Tongue & Lip Tie Atlas© for Parents & Custodians

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The following Pictures were organized to be representative of Tongue & Lip Tie as they relate to infants and long term oral consequences.

How they relate to your specific breastfeeding condition will be determined on an individual basis by a physical exam and a complete medical, birthing and breastfeeding history.

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Hi Everyone!!

I was treated... notice my eyes and face
Before & 12 Hour After Release
improved airway & sleep posture
picture sent by mother
American Academy of Pediatrics
Breastfeeding Recommendations
Physician guidelines

• **Exclusively** for about the *first 6 months* of life

• Continuing for at least the *first year of life*, **with addition of iron & complementary solids**

• Thereafter, for as long as *mutually* desired by mother and child

**WHO Recommends 2 years minimum**
Simple Head & Neck Anatomy for Infant to *Latch requires:* “Suck-Swallow-Breathe” *coordination*

ALL IBCLC’s know this!

1. 60 muscles
2. 22 cranial bones
3. 34 articulations
4. 6 of the 12 cranial nerves
5. Cascading effects when structural problems
Good vs. Poor Latch

- **Wide gape**
  - The nipple is far back in the mouth
  - Note *tongue over alveolar ridge*

- **Short or Small Gape**
  - Baby grasps only nipple and *tongue cannot reach over the alveolar ridge & under the nipple*
  - Baby will not be able to use the jaw and tongue to remove milk and the nipple will get sore
Good vs. PoorLatch

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  - The nipple is far back in the mouth
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  - Baby grasps only nipple and tongue cannot reach over the alveolar ridge & under the nipple
  - Baby will not be able to use the jaw and tongue to remove milk and the nipple will get sore
Any formula use is associated with an increase in the risk of:

– Non-specific gastroenteritis
– Asthma
– Obesity
– Type 1 diabetes & Type 2 DM
– Childhood leukemia
– Necrotizing enterocolitis
– Severe lower respiratory tract infections
– Otitis media
– Atopic dermatitis

WHO Systematic Review
• Hypertension and high cholesterol

However, at times it will be needed.
Make feeding decisions considering risks & benefits.
We NEED a **Treatment TEAM** when treatment is indicated

- IBCLC
- Provider Surgeon – MD, DMD, DDS
- **Bodyworker**
  - Infant Chiropractor
  - Pediatric Osteopath
  - Pediatric Physical Therapist or Occupational Therapist
  - Pediatric CST or MFT
  - Feeding Specialist
  - Speech Language Pathologist
Tongue-Tie and Breastfeeding: **Assessment:**

Requires an IBCLC

To Rule-Out **other** possible causes of breastfeeding concerns.

Such as:

- Sub-optimal breastfeeding management
- Emotional Issues - i.e. past abuse or depression
- Poor technique
- Maternal or infant illness
- Other neurologic or developmental anomalies
- Poor milk supply for other reasons e.g. medications, breast surgery etc.
In-utero position & Delivery can have an effect on Breastfeeding:

pregnancy in-utero position can affect structure & function

• Plagiocephaly
Common Structure & Function
Physical Appearance examples

torsion
A/P Strain
sidebend

Lateral strain

Normal Plagiocephaly Brachycephaly Scaphocephaly
Structure & Function

tight, pursed, & no gape

No symmetry

Tight lip
Tongue Tie Presentations

Normal
Anterior
Posterior
Submucosal
Tongue Frenum: Normal-healthy-elevates at least ½ of the way to the roof of the mouth with jaw open. Normal V-shape of Wharton’s Ducts.
Normal vs. Restricted Tongue Example

- Blading-thin vs. Non-blading thick
  - Thin Spread
  - Bunched

- Easy elevation vs. Restricted elevation or lift
  - Easy lift
  - Restricted lift
Anterior Tongue Tie/ Classic

Another presentation (thin & tented)

Severe ATT with callus
Anterior & Posterior Variations

Anterior - callous & blister

Posterior - thin and tight
Immediate after treatment

Pre-op/ humps, restricted
no lift

Post-op/ lifts & elevates
Complex Tongue Tie

Visual *(cannot extrude and point tongue)*

Digital exam *(with obvious tension lines)*
Lip Tie Appearances

Classification by insertion 1-2-3-4

NOT diagnostic for a treatment. Just a classification for appearance
Classifications with insertion point (arrow)

Class 1

Class 2

Class 3

Class 4
Class 4 tissue types EXAMPLES:
corded, fleshy, triangular, taunt
Nursing Blisters

