



Section on Breastfeeding

Breastfeeding: Best for Baby and Mother

INSIDE THIS ISSUE:

Congenital Tongue-Tie and Its Impact on Breastfeeding

Pediatricians Needed to Make National Breastfeeding Awareness Campaign Successful

The California Perinatal Quality Care Collaborative

Chapter Breastfeeding Coordinator Reports from California, Florida and Indiana

Join the Section on Breastfeeding



CHECK OUT THE AAP BREASTFEEDING WEB PAGES FOR:

*VIDEO ON TONGUE-TIE

*MORE INFORMATION ABOUT THE NATIONAL BREASTFEEDING AWARENESS CAMPAIGN

*VIDEO ON INFANT POSITIONING AND ATTACHMENT AT BREAST

CONGENITAL TONGUE-TIE AND ITS IMPACT ON BREASTFEEDING

By Elizabeth Coryllos, MD, MSs, FAAP, FACS, FRCSc, IBCLC
Catherine Watson Genna, BS, IBCLC
Alexander C. Salloum, MD, MA

Introduction

Many of today's practicing physicians were taught that treatment of tongue-tie, (ankyloglossia) is an outdated concept - a relic of times past. Among breastfeeding specialists tongue-tie has emerged as a recognized cause of breastfeeding difficulties - and a very easily corrected one.

During the last several decades of predominant bottle-feeding, tongue-tie was relegated to the status of a "non-problem" because of the lack of significant impact upon bottle feeding behaviors. The goal of this article is to alert pediatricians to the po-

tential link between tongue-tie and breastfeeding problems in order to expedite intervention in symptomatic cases.

Background Information

Tongue-tie (ankyloglossia, tight frenulum) is a condition in which the bottom of the tongue is tethered to the floor of the mouth by a membrane (frenulum) so that the tongue's range of motion is unduly restricted. This may result in various oral development, feeding, speech, swallowing, and associated problems. Genetic factors are suspected, as tongue-tie is frequently familial. Tongue-ties can be divided into

four types, according to how close to the tip of the tongue the leading edge of the frenulum is attached:

Type 1 is the attachment of the frenulum to the tip of the tongue, usually in front of the alveolar ridge in the lower lip sulcus.

Type 2 is two to four mm behind the tongue tip and attaches on or just behind the alveolar ridge.

Type 3 tongue-tie is the attachment to the mid-tongue and the [continued on p 2]

PEDIATRICIANS NEEDED TO MAKE NATIONAL BREASTFEEDING AWARENESS CAMPAIGN SUCCESSFUL

By Lori Feldman-Winter, MD, FAAP

For the second time in U.S. history, a national breastfeeding campaign has been launched.

The goal of the National Breastfeeding Awareness Campaign is to encourage mothers to commit to exclusive breastfeeding for the first 6 months of their child's life in order to reduce morbidity and mortality.

Contemporary science has demonstrated unequivocally an increased disease burden in children who were not breastfed, with maximal benefit occurring in those who were exclusively breastfed for the first 6 months of life. Epidemiological data, however, demonstrate that exclusive breastfeeding rates have remained very low, despite the rise in overall breastfeeding

(combination of breastfeeding plus formula feeding).

Thus, while almost 70% of American mothers initiated breastfeeding in 2001, less than half initiated exclusive breastfeeding, and only 17.42% were exclusively breastfeeding at 6 months.

[continued on p 7]

The American Academy of Pediatrics (AAP) offers the *Breastfeeding: Best for Baby and Mother* newsletter as a member benefit of the AAP Section on Breastfeeding. Information about the AAP Breastfeeding Promotion in Physicians' Office Practices (BPPOP-Phase II) program also is included. The newsletter is intended as a forum for sharing information about breastfeeding and AAP breastfeeding initiatives to facilitate networking among AAP members. The AAP provides this newsletter through its Department of Community Pediatrics Division of Community Health Services.

Comments and questions are welcome and can be directed to:

American Academy of Pediatrics
Division of Community Health Services
141 Northwest Point Blvd
Elk Grove Village, IL 60007-1098
Phone: 800/433-9016, ext 7821
Fax: 847/434-8000
E-mail: lactation@aap.org
Web site: www.aap.org

AAP Staff

Betty Crase, IBCLC, RLC, *Manager*
Cyndy Rouse, *Division Assistant*
Thomas F. Tonniges, MD, *Director*, Department of Community Pediatrics

Newsletter Editor

Nancy Powers, MD
Chairperson, Communications Committee
AAP Section on Breastfeeding
AAP Chapter Breastfeeding Coordinator, Kansas

Electronic mailing lists are available for AAP Chapter Breastfeeding Coordinators, members of the BPPOP-Phase II program, and members of the AAP Section on Breastfeeding. Contact program staff for information regarding participation.

