



# Articulation

A Primer

# Articulation

- Definitions
- Consonants & vowels
- Good articulation habits
- Fixing articulation problems

# Definitions

# Articulation Defined

"The process by which the joint product of the vibrator (vocal cords) and the resonators is shaped into recognizable speech sounds through the muscular adjustment and movements of the speech organs."

# The Primary Articulators

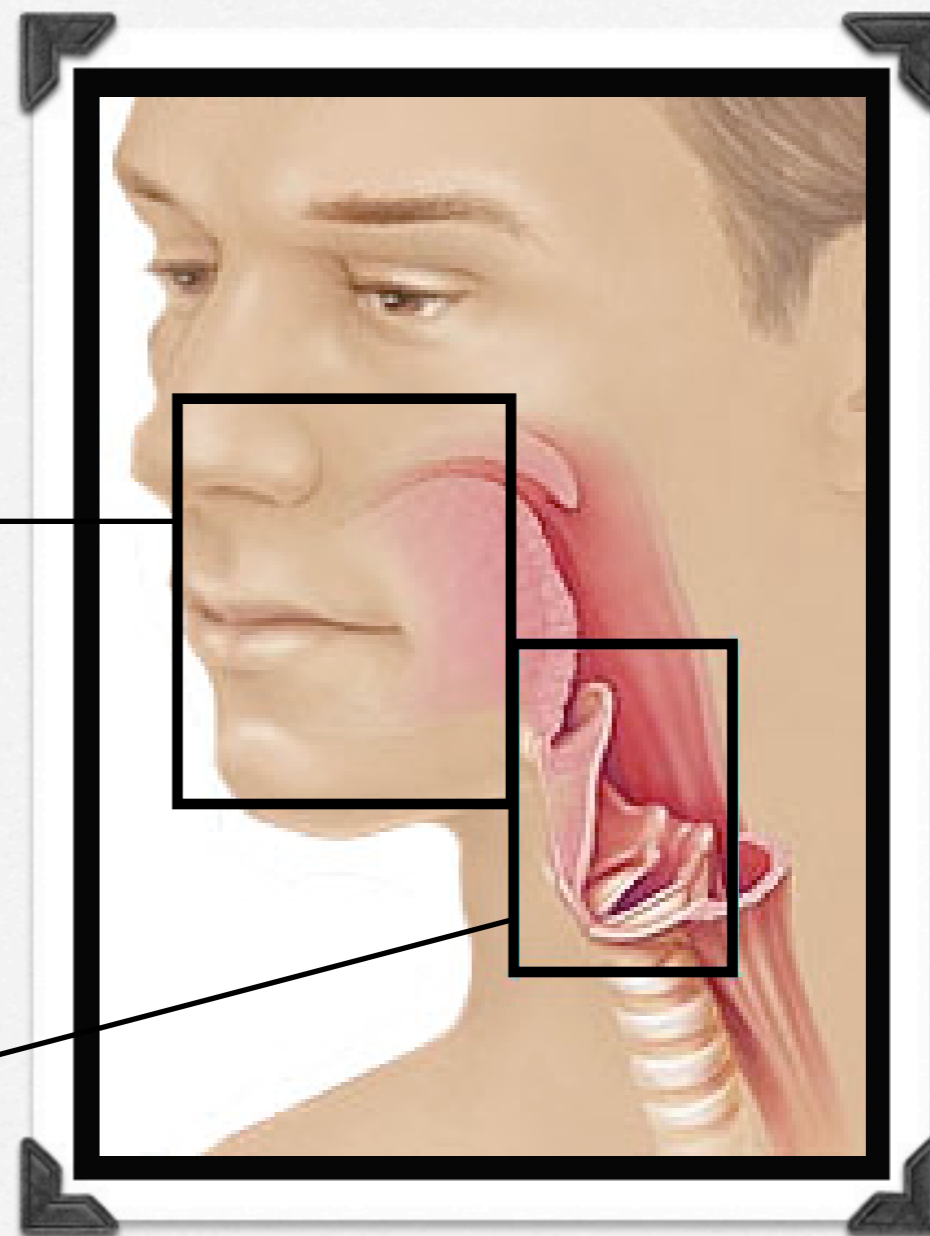
1. Tongue

2. Lips

3. Lower jaw

4. Soft palate

5. Glottis, epiglottis, larynx



# Consonants

# Consonants

- Noise elements
- Subordinate to vowels
- Act as borders for syllables
- Sound interrupters/stoppers
- Organized according to function

