

SPAU 133

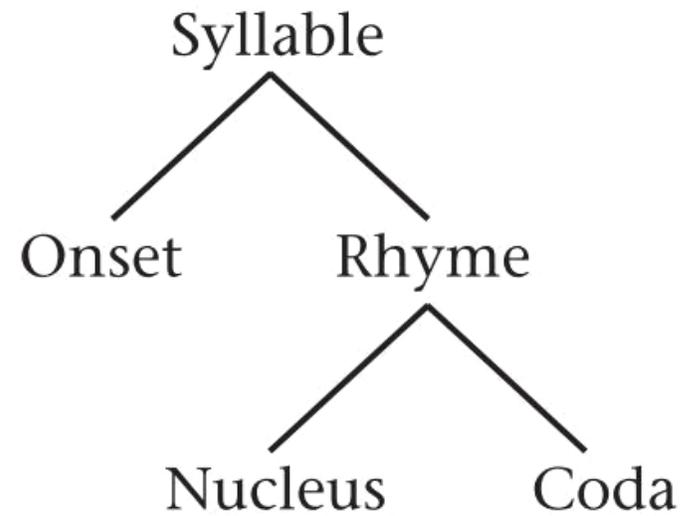
Syllables + Anatomy of Human Speech Production

What are syllables?

- They are units of speech.

What are they made of?

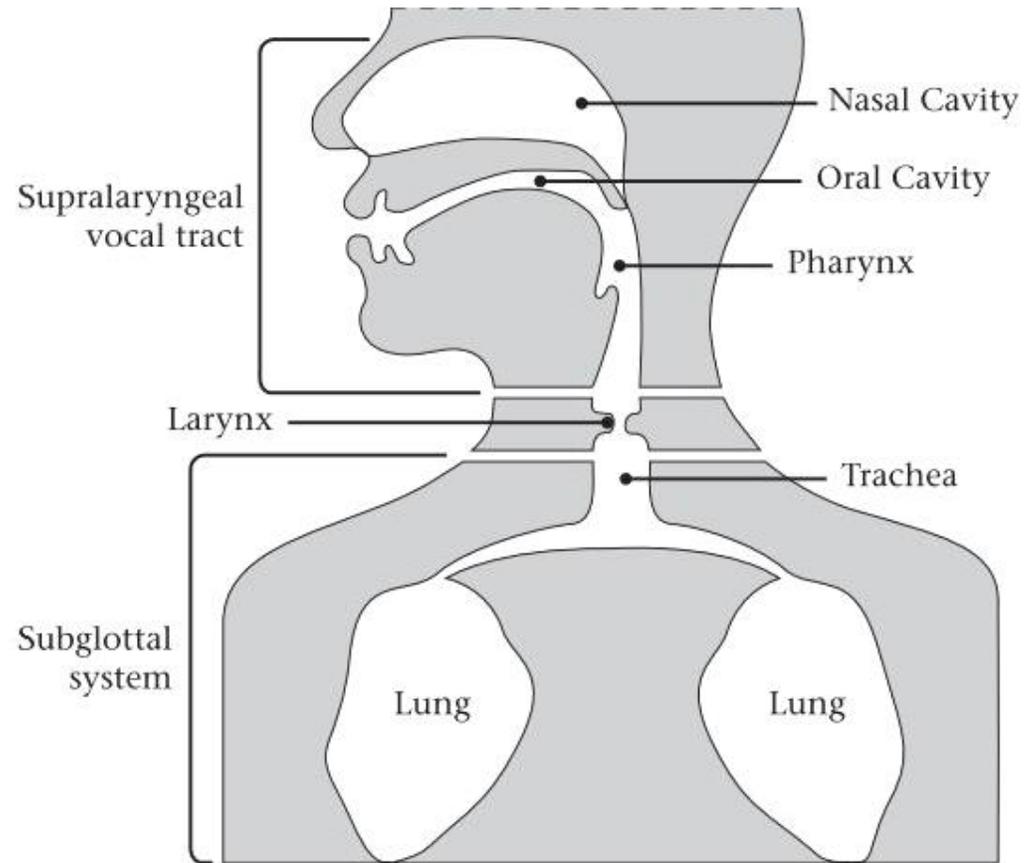
(1) Syllable structure



Anatomy of Human Speech Production

- Larynx (also called the voice box): contains the vocal folds.
- Vocal tract: contains the oral and nasal cavities.
- Sub-glottal system: which is part of the respiratory system located below the larynx.

(1) The speech production mechanism.



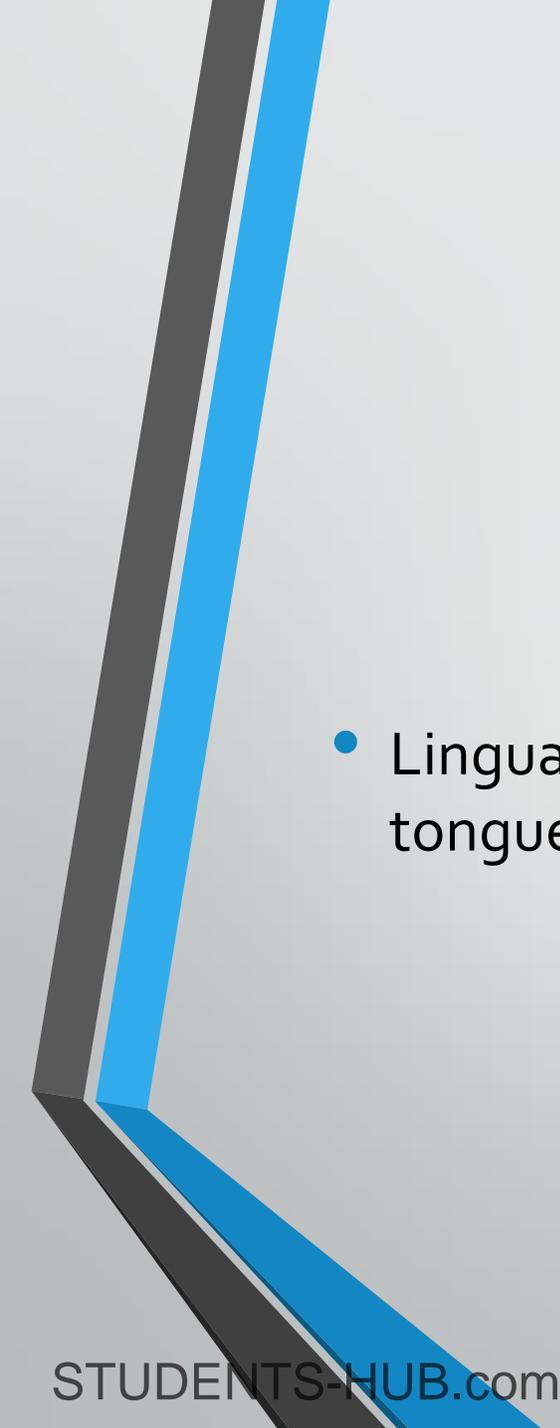
From Lieberman and Blumstein, *Speech physiology, speech perception, and acoustic phonetics* (1988), p. 4.
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Types of Airflow Mechanisms

- Pulmonic (coming from the lungs) egressive (air flowing out)

- Glottalic egressive: The air is compressed as the glottis moves upward.

- Glottalic ingressive: when the air is in lower pressure than usual as the glottis moves downward.

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- Lingual ingressive: when the air is rarefied by a downward movement of the tongue.