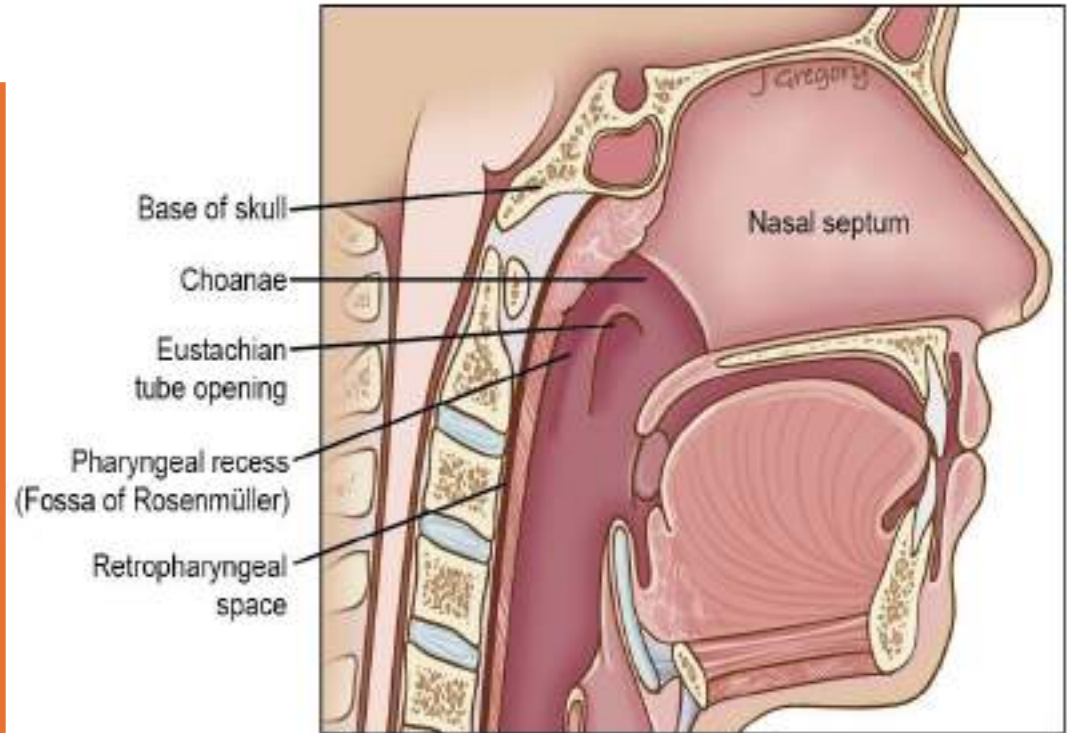
- Laryngopharynx.

Divisions



Nasopharynx

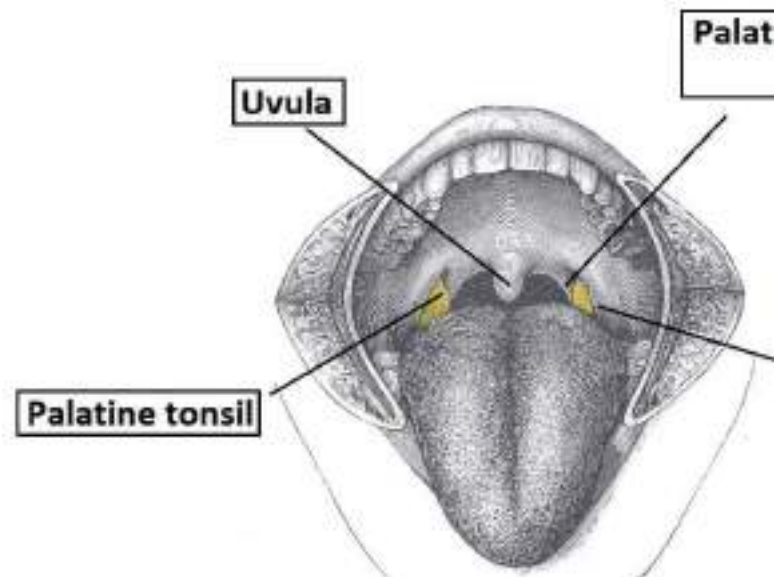
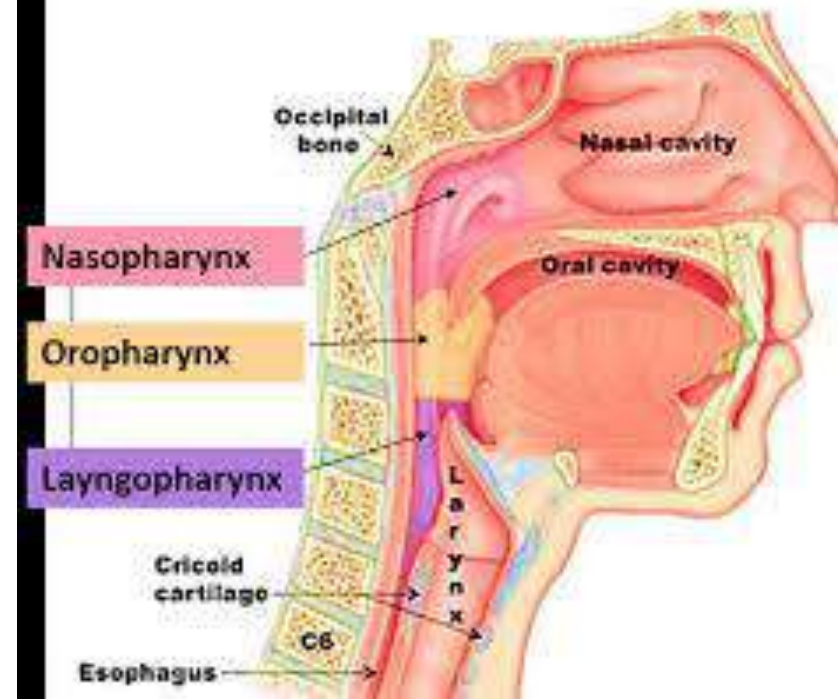
- Eustachian tube opening in lateral wall.
- Nasopharyngeal tonsil (Adenoid) at junction of roof and posterior wall.



