

Larynx- I

Lesson Plan

- ❖ Introduction.
- ❖ Location and Extent.
- ❖ Skeleton of Larynx.
- ❖ Cartilages of larynx:
 - Thyroid cartilage.
 - Cricoid cartilage.
 - Epiglottis.
 - Arytenoid cartilages.
 - Corniculate cartilages.
 - Cuneiform cartilages.

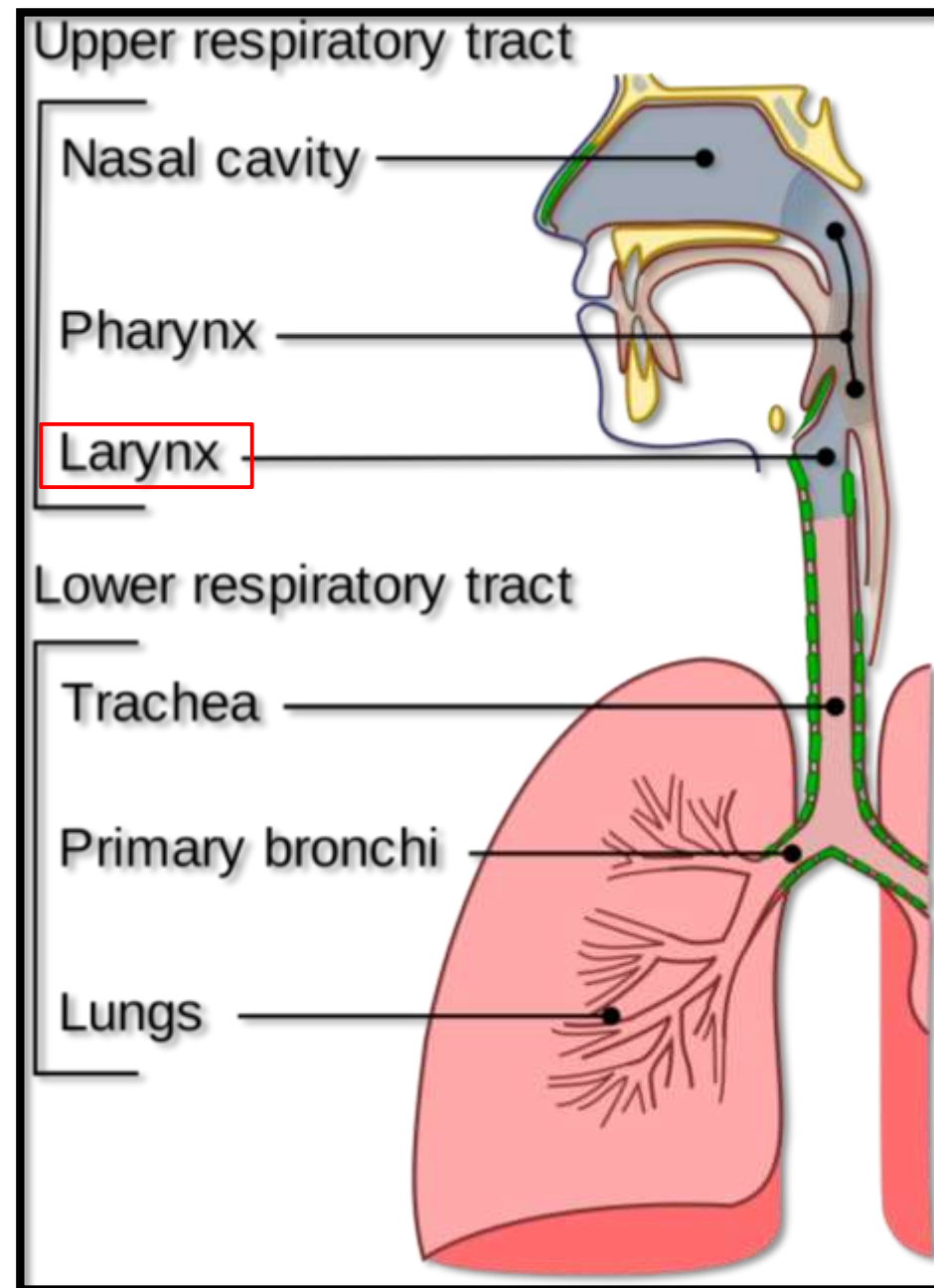
Introduction

Synonyms- Voice box, Organ of phonation.

- Larynx is the lowermost part of upper respiratory tract.
- It is modified for production of voice.
- It prevents the entry of any material other than air in the trachea.
- It helps in swallowing by its upward and downward movement.

Functions:

- Phonation.
- Respiration.
- Protection of lower respiratory tract.
- Deglutition.



Location & Extent

Location-

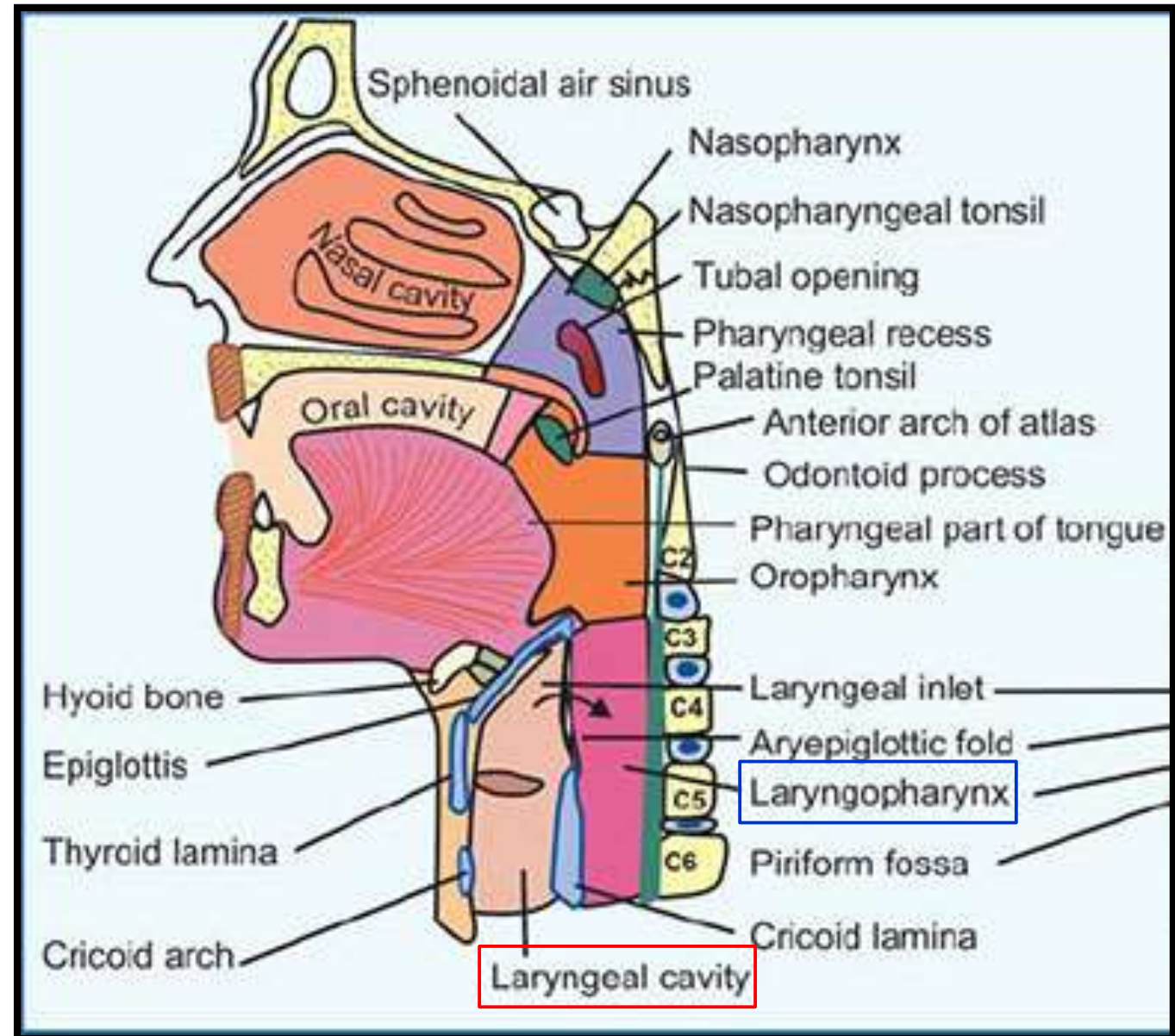
- Anterior midline of upper part of neck in front of laryngopharynx.

Extent-

- From root of tongue to upper border of trachea.

Vertebral Extent-

- C3-C6.

