



## Tongue Thrust Resource Guide

### What is a tongue thrust?

A tongue thrust is an abnormal adaptation characterized by the tongue pushing forward or laterally during the functional skills of swallowing or speech. The tongue protrusion reflex is a normal reflex in infancy. However, by 18 months of age this pattern is rarely seen in typically developing children.

A tongue thrust alone is unable to change dental structures. However, a tongue thrust pattern often occurs with a forward tongue resting posture where the tongue is not fully resting up to the roof of the mouth. A sustained low oral resting posture with the tongue making consistent contact against the teeth or sitting between the teeth can cause unwanted changes in the dental structures such as an open bite or a class II malocclusion (overjet).

A tongue thrust can be caused by upper airway obstruction. Upper airway obstruction is when there is a partial or complete block of the airway, compromising air flow. The most common obstruction occurs from enlarged tonsils and adenoids. To increase airway space, the tongue and lower jaw will thrust forward, allowing for increased air flow.

Prolonged oral habits such as finger sucking, thumb sucking, or extended pacifier use can contribute to a tongue thrust swallow pattern. With these oral habits, the tongue is positioned at the floor of the mouth and an immature suckle pattern is encouraged. When swallowing with a thumb or pacifier in the mouth, the tongue tip cannot elevate to the incisive papilla to initiate the swallow and encourages the low forward motion of the tongue and jaw.

During swallowing, the tongue tip comes in contact right behind the teeth at the incisive papilla, or what we refer to in therapy as “the spot”. The tongue then propels the bolus back for the swallow by the rest of the tongue moving upward in a wave like motion to make contact with the roof of the mouth. However, if a tongue thrust swallow is present, the tongue may push against the front teeth, sides of the teeth, or come between the front teeth to swallow.

Speech sounds may also be affected when a tongue thrust is present. Lisps and incorrect productions of /s, z, sh, ch, j/ can be affected. Errors for sounds /t, d, l, n/ may also be observed if the patient produces these sounds with the tongue tip placed between the teeth.

Signs and symptoms of a tongue thrust include the tongue pushing against the teeth or coming between the teeth to swallow, messy eating, difficulty swallowing pills, food remaining in the mouth after a swallow, tension in the facial muscles such as the lips and cheeks during the swallow, mouth breathing, distorted speech sounds and oral habits.

If you suspect a tongue thrust is present, a myofunctional evaluation to identify or rule out a myofunctional disorder is suggested. A referral to an ENT is also recommended to rule out a potentially obstructed airway.

## References

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