Oropharynx

Bounded by:

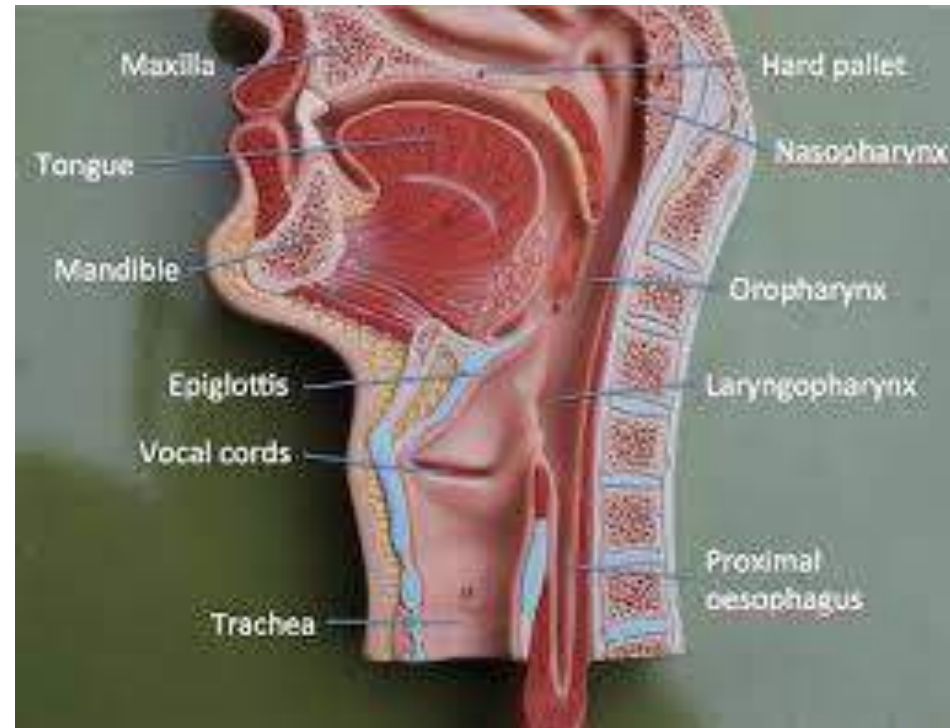
- Superiorly: soft palate.
- Inferiorly: epiglottis.
- Posteriorly: 2nd and 3rd cervical vertebrae
- Lateral wall: palatine tonsil.



Laryngopharynx

Bounded by:

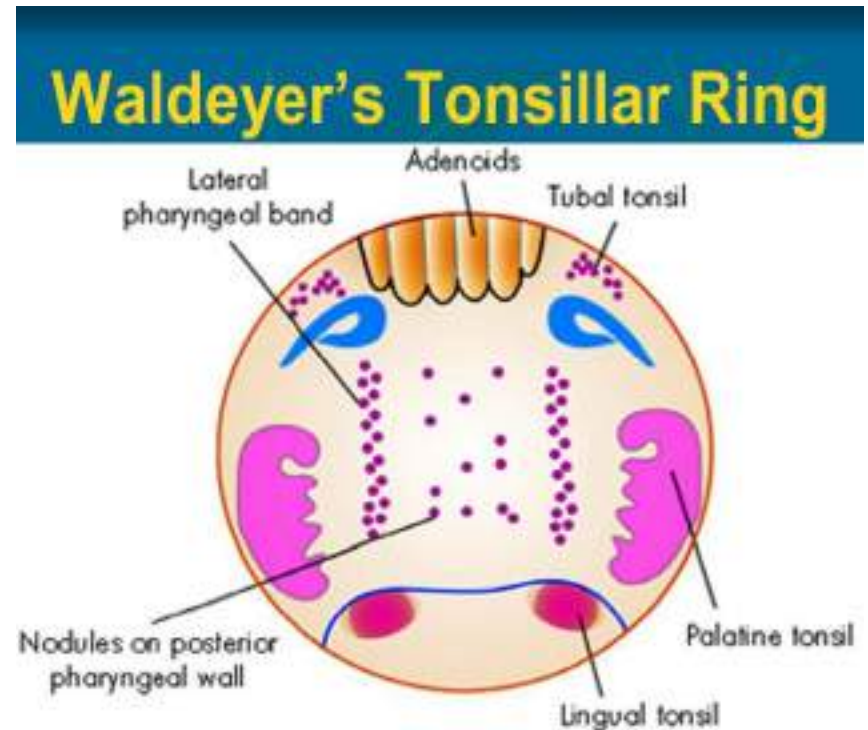
- Superiorly: epiglottis.
- Inferiorly: lower border of cricoid cartilage.
- posteriorly: 3rd, 4th, 5th, 6th cervical vertebrae.
- Pyriform fossae.
- Valecullae.



Layers of Pharynx

1. Mucous membrane

- ✓ ciliated columnar epith. in upper ½ of **nasopharynx**.
- ✓ Str. squamous epith. lines **oro and laryngopharynx**.
- ✓ Subepithelial lymphoid tissue forms Waldeyer's ring, have efferent lymph vs. but no afferent ones.

