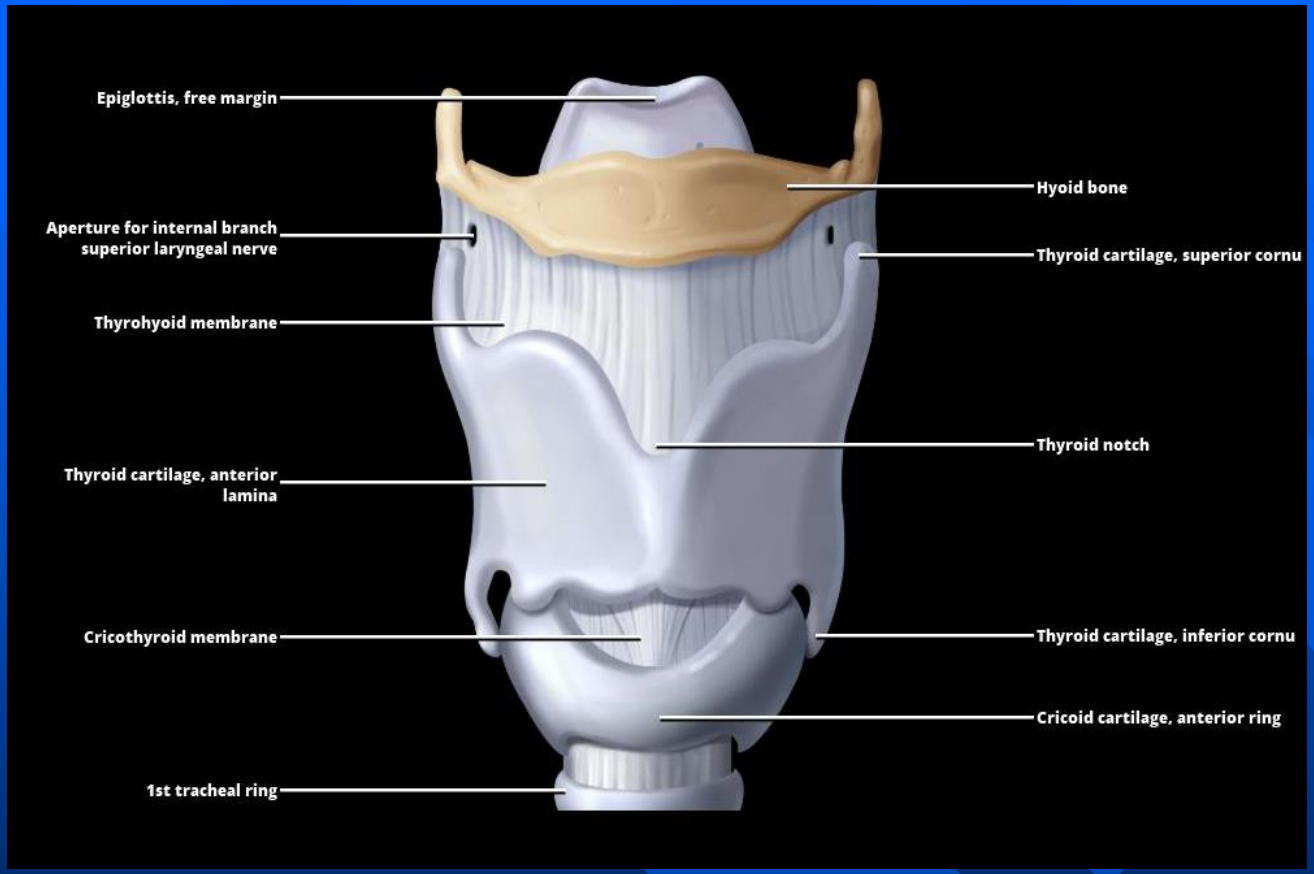
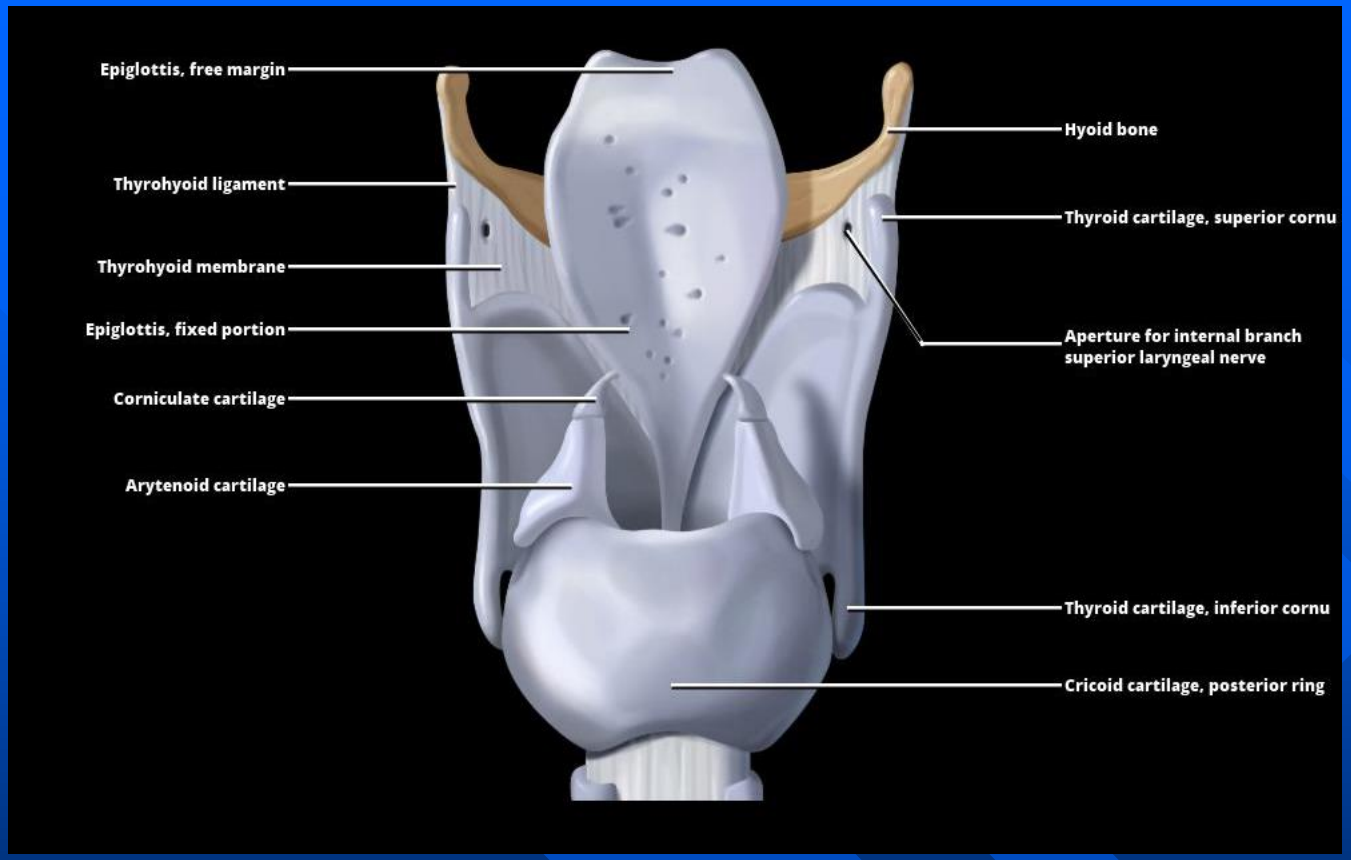


