



What is a Frenotomy?

A frenotomy or frenectomy is a procedure used to correct a congenital condition in which the lingual (tongue) or labial (upper lip) frenulum is too tight, causing restrictions in movement that can cause significant difficulty with breastfeeding, and in some instances, other health problems like dental decay or spacing, speech difficulties and digestive issues. When it affects the lingual frenulum, this condition is commonly called a tongue tie (the medical term is ankyloglossia).

Approximately 5% of the population has this condition, so your lactation consultant or doctor may feel that a procedure is warranted to improve symptoms.

How to prepare for the procedure

The use of Tylenol 30-60 minutes prior to the procedure can help to minimize discomfort.

Tylenol - Dosage: Using the dropper in the manufacturer's packaging. This can be given every 6-8 hours after the procedure as needed. The concentration of Tylenol should be the 160mg/5mL dosage. Some places may sell a concentrated form at 80mg/0.8mL - *this formulation is not recommended.*

- 6-11 pounds - 1.25mL
- 12-17 pounds - 2.5mL
- 18-23 pounds - 3.75mL
- 24-35 pounds - 5mL

For children 6 months of age or older, you may use ibuprofen instead (or with Tylenol). Please follow the dosing instructions on the package.

You may use whatever works for your family. This includes homeopathic remedies like arnica or Rescue Remedy, or nothing at all. Because numbing medicine is used during the procedure, and because the laser itself has some analgesic properties, not everyone needs a medication beforehand.

What to Expect

In general, the procedure is very well-tolerated by children. We take every measure to ensure that pain and stress during the procedure is minimized.

1. General anesthesia is not utilized in the office and is almost never needed to perform the procedure.
2. Due to laser safety regulations, parents are not allowed in the treatment room during the procedure. Our team members will carry your baby to and from the room, and the approximate time away from you is about 5 minutes. The actual time of lasering is 15-30 seconds.
3. For babies under the age of 12 months, a topical numbing cream is applied to the area(s) that will be treated. This medication works very quickly.
4. For children 12 months of age or older, numbing cream is applied. In some instances, an injected local anesthetic may be applied for additional anesthesia.
5. Crying and fussing are common during and after the procedure. In older children, we have the option of giving an oral dose of Versed (midazolam), which is a relaxing medicine similar to Valium. It is very safe in children and begins working in 20-30 minutes. It helps alleviate separation anxiety in addition to providing an amnesia-like effect during the procedure. It lasts about 90-120 minutes.
6. You may breastfeed, bottle-feed, or soothe your baby in any manner you'd like following the procedure. You may stay as long as necessary.

There are two important concepts to understand about oral wounds:

1. Any open oral wound likes to contract towards the center of that wound as it is healing (hence the need to keep it open).
2. If you have two raw surfaces in the mouth in close proximity, they will reattach.

We feel that post-procedure stretches are key to getting an optimal result. These stretches are NOT meant to be forceful or prolonged. It's best to be quick and precise with your movements. We feel that getting an affordable LED headlight (like a camping headlight) allows you to get the best results.

You may use Tylenol, Ibuprofen (if 6 months of age or older), arnica, Rescue Remedy or other measures to help with pain control. Organic coconut oil, which can be safely used in the mouth following the procedure can be used during your stretching exercises.

The main risk of a frenotomy is that the mouth heals so quickly that it may prematurely reattach at either the tongue site or the lip site, causing a new limitation in mobility and the persistence or return of symptoms. The



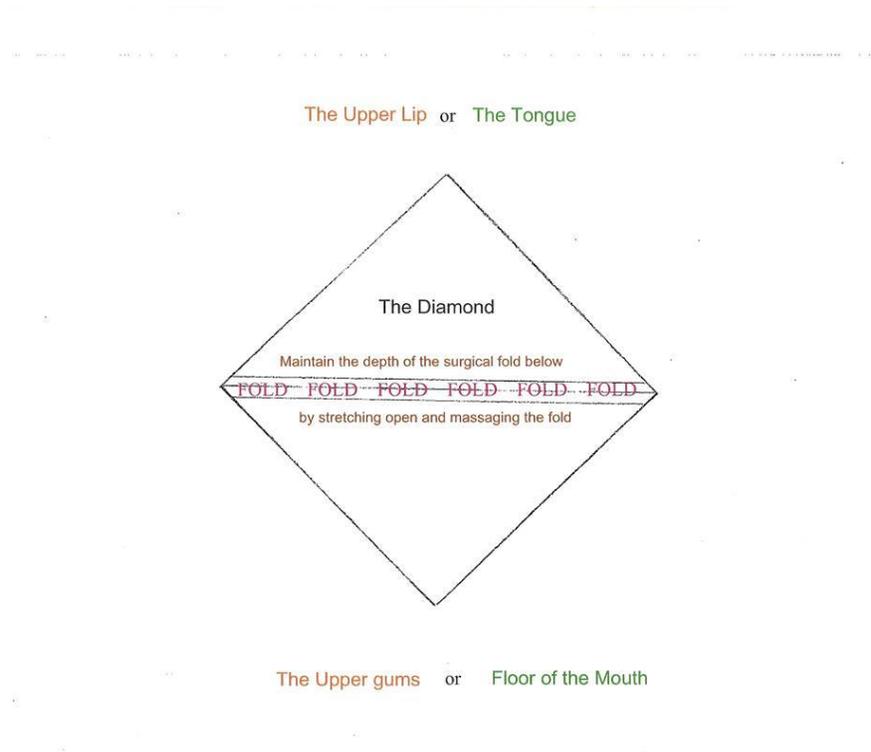
exercises demonstrated below are best done with the baby placed in your lap (or lying on a bed) with the feet going away from you.

