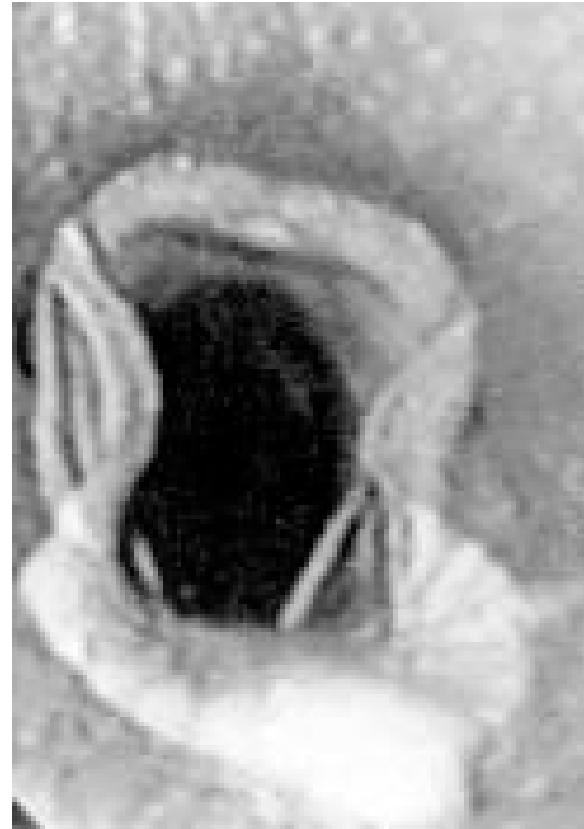
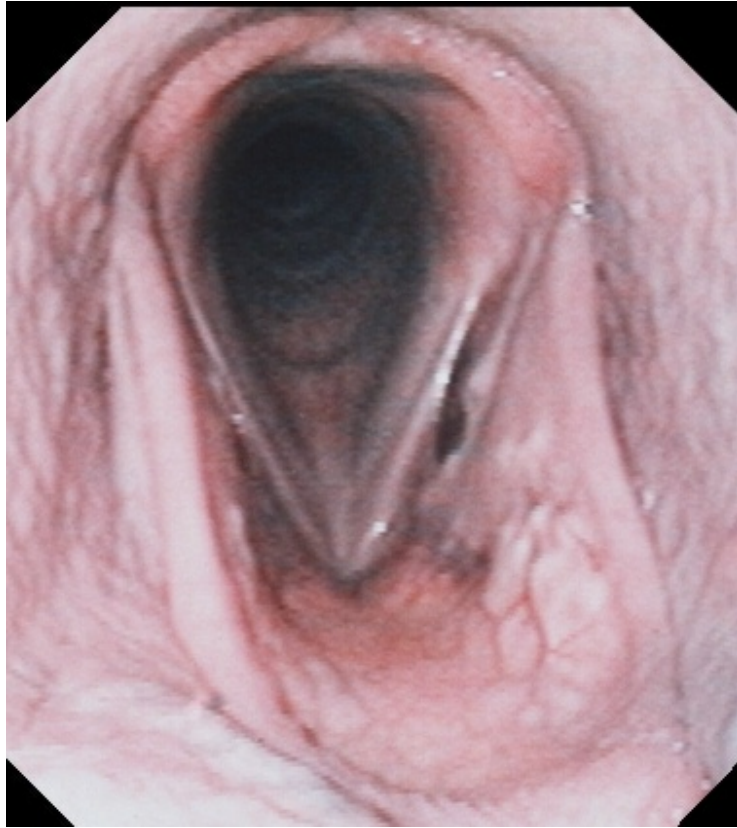


