Lawrence Kotlow DDS FAAPD, FABPD, MAID

Private Practice, Albany, New York, USA

- Member of ALD since 2000
- Mastership, Advanced Proficiency in Erbium:YAG, and Standard Proficiency in Nd:YAG. Diode, and 9300-nm CO_2 lasers
- Author of the book SOS 4 TOTS, about lasers, infant frenectomies, and breastfeeding and over 30 published articles

Disclosure: Dr. Kotlow receives significant honoraria from Convergent Dental. He is presently a beta tester of the Solea laser, as well as a consultant to and investor in Convergent Dental. He provides education on Solea procedures, laser safety and laser physics to new Solea Dentists.

12/26/18

Our hospital was founded in 1887 — by women, for women and their children. And more than a century later, services for women and infants remain at the heart of Crouse Health.

CROUSE HEALTH

Our mission is to provide the best in patient care by exceeding the expectations of our patients and to promote community health.

We ***encourage you to breastfeed*** your baby as it is the best nutrition for your baby. Our Breastfeeding Resource Center includes ***Lactation Consultants, nurses*** who ***specialize*** in ***breastfeeding*** and who are available if you need more help than your nurse can provide. For mothers who choose not to breastfeed, ***formula*** is available in the hospital.

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Some of the relevant concerns I will address tonight .

- Is the release of (TOTS)Tethered oral tissues just a fad ?
- Are TOTS being revised just to pay for new technology ?Lasers
- Does the upper lip-tie have any affect in achieving a successful latch and breastfeeding ?
- Why are physicians so critical of the IBCLC in the hospital?
- Why do nurses and /or IBCLCs get warnings by hospital physicians, when they suggest there may be TOTS interfering with an infants latch?
- Why are physicians not evaluating breastfeeding problems at the first infant office visit ?
- Why are physicians not evaluating TOTS as part of a differential diagnostic evaluation for many health problems?
- Why is the word "Snip" a bad word?(Four letters)
- Is allowing a mother and infant to suffer needlessly good medicine?
- Why is it, when completed correctly, the release of TOTS a fast, safe in office procedure being so criticized by so many primary care providers ?

Medicine and dentistry are merging

Medicine

Medicine is the science and practice of the diagnosis, treatment, and prevention of disease.

Dental Medicine

Dentistry is a branch of medicine that consists of the study, diagnosis, prevention, and treatment of diseases, disorders, and conditions of the oral cavity the oral mucosa, and of adjacent and related structures and tissues, particularly in the maxillofacial (jaw and facial) area.Although primarily associated with teeth among the general public, the field of dentistry or dental medicine is not limited to teeth but includes other aspects of the craniofacial complex including the temporomandibular joint and other supporting, muscular, lymphatic, nervous, vascular, and anatomical structures.

Each one of us can make a difference

Together we make change.

Make a difference in mothers' and Infants' Lives

How do we change attitudes

Ignoring the si
and sympton

Helping families successfully breastfed and more.

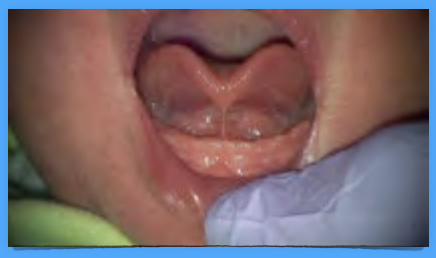
The approaches a physician takes when confronted with symptoms is too often determined by his or her biases and education.

A physician treating new mothers and infants, it is unnerving to confront symptoms that you don't immediately know how to conquer and yet at some point, every physician is confronted by one terrifying prospect: you may not know everything. When that happens, you have two options. Ignore the symptoms, or " Do no harm" and a physician can say "I don't know."

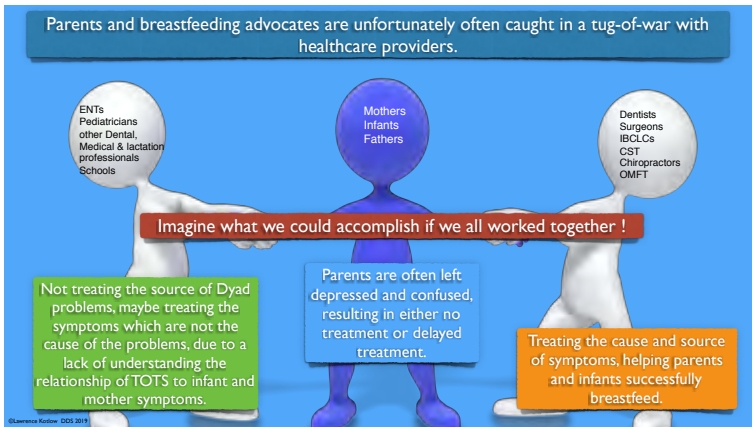
Imagine you are a new mother suffering a variety of symptoms which you are unprepared for. When you turn to the medical world for help,well-meaning doctors try to put you at ease by telling you and your infant are "fine" and "It's all in your head." new mother's in particular hear that far too often,

Why more pediatricians and others treating infants should embrace the words
"I Don't Know"
The best thing for patients and their care is to admit you don't know something!

Understanding assessment, treatment and aftercare of infants presenting with TOTs



Parents and breastfeeding advocates are unfortunately often caught in a tug-of-war with healthcare providers.



As a healthcare provider at the crossroad, which path are you on or do you want to travel?

Do no harm.
??????

Treating the symptoms & ignoring the cause?

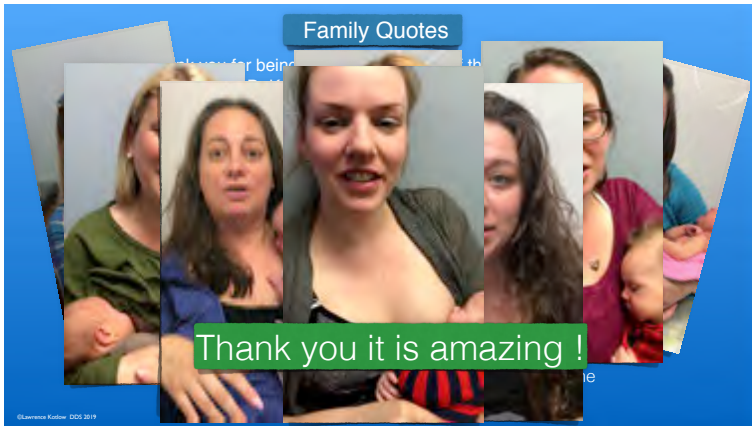
Treating the cause of the symptoms

Lack of education and training

Reasonable differential diagnosis

The Infant with TOTS

Family Quotes



The family dynamics which may be affected by breastfeeding difficulties ?

Baby's symptoms

Mother's exhaustion

Mom Baby DAD

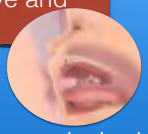
Typically, in our culture, fathers haven't been considered as integral in a child's care

er will also suffer

The Breastfeeding Triad

We often hear the word DYAD to describe the mother — infant breastfeeding relationship…. but is that accurate?
The Dyad described as the mother-infant relationship should be modified in today's "politically correct climate" to read "Triad".

The "functional and anatomic dyad" of the upper lip and tongue will be explored and their role to achieve and sustain a secure and pleasurable latch.



Symptoms are **not signs** the parents are inexperienced, over concerned or has had to unrealistic expectations for breastfeeding.

Symptoms are **not signs** the baby is just fussy, a lazy nurser or will benefit being placing on a bottle .

Unfortunately , sadly too many mothers and infants are only having their symptoms treated, not the source of the problem=frustrated parents

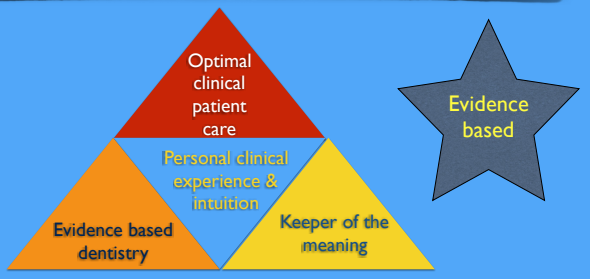
The Evidence based concept roadblocks we face

There are many parts of this puzzle :There are many clinical techniques and approaches successfully used for scores of years that the scientific method might never be able to validate, but that doesn't necessarily mean that they don't have great value.

