



Are you all tied up?

By Dr. Shelly Klein

Ankyloglossia, or tongue-tie, is a common abnormality from birth where the tissue under the tongue (lingual frenum) is overly short and tight (posterior ankyloglossia) or aberrantly attached near the tip of the tongue (anterior ankyloglossia), “tying” the tongue to the floor of the mouth.

The tongue is an important organ which is largely responsible for mouth and facial development and growth. Ankyloglossia has been linked to abnormal suck swallow pattern in newborns (leading to difficulty with or painful breastfeeding or moms “drying up” after 3 months of breast feeding). In infants and toddlers, reflux, fussiness, dental cavities, messy drinking, difficulty spoon feeding, refusal of textured foods and speech disturbances are also frequently observed. For older children and adults, tongue tie contributes to a high and narrow palate, incorrect bite pattern (cross bite), or under bite with prominent lower jaw, teeth malalignment, smaller mid face, and mouth breathing. Mouth breathing may be a factor in tonsillar enlargement which can obstruct the airflow and exacerbate mouth breathing and contribute to the abnormal facial growth. A potential outcome of tongue tie is sleep disordered breathing (SDB), snoring, and obstructive sleep apnea (OSA) in older patients which can be related to behavioral issues due to lack of sleep. In addition, tethered oral tissue as a possible causation of unexplained asphyxia (SIDS) in infants has been documented in an article from the Journal of Rare Disorders: Diagnosis and Therapy dated February 2016.

The tongue attaches to several head and neck bones as well as multiple face and neck muscles. When the tongue is tied, this restriction requires use of accessory muscles to perform functions such as breathing, breastfeeding, chewing and swallowing. This hyperactivity of the neck and jaw muscles leads to changes in boney structure, more compensation of muscles and ultimately stressors to the central nervous system. Orofacial myofunctional therapy (OMT) is an important adjunctive therapy to correct these abnormal compensatory changes and stressors.

Treatment for ankyloglossia is a minor outpatient surgical procedure to release the “tie” (frenectomy). There are various methods including using a scalpel, scissors, or lasers. Using a scalpel or scissors carries a potential risk of bleeding, as well as the limitation of incomplete release due to thick oral tissue (that could bleed more). CO2 laser frenectomy cuts while stopping bleeding and minimizes post procedure edema. No sutures are typically used with CO2 frenectomy and patients quickly return to their usual activities.

Once released, exercises are recommended to decrease scarring and recurrence. In addition, OMT is recommended to correct any muscular compensation and to tone the muscles now that the tongue can move correctly. OMT helps re-establish correct swallowing, chewing, speaking and breathing patterns that were limited due to the “tie”.

Fabbie, P., RDH, BS, COM, Kundel, L., DMD, & Vitruk, P., PhD, MInstP, CPhys, DABLS. (2016, Winter). Tongue-tie functional release. *Dental Sleep Practice*, 2-7.

Haller, L. A., & Brown, T. (2016, March 10). Upper lip frenum as a predictive marker for unexpected and unexplained asphyxia in infants. *Journal of Rare Disorders: Diagnosis & Therapy*, 2(2:38), 1-5.

<http://feedthebabyllc.com/tongue-and-lip-tie/>

<https://breastfeedingusa.org/content/article/tell-me-about-tongue-ties>

<https://www.lightscalpel.com/laser-surgery/pediatric-laser/>