Large Animal Upper Respiratory Tract Disorders

Erin Malone

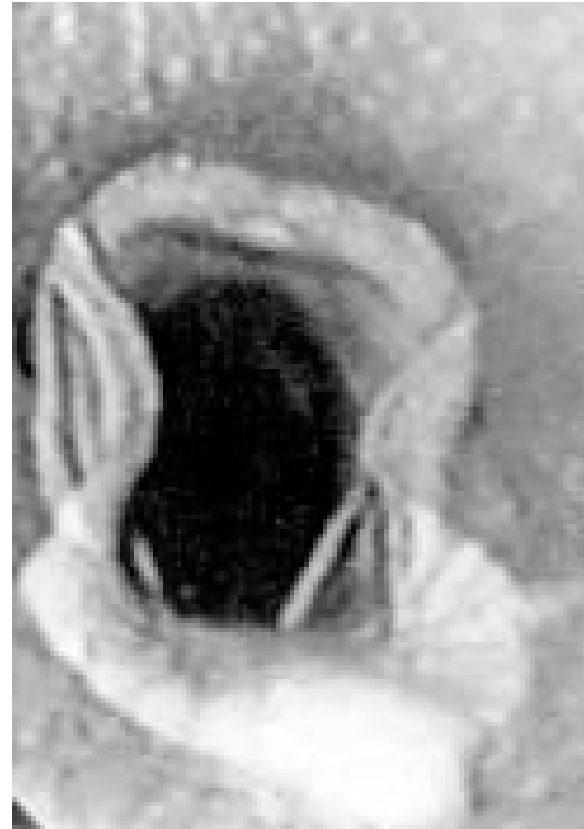
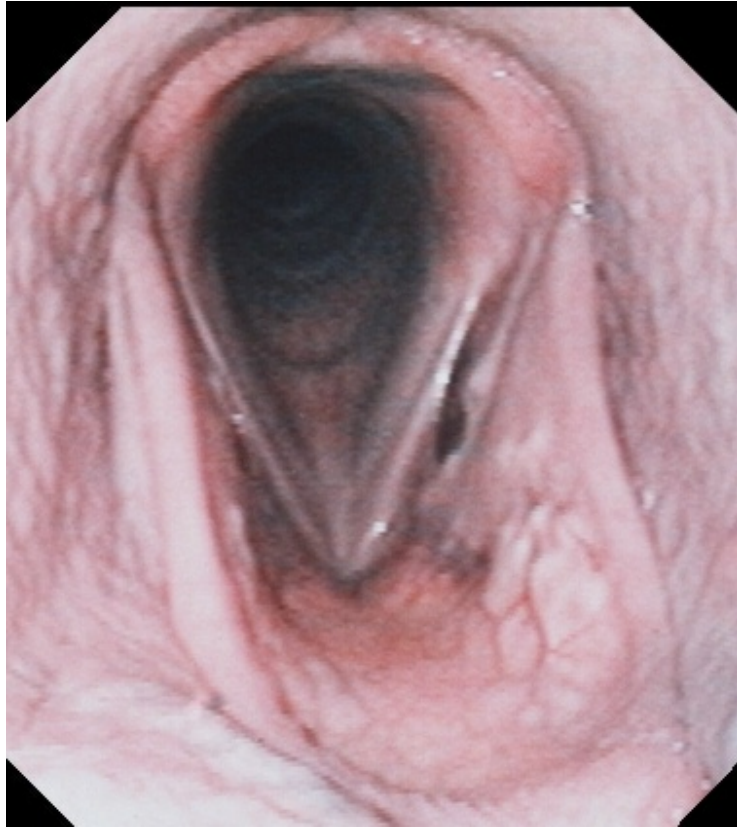
High negative pressures develop in the upper airway with inspiration



