Tongue and Lip Tie: Comprehensive assessment, treatment and care strategies

Objectives

After this presentation, learners will be able to:

- Identify and assess restrictions of the lingual and labial frenulum in babies
- Understand the incidence rate, available evidence and current thoughts around ankyloglossia
- Implement targeted care strategies for dyads pre and post frenotomy
- Understand the collaboration and team work involved when dealing with oral restrictions

A frenulum vs. a tie

- Everyone has multiple frenula throughout the body
- Frenula are not the problem. The problem is when they restrict mobility and functionality.
- Visible assessment of the oral frenula is not enough. Assessing function is the most important piece.

Burning questions....

- Is tongue tie real?
- Is diagnosis and/or treatment a fad?
- What is the difference between an anterior and posterior tie?
- Is frenotomy evidence based?
- Why does ankyloglossia matter? What are consequences of an untreated tie?
- What is the incidence rate of ankyloglossia and is it increasing?
- How can tongue and lip tie be properly assessed for?
- What pre and post frenotomy care strategies are useful?

Is tongue tie real? Why does it occur?

- Yep, it’s real (just like clefts and other congenital issues)! Ankyloglossia (tongue tie), and other tethered frenula, occur when improper apoptosis during embryological development occurs.
- The tongue develops approx wk 4, by wk 6 the maxillary labial frenum and primary palate are developing
- Wk 8-9, the tongue helps shape the palate as it is closing. As the development continues, apoptosis causes the lingual frenulum to retract away from the tip of the tongue. A ‘tie’ occurs when there is a disturbance during this stage of programmed cell death.

Dedication

This presentation is dedicated to the many families coping with oral restrictions that I have worked with so far. They have taught me what dedication and perseverance mean.
What messes up apoptosis anyway?

- "Certain viruses can inhibit apoptosis … also drugs and chemical or physical injuries during embryogenesis may interfere with the balanced programmed cell death and thus induce malformations" (Hanna & Vornanen, 1999)
- Genetic or epigenetic triggers seem to cause mutations in the gene encoding transcription (often TBX22), that seems to factor into improper apoptosis of the lingual frenulum, are closely linked to other orofacial deformities like clefts. Methylation/Sumoylation is involved in apoptosis/TBX22 function. It is extremely sensitive to environmental stressors and may be a regulating factor in normal facial development (Aurora et al., 2015; Kamphorst et al., 2015; Anderson et al., 2007; Albo, 1999).

Why does ankyloglossia matter? What are consequences of an untreated tie?

- "In infants with anterior or posterior ankyloglossia, there is a reported 25- to 80-percent incidence of breastfeeding difficulties, including failure to thrive, maternal nipple damage, maternal breast pain, poor milk supply, maternal breast engorgement, and refusing the breast. Ineffective latch is hypothesized to underlie these problems…"
- "Mechanistically, infants with restrictive ankyloglossia cannot extend their tongues over the lower gumline to form a proper seal and therefore use their jaws to keep the breast in the mouth for breastfeeding. Adequate tongue mobility is required for breastfeeding, and infants with ankyloglossia often cannot overcome their deficiency with conservative measures such as positioning and latching techniques, thereby requiring surgical correction"…

RESULTS: For all of the infants, milk intake, milk transfer rate, LATCH score, and maternal pain scores improved significantly postfrenulotomy. Two groups of infants were identified on ultrasound. One group compressed the tip of the nipple, and the other compressed the base of the nipple with the tongue. These features either resolved or lessened in all except 1 infant after frenulotomy.

CONCLUSIONS: Infants with ankyloglossia experiencing persistent breastfeeding difficulties showed less compression of the nipple by the tongue postfrenulotomy, which was associated with improved breastfeeding defined as better attachment, increased milk transfer, and less maternal pain. In the assessment of breastfeeding difficulties, ankyloglossia should be considered as a potential cause.

Photos: Panel A shows a tongue-tied baby compressing the nipple tip. Panel B shows less compression following a frenotomy.

Ultrasound of how babies extract milk

Is diagnosis and/or treatment a fad?

- It is not a fad. Ankyloglossia is a real condition. As breastfeeding rates increase, causes for BF failure must be explored. Maternal pain has been shown to be a real cause of premature weaning (Shea et al., 2005). Ankyloglossia has been shown to be a cause of BF pain (Albo, 1999).
- On the flip side not every BF issues is due to a tie. Proper assessment techniques and differential diagnosis are key so that over diagnosis and under diagnosis don't occur.
What the research shows...