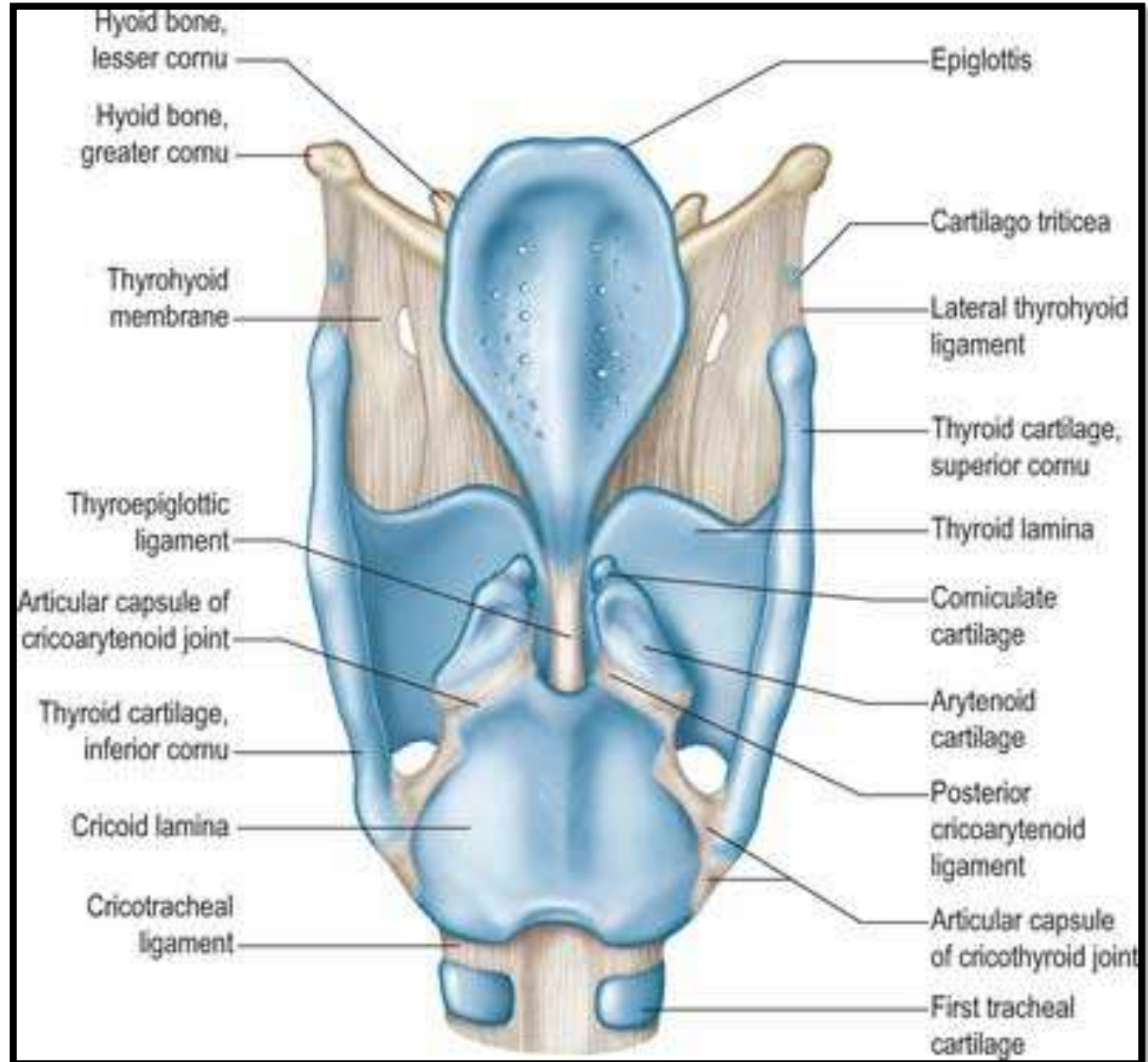


Skeleton

❖ Consists of :

- Cartilages.

❖ Cartilages are connected to one another by ligaments, fibrous membranes and muscles.



Cartilages

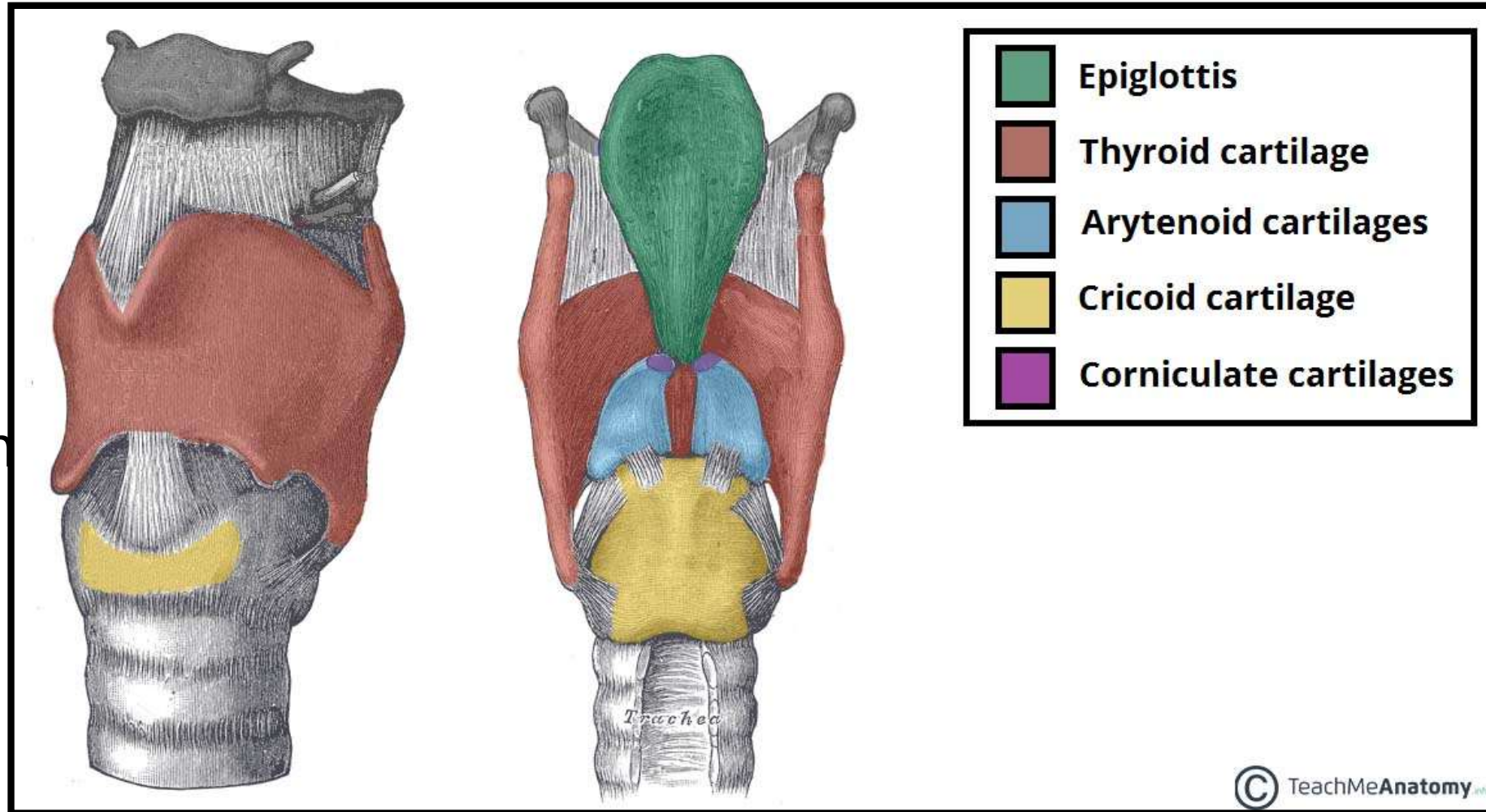
- 9 in number: 3 unpaired and 3 paired.

Unpaired cartilages-

- Thyroid.
- Cricoid.
- Epiglottis.

Paired cartilages- sm

- Arytenoid.
- Corniculate.
- Cuneiform.

