

# Orofacial Myofunctional Disorders: Evaluation and Treatment

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# Definition

- ▶ Abnormal movement patterns of the face and mouth
- ▶ Anatomical or physiological differences in the oral and facial structures that are primarily related to the maxillary and mandibular muscles and to the skeletal and dental aspects of the face.
- ▶ Differences may be due to hereditary predisposition towards skeletal and dental differences or environmental (allergies) or developmental forces that occur postnatally.

# OMD and the SLP

- ▶ OMD is the preferred term for **tongue thrust**
- ▶ Majority of speech sound errors for OMD are anterior distortions
- ▶ Tongue thrust swallowing is an anterior movement of the tongue while swallowing
- ▶ Treating the speech sound errors without treating the functions of the tongue (resting posture and swallowing) will be ineffective

# Prevalence of OMD

- ▶ Nearly all newborns
- ▶ ½ of children in first grade
- ▶ Adolescence and adulthood approximately 30%
- ▶ In a study of kindergarten students through 6<sup>th</sup> grade. 77% of students with abnormal /s/ and /z/, also had abnormal rest posture
  - ▶ 50% of those student were tongue thrusting

# Causes

- ▶ Oral habits – thumb/finger sucking or extended pacifier use
- ▶ Respiratory issues – enlarged tonsils/adenoids, allergies, mouth breathing
- ▶ Malocclusions/dental treatment – open bite and cross bite
- ▶ Tongue size – macroglossia
- ▶ Hereditary – inherit structures from family
- ▶ Neurological

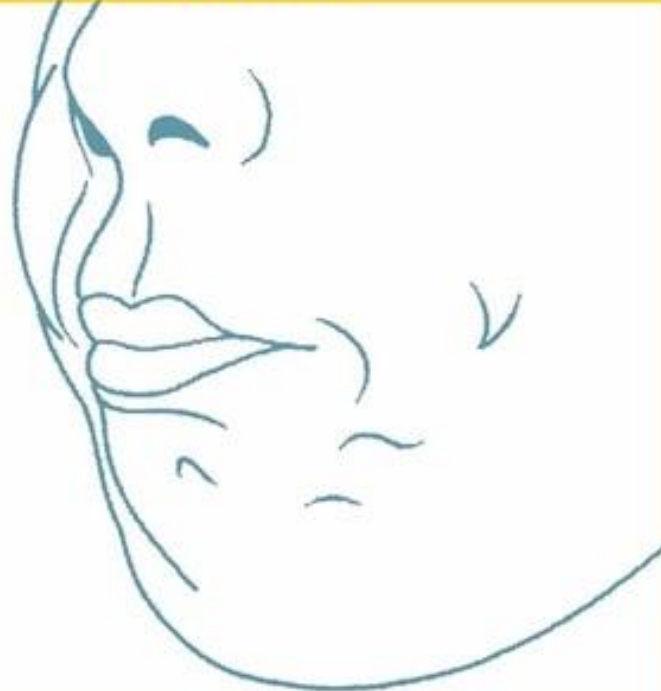
# Evaluation

- ▶ Case History – dental, orthodontics, eating habits, oral habits, previous treatments
- ▶ Oral-Facial Exam
  - ▶ Facial features
  - ▶ Lips/tongue/palate
  - ▶ Teeth
  - ▶ Oral pharyngeal
- ▶ Swallowing
- ▶ Articulation – look and listen

## Common Cosmetic Problems



The face can have a **dull sluggish appearance** when the muscles are not in proper balance.