The recommendations listed in this newsletter and in the mentioned publications do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate. This newsletter and the materials mentioned within this newsletter discuss titles published by organizations other than the American Academy of Pediatrics. Statements and opinions expressed in these publications are those of the authors and not necessarily those of the American Academy of Pediatrics.

Any part of this newsletter may be reproduced for noncommercial educational purposes.

© 2004 American Academy of Pediatrics

CONGENITAL TONGUE-TIE [CONTINUED FROM P 1]



Classic

Classic heart shaped tongue caused by restricted central tongue tip elevation. This presentation is actually sometimes less symptomatic than the tighter, shorter frenula that present as flattened (simple) or bunched tongue.



Simple

middle of the floor of the mouth and is usually tighter and less elastic.

Type 4 is essentially against the base of the tongue, and is thick, shiny and very inelastic.

Types 1 and 2, considered "classical" tongue-tie, are the most common and obvious tongue-ties, and probably account for 75% of incidence. Types 3 and 4 are less common, and since they are more difficult to visualize are the most likely to go untreated.

Type 4 is most likely to cause difficulty with bolus handling and swallowing, resulting in more significant symptoms for mother and infant (see section on Diagnostic Assessment).



Types 3 and 4 may require a digital exam

Oral-motor Movements That Differ Between Bottle and Breastfeeding

An infant can obtain milk from a bottle without the wide gape and consistent suction needed for a good breast latch. If the tongue-tied infant cannot maintain the tongue over the lower gum during sucking, the "phasic bite reflex" (chewing) is triggered.²⁴ This chewing motion is sufficient to transfer milk from the bottle, but is clearly problematic at breast. Bottle feeding allows milk to drip into the mouth without effort, thus requiring less tongue muscle effort (such as tongue grooving, cupping and depression) than needed for breastfeeding (Hartman, P, oral communication, 2003). Breastfeeding requires well-defined peristalsis from the front to the back of the tongue as well as tongue-palate synchronization. Some tongue-tied infants cannot even manage a bottle.

Diagnostic Assessment

Physical examination and observation of breastfeeding should be conducted, with particular attention to the following items:

- Assessment of range of motion of the tongue should include the degree of extension of the tongue beyond the lower dental ridge and lip,¹³ elevation to palate with mouth wide open,^{10,13} and transverse movement from one corner of the lips to the other without twisting the tongue. Elevation seems to be the most important tongue movement for breastfeeding and should be weighted most heavily in the assessment.^{8,20,25}
- Thorough evaluation of adequacy of latch and effectiveness of milk transfer are important. The amount and rate of milk transfer from the breast can be determined by test-weighing

[continued on p 3]

CONGENITAL TONGUE-TIE [CONTINUED FROM P 2]

Box A

Presentation of Tongue-tie

+++++

The presentation of symptomatic tongue-tie may vary widely, including symptoms and signs in both infant and mother.

Maternal presentation is commonly characterized by:

- nipple pain and/or erosions
- painful breasts
- low milk supply
- plugged ducts
- mastitis
- frustration, disappointment, and discouragement with breastfeeding
- untimely weaning

Infant symptoms and signs include:

- poor latch and suck
- clicking sound while nursing (poor suction)
- ineffective milk transfer
- inadequate weight gain or weight loss
- irritability or colic
- fussiness and frequent arching away from the breast
- fatigue within one to two minutes of beginning to nurse
- difficulty establishing suction to maintain a deep grasp on the breast
- gradual sliding off the breast
- "chewing" of the nipple
- falling asleep at the breast having taken less than an optimal feed, as proven by "test weight" on a digital scale (experience of authors)



Bunched tongue-tie



Rollunder tongue-tie

the infant with an appropriate digital scale and standardized protocol. (See Box B.)

- Evaluate the efficiency of bolus handling (ability to hold milk on the grooved tongue for a controlled swallow that is well coordinated with breathing).^{1,2,8} Cineradiography and close observation have been the primary tools. Signs of imperfect coordination between swallowing and breathing include increasing nasal congestion over the course of a feed, gulping sounds, decreasing respiration rate during sucking, sucking in unusually short bursts (fewer than 10-15 sucks per burst) and even short bouts of apnea.²⁴ If the infant nurses, transfers milk, and breathes well over a three to five minute period, this is good clinical evidence of normal suck-swallow-breathing coordination.
- Observe the degree of fatigue and irritability shown by the infant (especially important in posterior tongue-tie, which is less apparent to the examiner), during

and after feeding, often expressed as jaw and tongue tremor, fussiness and arching away during feeding or needing to feed again and again after short periods of rest).

- Document the degree of nipple pain and nipple skin erosion of the mother.
- Examine for any other contributing or confounding issues including occult clefts of the palate, facial deformity, muscular or neurological deficit, thrush, etc. Tongue-tie is seen relatively frequently in association with other birth defects.^{2,6,14}

The Surgical Treatment of Tongue-tie

Frenotomy is a simple, safe and effective surgical procedure. It improves comfort, effectiveness and ease of feeding for the mother and infant, thereby increasing the exclusivity and duration of breastfeeding for affected dyads. (Benefits/outcomes other than for improved breastfeeding are beyond the scope of this article).