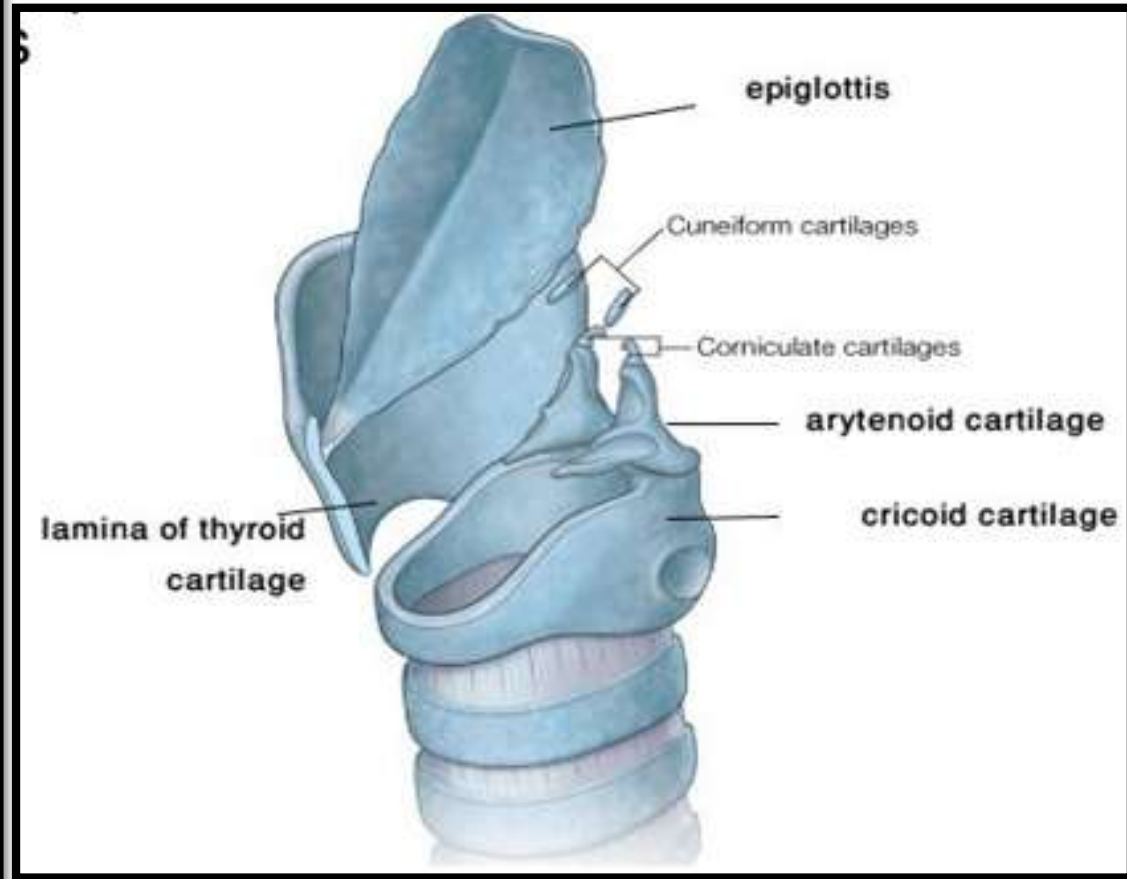
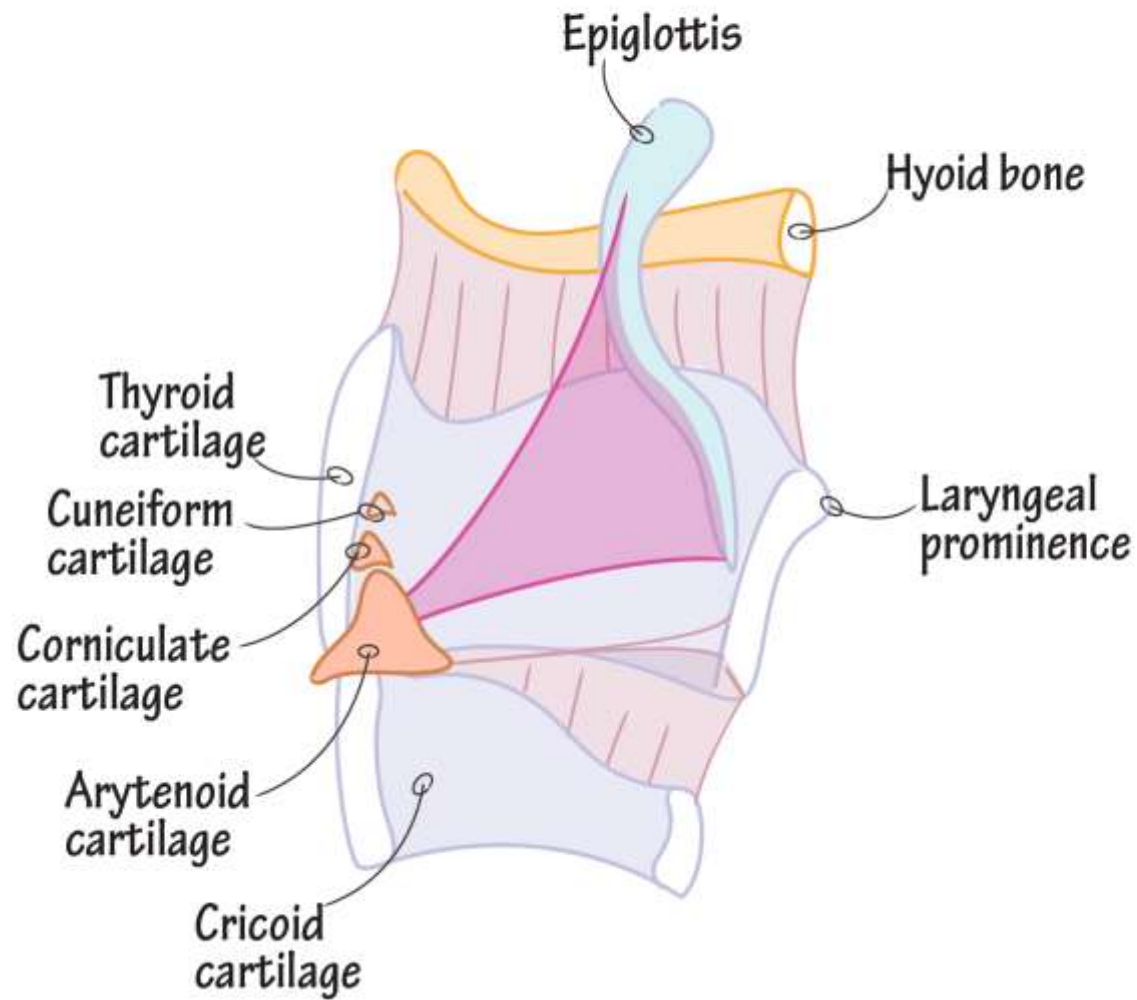


LARYNX

SAGITTAL VIEW

Posterior

Anterior



Thyroid Cartilage

- Hyaline cartilage.
- 2 quadrilateral laminae

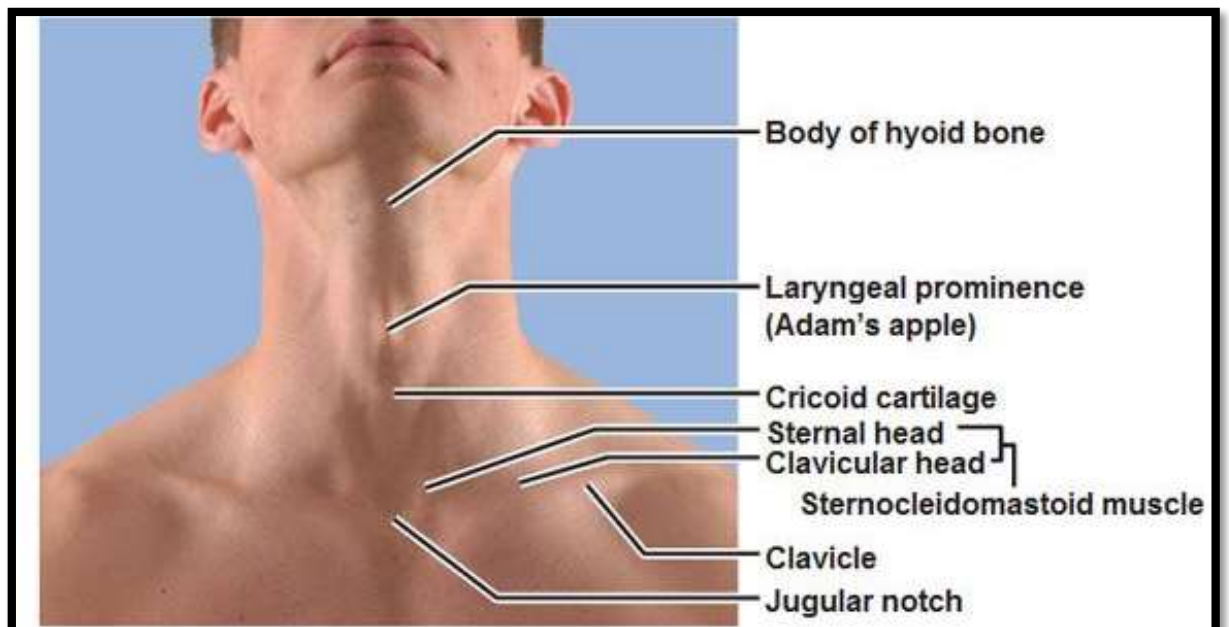
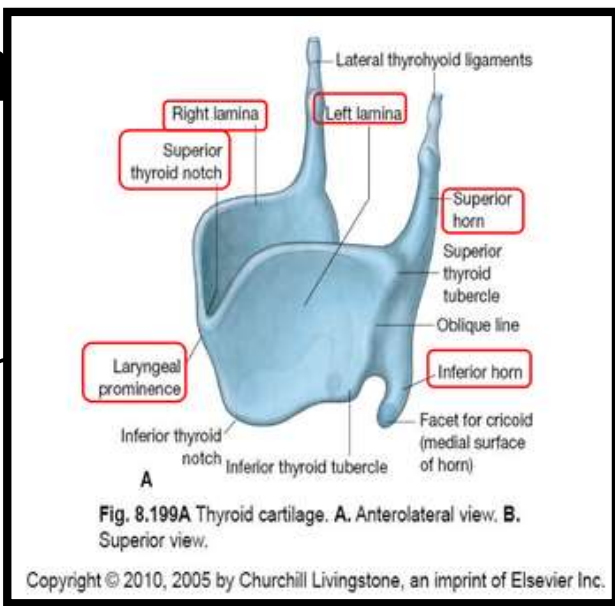
Thyroid angle-

- Laminae meet in front at an angle called thyroid angle.