Anterior view shows the laryngeal cartilage, which provides structural framework for soft tissues of larynx to drape over. Note that 2 large anterior laminae of thyroid cartilage "shield" the larynx. Thyrohyoid membrane contains an aperture through which the internal branch of the superior laryngeal nerve & vessels course.

Remember that invasion through the thyroid cartilage by SCCa makes the tumor stage T4a.

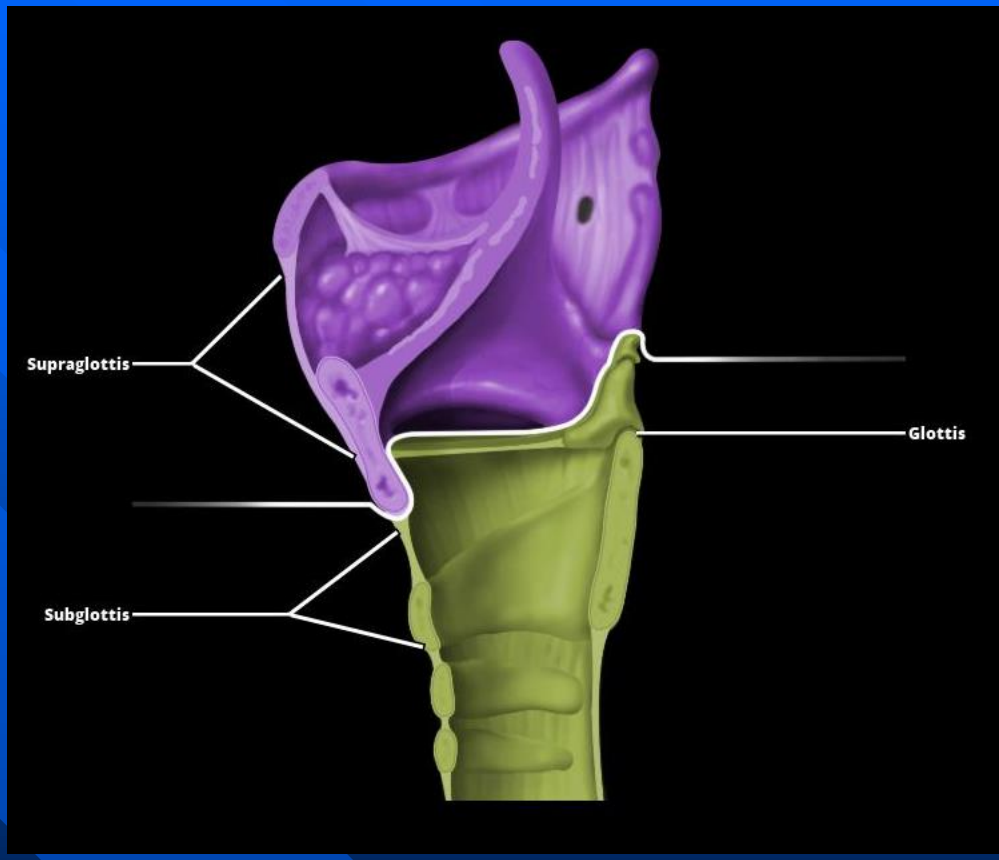


Posterior view shows arytenoid cartilage sitting on top of posterior cricoid cartilage. The true vocal cord attaches to the vocal process of the arytenoid cartilage & forms the glottis. The epiglottis is a leaf-shaped cartilage which forms the lid of the larynx and contains fixed & free margins. Cricoid cartilage provides structural integrity as the only complete, signet-shaped ring (shorter anterior wall and taller posterior aspect). The mucosa that covers the posterior "signet" component of the cricoid cartilage is the post-cricoid hypopharynx. The lower border of cricoid represents junction between larynx above & trachea below.

