

# Frenectomies and health outcomes: A clinical practice retrospective chart review

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## BACKGROUND

There are seven frenula present in the oral cavity and their function is to provide stability to the upper lip, lower lip and tongue. The dental community and various other healthcare specialties such as otolaryngologist, speech pathologists, and lactation consultants are particularly concerned with restrictive frenulum attachments and their impact on oral motor function, feeding and speech. Restrictive frenulum attachments may be surgically altered by a frenotomy procedure. Some studies have attempted to assess outcomes following frenectomy however, some are flawed due to lack of sample size or power.

The discussion of tongue/lip tie has become a controversial one in recent years. This is especially following a clinical consensus statement from ENT in 2020. The conclusion of this was that there are knowledge gaps and lack of evidence in the diagnosis, management and treatment. Further study is needed to refine patient selection and outcome assessments.

## OBJECTIVE

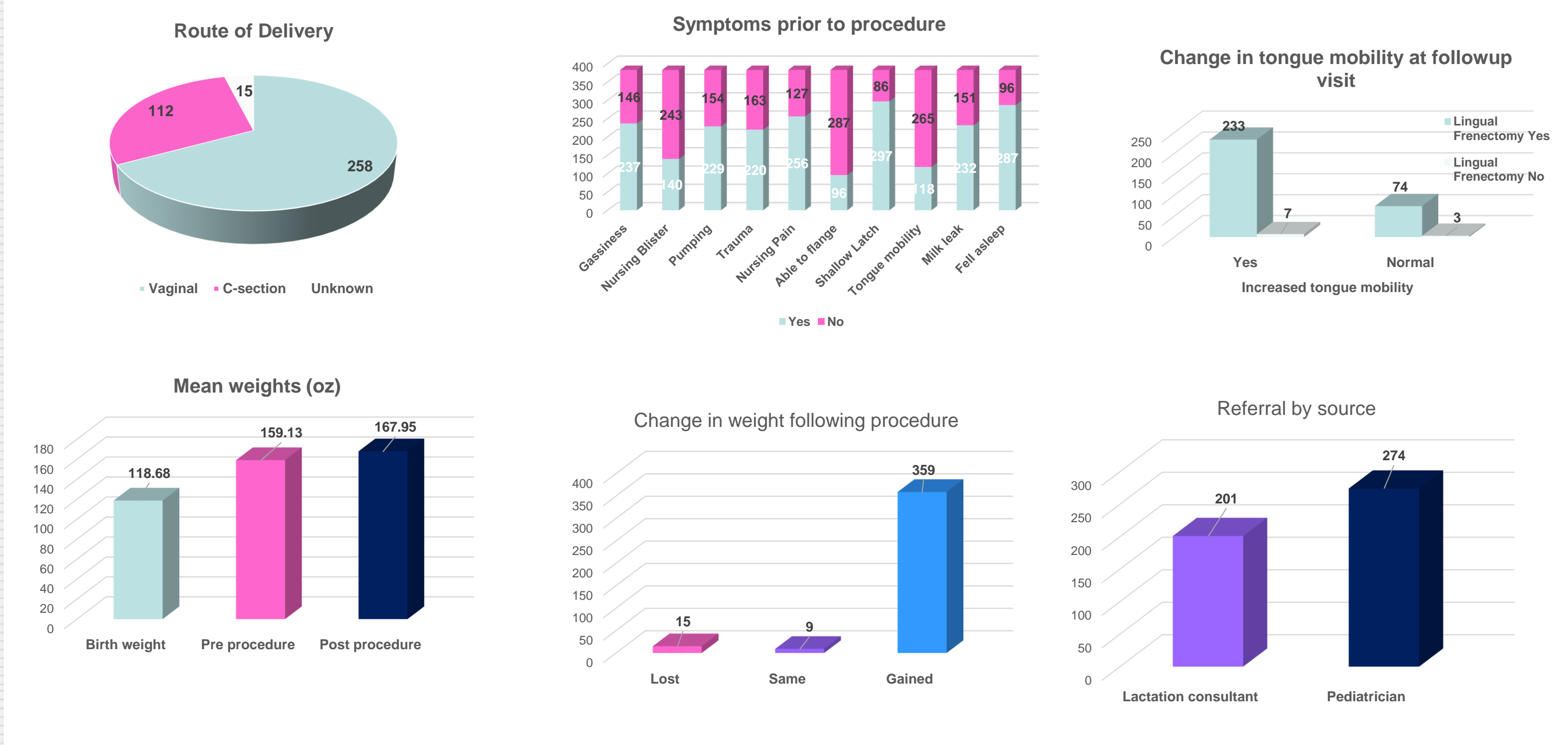
To determine if early labial and/or lingual frenectomy corresponded with improved health outcomes for mother and child.

## MATERIALS AND METHODS

This study was a retrospective chart review of patients followed for frenectomy intervention at a Frisco private pediatric dental office between 1/04/2021 and 5/25/22. Inclusion criteria was healthy patients under age 1. Exclusion criteria included patients with craniofacial conditions. Pre and post-frenectomy questionnaires and dental records were assessed for the following: prematurity, delivery route, weight gain, ability to latch, gassiness, leakage, nursing pain and trauma.

## RESULTS

- 384 charts were reviewed
- 200 males and 185 females
- 258 patients were delivered vaginally and 112 by C-section. 15 unknown
- Age at frenectomy procedure: 49.63 days with range from 2 days to 415 days
- 360 patients received a vitamin K booster prior to procedure; 16 did not and 9 unknown
- Mean birthweight: 118.68 ounces (7.41 lbs)
- 78/383 were bottle-fed only
- 115/383 were breast-fed only
- 344 received a lingual frenectomy
- 355 received a maxillary frenectomy (11 received both)
- Mean weight gain after procedure: 7.02%
- Range of % weight lost/gain: -5.56 to 26.44



## DISCUSSION

The preliminary findings from this study reveal the positive impact that a frenectomy can have on both mother and baby. There were no reported adverse outcomes following labial/lingual frenectomy and all but 24 experienced weight gain following the procedure. It is interesting to note that 52% of the mothers had previously worked with a lactation consultant and were referred for the procedures. This study also shows how practice-based research can provide a unique insight and a potentially larger source of patients than a traditional academic setting. Practice-based research including stronger cohort studies are required to refine patient selection and outcome assessments. While there are multiple published tools to diagnose tongue and lip ties, they have not been validated by large studies and may not be used to consistently. A consensus on this would be helpful to identify those baby/mother dyads that will benefit from the procedures without subjecting others to unnecessary procedures.

## CONCLUSIONS

1. Lingual and labial frenectomy had a positive significant effect for both the mother and baby.
2. Lingual frenectomy had a positive significant effect on tongue mobility.
3. Continued qualitative and quantitative analysis of all the available data from this study is necessary.

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