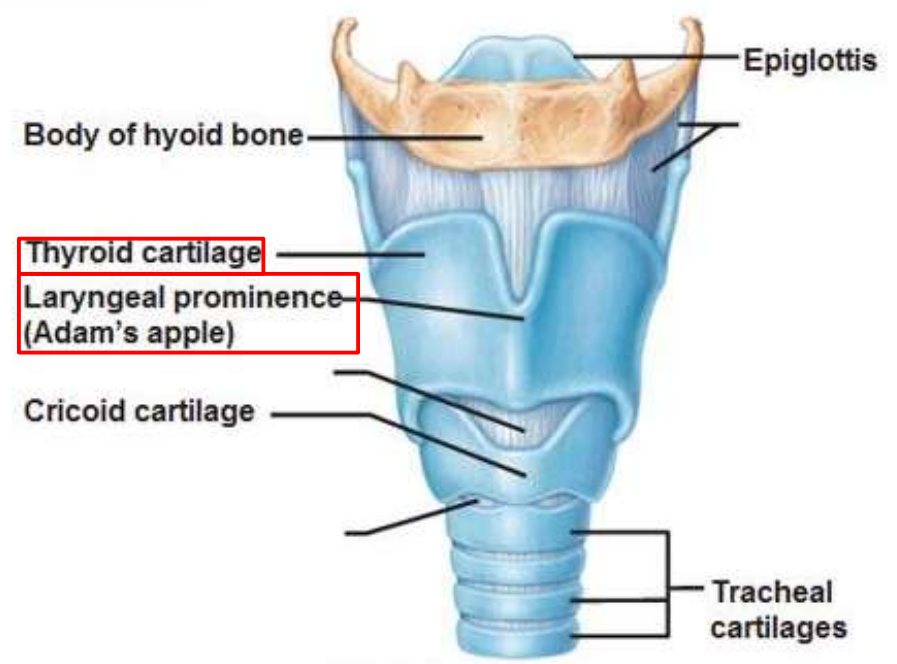
In Males- 90°

In Females- 120°

- In males, thyroid angle produces a prominence called 'Adam's Apple'.



(a) Surface view



(b) Anterior view

Thyroid Cartilage contd...

Attachments on posterior surface of laminae (from above downwards)-

- Thyroepiglottic ligament.
- A pair of vestibular ligaments.
- A pair of vocal ligaments.

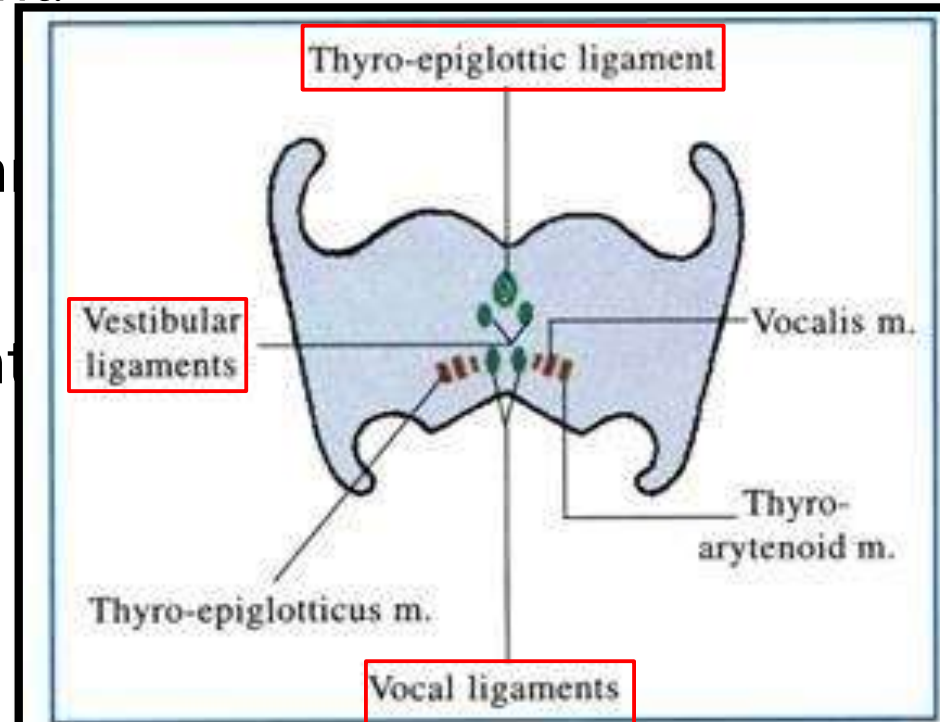
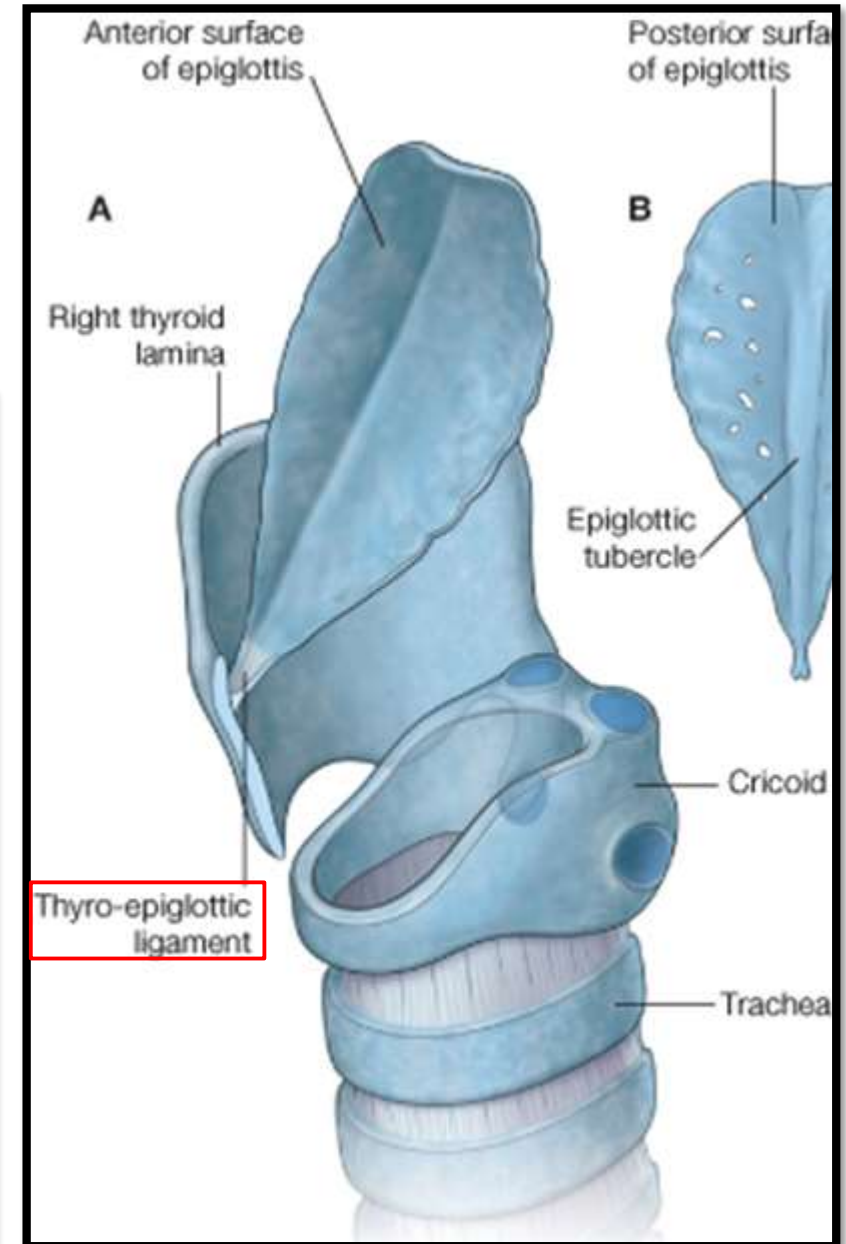
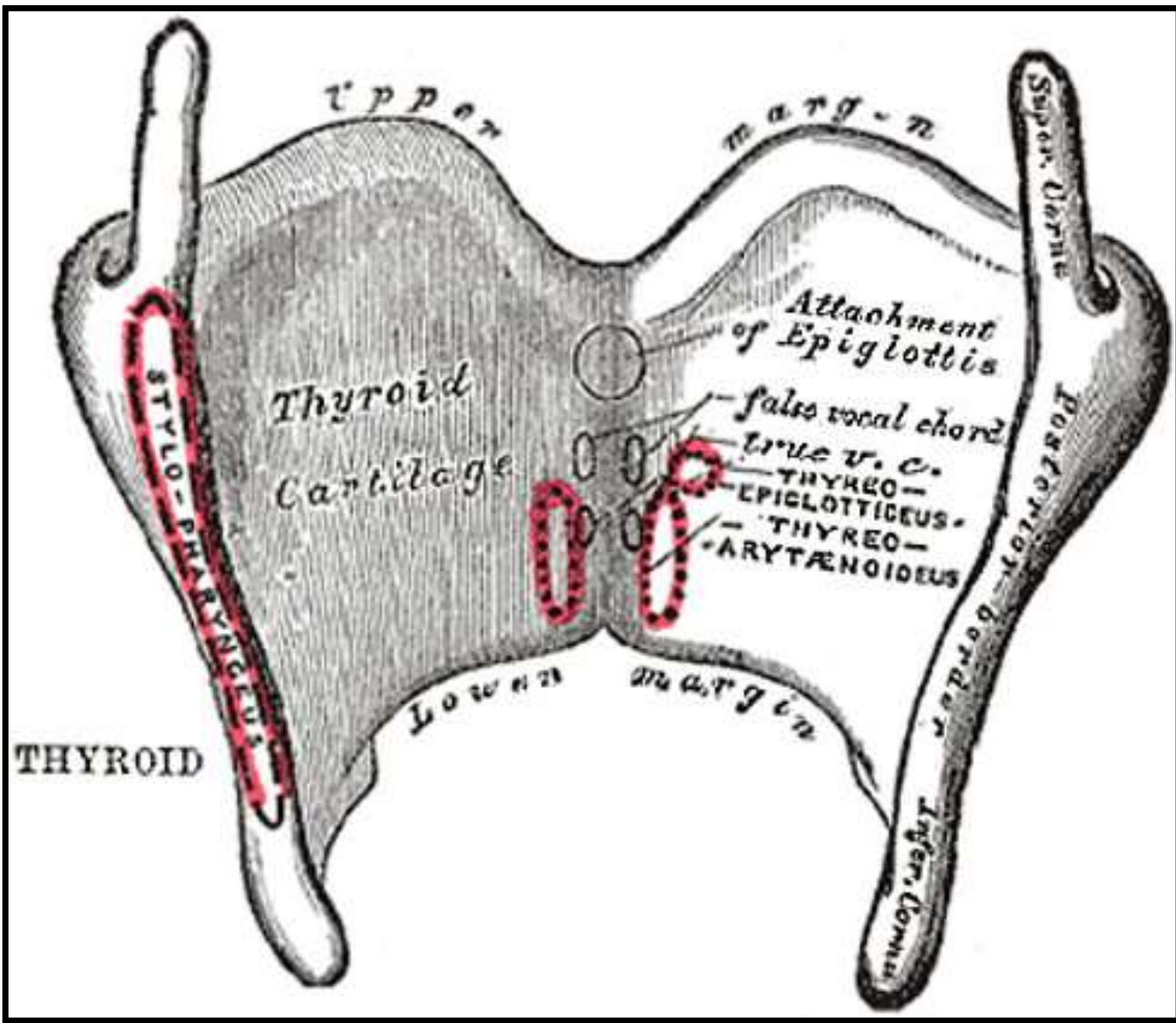