✳The greatest weakness of the EBD movement is that there is no measure for clinical skill and experience and yet, clinical success equals clinical skill and experience.
(Pediatr Dent 2019;40(4):250-2) Received November 1, 2017)

Child care triangle

Keeper of the mpost-moderneaning :The wisdom that comes with age, something that is often more valued by traditional societies than modern or post-modern ones. Being a keeper of the meaning means passing on the many of the values of the past to the future.



Family or pediatrician physicians

The merging of medicine and dentistry

Evidence-based medicine requires clinicians to integrate valid and useful evidence with clinical expertise

In the practice dentistry we often wear many hats

- ★Failure to thrive
- ★Aerophagia: air induced reflux, placed on inappropriate drugs
- ★Sleep apnea: ADD, ADHD
- ★Uncontrolled crying : child abuse, SIDs
- ★Premature weaning
- ★Lack of infant-mother bonding lasting a lifetime.
- ★Congestion in the morning and after naps.
- ★Sleeps only in upright position: moms chest, car seat, swings.

Obgyn

The merging of medicine and dentistry

Obgyn : Symptoms related to the infants latch ?

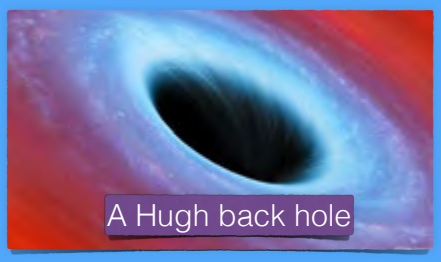
- ★Mastitis
- ★Plugged ducts
- ★Engorged breasts
- ★Breast abscess/surgery
- ★Thrush
- ★Infected nipples
- ★Bleeding nipples
- ★Post partum depression
- ★Maternal exhaustion
- ★Failure to bond

Too often these mothers are screaming to be helped and their physician is unable to identify a physical cause for the symptoms and turns reflexively, to first time mothers as well as mothers who had had successfully has prior breastfeeding experiences, as just due to maternal stress or anxiety as an explanation!

The merging of medicine and dentistry

Oral medicine=dentistry

Family or pediatrician physicians



Obgyn

"Physicians may be very well-trained to treat symptoms and diseases, but far too many often fail to diagnose or understand the underlying imbalances that perpetuate mother/infant distress."

"Each doctor, may determine they have the **perfect** medicine or treatment for a problem, but with the breastfeeding dyad , too few are considering how all these symptoms may be related, or how addressing the underlying causes of these symptoms may fix everything at once."

Solving the puzzle: Requires looking at many different parts

The initial oral evaluation

Pre-examination Breastfeeding History

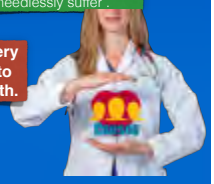
Health care providers should be mandated to understand that treating the **causes** not just the **symptoms** of breastfeeding problems and other latch related problems due to TOTS is needed for proper infant growth and development.

It often may begin with having a parent complete a breastfeeding questioner at the infants *initial* new baby examination

This form should be part of every pediatrician's initial infant office visit

Too often, rather than address the root causes of infant and mother distress, thousands of dollars are wasted treating the symptoms ,thus mothers' and infants' are allowed to needlessly suffer .

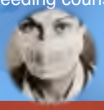
I challenge each and every physician here tonight to just try this for one month.



In Hospitals, lactation consultants and nurses world-wide are prevented from discussing tongue-ties = making a diagnosis ?

Post delivery lactation breastfeeding counseling

Hospital based IBCLC



Hospital Nurses

The "Hospital GAG" or be fired rule

Baby Friendly Hospital designation ?

Listening to the parent's concerns & symptoms

Mothers' **gut** feelings are often correct !

New mothers are not **just** being anxious & over concerned !

Breastfeeding difficulties should not be brushed off as just a **fussy** infant.

Without knowing how to correctly examine an infant to diagnose tongue and lip-ties, many tethered oral tissues will be missed or ignored and attempts to develop any evidence based study will be inaccurate.

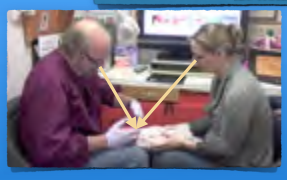
Failure to do a correct examination & make an accurate diagnosis !

After the completion of a review of the mother's symptoms and infant's problems.

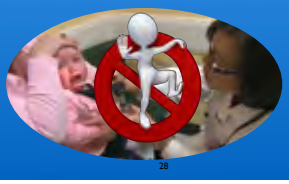
This may be correct position for medical examinations.

This is not the correct way to evaluate an infant for lip and tongue-ties.

Using the ***KOTLOW*** protocols to correctly examine an infant for TOTs.

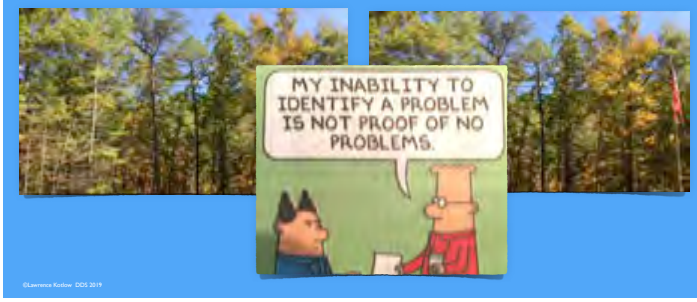


The correct position allows the examiner to evaluate all the oral structures and at the same time allows the mother to also easily visualize the TOTS.



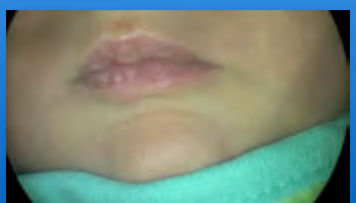
Examine the infant in the wrong position prevents good visualization of all the oral structures, allows the infant to struggle and doesn't permit the mother to see the infants oral conditions.

"When a **tree falls** in the **forest** and no one is around to hear it, does it make a sound?" is a philosophical thought experiment that raises questions regarding observation and perception.



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

Begin an examination by placing the infant on the **examiner's** lap facing the same direction as the examiner: Fast accurate and simple



Blistering of the upper lip

Lip-attachments

Palpate hard & soft palate area

Buccal Interferenes

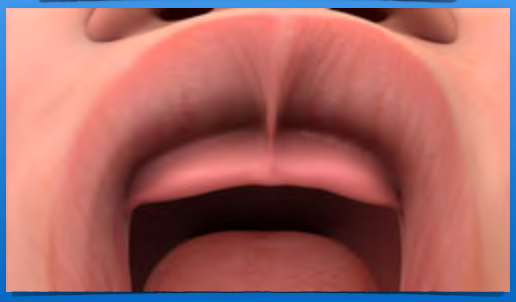
Look at tongue attachment location. Pass index finger across the floor of the mouth looking for any interference

Look at tip of tongue and lateral borders for function and appearance, diagonal dimpling and lack of elevation. Observe vertical and horizontal mobility.

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

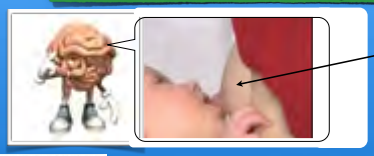
The maxillary lip-tie

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

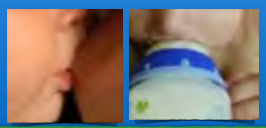


In treating TOTS for over 40 years, my clinical observations indicate that there are more ties(TOTS) which contribute to a poor latch than just the tongue attachment!

Clinical. Observations: : It is not just the tongue!



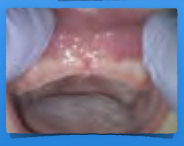
Observation that upper lip when not able to extend upward interferes with an adequate latch !



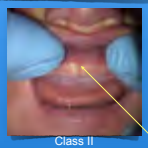
Can occur with the breast or the bottle fed infant

Part I of the examination: The *KOTLOW* classifications use the position of the lip attachment in the zones of free and or attached gingival tissue.

