

## ICEA Position Paper

# Infant Feeding

## Position

All expectant mothers should be given evidence-based information about breastfeeding in order to make an informed decision as to how they will feed their babies. Further, we believe that breastfeeding is affected by events in the entire reproductive process and that it is most successful when the mother is given emotional and social support without anxiety, fear and danger.<sup>1</sup> The International Childbirth Education Association (ICEA) supports breastfeeding at all levels: in the childbirth classroom, in the support given by our doulas at births and postpartum, and in the community, from the local to the international level.

## Background

Whereas human milk has been overwhelmingly documented as the superior food for human infants, the American Academy of Pediatrics (AAP) has stated that it is the normative standard for infant feeding and nutrition. The AAP further states that breastfeeding should be considered a public health issue and not just a lifestyle choice<sup>2</sup>. AAP recommends that infants should be fed human milk exclusively for the first six months of life. At six months, other foods should complement breastfeeding for up to one year of age and then as long thereafter as mother and baby desire<sup>2</sup>. The World Health Organization (WHO) recommends the same and also specifies two years or more as the recommended duration. According to WHO, less than 40% of infants globally receive 6 months of exclusive breastfeeding<sup>3</sup>.

In 1990, the United States Department of Health and Human Services (HHS) began Healthy People, a program of setting 10-year science-based goals for the prevention of disease and promotion of good health for the nation. Numerous organizations and individuals participate in the data collection and promotion of the goals. The following are the **Healthy People 2020 goals** with respect to breastfeeding:

- › Increase the proportion of infants who are ever breastfed from the 2007-09 level of 74.0% to 81.9%.
- › Increase the proportion of infants who are breastfed at 6 months from the 2007-09 level of 43.5% to 60.6%.
- › Increase the proportion of infants who are breastfed at 1 year from the 2007-09 level of 22.7% to 34.1%.
- › Increase the proportion of infants who are breastfed exclusively through 3 months from the 2006 level of 33.6% to 46.2%.
- › Increase the proportion of infants who are breastfed exclusively through 6 months from the 2006 level of 14.1% to 25.5%.
- › Increase the proportion of employers who have worksite lactation support programs. In 2009, 25% of employers reported providing an onsite lactation/mother's room. The goal for 2020 is 38%.
- › Reduce the proportion of breastfed newborns who receive formula supplementation within the first 2 days of life from the 2006 level of 24.2% to 14.2%.
- › Increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies from the 2007 level of 2.9% to 8.1%<sup>4</sup>.

It is against this background that ICEA promotes that all involved with the care and education of childbearing families be well-informed and supportive of breastfeeding for the benefit of all infants, their mothers and the public.

## Benefits of Breastfeeding

There are many purported benefits, with varying levels of evidence to support them. Those listed in the AAP's position statement, Breastfeeding and the Use of Human Milk<sup>2</sup> are those with the strongest research support. Note that the benefit is usually associated with a certain duration and/or degree of exclusivity of the breastfeeding.

## Infant Outcomes

- › The risk of hospitalization for **lower respiratory tract infections** in the first year is reduced 72% if infants are breastfed exclusively for more than 4 months.
- › Infants who exclusively breastfed for more than 6 months had one quarter of the risk of **pneumonia** compared with infants who were only breastfed exclusively for 4 months.
- › The severity (duration of hospitalization and oxygen requirements) of **respiratory syncytial virus (RSV) bronchiolitis** is reduced by 74% in infants who breastfed exclusively for 4 months compared with infants who never or only partially breastfed.
- › Any breastfeeding is associated with a 64% reduction in the incidence of nonspecific **gastrointestinal tract infections**, and this effect lasts for 2 months after cessation of breastfeeding.
- › Feeding human milk to preterm infants is associated with a 58% reduction in the incidence of **necrotizing enterocolitis (NEC)**. For more on NEC, see <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002133/>. One case of NEC could be prevented if 10 infants received an exclusive human milk diet, and 1 case of NEC requiring surgery could be prevented if 8 infants received an exclusive human milk diet. This is one reason that safe sources of donor human milk need to be available.
- › Breastfeeding is associated with a 38% reduced risk of **sudden infant death syndrome (SIDS)**. The positive effect of breastfeeding on SIDS has been shown to be independent of sleep position.
- › 3-4 months of breastfeeding confers a protective effect against **clinical asthma, atopic dermatitis and eczema**, reducing their incidence by 27% in a low risk population and 42% in infants with a positive family history.
- › There is a 52% reduction in the risk of developing **celiac disease** in infants who were breastfed at the time of gluten exposure. Overall, increased duration of breastfeeding is associated with reduced risk of celiac disease. Gluten-containing foods should be introduced while the infant is receiving only breast milk and not infant formula or other cow's milk products.
- › Breastfed infants have a 31% reduction in risk of childhood inflammatory bowel disease.
- › Although many factors confound studies of **obesity**, there is a 15-30% reduction in adolescent and adult obesity if any breastfeeding occurred in infancy, compared with no breastfeeding. The duration of breastfeeding is also inversely related to the risk of overweight, with each month

of breastfeeding being associated with a 4% reduction in risk.

