



Oral-Motor Therapy for Speech Clarity and Feeding Safety

“Education as Technology”

Sara Rosenfeld-Johnson, M.S., CCC-SLP

Populations Appropriate for Oral-Motor Therapy



Who do we work with?

- Any client who displays oral-motor difficulties as compared to their typically developing peers for feeding and speech:
 - Reduced mobility
 - Reduced agility
 - Reduced precision
 - Reduced endurance
- Dysarthria: Weakness for feeding and speech

Before and After



Before and After



Before and After



Populations NOT Appropriate for Oral-Motor Therapy




Who do we NOT work with?

- Clients who can produce the targeted speech sound using auditory and visual cues with adequate:
 - Mobility
 - Agility
 - Precision
 - Endurance


Speech-Like Movements

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- Only speech-like movements are targeted for SRJ oral-motor therapy.
 - Movements that do not imitate speech should not be used and are not useful in the remediation of speech sounds:
 - “there is no relevance to the end product of speaking by using an exercise of tongue wagging, because there are no speech sounds that require tongue wagging” (Lof, G. L., 2003).
 - “The goal of speech therapy is NOT to produce a tongue wag, to have strong articulators, to puff out the cheeks, etc. Rather, the goal is to produce intelligible speech” (Lof, G. L., 2006).
 - “no speech sound requires the tongue tip to be elevated toward the nose; no sound is produced by puffing out the cheeks; no sound is produced in the same way as blowing is produced. Oral movements that are irrelevant to speech movements will not be effective as speech therapy techniques” (Lof, G. L., 2006).


Goals of Oral-Motor/ Feeding/Speech Therapy

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1. To increase the awareness of the oral mechanism:
Somatosensory (Bahr, 2001; Clark & Ostry, 2005; Fisher, et al., 1991; Schmidt, 1988 ; Morris & Klein, 1987) and Metalinguistic (Klein, et al., 1991; Koegel, et al., 1986) .


