



Ankyloglossia: When Frenectomy Is the Right Choice

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*“Out of some little thing, too free a tongue can create an outrageous wrangle.”
Euripides in Andromache (c. 426 B.C.)*

Ankyloglossia, or tongue-tie, occurs on average in about 4% to 5% of babies in most newborn series. Some cases are mild, others severe (Figure 1). It is not life-threatening; it is not associated with any severe sequelae; and it does not cause any cosmetic deformity outwardly in the child.

Yet, it is a newborn problem that every pediatrician needs to be attuned to and know how to manage appropriately.

IMPORTANCE OF BREAST-FEEDING

One of our main goals in the postpartum period is to encourage breast-feeding by the mother. Breast-feeding provides major benefits to the infant, such as reducing rates of severe infections, asthma, obesity, and overall health status during the first years of life. If that will not convince the mother, I suggest we explain that several studies indicate that breast-feeding probably reduces her risk for premenopausal breast cancer by 10% to 60%.¹⁻⁴

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Figure 1. Ankyloglossia in 1-month-old infant. Note the thickened frenulum.
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But breast-feeding during those first 10 days postpartum, for a new mother already fatigued from labor and delivery, can be one of the most anxious and insecure times of her life. During those initial feedings in the first 2 days, most newborns quickly fall asleep much of the time while nursing. So of course the mother thinks, “He is not getting enough.” To that, add the pain mothers often experience when the baby latches on every 2 to 3 hours over the next 48 to 72 hours. And forget about sleep.

Consequently, internal fortitude, maternal love and instinct, and family and professional reassurance are often

necessary for the mother to continue down this challenging, uncertain road. The bottle of formula sure looks easy and painless for her. Once the mother successfully endures the 8- to 10-day postpartum breast-feeding milestone, newborn feeding anxiety dissipates tremendously for her. Recently, I even observed this phenomenon in my own two intelligent, confident daughters, each of whom breastfed their newborns, despite experiencing much pain and fatigue. Their newborn feeding angst was palpable. But not every mother has access 24/7 to a pediatrician (Dad) or a nurse (Mom).

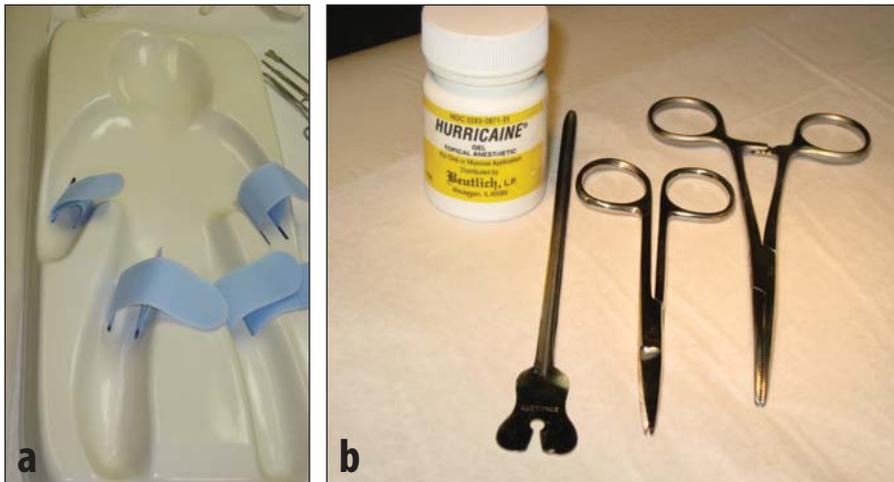


Figure 2. Papoose (a), and instruments and topical anesthesia gel (b).
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Figure 3. Ankyloglossia in a 3-week-old infant.
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AFFECT OF TONGUE-TIED INFANTS

However, when we're talking about nursing by the tongue-tied infant, the pain experienced for even the most dedicated mother has been shown to be so overwhelming during the first 1 to 2 weeks that breast-feeding is discontinued in nearly three times as many babies when compared with those without the condition.⁵

Most of the literature in the 1980s and 1990s concerning management of ankyloglossia has been anecdotal and published in lactation or ear, nose, and throat journals.