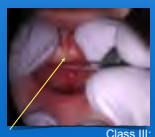
Kotlow Infant and Infant **Lip-Tie** classifications

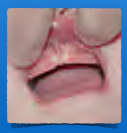


Class I: Attachment primarily above the junction of the attached gingival tissue significant attachment

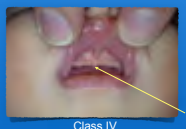


Class II
Attachment primarily into the junction of the free and attached gingival tissue



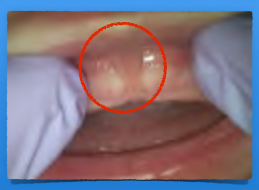


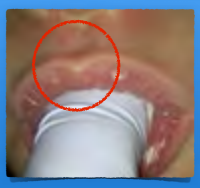
Class III:
Attachment primarily between the attached gingival tissue and the anterior papilla

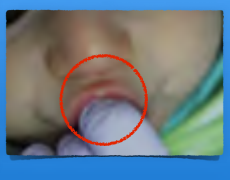


Class IV
Attachment primarily distal to the anterior papilla and into the palatal tissue

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





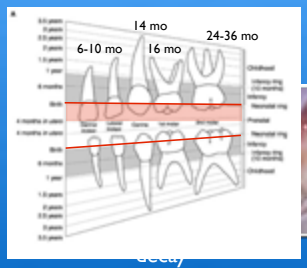


Determine upper lip mobility and the ability to flange upward without blanching ,undue dimpling or straining.

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

Lawrence Kotlow DDS

Maxillary Lip-tie with central incisors showing decalcification



What does each of these breastfed infants have in common?

3 things !
- At-will night time breastfeeding: sleeping with the mother
- Class 3-4 maxillary lip-tie
- Facial decay

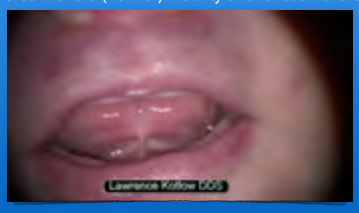
What is a tongue-tie ?

As defined by the International Affiliation of Tongue-tie Professionals

An interfering embryologic remnant of the tissue in the midline of the undersurface of the tongue and the floor of the mouth.

We do have a good definition !

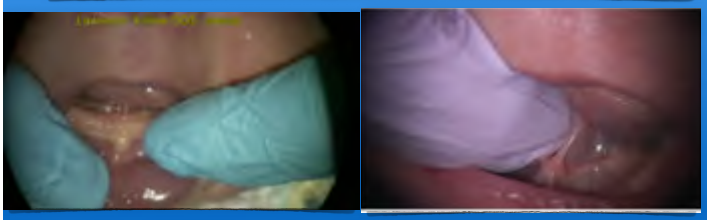
An (*abnormal*) attachment of the mucosal tissue that fastens the tongue to the floor of the mouth which interferes with the (normal) mobility and function of the tongue.



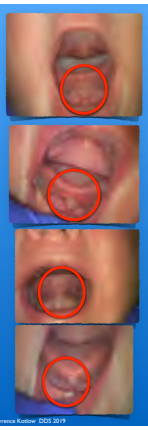
Diagnosing problems related to an infant with ankyloglossia (tongue-tied)

The initial clinical assessment to determine if further evaluation would be beneficial-
Feel for any type of interferences

Dragging your index finger under an infant's tongue from one side of the mouth the other side in the molar area will give you an indication if the tongue attachment is potentially going to be a problem.



Interpreting your initial assessment



A smooth uninterrupted pass under the tongue.

Most likely the infant will not have difficulties achieving a successful latch.

A slight interrupted pass or interference under the tongue.

The mother should be made aware of the types of symptoms to be looking for when the infant attempts to latch.

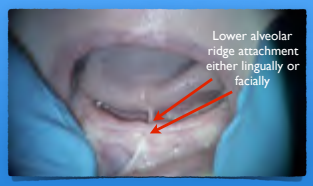
A small, medium or large piece of membranous mucosal tissue interfering with the finger sweep.

Almost always will interfere with the infant's ability to achieve a secure latch. Mothers should to be advised of the symptoms to look for.

A thin or thick piece of membranous tissue attaching close to the tip of the tongue, obstructing the ability to allow a finger sweep. An appearance of a heart shaped tongue.

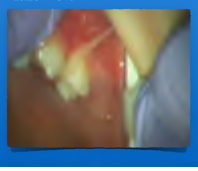
These should alert the assessing person that the attachment should be revised immediately, before symptoms develop.

Additional potential tethered oral tissues

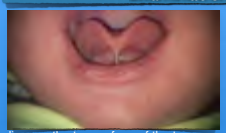


Mandibular buccal frenum attachment

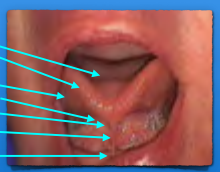
Maxillary buccal frenum attachment



Examination of the tongue

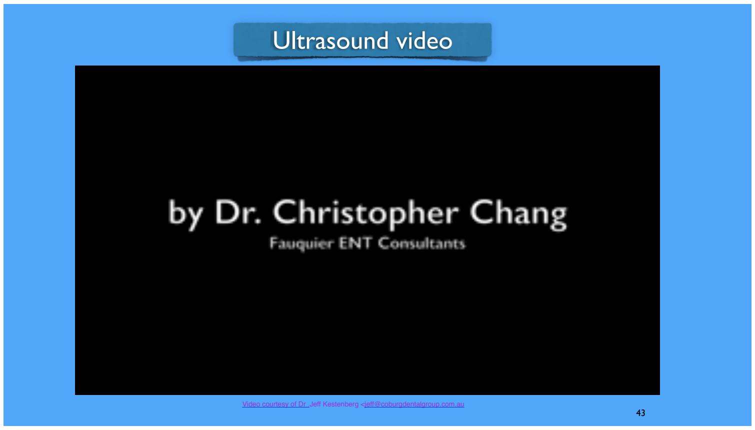


Dimpling, on the top surface of the tongue
Curling of the lateral borders of the tongue upward
Inability to move the tongue laterally
Inability to elevate the posterior portion of the tongue
Inability to elevate the middle portion of the tongue
Inability to elevate the anterior portion of the tongue
Inability to protrude the tongue



Class IV tongue-tie attachment . 100% to the tip

All lingual ties, class 1-4 ,have a posterior component!