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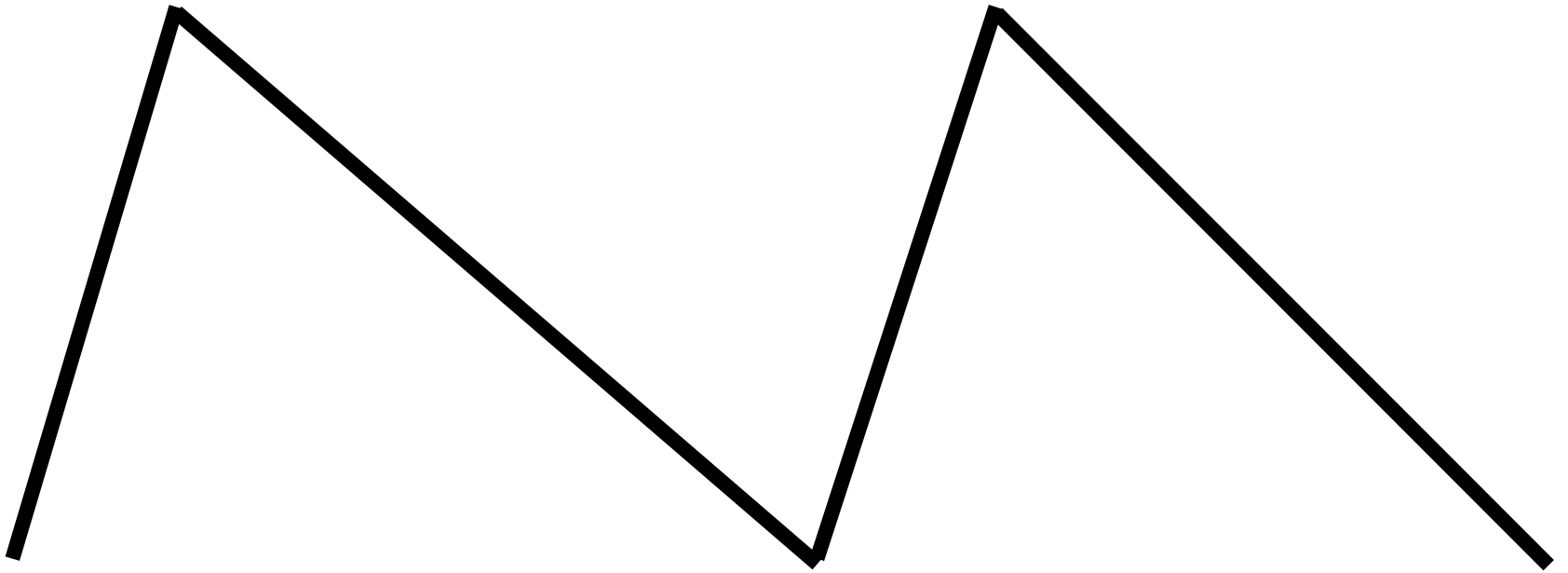
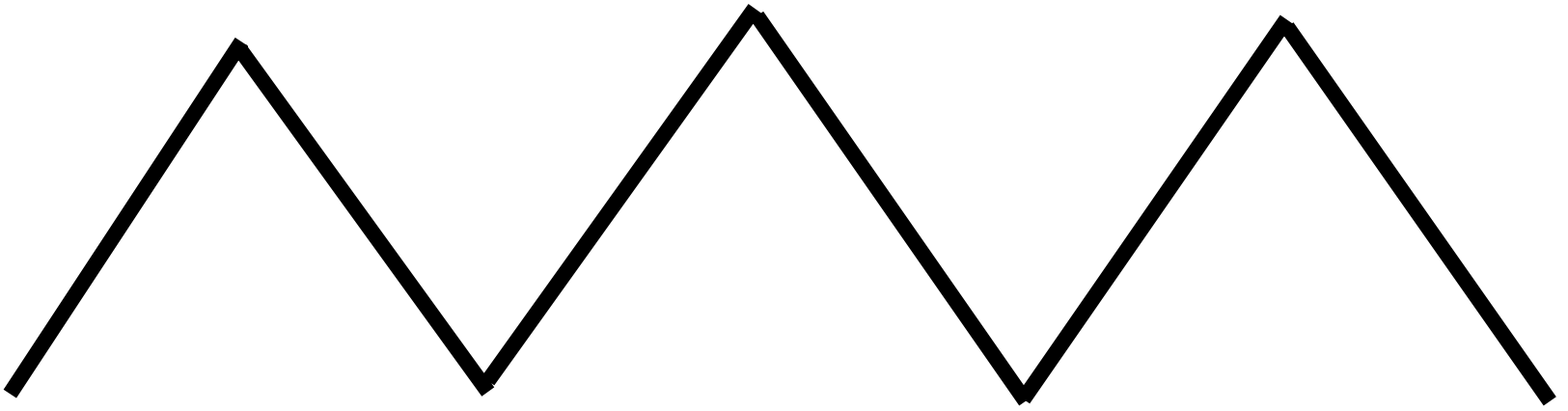