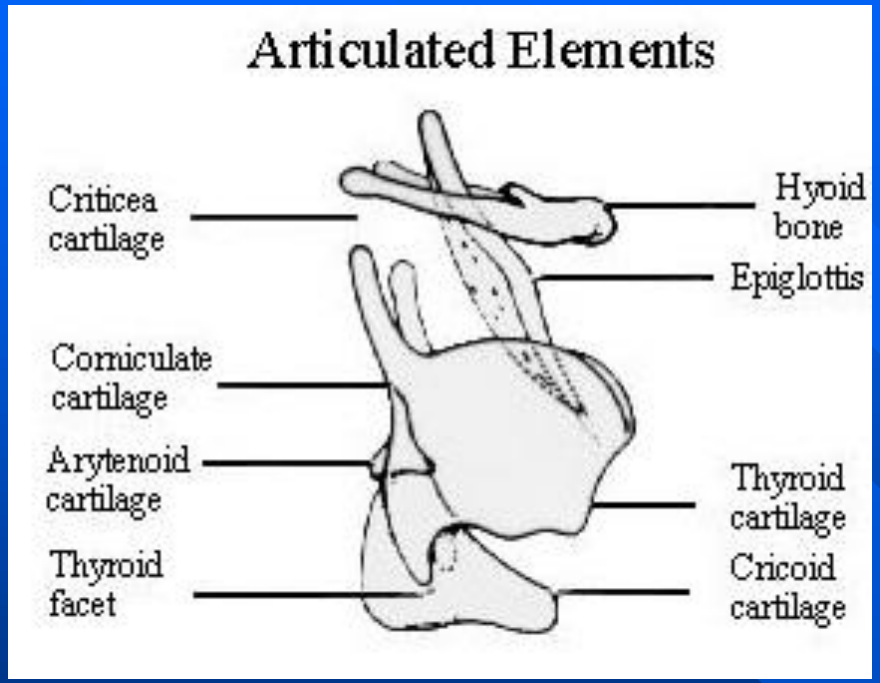
The supraglottis (purple) forms from primitive buccopharyngeal anlage & has a rich lymphatic supply that drains into upper internal jugular nodes.

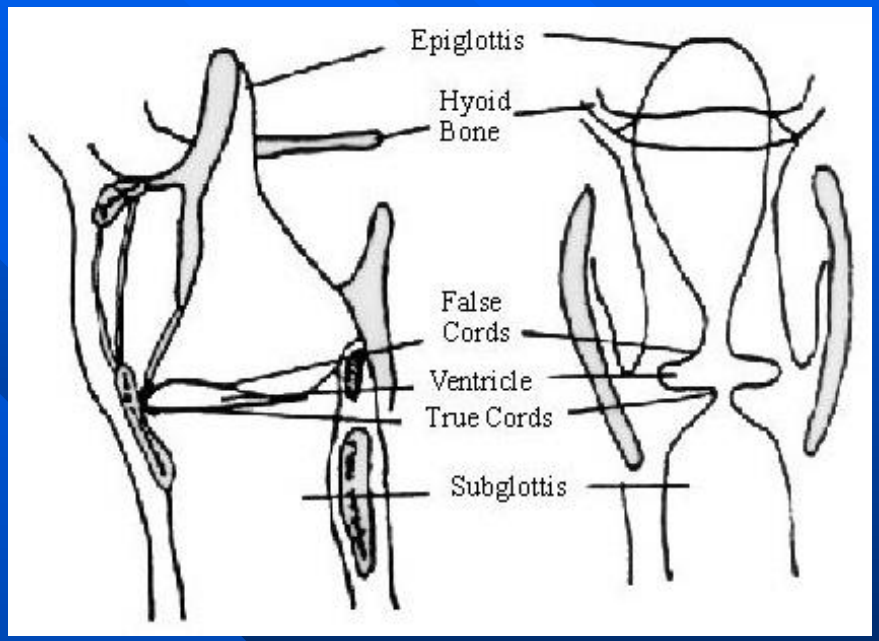
The glottis & subglottis (green) form from tracheobronchial buds, have sparse lymphatics, & drain to internal jugular & paratracheal nodes.

Consequently, supraglottic SCCa has a much higher incidence of nodal metastases at presentation than glottic & subglottic SCCa.