A simple "snip" with a blunt-ended scissors is usually all that is needed and bleeding is minimal. It is less traumatic than ear piercing, and much less invasive and painful than circumcision. The author usually prefers to use topical benzocaine on a small cotton swab to each side of the frenulum and has used this in infants and young children from 0-5 years with good results and without side effects. Immediately after the frenotomy is done, the infant is placed back on the breast, and the latch adjusted. There is usually immediate improvement in milk transfer and maternal comfort.^{10,12-16,20,21}

Fortunately, complications are minimal. Rarely, the release does not help breastfeeding but does help with speech later on. It is not harmful to the baby. Occasionally there might be enough bleeding to stain half of a 2 x 2 gauze pad instead of the more usual few drops.

Usually there seems to be no pain and breastfeeding in the immediate post operative period is sufficient analgesia for the nursing.

[continued on p 4]

CONGENITAL TONGUE-TIE [CONTINUED FROM P 3]

However, the author suggests infant acetaminophen drops 10mg/kg q4h for 24 hours as needed. A drop of topical benzocaine on the clean small finger, may be used if the frenotomy site seems sore during the first 24 hours. It can be placed under the tongue where the snip was performed.

Fortunately, complications are minimal. Only rarely is a general anesthetic needed, when a frenuloplasty (transverse cutting and vertical repair) is needed rather than a simple anterior to posterior snip (frenotomy).¹⁵

Medical management of tongue-tie surgical intervention may not be an option because of religious, cultural, or personal reasons or because the parents are unable to find a medical professional willing to provide surgical treatment. In these cases the lactation consultant usually plays a critical role. Multiple latch modifications may be employed to find one that is adequate. Mothers may need to express milk to help maintain an adequate milk supply and optimal infant growth. As the child grows and the mother perseveres, successful breastfeeding may be possible, though some degree of discomfort may continue. Continued breastfeeding in this situation typically requires much time, patience, emotional and professional support, and a dedicated mother.

Other Oral Frenula

In addition to the lingual frenulum, there are several other oral frenula (Genna, Weissinger): a buccal frenulum connects cheek to gum; a labial frenulum connects the upper or lower lip to the gum, especially the superior labial frenulum which runs from the center of the upper lip to the gum line. These may interfere with lip "flanging".

A baby who cannot flange his/her upper lip because of a tight upper labial frenulum may need to alter his/her nursing position or have it surgically released in order to permit effective nursing. A mother with a short nipple and inelastic breast tissue may have trouble even achieving latch-on with such a baby. It may be that a short or tight

lower labial frenulum can cause similar problems by preventing the lower lip from flanging.

Conclusion

Tongue-tie is a significant clinical entity, which, when symptomatic, should be treated as early as possible to minimize this breastfeeding problem. Surgical treatment is safe and effective. Complications are rare and general anesthesia is not required.

About the Author

Dr Coryllos is a pediatric surgeon, and is emeritus director of pediatric surgery at Winthrop University Medical Center, a teaching hospital in New York. She has performed over 500 frenotomies since 1953, and has found the results to be satisfactory in all cases, and excellent in most, with few complications.

[continued on p 5]

Box B

TEST-WEIGHING

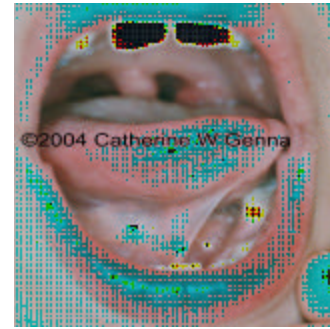
Test-weighing is defined as "weighing the infant before and after breastfeeding to determine intake."

Test-weighing requires an appropriate digital scale with the following features

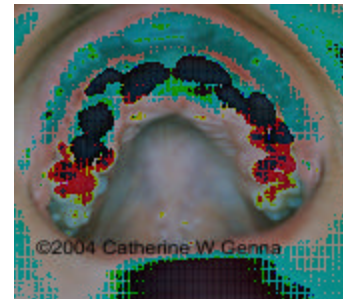
1. Digital read-out
2. Integration function that allows for movement of the infant
3. Accurate to 2 grams

Test-Weighing Procedure:

1. Before breastfeeding, place baby on the scale and weigh him. No need to undress the baby. This is the "before" weight.
2. Mother breastfeeds the infant. DO NOT CHANGE DIAPER YET.
3. Reweigh the infant, WITH THE EXACT SAME CLOTHES, DIAPER, BLANKET, etc). This is the "after" weight.
4. Subtract the first (before) weight from the second (after) weight. The difference in grams is considered the "intake" in milliliters.
5. Some scales automatically store the values and compute the difference for you. Refer to manufacturers instructions.