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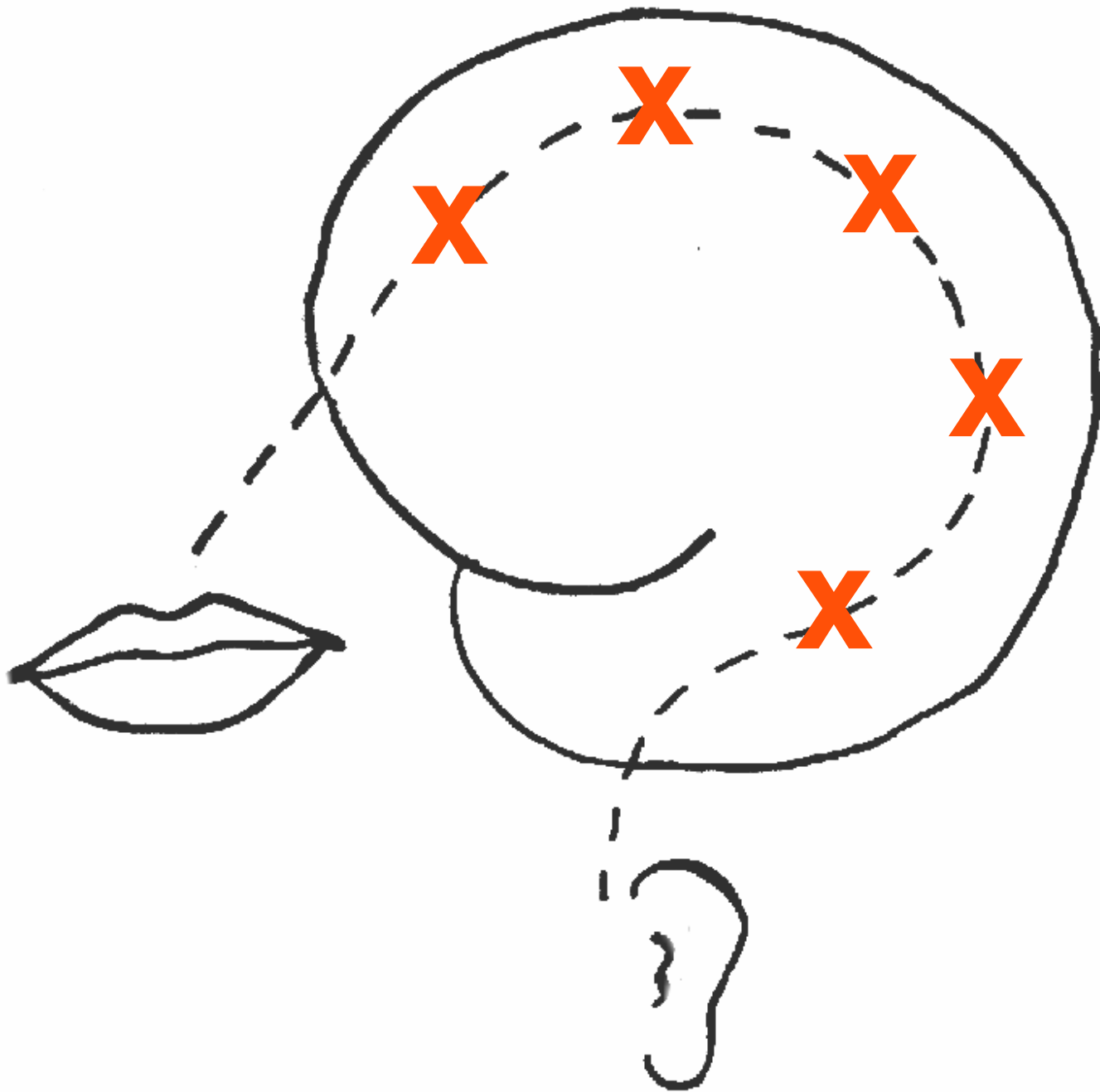


