

Humans' Accommodations to Language

Mammals Lactate

Mammals have several distinctive traits

Some are specific to language

- Lactation
- Mammalian isolation cry
- Middle ear



Girl: Kharlamova/iStock/Thinkstock; Bullet_Chained/iStock/Thinkstock; Bottle: MadKatV/iStock/Thinkstock

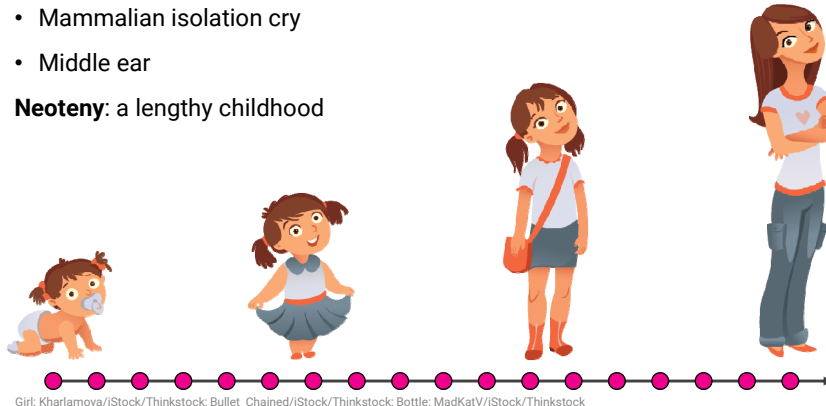
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Neoteny: a lengthy childhood



Speech Equipment

Larynx

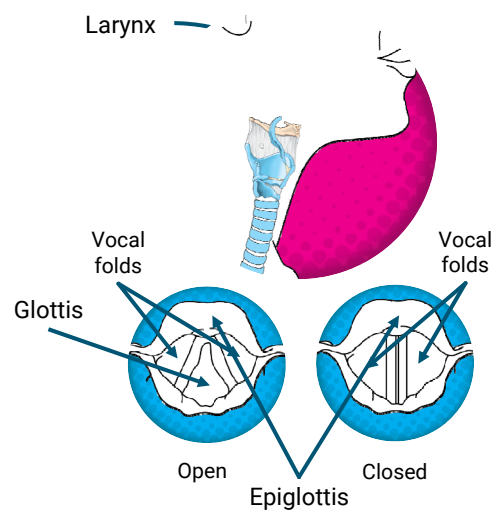
- Controls airflow
- Protects trachea
- Phonates (makes noise)

Glottis

- Phonation
- Air flow

Epiglottis

Protects the trachea



Medical drawings: LifeArt Super Anatomy Collections 1-9. Williams & Wilkins 1998; Glottis: University of Waterloo

Speech Equipment

Human babies,
apes and australopithecus



- Tongue rooted in the mouth
- Larynx behind mouth
- Can breathe and swallow at the same time

Adult homo erectus +



- Tongue rooted in the throat
- Larynx in throat
- Cannot breathe and swallow at the same time

Baby, Girl: Kharlamova/iStock/Thinkstock

Speech Equipment

Lower tongue root + larynx + lips =

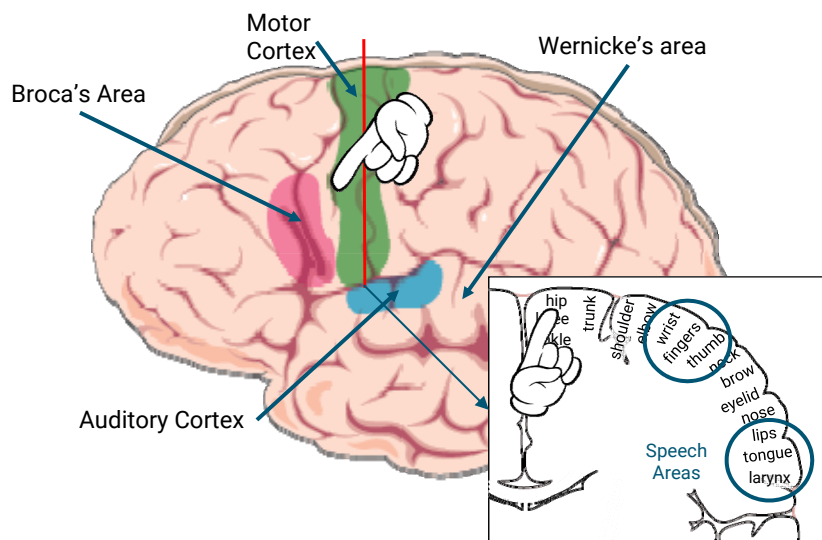
- Consonants
- Vowels
- Syllables
- Patterns of rhythm and modulation

All of this together gives us speech



Mouths: VectorStory/iStock/Thinkstock

The Brain



Brain: LifeArt Super Anatomy Collections 1-9. Williams & Wilkins 1998.