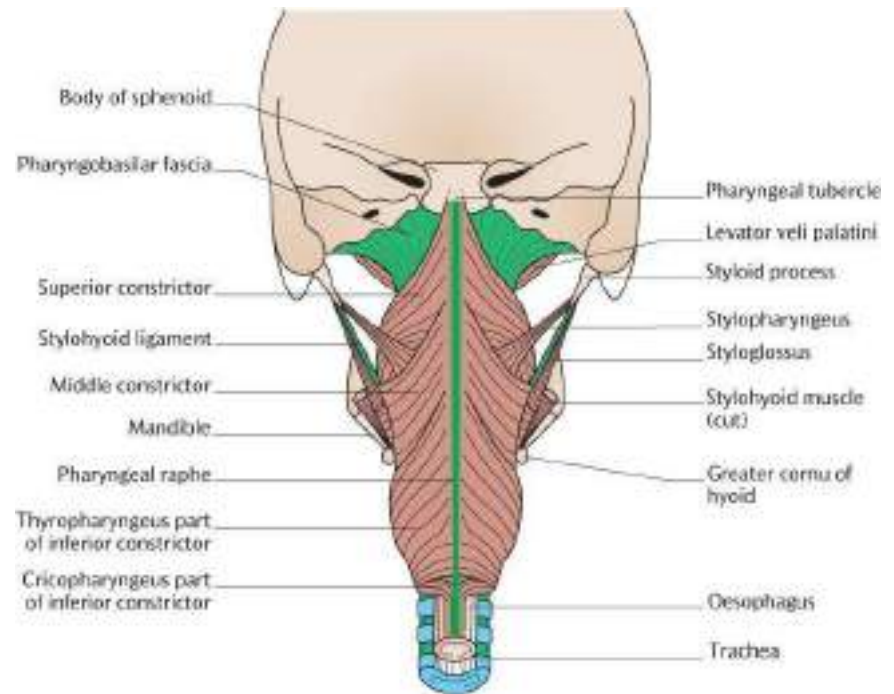


2. Pharyngeal Aponeurosis.

❑ It is an incomplete CT coat in lateral and post.walls

❑ Pharyngobasilar fascia:

The thickened upper part where muscle is deficient. Posteriorly is strengthened by strong band (Median raphe).

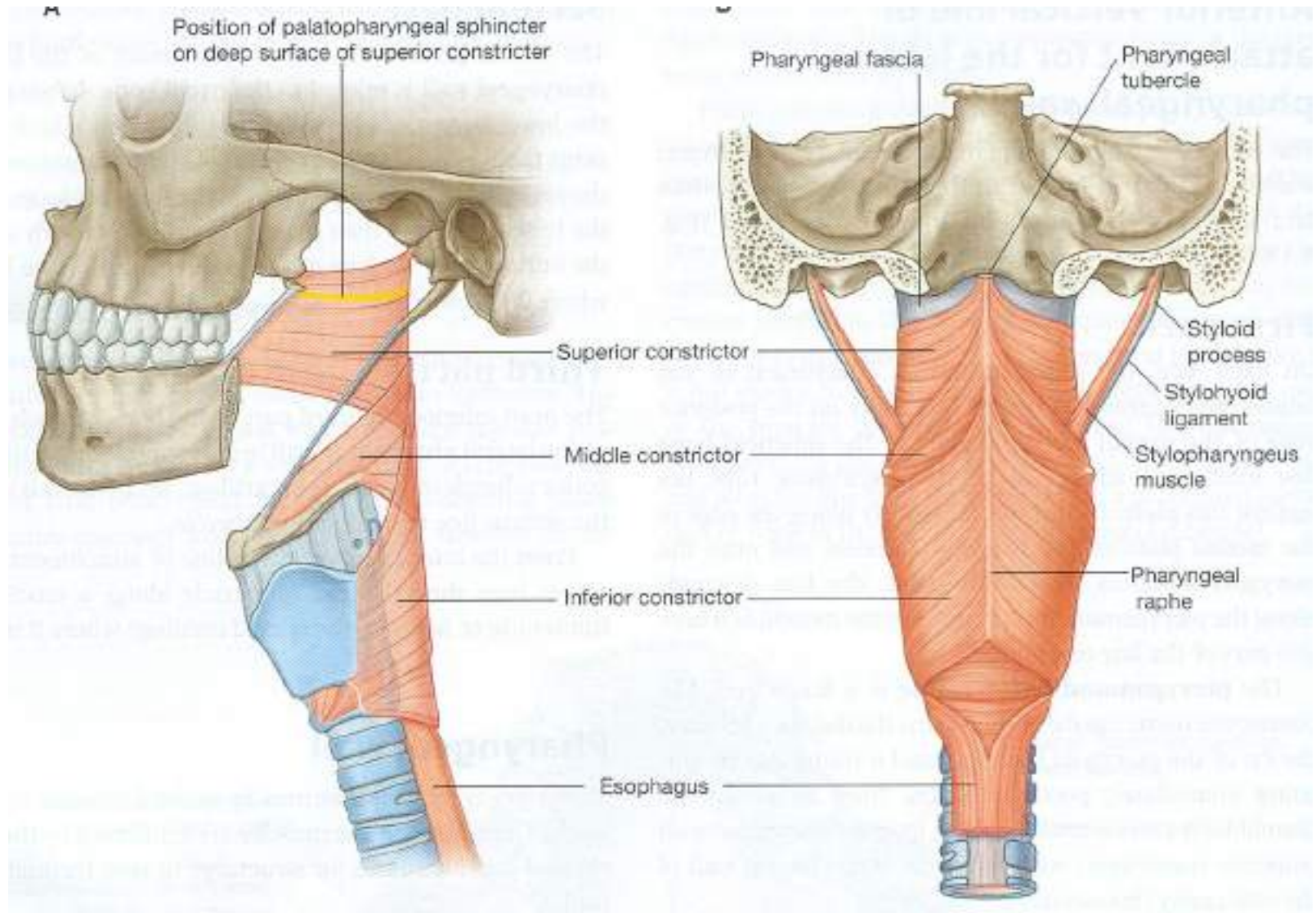


3. Muscular Coat

External coat :3
constrictors, each is
overlapped by fibres of
one below.

Sup.Constrictor :
palatopharyngeal
sphincter is formed from
it and tensor palati .