For example, in the current literature, using ultrasound, Geddes and colleagues examined the sucking mechanism of 24 mother–infant dyads before and after frenectomy. The researchers observed that after frenectomy, milk transfer and latching on was improved for the infants; and in the mothers, the pain of nursing was diminished.⁶

More recently, Buryk and colleagues undertook a single blind, sham-surgery controlled trial in 58 infants who were referred for their nursing difficulties.⁷ The mean age of the infants was 6 days. The frenectomy group of mothers experienced twice as

much improvement in pain compared with the sham-surgery group. At the same 2-week evaluation visit, all but one of the sham-surgery mothers (27 of 28) requested frenectomy for their babies as part of the protocol's rescue remedies for breast pain.

PERFORMING A FRENECTOMY

I recommend performing the procedure in any newborn whose frenulum attaches within one-half centimeter or more of the tip of the tongue, whether or not they are having difficulty breastfeeding. I estimate that this comprises about 2% of the population.

The procedure is relatively simple as far as outpatient pediatric procedures go. One will need the following (Figures 2a and 2b):

1. Papoose board;
2. Tongue elevator;
3. Curved Kelly clamp;
4. Band-Aid scissors;
5. Hurricane gel for topical anesthesia (and sterile cotton swab).

First, obtain an informed consent signature explaining the risks (slight bleeding) and benefits (see Discussion), then strap the infant into the Papoose, similar to a circumcision.

One usually needs to use a tongue blade twisted sideways to keep the mouth open — usually held open by your assistant (Figure 3), yet some babies will cry and open the mouth continuously while in the restraint. Your assistant will need to stabilize the head as well. Use the tongue elevator to slip the tongue upward gently and fully, exposing the membranous frenulum.

With the cotton swab, apply a small dollop of Hurricane gel to a 1-cm area of the mid anterior frenulum. (Make certain he has no family history of glucose 6 phosphate [G6PD] deficiency, which can be a potential problem with topical benzocaine anesthetics.)

After 20 to 30 seconds, use the curved Kelly forceps to clamp and crush about three-quarters of a centimeter of the thin membranous frenulum horizontally midway between the floor of the mouth and the inferior aspect of the tongue. (Some may proceed directly to the next step instead. But clamping reduces the minimal post-operative bleeding, which can be scary for the parents.) Hold the clamp in place for 1.5 to 2 minutes. Meanwhile, offer the baby a sugar nipple or pacifier. With the small scissors, clip the crushed frenulum segment to



Figure 4. Before (a) and after (b) frenectomy. Note the slight bleeding.
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Figure 5. An 8-year-old male with ankyloglossia who is unhappy with the cosmetic appearance.
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about three-quarters of a centimeter. You are finished (Figures 4a and 4b).

Offer the baby back to the mother for a feeding. She will usually immediately notice the improved feeding mechanics of the baby. And warn her that the small clipped area may ooze some blood for about an hour, similar to the bleeding immediately noted after the loss of a baby tooth.

DISCUSSION

The reader may have noticed that I did not exclude the bottle-fed baby in my criteria for surgical indication. I am looking at this problem over the long run. Although ankyloglossia is not associated with speech impediments or difficulties, most children and adolescents inevitably

will request or need frenectomy (Figure 5), either when they receive orthodontic appliances, become self-conscious about their inability to stick out their tongue, or when their school peers torment them.

It would be much less expensive, totally non-memorable, and much less painful to perform the procedure in the newborn than it would be in an adolescent. As Euripides postulated: for teenagers, to “free a tongue can create an outrageous wrangle.” ■

CPT code – 40819

Reimbursement range (including Medicaid) = \$200 to \$277

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