

Tongue Thrusting and Tongue Rest Position – A Short Explanation

The following description of tongue thrusting and tongue rest posture is intended to be copied by clinicians and used as needed with patients, parents, or colleagues. You have my permission to copy and use this document as you see fit. If you have a need for additional information and data to support the claims made here, please go to www.OrofacialMyology.INFO, and under the heading "Myo-Research" find the article: For Dentists and Physicians. ~ Dr. Mason

A normal relaxed or rest position of the mouth would include having the lips together, teeth slightly parted rather than touching, and tongue tip resting behind the front teeth – usually on the hard 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. This is an incorrect view. 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, so tongue pressure during tongue thrusting is not the link with changes in the position of teeth. 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.

What then is the link between the tongue and changes in the position of teeth? Many dental practitioners and other clinicians 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 an abnormal rest position (or posture) of the tongue and jaws. It is well documented in dental science that a forward rest position of the tongue tip against or between the front teeth that is maintained for hours per day, with the lower jaw hinged open beyond the normal vertical rest position, can, over time, result in dental changes. A long period (a duration of at least 6 hours per day) of an abnormal tongue rest position and open jaw position is required to create dental changes such as an open bite at the front teeth. Thus, the duration of an abnormal rest posture, rather than the amount of tongue pressure, is the link between the tongue and unwanted changes in the dental structures.

It does not take much sustained pressure for a forward rest position of the tongue tip to result in dental changes. 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. An open-mouth rest posture for hours per day, that usually accompanies a forward rest posture of the tongue, serves to trigger additional unwanted changes in the dentition.

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. Not all individuals with only a tongue thrust habit will require treatment since the thrusting alone is not linked as a cause of changes in dental position. But for some, a tongue thrust may involve a cosmetic or an eating problem. Such findings can signal the need for therapy even though no dental changes are involved. When accompanied by a forward tongue rest posture, dental changes will likely occur due to the abnormal rest posture.

Some patients show a rest position of the tongue between the side (back) teeth. In such cases, dental alignment problems can develop in the posterior segments of the dental arches. A suggested clinical guideline: where there is a tongue thrust, clinicians should look closely for an accompanying abnormal rest position of the tongue and an open lower jaw rest position. With such findings, treatment is most often 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. Therapy will necessarily involve re-establishing a normal vertical rest position of the jaws. 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 speaking, then orthodontic treatment can successfully place the dental structures in a normal position that should remain stable. However, follow-up appointments will be needed after the completion of therapy to monitor success and to identify any possible recurrence of problems.

Final clinical perspectives: 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 can interfere 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 being repositioned forward at rest or thrusting forward during the first part of a swallow to maintain an open airway for breathing. Such adaptive tongue behaviors will continue until the causes of the airway problem are resolved.