Less rigid structures tend to collapse -> narrowed airway

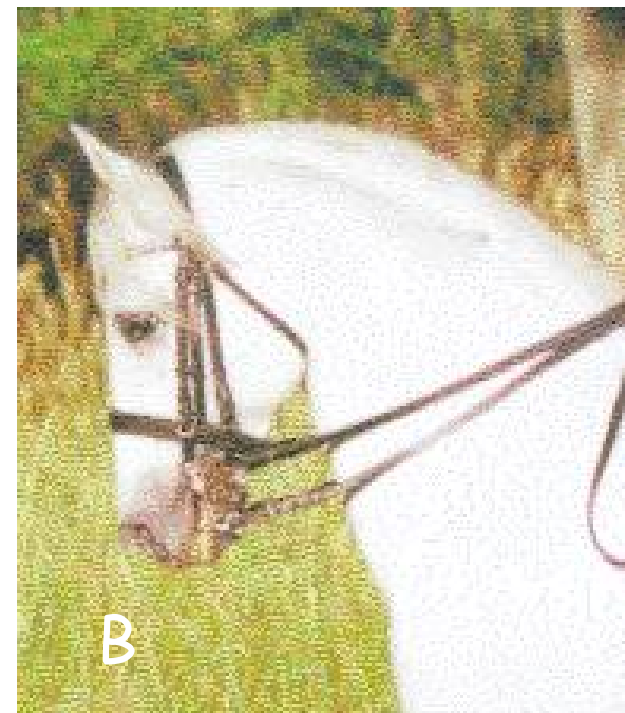


High negative pressures develop in the upper airway with inspiration

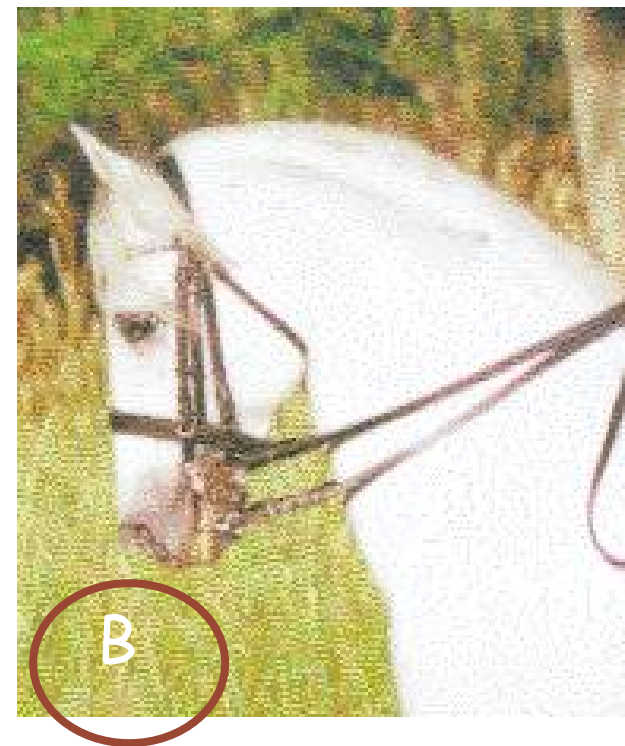


