What is a Functional Frenuloplasty

Tongue-Tie (also known as ankyloglossia, a restricted frenulum, or a tethered oral tissue) is a restriction of the tongue. If you look at the underside of your tongue in a mirror, you'll see a narrow line of tissue right down the middle. We all have one, and this is known as a frenum or frenulum. The lingual frenulum is formed by dynamic elevation of a midline fold in the floor of mouth fascia.

In some people, this line of tissue is too tight, and it physically restricts the range of motion of the tongue. This can contribute to a wide range of health issues including sleep disordered breathing, changes in facial development, dental problems, and problems with speech.

Not long ago, healthcare professionals dealing with tongueties performed a minor surgical procedure to release the frenum. This was called a frenectomy or a frenulotomy. In recent years, releasing tongue ties has become a multidisciplinary approach termed Functional Frenuloplasty. The new approach integrates myofunctional therapy both before, during and after surgery in addition to precision based release of the appropriate tissue for optimal results.

Although a CO2 Laser is frequently used for young children and infants, a scalpel and/or scissors are frequently used when performing tongue tie release on older cooperative children and adults. Scalpel and scissors allow for identifying the three confluent anatomic structures that are important to achieve optimal release. The procedure is typically done under local anesthesia.

Who may benefit from getting a tongue tie released

Adults who have tongue-tie can experience a number of problems that can be alleviated by an elective frenectomy. These common problems include:



Jaw (TMJ or mastication muscle) Pain & Sleep Disturbance

Soreness in the jaw, chronic pain and sensation of tightness while opening and closing the mouth. Tongue tie can contribute to development of different chewing and talking patterns resulting

in pain later on. Patients who are undergoing treatment for TMD with slow or minimal resolution of symptoms should have the lingual frenulum checked to rule out tongue tie as a contributing factor. Night time parafunction (i.e. clenching or grinding the teeth has also been linked to some sleep disorders due to night time micro-arousals. Tongue tie release can play a role in the overall work-up and management of various sleep disorders. Patients who are undergoing sleep disorder management should consider evaluation for tongue tie release.

Obstructive Sleep Apnea (OSA)



Current literature demonstrates that myofunctional therapy decreases apnea index by approximately 50% in adults and 60% in children. Myofunctional therapy could serve as an adjunct to other obstructive sleep apnea treatments.

Poor Posture Habits



Forward neck posture, elevated shoulders, clenched jaw, and muscle tension in the head and neck areas is a constellation of postural habits that some people do subconsciously. Tongue tie release may make it easier to mindfully correct these habits.

Difficulty Eating

When the tongue can move freely, food moves along its regular path allowing chewing and swallowing to be most efficient. Therefore, a tongue tie can hinder proper mastication and swallowing food.

Dental Health



A tight frenum restricts the tongue from clearing food from around the molars with a sweep of the tongue. This can lead to poor oral hygiene, bad breath, and cavities from the food sitting on the teeth.

Braces and Dentures



In some cases, a frenectomy is needed prior to orthodontic treatment to allow proper positioning of the teeth and prevent treatment relapse. A frenectomy may also be necessary before dentures to prevent the frenum position from interfering with how your dentures fit.

Trouble Talking

Adults who did not have frenum issues addressed as a child may compensate and learn to work around the tongue limitations. These tongue limitations can make it hard to enunciate certain words. A functional frenectomy along with myofunctional and speech therapy can facilitate better speech.



Problems with Kissing

The physical limitations of a tight frenum can make kissing difficult or less enjoyable.



Difficulties Playing Certain instruments

Frenum issues can interfere with playing certain musical instruments such as a trumpet due to lip and tongue involvement.

How effective is the Functional **Frenuloplasty?**

Individuals who have lived with a restricted frenum into adulthood, often report feeling an instant release of tension following a functional frenuloplasty. After having these small restrictions released, patients have noticeable results such as relaxed shoulder position, improved head posture, and thus improved breathing habits.

Pre- and post-surgical myofunctional assessment and exercises under the supervision of a licensed myofunctional therapist are integral elements of a functional frenuloplasty to prepare and re-pattern tongue function once the restriction is released and help achieve long-lasting functional results. In addition, compliance with home exercises is of utmost importance for successful treatment.





Treatment sequence

- **1.** Pre-operative myofunctional therapy (number of sessions varies based on therapist and patients)
- **2.** Surgical consultation to evaluate if the patient is ready to undergo the procedure
- 3. Surgical release of the tongue tie
- 4. Post-operative myofunctional therapy (number of sessions varies)

The tongue tie discussion in health care

Different classifications for ankyloglossia have been proposed but are not uniformly accepted making comparisons between studies almost impossible. Older children and adults with ankyloglossia (limitations in tongue mobility) have varying degree of symptoms. Therefore, severity of associated symptoms and speech problems are subjective and difficult to categorize. Due to the lack of adequate controlled prospective trials for surgical interventions in patients with tongue-ties in the literature, no conclusive suggestions regarding the method of choice can be made regarding a specific treatment method. It also remains controversial which tongue-ties need to be surgically removed and which can be left to observation.

Therefore, at Armitage Oral Surgery, we keep an open mind toward patient selection, diagnostic criteria and treatment recommendations. We are equipped to provide all treatment methods including CO2 laser, scalpel and/or scissors. We approach each patient as a unique individual with a a unique anatomy and overall condition. We have a vast didactic knowledge in the subject combined with clinical experience of over 15 years. We view the Functional Frenectomy procedure as a collaborative effort between the surgeon, the myofunctional therapist and most importantly, the patient. We do not perform the procedure until we feel that the myofunctional therapy has been effective and the patient is ready to reap the benefit of the surgery.



Diplomate, American Board of Oral & Maxillofacial Surgery National Dental Board of Anesthesiology American Board of Oral Implantology/Implant Dentistry



Functional Frenuloplasty