Untreated tongue-tie in an 11 year old child.



Mis-shapen palate and dental ridge in the same child

References:

1. Ardran G, Kemp F, Lind J. A Cineradiographic study of breastfeeding. *Br J of Radiol.* 1958;31(363):156-162
2. Ardran G, Kemp F. Some important factors in the assessment of oropharyngeal function. *Dev Med Child Neurol.* 1970;12:158-166
3. Ballard, JL et al. Ankyloglossia: assessment, incidence, and effect of frenuloplasty on the breastfeeding dyad. *Pediatrics.* 2002;110(5):e63-e68
4. Bosma J, Hepburn L, Josell S, et al. Ultrasound demonstration of tongue motions during suckle feeding. *Dev Med Child Neurol.* 1990;32:223-229
5. Bullock F, Woolridge M, Baum, J. Development of coordination of sucking, swallowing and breathing: ultrasound study of term and preterm infants. *Dev Med Child Neurol.* 1990;32:669-678

[Continued on p 6]

CONGENITAL TONGUE-TIE [CONTINUED FROM P 4]**Schema of frenotomy procedure in infants**

(0-12 mos) and in carefully selected cases, >12 mos., and up to 3-4 years.¹⁶

Instruments:

I. Tongue-tie grooved director (Pilling and Co.- Philadelphia). (Can use fingers in some infants.)

II. Stevens Tenotomy (blunt-ends) scissors or small blunt ended Metzenbaums

III. Topical Anesthesia to each side of Frenulum on cotton swab

- a. oil of clove, or
- b. dental flavored benzocaine gel In the case of an older child, greater than 10-12 months, use either a or b plus inject to frenulum with 1cc syringe and #25-26 needle ¼- ½ cc 1% xylocaine with 1/10,000 epinephrine.



Grooved director and blunt Metzenbaum scissors.

IV. Head lamp or surgical focused floor lamp. If needed may use #7 magnifying opti-visor.

V. Immobilization—Swaddle in receiving blanket, baby papoose immobilizer (baby may need to be held and comforted for 2-3 minutes after local anesthesia is applied and then repositioned before clipping.) A person is needed (often parent) to hold head. Then the physician (or a helper) presses down gently on the chin. Physician places groove director under the tongue straddling the frenulum, holds frenulum in place with visualization of tongue base and frenulum, and the frenulum is then snipped along the underside of the tongue to its base. The area is checked to insure complete release.

VI. Post frenotomy

- a. Small amount of bleeding – control with pressure from a 2x2 gauze pad under the tongue. There is occasionally a visible small vein down the anterior edge of the frenulum. Ligation may be considered though usually pressure is enough.
- b. Mother holds and comforts, and almost immediately puts the infant to the breast.
- c. Latch, milk transfer, swallowing, and especially mother's comfort are immediately evaluated.
- d. Child is then re-evaluated for wider mouth opening and improved tongue protrusion, elevation and a deeper latch. There will be improved maternal comfort, often immediately.
- e. Follow-up: recheck at 1 week, 2 months, and as needed, which can be entrusted to an International Board Certified Lactation Consultant. Mother is given an emergency phone number and is instructed to call anytime for anything and as often as she requires.
- f. Nursing on demand.
- g. Weight checks.
- h. In the infant, it may be necessary to engage in tongue stroking, from the base of the tongue to the tip, in the days immediately after tongue-tie release in order to help extension of the tongue, particularly if the infant is more than five days of age. (Authors' experience.) A pacifier "tug of war" may also help. This may be required for seven to fourteen days for optimal results. The assistance of a lactation consultant will be most helpful. In the older infant or child, tongue exercises are more frequently required in order to help the patient learn the use of a mobilized tongue. Lolly pops and ice cream cones work very well, especially for encouraging tongue protrusion.

VII. Cautions

- a. Orifices of submandibular and lingual salivary glands open under the tongue on the floor of the mouth. Therefore the snip must be closer to the base of the tongue than the floor of the mouth.
- b. The earlier frenotomy is performed, the faster the infant will adapt to the increased tongue mobility and assume normal oral motor function. If frenotomy is delayed, mothers should be counseled to expect several days to weeks before breastfeeding is optimal. Because the late correction of tongue-tie takes time to become fully effective, (the child has to learn how to use a tongue with normal mobility), the mother should be in contact with a lactation consultant or her pediatrician for consistent professional assistance and emotional support.