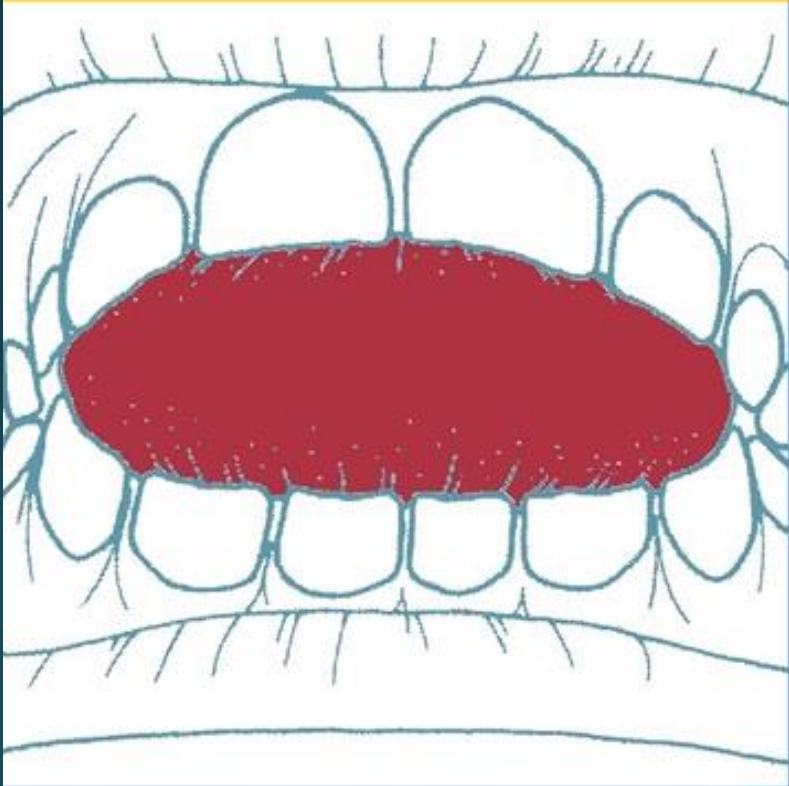


An incorrect swallow will purse and tighten the muscles of the cheeks, chin and lips, causing a **facial grimace**.

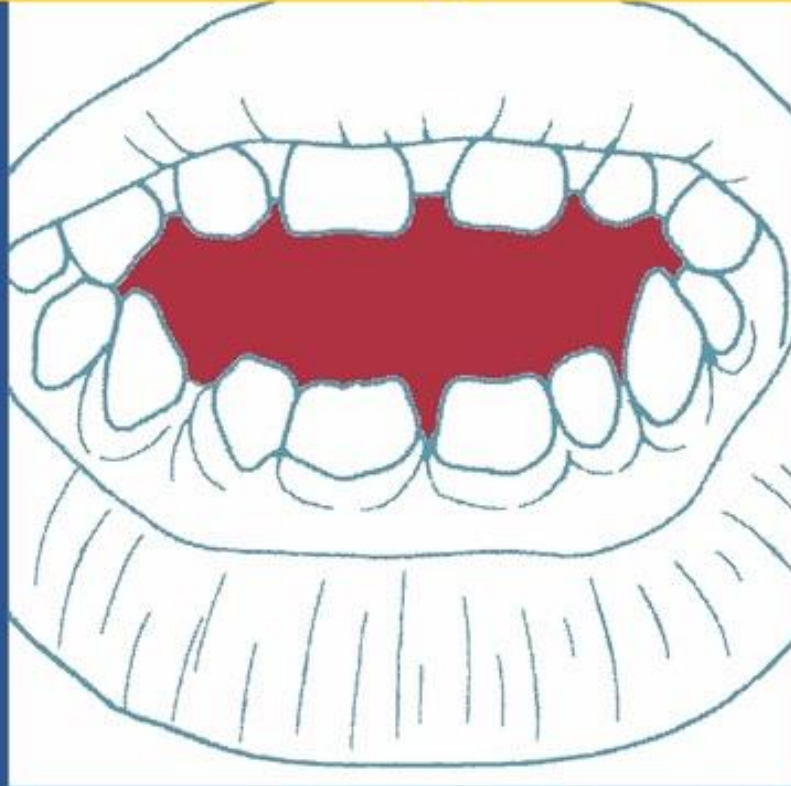


**Mouth breathing** or constantly open lips is a cause and/or signal of tongue thrust.

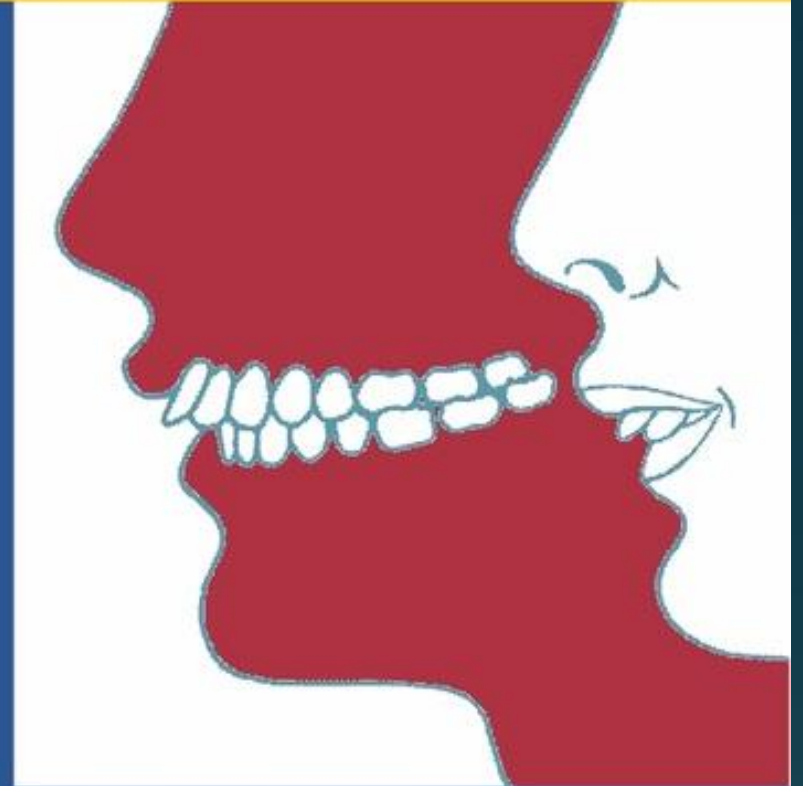
## Dental Problems Related to Tongue Thrust