Ultrasound video
by Dr. Christopher Chang
Fauquier ENT Consultants
Video courtesy of Dr .Jeff Kestenberg <jeff@coburgdentalgroup.com.au
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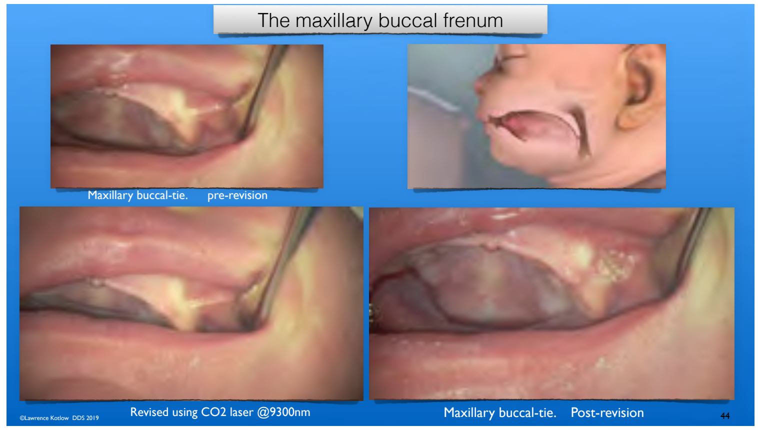
The maxillary buccal frenum
Maxillary buccal-tie. pre-revision
Revised using CO2 laser @9300nm
Maxillary buccal-tie. Post-revision
©Lawrence Kotlow DDS 2019
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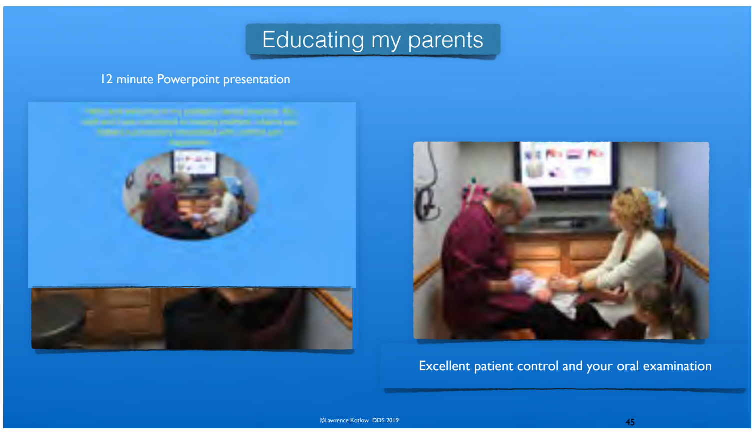
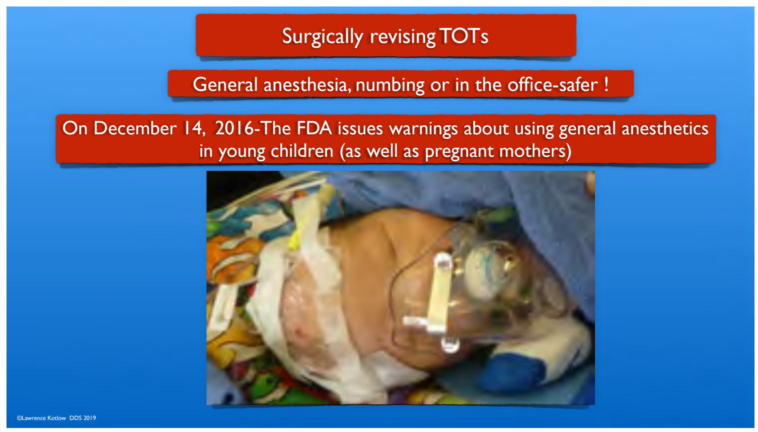
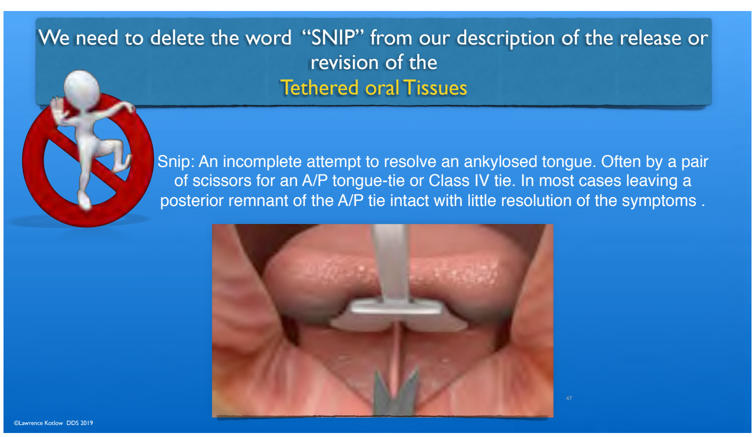
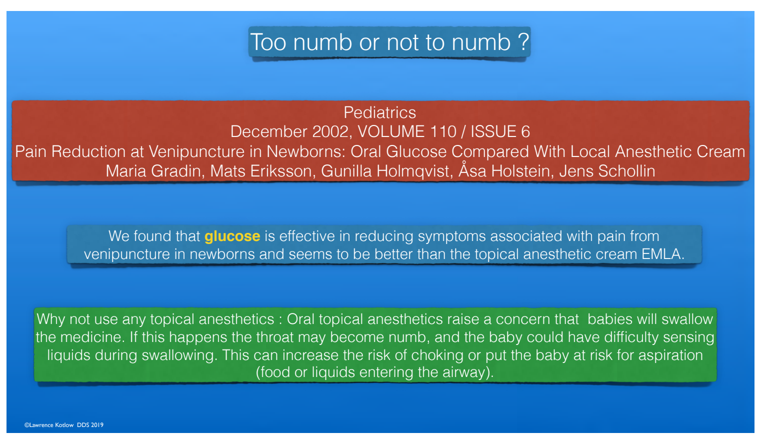

Educating my parents
12 minute Powerpoint presentation
Excellent patient control and your oral examination
©Lawrence Kotlow DDS 2019
45

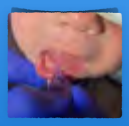

Surgically revising TOTs
General anesthesia, numbing or in the office-safer !
On December 14, 2016-The FDA issues warnings about using general anesthetics in young children (as well as pregnant mothers)
©Lawrence Kotlow DDS 2019


We need to delete the word "SNIP" from our description of the release or revision of the
Tethered oral Tissues
Snip: An incomplete attempt to resolve an ankylosed tongue. Often by a pair of scissors for an A/P tongue-tie or Class IV tie. In most cases leaving a posterior remnant of the A/P tie intact with little resolution of the symptoms .
©Lawrence Kotlow DDS 2019

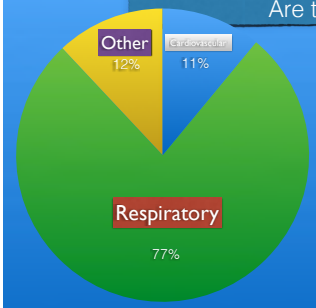

Too numb or not to numb ?
Pediatrics
December 2002, VOLUME 110 / ISSUE 6
Pain Reduction at Venipuncture in Newborns: Oral Glucose Compared With Local Anesthetic Cream
Maria Gradin, Mats Eriksson, Gunilla Holmqvist, Åsa Holstein, Jens Schollin
We found that glucose is effective in reducing symptoms associated with pain from venipuncture in newborns and seems to be better than the topical anesthetic cream EMLA.
Why not use any topical anesthetics : Oral topical anesthetics raise a concern that babies will swallow the medicine. If this happens the throat may become numb, and the baby could have difficulty sensing liquids during swallowing. This can increase the risk of choking or put the baby at risk for aspiration (food or liquids entering the airway).
©Lawrence Kotlow DDS 2019

Too numb or not to numb ?

Sucrose is a disaccharide made up of 50% **glucose** and 50% fructose



Crying infants : A problem or ok during surgery Are they traumatized ?



An infant who is crying is **breathing** !

Babies cry due to **hunger** !

Babies cry when they need a changed **diaper** !

Babies cry when they get **shots** !

Babies cry from **Reflux (AIR)** for weeks and months !

Lack of mother-infant bond: a lifetime of pain vs a short surgical procedure!

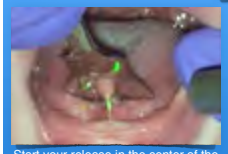
Volume 15 Number 2
Spring 2002 Newsletter
spa@asclstyhq.com

Critical incidents in paediatric anesthesia: an audit of 10,000 anaesthetics in Singapore.

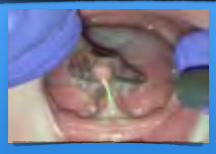
Tay CLM, Tan GM, NG SBA. Paediatric Anaesthesia 11:715-718, 2001.