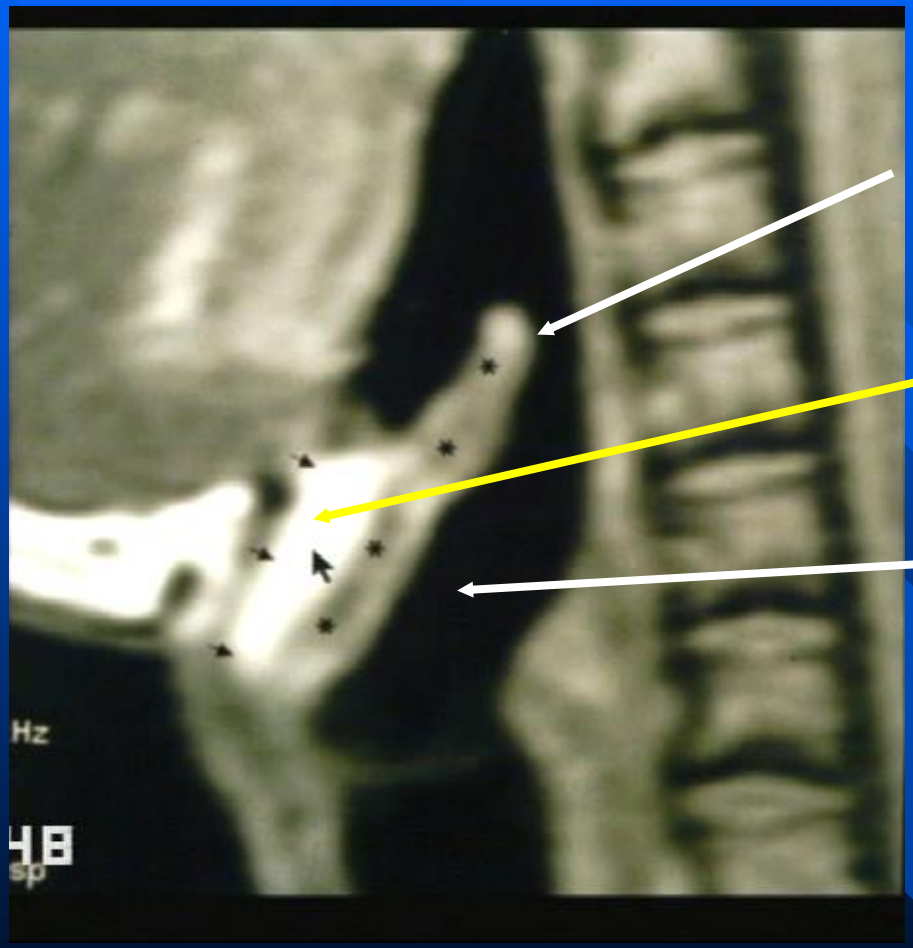
Larynx



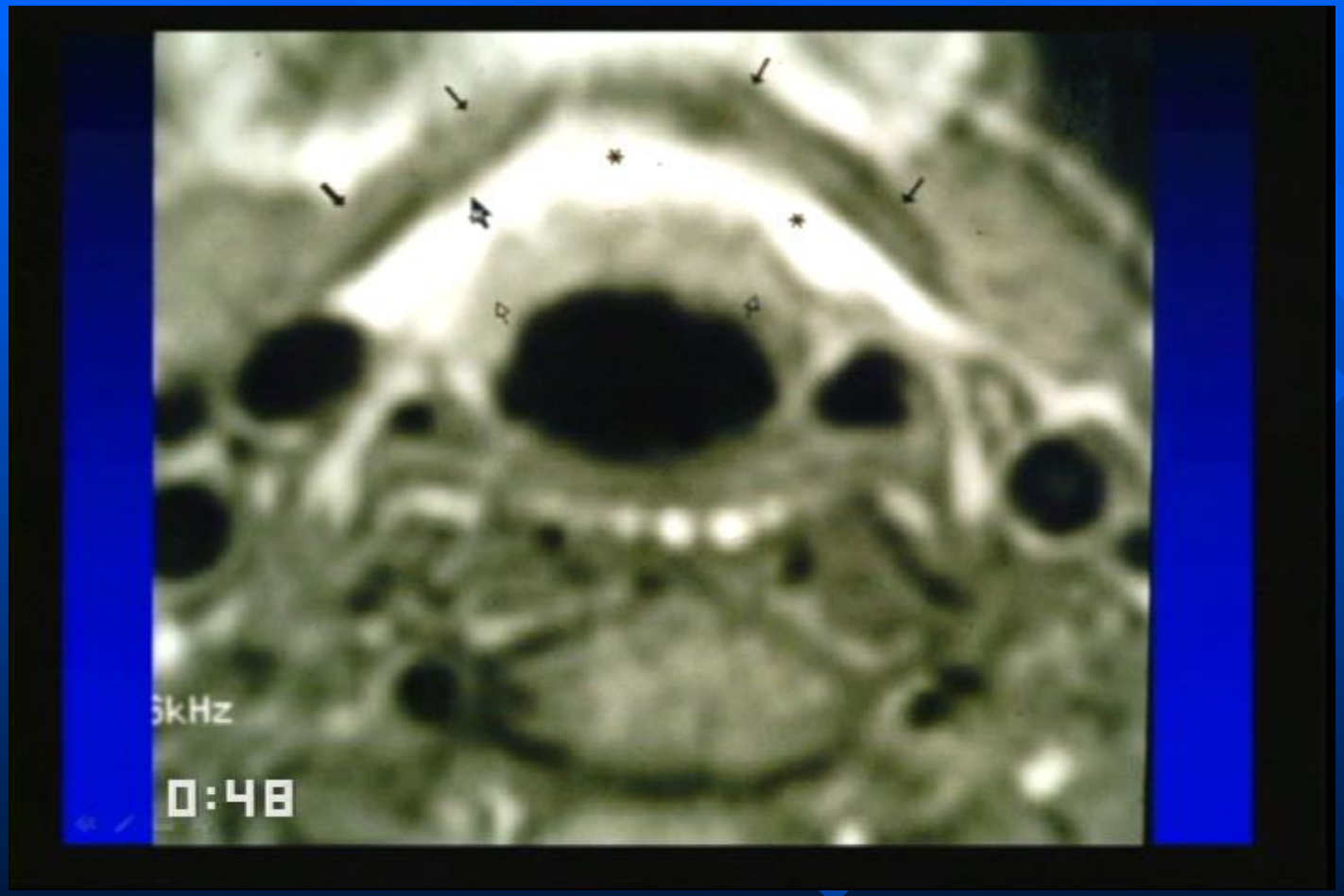


- Epiglottis
  - Suprahyoid involvement better than Infrahyoid epiglottis involvement
  - Need to differentiate

