Visalia
PEDIATRIC DENTISTRY
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Frenum Attachments

Managing Various Types of Attachment

On average, each person has seven naturally occurring frena in their oral cavity, the most notable being the maxillary labial frenum, the mandibular labial frenum and the lingual frenum. Their respective primary function is to provide stability to the upper lip, lower lip and tongue.

Maxillary Labial Frenum

A prominent, thick maxillary labial frenum in infants and children is a relatively common finding. This frenum can be classified with respect to its insertion level:

a) *Mucosal* (Type I) - inserts at mucogingival junction
b) *Gingival* (Type II) - inserts in attached gingiva
c) *Papillary* (Type III) - inserts into the interdental papilla
d) *Papillary penetrating* (Type IV) - crosses the alveolar process and inserts onto the palate

The most common attachments are mucosal and gingival (**a** and **b** from the image above). It is important to understand that the maxillary labial frenum attachment is dynamic, having the potential to change in its position of insertion as the child grows. The papillary penetrating insertion is highest amongst infants, its incidence fading with age. ***Because of its dynamic nature, the AAPD does not endorse the surgical release of this frenum based on appearance alone.***

When a prominent maxillary midline labial frenum (papillary or papillary penetrating) extends into transitional/mixed dentition, an evaluation of the developing adult occlusion by an orthodontist is recommended. Occasionally, surgical intervention is recommended to correct a midline maxillary diastema (gap between top front two permanent teeth). This correction, however, is often to obtain a cosmetic change, and is not necessarily to address a functional issue.

There is general agreement between Pediatric Dentists and Orthodontists, that the surgical correction of this type of tissue attachment should not be performed before the permanent canines erupt, **and** that when trying to obtain a cosmetic correction, the operation should follow orthodontic closure of space.

Mandibular Labial Frenum

The most prominent mandibular labial attachment is most seen in the permanent central incisor area in individuals with a shallow vestibule. A free-gingival insertion can cause inflammation, recession, pocket formation and subsequent food and plaque accumulation and even possible bone loss. Early surgical correction of this type of tissue attachment is supported.

Lingual Frenum

A restrictive lingual frenum has been associated with difficulty in successfully breastfeeding, due to a poor or shallow latch, often resulting in slow weight gain, reflux and irritability from swallowing excessive air, prolonged feeding time and a nursing experience that is physically painful for the mother.

The AAPD supports the World Health Organization's recommendation to nurse exclusively at least the first 6 months of an infant's life. The tongue's ability to elevate is the most important quality for nursing, feeding, speech and development of the dental arch. When the attachment is so restrictive that it prevents the tongue from elevating to the roof of the mouth it can cause an ineffective latch, inadequate milk transfer and intake, and persistent maternal nipple pain.

Research supports surgical intervention because a frenum release, along with the support of other allied professionals (i.e. lactation consultant, pediatrician, myofunctional therapist, and speech therapist, etc.), has been shown to improve successful breastfeeding, to improve speech development, to allow for a more normal occlusion and increased gingival health.

When a frenectomy is performed, dressing placement/sutures or the use of antibiotics is not usually necessary. Post-operative recommendations include maintaining a soft diet, regular oral hygiene, and OTC analgesics as needed (ibuprofen or Tylenol) along with consistent post-operative stretches/exercises. These stretches will help to prevent the reattachment of the wound and relapse of the previous symptoms associated with the tongue or lip-tie.