The real facts about pediatric dentistry

Three hot topics:
- The use and safety of dental lasers
- The treatment of lip and tongue ties in breastfeeding
- How the tongue affects infant health
  - reflux
  - sleep apnea

Disclosure and Acknowledgements

I have assisted in the development of a variety of laser products, including Innovative optics (laser glasses), T4M videos and webinars, Schick (Sera digital radiography). I am an investor in the development of the Solea CO2 laser and as such I am also on their professional advisory board. For all of these, I have been a beta tester of new products. I receive an honorarium or supplies for my participation.

There are two types of dental lasers

- Hot Lasers
- Cold Lasers

Combination: Hard and Soft tissue lasers

- Soft Tissue lasers
  - The Erbium Family of Lasers
  - Carbon Dioxide @ 9300nm
  - Diodes 800-1064nm

Aiming Beams:
- Caries-Detection
- Fluorescence
- Photobiomodulation

Laser dentistry for the pediatric dentist

Procedures you can do in your office safety using your laser:
- Operative dentistry
- Biopsies
- maxillary lip-tie releases
- Lingual frenectomies
- Operculectomies
- Speech & sleep apnea
- Mandibular clefting
- Traumatic injuries

Benefits to my patients from laser procedures:
- No local anesthetic
- Mucocele & other benign excisions
- Dental and orthodontic problems diastema
- Jaw pain
- Avoiding grafts
- Venous Lake lesions
- Aphthous Ulcers
- Diabetics
- Painful conditions resolved
- Oral infections
- Sleep apnea
- Reflux
**Myth(stakes) about infant care & dental lasers**

- Infants require the OR and general anesthesia
- Lasers are unsafe, safety must be followed
- Tongue-ties & lip-ties will bleed & require sutures

**Lasers, office treatment and general anesthesia**

"Studies have indicated that general anesthesia may increase the risk for learning disabilities and behavioral problems such as attention deficit hyperactivity disorder (ADHD), in kids who are exposed to the drugs several times. The new study, which is published in the journal Pediatrics, 'links even a single dose of anesthesia to later harm.'"

Children exposed to anesthesia were more than twice as likely to have a language disability. In particular, it increased the chance that a child would have trouble listening to and remembering spoken words.

Anesthesia was also tied to a 73% increased chance that a child would have trouble with abstract reasoning. Multiple exposures to anesthesia further raised a child’s risk for problems.

Revising these restrictions do not require placing any infant or child in the operating room under a general anesthetic.

**Breastfeeding and dentistry**

"Infant breastfeeding should not be considered as a lifestyle choice, but rather as a basic health issue."

*Updated policy of the American Academy of Pediatrics March 1, 2013*

"As such, the pediatrician’s role in advocating and supporting proper breastfeeding practices is essential and vital for the achievement of this preferred public goal."

**How common are tongue-ties?**

Most studies indicate anywhere from 3%-10% of newborns are tongue-tied, this is most likely due to poor examination position and lack of understanding about how mother and infant symptoms and TOTs are interrelated.

Most ties that are not clinically seen as an anterior tie are most likely not included in studies, since few examine the infant in a position which can aid in a clear evaluation.
What are the consequences of a shallow or poor attachment?

- Pain & nipple damage
- Inefficient milk delivery
- Reduced milk supply
- Mother’s give up breastfeeding, PPD
- Sore, bleeding, fissured nipples
- Engorgement
- Short multiple inefficient feedings
- Frustrated, crying infants
- Failure to thrive

Common diagnostic symptoms which suggest TOT revisions may be indicated?

- Shallow latch, No latch or unsustained latch (slides off of the nipple), clamping
- Breaks latch seal, clicking or smacking sounds, gassy, colic, reflux, vomiting
- Prolonged non-nutritional feeding episodes
- Unsatisfied nursing episodes, leaks milk, fights latching
- Falls asleep on the breast
- Gumming or chewing while latching
- Poor weight gain or failure to thrive
- Unable to hold pacifier
- Signs of congestion, sleep apnea, or abnormal breathing
- Can only fall asleep when upright
- Chronic crying episodes

Infant Factors to consider

Maternal Factors to consider

- Creased or blanched nipples after feeding: flattened
- Cracked, bruised or blistered nipples: gives it up
- Bleeding nipples
- Severe pain upon latching infant latch
- Infected nipples
- Plugged ducts
- Mastitis
- Nipple thrush
- Engorged or unemptied breasts
- Maternal exhaustion/depression/emotions
- Premature weaning, changing infant-mother relationship (PTS or PPD) lasting a lifetime.
- Lack of mother-infant connection

It's not the mother's fault!

