Dr. Chris Baker Seminars

Changing the world ~
one smile at a time

Frenectomy

Maxillary Midline Frenectomy
Maxillary frenum—embryology and development

- **MX labial frenum originates as a post eruptive remnant of the tectolabial bands (embryonic structures appearing at approx 3 months in utero and connecting the tubercle of the upper lip, to the palatine papilla.)**

- Apical relocation of the attachment is usually due to normal vertical growth of the alveolar process.

Sicher H. Orban. Oral Histology and Embryology

- Henry et al showed of 4 basic types of tissue in human body (epithelial, connective, nerve and muscle,)
  - muscle is ONLY tissue normally **absent** in MX frenum.


Maxillary frenum—embryology and development

- Failure of attached fibers to migrate apically results in a residual band of tissue between the MX centrals = low or deep pull frenum.

- The residual persisting fibers also attach to the periosteum and to the internal connective tissue in the V-shaped MX suture.

- The inter-incisive soft tissues and their associated fiber arrangement, as well as the contiguous fibrous network of adjacent areas, provide significant **resistance to orthodontic tooth movement.**

Classic frenectomy procedure

= excision type frenectomy
  taking out the papilla AND all interdental tissues

Sequelae

• loss of midline papilla with dark triangular space
• Unesthetic
• labial tissue scarring

Surgical technique as modified by Doyle and others:

• local anesthesia
• electrosurge or laser

1. V incision from apex of frenum to 1-2mm above MG junction
   • Use care to avoid the labial gingival papilla

2. apical releasing incision
   • All incisions are kept directly adjacent to frenum itself
   • and do not extend into the attached gingivae

3. elevate frenal tissue

4. excise frenal tissue and periosteum

• Finish with Stomahesive bandaide

• Researchers have reported a high correlation
  • between pre-tx existence of
  • notching of interseptal alveolar crest and
  • relapse of ortho-treated MX diastemae
A bandaide makes it feel better!

How it look post-operatively?

1 week post-op frenectomy
Ordering Convatec Stomahesive

• From your local medical supply company OR

• Edlpmed.com (Every Day Low Price Medical)
  • internet cost ~$19.00 US per box of 5 sheets
  • Each 4”x4” sheet makes 20 –30 or more band-aides
  • making each bandaide less than 20 cents US
Alex S
pre-op

6 months
post frenectomy

Dr. Ron Brungo's patient

Justin S

11 months
post Phase I

pre-op
Jon W  
Pre-op

2 years  
Post-frenectomy

Hanna S  
Age 5y 8m

Hanna Spanyer  
Pre-op frenectomy
Hanna S
Post Eruption of lateral incisors

Hanna S
Post Phase II

Miriam DR
pre-op

2 years post op

Cami M.
Post-frenectomy
Advantages of modified frenectomy procedure

- Retention of interdental soft tissue
- Can be done pre-orthodontic treatment
- Increase in zone of attached gingivae
- Avoidance of scarring the labial gingivae
- No sutures needed
- Minimal amount of discomfort

Timing of procedure

Sublingual Frenectomy

Josh I, age 8y 3m
ankyloglossia
Sublingual frenectomy procedure

Alicia S, age 27
4 days post-op:
“The muscles in my jaw feel
so much better; it is awesome!”

Questions?