Narrowed airway -> Increased resistance (r^4)-> turbulence & noise



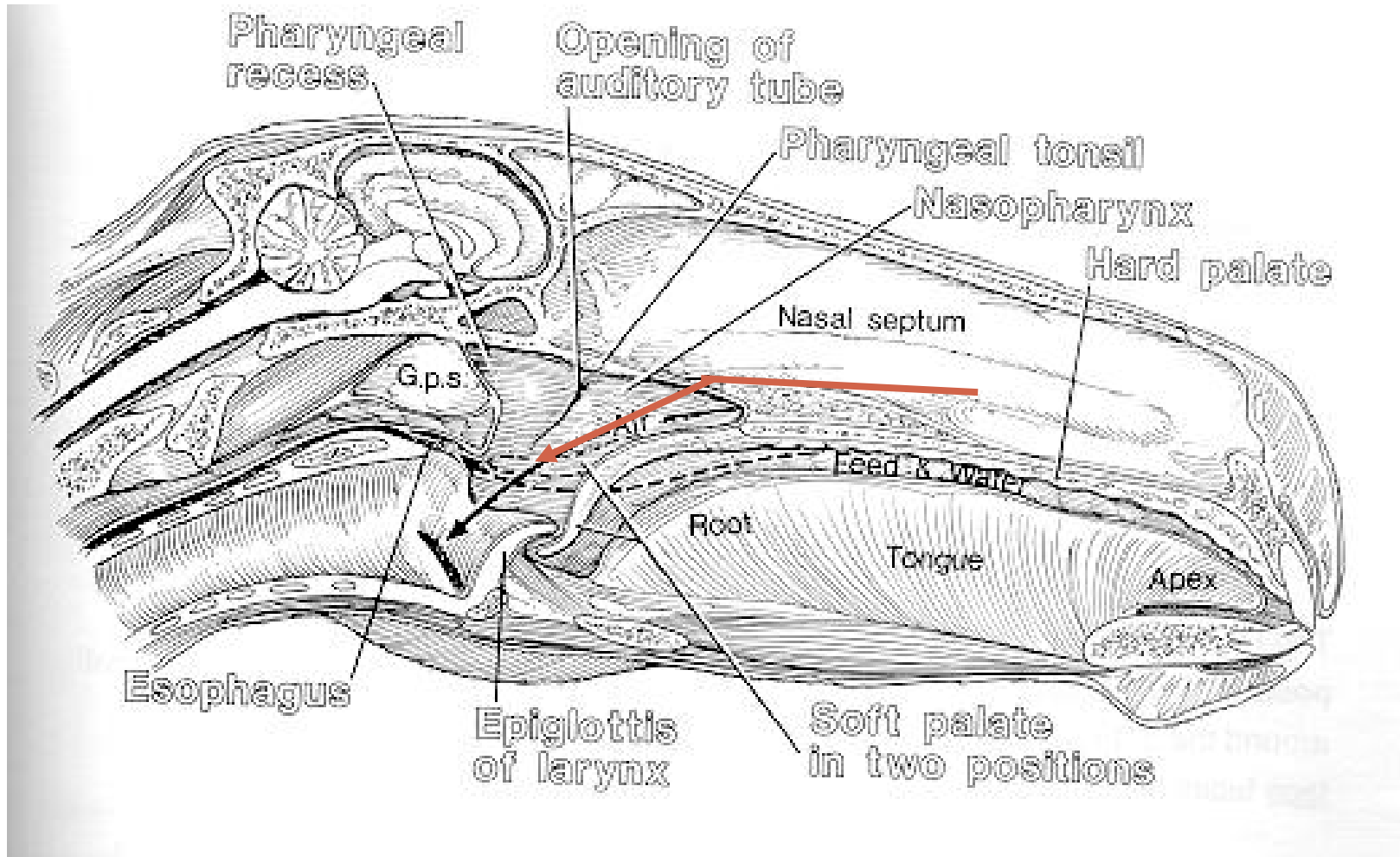


Which airway is most restricted?



Which airway is most restricted?