- Overall, division of the tongue-tie babies resulted in improved feeding in 54/57 (95%) babies. This randomized, controlled trial has clearly shown that tongue-ties can affect feeding and that division is safe, successful, and improved feeding for mother and baby significantly better than the intensive skilled support of a lactation consultant.

Incidence of ankyloglossia

Incidence rates as show in the literature:

- A comprehensive literature review found a prevalence of ankyloglossia of between 4% and 10% (Segal et al., 2007).
- There is a reported 25- to 80-percent incidence of breastfeeding difficulties in babies with ankyloglossia (AHRQ, 2015).
- Ankyloglossia seems to be slightly more common in males compared to females (Griffiths, 2004).

Are incidence rates of tongue tie increasing?

- At present this is unestimated and unknown. Some researchers feel that epigenetic changes are occurring in males compared to females (Griffiths, 2004).

What is the difference between an anterior and posterior tie?

- "Anterior ankyloglossia is defined as tongue tie with a prominent lingual frenulum and/or restricted tongue protrusion with tongue tip tethering..."
- The diagnosis of posterior ankyloglossia is considered when the lingual frenum was not very prominent on inspection but is thought to be abnormally prominent, short, thick, or fibrous cord-like..."
- "Although treatment is similar in anterior and posterior cases, posterior ankyloglossia is more subtle in presentation. Usually, clinicians recognize the anterior frenulum as the cause of ankyloglossia...In essence, posterior ankyloglossia is under-recognized compared to the anterior variant..."

Is frenotomy evidence based?

- Yes, frenotomy is evidence based. The current evidence all points to frenotomy being a beneficial and very low-risk procedure.
- Some limitations exist around the quantity and quality of research as well as the logistics of creating an ethical study design regarding this intervention. Also, diagnostic criteria for defining or classifying ankyloglossia is not uniform (AHRQ, 2015).
- Studies assessing the effectiveness of frenotomy for improving nipple pain, sucking, latch, and continuation of breastfeeding all suggested frenotomy was beneficial. No serious adverse events were reported (Segal et al., 2007).

- "The frenotomy group improved significantly more than the sham group (P < .001). Breastfeeding scores significantly improved in the frenotomy group (P = .029) without a significant change in the control group...This should provide convincing evidence for those seeking a frenotomy for infants with significant ankyloglossia."
- "There was a significant decrease in pain score after frenotomy than after sham (P = .001). There was also a near significant improvement in latch after the frenotomy in these mothers (P = .06)...Frenotomy appears to alleviate nipple pain immediately after frenotomy. We speculate that ankyloglossia plays a significant role in early breast-feeding difficulties, and that frenotomy is an effective therapy for these difficulties."
- "Immediate nipple pain relief after frenotomy is a significant component of quality breast-feeding outcomes..."
What the research shows...

- All frenuloplasties were performed without incident. Latch improved in all cases, and maternal pain levels fell significantly after the procedure. Ankyloglossia is a relatively common finding in the newborn population and represents a significant proportion of breastfeeding problems. Poor infant latch and maternal nipple pain are frequently associated with this finding. Careful assessment of the lingual function, followed by frenuloplasty when indicated, seems to be a successful approach to the facilitation of breastfeeding in the presence of significant ankyloglossia.


- This review of research literature analyses the evidence regarding tongue-tie to determine if appropriate intervention can reduce its impact on breastfeeding cessation, concluding that, for most infants, frenotomy offers the best chance of improved and continued breastfeeding. Furthermore, studies have demonstrated that the procedure does not lead to complications for the infant or mother.


How can tongue and lip tie be properly assessed for?

- There are several assessment techniques. One commonly used, validated tool is the ©Hazelbaker Tool for Lingual Frenulum Function.

- Other tools are also in the process of being created and the International Affiliation of Tongue Tie Professionals is a good organization to be involved in since many of us participate in multi-center research, protocol design and collaboration.

How might restrictions of the lingual frenulum present?

- Ankyloglossia compromises tongue functionality and may make the tongue:
  - Appeared bunched, retracted, pulled down in center
  - Create posterior tongue humping
  - Create poor-moderate elevation, extension, lateralization, cupping
  - Remain flat or low when infant is crying or gaping widely
  - Not reach the palate, creating a heightened gag reflex and poor tongue cleaning
  - Snap back after extension, peristalsis issues
  - Have a indent/cleft at tip...or not...