CONGENITAL TONGUE-TIE [CONTINUED FROM P 4]

References: (Continued)

6. Emmanouil-Nikoloussi E, Kerameos -Foroglou C. Congenital syndromes connected with tongue malformations. *Bull Assoc Anat (Nancy)*. 1992;76:67-72
7. Fletcher SG, Meldrum JR. Lingual function and relative length of the lingual frenulum. *J Speech Hearing Res* 2. 1968;382-390
8. Genna CW. Breastfeeding and tongue-tie. *Leaven*. 2002;38(2):27-29
9. Glass RP, Wolf LS. Incoordination of sucking, swallowing and breathing as an etiology for breastfeeding difficulty. *J Hum Lact*. 1992;10(3):185-189
10. Hazelbaker AK. *Assessment Tool for Lingual Frenulum Function*. Columbus, OH: Privately printed;1992.
11. Hingley G. Ankyloglossia clipping and breastfeeding. *J Hum Lact*. 1990;6:103
12. Jain E. Video: *Tongue-tie: Impact on Breastfeeding* [videotape]. Calgary, Alberta, Canada: Lakeview Breastfeeding Clinic; 1996
13. Kotlow LA. Ankyloglossia (tongue-tie): a diagnostic and treatment quandary. *Quintessence Int*. 1999;30(4): 259-262
14. Lalakea ML, Messner AH. Ankyloglossia: does it matter? *Pediatr Clin North Am*. 2003;50:381-397
15. Lalakea ML, Messner AH. Frenotomy and frenuloplasty: if, when, and how. *Otolaryngol Head Neck Surg*. 2002;3:93-97
16. Marmet C, Shell E, Marmet R: Neonatal frenotomy may be necessary to correct breastfeeding problems. *J Hum Lact*. 1990;6(3):117-121
17. Messner AH, Lalakea ML, Aby J, MacMahon J, Bair E. Ankyloglossia: incidence and associated feeding difficulties. *Arch Otolaryngol Head Neck Surg*. 2000;126:36-39
18. Messner AH, Lalakea ML. Ankyloglossia: controversies in management. *Int J Pediatr Otorhinolaryngol*. 2000;54:123-131
19. Mukai S, et al. Ankyloglossia with deviation of the epiglottis and larynx. *Ann Otol Rhinol Laryngol Suppl* 1991;153,3-20
20. Palmer B. The Influence of breastfeeding on the development of the oral cavity: a commentary. *J Hum Lact*. 1981;14(2):93-98
21. Ross MW. *Back to the breast: retraining infant suckling patterns*. *Lactation Consultant Series*; Wayne, NJ; Avery Publishing Group;1987
22. Salloum, AC, MD, MA. Student IV paper for "Medicine in Contemporary Society." Stonybrook Medical School, SUNY; 2003
23. Wiessinger D, Miller M. Breastfeeding difficulties as a result of tight lingual and labial frena: a case report. *J Hum Lact* 1995;11(4):313-316
24. Wolf LS, Glass RP. *Feeding and Swallowing Disorders in Infancy: Assessment and Management*. Tucson, AZ; Academic Press, Inc; 1992
25. Woolridge M. The anatomy of infant sucking. *Midwifery*. 1986;2:164-171

NATIONAL BREASTFEEDING AWARENESS CAMPAIGN [CONTINUED FROM P 1]

Breastfeeding promotion efforts have been successful in getting women to breastfeed, but the payoffs of better health remain less than optimal without the commitment to exclusive breastfeeding for 6 months.²

The U.S. Department of Health and Human Services through the Office on Women's Health (OWH) worked with the Advertising Council to create public service announcements for television and radio on the importance of exclusive breastfeeding for the first 6 months of life. In addition, print advertisements were created for newspapers, magazines and billboards.

Specific requirements were established for the selection of information used in the advertising campaign: well-designed studies published after 1990, studies from developed countries, breastfeeding duration of at least six months and sample sizes of 100 children or more. The studies looked at the effects of breastfeeding on the incidence of diarrhea, hospitalization for respiratory illness, obesity/overweight and otitis media. For a reference list, see page 8.

Public health experts are hopeful the campaign will go far to shift the American norm from formula feeding with and without breastfeeding to breastfeeding without the need for supplementing with formula.

A campaign dealing with any aspect of child health and welfare requires the cooperative support of pediatricians to make it a success. This campaign is no different. The U.S. public health system is counting on pediatricians to provide the necessary support for women who respond to the campaign and choose to

breastfeed, as well as women who have questions, problems or want the campaign's message validated.

Members of the AAP Section on Breastfeeding Leadership Team worked with the OWH to provide scientific expertise for the campaign. In addition, several pediatricians are involved in 18 community demonstration projects (CDP) funded by the OWH to enhance the campaign's impact. The following cities have a CDP:

- Atlanta, Georgia
- Birmingham, Alabama
- Boston, Massachusetts
- Camden, New Jersey
- Chicago, Illinois
- Kansas City, Missouri
- Knoxville, Tennessee
- Los Angeles, California
- New Orleans, Louisiana
- Philadelphia, Pennsylvania
- Portland, Oregon
- Providence, Rhode Island
- Pueblo, Colorado
- San Juan, Puerto Rico
- Rosebud, South Dakota
- San Francisco, California
- St. Paul, Minnesota, and
- Washington, D.C.