Anatomy

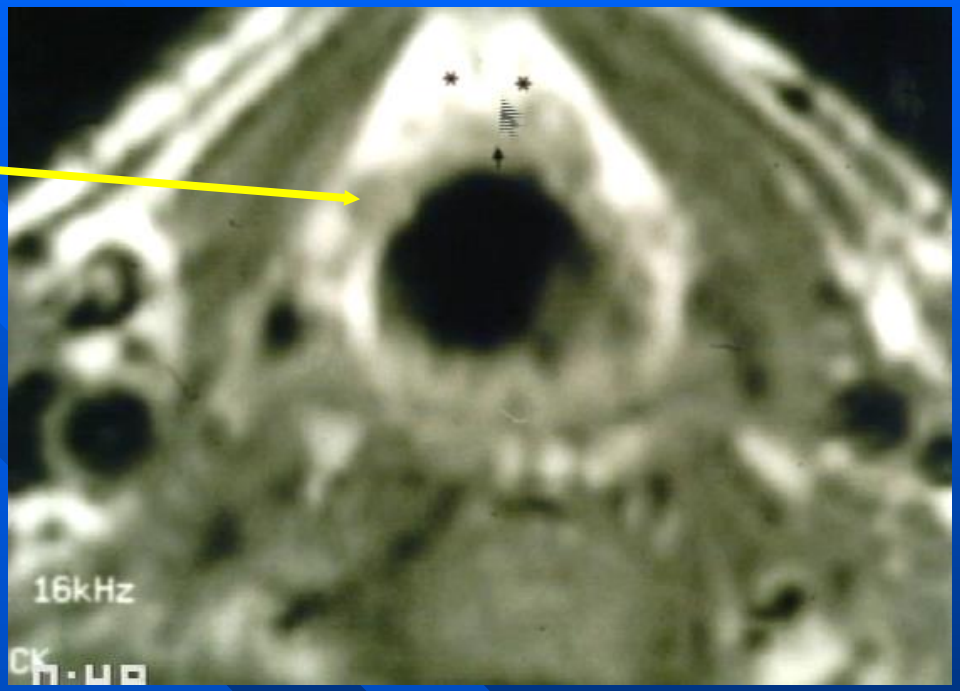


- = Preepiglottic fat

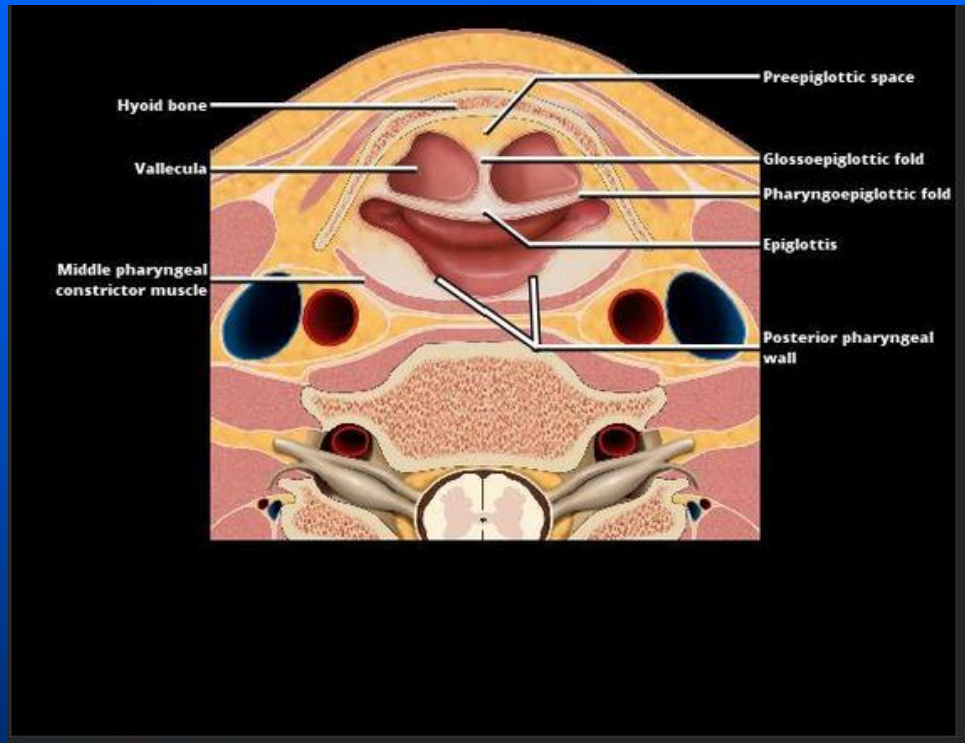


Thyroglotic Ligament

- Separates pre-epiglotic space from superior paraglottic space



Anatomy



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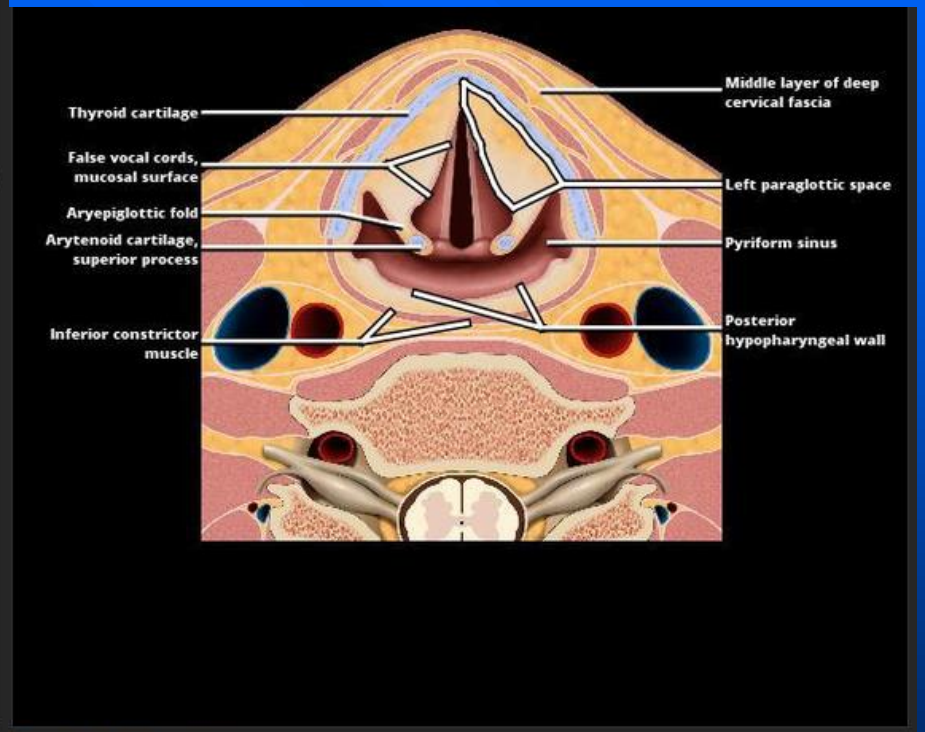
The 1st of 6 axial graphics of larynx & hypopharynx from superior to inferior shows the upper aspect of the hypopharynx at the hyoid bone level & high supraglottic structures. The free edge of epiglottis connects to the hyoid bone via the hyoepiglottic ligament, which is covered by glossoepiglottic fold, a ridge of mucous membrane.



