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## Frenum Presentation

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## Commentary

I have been evaluating frenums for 25+ years. This presentation represents but a small portion of my research on the topic. I am hoping this presentation will help educate all who might be interested as to why it is best to do frenotomies on newborns and to do frenectomies on others who did not have frenotomies at birth.

It is falsely assumed that tight frenums go away by themselves and do not have consequences. There is NO MEDICAL BENEFIT to having a tight lingual (under the tongue) or labial (lip side) frenum. There are many major medical and dental consequences that result from tight frenums. I share some of these consequences with you in this presentation.

KEY POINT - Muscle always wins out over bone when there are competing forces.

Slide number (found in bottom corner of each slide)

- 2 There are multiple correct spellings. The spelling of the word is not the most important point of the frenum issue it is the understanding of what a frenum is and how damaging it can be.
- 6 Note how the pull from the lingual frenum is rotating the two small front teeth.
- 7 & 8 These 2 slides are courtesy of Dr. Gregory Notestine. He has authored an article on frenums: The Importance of the Identification of Ankyloglossia as a Cause of Breastfeeding Problems, Journal of Human Lactation 1990; 6(3):113-115.
- 9 Frenotomy was done a couple of days after this picture was taken.
- 10 Lesion on frenum was from teeth cutting into it whenever tongue was extended.
- 14 & 15 Shows difficulty in extending tongue and why it is difficult for some with a tight frenum to lick an ice cream cone.
- 15 Many people have tight frenums and related problems but don't know they have the problem because they have never been told they have a problem. To them, a tight frenum is "normal". Not until the tight frenum has been diagnosed and treated do the people know how great it is to have a tongue that is free to move as it should.
- TEST YOURSELF: Push and hold the tip of your tongue into the inside surface of your lower teeth. Now try to talk and/or eat while holding the tip of your tongue in that position. You will now have a better understanding of what a tight frenum feels like. Would you want to spend the rest of your life with a tied down frenum?
- 18 Note in illustration "A" how the tongue extends out over the "gum pad" (bone of lower jaw) during breastfeeding. The tongue "cushions" the force between the bony pad and the breast. If the tongue cannot extend out over the pad because of a tight frenum, then the force from the bony pad will hit directly into the breast causing pain and possible lacerations.

- 19 Another illustration showing how the habitual position of the tongue is extended out over the gum pad.
- 24 This frenum really needs a frenectomy rather than a frenotomy because of the age of the patient and size of the frenum, but I am using this as an EXAMPLE ONLY as to where the incision would be IF a frenotomy were to be performed.
- 25 Yellow line represents where doctor would "snip" frenum in newborn. Area has minimal nerve endings and blood vessels.

I believe the main reason more doctors do not perform frenotomies is more of a legal issue than a medical reason. A doctor may do 300 frenotomies with beautiful results that very few people hear about. He will then have a case where the baby may move unexpectedly and he may cut into muscle or a blood vessel. This could lead to complications and a possible lawsuit. This one bad case makes worldwide news, gets written up in journals, and then others agree this should not be done (mainly because they do not want to risk a lawsuit).

Some doctors who perform circumcisions on all newborns say doing a frenotomy is "barbaric". This is absurd! I am quite sure some doctors have complications with circumcisions, but don't get sued over it. I blame the fear or reluctance of doing frenotomies on the lawyers more than on the physician's lack of information on frenums.

- 26 This instrument was quite common at one time. The left side was used to elevate the tongue with the frenum in the slot for easy clipping. Right side was used during circumcisions.
- 27 & 28 Slides courtesy of Barbara Wilson-Clay, international lecturer on breastfeeding topics. Infant was not thriving until frenotomy was performed and infant could then breastfeed better.
- 30 32 Pictures are only to show where incision and sutures would be placed IF a frenectomy was to be performed.
- 33 Z-plasty surgery has to be performed on thicker more complicated frenums.
- 34 36 This is actually a healed Z-plasty case. It is presented as an EXAMPLE ONLY to show where incisions and sutures MIGHT be placed.
- 37 This 22 year old was unable to breastfeed at birth because of a tight frenum. For 22 years his mother thought she was an inferior woman because

she was not able to breastfeed her son. How sad it is that just a quick clip of the frenum could have made this mother feel like a real woman and this young adult would not have had to have this procedure done!