- › Up to a 30% reduction in the risk of type 1 and 40% for type 2 **diabetes mellitus** is reported for infants who are breastfed at least 3 months.
- › 20% reduction in risk of **acute lymphocytic leukemia** and 15% reduction in risk of **acute myeloid leukemia** in infants breastfed for 6 months or more.
- › There are many confounding factors regarding **intelligence**, but a large, randomized Promotion of Breastfeeding Intervention Trial provided evidence that adjust outcomes of intelligence scores and teacher's ratings are significantly greater in breastfed infants. Higher intelligence scores were noted in infants who breastfed for at least 3 months. Very significant positive neurodevelopmental effects from human milk feeding are seen in preterm infants, who are at greatest risk for adverse outcomes.

## Maternal Outcomes

- › Cumulative duration of breastfeeding of longer than 12 months is associated with a 28% decrease in **breast cancer (premenopausal) and ovarian cancer**. Each year of breastfeeding has been calculated to result in a 4.3% reduction in breast cancer.
- › Decreased **postpartum blood loss** and more rapid **involution of the uterus**.
- › Increased **child spacing** due to lactational amenorrhoea.
- › Mothers who do not breastfeed or who wean early have been shown in prospective cohort studies to have an increase in **postpartum depression**.
- › A large prospective study on **child abuse and neglect** by mothers found, after correcting for confounders, the the rate of abuse/neglect was significantly increased for mothers who did not breastfeed as opposed to those who did.
- › A popular maternal benefit is that it supposedly speeds the **return to pre-pregnancy weight**, but findings are inconclusive on this. However, mothers can be encouraged knowing that the 600 calories a day used to make milk for a singleton will contribute to weight loss when combined with a healthy diet and exercise.
- › In mothers with no history of gestational diabetes, breastfeeding duration was associated with a decreased risk of **type 2 diabetes mellitus**; for each year of breastfeeding, there was a decreased risk of 4% to 12%. No beneficial

effect of breastfeeding was noted in mothers with gestational diabetes.

- › There is an inverse relationship between the cumulative lifetime duration of breastfeeding and the development of **rheumatoid arthritis**.
- › A study of more than 139,000 postmenopausal women showed a relationship between cumulative lactation experience and the incidence of adult **cardiovascular disease**. A total of 12-23 months of lifetime breastfeeding was associated with a significant reduction in hypertension, cardiovascular disease and diabetes.

## Contraindications to Breastfeeding

- › An infant with classic **galactosemia**, a metabolic disorder
- › Mothers who are positive for **human T-cell lymphotropic virus (HTLV) type I or II**
- › Mothers with untreated **brucellosis**
- › Mothers with active, untreated **tuberculosis**, until treated for 2 weeks and no longer infectious
- › In the industrialized world, it is not recommended that mothers with HIV breastfeed, but in the developing world the risk of mortality from not breastfeeding may outweigh the risk of acquiring **HIV** from human milk. In areas where HIV is endemic, babies who breastfed exclusively for 3 months are at lower risk of acquiring HIV than those who receive formula or mixed feeds.
- › Mothers who test positive for **illicit drugs** (however, narcotic-dependent mothers who are enrolled in a supervised methadone maintenance program can be encouraged to breastfeed)

## Common Reasons for Early Breastfeeding Cessation

Mothers often struggle with breastfeeding due to nipple and/ or breast pain or the perception of low milk supply for their babies. In the first four weeks, women state that they stop due to sore nipples, insufficient milk production and their babies' breastfeeding difficulty<sup>5</sup>. The first days are critical for establishment of mothers' milk supply and her confidence. The perception that their infant was not satisfied by their milk alone was consistently cited as one of the top three reasons to stop breastfeeding<sup>5</sup>. A large scale survey in 2008 showed that factors

associated with cessation of breastfeeding by American mothers during the first year include being younger, unmarried, primiparous, less educated, poorer, a WIC participant, and a resident of the Midwest or the South<sup>5</sup>. Studies have shown that >50% of breastfeeding women perceived their milk supply to be low during the early months of breastfeeding, although their babies seemed satisfied and were not underweight. Results suggest that mothers may be concerned as a result of a lack of knowledge regarding the normal process of lactation or technical difficulties in feeding.

