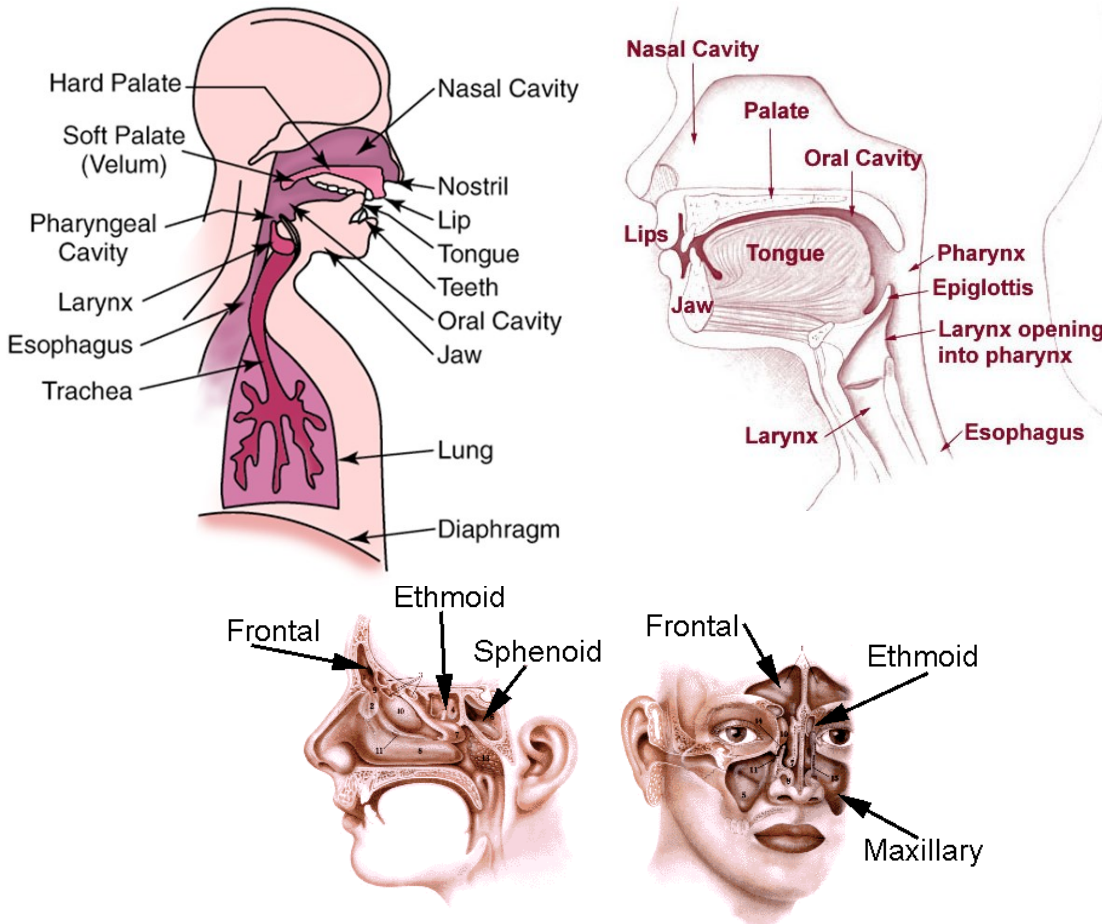
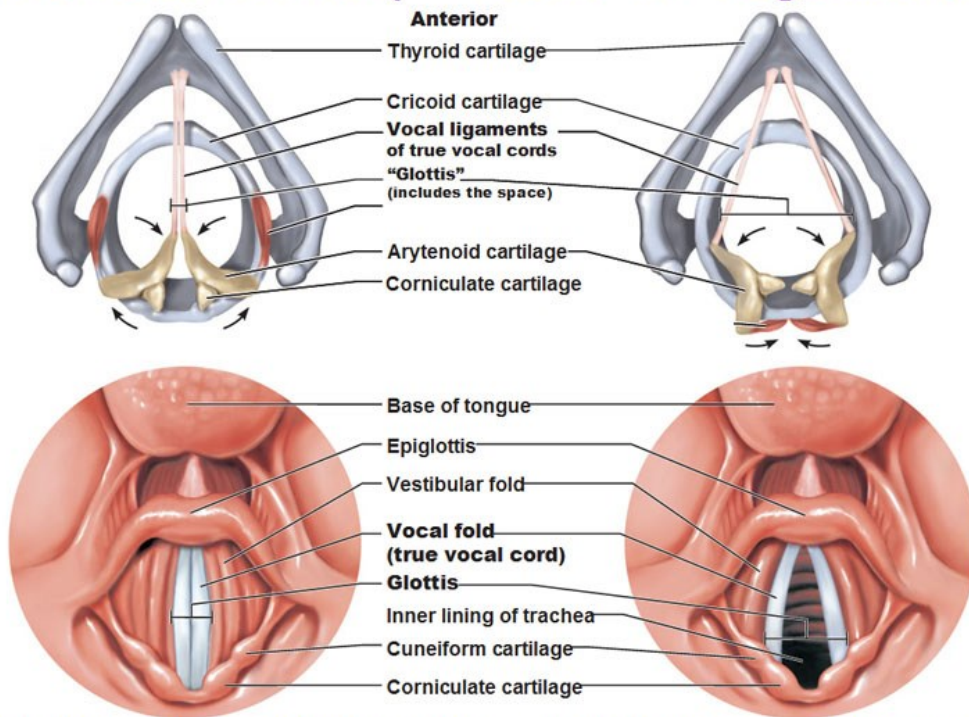


### The Vocal Apparatus—How Sound is Made



There are seven areas that may be listed as possible vocal resonators. In sequence from the lowest within the body to the highest, these areas are: the chest, the tracheal tree, the larynx itself, the pharynx, the oral cavity, the nasal cavity, and the sinuses.

### True Vocal Cords (= "Folds" or "Ligaments")



Men and women have different vocal fold sizes. Adult male voices are usually lower pitched and have larger folds. The male vocal folds are between 1.75 cm and 2.5 cm (approx 0.75" to 1.0") in length.

The female vocal folds are between 1.25 cm and 1.75 cm (approx 0.5" to 0.75") in length.

(a) Vocal folds in closed position; closed glottis (b) Vocal folds in open position; open glottis