Tongue Tie Classification

- There are several classification systems regarding tongue tie. One very common one is the Coryllos, Genna, Salloum typing system:
  - Type 1: attachment of frenulum to tongue tip
  - Type 2: 2-4 mm behind tongue tip
  - Type 3: attachment of frenulum to mid tongue
  - Type 4: attachment at the base of the tongue (AAP newsletter, 2004)

- Remember, a classification system is not an assessment technique – just a charting/communication tool.
Some presentations of lingual restriction

Tongue Tie Presentations

Are they or aren’t they?

Tongue Tie presentations

Assessment
show better pics, show my own pics
Melissa Cole, 12/20/2014
Maxillary Labial Frenum Presentations
Kotlow diagnostic classifications of maxillary frenum attachments (photos used with permission of Dr. Lawrence Kotlow)

Superior Maxillary Labial Frenum Restrictions
Photos courtesy of Melissa Cole

Misc. tethered oral tissue
Restrictions of the mandibular labial frenulum, buccal frenulum

Common signs and symptoms of tongue/lip tie

Infant Issues to Consider
- Latch is poor, hard to maintain, slips off, chews/gums
- Prolonged feeds, sleepy at breast
- Short feeds, infant fatigues
- Nursing marathons "uses me like a pacifier"
- Infant always hungry
- Weight gain concerns
- Poor seal, clicking, gag reflex
- Colic, reflux, gas, yeast
- Unable to hold pacifier/bottle feed
- Not every baby will present with the same issues

Maternal Issues to Consider
- Nipple pain, compression
- Incomplete breast drainage
- Recurrent yeast, mastitis
- Nipple blebs, plugged ducts
- Low milk supply
- Familial Hx of ankyloglossia
- Has been working on "the latch" but nothing ever improves much
- Seems like oversupply but regular management doesn’t help
- Feeling of infant gumming, flicking
- Not every mom will have the same issues

Ties impact on function
When oral restrictions present, signs and symptoms can vary for each dyad:
- Some mother have severe pain, some have none
- Some babies can’t transfer well, others can
- Some babies struggle with a bottle, others don’t
- Some older individuals struggle with speech, TMJ, etc, others don’t
- Prioritize assessment of appearance, function, signs/symptoms and a comprehensive overview of all issues at hand plus consider future ramifications

What pre and post frenotomy care strategies are useful?

Pre-frenotomy game plan:
- Proper assessment, anticipatory guidance for the family, collaboration with IBCLC and other HCPs, pre-frenotomy feeding care plan and support, consider bodywork

Post-frenotomy game plan:
- Anticipatory guidance around pain relief and wound healing, aftercare strategies, collaboration with IBCLC and other HCPs, and post frenotomy feeding care plan and support, consider bodywork

(c) Melissa Cole, IBCLC
Anticipatory Guidance

- Tongue/Lip tie related feeding issues can be a physical and emotional roller coaster ride for families.
- Providing anticipatory guidance on the following is vital:
  - What tongue and lip ties are
  - Choices regarding treatment/no treatment
  - What the procedure will be like and what to expect after
  - Consequences of untreated ties
  - Expected time frame for recovery/potential reaction of infant
  - What post-care will look like
  - Acknowledgement of feelings/concerns

The first step...

- Before we can start to help a struggling dyad latch and feed successfully, we must be good detectives to figure out the root cause(s) of their feeding challenges. This is done by:
  - A thorough intake and birth/health history
  - Physical assessment of the dyad (maternal breasts, infant structure, oral anatomy, tone, respiration, etc)
  - Feeding observation/assessment
  - What is happening on baby’s side? Mom’s side?
  - Form a working hypothesis of the issue(s) at hand and begin to implement targeted ideas

Personalized care

Questions to ask yourself

- What does *this* dyad need to be breastfeeding well?
- What does baby need to feel comfortable?
  - Direction of ease, flow rate, sensory/state regulation, stability, respiration, digestion, structural issues, tool adjustment
- What does mom need to feel comfortable?
  - Nipple care, pain relief, re-positioning, sensory support, postpartum healing, more/less flow, tool adjustment
- How to balance short-term goals vs. long term goals
  - A quick fix may be desired but oftentimes the care plan must be implemented in stages, remain their cheerleader

Pre-frenotomy: Create a Targeted Care Plan

- Collaborate with the family’s IBCLC or refer them to one. Specialized feeding support is critical for tongue tied babies!
- As in the wise words of Linda Smith...
  - Rule #1 – Feed the baby
    - Is baby effective? Are tools needed/appropriate? Is mom in pain? What are baby’s strengths/weaknesses? Compensatory habits?
  - Rule #2 – Protect maternal milk supply
    - How’s supply? Is milk being removed? Underlying factors?
  - Rule #3 – Keep working on direct breastfeeding
    - Feeding a tongue/lip tied baby is often a winding road, keep long term goals in sight. Provide emotional support. What supportive therapies do baby/mom need?