- 44 Consequences can be quite significant. These are but a few cases of the consequences of not doing a frenotomy at birth.
- 45 Case 1 I have followed this case since 1992.
- 47 Demonstrates a tight frenum. A tight frenum restricts the movement of the tongue. A tight lingual frenum WILL NEARLY ALWAYS CAUSE A TONGUE THRUST forcing the tongue to come forward between the teeth during a swallow, instead of going up and back across the roof of the mouth.

TEST YOURSELF to see if you have a correct swallow: Place the tip of your tongue at a point just behind the inside of your upper front teeth (there is a slight bump there called a papilla). Concentrate on what your tongue is about to do. Now swallow. The tip of your tongue should remain basically stationary at that same spot and the rest of the tongue should push up into the roof of your mouth with little or no force on any of your teeth. This correct swallow is learned during breastfeeding (as illustrated in the Escott illustration – slide #18). If you swallow like this, you probably have a nice alignment of your teeth.

If the tip of your tongue does not stay stationary, and moves between, or places forces on any of your teeth, you have what I call an ABNORMAL SWALLOWING PATTERN. The force of the tongue will determine where your teeth will position themselves. An abnormal swallow is usually the result of a tight lingual frenum, bottle feeding, pacifier use, noxious infant habits like EXCESSIVE digit sucking, large tongues (macroglossia), enlarged tonsils, and/or obstructed airway. There is an extremely high failure rate (relapse) after orthodontics because this abnormal swallowing pattern is not addressed before treatment.

- 48 This is an open bite. It is a result of the patient's "tongue thrust". This thrust is the direct result of her tight frenum. This open bite will not close by itself as long as the patient has a tight frenum and tongue thrust. If untreated, this would be an orthodontic failure in the future because the force of the tongue would open the bite up again (I have many post orthodontic models to prove this point).
- 49 This is an anterior tongue thrust. The force of the tongue is influencing the position of the teeth. Some people have posterior or lateral tongue thrusts. These types of thrusts can cause a separation and sometimes loosening of the

posterior (back) teeth.

- 50 Patient had a frenectomy at age 4 which allowed her to elevate her tongue higher. Based on the situation a second frenectomy might occasionally be necessary in the future if total release is not accomplished by the first procedure.
- 51 At 8 years of age, the patient still had a tongue thrust so speech therapy by a speech therapist who understood myofunctional therapy was recommended to retrain patient to swallow properly. Note diastema (gap) between upper front teeth due to thick labial frenum. This gap will never close by itself as long as this frenum is present. If the gap is closed by orthodontics (braces) without removing the frenum, there is a very high risk the space will re-occur once the braces are removed.
- 52 Surgery by the oral surgeon was performed to remove labial frenum down to the bone.
- 54 Diastema and open bite are closing by themselves as a result of the lingual and labial frenectomies and the help of a speech therapist.
- 55 At age 10, open bite and diastema are closed. She has had no orthodontics to this point.. Orthodontics was recommended to slightly improve the alignment of the teeth, but treatment is so much easier at this time plus results will be stable.
- 56 A pretty smile at age 10 prior to orthodontics. She would NOT have this nice smile IF she had not had her frenums clipped!
- 57 Patient in braces just putting on finishing touches that will be stable.
- 59 Patient severely tongue-tied.
- 61 Previous patient would have had a similar open bite as an adult IF her frenum had not been clipped.
- 62 His tongue thrust that has caused this open bite. KEY POINT Note bubbles of saliva coming FORWARD between his teeth while swallowing. During a NORMAL swallow, saliva moves BACKWARDS toward the throat.
- 64 Force of his tongue thrust was so strong that it actually loosened his front tooth and it had to be removed. Another dentist eventually removed his other 3

lower front teeth and a 6-unit bridge was needed at a cost of around \$4000. The loose tooth was not the patient's primary concern however. His main challenge was that his girl friend was upset at him because he could not "French kiss" her (because he could not extend his tongue). All these problems could have been avoided if only the physician had clipped his frenum at birth, or at least when he was young.