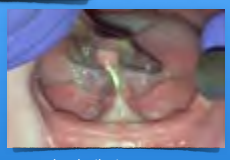
The surgical technique for the revision of TOTS

Release of the infant tongue attachment

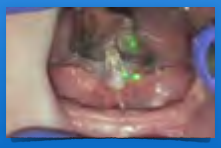


Start your release in the center of the frenum

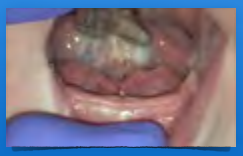




Continue lasing while pulling upward under the tongue

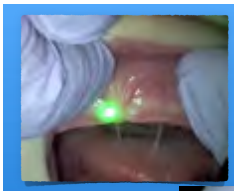


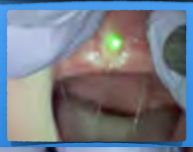
Continue while pulling upward under the tongue: the area will pop open

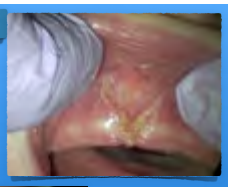


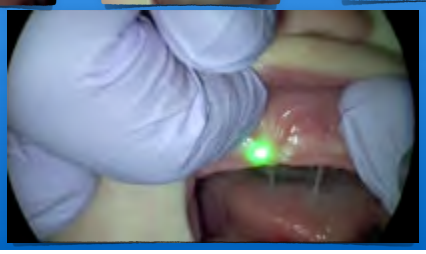
Continue release until you can pass your tongue across the floor of the mouth without any interference

Revising the maxillary lip-tie

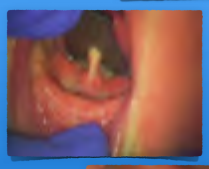


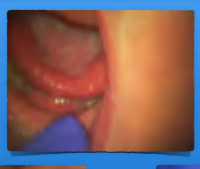


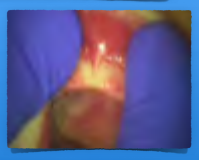


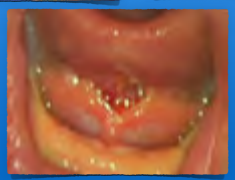


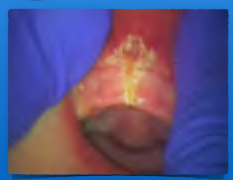
The correct way a release should appear



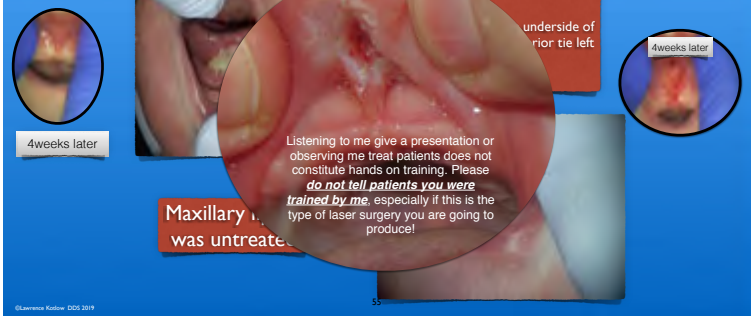








The problem with partial revisions, incomplete release of the lingual frenum.

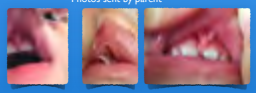


Listening to me give a presentation or observing me treat patients does not constitute hands on training. Please ***do not tell patients you were trained by me***, especially if this is the type of laser surgery you are going to produce!

The problem with partial revisions, incomplete & poor surgical release of the maxillary lip-tie.

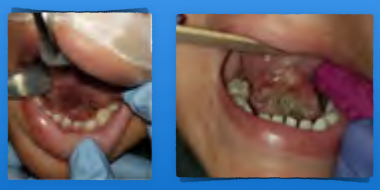
ENT Scissors revision where the lip is cut and the frenum ignored and remains untouched

Photos sent by parent



After healing revision 3 weeks later w CO2

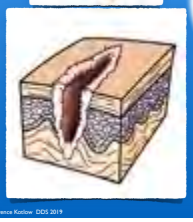
Release by electrosurgery



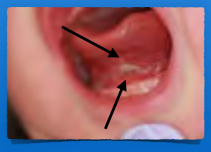
Active wound management

The correct post-surgery care required to prevent the surgical areas from fusing and reforming.

We want secondary healing to occur , we want to prevent primary healing of the released areas



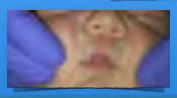
Mother nature wants to return tissue to its prior condition



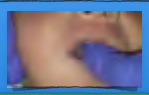
Active wound management

Avoiding oral aversion

Post-stretching oral massage therapy

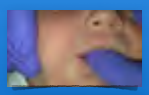


Begin with a gentle cheek massage



Roll your fingers over the gum pads and try to get the tongue to follow

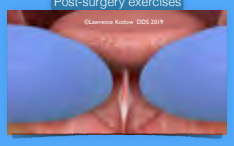
Have the suck infant between 1st and 2nd knuckles



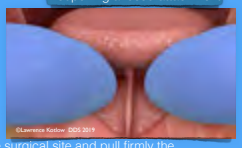
Massage the roof of the mouth until you get in front of the junction of the hard and soft palate. Then push the back of the tongue up and down

Post-surgery care recommended to prevent the revised tongue attachment from fusing and reforming.

Post-surgery exercises

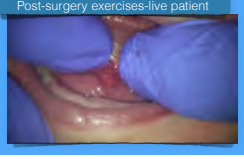


Reopening a fused attachment

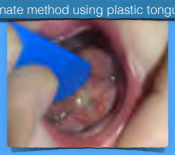


Place your two index fingers just behind the surgical site and pull firmly the tongue away from the floor of the mouth

Post-surgery exercises-live patient

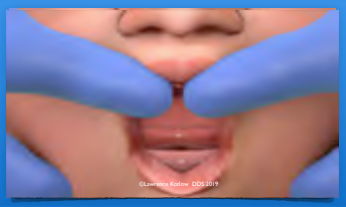


Alternate method using plastic tongue-blade



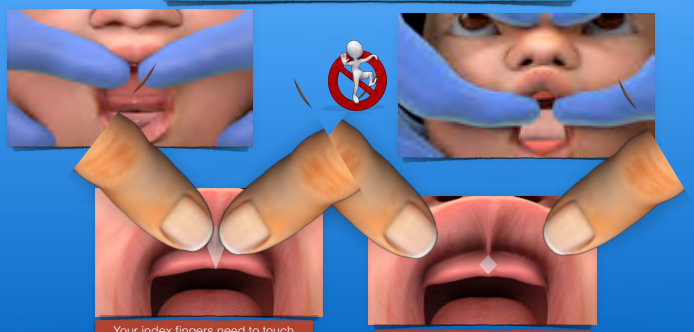
After care for lip-tie revisions

The correct care post-surgery required to prevent the released upper lip-tie attachment fusing and reforming.



Place your two index fingers on the sides of the release and firmly all the lip upward to the nose exposing both the gum area and the vestibule of the upper lip area.

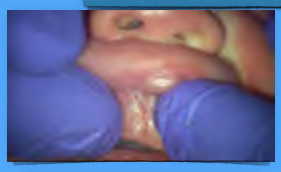
The correct position to correct care for the upper lip-tie post laser surgery



Your index fingers need to touch above the surgical area and completely elevate the lip.

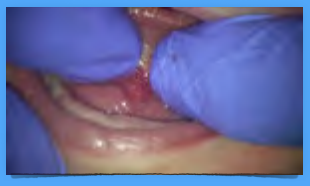
If you just elevate the outer area of the lip the lip will heal incorrectly

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



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.

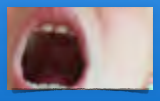
Elevate the upper lip, 2-3 times a day ,upward until it touches the infant's nose using enough pressure to open the entire surgical site and prevent the lip from becoming healing back. Post surgery, a white area developing in the surgical area, is normal and not an infection. This will disappear in another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



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 .



Place peanut butter or a similar sticky substance in the middle of the hard palate

Beater blades

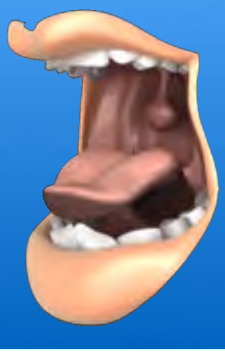
Licking an ice cream cone

Post-surgical care and therapy

Successful resolution of latching and other breastfeeding related problems often requires working with your lactation consultant and or bodyworker after revisions of the tethered oral tissues

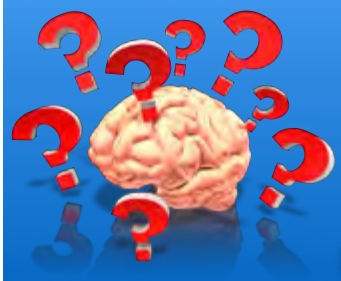
Our Amazing Tongue

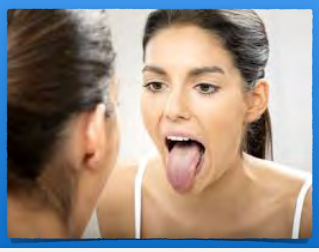
Lets take a close look at this complex muscle



Lawrence Kotlow DDS

Why is the tongue ignored so often during a differential diagnosis of many medical symptoms ?