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Axial graphic at the low supraglottic level shows false vocal cords (FVC) formed by mucosal surfaces of laryngeal vestibule. The paraglottic space is beneath FVC, a common location for submucosal tumor spread. Laryngeal ventricle SCCa is known to spread early in the submucosal paraglottic space.

Preepiglottic and Paraglottic space

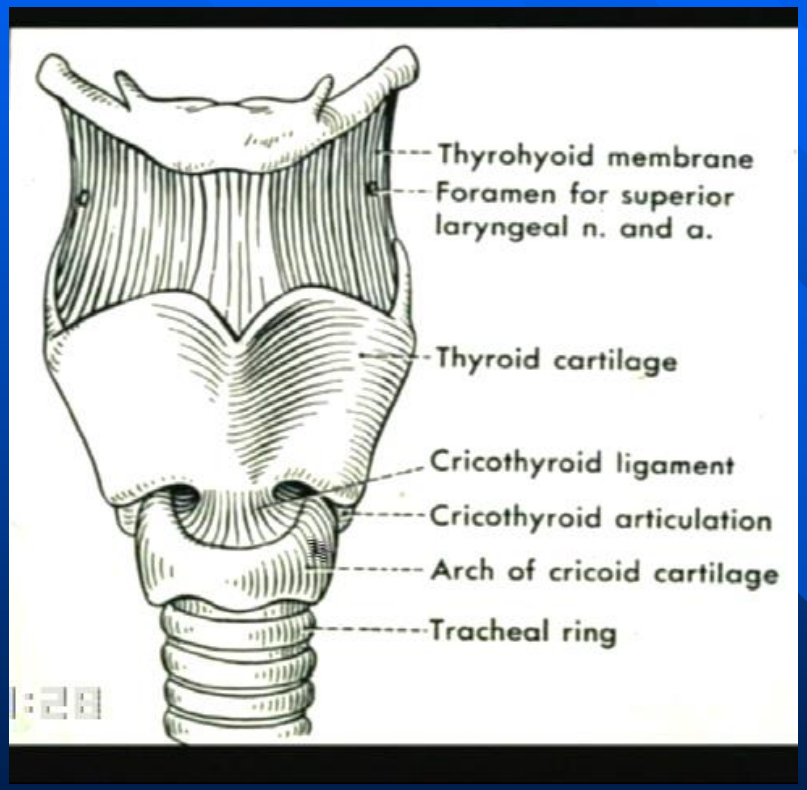
- **Preepiglottic space**:
  - Fat-filled space between hyoid bone anteriorly & epiglottis posteriorly
  - Submucosal SCCa hides here (T3 stage)
- **Paraglottic space**:
  - Paired fatty areas deep to FVCs Superiorly they merge into preepiglottic space
  - Terminates inferiorly at undersurface of TVC
  - Submucosal location in which SCCa may hide