To find a CDP near you, call 1-800-994-WOMAN (9662).

There are a number of steps pediatricians can take to get involved. The first is to be prepared to validate the campaign. Mothers should feel the messages they hear or

read are shared by all of the professionals who care for them and their babies. Pediatricians also can support the campaign by:

- Affirming to mothers that the AAP supports breastfeeding as the optimal nutrition for infants.
- Explaining why a campaign is needed in the United States at this time. For instance, tell mothers that that despite high initiation rates of breastfeeding, low duration rates persist. Also, explain the importance of exclusive breastfeeding.
- Encouraging all mothers, with rare exceptions, to breastfeed exclusively for about six months, which means delaying other foods or fluids, and to continue breastfeeding thereafter for as long as mother and child desire it.
- Coordinating community resources to support mothers, such as the CDPs, or referring them to the OWH-funded free Breastfeeding Helpline (1- 800-994-WOMAN) or Web site (www.4woman.gov), which has extensive information and help for breastfeeding mothers.
- Working collaboratively with members of your health care team to assess and manage breastfeeding support.
- Scheduling the first ambulatory visit by a qualified observer for all breastfed newborns at 3 to 5 days of life.
- Enhancing your knowledge about breastfeeding and skills for assessment of breastfeeding by attending continuing medical

[continued on p 8]

NATIONAL BREASTFEEDING AWARENESS CAMPAIGN [CONTINUED FROM P 7]

education (CME) courses dedicated to breastfeeding topics, joining the AAP Section on Breastfeeding and hosting CME in your community.

- Giving Grand Rounds on breastfeeding promotion and management at your community hospital.

The Academy has always promoted breastfeeding as the best way to nourish and nurture infants. Pediatricians were an integral part of the first U.S. public health campaign at the turn of the century to promote breastfeeding, but at the same time they were campaigning to purify cow's milk. There is no need to launch a public health campaign to improve infant formula.

For those who cannot breastfeed, infant formula is an acceptable solution. But the solution to improved health status for the majority can be achieved by promoting and supporting exclusive breastfeeding for the first 6 months of life and continued breastfeeding for at least 12 months and thereafter for as long as mutually desired.

It is time to embrace exclusive breastfeeding as ideal behavior and find ways to eliminate unnecessary use of infant formula. The National Breastfeeding Awareness Campaign may create the catalyst for change, and pediatricians are an essential link to the campaign's success.

References for Diarrhea:

1. Scariati P, Grummer-Strawn L, Beck Fein S. A longitudinal analysis of infant morbidity and the extent of breastfeeding in the United States. *Pediatrics*. 1997;99(6):e5-e9
2. Raisler J, Alexander C, O'Campo P. Breast-feeding and infant illness: a dose-response relationship? *Am J Public Health*. 1999;89(1):25-30
3. Beaudry M, Dufour R, Marcoux S. Relation between infant feeding and infections during the first 6 months of life. *J Pediatr*. 1995;126:191-197
4. Howie PW, Forsyth JS, Ogston SA, Clark A, du V Florey C. Protective effect of breast feeding against infection. *BMJ*. 1990; 300:11-16

References for Otitis Media:

5. Owen MJ, Baldwin CD, Swank PR, Pannu AK, Johnson DL, Howie VM. Relation of infant feeding practices, cigarette smoke exposure, and group child care to the onset and duration of otitis media with effusion in the first two years of life. *J Pediatr*. 1993;123:702-11
6. Scariati P, Grummer-Strawn L, Beck Fein S. A longitudinal analysis of infant morbidity and the extent of breastfeeding in the United States. *Pediatrics*. 1997;99(6):e5-e9
7. Raisler J, Alexander C, O'Campo P. Breast-feeding and infant illness: a dose-response relationship? *Am J Public Health*. 1999;89(1):25-30
8. Beaudry M, Dufour R, Marcoux S. Relation between infant feeding and infections during the first 6 months of life. *J Pediatr*. 1995;126:191-197.
9. Duffy LC, Faden H, Wasielewski R, Wolf J, Krystofik D, Tonawanda/Williamsville Pediatrics. Exclusive breastfeeding protects against bacterial colonization and day care exposure to otitis media. *Pediatrics*. 1997;100(4):e7

NATIONAL BREASTFEEDING AWARENESS CAMPAIGN [CONTINUED FROM P 8]

10. Duncan B, Ey J, Holberg CJ, Wright AL, Martinez FD, Taussig LM. Exclusive breast-feeding for at least 4 months protects against otitis media. *Pediatrics*. 1993;91(5):867-872