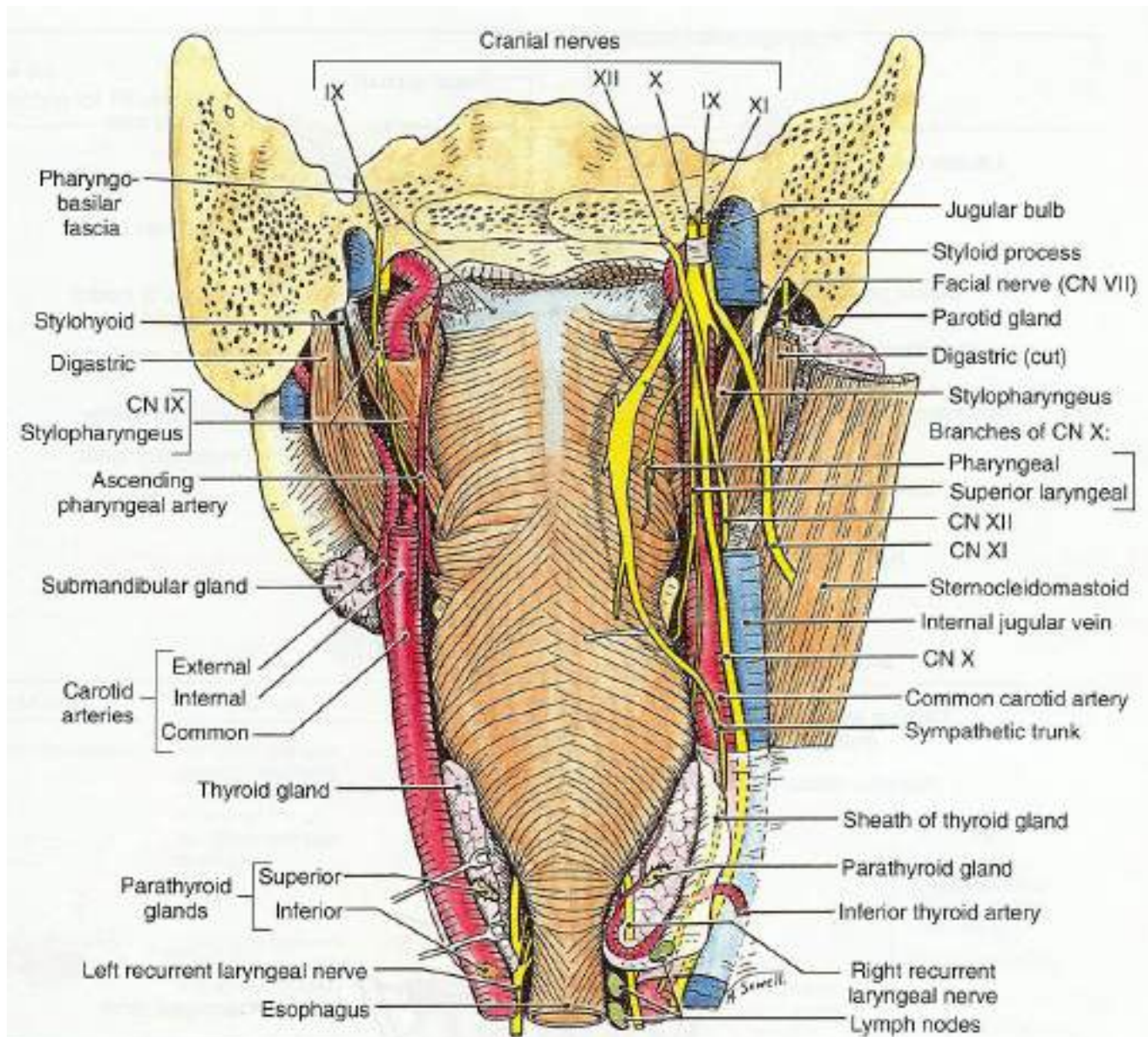
Constrictor muscles



3. Muscular Coat

Middle
Constrictor:
Stylopharyngeus
and(ix) pass
between sup.and
midd.constrictors.

Pharynx from behind



3. Muscular Coat

Inferior Constrictor....
Has 2 parts
(Thyropharyngeus) and
(Cricopharyngeus).

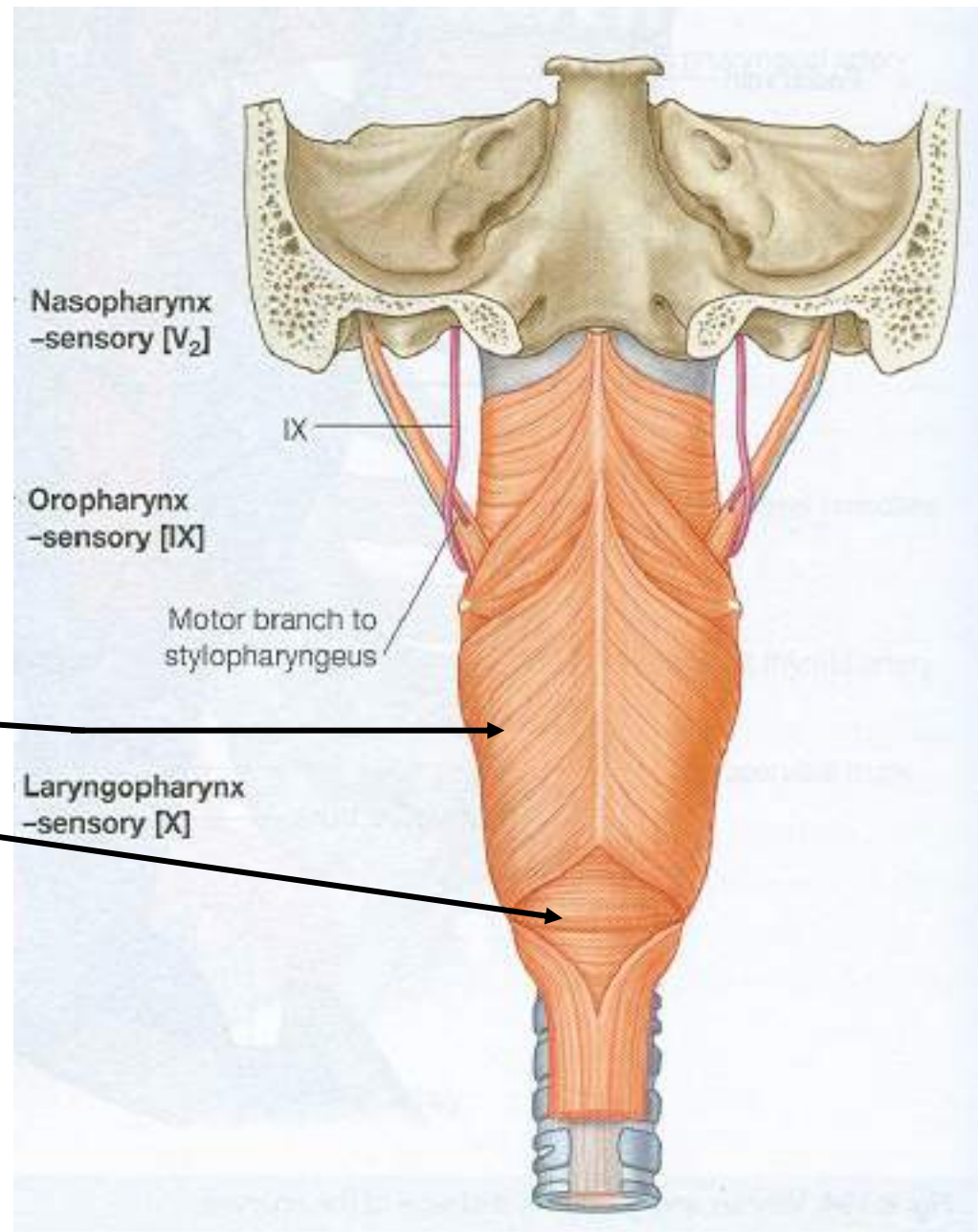
Killian dehiscence.... Is
potential gap between
oblique thyroph. and
transverse Cricoph.