The tongue is a mirror of our overall health.

The Tongue needs to be part of the process of a differential diagnosis in many health problems

A differential diagnosis & assessment is essentially a list of possible reasons of what could be the cause of a patient's symptoms.

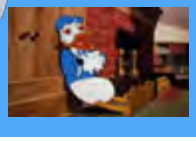
The process of evaluating a disease or condition from other diseases or conditions presenting with similar signs and symptoms.

The Human heart

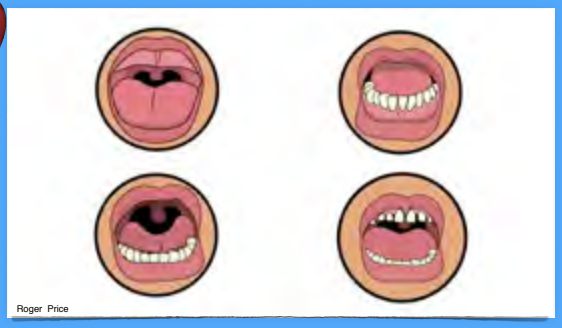
The heart is a ***muscular organ*** abo ctions as the body's circulatory pump.

The human **heart** is ***a mu*** ps blood throughout the body via the *circulatory s* nutrients to the tissues and removing carbon dioxide

The **Heart** is an open wind *life and feeli*

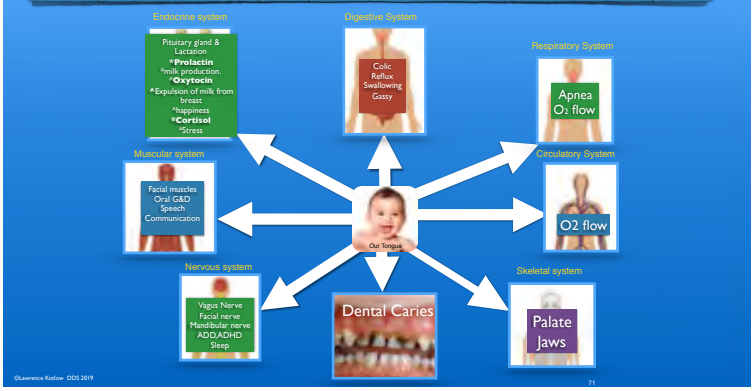


Like our heart the tongue should be considered a primary organ, interacting with many other body organs and systems.



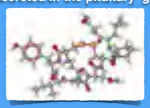
Roger Price

The Tongue : In infants the tongue may interact with these systems and infant development

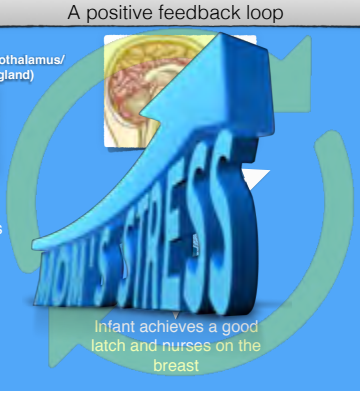


The endocrine system releases prolactin and oxytocin through the pituitary: A positive feedback loop

Oxytocin (produced in the hypothalamus/ secreted in the pituitary gland)



Sensory stimulation of the nerve endings in mother's nipple/ areola sends a signal to mother's hypothalamus/ pituitary.



Infant achieves a good latch and nurses on the breast

Prolactin

Pituitary hormones move through the blood to the mammary gland to stimulate milk production and milk ejection reflex (let-down).

The endocrine system releases Cortisol through the Adrenal gland

When you experience stress, your body responds by releasing cortisol, adrenaline and norepinephrine.

Cortisol called the "stress hormone" increases

Stress can affect a mother's milk supply and the milk's content.

While these hormones can temporarily help the body deal with a stressful situation, over time, they can have a negative effect on the body both physically and emotionally. Higher levels of cortisol corresponded to babies who easily cried or became agitated when placed in unfamiliar situations. The result can be reduced milk production.

Mother's symptoms when a shallow incomplete latch occurs

Psychological

For nine months a mother eagerly anticipates the birth of her child. When the day arrives, and immediately after the baby is born, he or she is placed on the mother's chest and the mother-infant bond is supposed to begin. (Chapter 1 SOS4TOTS)

What are the mother's consequences of a shallow or poor attachment ?

Failure to thrive
Frustrated, crying infants
Short multiple inefficient feedings

Reduced milk supply
Inefficient milk delivery

Severe latching pain & nipple damage

Mother's give up breastfeeding PPD

Mastitis, thrush or plugged ducts

Sore, bleeding, fissured nipples

Engorgement

Attachment theory

Attachment theory is based on the idea that the **bond** between the infant and mother plays a crucial and primary influence on the infant's overall development .

The quality of this enduring mother/child bond will have a significant impact on the child's developing personality and future social, emotional and mental wellbeing.

Breastfeeding plays an integral role in forming the deep **attachment** between **mother** and **baby**.

There is a tendency for the quality of early attachments to continue into adulthood.

http://www.healthofchildren.com/A/Attachment-Between-Infant-and-Caregiver.html#ixzz5JOZF1eaV

Medically related symptoms infants may display

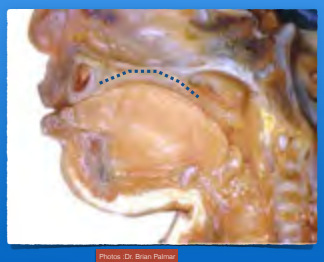
Infant Factors to consider

Chronic crying
Child abuse
SIDS

a. Shallow latch, no latch or unsustained latch (slides off of the nipple),clamping.
b. Breaks latch seal, clicking or smacking sounds, gassy, colic, reflux, vomiting.
c. Prolonged non-nutritional feeding episodes.
d. Unsatisfied nursing episodes, leaks milk, fights latching .
e. Falls asleep quickly on the breast.
f. Gumming or chewing while latching.
g. Poor weight gain or failure to thrive.
h. Unable to hold pacifier .
i. Signs of congestion, sleep apnea, or abnormal breathing.
j. Can only fall asleep when upright
k. Chronic crying episodes due to pain and hunger.

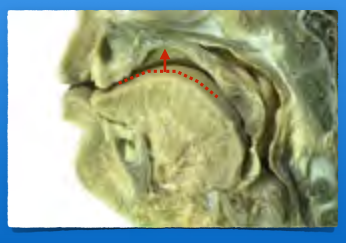
Clinical examination of some infants will indicate the presence of a high arched or deep palatal area. This can interfere with a good latch.

Hard palate formation,with good tongue placement



Photos :Dr. Brian Palmer

Born with high palates due to tongue pressure in utero. (floor of the maxillary sinus)



Photos :Dr. Brian Palmer

Ankyloglossia : tongue-tied

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

Releasing the ankylosed tongue is not just for breastfeeding !

From 2017 AAPD annual meeting speaker

Indications for Tongue Tie Surgery

Historically, there was rampant "clipping" of the frenulum & many babies had surgery unnecessarily

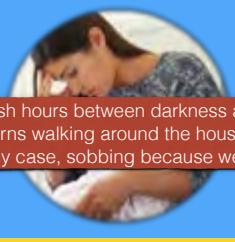
Presently, surgery is typically recommended only when problems are clearly being caused by a tongue tie rather on the assumption that the tongue tie might cause problems in the future

Paula Klaiman, Speech Language Pathologist

Are infants being treated all wrong when signs of reflux develop ?

Infant reflux may NOT be acid reflux

Reflux occurs in healthy infants ***multiple times a day***. As long as your baby is healthy, content and growing well, the reflux is not a cause for concern. ????????



It was those hellish hours between darkness and dawn when my husband and I would take turns walking around the house with her in our arms, praying and, mostly in my case, sobbing because we couldn't console our baby.

What does an infant suffering from reflux have on the mother and family ?