References for Hospitalization for Respiratory Illness

11. Beaudry M, Dufour R, Marcoux S. Relation between infant feeding and infections during the first six months of life. *J Pediatr*. 1995;126:191-197
12. Howie PW, Forsyth JS, Ogston SA, Clark A, du V Florey C. Protective effect of breast feeding against infection. *BMJ*. 1990; 300:11-16
13. Nafstad P, Jaakkola JJ, Hagen JA, Botten G, Kongrud J. Breastfeeding, Maternal Smoking, and Lower Respiratory Tract Infections. *Eur Respir J*. 1996;9:2623-2629
14. Oddy WH, Holt PG, Sly PD, Read AW, Landau LI, Stanley FJ, Kendall GE, Burton PR. Association Between Breast Feeding and Asthma in 6-Year-Old Children: Findings of a Prospective Birth Cohort Study. *BMJ*. 1999;319:815-819
15. Oddy WH, Sly PD, de Klerk NH, Landau LI, Kendall GE, Holt PG, Stanley FJ. Breast feeding and respiratory morbidity in infancy: a birth cohort study. *Archives of Disease in Childhood*. 2003;88:224-228
16. Cushing AH, Samet JM, Lambert WE, Skipper BJ, Hunt WC, Young SA, McLaren LC. Breastfeeding reduces risk of respiratory illness in infants. *Am J Epidemiol* 1998;147:863-870

References for Obesity

17. Gillman MW, Rifas-Shiman SL, Camargo CA, Berkey CS, Frazier AL, Rockett HR, Field AE, Colditz GA. Risk of overweight among adolescents who were breastfed as infants. *JAMA*. 2001;285:2461-2467
18. Grummer-Strawn LM, Mei Z. Does breastfeeding protect against pediatric overweight? Analysis of longitudinal data from the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. *Pediatrics*. 2004;113(2):e81-86
19. Hediger ML, Overpeck MD, Kuczmarski RI, Ruan WJ. Association between infant breastfeeding and overweight in young children. *JAMA*. 2001;285:2453-2460
20. Toschke AM, Vignerova J, Lhotska L, Osancova K, Koletzko B, von Kries R. Overweight and obesity in 6- to 14-year old Czech children in 1991: protective effect of breast-feeding. *J Pediatr*. 2002;141:764-769
21. Von Kries R, Koletzko B, Sauerwald T, von Mutius E. Does breast-feeding protect against childhood obesity? *Adv Exp Med Biol*. 2000;478:29-39
22. Strbak V, Skultetyova M, Hromadova M, Randuskova A, Macho L. Late effects of breast-feeding and early weaning: seven-year prospective study in children. *Endocr Regul*. 1991;25(1-2):53-57

Dr. Feldman-Winter chairs the AAP Section on Breastfeeding Education Committee.

(Note: This article is being published as a commentary in the August 2004 issue of *AAP News*. The online edition (<http://www.aapnews.aappublications.org>) will contain links to the abstracts of the citations in the commentary.)

CHAPTER BREASTFEEDING ACTIVITIES

California

The California Perinatal Quality Care Collaborative (CPQCC)

By Nancy E Wight MD, IBCLC, FABM, FAAP

The concept of collaboration among institutions for the purpose of improving overall quality of care is a key component of successful and efficient change in health care. Dialogue between clinical units, as well as visits by a multidisciplinary team from one unit to another, can provide an exchange of ideas and solutions to clinical problems. Where evidence is inconclusive, sharing ideas and approaches to practice can offer incentives to seek answers to important questions through collaborative clinical research.¹

Building on the existing VON (Vermont-Oxford Network) framework, the California Association of Neonatologists (CAN), in association with multiple public and private partners (Kaiser Permanente Health Care Plan, the David and Lucille Packard Foundation, Pacific Business Group on Health, CA Dept. Health and Human Services, CA Perinatal Section AAP, CA ACOG) developed the California Perinatal Quality Care Collaborative (CPQCC) to foster benchmark performance by all of the NICUs in California. The three arms of the CPQCC are the Data Center, The Perinatal Quality Improvement Panel (PQIP) and the research unit.¹

PQIP regional opinion leaders identify NICU care practices that have the potential for improvement, using as criteria the availability of indicator data, demonstrated variability in current practice, and research evidence of the validity and impact on outcome of the recommended practices. Practice recommendations in a selected area of care are presented in a stand-alone quality improvement “toolkit” and a multidisciplinary quality improvement workshop designed to “jump-start” unit teams. Participants are sent exercises before the workshop that are designed to assess current practice and create “cognitive dissonance” as a force for change.

Quality improvement (QI) initiatives have targeted antenatal steroid use, surfactant use, consistent mechanical ventilation, abandonment of postnatal steroid use, and prevention of nosocomial infection. In 2004, the QI initiatives are nutrition support of the VLBW infant (specifically supporting breastfeeding) and prevention of early-onset sepsis.