Shallow latch, weak suck, tongue tie snap back, no flange
Blisters/friction

Moderate-severe blisters
wide, tight, restricted & blanching
Some Considerations

Tight Pursing Lips & Noisy Breathing, laser-healing, decay, speech, apnea, spacing and orthodontics
Pursed Lips-affects Breathing & Bobbing

Pursed lip and compresses nostrils (limiting respiration through nose)

Profile view (narrow lip and full philtrum)
Improved Nasal Breathing
after compression release

compressed

Open
Palate

Roof of Mouth
Normal
Variations
Palate Shapes

**Normal** with salivary glands and Epstein’s Pearls

**Compressed** and shallow palate from compression
Pre-maxilla of Palate (nipple compressed & slides out easily from the flattened anterior)

Normal view/ pursed & tight

Palatal view/ wide & flat
Generalization of Laser Ranges for Clinical Dentistry

- All Lasers are Ablative - can be used safely with limitations
- Ask what type and the training and why the specific laser was chosen for their practice
- There are 3 major wavelength ranges
  - **1000 nm**: Diodes uses hot glass tip 600°-1000°C with touch to tissue 0.5-2.0 mm thermal depth
  - **3000 nm**: Erbium at 100°C with no touch and shallow 0.020mm- allows for some bleeding
  - **10,000 nm**: CO2 no touch with 0.04 mm minimal to no bleeding
- Human hair is approx. 0.120 mm so 1/4 - 1/3 the diameter of a human hair for CO2 & Erbium
3 Major Lasers in dentistry
CO2 & Erbium are “optic”
Diode is “hot tip contact”
Healing Sequence example

- Pre-op
- Post-op
- 6 days
- 3 weeks
Treatment Safety

Movement-Swaddle
Eyes-Protection
Swaddle Positioning for Safe Treatment
Every Patient **REQUIRES**
Laser Specific Protection

- Glasses or goggles
- Disposable pads
Other Considerations

Spaces of teeth, speech, eating, swallowing, posture, decay etc. Are considerations.
Treatment of an infant requires current symptoms as the primary focus.
Dental Decay and the Frenum

Chronic shallow latch history
Gave up on breastfeeding after a few weeks

Cannot tolerate tooth brushing and complains of “gums hurt” when bristles rub against frenum
Frenum & Dental Decay

No Breastfeeding BUT has Caries  Class 4 No Caries
4 Year Old Poor Breastfeeding History

currently gagging and food texture and speech problems

No ability to point tongue

Immediate ability to point tongue
Adult Tongue Tie (17 years old, the myth is that the frenum will stretch. It did not stretch.)

Snoring and speech problems from inability to extend tongue and have an open airway 

After treatment could extend and breath and speak better
7 Year Old

Diastema space

Post Treatment closure
8 Year old with dental spacing compare after treatment result

Before Treatment

Spaced closed on its own after several year (no other orthodontic care was required)
Remember Me?
Hope this Presentation helped you understand “Ties” better

Pre-op
3 days + 6 ozs.
6 weeks gained 4-1/2 lbs
Surgical Provider requires objective intake to help with decision to treat

The following are suggested intake forms

The provider is responsible for the decision to treat and must be confident in the decision based on entire intake history
Infant Frenectomy Consultation Considerations

Patient name: ____________________  D.O.B.: ____________________  Date: ____________________
Position: Supine/ Upright  Vitals: HR_____  O2/Co2:_____  RR:____ Temp._______

Classification of the lip tie: 1        2        3          4
Presentation: Thin / Thick/ Mixed   Fibrous /Fleshy/Mixed  Corded / Triangular

Lip evaluation:
- Callus and or blisters present on the upper lip?  Y / N
- Defined Philtrum?   Y / N
- Full upper lip?   Y / N
- Upper lip curls up and out (flanges)?   Y / N
- Lip purses?  Y / N
- Upper lip stretches and rolls to the tip of the nose?  Y / N
- Gums blanch when raising lip?  Y / N
- Muscle tone tight or flexible
- Thin lipped compared to lower Y/N ___ mm. upper / mm. lower___ % ____

