Ankyloglossia (tongue tie) in infants

Josdalyne Anderson MD, Pooja Prabhu MD, M. Elise Graham MD

Cite as: CMAJ 2023 October 10;195:E1349. doi: 10.1503/cmaj.230151

Ankyloglossia describes decreased tongue mobility related to a tight lingual frenulum

The lingual frenulum is a tissue fold created by tongue elevation. In ankyloglossia, oral examination may reveal a short, tight frenulum that inserts either toward the tongue tip or onto the mandibular alveolus (the tooth-bearing surface of the lower jaw). Clinicians should evaluate range of motion of the infant's tongue (elevation and protrusion) and breastfeeding, as the diagnosis is functional. The incidence of ankyloglossia is roughly 4%.¹

2 The condition may cause difficulty with breastfeeding, especially parental pain with latch¹

Nipple pain has a broad differential diagnosis.² Skilled evaluation by a physician with comfort in breastfeeding medicine or an international board-certified lactation consultant is necessary. Optimizing infant latch and position is essential, while considering and managing other possible causes such as nipple vasospasm, plugged ducts and mastitis.²

D Conservative management is appropriate in some cases

Optimizing infant attachment at the breast is the mainstay of conservative management.² If experienced clinicians are unable to facilitate improved breastfeeding for infants with ankyloglossia, frenotomy may be considered.

4 Lingual frenotomy is a relatively safe procedure to treat ankyloglossia

Laser is not superior to scissors for frenotomy.³ Postoperative exercises are not necessary.⁴ Infants should be ideally aged 3–6 months or younger for the procedure; clinicians can prescribe sucrose for pain control and should avoid general anesthesia. Complications — such as hemorrhage, lingual nerve injury, oral aversion, thermal injury with laser use and airway obstruction — are uncommon but often poorly recorded.⁴

5 Lingual frenotomy for reasons other than latching difficulty is not supported by current evidence, nor is division of other oral ties in infants

The relationship of ankyloglossia to later articulation, gastroesophageal reflux and obstructive sleep apnea remains uncertain, and frenotomy for these conditions is therefore not indicated.⁵ Frenulum of the upper lip is normal and not clearly related to breastfeeding.⁴ If needed for orthodontics, labial frenotomy should not precede eruption of permanent dentition. Buccal ties have no functional significance.⁴

References

- Bruney TL, Scime NV, Madubueze A, et al. Systematic review of the evidence for resolution of common breastfeeding problems – ankyloglossia (tongue tie). *Acta Paediatr* 2022 May;111(5):940-7.
- Douglas P. Re-thinking lactation-related nipple pain and damage. Womens Health (Lond Engl) 2022;18:17455057221087865. doi: 10.1177 /17455057221087865.
- 3. Khan U, MacPherson J, Bezuhly M, et al. Comparison of frenotomy techniques for the treatment of ankyloglossia in children: a systematic review. *Otolaryngol Head Neck Surg* 2020;163:428-43.
- Messner AH, Walsh J, Rosenfeld RM, et al. Clinical consensus statement: ankyloglossia in children. *Otolaryngol Head Neck Surg* 2020;162:597-611.
- Chinnadurai S, Francis DO, Epstein RA, et al. Treatment of ankyloglossia for reasons other than breastfeeding: a systematic review. *Pediatrics* 2015;135:e1467-74.

Competing interests: M. Elise Graham reports funding from the Department of Otolaryngology Catalyst Grant and the Academic Medical Organization of Southwestern Ontario, outside the submitted work. No other competing interests were declared.

This article has been peer reviewed.

Authors are international board-certified lactation consultants.

Affiliations: Department of Family Medicine (Anderson), Faculty of Medicine, University of Ottawa; The Ottawa Hospital, Civic Campus (Anderson), Ottawa, Ont.; Maple Kidz Clinic (Prabhu), Vaughan, Ont.; Department of Pediatrics (Prabhu), Temerty Faculty of Medicine, University of Toronto, Toronto, Ont.; Department of Otolaryngology (Graham), Schulich School of Medicine and Dentistry, Western University; London Health Sciences Centre (Graham), London, Ont.

Content licence: This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY-NC-ND 4.0) licence, which permits use, distribution and reproduction in any medium, provided that the original publication is properly cited, the use is noncommercial (i.e., research or educational use), and no modifications or adaptations are made. See: https:// creativecommons.org/licenses/by-nc-nd/4.0/

Correspondence to: M. Elise Graham, elise.graham@lhsc.on.ca