Fig. 13.3. Attachments of structures on the posterior surface of thyroid angle (Viewed from behind).

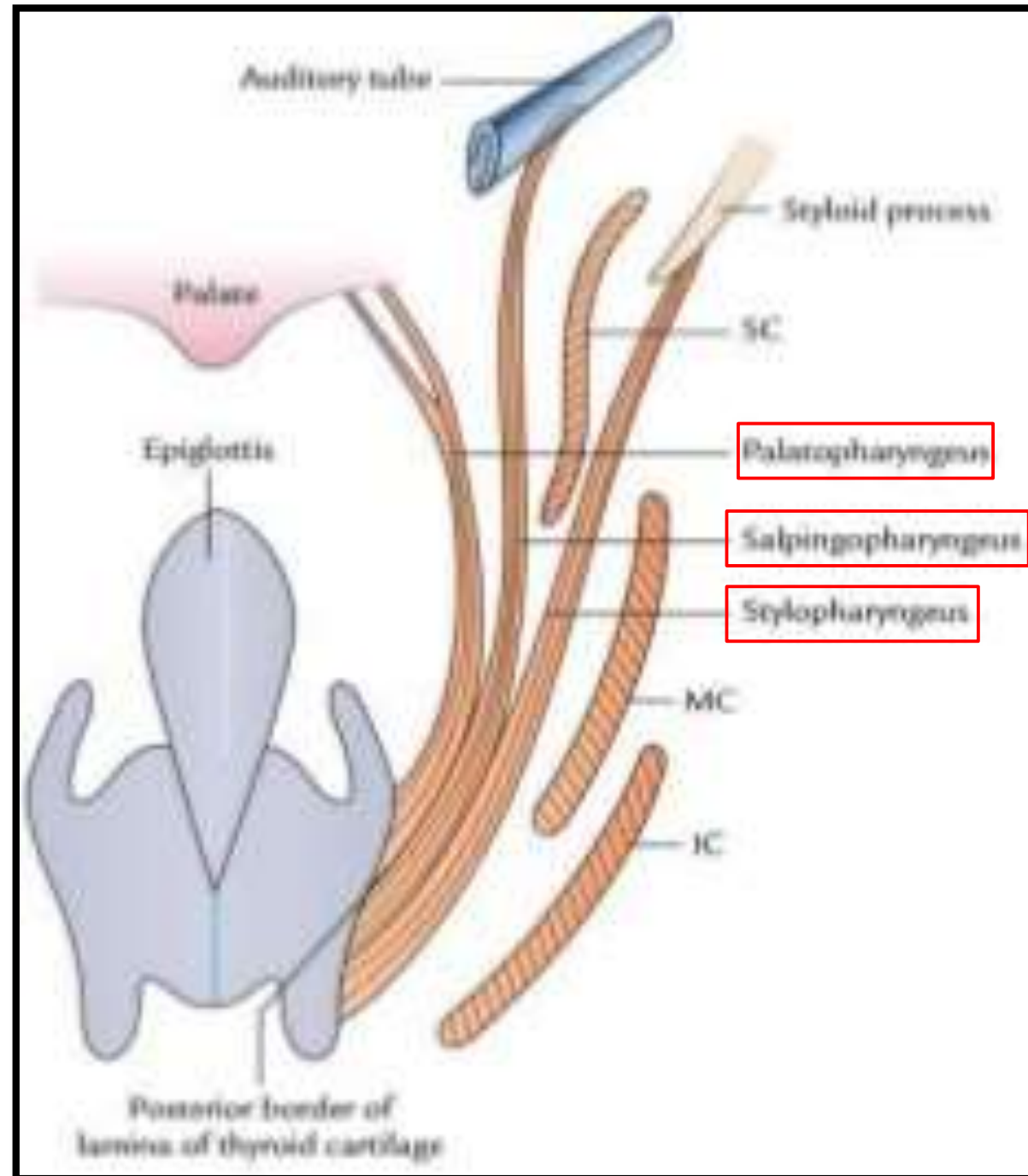




Thyroid Cartilage contd...

Attachments on posterior border of lamina-

- Palatopharyngeus.
- Salpingopharyngeus.
- Stylopharyngeus.