**Tongue thrust** is the act of pushing the tongue against or between the teeth when swallowing.



The constant pressure of the tongue against or between the teeth will not allow the teeth to bite together. This is known as an **open bite**.



An **improper alignment or malocclusion** between the upper and lower teeth can lead to difficulties in biting and chewing the food.



# OMD Team

- ▶ General/Pediatric Dentist
- ▶ Speech Pathologist
- ▶ General Physician
- ▶ Certified Orofacial Myologist
- ▶ Parents/Family
- ▶ Allergist
- ▶ Orthodontist
- ▶ Otolaryngologist
- ▶ Periodontist
- ▶ Oral & Maxillofacial Surgeon

# Artic or OMD?

- ▶ When is it more than a typical articulation disorder?
  - ▶ When “lisp” describes the error
  - ▶ When sibilants (s,sh,ch,z,and j) are difficult to correct in treatment
    - ▶ Can also occur on (t,d,n,l)
  - ▶ When they also have a diagnosis of enlarged tonsils, open mouth posture, anterior open bite, and/or mouth breathing
  - ▶ When word level productions are correct but connected speech is difficult

# OMD and Speech Production

- ▶ Interdental and lingadental sound productions are the most dominate errors found in patients with OMD
- ▶ Slow and prolonged treatment is often needed for traditional speech services unless musculature issues are also addressed

# Treatment Goals

- ▶ Rest Posture
- ▶ Typical swallow pattern
- ▶ Appropriate tongue movement for speech sounds

# Rest Posture

- ▶ Tongue on the alveolar ridge
- ▶ Lips are closed
- ▶ Small space exists between the teeth

\*\*The tongue should not touch the teeth at rest, during swallowing, or speech. \*\*

# Typical Swallow Pattern

- ▶ Educate on the typical swallow pattern
- ▶ Begin with individual sips and move to consecutive
- ▶ Begin with thicker consistencies
- ▶ Charting meals at home

# Speech Sound Production

- ▶ Once you have a habitual rest posture and swallow pattern established you can begin to work on speech sound production
- ▶ Use your clinical judgment about what sound to begin with for each child.