How to approach your child when doing stretches:

Stretches

A small amount of spotting or bleeding is common after the procedure, especially in the first few days. Because a laser is being used, bleeding is minimized. Wash your hands well prior to your stretches (gloves aren't necessary). Apply a small amount of coconut oil to your finger prior to your stretches if desired.

TIMING: DO ONE STRETCH ON THE EVENING OF SURGERY. THEN, SKIP AHEAD TO THE NEXT MORNING (KEEP IN MIND THAT THIS IS THE ONLY TIME THAT YOU SHOULD SKIP THE OVERNIGHT STRETCH). My recommendation is that stretches be done 6x/day for the first 3 weeks, and then spending the 4th week quickly tapering from 6 to 5 to 4 to 3 to 2 to 1 per day before quitting completely at the end of the 4th week. I find it's easiest for parents to do 5 of the stretches during their waking hours and one of those stretches in the middle of the night, taking care to not go more than 6 hours between stretches. diaper changes are a good time to do the exercises.



Courtesy of Dr. Shervin Yazdi. The wounds created are typically diamond-shaped. This diamond has 3 dimensions - height, width and depth. This is especially important for the tongue wound, which is much deeper than the lip wound.

Maintaining these 3 dimensions is the key to successful healing.

The Upper Lip is the easier of the 2 sites to stretch. If you must stretch both sites, I recommend that you start with the lip. Typically, babies don't like either of the stretches and may cry, so starting with the lip allows you to get under the tongue

easier once the baby starts to cry. For the upper lip, simply place your finger under the lip and move it up as high as it will go (until it bumps into resistance). Then gently sweep from side to side for 1-2 seconds. Remember, the main goal of this procedure is to insert your finger between the raw, opposing surfaces of the lip and the gum so they can't stick together.

The Tongue should be your next area to stretch. Insert both index fingers into the mouth (insert one in the mouth and go towards the cheek to stretch out the mouth, making room for your other index finger). Then use both index fingers to dive under the tongue and pick it up, towards the roof of baby's mouth. The tongue needs three separate stretching motions:

1. Once you are under the tongue, try to pick the tongue up as high as it will go (towards the roof of the baby's mouth). Hold it there for 1-2 seconds and then relax. The goal is to completely unfold the diamond so that it's almost flat in orientation (remember, the fold of the diamond across the middle is the first place it will reattach). The key to the success of this stretch is that your fingers are placed deep enough prior to lifting the tongue up. Picture how a forklift works: If you don't get the forklift tynes completely under the pallet, lifting the pallet up will cause it to tip backwards. If you get the tynes completely under the pallet, you can lift the pallet straight up. I recommend pushing your index fingers together to prevent them from separating, push towards the diamond and then make sure the tongue goes up and not backwards. If your fingers separate and go on either side of the diamond, your lifting pressure will be directed at the sides of the tongue and not at the diamond itself.
2. With one finger propping up the tongue, place your other finger in the middle of the diamond and turn your finger sideways and use a lifting motion from front to back to try and keep the diamond as deep as possible. Use a lifting motion when you sweep through the diamond, trying to separate the horizontal fold across that diamond. Make sure your finger starts within the diamond when doing this stretch.
3. Massage on either side of the diamond (outside the diamond) to loosen up the musculature of the remainder of the floor of mouth. You can use more pressure when doing these stretches because you aren't in the wound at this point.

Improper tongue stretch technique

This is an example of an improper stretch. Do you see how the fingers are away from the diamond? As these fingers lift up the tongue, too much of that force is directed at the sides of the tongue, and the middle portion is still pinned down. This will lead to reattachment.