Pre-frenotomy care plan must be sustainable and realistic. Help optimize intake, supply and comfort while keeping long-term goals in mind.

How does a tie impact function?

Maternal nipple damage and breast concerns

(c) Melissa Cole, IBCLC
Infant issues from oral restrictions

Structural compensation, high/hypersensitive palate, aerophagia/digestive issues, oral tension, poor weight gain, etc

Session II: Pre-frenotomy care and Treatment Options

Mindful assessment and ‘differential diagnosis’ are vital - it is easy to think all issues are related to the tongue/lip tie and then cease to look further. Comprehensive support must always be our goal.

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It takes a village!

- Care for the dyad coping with restrictions takes a village. Some key players in the process are:
  - Mom, baby, partner/family
  - IBCLC board certified lactation consultant
  - Body worker(s)
  - Treating provider (DDS, ENT, MD, ND, etc)

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Pre-frenotomy care: Bodywork

Whether or not infants have other structural concerns, bodywork pre-frenotomy can play a vital role. It helps:

- Unwind neuromuscular impingements
- Release compensatory behaviors/patterns
- Gets baby use to safe touch/intraoral work
- Provides healthy sensory input
- Sets oral tissues up for optimal release

Pre-frenotomy bodywork

- Who to refer to? Depends on who is available in your area!
  - Some types of providers include:
    - Chiropractors, Craniosacral Therapists, Bowen Therapists, Massage Therapist, Physical/Occupational Therapists, Osteopaths, etc
- Points to keep in mind:
  - Do they have pediatric experience? (babies are NOT little adults!)
  - Do they do any intraoral work?
  - Are they open to collaborating/learning more?
  - Experience it yourself before referring, work as a team!

- Some online articles on gentle, pediatric bodywork: http://kellymom.com/bf/concerns/child/cst/
- Ask me for a bodywork-related bibliography if desired

Collaboration for treatment

- Know who you are referring to.
  - What is their level of knowledge/experience with ties?
  - What is their Tx style?
  - How well do they collaborate?
  - Are families getting mixed messages?
- Don’t have a treating provider in town?
  - Network, seek out like minded providers
  - Minor surgery in their scope?
  - Are they willing to be trained?
  - Can you spend time with them to optimize outcomes?

Treatment of Ankyloglossia

- Where are frenotomies performed?
  - Doctors (MD, ND, DDS, ENTs) perform the procedure in-office. However, not all providers recognize all the variations of ankyloglossia or do a complete release. Make sure you know who you are referring to.
- When is the procedure done?
  - As soon as possible! There is no benefit to delaying treatment and in fact delaying treatment creates further complications.
- How is the procedure done?
  - The baby is swaddled/held down briefly, the head immobilized and the frenum is numbed then incised /excised with a pair of sterile scissors or laser. Baby can nurse/feed immediately before and afterwards.

- Speaking the lingo…the procedure is called various things but here’s the lo-down:
  - Frenotomy – Incision of the frenum
  - Frenectomy/frenulectomy – Excision of frenum tissue
  - Frenoplasty/Z-Plasty – A type of surgery for severe tongue tie where more advanced techniques are employed (Z’angle of the incision helps with functionality/scar healing)
Tongue Tie: Treatment

Scissors Release

Laser Release

Anticipatory guidance: Being able to tell families exactly what to expect during the treatment is useful. Become very familiar with the entire process so that you can best support the dyads you are working with.

Scissors Tx Video

Laser Tx video

Pain Relief Options

- Will it hurt? is something many parents ask when thinking about a frenotomy.
- Providing guidance around what their infant may feel and methods of coping with discomfort are essential.
- Conventional and holistic pain relief options exist. There are controversial ideas around which products are best. Try to keep an open mind, collaborate and explore the evidence.