The evening after surgery infant stopped crying, mother nursed longer and was without discomfort.

Infant having reflux symptoms: Aerophagia?

- Reflux (colic) is an exhausting, unrelenting, all consuming condition that causes an otherwise healthy infant to cry inconsolably. Occurs from about 2 weeks to 16 weeks.
- Aerophagia is excessive swallowing of air. When excessive amounts of air reach the stomach abdominal distention, belching, vomiting and excessive gas may result.
- Another case of wrong information being said—Recent lactation consultant comment to one of my patients, “Breastfeeding cannot cause reflux, breastmilk doesn’t contain any air.”
- "Breastfeeding cannot cause reflux, breastmilk doesn’t contain any air.”

The Tongue: the main organ switching system in our body?

Think how it interacts with these systems and infant development

- Oxygen flow
- Oral Facial development
- Speech communications
- Palate, Jaws
- Colic & Reflux, gagging

Facial growth and development begins at birth. The tongue’s upward and forward pressure drives airway and upper jaw development. The upper teeth eventually erupt around the developing upper jaw. The lower jaw develops in concert with the upper jaw as long as teeth are in contact. Open mouths and mouth breathers develop long term orthodontic problems.
What about infants taking anti-reflux drugs?
Prevacid, Nexium or Prilosec USFDA has not approved these drug E. pediatric GERD Clinical Practice Guidelines do not recommend
Potential side effects are:
A. Increased salivation
B. High in sodium
C. Diarrhea
D. Since this is a medication it may actually cause more problems such as Vitamin and mineral deficiency: Iron, selenium, zinc and many other important ones
E. Potential increase in food allergies “development of a leaky gut”
Diarrhea
Potential side effects without any known benefit

A visual observation of this infant for possible ankyloglossia or breathing difficulties

Observation of clinical symptoms:
1. Lips apart-open mouth
2. Mouth breathing
3. Lateral borders of the tongue turned upward
4. Crease down center of the tongue
5. Tongue is not extending outward
6. Heart shaped anterior border
7. Unable to elevate upward
8. Placing breast, pacifier or bottle into mouth causes the infant to pull away
9. Compensatory breastfeeding
10. Self-weaning early
11. Adversarial mother-infant relationship-can last a lifetime

Treatment for abnormal breathing symptoms
1. Pause between breaths that last 10-20 seconds or longer
2. Gasping for breathe
3. Cute snoring
4. Gagging
5. Face or body turning blue
6. Limp body
7. Slow heartbeat

Sleep apnea and tongue-ties
When the breast, bottle or pacifier is placed in the infant who cannot bring the posterior portion as well as anterior portion of the tongue forward reduced oxygen flow to the brain may result
Correct tongue position passing under the tongue
What happens when the tongue is tethered and cannot move adequately forward and is pushed distally into the airway

The effects of airway blockage and apnea

"Finding Connor Deegan."
—Valerie Deegan

TOTS
-Tethered Oral Tissues
The Assessment and Diagnosis of the Tongue and Upper Lip Ties in Breastfeeding

A. Poor latch 300/330
B. Sliding off of nipple 262/281
C. Slipping off under the tongue 94/127
D. Tongue occlusion 151/191
E. Biting of the tongue 291/358
F. Sliding off of the tongue 94/127
G. Off the nipple when attempting to latch 92/119
H. Improved 93% improvement
I. Improved 92% improvement
J. Improved 92% improvement

Additional comments concerning your experience in my dental office

Results of surgical intervention in infants presenting with symptoms, lip-ties and

Did your infant receive any cranial sacral therapy                        ______ yes   ______ no
Did you continue to separate the surgical sites for two weeks   ______ yes   ______ no

Home city _______________________________________
Date of Surgery ________________________________
Guideline on Management Considerations for Pediatric Oral Surgery and Oral Pathology

Today, open your minds and begin thinking outside the box.

It may not always be easy for a great many healthcare professionals to break out of their comfort zone. Especially if they hide behind the narrow defined concept of so-called “evidence based medicine”.