Airflow path optimized with head and neck stretched out



Positive airway pressures develop on expiration

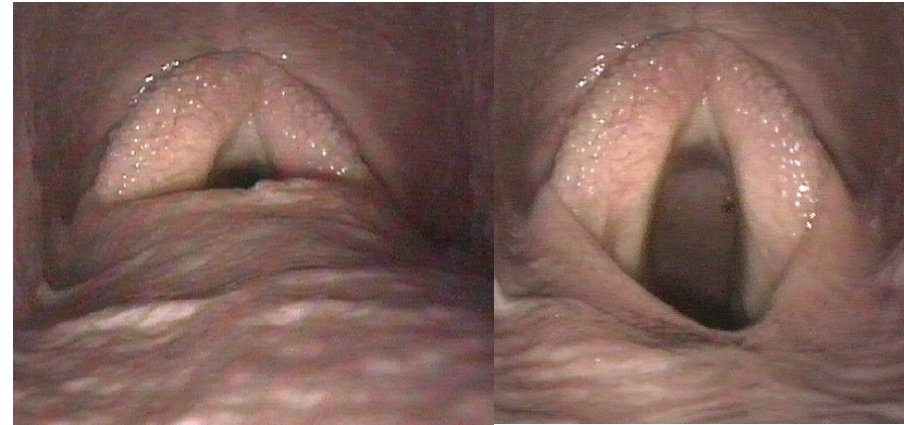
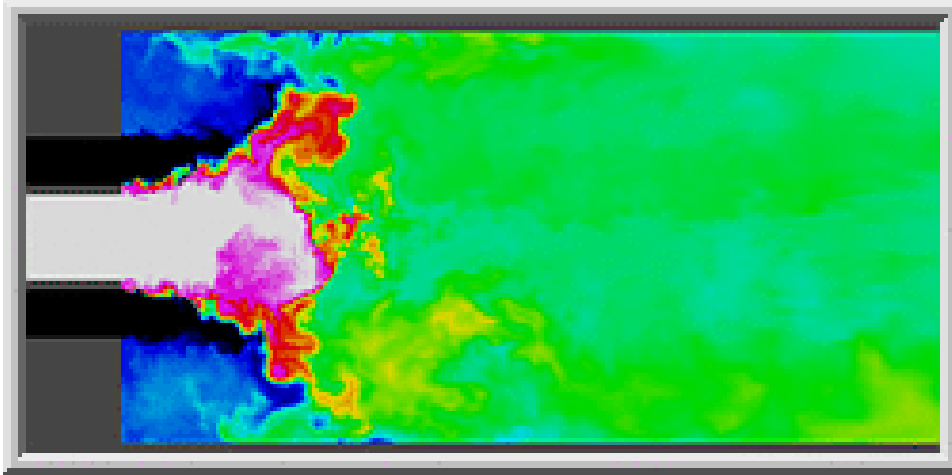
- ▶ Force soft tissue structures out of path