Infant reflux in most instances is NOT be acid reflux

An infant who only sleeps upright in the mothers arms.

An infant who only sleeps upright car carrier or swing

Infant in continuous pain !

An infant who has a hard distended belly after nursing.

An infant who is constantly vomiting after nursing.

Allowing an infant to suffer in pain for 6-18 months and hoping it will then go away ?

Reflux disease is not the same thing as reflux, which many infants are nearly guaranteed to experience.

Infant having air induced reflux symptoms: Aerophagia ?

- Reflux is an exhausting, unrelenting, all consuming condition that causes an otherwise healthy infant to cry inconsolably.
- Aerophagia is excessive swallowing of air. When excessive amounts of air reach the stomach abdominal distention, belching, vomiting and excessive gas may result.
- Aerophagia may occur even if there does not appear to be any clicking sounds

Diastema
Decay
Oral care

Diastema orthodontic

Pain crying FTT

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

We are devastated that no one thought to check this- I've spent my entire maternity leave driving these boys around to specialists and pt and ot etc etc.

Told by pediatrician : Peds diagnosed him as a fussy baby

★Hi! We have seven month old twin boys

★Baby H has strugg… d at… nicu regulating temps and on a feeding tube because he struggl… e n…

★ has always had im… Har… g) He has been treated for reflux from about one month- first on …

★ Then on Prilosec f…

★ He struggles with … elly)- hates tummy time- has seen a neurologist for cong… ep.

★I have been telling… eds… alist to specialist

★After starting solids… g c…

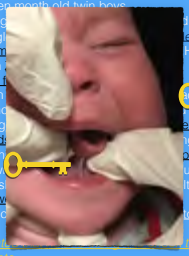
★Peds diagnosed h… pec…

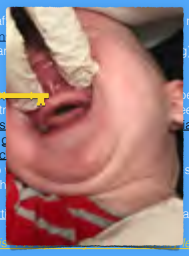
★ I put my foot dow… up … stuck my finger under his tongue in the middle of another s… It th…

★NO ONE EVER sw…

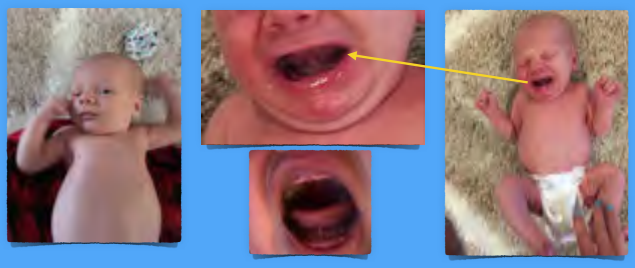
★We see a pediatric… tort… as a tongue tie (picture attached) and a potential lip tie .

★ *We are devastate… th… leave driving these boys around to specialists and pt and ot etc etc.*





Infant having air induced reflux symptoms: Aerophagia ?



Told by pediatrician : All babies have gas !

Infant having reflux symptoms:Aerophagia ?

Aerophagia induced reflux. Not acid reflux

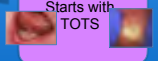
Can only sleep upright and for short periods of time. Crying, pain, morning congestion

Results of clicking allows the infant to swallow amounts of air

AIR GAS

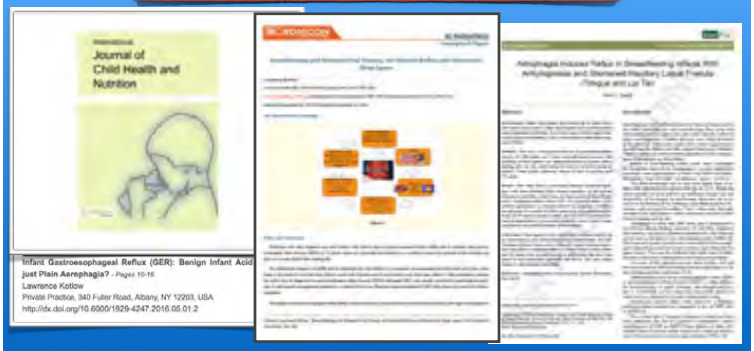
Birth

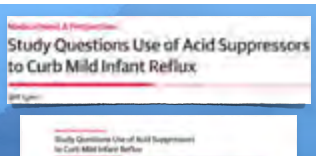
Starts with TOTS



Results in poor latch and seal on the mother's breast with clicking sounds

What about infants taking anti-reflux drugs ?





★GER is a common condition that affects roughly **40% to 65%** of all infants.
★This raises the question : What is the real number of infants have TOTS ???
★It usually begins at approximately 2 to 3 weeks of life and **peaks between 4 to 5** months.
★ In most babies, **GER disappears by about 1 year of age** as the upper digestive tract functionally matures.
★The American Academy of Pediatrics believes it is important for all pediatric health care providers to be able to properly identify and treat children with reflux symptoms, and to **distinguish GER from more worrisome disorders** so as to avoid unnecessary treatments.

★ Although medications like ranitidine (Zantac) or omeprazole (Prilosec) have been frequently used for treatment, studies question their effectiveness. The main function of these medications is to reduce stomach acid. **Multiple studies have failed to show that these medications improve symptoms any better than no medication at all in many infants.**
★ _One particular concern with these medications is **risk of infection.** Stomach acid naturally protects the body from dangerous organisms that can be found in water and food. Reducing stomach acid may increase an infant's risk of these kinds of infections.

Reflux medications aren't recommended for children with uncomplicated reflux. These medications can prevent absorption of calcium and iron, and increase the risk of certain intestinal and respiratory infections.

Pediatric GERD Clinical Practice Guidelines do not recommend these for infants

Study Questions Use of Acid Suppressors to Curb Mild Infant Reflux

★Researchers examined the records of 874,447 healthy children born within the Military Healthcare System (MHS) from 2001 to 2013 who received care within the system for at least two years.

★They found **approximately 10% of the children were prescribed antacids in the first year of life,** including H2-blockers such as ranitidine (Zantac) and famotidine (Pepsid) as well as PPIs such as omeprazole (Prilosec) and pantoprazole (Protonix). A small percentage was prescribed both.

★Children who used PPIs had **a 22% increased likelihood of fracture, while children who used both PPIs and H2-blockers had a 31% increased likelihood of fracture.** Use of H2-blockers was not associated with an immediate increase in fractures, the study found, but there was an increased likelihood of fracture with time.

★ In addition, the number of bone fractures children experienced increased with the number of days they took these medications. The younger a child first began using antacid medications, the higher the fracture risk.
★ T**hose started on antacid medications earlier-under 6 months old-had the most increased fracture risk.**

Prevacid, Nexium or Prilosec USFDA has not approved these drug for children under age one . Studies show they are not effective. Yet the use is skyrocketed in recent years.

Cochrane Database Syst Rev. 2014 Nov 24;(11):CD008550. doi: 10.1002/14651858.CD008550.pub2.
Pharmacological treatment of children with gastro-oesophageal reflux.
Tighe M, Afzal NA, Bevan A, Hayen A, Munro A, Beattie RM.

Pharmacological treatment of infants with reflux symptoms is problematic, as many infants have GOR, and little correlation has been noted between reported symptoms and endoscopic and pH findings

GOR can affect approximately 50% of infants younger than three months old (Nelson 1997). The natural history of GOR in infancy is generally that of a functional, self-limiting condition that improves with age; < 5% of children with vomiting or regurgitation continue to have symptoms after infancy

IVANA BRAVI,* PHILIP WOODLAND,‡ RAVINDER S. GILL,‡ MOHANNAD AL–ZINATY,‡ ALBERT J. BREDENOORD,§ and DANIEL SIFRIM

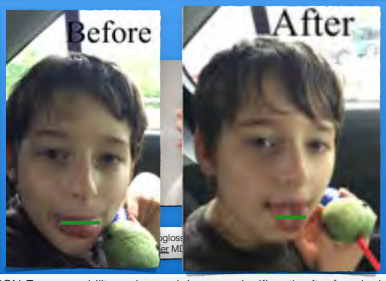
Volume 11, Issue 7, Pages 784–789

Increased Prandial Air Swallowing and Postprandial Gas-Liquid Reflux Among Patients Refractory to Proton Pump Inhibitor Therapy

Some patients with GERD who do not respond to PPI therapy swallow more air at mealtime than those who respond to PPIs and also have more reflux episodes that contain gas

It has been estimated that 10%–40% of patients with GERD complain of reflux

Speech.:no child should have to. "Compensate" to speak clearly



CONCLUSION: Tongue mobility and speech improve significantly after frenuloplasty (ankyloglossia) in children with ankyloglossia who have articulation problems.