Inferior constrictor

Inferior constrictor is considered to have 2 parts

thyropharyngeus

cricopharyngeus



3. Muscular Coat

Internal: Has 3
muscles

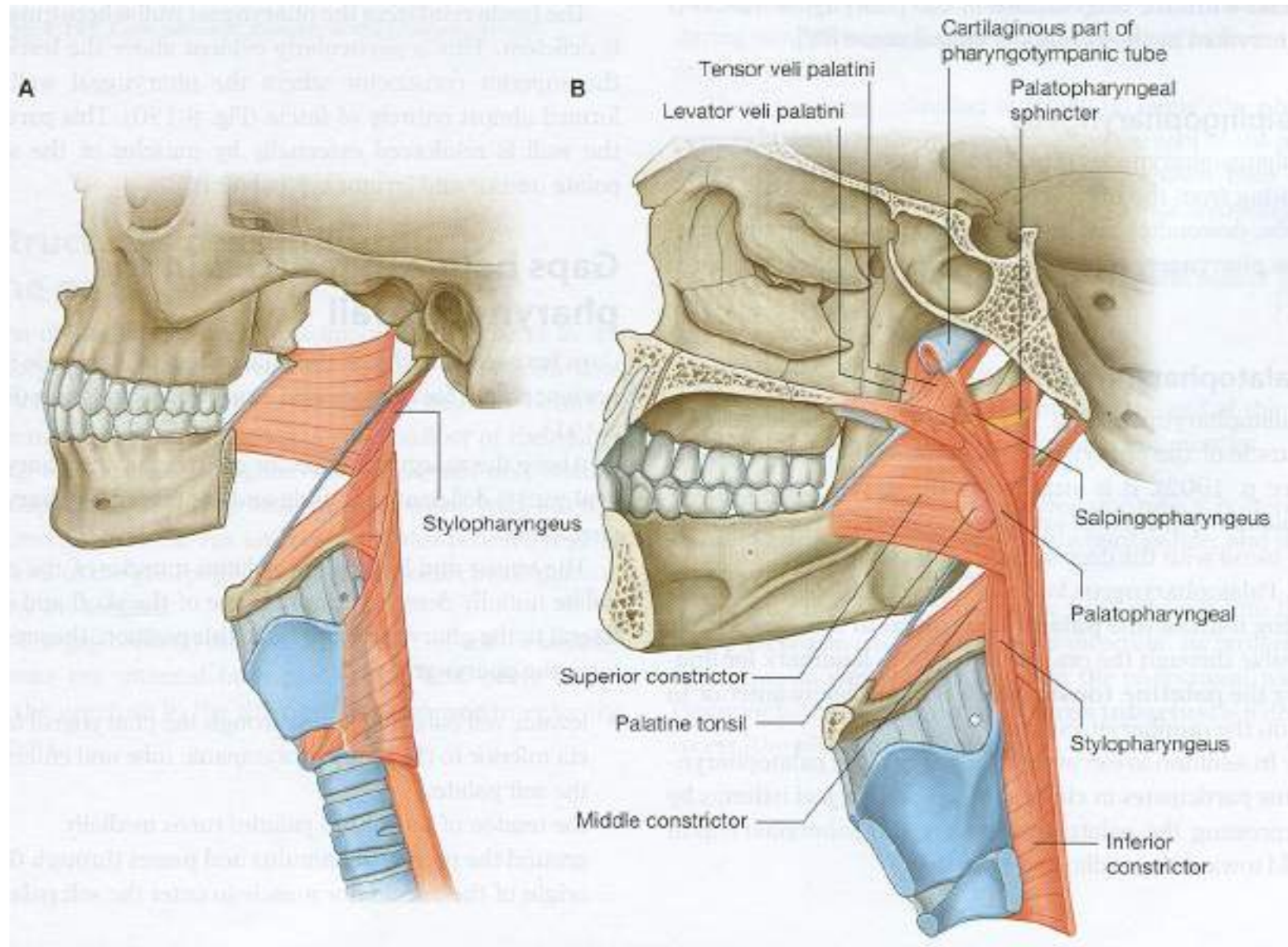
1-Stylopharyngeus

2-Salpingopharyngeus

3-Palatopharyngeus

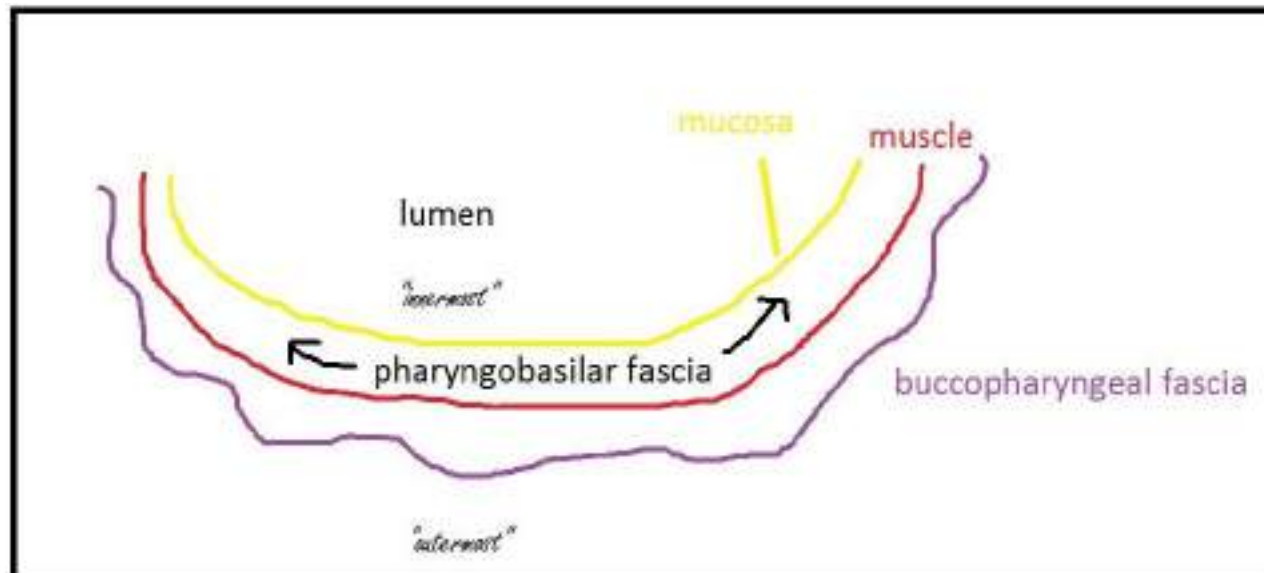
all are inserted in
post.border of thyroid
cartilage and median
raphe

Longitudinal muscles