There are many people out there who may tear you down, tell you shouldn’t revise the lip and tongue, yet they do nothing to help these mothers and their babies! The result is pain, depression and crying infants, instead of treating the problems.

The roadblocks we face

Infants are not getting the treatment they need. Too many healthcare professionals DO NOT UNDERSTAND the problem.

Guideline on Management Considerations for Pediatric Oral Surgery and Oral Pathology

Ankyloglossia has been associated with breastfeeding difficulties among neonates, limited tongue mobility and speech difficulties, malocclusion, and gingival recession. A short frenum can inhibit tongue movement and create deglutition problems. During breastfeeding, a restrictive frenum can cause ineffective latch, inadequate milk transfer and intake, and persistent maternal nipple pain, all of which can affect feeding adversely. Ankyloglossia is a developmental anomaly of the tongue characterized by a short, thick lingual frenum resulting in limitation of tongue movement (partial ankyloglossia) or by the tongue appearing to be fused to the floor of the mouth (total ankyloglossia).

Limitations in tongue mobility and speech pathology have been associated with ankyloglossia.

Medically necessary care

*Medically necessary care (MNC) is the reasonable and appropriate diagnostic, preventive, and treatment services and follow-up care as determined by qualified, appropriate health care providers in treating any condition.

A. Disease
B. Injury
C. Congenital or developmental malformation.

MNC includes all supportive health care services that, in the judgment of the attending dentist, are necessary for the provision of optimal quality therapeutic and preventive oral care.

*Academy of Pediatric Dentistry 2013

The controversy and resulting barrier

Anecdotal

*Evidence-based dentistry (EBD), Randomized controlled trials (RCTs) vs Scientific plausibility

1. In treating infants it is not always possible to obtain evidence solely from RCTs to support proven successful routine procedures performed in oral care.

2. There are ethical, legal and practical considerations in clinical studies using human subjects for studies, especially on newborns. Especially when we have so much clinical success with our surgical treatment of TOTs.

3. The medical community needs to consider replacing RCTs with "Scientific plausibility" or prior probability as building blocks when evaluating or considering new data or procedures.

*Editorial JADA January 2013 Daniel Myers dean SUNY Buffalo School of Dental Medicine & Editor of JADA “Evidence or science based”
Is there really more incidence of tethered oral tissues today than in the past or is it just a fad?

“Sometimes it is better to act on the best available evidence, rather than wait for the best expected evidence”

“From a discussion on childhood obesity”

Recent email from a parent

I have brought him to two different ENT and a pedi dentist as well as our PCP, all of them don’t see any problems with his mouth.

My symptoms include:
- Pain while nursing.
- Blanching.
- Creased/lipstick looking nipples after nursing. Breasts not being emptied.
- I feel emotional defeated by all of this.

My son’s symptoms include:
- Falling off the breast frequently.
- Falling asleep within minutes, once on breast.
- Gassy/hiccups after each feeding.
- Spit up that comes out the nose.
- Not much sucking after let down is done.

Infrequent BM—usually every 4 days.
- Shallow latch.
- Gumming nipple.
- Doesn’t flange lips.
- Milk blister in middle of upper lip.
- Bottom lip tends to turn white after nursing.

My symptoms include:
- Falling off the breast frequently.
- Falling asleep within minutes, once on breast.
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Lack of understanding & knowledge is causing our infants & mothers to suffer needlessly and causing communication problems within the medical community

Syndactyly: two or more digits are fused together

What existing evidence or research indicates this must be corrected?

The Lip & Tongue Myths (takes)

No problem when breastfed according to mom

Due to speech issues

ma - told had minor ties - allowed to suffer needlessly

Tip of tongue held lingually, but still appears to extend tongue over anterior border of mandible!
No problem when breastfed as per mom on this child

Called due to feeding problems and delayed speech

Somewhere on this journey we seem to have forgotten our goal is to improve breastfeeding and everyone should be working for a common goal. This should be a team effort.