Tongue evaluation:
- Anterior Tongue-Tie Frenum Width: none - slight- <1mm - moderate 2-5mm - severe > 5mm
  1. Barrier to finger sweep: fence / speed bump
  2. Blanches gum when tongue retracts
  3. Sore or blister on tip of tongue
- Shape of Tongue: Notched / forked / cupped / heart-shaped / folds down / square / blades / rounded/ blunted
- Posterior tie:(posterior finger speed bump, tenting ( Eiffel tower), fence, cord
  1. Short < 5mm. / Medium 5-10 mm. /long > 10 mm.
  2. Lingual fiber: Thin/ Wide-Corded/Fleshy/Mixed- Shallow/Deep-Fascia-thin/thick
  3. Fiber Inserts: anterior 1/3, middle 1/3 , posterior 1/3
  4. Deep /Hidden ( seen with retraction—Submucosal )
- Finger suction: None - weak - strong -- even pressure - pinching clamp or bite
- Tongue cycle: continuous progressive wave - short burst with prolonged rest - humping push - pistons in and out
- Lower Jaw – tremors / tight / tension lines
- Tongue : posterior elevation- anterior lift - anterior point – extends beyond gums
  Y/N - sides curl – blades – cups

- Palate:  Flat - Normal - High Arched - Bubble Palate – Cleft : soft tissue/ boney

- Asymmetry:  Head Tilt: Y (right-left) /N   Face: Midline Symmetry: Y/N
  Jaw Symmetry: Y/N  Shoulder Preference: R/L  Cranial Vault Symmetry: Y/N
  Eyes Level: Y / N   Mouth and Eyes Level: Y/N   Anterior Posterior Strain: Y/N
  other___________________________

09/22/2017
Thank you for scheduling an appointment with me. The goal of this consultation is to determine if there is a physical oral problem affecting your ability to breastfeed your baby.

Please answer the following questions so that I may better understand your current breastfeeding issues.

Patient name: ____________________________

D.O.B: ______________ Birth Weight: ______________ Current Weight: ______________ Today's date: ______________

Birth History: Hospital / Home Birth Term in weeks: __________ Vaginal/C-Section Forceps/Vacuum assisted: Y/N

Drugs used: Pitocin: Y/N others: __________________________

Mother: Do you have any of the following (please check all that apply).

- Painful nursing
- Are your nipples bruised, cracked, inverted, blistered, blanched, flattened, lipstick shaped, bleeding or misshaped nipples after nursing?
- Breast swelling or clogged ducts
- Mastitis
- Thrush of the nipples
- Milk supply: strong letdown, adequate, losing supply, not certain
- Have you altered your diet? Y/N If yes, why? ______________

Do you use a shield to breastfeed? Y/N Right – Left – Both sides

Have you had any breast surgery or trauma? Y/N Reduction-Augmentation - Other (circle)

How many times a day do you breastfeed? ______________ How long for each side? ______________

Infant: Does any of the following apply (please check all that apply)

- Has your baby been previously diagnosed with a lip or tongue tie? Y/N
- If yes, was it treated somewhere else? Y/N
- If yes, when, where, how, by who? ______________
- Has your baby taken or is currently taking any prescribed medications? Y/N
- If yes, which ones? ______________

Has your baby had his/her Vitamin K drops or shot? Y/N Is there a family history of tongue or lip ties? Y/N

Have you seen a Chiropractor, Osteopath or CST for your baby? Y/N

Is there any posture or shoulder tension or head position favoritism? i.e. sleeps with head arched back? Y/N

When nursed is the feeding:

- Diapers: Yellow / Green / Brown / Seeded / Mucous / Bloody (circle all that apply)
- Prolonged, incomplete or baby slides off of the nipple Y/N
- Baby bobs mouth on and off to latch Y/N
- Baby falls off the breast and sleeps Y/N
- Lip or tongue feels weak—can or cannot retain a pacifier in mouth by self (circle)
- Lip or tongue cycles through sucking and movement for a short time then stops and recycles Y/N
- Can you hear your baby breathe? Y/N Typical baby breathing: lips apart or lip together (Circle)
- Chronic burping, flatulence and or hiccups? (circle that applies)
- Distended or bloated belly (circle)
- Signs of reflux such as chronic spitting up, gagging or vomiting Y/N (circle that which applies)
- Signs of discomfort such as arching of the back or clenching of the hands Y/N
- Clicking noise or loss of suction while nursing: none, occasional, frequent, inconsistent (circle)
- Breast milk leakage from mouth, nose or both (circle that which applies)
- Does your baby’s tongue feel like sandpaper rubbing against you? Y/N
- Is there a crease mark on your baby’s upper lip after nursing? Y/N
- Is your baby losing weight? If yes, how much? Y/N
- Does nursing sound like there is drinking, gulping or other noises? (circle that which applies)
- Do you supplement with a bottle to assist with proper feeding? Y/N breast milk, formula or both
- Is there a sustained strong or clamping latch? Y/N

Any other nursing concerns: ____________________________________________________________ 01/22/2018
Thanks Mom & Dad, whatever you decide.

I LOVE You Guys!
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