Cricoid Cartilage

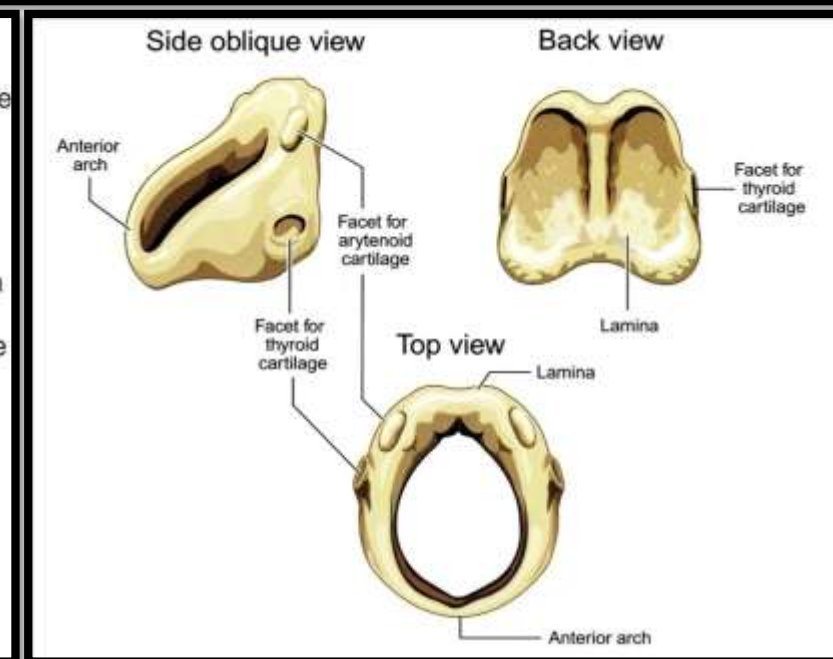
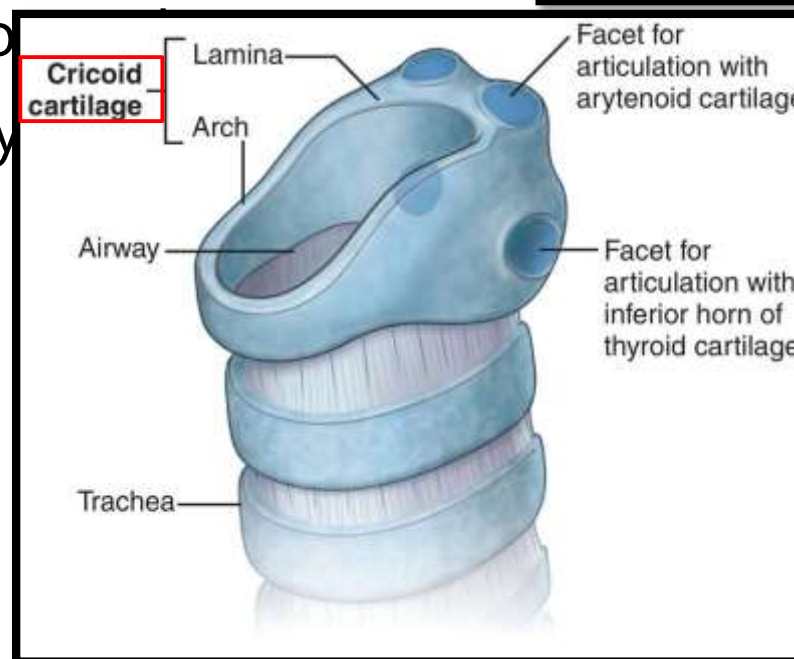
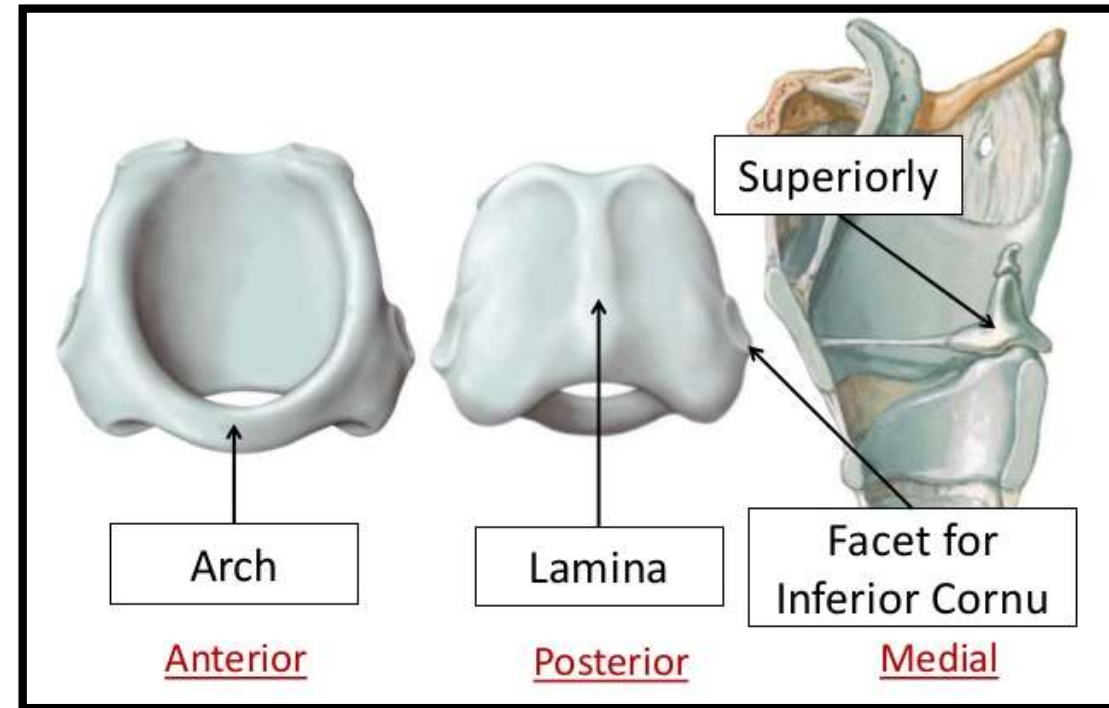
- **Hyaline** cartilage.

Shape- Signet shaped.

Parts-

- **Arch-** narrow and anteriorly located
- **Lamina-** broad and posteriorly located

Vertebral level- C6.



Epiglottis

- Elastic cartilage.

Shape- Leaf like.

Ends-

Lower end (stalk)-

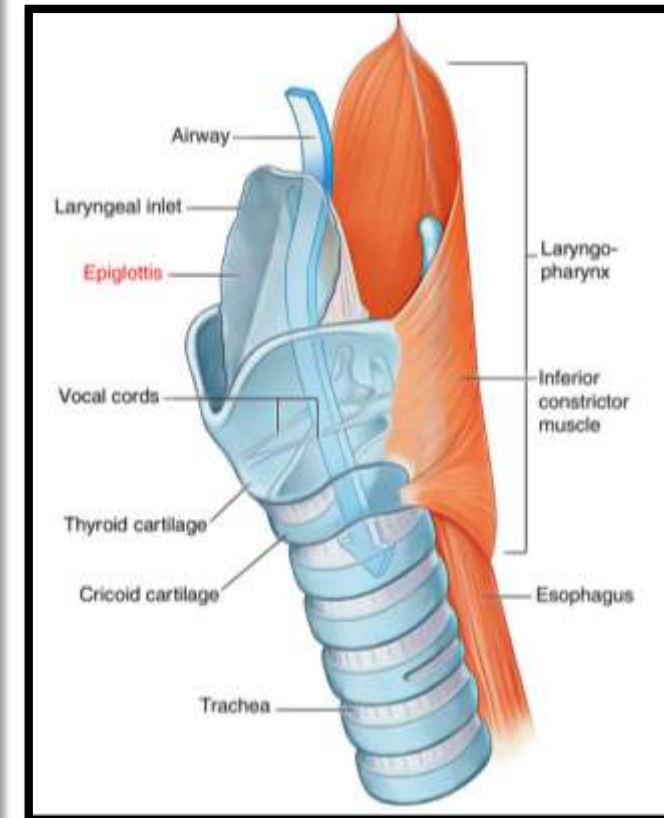
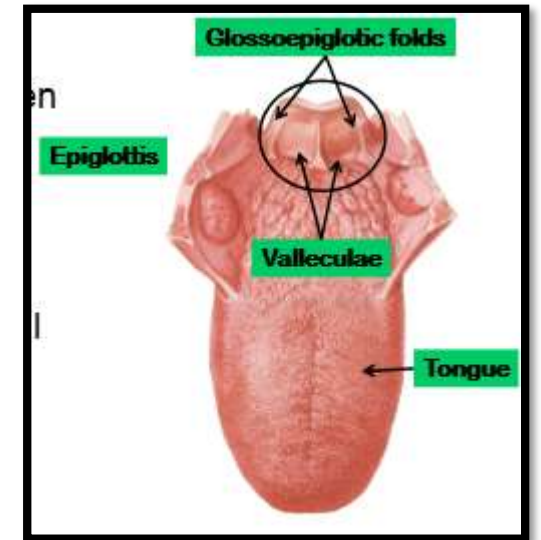
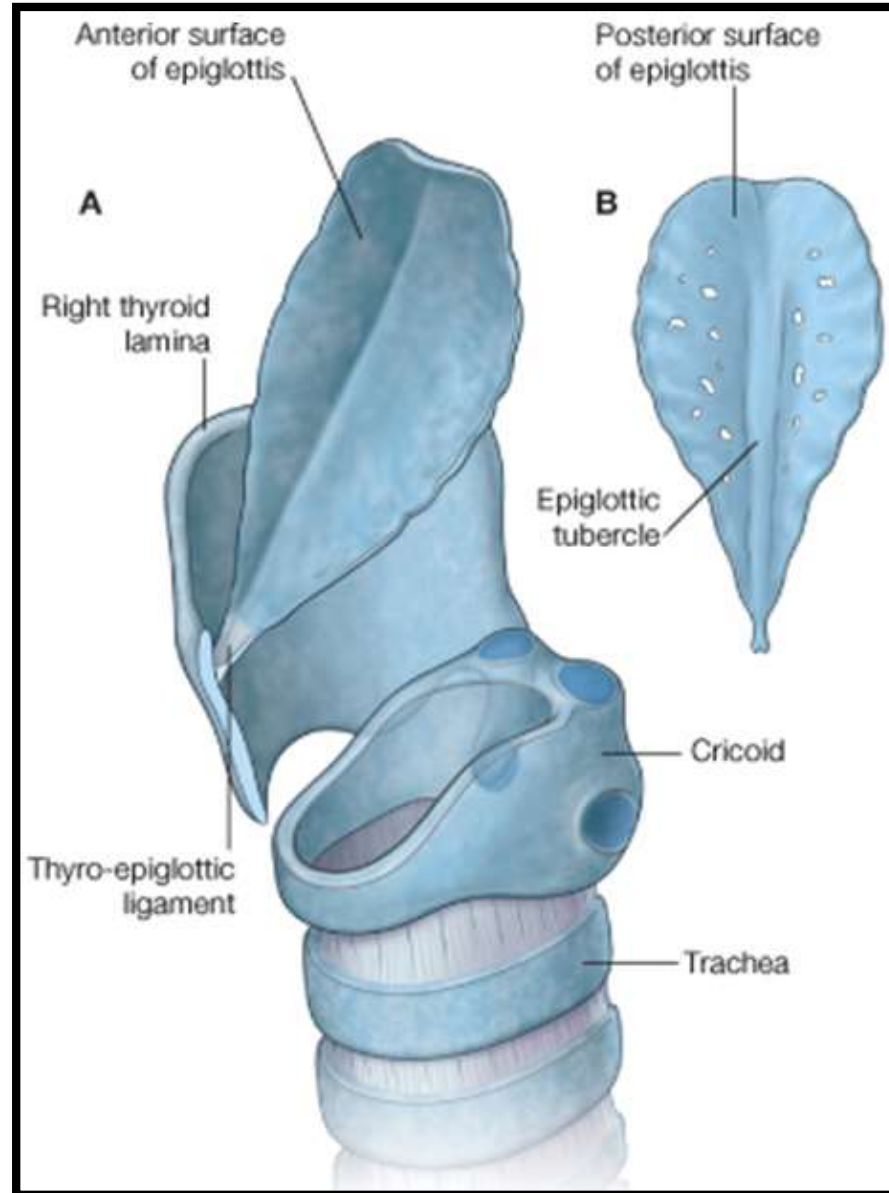
- Narrow and attached.
- It is connected to the posterior surface of thyroid angle by thyroepiglottic ligament.