'Tied-tongue' impedes breast-feeding by some babies

Mouth membranes that impede breast-feeding pose difficulties for mothers, medical professionals

By Claire Hughes
Published 5:38 pm, Tuesday, January 27, 2015

A Local pediatrician and an ENT, an ear, nose and throat specialist at Albany Medical Center are both opposed to repairing what is called a "posterior tongue tie" — a restriction not at the tip, but toward the back, of the tongue. From the ENT who could not be more emphatic about a lack of need for the procedure, said, "There is absolutely no scientific foundation for that; there's no anatomic reason for that," he said. "There is no such thing as a posterior tongue tie." This ENT said he uses surgical scissors, because a laser can cause a burn and is more expensive to use.

Primum non nocere is a Latin phrase that means "first, do no harm." The patient's well-being is the primary consideration.

In Hospitals, lactation consultants world-wide are prevented from discussing tongue-ties

Baby Friendly Hospital designation?

The “Hospital GAG” or be fired rule

Why mothers seek our treatment

Our goal is to help mothers breastfeed comfortably and problem free

What causes mothers to give up breastfeeding?

Two oral common conditions & accompanying symptoms which often result in mothers giving up breastfeeding

Basically poor advice and incorrect diagnosis

Abnormal maxillary lip attachment (lip-tied)

Ankyloglossia or tongue-tie

Our long term goal: prevent oral dysfunction

*Formerly known as maxillary frenum
How mothers get to our practice seeking our help

Initial diagnosis and support system

Treating mothers and infants is not just a simple surgical correction. It is a team effort:
- Doula
- Midwife
- Lactation consultant
- CST, Chiro, (body work)
- Myofunctional therapist
- Parents of prior patients

Oral surgical procedure if referral recommended

Comment by a parent on her follow-up survey:
Thank you for all your help... It took a team effort to get this boy nursing normally, you, Lactation consultant, midwife and a CST.

What's in: Proactive early intervention!

What's out: “Let's just & watch and see what happens”

Problems with the wait and see approach
- Decalcification and incisal caries beginning
- Class III severe tongue-tie
- Lingual pressure on lower central incisors, blanching

A good effective latch consists of several components working together for successful breastfeeding.

Careful observation of an infant’s latch and oral examinations by properly trained health professionals are also important components for teaching mothers good latching techniques that will support innate infant nursing and help mothers learn the proper mechanics of breastfeeding.

Correcting misconceptions: Ultra sound images have revealed the actual means infants express milk from the breast

- Old way: Compression motion on the nipple to push milk out
- New way: Babies actually lower their tongue to create a vacuum and thus express the milk

Creation of vacuum is key to the process of milk removal. The creation of vacuum occurs anteriorly in the baby’s mouth from the seal to the breast. Posteriorly, the downward action of the tongue and soft palate creates a vacuum that corresponds with milk removal.

The posterior section of the tongue undulates in a pattern similar to a propagating peristaltic wave, which is essential for swallowing.
After the completion of a review of mother's symptoms and infant's problems, this may be the correct position for medical examinations. This is not the correct way to evaluate an infant for lip and tongue ties.

The initial oral evaluation

Making the correct diagnosis does not just depend on how the tongue moves laterally, up and down and forward!

Understanding how to make the correct diagnosis

Here is where the clinical examination and diagnosis begins. If you can’t make an accurate diagnosis, you can’t fix the problems?

How to examine and evaluate infants

Accurate diagnosis begins with using the proper position to examine the infant.

The clinical examination-simple and quick

Access & Visibility: Start at the lips and work your way through the mouth.

Correct position

Wrong position

1. First-just look and watch
   a. Observe the oral structures and movements
2. Feel the cheeks
3. Tethered oral tissues (TOTS)
   a. Upper and lower lip attachments
   b. Buccal attachments: try spreading the cheeks
   c. Tongue attachment: observe movement etc
4. Hard and soft palate: feel their condition
5. Have infant suck on your finger: feel the latch

How to accurately examine and evaluate the oral structures in infants

We each have 12 eyes, we need to use all of them.

The two between our ears plus 5 on each hand, our 10 fingers

Knee to Knee with parent aiding in controlling infant movements

Netflex: Breastmilk the movie

Open the infant’s mouth, using the parent to hold the infant’s hands and body in her lap.

Putting it all together: observe lateral and vertical movements.
The Kotlow clinical examination

Start by observing and evaluating oral function

Observe and evaluate the movements of the tongue up, down, laterally and forward

Feeling the latch with your index finger — does the infant bite with the gums when attempting to latch?

1. When you place your finger into the mouth, extending it to the junction of the hard and soft palates, the part furthest into the mouth has very little compression, indicating the infant is really latching on to the nipple not the breast.