# How Do We Know When To Treat?

## **Recommended**

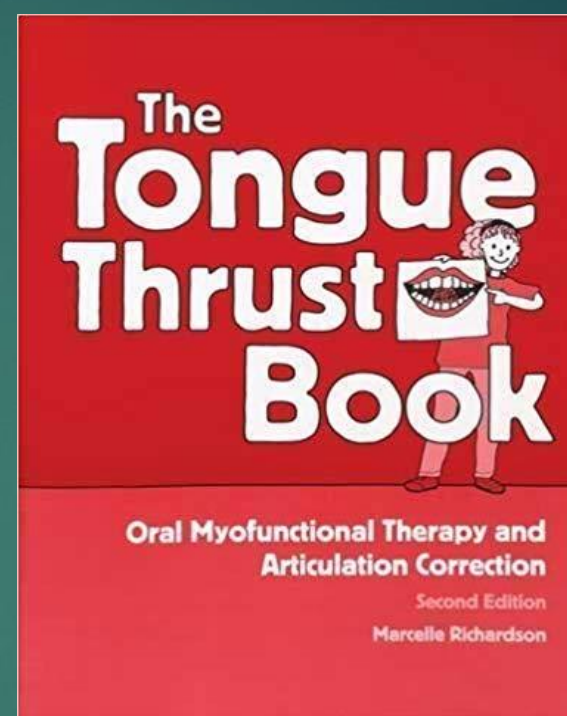
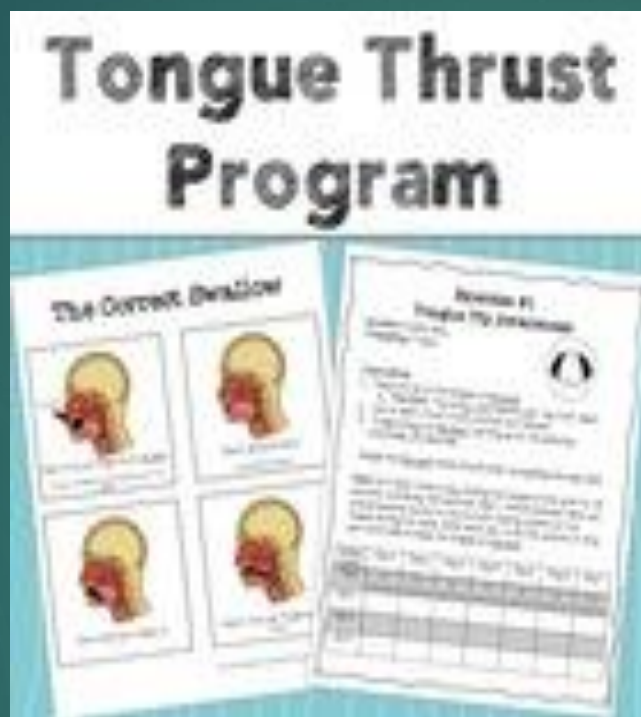
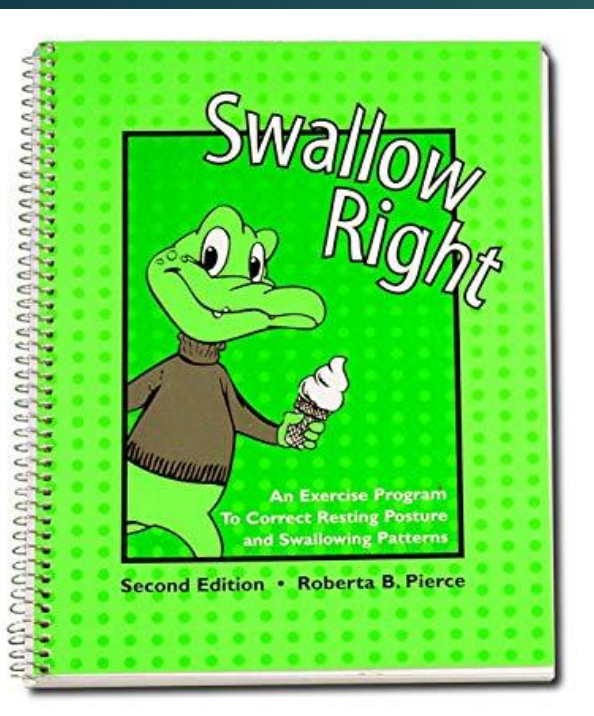
- ▶ Before braces
- ▶ After the age of 5 years old

## **Contra-Indicators**

- ▶ Motivation/family involvement
- ▶ Severe malocclusion
- ▶ Co-existing neurological disorders
- ▶ Palatal expanders



# Resources



# Additional Resources

- ▶ International Association of Orofacial Myology - <http://www.iaom.com/>
  - ▶ <http://iaom.com/why-cant-my-childs-tongue-thrust-be-treated-at-school/>
- ▶ Oral Motor Institute - <http://www.oralmotorinstitute.org/>
- ▶ Orofacial Myology - <http://orofacialmyology.online/>

# References

- ▶ Orofacial Myofunctional Disorders: The Basics for SLPs, presented in partnership with Cincinnati Children's. Presented by Masha Lee, MS, CCC-SLP, C.O.M.
- ▶ Orofacial Myofunctional Disorders: Part 2 What Can I Do? Presented by Marsha Lee, MS, CCC-SLP, C.O.M.
- ▶ American Speech-Language-Hearing Association: Position Statement and Guidelines on Myofunctional Therapy.  
[www.asha.org](http://www.asha.org)
- ▶ Orofacial Therapy by Smile Station | Omaha Kids Dentists. (n.d.). Retrieved November 28, 2018, from <https://www.omahakidsdentist.com/oral-habit-therapy.html>
- ▶ Pierce, R. B. (2002). *Swallow right: An exercise program to correct resting posture and swallowing patterns*. Austin, TX: PRO-ED.