

Tongue Thrust

What is tongue thrust?

Tongue thrust is a forward position of the tongue during rest, and a thrust against or between the teeth during swallowing and speech. A tongue thrust condition is sometimes called an orofacial (mouth and face) myofunctional (muscle function) disorder (OMD).

What are the causes of a tongue thrust?

Tongue thrust may be caused by several factors, including the following:

- **Prolonged thumb or finger sucking, or extended pacifier use.** An object in the mouth causes the tongue to go down and forward during rest and swallowing. Whether or not this causes a tongue thrust depends on how long this habit has persisted and the strength of the suck.
- **Upper airway obstruction.** Upper airway obstruction can be caused by large tonsils, large adenoids, allergies, or obstruction in the nose. When nasal breathing is difficult, the jaw (along with the tongue) moves down and forward to open the airway. This makes the tongue rest in a forward position and can affect the movement of the tongue.
- **Missing teeth or an opening bite.** When teeth do not come together in the front or sides of the dental arch, this can contribute to a tongue thrust. On the other hand, a tongue thrust can actually cause this type of dentition as well.
- **Poor oral muscle strength or tone.** When there is low muscle strength or tone, this can cause the jaw to drop, mouth to open, and tongue to move forward.
- **Genetics.** A family history of oral and facial structures that promote a forward tongue position can contribute to the same problem in the child.



What are the characteristics of a tongue thrust?

- **Swallowing and biting.** During swallowing, the tongue moves forward abnormally. If there is an open bite due to the tongue thrust, this can cause problems with biting food.
- **Dentition.** The improper pressure of the tongue against the front teeth during the tongue thrust can affect the growth and development of the front teeth. This may cause the front teeth to flair out, or cause an open bite where the upper and lower teeth do not come together when the jaws are closed.
- **Speech.** Individuals with a tongue thrust usually have a “frontal lisp” during speech. A frontal lisp is when the tongue is against or between the teeth as the speaker produces sounds like /s/, /z/ and sometimes even /sh/, /ch/, and /j/.

What is the treatment for a tongue thrust?

Myofunctional therapy and speech therapy are done for the treatment of tongue thrust. The goal of myofunctional therapy is to develop a normal oral resting position where the lips and teeth are closed, and the tongue tip rests against the ridge behind the upper front teeth. Exercises are also done to obtain proper tongue movement during swallowing. Myofunctional therapy is often done in coordination with orthodontic treatment to move the teeth into proper alignment. Some orthodontic appliances can also be used to help train the child to keep the tongue in the right position. Speech therapy is often needed to correct the abnormal tongue position resulting in a frontal production of specific speech sounds.

What can parents do to help?

If a tongue thrust is suspected, a physician should evaluate the airway to be sure obstruction is not a cause. An evaluation by a speech-language pathologist should also be considered to determine if the child needs myofunctional and/or speech therapy. Finally, a dental professional should evaluate and treat the child if there are abnormalities of the teeth or occlusion.

The success of therapy depends on the elimination of a very strong habit. Therefore, once the child learns the correct position and movement of the tongue and other structures, frequent practice is necessary to make this a new habit. Parents can help by observing therapy sessions and having the child practice frequently every day between sessions.

Websites on tongue-thrust (myofunctional disorder):

- <http://www.iaom.com> - International Association of Orofacial Myology
- <http://www.ada.org> - American Dental Association
- <http://www.asha.org> - American Speech-Language-Hearing Association
- <http://www.adha.org> - American Dental Hygienist's Association
- <http://mchoralhealth.org/> - National Maternal and Child Oral Health

For more information, please contact the Division of Speech Pathology at (513) 636-4341 or visit our website at www.cincinnatichildrens.org/speech.