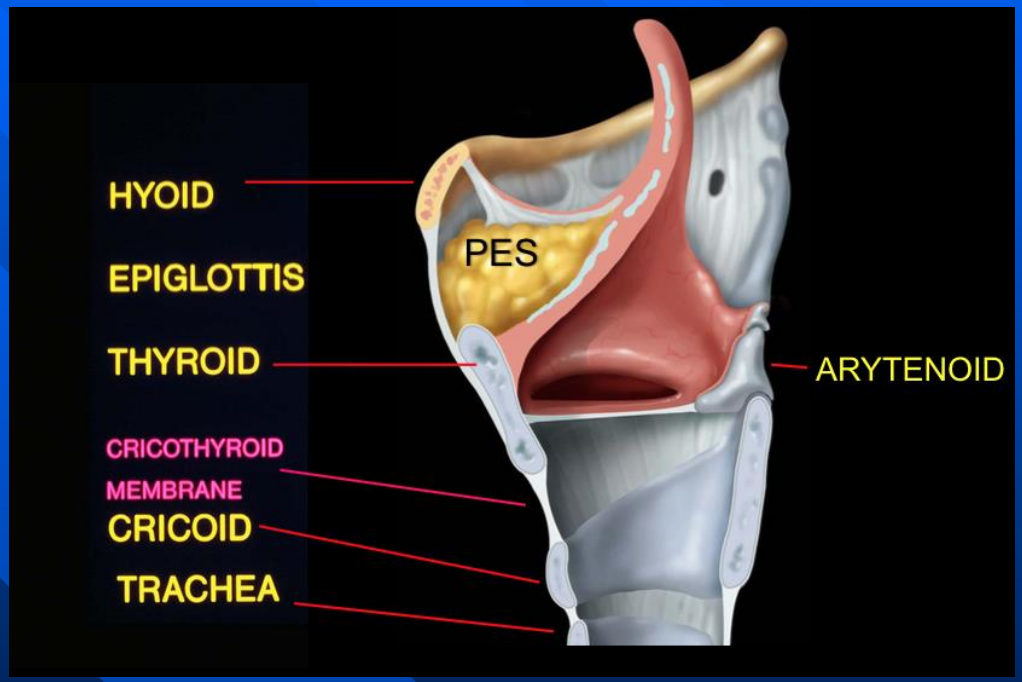
The Laryngeal Cartilagenous Backbone

- Hyoid bone
- Epiglottis - protects airway during swallowing
- Thyroid cartilage
- Arytenoids - support true vocal cords
- Cricoid cartilage - airway patency