# Consonants

## Methods of Classification

- Voiced and unvoiced
- Continuants, stops, and glides
- Method of sound production
- Articulatory position

# Consonants –

## Voiced/Unvoiced

voiced consonants

b	d	dʒ	g	v	w	ð	z	ʒ
p	t	tʃ	k	f	hw	θ	s	ʃ

unvoiced consonants (surds)

# Consonants—

## Continuants, Stops, Glides

- Continuants: sustainable as long as there is breath (m, l, s, v, θ)
- Stops: completely halt flow of airstream (b, p, d, t, g, k)
- Glides: a vowel sound functioning as a consonant (j, w, hw, ɥ)

# Consonants—

## Method of Production

- *Fricative*: noise of breath stream through narrow apperture (v, f, z, s, h, θ)
- *Plosive/Stop-plosive*: explosion of compressed air (p, t, k)
- *Nasal*: air passing through nasal cavity (m, n)
- *Aspirate*: breathy consonant (h)
- *Affricate*: explosion of compressed air through a fricative (tʃ, dʒ)

# Consonants—

## Aritculatory Position

- Bilabials: use of closed lips (b, p, m)
- Labiodentals: lower lip on upper teeth (v, f)
- Alveolars: tongue on palate just behind upper teeth (d, t, n, l) or near it (z, s)
- Velars: back of tongue on palate (g, k, ŋ)
- Glottals: closed or narrow glottis (ʔ, h, whispered voice)

# Consonants

## Articulation

- All consonant movements should be quick, precise, positive, free of tension
- All consonant movements should be exaggerated
- Remember: all consonants are tone interrupters and should be put on firmly because:
  1. They do not carry as well as vowels (tone stoppers)
  2. Help begin & maintain solid tone

# Consonants

## Articulation: Identification

- *Initial: consonants that start a word*
  - *Should be placed on same pitch as following consonants with sufficient energy*
- *Medial: consonants uttered after word is started*
- *Final: consonants that end a word*
  - *Should be made as quickly as initials, but with even more firmness*

# Consonants

## Correcting Faulty Speech Sounds

- Isolate & identify faulty sound; show correction
- Explain difference between correct & faulty sounds and involved articulators
- Establish practice routine to establish new reflexes to replace previous ones
- Assign word drills

# Vowels

# Vowels

- Unrestricted speech sounds
- Continuant: can be sustained
- Phonated or whispered
- Basic building material of vocal tone  
(carry the tone)
- Definite in shape and form
- Phenomena of resonance

# Vowels

## Formants

- Resonant frequency bands made up of prominent partials (overtones)
- vowel identity depends on strong partials in specific frequency ranges
- vowels are typically identified by one high & one low characteristic formant
- Tongue is primary determinant between oral and pharyngeal resonance cavities
- The softer the mouth texture, the stronger the low overtones

# Vowels

## Grouped by Placement

- Front vowels: arch of tongue is in front part of mouth (i, I, e, ε, æ, a, from front to back)
- Central vowels: arch of tongue centered between front & back of mouth (ɜ<sup>ː</sup>, ɜ, ə, ə, ʌ)
- Back vowels: arch of tongue is in back part of mouth (ɑ, ɒ, ɔ, o, u, u, from front to back)

# Vowels

## Grouped by Stress

- Stress levels: primary, secondary, tertiary, weak
- Most unstressed vowel sound: ə
- Stressed/unstressed pairs: ʌ-ə, ε-ə, ɜː-ɝ

# Vowels

## Latin Vowels—i, e, a, o, u

- Also referred to as Italian vowels or singer's vowels
- Also referred to as long vowels because they are sustained longer than other (short) vowels
- In standard American usage, eɪ and oʊ replace e and o

# Vowels

## Phonemes

- "One of the set of speech sounds in any given language that serve to distinguish one word from another"
- Allophones: interchangeable phonemes (not sufficiently different to alter word meanings)
- Native speakers/singers may not realize that different allophones are being used
- Singers must be able to make tonal adjustments within phonemes

# Vowels

## Articulation

- "vocal tone consists of a chain or stream of vowels; this stream is interrupted or deflected... by consonants"
- Objective: use consonants quickly, precisely, positively to provide meaning without interfering with flow of tone
- vowel posture established immediately and maintained the length of assigned note

