

جامعة الأنبار

الكلية / الآاب

قسم او الفرع / اللغة الانكليزية

المرحلة / الثانية

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اسم المادة باللغة العربية : الصوت

اسم المادة باللغة الإنكليزية : Phonetics

أسم المحاضرة الأولى باللغة العربية: انشاء الاصوات الصحيحة (الجزء الاول)

أسم المحاضرة الأولى باللغة الانكليزية: Voicing and Consonants (Part 1)

محتوى المحاضرة السادسة

➤ The larynx

- The **larynx** is in the neck; it has several parts.
- Its main structure is made of **cartilage**.
- **Cartilage** is a material similar to bone but less hard.
- The **larynx's** structure is made of two large **cartilages**.
- This point is commonly called the **Adam's Apple**.
- **Vocal folds** are two thick flaps of muscle rather like a pair of lips; an older name for these is **vocal cords**.

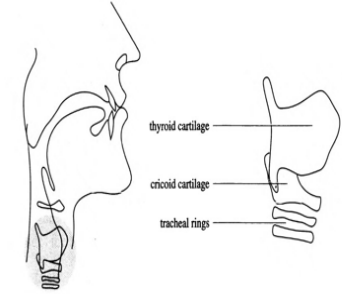


Fig. 10 The larynx

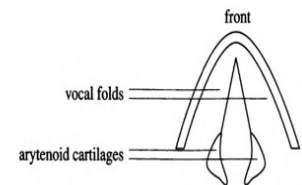


Fig. 11 The inside of the larynx seen from above

- **Glottis** refers to the opening between the **vocal folds**.
- If the **vocal folds** are apart we say that the glottis is open;
- if they are pressed together we say that the glottis is closed.

□ There are four states of the vocal folds:

- Wide apart:** The vocal folds are wide apart for normal breathing and usually during voiceless consonants like *p*, *f*, *s* (Fig. 13a).

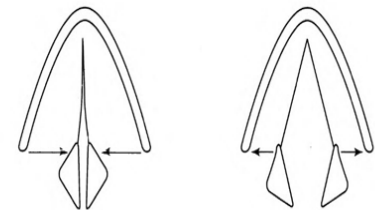


Fig. 12 Arytenoid cartilages causing closing and opening of the glottis

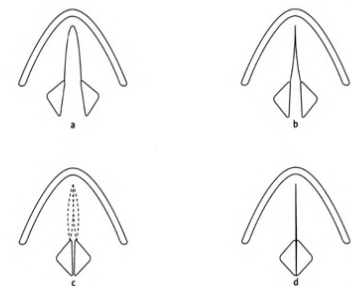
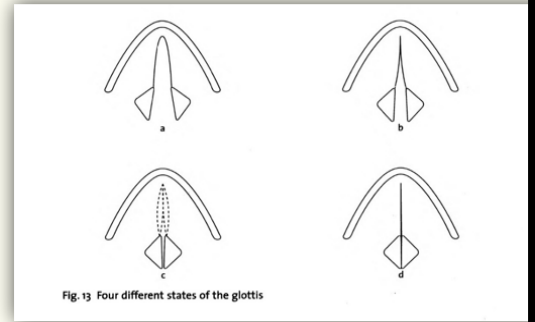


Fig. 13 Four different states of the glottis

ii) **Narrow glottis**: If air is passed through the **glottis** when it is narrowed as in Fig. 13b, the result is a fricative sound for which the symbol is *h*. The sound is not very different from a whispered vowel. It is called a **voiceless glottal fricative**.



iii) **Position for vocal fold vibration**: When the edges of the vocal folds are touching each other, or nearly touching, air passing through the **glottis** will usually cause vibration (Fig. 13c).

iv) **Vocal folds tightly closed**: The vocal folds can be firmly pressed together so that air cannot pass between them (Fig. 13d). When this happens in speech we call it a **glottal stop** or **glottal plosive**, for which we use the symbol ?

➤ **Respiration and voicing**

- To make speech sounds we must **obstruct** the airflow in some way.
- The **obstruct** of the airflow is made by one or more obstructions or **strictures** in the **vocal tract**.
- The stricture can be made in the larynx, by bringing the vocal folds close to each other.
- If the vocal folds vibrate we will hear the sound that we call **voicing** or **phonation**.
- There are many different sorts of voicing that we can produce.
- We can make changes in the vocal folds.
- The pressure of the air below the vocal folds (the **subglottal pressure**) can also be varied.

□ **Three main differences are found:**

i) Variations in intensity: We produce voicing with high intensity for shouting, for

example, and with low intensity for speaking quietly.

ii) Variations in frequency: If the vocal folds vibrate rapidly, the voicing is at high

frequency; if there are fewer vibrations per second, the frequency is lower.

iii) Variations in quality: We can produce different-sounding voice qualities, such as those we might call *harsh*, *breathy*, *murmured* or *creaky*.