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 5. To improve feeding skills and nutritional intake
 6. To improve speech sound production to maximize intelligibility



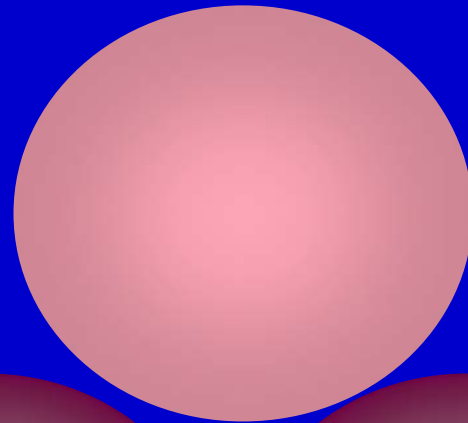
4 ↑ Articulation

3 ↑ Resonation

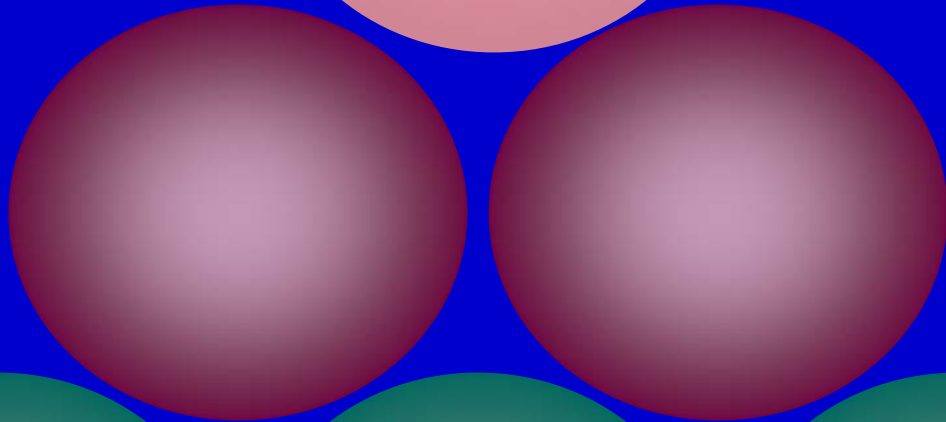
2 ↑ Phonation

1 ↑ Respiration

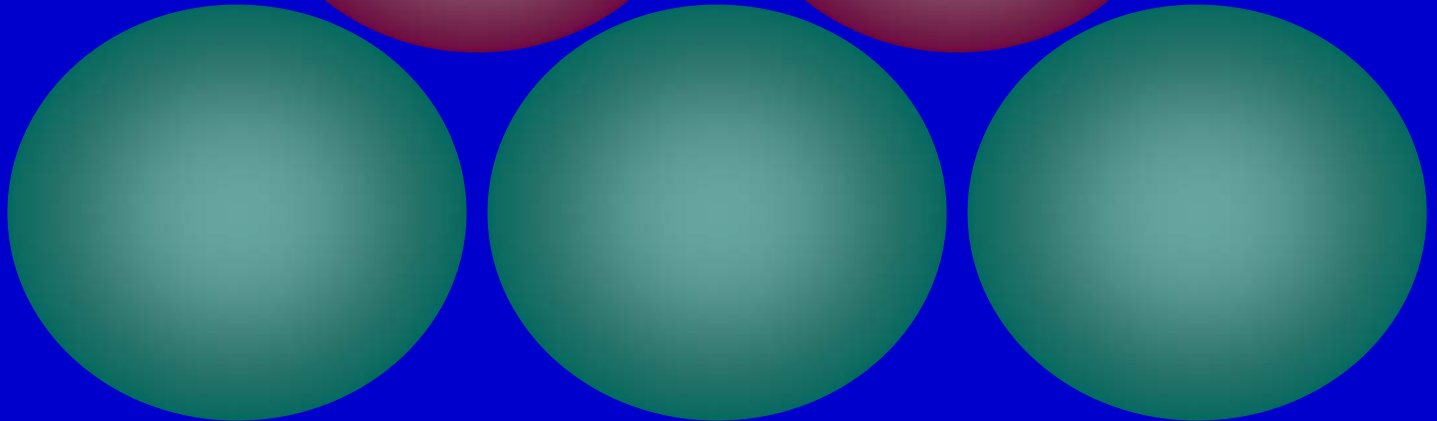
↑ **Tongue**




↑ **Lips**



↑ **Jaw**



The Oral-Motor Component

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- Oral-motor therapy is used in conjunction with other speech therapies.
 - Oral-motor therapy does not replace the need for direct work on speech production.
 - Oral-motor therapy should not be used in isolation for the remediation of speech sound errors and speech clarity.

The Jaw as the Foundation for Feeding and Speech



- Studies indicate that jaw control is established by about 15 months, before control is established for the upper and lower lips (Green, et al., 2000; Green, Moore & Reilly, 2002).
- Phasic bite for volitional control for later development of speech clarity and feeding safety.
“Reflexes become integrated as the reflex disappears. When integration does not occur appropriately persistent developmental difficulties arise with jaw and bite movement.” (Bahr, 2001, pp.4-8).

1	
2	HIGH
3	
4	
5	MEDIUM
6	
7	LOW
8	

1

2

3

4

5

6

7

8

HIGH

MEDIUM

LOW

Dissociation: Lips from Jaw



Muscle Movement

Phoneme Ex.

Following normal speech development

- | | |
|---------------------------------|---------------------|
| 1. Open | (ah, uh) |
| Closed to Open | (m, p, b) |
| Open to Closed | |
| 2. Protrude | (oo, oh, w, ee, ih) |
| Retract | (f, v) |
| 3. Lower Lip Retraction/Tension | (sh, ch, j, r, er) |
| Lower Lip Protrusion/Tension | |

