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**TONGUE THRUST**

This may also be called infantile swallow, reverse swallow, reverse infantile swallow, anterior tongue position, & anterior resting tongue position

What is tongue thrust?

Tongue thrusting, simply defined, is the habit of thrusting the tongue forward against or between the teeth while swallowing. It is an infantile pattern of swallowing that has been retained by an individual. We swallow a total of 1,200 to 2,000 times every 24 hours with about four pounds of pressure per swallow. This constant pressure from the tongue will force the teeth out of alignment if an individual has a tongue thrust problem. Besides the pressure exerted while swallowing, nervous thrusting also pushes the tongue against the teeth while it is at rest. This is an involuntary, subconscious habit that is difficult to correct.

What causes tongue thrust?

No one specific cause has actually been determined for the tongue thrust problem. Listed below are some reported causes, but there is no general consensus of opinion:

* Certain types of artificial nipples used in feeding infants
* Thumb sucking
* Allergies, nasal congestion or obstructions contributing to mouth breathing causing the posture of the tongue to be very low in the mouth
* Large tonsils, adenoids, or many sore throats which cause difficulty in swallowing
* An abnormally large tongue
* Hereditary factors, such as the angle of the jaw line
* Neurological, muscular, or other physiological abnormalities
* Short lingual frenum (tongue tied)

Is there more than one type of tongue thrust?

There are several different types of tongue thrust and resultant orthodontic problems:

**Anterior open bite** - the most common and typical type of tongue thrust. In this case, the front lips do not close and the child often has his mouth open with the tongue protruding beyond the lips. In general, it has been noted that a large tongue usually accompanies this type of tongue thrust.

**Anterior thrust** - upper incisors are extremely protruded and the lower incisors are pulled in by the lower lip. This particular type of thrust is most generally accompanied by a strong mentalis (muscle of the chin).

**Unilateral thrust** - the bite is characteristically open on either side.

**Bilateral thrust** - the anterior bite is closed; however the posterior teeth from the first bicuspid to the back molars may be open on both sides. This is the most difficult thrust to correct.

**Bilateral anterior open bite** - the only teeth that touch are the molars with the bite completely open on both sides including the anterior teeth.

**Closed bite thrust** - usually a double protrusion meaning that the upper and lower teeth are flared and spread apart.

Is tongue thrust very prevalent?

Since 1958 the term "tongue thrust" has been described and discussed in speech and dental publications by many writers. Authorities have noted that a significant number of school-age children have tongue thrust. For example, according to recent literature, as many as 67 to 95% of children ranging from 5 - 8 years of age exhibit tongue thrust which may contribute to orthodontic or speech problems. Throughout the country, from 20 - 80% of orthodontic patients have some form of tongue thrust.

What are the consequences?

The force of the tongue against the teeth is an important factor in contributing to bad bites. Many clinicians have had the discouraging experience of completing dental treatment, with what appeared to be good results, only to discover that the case relapses because the patient has a tongue thrust swallowing pattern. If the tongue is allowed to continue its pushing action against the teeth, it will continue to push the teeth forward and reverse the orthodontic work.

Is speech affected by tongue thrust?

Speech is not frequently affected by the tongue thrust swallowing pattern. The "S" sound (lisping) is the one most affected. The lateral lisp (air forced on the side of the tongue rather than forward) shows dramatic improvement when the tongue thrust is corrected. However, one problem is not always associated with the other.

At what age does a child usually exhibit a tongue thrust swallowing pattern?

A child exhibits a tongue thrust pattern from birth. Up to the age of four, there is a possibility that the child will outgrow the tongue thrust pattern and develop the mature pattern of swallowing. However, statistics have shown that if the tongue thrust swallowing pattern is retained, it may be strengthened beyond the age of four. In all probability, the child will need some type of training program to develop the mature swallowing pattern.

Who diagnoses tongue thrust?

The most difficult problem of all is the diagnosis. As a rule, orthodontists, general dentists, pedodontists, some pediatricians, and speech therapists detect the problem. In many cases, tongue thrust may not be detected until the child is under orthodontic care. However, diagnosis usually is made when the child displays a dental or speech problem that needs correction.

What Is the probability of correction?

With sincere commitment and cooperation of the child and parent and if there is no neuromuscular involvement, correction is possible in most cases. At the present time, successful correction of tongue thrust appears to be:

* 70% of the treated cases are successful
* 25% of the treated cases are unsuccessful due to poor cooperation.
* 5% of the treated cases are unsuccessful due to factors that make correction impossible

**Treatment options:**

1. An appliance that is placed in the mouth by the dentist (mechanical method)
2. Correction by oral habit training - an exercise technique that re-educates the muscles associated with swallowing by changing the swallowing pattern. Therapy has proven to give the highest percentage of favorable results, however the appliance is still used and is successful in many cases.

Tongue Posture Exercises

**1. "Click"** - Place the tip of the tongue in the upper front area of the roof of the mouth, press and then bring it down forcefully to make a clicking or popping sounds. Repeat this exercise as often as possible throughout the day. The tongue will begin to feel more comfortable resting on the palate, rather than around the lower teeth.

**2. "Suck"** - After practicing the first exercise, place the tongue as if to “click”, but instead suck air back into the throat. This pulls your tongue backward. Now swallow while pressing the tongue against the roof of your mouth, without allowing the tongue to thrust forward.

**3. "Squeeze"** - This is where the biting forces come into play. Swallow while biting your teeth together as hard as possible.

**4. "Swallow"** - Take any type of sugarless mint (lifesaver, etc.) and hold it on the roof of your mouth with your tongue. As it dissolves, try swallowing the salvia, keeping the mint held against the roof of your mouth and holding the back teeth together while swallowing.

Tips for Exercises

Perform the exercises twice a day. It should take about 10 minutes to perform the exercises. So, the commitment per day should be about 20 minutes.

If possible, exercise in front of a mirror, holding the lower lip down so the teeth and tongue are visible.

Remember this is a very difficult habit to change. It will require repeating these exercises many times during the day for many weeks before the changes become natural.