Focus on getting your index fingers mentally glued together - this forces you to stay in the middle, right on top of the diamond. As you push into the diamond and then lift the tongue up, the top half of the diamond will ideally come away from the bottom half of the diamond. It is attention to separating the fold across the diamond that results in a successful post-operative stretching regimen.



Sucking Exercises

It's important to remember that you need to show your child that not everything that you are going to do to the mouth is associated with pain. Additionally, babies can have disorganized or weak sucking patterns that can benefit from exercises. The following exercises are simple and can be done to improve suck quality. I would start these on the 3rd day following the procedure, and spend 30-45 seconds on each exercise prior to the wound stretches (no need to do these sucking exercises during your nighttime stretch).

1. Slowly rub the lower gumline from side to side and your baby's tongue will follow your finger. This will help strengthen the lateral movements of the tongue.
2. Let your child suck on your finger and do a tug-of-war, slowly trying to pull your finger out while they try to suck it back in. This strengthens the tongue itself. This can also be done with a pacifier.
3. Let your child suck your finger and apply gentle pressure to the palate, and then roll your finger over and gently press down on the tongue and stroke the middle of the tongue. Alternatively, once the baby starts to suck on your finger, just press down with the back of your nail into the tongue. This usually interrupts the sucking motion while the baby pushes back against you.
4. With one index finger inside the baby's cheek, use your thumb outside the cheek to massage the cheeks on either side to help lessen the tension.

Starting several days after the procedure, the wound(s) will look white and/or yellow and will look very similar to pus.

This is a completely normal inflammatory response. If you think an infection exists, give our office a call.

Tongue Stretching Exercises

1. After a tongue tie release (revision) you must also provide tongue strengthening exercises. Even though the new release and stretching which you were taught to do will insure the best possible freedom for mobility, there may still be a problem of muscle coordination and strength.
2. Approximately 3 month prior to birth, your infant was sucking and using his/her tongue in utero. So after birth there was already 3 months of developmentally restricted tongue muscle movement. Therefore we need to train the tongue to move and exercise to allow for the proper 3-dimensional movement of the tongue muscles. We will encourage this as PLAY TIME. PLAY TIME should occur 4 times a day for 6 weeks with the goals of encouraging your baby to extend and point his or her tongue, creating a central groove of the tongue to develop side grasping or control of your nipple, and developing right and left lateral movements which may have been inhibited by a restrictive tongue tie. Remember, these are considered PLAY TIME exercises and are performed at a different time than the stretching exercises.



3. **Tongue Pointing (Extension):** Place finger pad on the bottom lip and gently tap and stroke it down towards the lower jaw until your baby responds and then stops his response. Then, pause for several seconds and repeat this same stroking of the lower lip 2 more times for this part of this exercise.
4. **Goal:** To encourage the tongue to extend out of the mouth and point to encourage the extension muscles of the tongue to strengthen. *Note: This is an inborn infant reflex that becomes habit by 4-6 months of age, but is impeded when there is a tongue tie.*
5. **Side to Side Motion:** Place your finger pad on the top surface of the front gum area of the lower jaw and gently slide your finger tip from the middle (where the bottom front teeth will eventually be) to the right back molar area then slowly back to the starting point in the midline (repeat this same side 3 times and then slide to the left side and repeat for 3 stroke). This will encourage the tongue to move laterally as the tongue freedom improves and strengthens as you continue this exercise. Your baby may turn and root instead of independent tongue motion. This is fine as it is a new muscle movement that your baby will naturally learn to accomplish. *This also is a natural tongue reflex that becomes habit between ages 6-9 months but is hindered when there is a tongue tie.* Once your baby can easily follow your finger to the stimulated side, you may then stroke past the midline and encourage full right and left motion. There is no need to rush this exercise. It may take a few weeks for your baby to respond to the specific side stimulus.
6. **Tongue Grooving:** This will stimulate the sides of the tongue to contract and rise up to form a central groove to help latch onto the nipple and allow for a path for the breast milk to flow towards the back of the throat for swallowing. This is accomplished by placing your finger with finger pad towards the roof of the mouth and allowing your baby to suck on your finger. You can encourage strength by playing a gentle tug-of-war with your finger and the sucking of the tongue. This will strengthen over time.
7. **Flange Exercise:** Using the same position as above, leave your finger in place (up to the first knuckle) at the roof of the mouth right behind where the front teeth will be. As your baby sucks, gently free the curled under lip with your other free hand and curl the lip up and out with your finger pad.

Call our office for any of the following:

- Uncontrolled bleeding
- Refusal to nurse or take a bottle
- Fever > 101.5