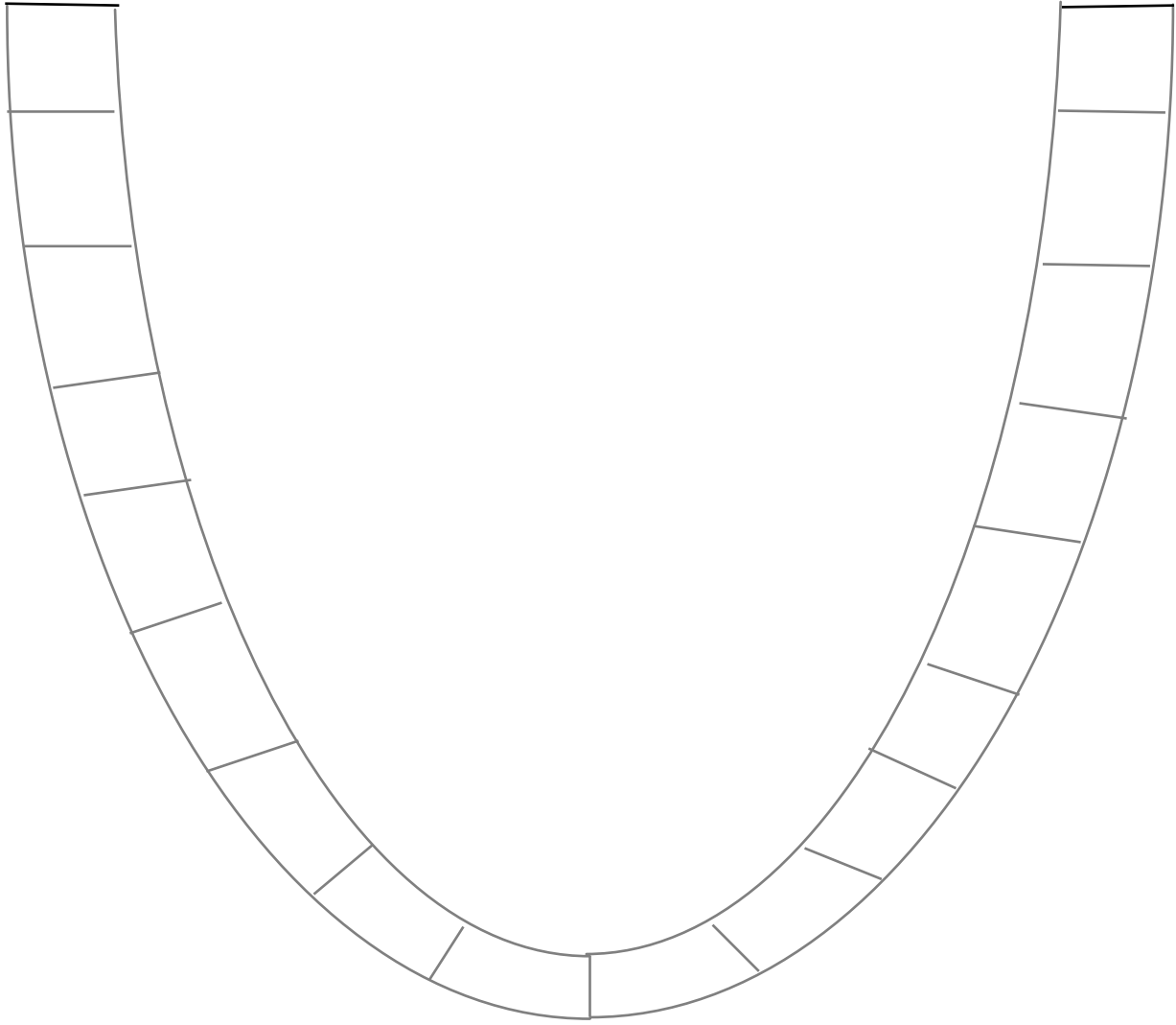
Dissociation: Tongue from Jaw

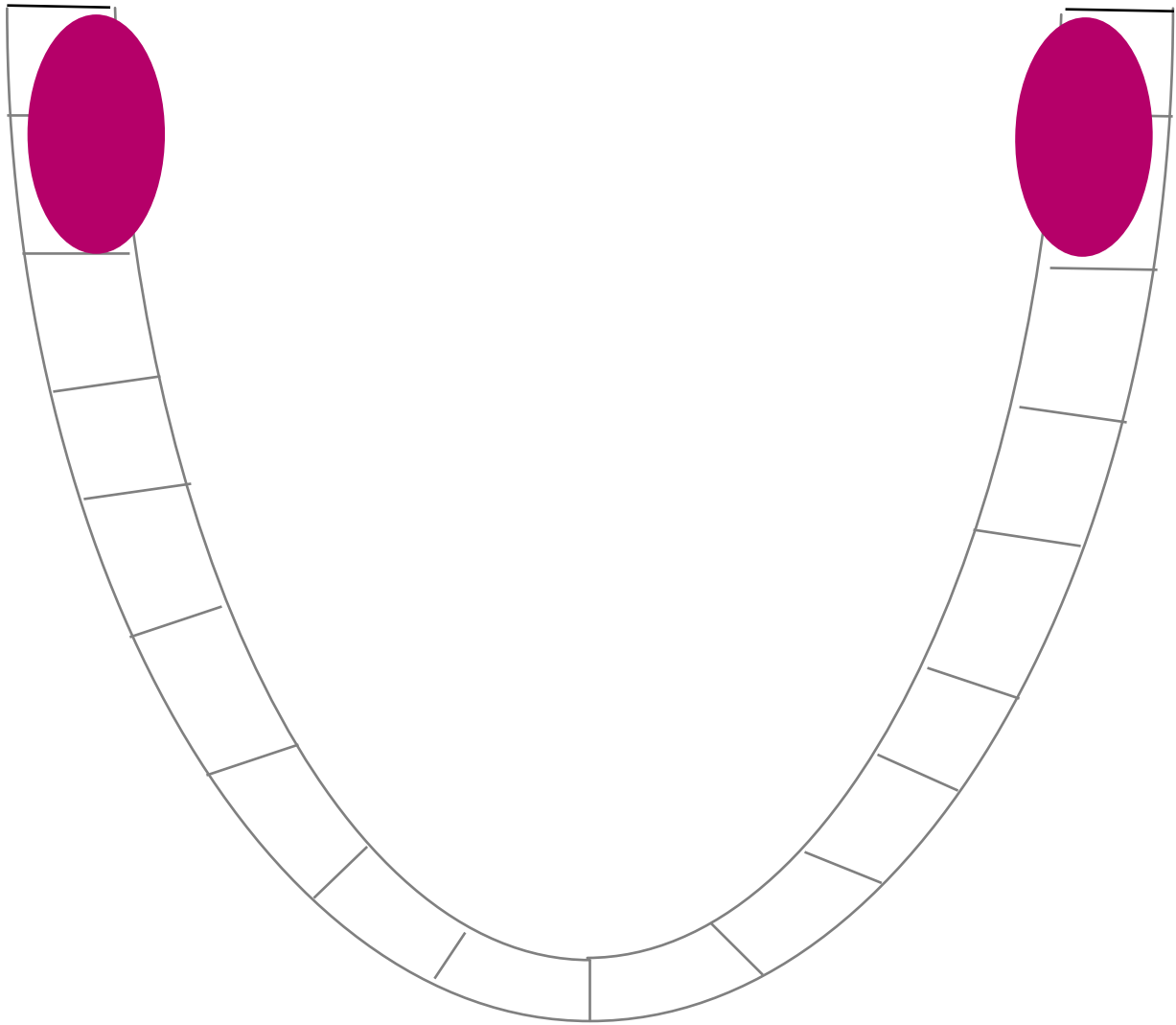


Muscle Movement

Phoneme Ex.

1. Retraction- Protrusion: Equal range of motion (balance)
2. Retraction (becomes more prominent movement) (all sounds except th)
Protrusion (reduces)
3. Retraction (stability) – Lateralization of tip
 - a. Midline to both sides
 - b. Across midline
4. Retraction - Tip Elevation/Depression (t, d, n, l, s, z, sh, ch, j, k, g)
5. Retraction - Back of Tongue Side Spread (stability for co- articulation, er)





Task Specificity Speech for Speech



Once the foundational movements for speech are observed, we **MUST** transition that movement into function for feeding or speech. (Bahr, 2001, pp.3-4; Green, et al., 1997; Moore & Ruark, 1996; Ruark & Moore, 1997).

When the movement is transitioned into function, you will no longer need oral-motor therapy for that movement.

Innovative Therapist International's Commitment



We are working hard to provide easy access to education, therapeutic intervention, therapy materials, and research and development within the framework of Evidence-Based Practice.

Evidence-Based Practice and Validity


- Bridging the gap between research and practice (Aram, et al., 1993; Ratner & Healy, 1999).
- Clinical practice of methods that work: clinicians must be a part of research development.
- Level I Research: Case Studies
 - Rosenfeld-Johnson, S. *Safe Feeding and Prevention of Ear Infections in Down Syndrome*. International Down Syndrome Conference - Vancouver, BC, Canada August 23, 2006
 - Rosenfeld-Johnson, S. *Oral-Motor Exercises for Speech Clarity*. 26th World Congress of the International Association of Logopedics and Phoniatrics - Brisbane, Australia - 29 August, 2004.

See Lof, G. L. (2006) for additional level 1 case studies


Research

- **Research:** Preliminary results indicate 80-85% of children between the ages of 4.0 and 6.11 who have /s/ and /z/ speech sound errors also display difficulty with non-speech oral motor activities utilizing the same oral structures and movement.
- **Upcoming Research Needs:**
 - Treatment efficacy studies with larger sample sizes and controlled variables.
 - Peer reviewed publications of clinical data.


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3420 N. Dodge Blvd., Suite 148
Tucson, AZ 85716
888-529-2879

www.innovativetherapists.com