2. When an infant is tongue tied, you feel a strong compression on the area closest to the lips on your finger.

3. At the release of the frenum, compression can be felt between the first and second knuckle on your finger.

The nursing callous or lip-blister

Beginning the hands on clinical examination

Observe the upper lips while the infant is resting on your lap

Callousing and blistering of the upper and lower lips

A sure sign of being lip-tied and a poor latch

Open the mouth, using the parent to hold the infant’s hands and body in her lap

Look at the tongue’s surface: Is it covered in white?

Is this Thrush

Does it just wipe or brush off?

Examination of infants
The maxillary lip-tie

Breastfeeding requires all the parts working together — the synchronized coordination of the jaws, tongue, and lips.

Epiphany: It's not just the tongue!

A sudden, intuitive perception or insight into a reality or essential meaning of something, usually initiated by some simple, common place occurrence or experience.

I redefined the maxillary frenum as a lip-tie.

What is a Lip-tie?

A remnant of the tissue in the midline of the upper lip and the gum which holds the lip attached to the gum (gingiva) and may interfere with the normal mobility and function of the upper lip contributing to a poor latch by the infant onto the breast.

Pull upward on the upper lip & evaluate it for mobility, blanching, and attachment.

Determine mobility and ability to flange upward with out blanching, undue dimpling or straining.

Using "Kotlow" classifications identify where the lip's attachment is located.

Kotlow Classification of maxillary lip-tied attachments in children after teeth erupt

Class I: normal
Class II: inserting just above or in between central incisors
Class III: Beginning to insert into anterior papilla
Class IV: inserts into anterior papilla

Lawrence Kotlow DDS
Practice limited to pediatric Dentistry
WWW.KIDDSTEETH.COM
Class IV: inserts into anterior papilla

Why Correct these for non-nursing infants?
1. Prevent caries on upper front teeth
2. Often eliminates struggling during toothbrushing
3. Esthetics
4. Closure of diastema

Additional benefits of early interceptive prevention — lip-tie releases

Oral hygiene care (toothbrushing, blanching)
Esthetics (smile line)

Blanching

Christian Age 1 prior to Maxillary lip-tie
Christian Age 4 after Maxillary lip-tie release

Speech? Small number of articles

Compare pre lip-tie release to post lip-tie release

Gross decay upper front teeth
Preformed crowns

Lip-tie release

Effects of untreated lip-ties (diastema and dental decay)

Maxillary Lip-tie with central incisors showing decalcification

Gross decay upper front teeth
Preformed crowns

Lip-tie release
Often mothers who have had “no problems breastfeeding”, begin to have biting pain once the upper front teeth erupt.

Tooth imprints

Brian Palmer included the observations of Woolridge (England), Esco (Lactation Consultant Australia) and Neil (Australia) “a normal suckle begins with a flanging of the lips to create a seal around the areolar tissue of the breast — much like the suction cup on a piece of glass.” He also states; if the lip(s) cannot flange out (because of a tight labial frenum), a good seal cannot be created and a poor latch-on could be the result.

Ankyloglossia: tongue-tied

Breastfeeding requires the synchronized coordination of the jaws, tongue and lips.

Releasing the ankylosed tongue is not just for breastfeeding!

We need to change the idea of “just a tongue-tie” to part of “Oral Dysfunction Syndrome”
Our tongue is more than a muscle, it is also an “Organ”

The tongue consists of a complex group of muscles that gives it great mobility.

1. The four paired extrinsic muscles protrude, retract, depress, and elevate the tongue.

2. The four paired intrinsic muscles of the tongue originate and insert within the tongue, running along its length. These muscles alter the shape of the tongue by: lengthening and shortening it, curling and uncurling its apex and edges, and flattening and rounding its surface.

What is a tongue-tie?

As defined by the International Affiliation of Tongue-tie Professionals (www.tongue-tie.net)

The Embryologic remnant of the tissue in the midline of the undersurface of the tongue and the floor of the mouth.

An (abnormal) attachment of the membrane that fastens the tongue to the floor of the mouth which may interfere with the normal mobility and function of the tongue.

How common are tongue-ties?

Most studies indicate anywhere from 3%-10% of newborns are tongue-tied, this is most likely due to poor examination position and lack of understanding about how mother and infant symptoms and TOTs are interrelated.