Positive airway pressures develop on expiration

Structure in airflow path →

Turbulence (noise) and Vibration



Problems on inspiration occur with

- ▶ Things that move
 - Nostrils
 - Epiglottis
 - Arytenoids
 - Soft palate



Problems on expiration occur with

- ▶ Space occupying lesions/ swellings
 - Nasal passages
 - Cysts
 - Tumors



Airflow problems

- ▶ If the epiglottis muscle isn't working well to control its position, the epiglottis is likely a problem during:
 - ▶ A. inspiration
 - ▶ B. expiration



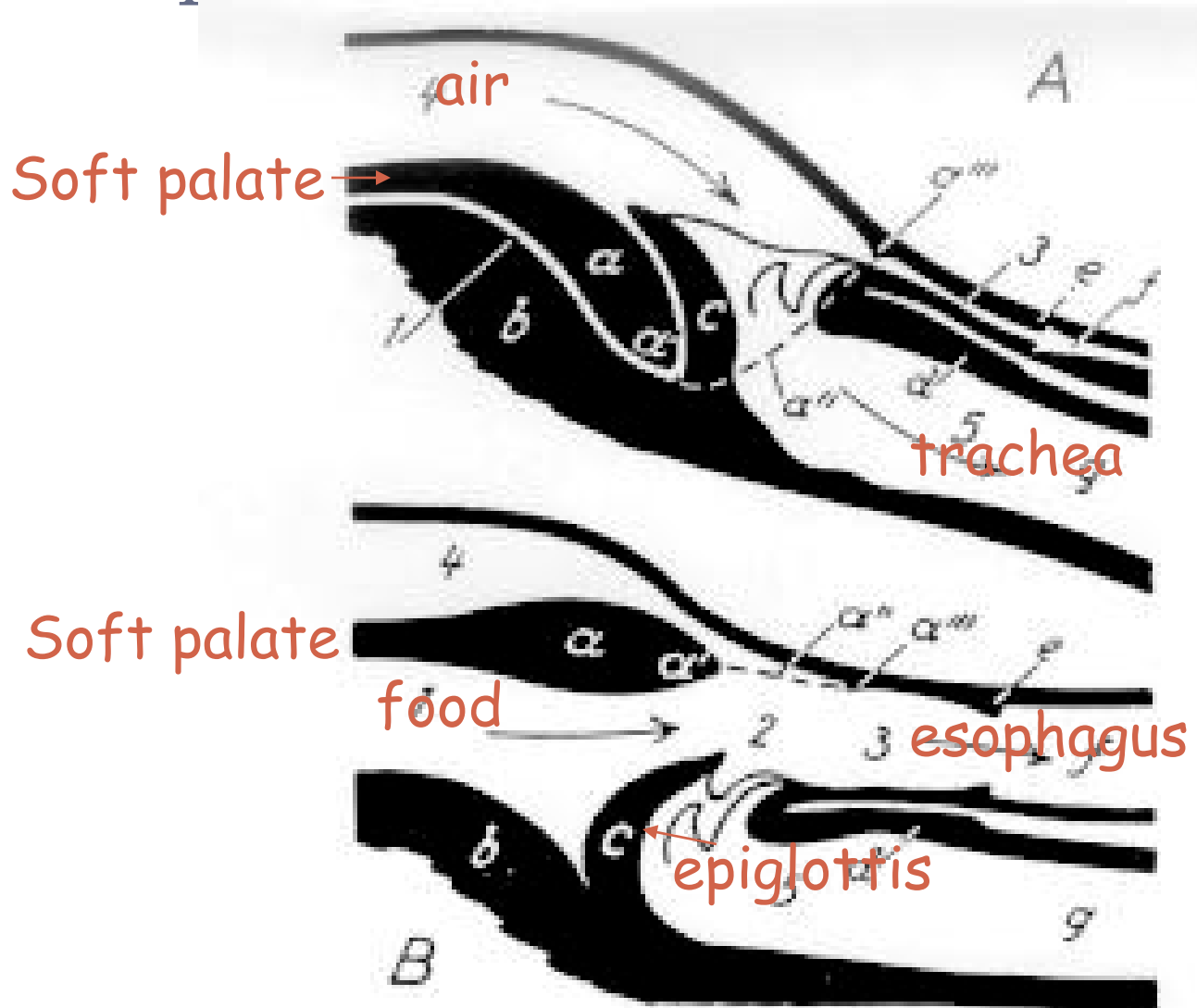
Airflow problems

- ▶ If the epiglottis muscle isn't working well to control its position, the epiglottis is likely a problem during:
 - ▶ A. inspiration
 - ▶ B. expiration



-
- ▶ The esophagus is located _____ to the trachea. This means the soft palate moves _____ during eating to allow food to enter the esophagus.
- ▶ A. dorsal, up
 - ▶ B. dorsal, down
 - ▶ C. ventral, up
 - ▶ D. ventral, down
-
- ▶