Upper end-

- Broad and free.
- Forms the upper boundary of laryngeal inlet.

Anterior surface-

- Connected with the base of



Arytenoid Cartilages

- 2 in number.

Shape- Pyramidal.

Presenting parts-

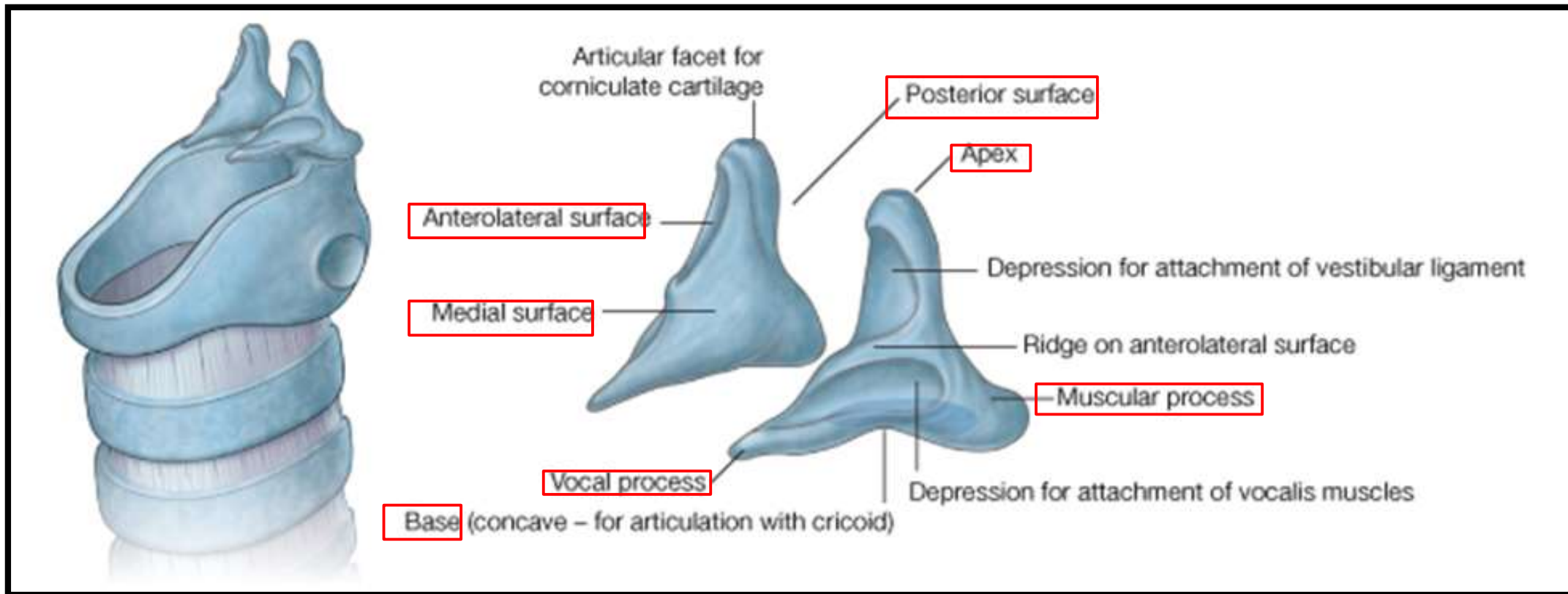
- Apex.
- Base.
- 3 surfaces.
- 2 processes.

Surfaces-

- Medial.
- Anterolateral
- Posterior.

Processes-

- Muscular.
- Vocal.



Arytenoid Cartilage contd...

Apex-

- Curved posteromedially.
- Articulates with corniculate cartilage.

Base-

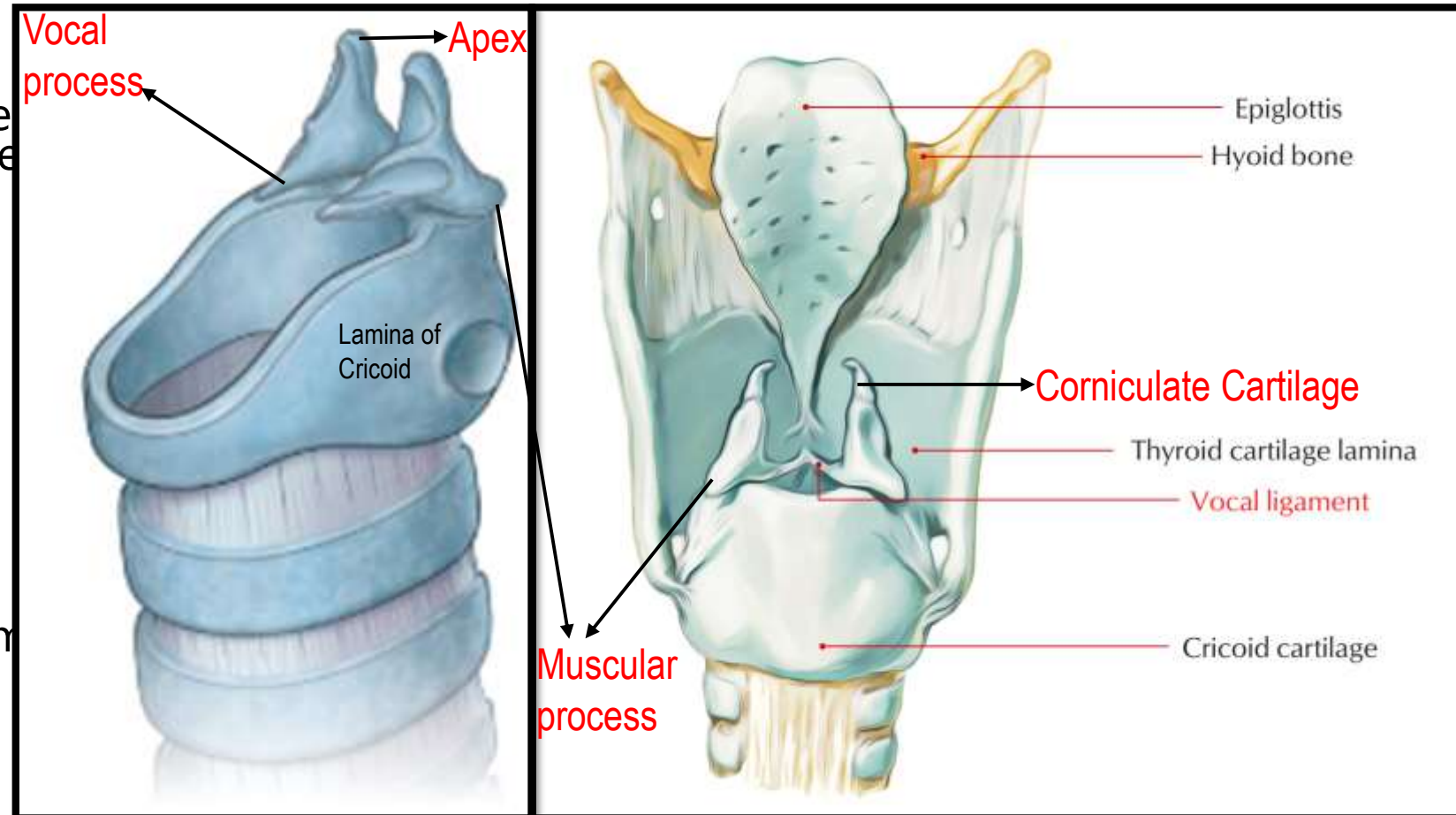
- Concave.
- Articulates with lateral part of upper border of lamina of cricoid cartilage

Muscular process-

- Base is prolonged laterally to form muscular process.
- Projects laterally and backwards.

Vocal process-

- Base is prolonged anteriorly to form vocal process.
- Directed forwards.