I had the privilege of working on “Nutritional Support of the Very Low Birth Weight Infant: Part I, which encompasses 19 best practice recommendations in 3 sections, with an extensive reference list and multiple, practical appendices.² The entire toolkit was designed to help the NICU care team assess current nutritional practices and outcomes, and to promote and support breastmilk for VLBW infants as part of optimal nutritional management. Part 2 (2005) will include best practices in parenteral and enteral nutrition, plus additional attention to continued support for breastfeeding in the NICU and post-discharge. The Toolkit, Part 1 is currently available as a free download (~150 pages).²

1. Wirtschafter DD, Powers RJ. Organizing regional perinatal quality improvement: global considerations and local implementation. *NeoReviews*. 2004; 5(2):e50-59
2. CPQCC/PQIP: nutritional support of the very low birth weight infant: part 1, <http://www.cpqcc.org/NutritionToolkit.html>

Florida

Florida Chapter Activities

By Joan Meek, MD, FAAP, IBCLC

Arnold “Bud” Tanis, MD, and Joan Meek, MD, FAAP, IBCLC, continue to serve as the Florida Chapter Breastfeeding Coordinators. They work closely with all of the Chapter Breastfeeding Coordinators and with the AAP Section on Breastfeeding, within the AAP Department of Community Pediatrics, to support breastfeeding.

[continued on p 11]

CHAPTER BREASTFEEDING ACTIVITIES [CONTINUED FROM P 10]

Florida [continued]

The 9th annual International Academy of Breastfeeding Medicine meeting, "Hot Topics in Breastfeeding: Celebrating the Year of the Family," will be held in Orlando, Florida, October 21-25, 2004. Several chapter members will be participating in that meeting, including Dr. Rob Lawrence from the University of Florida. Information about the meeting can be found at www.bfmed.org. Application has been made for AAP co-sponsorship of the meeting.

Goals for the future include continued education of pediatric practitioners and ancillary health care personnel across the state and development of a multidisciplinary statewide breastfeeding coalition.

Indiana

Indiana Chapter Activities

By Kinga A Szucs, MD, FAAP

The Indiana Breastfeeding Task Force is currently working on the Indiana State Breastfeeding Plan following a training conference by Best Start Social Marketing last year, which enabled a state-wide breastfeeding needs assessment and helped evaluate rates by county and barriers to breastfeeding. The Task Force includes representatives from the Indiana WIC Program, Indiana State Department of Health Maternal and Child Health Services, Indiana Perinatal Network, Healthy Mothers, Healthy Babies, Healthy Start, LLLI, as well as a breastfeeding mother representative and myself from the AAP.

With the launch of the National Breastfeeding Campaign, we are organizing a subcommittee, within the Task Force, to deal with involving the media as much as possible. There will also be various health fairs coming up at our Community Health Centers, along with the Indiana Black Expo Summer Celebration Black and Minority Health Fair which will give us a chance to reach more people in the community.

For World Breastfeeding Week in August 2004, events included an Indianapolis Area Family Walk For Breastfeeding and the Midwest Breast Fest in South Bend with the goal of trying to break the Guinness Book of World Records with the largest number of breastfeeding mothers and babies in one place at one time.

Previous activities have included the Indiana Perinatal Network putting together the Breastfeeding Promotion Consensus Statement, followed by the Governor of Indiana issuing a Breastfeeding Proclamation, in 2002, supporting breastfeeding for World Breastfeeding Week. In December 2002, Methodist Hospital in Indianapolis became the first in the state with the Baby Friendly Hospital (BFHI) designation, and continues to be the largest BFHI in the US. This has been followed by another hospital having an active Certificate of Intent and many others working towards policies and procedures that foster the BFHI principles. In July 2003, a law was enacted to remove legal barriers to breastfeeding in public: "A woman may breastfeed her child anywhere the woman has a right to be." Also in 2003, the Indiana Breastfeeding Resource Handbook updated 4th edition was published and sent to physicians.

Our future efforts will include legislative issues, such as providing health insurance coverage for breast pump rental, lactation consultant services, and possibly for donor human milk and a tax rebate for employers providing breastfeeding support to their employees. A few model employee lactation programs have been identified that can be publicized and replicated in other workplace, hospital and clinic settings.

Join the Section on Breastfeeding!

The Section on Breastfeeding seeks to enhance educational efforts in the area of breastfeeding and develop collaborative relationships with other AAP sections, committees, and outside organizations.

Join today!

Contact the AAP Division of Member Services at 800/433-9016, ext 7143, or apply online through the AAP Members Only Channel.



Benefits of section membership include

- Participate in annual section meetings at the AAP National Conference & Exhibition
- Have your programs and activities recognized in the *Breastfeeding: Best for Baby and Mother* newsletter
- Network through electronic mailing lists, committee activities, and section meetings
- Participate in educational program development, consultation, and technical assistance efforts

Section on Breastfeeding

American Academy of Pediatrics
141 Northwest Point Blvd
Elk Grove Village, IL 60007
E-mail: breastfeed@aap.org
Web: www.aap.org