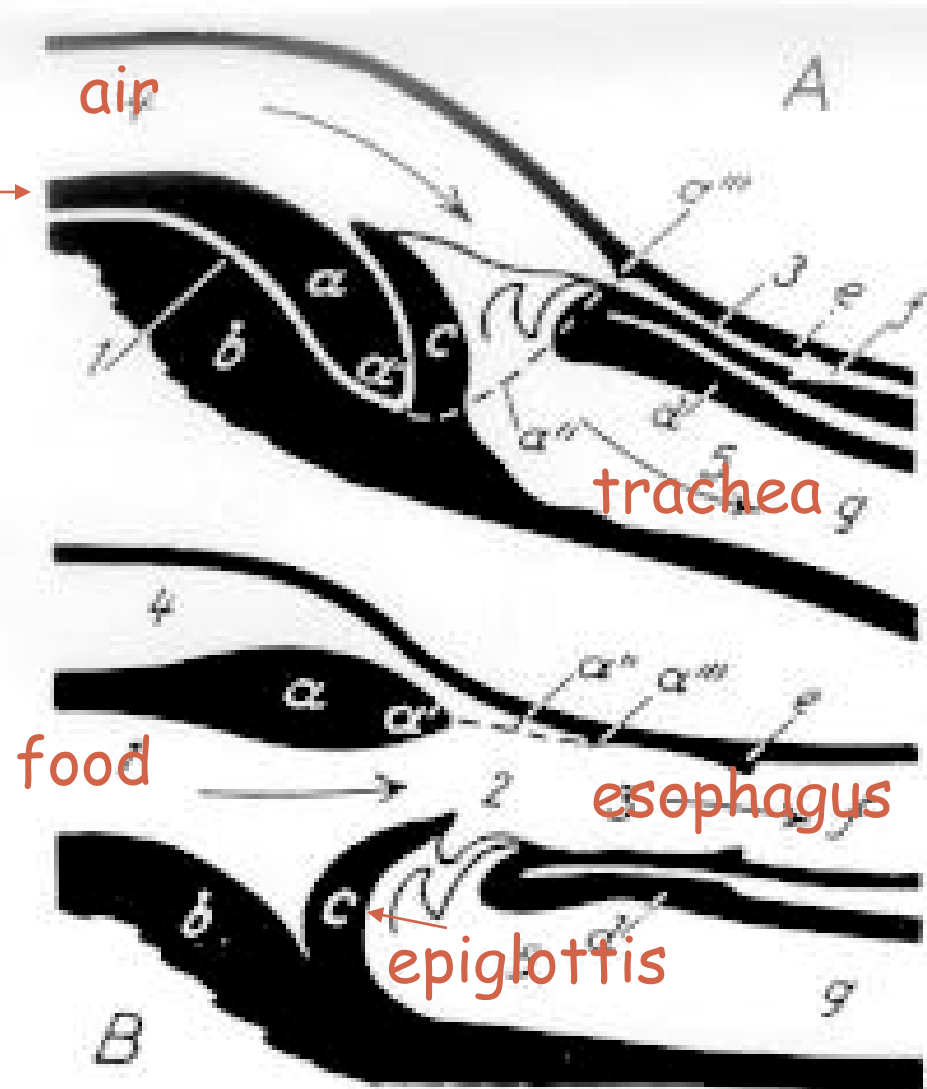
Pharynx : epiglottis and palate



Epiglottis

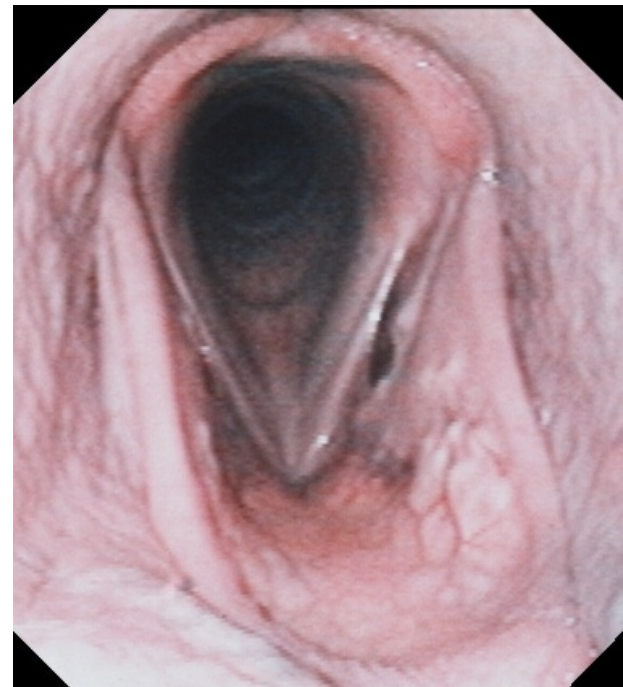
Swallowing:
Epiglottis retroflexes and protects airway
Palate moves up to block nasal passage