Why is adequate pain relief important?

“The neonate has a functional nociceptive system. However, recent research suggests that infants may be more vulnerable to the negative effects of pain than older children and adults. Apart from short-term effects, untreated pain may also have long-term effects, which may later affect neurological development, including the reaction to pain. Despite convincing evidence from recent research, the neonate is still subjected to painful procedures, even surgery, without adequate treatment” (Larsson, B. A., 2001)
Conventional Pain Relief Options

Conventional options:
• Acetaminophen
  • Check updated dosage, helps w/ pain not inflammation, hard on liver, new evidence points to Tylenol being no more effective than placebo in the under 2 group and having serious risks from overdosage
• Ice
  • numbing/vasoconstrictive, no major risk, infant may dislike cold
• Oral Sucrose
  • Sucrose/water solution, used to be thought of as clinically significant in reducing discomfort, new evidence shows that only infant facial features change for actually pain is still perceived upon MRI imaging

NOTE* Benzocaine oral jels NOT recommended due to risk of methemoglobinemia (a potentially fatal disorder in which the amount of oxygen carried through the blood stream is greatly reduced. Risk worse for 2 and under. 29 reports since 2006, 15 of them in ages under 2 yrs.)

Holistic Pain Relief Options

• Homeopathics
  • Some commonly used for this are aconitum, bellis perennis, bryonia alba, calendula, hypernicum, arnica (Iannitti, 2014), staphysagria, etc – some are in gels, pellets, liquids, etc. Hyland’s teething gel
• Rescue Remedy/Flower Essences
• Herbal Options
  • chamomile, st john’s wort, skullcap, lemon balm
• Misc Options
  • co-bathing, skin to skin, music therapy, breastfeeding/breastmilk

Please work with someone familiar with pediatric dosing and CAM modalities

How mucosal/connective tissue wounds heal

• Hemostasis/blood clot formation
  • Happens quickly in most cases, serious bleeding is rarely an issue with frenotomy procedures. Tx providers should be prepared to cope with heavy bleeding in the rare event it may occur.
• Inflammation
  • Reduced inflammation/scarring of oral wounds compared to dermal wounds, ‘superior healing phenotype’ in oral cavity (Wong, 2009), reduced IL-6, mast cells, growth factors, etc.
  • When inflammation is increased more scarring and collagen deposition occurs (Frantz et al., 1993).
  • Keloids in oral healing are rare but overproduction of IL-6 is implicated in their formation (Larjava, 2012).
• Re-epithelialization and granulation tissue formation
  • Within 24 hrs, epithelial cells at wound margins begin to migrate, by .48 hrs more cells seeded and proliferating into wound site
  • Cells migrate from each side of the wound until they contact the front leading edge of the cells coming from the other side
  • Cell migration is stimulated by various cytokines, growth factors, etc and proteolytic enzymes (necessary for loosening adhesions)
  • Granulation tissues starts forming at the same time as re-epithelialization, provides scaffold for connective tissue to regenerate.
  • After wound contraction occurs, granulation tissue remodeling happens, due to rapid oral healing, “the end result is often the formation of connective tissue scar with reduced tensile strength, disoriented collagen fibers and other molecular alterations” (Larjava, 2012)

Wound Info and Care

• How oral mucosal/connective tissue wounds heal
• Factors that impact wound healing
• Normal oral wound healing appearance and stages
• What parents should expect
• Red flags to watch for
How oral mucosal/connective tissue wounds heal

- **Remodeling of the connective tissue**
  - Remodeling occurs when the contracting wounds has assembled collagen fibrils into thicker bundles, aligned with the perpendicular wound edges.
  - When scant granulation tissue is formed, contraction of wound can occur 3-5 days post wounding and granulation tissuc gets replaced with more mature connective tissue. This is both a slow and fast process – contraction/remodeling is rapid but full strength of wound may only be 20% after 21 days (Larjava, 2012).

Other key points

- Oral mucosa is also bathed in flora-rich saliva which may promote wound healing.
- "Local pericellular microenvironment established during remodeling stage determines the phenotype and function of residents cells... may be key to preventing pathological scarring (Li et al., 2010).
- Mucosal wound healing is impacted by stress (Marucha et al., 1998) and nutritional factors/deficiencies (zinc, vit C, L-Arginine, selenium, etc, etc).

What does this mean for babies post-frenotomy?