Most ties that are not clinically seen as an anterior tie are most likely not included in studies, since few examine the infant in a position which can aid in a clear evaluation.

Clinical examination of some infants will indicate the presence of a high arched or deep palatal area. This can interfere with a good latch.

What are the best criteria we can use to diagnose ankyloglossia?

Ankyloglossia can be defined in three ways.

The simpler and less complicated a method exists to evaluate a tongue-tie, the more likely it will be evaluated.

Kotlow: Classification of newborn abnormal lingual frenums: based upon anatomic appearance

Anatomic & clinical attachments

The most important diagnostic criteria

Ability to function

Anatomic & clinical attachments

Type IV (1*) - total attachment with tip involvement

Type II (3) - Distal to the salivary duct but not at floor of the mouth. The tongue may appear normal.

Type I (4) - Posterior area which may not be obvious and only palpable. Some are not visible if they are submucosally located.

Type III (2) - Midline area under tongue in front of salivary duct (creating a hump or cupping of the tongue)

Both an anterior and posterior attachment

Type II (3) - Distal to the salivary duct but not at floor of the mouth. The tongue may appear normal.

Tight guitar string submucosal attachment

*Numbers in parenthesis = some LCs
**Numbers outside parenthesis = Kotlow
We also need to evaluate function.

Total tie down resulting in No up or down mobility
Cupping and hump-tethered in middle of tongue
Midline attachment
Heart shape, pointed tip
Unable to elevate and touch the hard palate, or move freely in lateral excursions
Unable to extend tongue past alveolar ridge

Diagnosing problems related to an infant with ankyloglossia (tongue-tied)

Preliminary initial clinical evaluation

Functional compensations

The initial assessment to determine need for further evaluation

Interpreting your assessment-completed after some bonding time

Feel for problems!

Use your finger moving across the floor of the mouth, under the tongue

The correct latch-on
The correct latch-on
Bottle feeding has similar problems
Before surgery
Immediate post-surgery
After surgery may need different bottle & nipple
These types of nipples prevent proper latch and contribute to reflux.

Classifying infant tongue ties: alternative method
Anterior ties are located anterior to duct.
Posterior ties are located distal to duct
Every anterior lingual attachment has a posterior component - surgical success depends on the complete release of the ties (incomplete or partial release will only lead to partial resolution of symptoms)

The Posterior Tongue-tie
Defining a posterior tongue-tie
A fine thin attachment of the tongue to the floor of the mouth located at the base of the tongue

Identifying the submucosal posterior tongue tie
Under diagnosed thus the number of infants with ankyloglossia is way under reported

Maxillary and mandibular buccal and mandibular alveolar ridge ties

Incomplete or partial lingual revision: taking a class 4 or 3 (anterior) attachment and creating a class 1 or 2 (posterior) tongue-tie

Tip of tongue
Base of tongue
Incomplete release
Complete release

Identifying the submucosal posterior tongue tie
Infant symptoms which may be related to the oral attachments

Once the infant's oral evaluation is completed, symptoms evaluated, and the treatment discussed, then the tethered tissues can be safely, quickly and easily revised in the office: not in the OR under a general anesthetic.

Part two tomorrow: everything you need to use a laser.
Revising TOTS
The grooved director—better access without the need to place fingers, or other instruments, materials, or items in the surgical field.

Some infants have mouths so small that there isn't enough room for instruments and fingers.

Revising buccal ties
The periosteal elevator

Revising TOTS
Mouth props when there is a need

Using patient safety protective appliances
Infant swaddlers: BabiesRus
Infant protective stabilizers
Specializedcare.com

Presurgery-surgical behavior management
★ Above 10 months may get a little local anesthetic in the lip-tie area
★ Above 1 year Dramamine, 50 mg, one hour before treatment
★ Other homeopathic medications

Laser Standards and Classification
1 Non-hazardous
Eye wear not required.
1M Eye safe visible laser (400-700nm) if used without magnifying optics.
Eye wear not required unless used with magnifying optics.
2 Eye safe visible laser (400-700nm) (safe within the blink reflex of 0.25s).
Eye wear not required.
2M Eye safe visible laser (400-700nm) (safe within the blink reflex of 0.25s) if used without magnifying optics.
Eye wear recommended.
3R Likely unsafe for intrabeam viewing. Maximum Permissible Exposure (MPE) is up to 5 times class 2 limit for visible lasers of 5 times class 1 limit for invisible lasers.
Eye hazard; eye wear is recommended.
3B Eye hazardous for intrabeam viewing. Limited diffuse hazard.
Eye hazard; eye wear is recommended.
Class 4
Eye and skin hazard for direct and diffuse exposure. Fire and burn hazard.
Eye protection and other personal safety equipment is required. All soft tissue dental lasers are Class IV.
Parental participation during surgery

Why do they really want to be there? How would they help in any emergency?