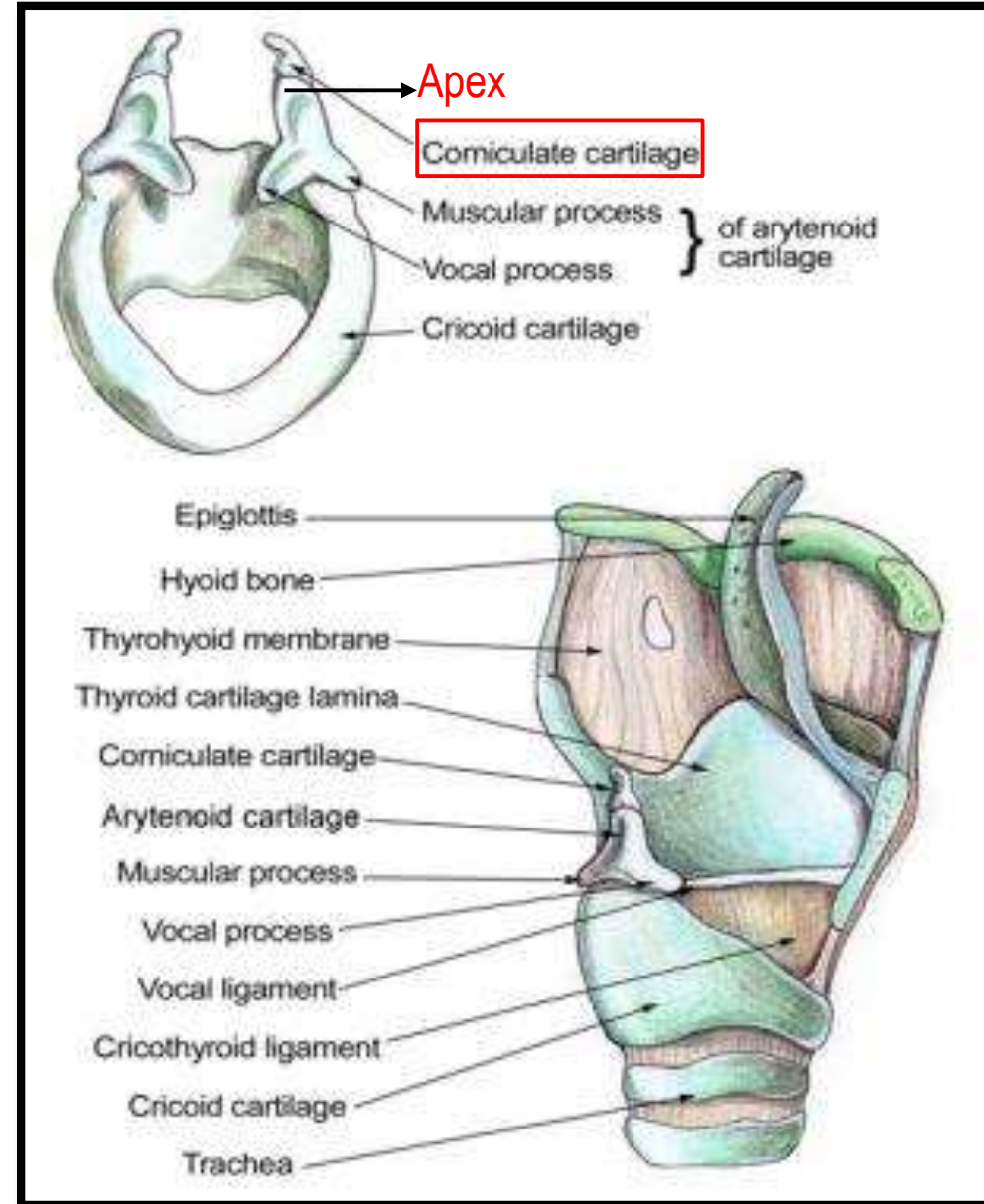
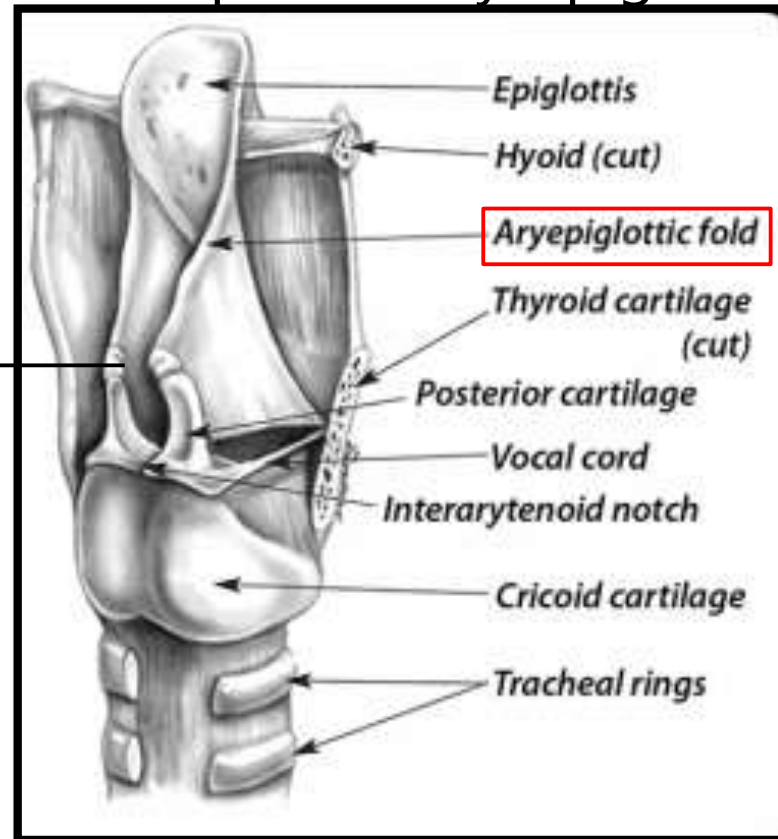
Corniculate Cartilages (of Santorini)

- 2 in number.

Shape- Conical.

- Each cartilage articulates with apex of Arytenoid cartilage.
- Each cartilage lies in posterior part of ary-epiglottic fold.

Corniculate Cartilage

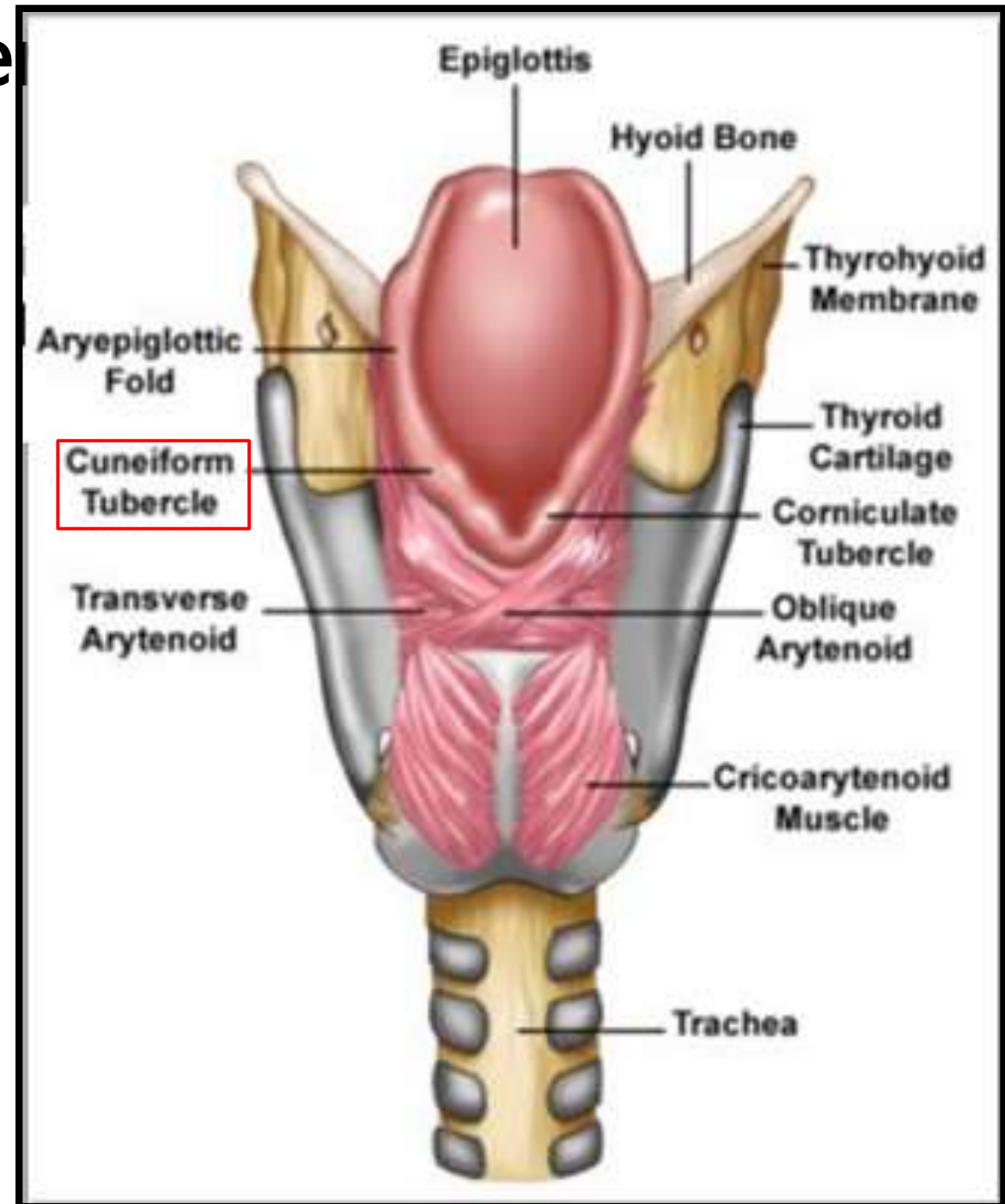


Cuneiform Cartilages (of Wrisberg)

- 2 in number.

Shape- Rod-shaped.

- Each cartilage lies in posterior part of aryepiglottic fold just above the corniculate cartilage.



Thank
you