- Oral wounds begin healing fast, cells migrate towards each other quickly. Inflammation, stress, poor flora/nutritional status can all impact healing.
- We are learning more about genetic and epigenetic triggers that may be impacting tongue tie rates, could the same issues be impacting how certain babies heal or have higher rates of re-attachment?
- Can reducing inflammation and doing after care stretches/massage of the incision sites help prevent premature wound contraction, scarring or reattachment?
- Post-op massage for pediatric oral wound healing has not been studied but some limited data on scars treated with massage does exist: "Surgical scars treated with massage...(90%) had improved appearance" (Shin & Bordeaux, 2012).

Babies prone to re-attaching, optimizing healing

- Some caregivers are having success implementing targeted topical preparations of certain things to prevent scarring. Some ideas to consider:
  - In babies prone to keloid formation/scarring or re-attachment we may want to explore and further research the clinical usage of food grade aloe vera (Moore, 2001) and calendula (Preethi & Kuttan, 2009; Tanideh et al., 2013).
  - Studies show that oral supplementation of the omega-3 polyunsaturated fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) found in fish oils have been shown to reduce inflammation and improve wound healing (Shin et al., 2007). (Enhance through maternal diet? Directly to older babies?)

What parents should expect

- Immediately post-op babies may or may not want to feed actively. Provide guidance and strategies.
- My expectation for feeding progress is one better feed per day post-frenotomy.
  - Helping parents identify signs of progress can be empowering when they feel ‘it will never get better’
  - Make sure their feeding care plan continues to evolve and meet their changing needs.
- Have parents call with any ‘red flags’ (prolonged oozing, inflammation, fever, inconsolable baby, etc).
- Normal oral wound healing appearance and stages:
  - Incision sites (healing eschar)may be different colors (yellow, green, white, etc) at different stages – all are normal and are NOT infection.
Post Frenotomy – day 3

Post laser frenotomy – 1 week

Photo credit: Bobak Ghaheri, MD

Post frenotomy 2.5 wks

Post frenotomy- 3 weeks

Incision site appearance

Re-attachment of the incision site

• See the difference? The first picture shows clear re-attachment. Picture 2 shows the incision still nicely open and pliable.

• Re-attachment - occurs when the healing tissue adheres down on itself or begins to form a scar. Proper post-frenotomy care is important to lessen the chance of re-attachment.
Goals for post frenotomy consult

- Post frenotomy assessment
  - Extension, elevation, lateralization, cupping, overall tone — can use same assessment tools you used pre-frenotomy to compare progress, check incisions sites, pain
- After care stretches/exercises
  - Positions for holding baby, hands-on work, playful, bodywork, return demo by parents
- Facilitate physical and emotional healing
  - Decrease oral aversion/increase oral acceptance, foster parent/infant connection, enhance parental self-efficacy

After care stretches and exercises

- You’ll see me repeat the same set of exercises in the videos. This does not mean oral work should be a cookie-cutter approach.
  - These are safe, effective starting point exercises that most babies post-op can benefit from. They are easy for parents to learn and for you to teach. Individualized oral motor work should always be rotated in by experienced providers
  - Babies love repetition so providing a ‘set’ of exercises that the dyad enjoys helps continue fostering connection
  - Make it a habit so parents don’t forget (every feed, when switching between breasts, every diaper change, etc). Aim for min 4-6+ times per day for 4-6wks. Use reminders if needed (cell phone alarm, post-it note near changing table, etc).
- Do the ‘fun’ stuff first and then do the incision massages/stretches at end of session. Quiet/alert state is preferred. It’s okay to get in and out quickly when needed and linger when baby is enjoying the work.

Sample care routine:

- ‘Beep bop boop bip’ (chin nose, philtrum, chin tug)
- Jaw massage + chin tug (loosens tight mandible)
- Gum rub for lateralization
- Wipers on the palate (desensitizes heightened gag reflex)
- Tug-o-war (cupping, extension)
- Lift lip/tongue up and massage over incisions site — use gentle but firm pressure — visualize the diamond shape
- Can add in gentle side of tongue pushes or cheek pulses if needed (lingual/buccal strengthening)

*Note: Inspiration for many of these activities has come from: Cathy Watson Genna and various bodywork/oral motor trainings, etc.