- KEY POINT This would be a very difficult frenotomy case to do at birth because of the tightness of the frenum. It is even a very difficult case to do as an adult. This is a rare case where a frenotomy might not be done because of the degree of difficulty, but it does demonstrate the consequences of not addressing the issue at some point in time
- 66 Adult who had suffered gastric distress, bloating and gas build up with resultant discomfort most of her life. She had been on medications most of her life because of these problems. Although I could not make any guarantees, I told her I thought having surgery on her frenum MIGHT help resolve some of her gastric distress.
- 67 She was significantly tongue-tied.
- 68 Tongue thrust and open bite as a result of her tight frenum. She also had related periodontal problems because of the tight frenum. Because of her open bite occlusal forces were not distributed to all teeth as they should be. She did not have proper cuspid rise or anterior guidance placing destructive lateral forces on the posterior teeth (another presentation).
- 69 Z-plasty was performed by an oral surgeon. Note how high she can now raise the tip of her tongue. Also note loss of some posterior teeth due to periodontal challenges.
- 70 After her surgery she was able to get off all medications that she had taken most of her life. If only the physician who delivered her, or former dentists she had seen, had known and cared enough to just clip her frenum, she would not have suffered all the consequences she has faced!
- 72 Case 4 A gentleman in his 60s WHO HAS NOT OUTGROWN HIS TIGHT FRENUM. Frenums RARELY resolve themselves. Not treating a tight frenum because it might get torn in an accident is NOT a medically acceptable reason for not addressing the issue. This gentleman has a possible life threatening medical condition called sleep apnea (see other presentation already on this site addressing sleep apnea).

- 77 Although I do not have scientific proof, I strongly believe, based on my many years of evaluating frenums and studying sleep apnea, there is a direct link between his tight frenum, his large tongue, and sleep apnea. If his frenum had been clipped at birth, would he have sleep apnea today??????
- 78 Case 5 Slides courtesy of Catherine Watson Genna. Sister and brother were both breastfed. Girl had no problem latching on. Boy was traumatizing to breast but despite difficulty, mother continued to breastfed.
- 83 High palates and narrow dental arches can contribute to snoring and bedwetting (to be covered in another presentation). Both problems resolved themselves once treatment was finished.
- KEY POINT Infants who are breastfed have a better chance of having a nice dental occlusion (bite) than do infants who are bottle-fed (read articles on this website). This case demonstrates an exception to that statement. The frenum negated the benefit of breastfeeding and a malocclusion (bad bite) developed.
- 88 There are also consequences of labial (on the lip side) frenums. The consequences are usually more esthetic in nature but they can impact breastfeeding as well. They can also lead to orthodontic failures if not addressed before orthodontics. It is best to address them as soon as the oral surgeon and parent feel the patient would be able to tolerate the procedure. This procedure is not routinely done on a newborn because more muscle tissue is involved, but in rare cases, it might need to be addressed if it interferes with breastfeeding. The labial frenum can interfere with breastfeeding by being so tight that the upper lip cannot lift up or flange high enough to make a good seal around the breast while the infant is trying to breastfeed.
- KEY POINT: Once it is determined that the frenum is causing a diastema in the permanent teeth, it is best to go ahead and have the frenum surgically removed down to the bone and between the teeth as soon as possible. Good results will usually not be achieved by merely snipping the frenum superficially
- 89 Note how gap is closing once frenum has been totally removed.
- 96 This is an example of a labial frenum that probably interfered with breastfeeding because it did not allow the upper lip to raise and seal around the breast.
- 97 101 Just a few examples of labial frenums that did not resolve themselves.

This is also true of lingual frenums. ANYONE who states most frenums resolve or go away by themselves has been misinformed!!!!!!

109 - In conclusion: The eyes can only see what the brain has been taught. Very little is taught about frenums in medical or dental school today.

I hope this presentation has helped you better understand the subject of frenums and to appreciate the possible consequences of not addressing the problems they can cause.

You have my permission to copy and use this presentation to help educate others.

My research is my gift to society. I just hope many others can benefit from my sharing it with you!

For Better Health! Brian Palmer, DDS September, 2001