4. Buccopharyngeal Fascia

- Covers the constrictor ms. Extend over prevertebral fascia.
- Above sup.constrictor ms., is firmly united with pharyngobasilar fascia.

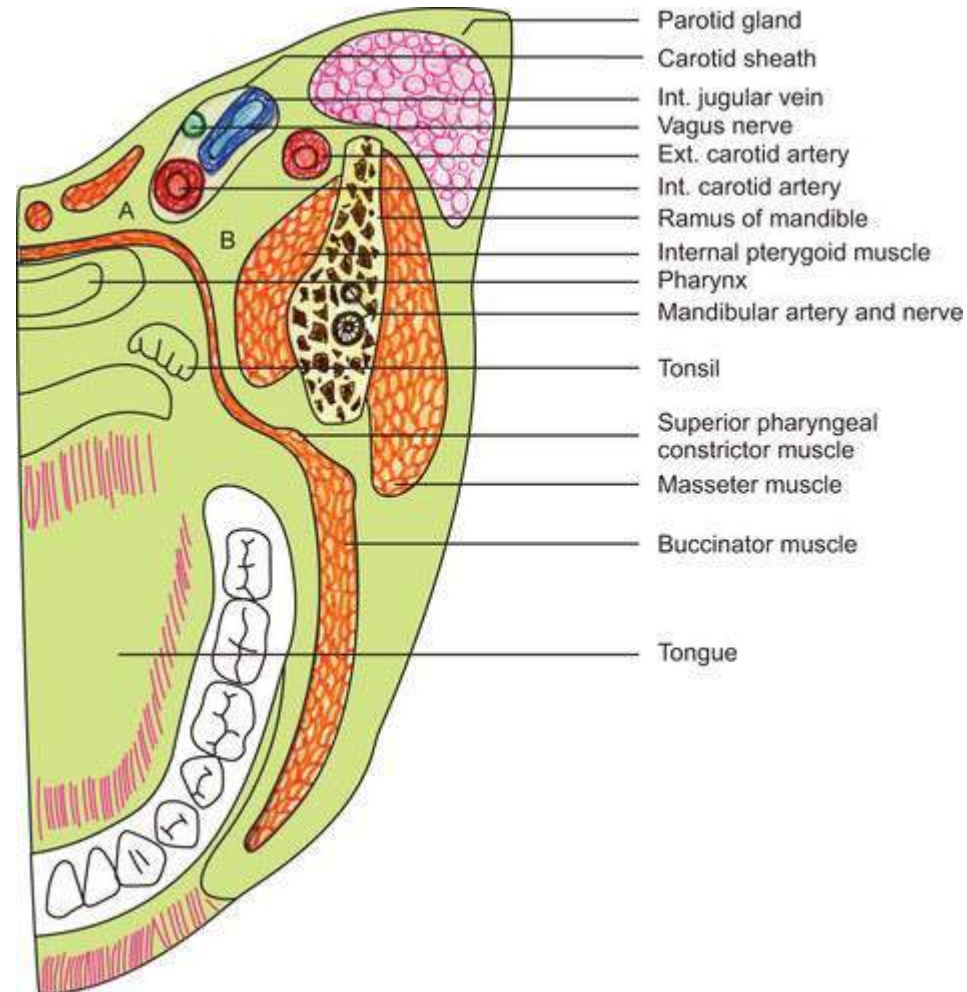


Parapharyngeal space

-It is triangular space outside pharynx, extends from base of skull to sup.mediastinum.

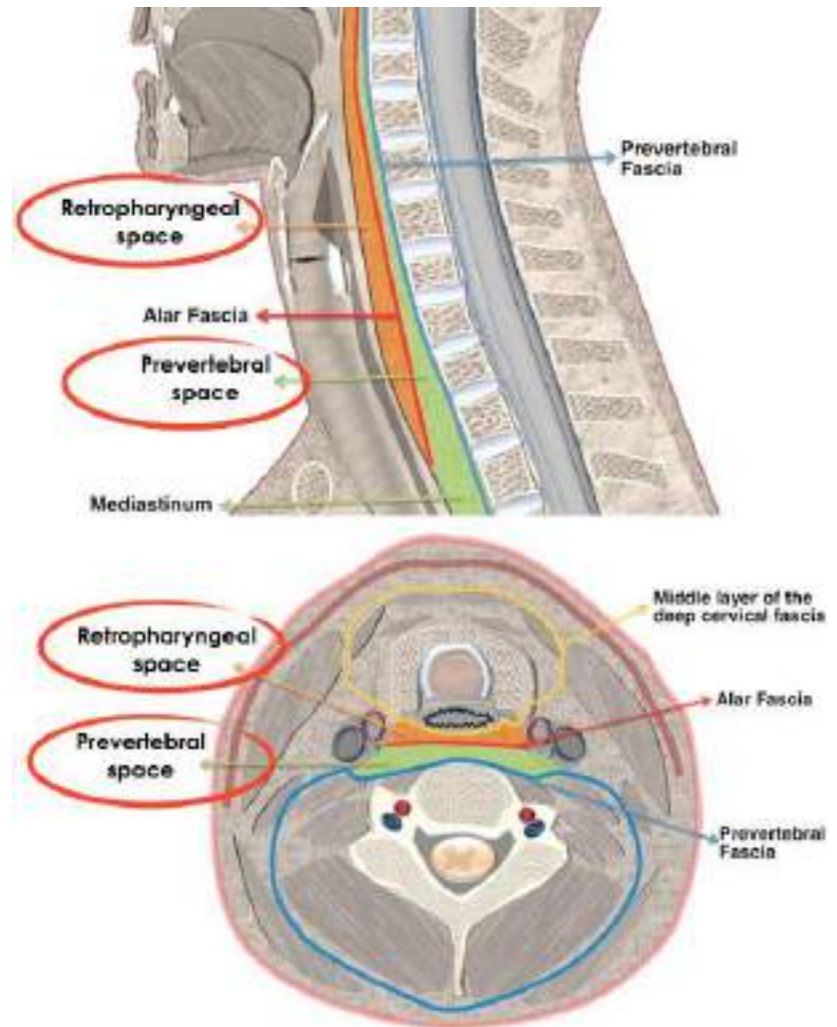
-Contents:

1. Great vs of neck.
2. Ascending palatine and ascending pharyngeal a.
3. Deep cervical L.N
4. Last 4 cranial ns. And cervical sympathetic trunk.



Retropharyngeal space

- Lies behind pharynx
- in front of cervical vertebrae and covering ms. and fascia.
- It contains retropharyngeal L.Ns, usually paired
- separated by median partition, disappear by age of 4ys.



Blood supply of pharynx

From branches of Ext.Carotid artery.

-Ascending Pharyngeal.

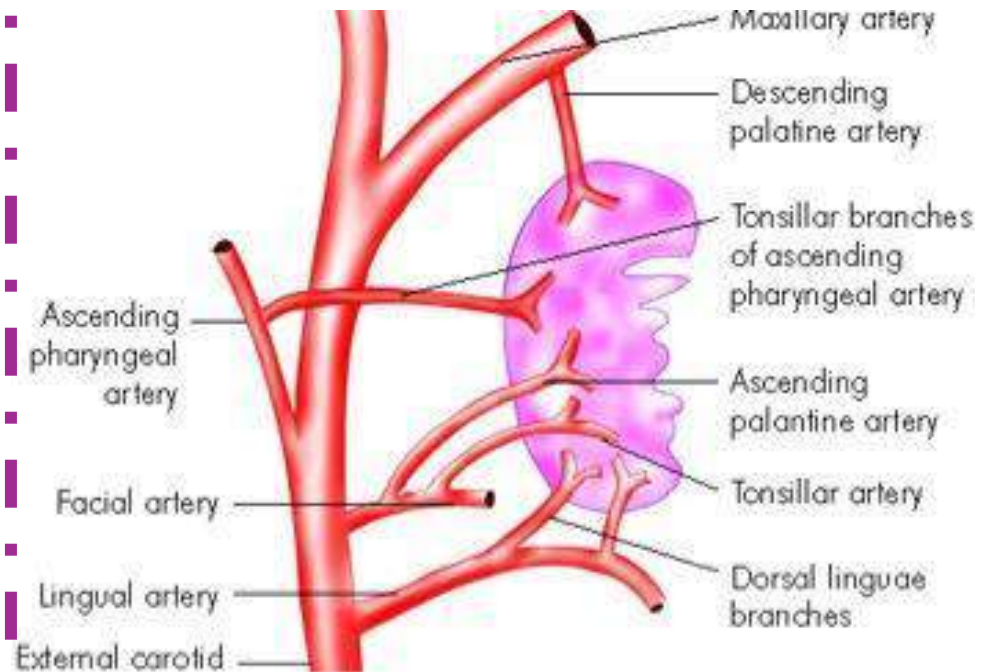
-Ascending palatine a.

-Maxillary a.branches.

-Dorsalis linguae.

