

Management of Ankyloglossia: Foundational Articles and Recommendations

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Background

Tongue-tie or ankyloglossia refers to an abnormally short, thickened or tight lingual frenulum that shows an alteration on its insertion and fixation, usually near the tip of the tongue. Diagnosis depends on the assessment of the structure and function of the lingual frenulum, varying from simple visual inspection and/or palpation of the frenulum to a more complex multi-scale classification system. Children with ankyloglossia may have restricted tongue mobility resulting in speech or feeding difficulties. The evidence for frenectomy (removal of lingual frenum) is weak for improving speech disorders, malocclusion, difficulty licking, difficulty keeping teeth clean, increased risk of dental caries, lower central incisor diastema, tethered gingival tissues lingual to the lower incisor, sleep apnea, and social embarrassment.

Ankyloglossia is present in 0.1% to 11% of newborns. Risk factors include being male (3:1) and positive family history. It can be associated with breastfeeding problems due to difficulty to attach or stay latched onto the breast, and to maternal nipple pain. In recent years, with the encouragement of breastfeeding as the primary mode of infant feeding,

the justification for frenotomy (simple incision of lingual frenum) has shifted from improving speech problems to improving breastfeeding. Frenotomy is a simple incision of the lingual frenum; frenectomy is the removal of the lingual frenum. The anatomical location and topography of the lingual tissue make lingual frenectomy vulnerable to various postoperative and intraoperative complications.

Rare complications of lingual frenotomy may include excessive bleeding/hemorrhage, airway obstruction, injury to salivary structures, oral aversion, and scarring. Some complications due to lingual frenectomy may include reattachment or recurrence of frenulum attachment, scar tissue formation and restriction in tongue movement; development of new speech disorder or worsening of existing speech disorder; excessive bleeding/hemorrhage during or immediately after the surgery; formation of mucus retention cyst or ranula; sublingual hematoma formation; numbness and paresthesia of the tongue and neighboring soft tissues; development of space infection.

IAPD Recommendations

1. Frenectomy (complete removal of lingual frenum) improves speech disorders. For both frenectomy and frenotomy (cutting the frenum) the evidence is weak for improving malocclusion, difficulty licking, difficulty keeping teeth clean, increased risk of dental caries, lower central incisor diastema, tethered gingival tissues lingual to the lower incisor, sleep apnea, and social embarrassment.

Consensus-based statement › Global agreement 82%

2. Prior to frenectomy for speech concerns, consultation with a speech pathologist may help case selection.

Consensus-based statement › Global agreement 89%

3. Speech therapy and postoperative exercises are suggested following lingual frenotomy or frenectomy.

Consensus-based statement › Global agreement 78%

4. Prior to frenotomy or frenectomy for breastfeeding difficulties, consultation with the infant's medical provider or lactation consultant may help case selection.

Consensus-based statement › Global agreement 83%