Soft palate →

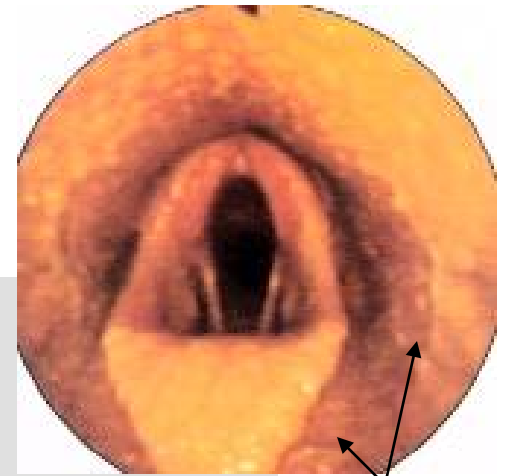


Epiglottis

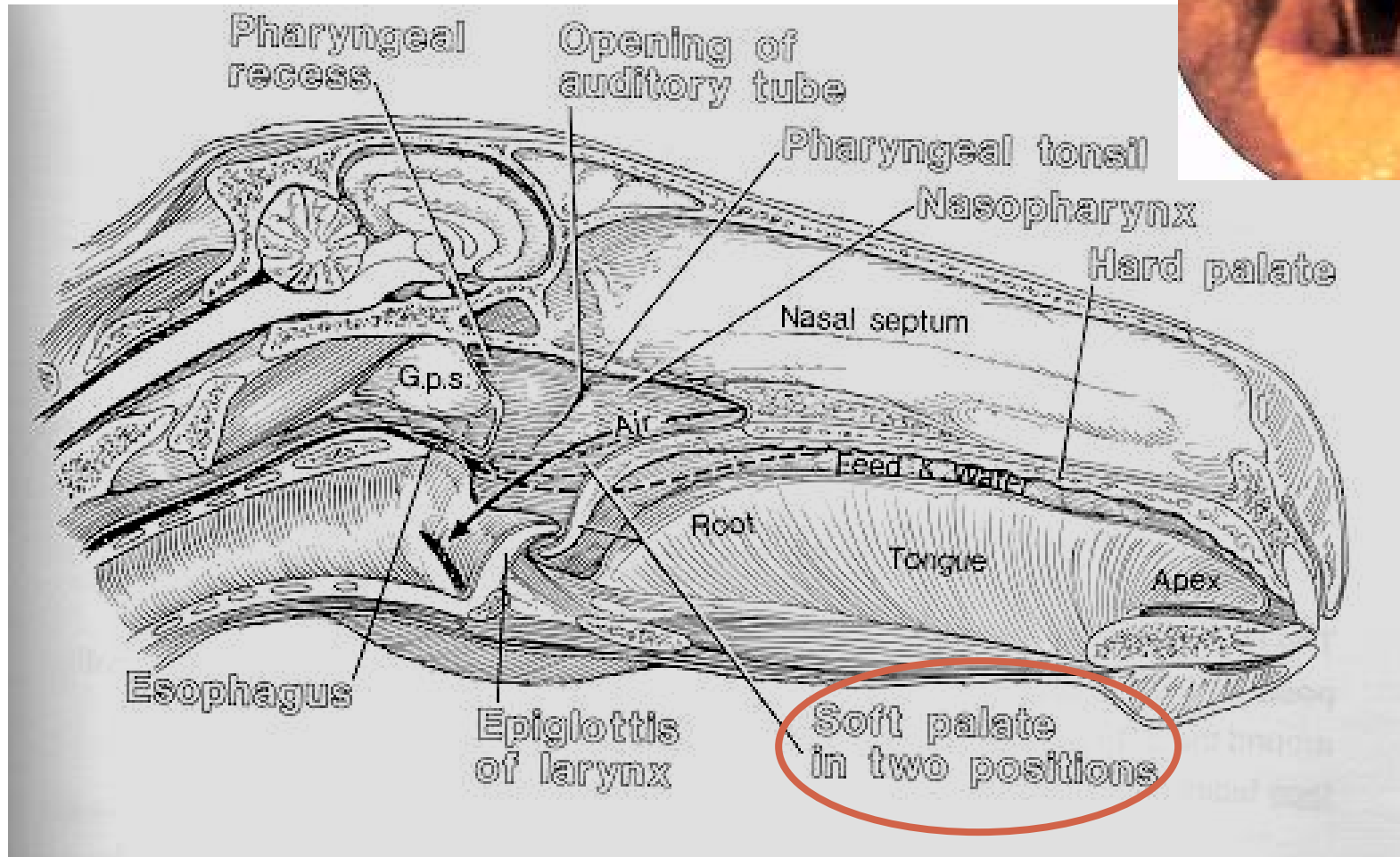
- ▶ During exercise, the epiglottis must be stabilized out of the way (hyoepiglotticus m, CN XII)



Soft Palate



Soft
palate



Larynx

