

Speech Production Mechanism

There are certain mechanisms involved in the production of sounds of different languages. These mechanisms are not uniform for all the languages. In majority of the languages of the world, speech is produced through a mechanism called pulmonic egressive.

How is a sound produced?

- The sounds of English language are also produced through this mechanism of pulmonic egressiveness.
- The air that we inhale goes down to lungs through trachea (windpipe) and it comes out in the form of air-stream through the same channel.
- The sounds are produced with the help of this air-stream. We can realize it to keep our palm before mouth when we speak.
- When we want to speak, the walls of lungs contract and it results into pushing the air out. Hence, the muscles of the lung act as initiator of sounds.

- The air-stream comes out passing through several organs like larynx, pharynx, oral cavity and nasal cavity.
- During this passage of air-stream from lungs to atmosphere, the organs of speech act in different ways to produce a variety of sounds.
- Thus, the respiratory tract is used for speech production as well as serving the respiratory function.
- This mechanism is called pulmonic because air comes out in the process of speech production.
 - A part from pulmonic air-stream mechanism, there are two other important air-stream mechanisms called glottalic and velaric.

During the speech when the air is taken in, the process is called ingressive (opposite of egressive).

- In glottalic air-stream mechanism, closed glottis acts as initiator, and in velaric air-stream mechanism, back of the tongue acts as initiator of sound.
- The glottalic air-stream produces both egressive and ingressive sounds.
- The sounds of many African and Indian American languages are produced by glottalic egressive and ingressive air-stream mechanisms.
- In velaric air-stream mechanism only ingressive sounds are produced such as, in xhosa and zulu, the languages of south Africa.

These air-stream mechanisms can further be understood in the light of the role played by each organ of speech in the production of different kinds of sounds.

