

“SPEECH ORGANS”

Speech organs (or vocal organs): those parts of the body used in speech production.

The primary function of the vocal organs is biological.

We do *not* have unique speech organs (organs developed for speech only) not found in other mammals.

SPEECH ORGANS:

1. **LUNGS**
2. **TRACHEA** (= windpipe)
3. **LARYNX** (containing the vocal folds)

NOTE:

VOCAL CORDS or *VOCAL FOLDS*
□
more commonly used term

4. **SUPRAGLOTTAL ORGANS** (those above the larynx)

VOCAL TRACT: The air passages *above* the larynx.

ORAL CAVITY or **ORAL TRACT**
(Latin *os/oralis* ‘mouth’)

NASAL CAVITY or **NASAL TRACT**
(Latin *nasus* ‘nose’)

1. LUNGS

The source of energy for speech production is the *steady stream of air* that comes from the lungs as we exhale.

The thorax (= chest) is bounded by the *vertebrae* in the back and the *sternum* (= breast bone) in the front. Completing the cylinder are 12 sets of ribs.

The lungs consist of *alveoli* (= air sacks). The act of breathing air in and out is controlled by various muscles of the rib cage, and by muscles of the abdomen and the *diaphragm*.

□

The muscular band that separates the chest from the abdomen; it plays a role in respiration and therefore in speech. During speech it is relaxed.

2. TRACHEA (Greek *trachea* ‘neck’)

- a tube consisting of cartilages
- it leads from the larynx, splits into two *bronchi* that connect to the lungs.

3. LARYNX (Greek *larynx* ‘upper part of the windpipe’)

□

“voice box”

It is a structure of cartilages and muscles situated atop the trachea.

There is a protuberance at the front (= Adam’s apple)

The functions of the larynx are:

- BIOLOGICAL:** protecting the lungs by preventing food particles and fluids from entering the trachea.
- LINGUISTIC:** involved in the production of several types of sound effects (e.g. voicing, pitch, whisper etc.).

The larynx contains the **VOCAL FOLDS**.

□

two horizontal bands of ligament and muscle

They vibrate during the articulation of vowels and of many consonants.

The space between the vocal folds is called the **GLOTTIS**.

Articulation of the vocal folds: **GLOTTAL** articulation e.g., glottal stops [ʔ]

HYOID BONE: it sits at the back of the base of the tongue and at the top of the larynx. It brings about a muscular interaction between the tongue and the larynx.

The larynx is made up of five cartilages:

- i. **EPIGLOTTIS**
- ii. **THYROID CARTILAGE**
- iii. **CRICOID CARTILAGE**
- iv. **ARYTENOID CARTILAGES**
- v.

STUDY THE HANDOUT!

4. SUPRAGLOTTAL ORGANS (those above the larynx)

- a. Articulators in the oral cavity:
 - i. **UPPER ARTICULATORS:** upper lip, upper teeth, upper surface of the mouth and the pharyngeal wall
 - ii. **LOWER ARTICULATORS:** lower lip, lower teeth, tongue
- b. **PHARYNX**