Volume: 127 issue: 6, page(s): 539-545
Issue published: December 1, 2002

Speech.:no child should have to. "Compensate" to speak clearly

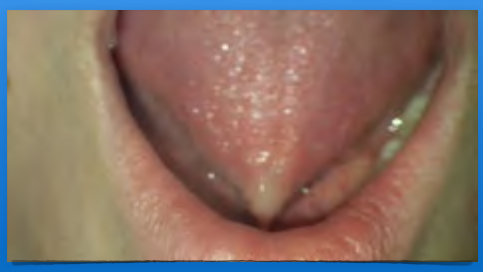
Children can display a wide variability in speech difficulties

- Some children are able to show good adaptability to restrictions and COMPENSATE well and have relatively normal sounding speech.
- Some speech therapists attempt to teach children compensation techniques rather than recommend release of the tethered tongue.

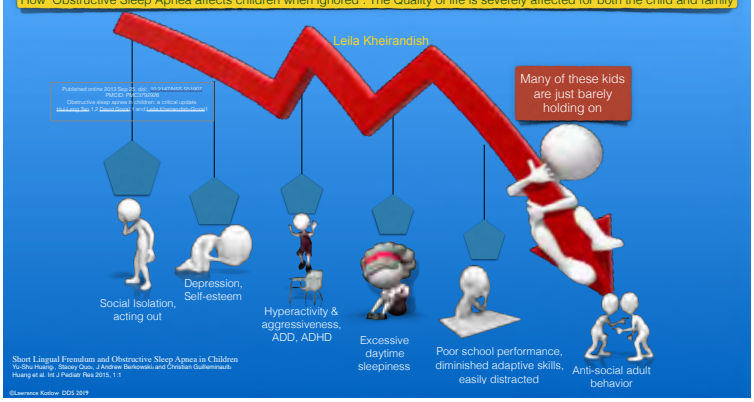
Articulation difficulties related to ties

- Inability to properly elevate the tongue: T, D, N. L. S. Z. R. Th
- During stressful situations, excess salivation, poor articulation inconsistent speech errors can occur.

Long term effects of ignoring the tongue



How Obstructive Sleep Apnea affects children when ignored : The Quality of life is severely affected for both the child and family



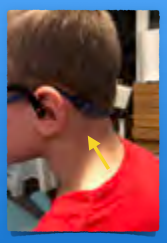
Short Lingual Frenulum and Obstructive Sleep Apnea in Children
Yu-Shu Huang, Stacey Guo, J Andrew Berkowski and Christian Guilleminault.
Huang et al. Int J Pediatr Res 2015, 1:1

Obstructive Sleep Apnea in Children: Implications for the Developing Central Nervous System
David Gozal, M.D Semin Pediatri Neuro 2008 June 15(2): 100-106

Sleep disturbance in children, whether due to poor sleep habits, developmental changes, or as emphasized in this article, the presence of OSA, is accompanied by rather profound behavioral and neurocognitive deficits.

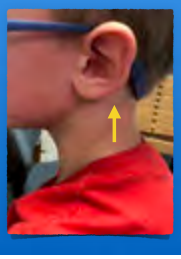
Increased awareness by physicians and parents to sleep-related issues, and early identification and treatment of conditions leading to altered sleep and nocturnal oxygenation should improve psycho-behavioral short-term and long-term outcomes.

Posture and blocked airways

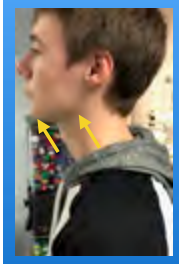


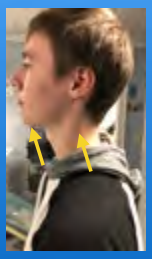
Before surgery: Air block due to tongue position: Neck tilting forward

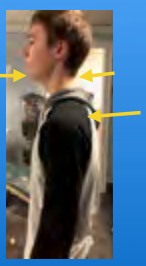
After lingual release. Note the head upright position due to the open airway



Posture and blocked airways





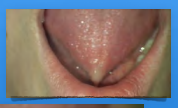


Oral Dysfunction begins at birth

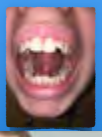
We need to change the idea of *"It's just a tongue-tie "* to a part of *"Oral dysfunction syndrome."*

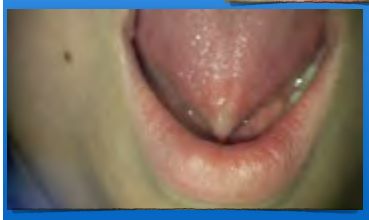
Head & neck postural problems,posture,TMJ,Oral structural development,skeletal development

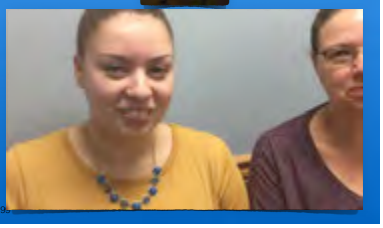
Referred due to initiating Invisalign



6 days PO







The effects of behavior development from airway blockage

"Finding Connor Deegan."

–Valerie Deegan

No sedation,No numbing and No OR

Infants to teens comments

Results of surgical intervention in infants presenting with symptoms, lip-ties and tongue-ties (1000 responses)
Most common symptoms mothers indicate they have experienced

1. *Poor latch 910/1000 (91%)* → *91% improvement*
2. *Slides off of nipple 840/904(90%)* → *93% improvement*
3. *Reflux 723/784 (78%)* → *92% improvement*
4. *Chewing of nipples 854/910 (91%)* → *94% improvement*
5. *Poor weight gain 756/804 (80%)* → *94% improvement*

Why is breastfeeding an important issue in infant development ?

Does the comment repe… merit ? "Treatment and diagnosis of these tethere… ng fad" or worse " he or sh… .)

Why do we see… f TOTS today ?

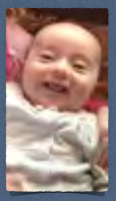
We c… ons.

To become part of the solu… no are left to suffer needlessly!

"Thank you s… rd watching her struggle to nurs… d not fine anyone else to help u… you provide an …!"

6 days post surgery

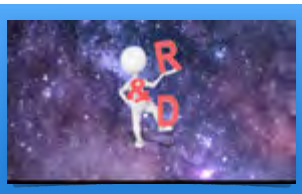
"Exercises are going well and her nursing, gassiness and all related symptoms have also greatly improved. We see her smile a lot more not that she isn't so gassy all the time."



Create an awareness and understanding

There are too many stories of parents suffering needlessly

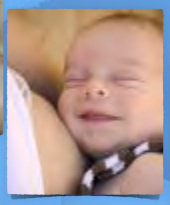
A. The often there is a long painful journey parents are forced to endure due to poor diagnosis, lack of understanding and incomplete care.
B. The medical community needs to develop a better understanding of the emotional trauma mothers, infants and fathers go through when breastfeeding becomes difficult and painful.

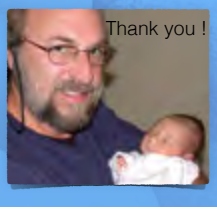


★It is stated that it can take a 17 year lag to change understanding in traditional research.
★This lack of knowledge puts those responsible for enabling new research at a disadvantage.
★A staggering 36,000 randomized controlled trials (RCTs) are published each year, on average, and it typically takes **about 17 years** for findings to reach clinical practice.

1. … and … 2 and … 2 **The answer is 17 years, what is the question: understanding time lags in translational research.** … 2011 Dec; 104(12): 510–520.

We are dealing with a window of opportunity for the mother/infant dyad to bond and successfully breastfeed. Days perhaps weeks…. not months or years



Thank you !