Parental videos and photographs during dental appointments

*In a nutshell*

"JUST SAY NO"

1. Potential HIPPA violation from inadvertently catching someone else in the viewing or audio areas.
2. Staff privacy rights
3. Prudent risk management: with today's editing ability anything can be taken out of context and be detrimental to you.
4. Signage:
   We respect the privacy rights of all our patients and our staff. Therefore, we do not allow photography (video or otherwise) on the premises.
5. As a HIPPA covered "entity" it is mandated we protect the privacy of all staff and patients in our office.

*CEO and General Counsel for the American Academy of Pediatric Dentistry*

A commentary on what is being uploaded to the internet world wide

Once it is out there it out there forever

Enhanced visualization of your surgery

No cell phones in the operatories, no unauthorized photos

No glasses on either mother or infant with laser active
If you do get bleeding

Electric cautery

Pressure

Moist teabag

Active Wound Management Therapy: Post surgery Keeping the surgical sites from rehealing

Successful surgery, preventing the areas healing together, is now dependent on the parent’s ability to gently peel away both the upper lip and tongue from the opposing tissue to prevent rehealing of the surgical areas together, by primary healing intention.

Elevate the upper lip, 2-3 times a day, upward until it touches the infant’s nose using enough pressure to open the entire surgical site and prevent the lip from becoming healing back. Post surgery, a white area developing in the surgical area, is normal and not an infection. This will disappear in another week.
What should the surgical areas look like at one week post-surgery?

Post-surgery active wound management for the tongue

Successful surgery and preventing the tongue and floor of the mouth from healing back together is dependent on a parent’s ability to keep the surgical sites in both the upper lip and tongue separated.

Method one: Place the index fingers together, touching in the surgical site and gently peel the diamond shaped area open, first downward, then sweeping upwards toward your belly with sufficient pressure to keep the two sites apart to prevent the rehealing. Some bleeding may occur when the sites are not kept apart and begin to heal together and this is not a concern.

Revision of posterior ties are most likely to reheal together

TIC-TONG Animal: colored and flavored, non-latex, sugar free and non-toxic plastic tongue depressors

Post-surgery management for the toddler

Having the child try to lick the bottom of a shot glass a substance such as jelly or honey.

Having the child try to lick a teaspoon with a substance such as jelly, chocolate or honey.

Healing tongue revisions

Successful breastfeeding 19 months pre and post surgery

5 days post surgery

6 days post-surgery

6 days post-surgery

3 years post-surgery

July 2014

February 2016
Post-Surgery discussion with parent is part of the surgical treatment
Just revising the surgical sites and sending parents home, is incomplete care.

Achieving a good latch post surgically is important for the parent to achieve

Immediate post-surgical procedures
★ The infant can breastfeed immediately the latch may feel different immediately or it may take some retraining
★ If the mother has been using a nipple shield: try first with it and then try without-this also may take some retraining
★ Infants under 8 weeks are not given any type of oral or parenteral medications.
★ Hyland’s teething gel and/or sugar water can be used both after treatment and for home use. (place before stretching and wait 5 minutes)
★ Frozen mother’s milk post surgery
★ Above 8 weeks 40 mg of acetaminophen
★ The use of Low Level Laser Therapy

Even with written and video directions some areas require additional treatment
Why?
Failure to follow directions?

Successful surgery is often dependent on working as a team
The other parts of the breastfeeding team
• IBCLC
• Body worker-chiro etc
• Myofunctional therapist
Our goal happy babies & mothers

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My goals: Happy and healthy infants and mothers and to do no harm: which is better do nothing or do something

Hippocratic Oath

“[I will prescribe regimen for the good of my patients according to my ability and judgment and never do no harm to anyone]”