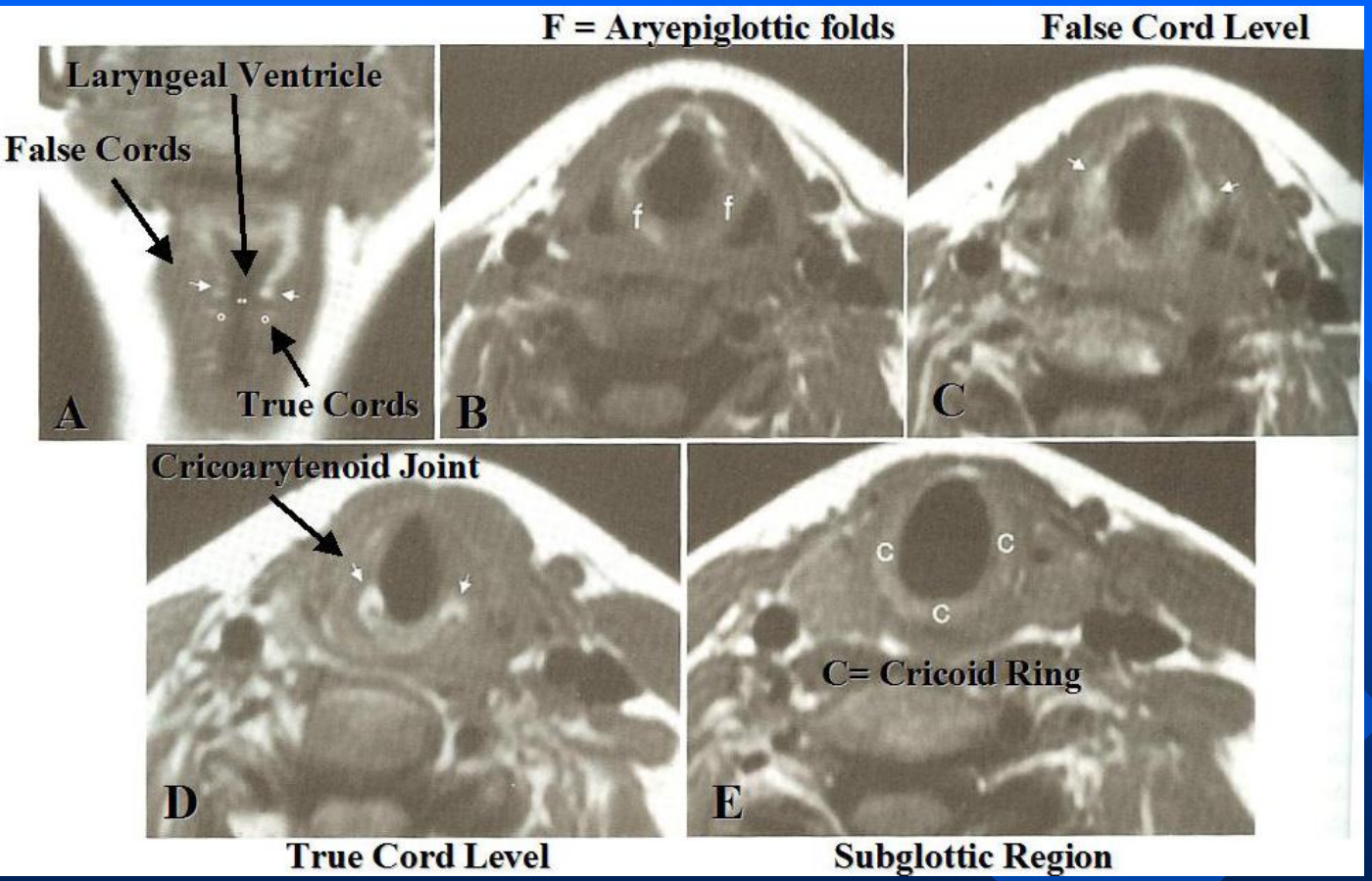
0:27

Recurrent laryngeal nerve pierces cricoid thyroid ligament





Larynx Anatomy

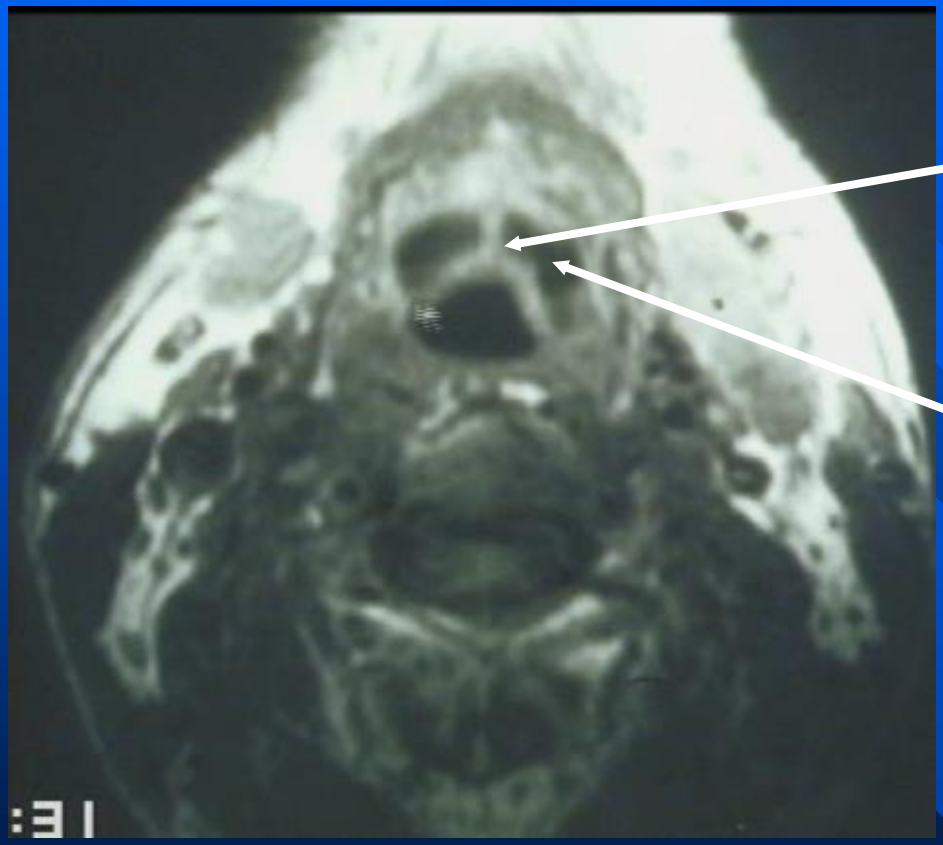


- ***A*** *– Shows* ***ventricle*** *which separates false cords from true cords, note high density by false cords due to fat.*
- ***B*** *- shows* ***aryepiglottic folds*** *and pyriform sinus*
- ***C*** *– at level of* ***false cords*** *again note the fat*
- ***D*** *– at level of the* ***true cords*** *note the muscle (thyroarytenoid) bulk of cords*
- ***F*** *– Subglottic region marked by full cricoid ring*

Anatomy

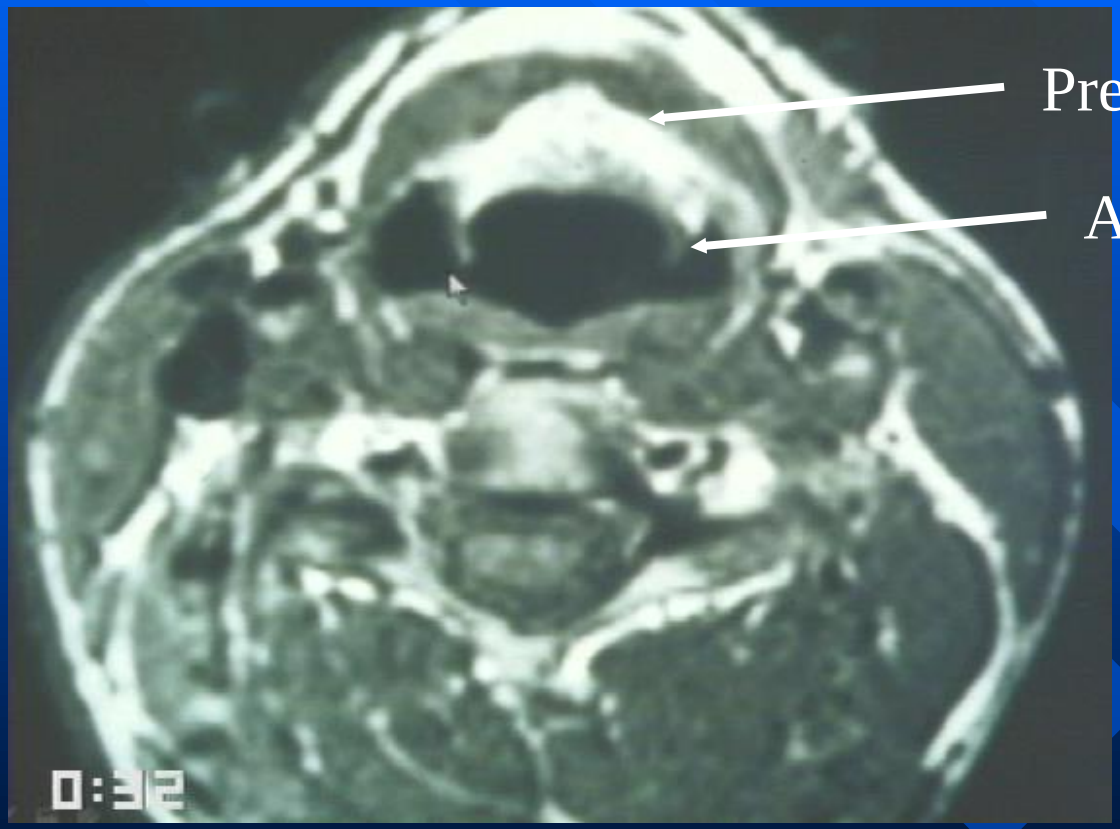
- Laryngeal ventricle red
- * true cords
- False cords orange arrow

Mercedes Benz sign



Median Epiglottic Ligament

Vallecula
Part of pharynx


Pre epiglottis Fat
Aeroepiglotic folds
0:32