Post frenotomy oral work

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- Make it a habit so parents don’t forget (every feed, when switching between breasts, every diaper change, etc). Aim for min 4-6+ times per day for 4-6wks. Use reminders if needed (cell phone alarm, post-it note near changing table, etc).
- Do the ‘fun’ stuff first and then do the incision massages/stretches at end of session. Quiet/alert state is preferred. It’s okay to get in and out quickly when needed and linger when baby is enjoying the work.

Sample care routine:

- ‘Beep bop boop bip’ (chin nose, philtrum, chin tug)
- Jaw massage + chin tug (loosens tight mandible)
- Gum rub for lateralization
- Wipers on the palate (desensitizes heightened gag reflex)
- Tug-o-war (cupping, extension)
- Lift lip/tongue up and massage over incisions site — use gentle but firm pressure — visualize the diamond shape
- Can add in gentle side of tongue pushes or cheek pulses if needed (lingual/buccal strengthening)

*Note: Inspiration for many of these activities has come from: Cathy Watson Genna and various bodywork/oral motor trainings, etc.

After care stretches and exercises: Wesley’s Video

- You’ll see me repeat the same set of exercises in the videos. This does not mean oral work should be a cookie-cutter approach.
- These are safe, effective starting point exercises that most babies post-op can benefit from. They are easy for parents to learn and for you to teach. Individualized oral motor work should always be rotated in by experienced providers
- Babies love repetition so providing a ‘set’ of exercises that the dyad enjoys helps continue fostering connection
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Ongoing feeding and emotional support

“My baby had a frenotomy and still has issues...”

- Give parents realistic expectations for feeding progress (pre and post frenotomy). Progress is often measured in weeks not days.
- Make sure their care plan works for them. There are many ways to love and feed a baby while we keep long term goals in sight.
- Refer out for complementary therapies as needed. IBCLC involvement is crucial.
- Suggest mother-to-mother targeted support.
- Provide community resources for postpartum mood professionals.

Case #1

“Why is my baby fussy?”

- Baby was BF on demand, wanted to eat ‘all the time’, was sleepy at breast, not satisfied when she finished. Acted very fussy all the time.
- Mom thought baby’s fussing may be digestive so she went on an elimination diet.
- She was also trying block feeds as she worried about ‘foremilk/hindmilk’ causing fussiness.
- Baby had also had chiropractic care 3 times so far.
- She came to see me at 2 mos PP because the baby continued to be fussy and mom wasn’t sure why.

Case Study #1 “why is my baby fussy”

- A sneaky class 4 lip and tongue tie were discovered.
- Baby was also approx 1 lb under her ideal weight and seemed quite hungry.
- Adjusted latch and positioning plus switching sides (no more block feeds!) + compressions helped weight gain immediately.
- Baby went in for a frenotomy via laser about 1 week after our initial consultation + had follow up chiropractic care.
- I saw them 2 days after revision, baby had gained 1 lb in 1 week with our adjusted plan.
- Post frenotomy mom reported that the baby was much more active and alert while feeding. Mom was pleased that the baby was more efficient now and could go slightly longer stretches between feeds. Over all happy ending to their story!

Case #2: Re-attachment

- Baby had initial superficial frenotomy done 3 days PP. Had complete release via laser at 6 wk PP.
- Latch, weight gain, issues since birth (supplemented w/ EBM from beg to 5 wk PP).
- Maternal pain, nipple irritation (Tx for thrush and mastitis).
- Referred to me at 8 wk PP since feeding issues were persisting.
Case #2 – What we did

- Positioning altered slightly, vasospasm care implemented (no yeast noted), plug ducts cared for naturally (another round of Abx avoided)
- Some lingual re-attachment at this initial appt noted so revision was scheduled. There was significant tenting and attachment to the interior inferior alveolar

Case #2 – Re-attachment (again!)

- Despite excellent aftercare and bodywork, a little re-attachment did occur as seen in the 9 day post op pic.
- However, tongue and lip functionality and mobility were WNL, and mother felt that feedings were finally improving and that she finally, after almost 3 mos, was enjoying feeding her baby.
- There were some other layers of care such as digestive issues, that once we got a handle on, feeding success really took off. We added in some targeted oral massage and there was enough pliability of the frenum at this point to just fine with the outcome.

Conclusion

Thank you for participating today! Your attendance means that you are invested in supporting mothers and babies with the highest level of care! Assessment and care strategies for oral restrictions are still in their infancy. I look forward to learning alongside all of my colleagues in the field as new evidence and information emerges.

Conclusion

Thank you!
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