Veins form plexus

communicates with pterygoid plexus above and drains into common facial and IJV



Nerve supply of Pharynx

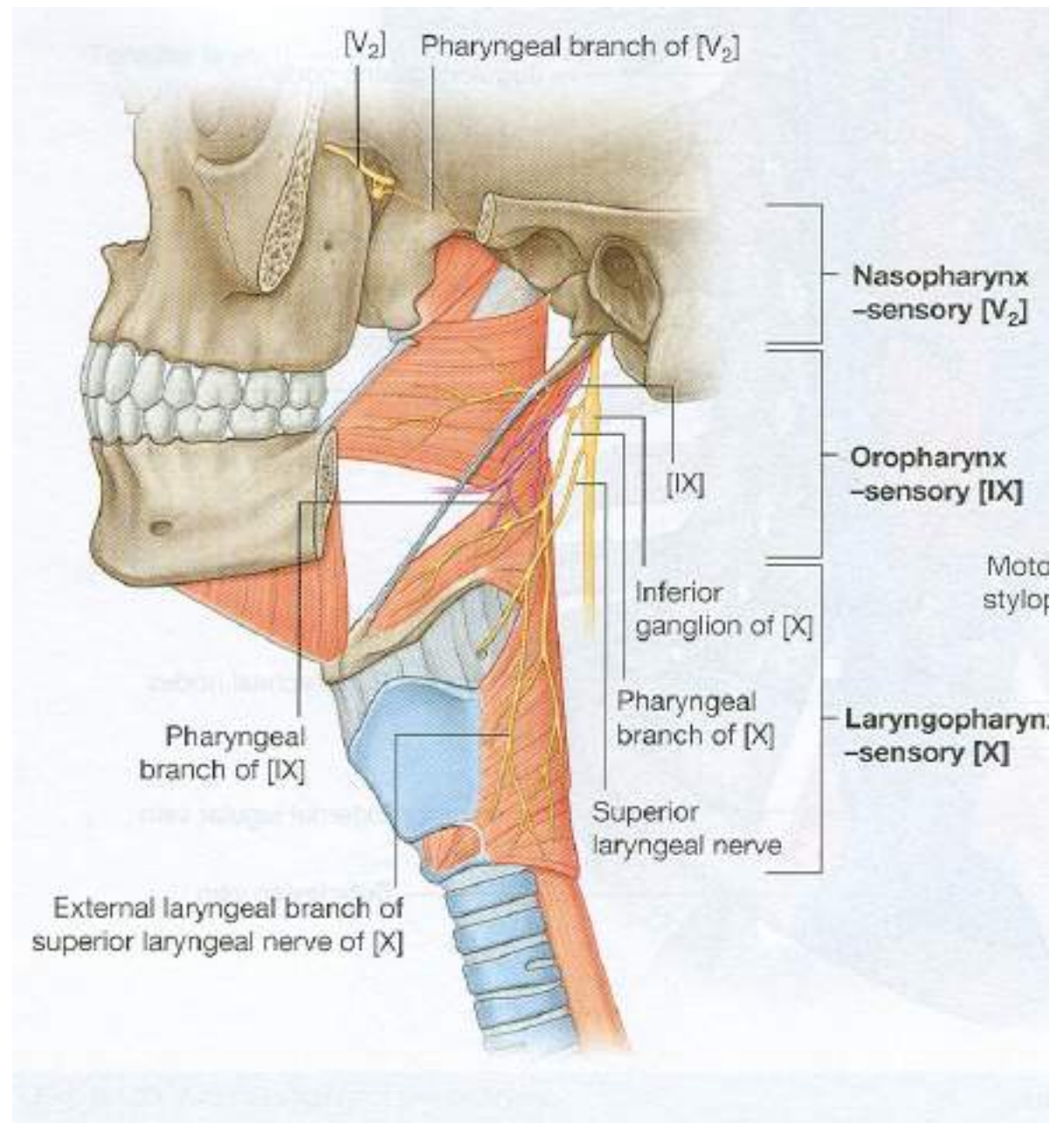
- Derived chiefly from pharyngeal plexus (XI) cranial part, distributed through pharyngeal branches of (X).

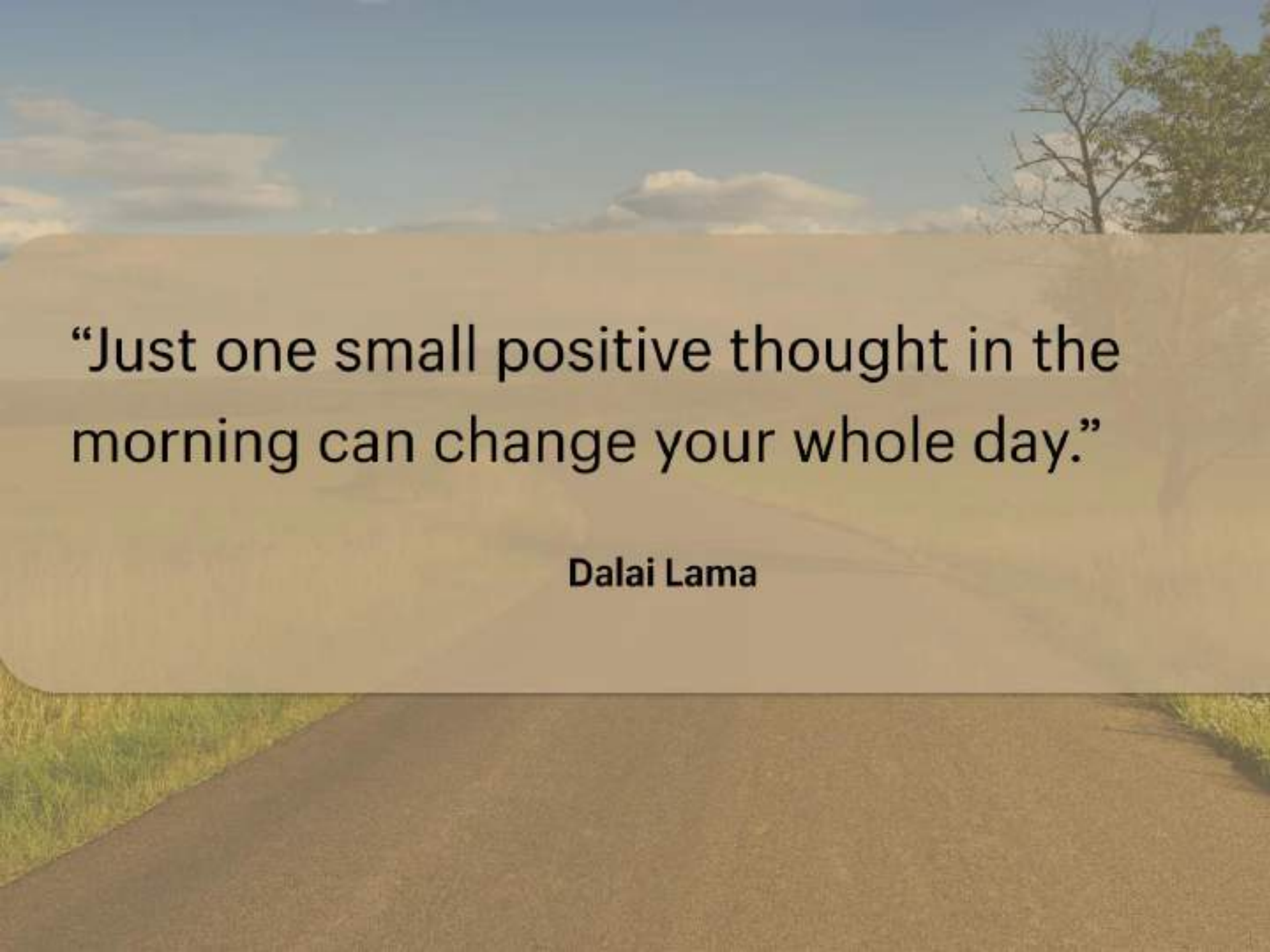
Supplying all muscles of pharynx except stylopharyngeus (IX) and tensor palati (V).

- The main sensory nerves are (IX) , (X), nasopharynx is supplied largely by (V2).



Pharyngeal plexus





“Just one small positive thought in the morning can change your whole day.”

Dalai Lama