# Vowels

## Articulation: Rules

- Only use schwa (ə) when music tempo approximates speed of speech
- Idea of "vowel purity" (there is only one pure, invariant form of a vowel) is neither a practical nor an accurate assumption
- Research indicates that to produce uniform tone throughout range, compromises of vowel purity (choice of easier phonemes) should be made

# Vowels

## Correcting Faulty Speech Sounds

- Isolate/identify faulty vowel; show correction
- Explain difference between correct & faulty sounds—tongue movement, lip movement, etc.
- Establish practice routine to implement new reflexes to replace faulty ones
- Assign vocalises or songs
- Once new phoneme is established, search for best sounds within the phoneme

# Vowels

## Disconnected Sounds

- Results from failure to maintain steady state of vowel from one syllable to the next
- Solutions:
  1. Sing entire song on one vowel sound
  2. Sing again, but only on legato vowels
  3. Sing again with full text, retaining legato established in #2

# Good Articulation Habits

# Articulation

- To move/adjust speech organs to and from sounds distinctly
- Primary articulators: lips, jaw, & tongue
- Movements must be free of unnecessary tension
- Must be exaggerated if words are to be consistently understood

# Articulation

## Lips

- Must be free from tension & ready to move
- Will affect timbre as articulation
- Should be kept slightly off the teeth, almost like a smile

# Articulation

## Lower Jaw

- Must be free from tension & ready to move
- Ideal position achieved through "beginning-of-yawn" position
- Tongue should drop freely of its own weight
- The larger the opening, the higher the resonant pitch

# Articulation

## Lower Jaw (cont'd)

- External space: created in front of mouth; controlled by mouth opening
- Internal space: created in back of mouth; controlled by jaw
- Larynx cannot elevate during a yawn

# Articulation

## Tongue

- Must be free from tension & ready to move
- Most important articulator for its involvement in forming all vowel and many consonant sounds
- Must have a point of reference at which to rest, usually below lower front teeth

# Articulation

## Tongue (cont'd)

- Should never be pulled back into throat
- Excessive tension will always affect tone
- With tip on point of reference, body of the tongue should lie fairly low
- A full yawn pulls the tongue back in the throat

# Fixing Articulation Problems

# Vowel Modification

- Rising pitch causes vowels to approach [a] or [ʌ] sounds
- Both front and back vowels tend to migrate to central ones at higher pitches
- Resisting this tendency of vowels to migrate for "pure" vowels in upper voice are likely to encounter vocal problem

# Vowel Modification

## □ Approaches:

1. Encourage vowels to modify by making more internal & external space, still thinking original vowel
2. Encourage modification by thinking the "target" vowel
3. Since vowels migrate to center, all should be colored with "ah" or "uh" in upper voice

□ Not mutually exclusive; work individually

# Fixing Faulty Articulators

## Hypofunctional Articulators

- Immobile/flaccid lips muffle sound and cause sloppy diction
- Jaw and tongue tend to follow suit
- Solutions:
  1. Ask student to sing in front of mirror
  2. Request some kind of facial response
  3. Use exercises requiring exaggerated lip, jaw, or tongue action
  4. Enunciate as for a deaf person

# Fixing Faulty Articulators

## Hyperfunctional Lips

- Excessive tension in lips
  - May be pulled back into forced smile (overbrightened)
  - May be pulled against teeth (muffling)
  - May be pushed too far forward (tightening back of throat)
- Solutions:
  - Demonstrate adverse effects of tense lips
  - Suggest beginning of yawn for relaxation

# Fixing Faulty Articulators

## Hyperfactive Lips

- Result from a misconception of good diction
- Solutions:
  - Demonstrate (caricature) adverse effects
  - Experiment with all vowels, testing for minimum requisite movement

# Fixing Faulty Articulators

## Hyperfunctional Jaw

- Occurs when jaw is pushed too far down, far forward, or locked in one position
- Tendency (esp. at higher pitches) elevates larynx
- Solutions:
  - Use relaxation exercises on head, neck, etc.
  - Demonstrate adverse affects
  - Practice "yah-yah" for free jaw action

# Fixing Faulty Articulators

## Hyperfunctional Tongue

- Movements too big and slow due to tension
- Pulled back in mouth, forward against teeth, or elevated
- Solutions:
  - Use mirror to indicate point of reference
  - Work for tongue agility with dental and alveolar consonants (l, d, n, t)
  - Select songs requiring fast articulation

# Faulty Speech Sounds

- can result from:
  - Articulators not functioning properly
  - Lack of proper concepts of sound
  - Poor speech models ("accents") or poor hearing of sounds