

(This document was written by **Robert M. Mason, DMD, PhD** at the request of the International Association of Orofacial Myology. It is intended for IAOM member use in discussions with patients, parents and referral sources from dentistry and medicine)

AN EXPLANATION OF A TONGUE THRUST DISORDER FOR CLIENT/PARENTS

A normal relaxed or rest position of the mouth would include having the lips together, teeth slightly parted rather than touching, and tongue resting behind the front teeth – usually on the palate tissue just behind the upper teeth, or in some cases, behind the lower teeth.

A tongue thrust is a condition where the tongue becomes a prominent feature either when talking, swallowing, or eating. The term ‘thrust’ is misleading, since it implies that the tongue is forcefully pushed against the teeth, leading to a change from the normal position of the front teeth. Actually, the amount of pressure exerted by the tongue against or between the teeth during a swallow is not sufficient to cause them to move out of a normal position. In many cases, a misalignment of teeth is already there and the tongue moves forward into the space available as a way of sealing the front of the mouth during swallowing. In this case, the tongue is said to be ‘opportunistic’ or filling in an available space.

Many dental practitioners and others see a tongue thrust and dental malocclusions (or teeth out of normal alignment) and presume that the tongue thrust is the cause. What is often missed in oral evaluations is the rest position of the tongue, especially the tongue tip. It is well documented in dental science that a forward rest position of the tongue tip against or between the teeth can, over time, result in dental changes when there is a long period (at least 4-6 hours per day) of an abnormal tongue rest position. It does not take a lot of pressure for a forward rest position of the tongue tip to move some teeth to a new, abnormal position. Only **light, continuous pressure** is needed to move teeth, whether by orthodontic appliances or a forward tongue rest position. In the same way, sucking habits, when a digit pressure is applied hours per day, can cause a change in the shape of the dental arches.

A tongue thrust and a forward rest position of the tongue tip often occur together. When they do, a malocclusion (malposition) of teeth is the likely result. However, not all individuals with a tongue thrust habit will need treatment since the thrusting alone is not linked as a cause of changes in dental position. But still, a tongue thrust most often presents a cosmetic or an eating problem and, when accompanied by a forward tongue rest posture, dental changes will likely result. Some patients show a rest position of the tongue between the side (back) teeth. In such cases, dental alignment problems can develop in these areas of the dental arches.

Where there is a tongue thrust, clinicians will look closely for an accompanying abnormal rest position of the tongue. In either case, treatment may be indicated. A primary goal of orofacial myofunctional therapy in children is to re-establish a normal oral environment in which normal processes of dental eruption can be achieved. In adults, the goal is to normalize oral postures and functions to create stability in the dental arches. Working on the elimination of a tongue thrust as a cosmetic concern is also an appropriate reason for therapy in some individuals. This is done by repositioning the tongue at rest, or eliminating a tongue thrust during the function of swallowing.

When the house in which the tongue resides becomes normal with regard to where the tongue rests and how it functions during eating, swallowing and speech functions, the dental structures can then be placed in a normal position that should remain stable, with no future problems anticipated. However, follow-up appointments will be needed after the completion of therapy to monitor success and to identify any possible recurrence of problems.

One final thought: what is seen at the front of the mouth can often serve as a clue that something is not normal at the back of the throat. A tongue thrust, a forward rest position of the tongue, or the mouth resting in an open position are diagnostic observations that raise suspicions of a problem at the back of the throat that interferes with normal breathing. Examples of such problems are enlarged tonsils, adenoids, or allergies that can affect the nasal cavity or reduce the size of the throat cavity. Such problems can result in a need for the tongue to adapt by positioning forward at rest or thrusting forward during the first part of a swallow to maintain an open airway for breathing.

By Robert M. Mason, DMD, PhD
Speech-Language Pathologist (ASHA Fellow)
Emeritus Professor of Surgery and Chief of Orthodontics
Division of Plastic and Reconstructive Surgery
Department of Surgery
Duke University Medical Center