## Birth Practices that Affect Breastfeeding

Some birth practices, especially separation of the mother-baby dyad, contribute to problems. A survey was conducted by the Centers for Disease Control in 2007 regarding United States hospital birth practices related to breastfeeding. It was called the **Maternity Practices in Infant Nutrition and Care (mPINC)** and included responses from 2687 facilities, which was 82% of those contacted. The summary concluded that "1) a substantial proportion of facilities used maternity practices that are not evidence-based and are known to interfere with breastfeeding, and 2) states in the southern U.S. generally had lower mPINC scores, including certain states previously determined to have the lowest 6-month breastfeeding rates." Studies have shown that mothers will be more successful at breastfeeding if they receive information about breastfeeding, have support from a person of their choosing during labor, initiate skin-to-skin contact immediately after birth, have early and unlimited breastfeedings, room-in with their babies, avoid pacifiers and supplemental feedings of formula or water.<sup>1</sup>

## Human Milk Donation

Throughout human history, mothers have sought milk from other mothers when they could not provide their own. WHO and the Human Milk Banking Association of North America (HMBANA) state that when a mother's own milk is lacking (especially when the newborn is premature or high risk) the next best choice today is pasteurized donor milk. Historically, milk banks distributed unprocessed milk to ill and premature infants. In the 1980's with the advent of the AIDS crisis, the majority of milk banks around the world closed, recognizing the need for more complex screening and treatment of donor milk. By the 1990's, with increased evidence on the benefits of human milk and the awareness of ways to make shared milk safe, milk banks are coming back, around the world. HMBANA milk banks all use the same procedures for screening, testing, processing and distributing donor milk. Donors are screened by interview and blood testing for HIV, HTLV, Hepatitis B & C and syphilis. Even after a mother passes the screening, her donated milk may be

discarded due to the presence of excess bacteria which would not cause a problem for that mother's own fullterm, healthy baby, but which could be harmful to a fragile pre-term infant. Accepted milk is processed in a hot water bath for just enough time to kill nearly all harmful bacteria and viruses, but still retain the majority of its immunological and nutritional properties. Since pasteurized donor milk is in short supply, (the use of it) requires a prescription from a doctor and

is very expensive (and not always covered by insurance), informal milk sharing is practiced among friends as well as through Internet sites, albeit a risky practice. ICEA encourages donation to HMBANA milk banks so that the supply can meet the demand. Another way that mothers with an abundant supply may share it is by giving it to a for-profit milk bank, which will process it into human milk fortifier. Mothers should be aware that the milk they are giving away is being used for the profit of that company.

## The International Code for the Marketing of Breast Milk Substitutes

One thing that deters some parents from exclusively breastfeeding is the way infant formula is marketed. Advertising and free formula giveaways have led some mothers to think it is the hospital-sanctioned, scientific and modern way to nourish their babies. Once they begin using it, their own milk supply is impaired. If they cannot continue to afford to purchase it they might dilute it too much to make it go farther, which has led to infant mortality. This is a matter of such concern globally that WHO and UNICEF developed this code in 1981 to prevent the marketing and distribution of breast milk substitutes from interfering with the promotion and protection of breastfeeding. It states in detail how any product intended to substitute in whole or in part for breast milk, as well as bottles and teats, must be marketed without idealizing them or implying they are as good as breast milk. ICEA supports the Code and will only conduct business with or accept advertising from Code-compliant businesses.

## The Baby Friendly Hospital Initiative (BFHI)

This was issued in 1991 by WHO and UNICEF to direct maternity hospitals toward adopting evidence-based practices that strengthen breastfeeding in the perinatal period. It is based on ten principles, known as the “Ten Steps to Successful Breastfeeding”. A facility can achieve “Baby-Friendly” recognition if it does not accept free or low cost formula and it adheres to the Ten Steps. Since the BFHI began, more than 15,000 facilities in 134 countries

have been awarded Baby-Friendly status. In many areas where hospitals have been designated Baby-Friendly, more mothers are breastfeeding their infants, and child health has improved<sup>9</sup>.

## Implications for Practice

Childbirth educators and doulas can help reduce breastfeeding problems with information, anticipatory guidance and support during labor and postpartum. Our mission of giving parents freedom to make decisions through knowledge of alternatives requires that students/clients are aware of the risk of not breastfeeding and ways they might manage their birth experiences to enhance their odds of success at it. The educator or doula should be familiar with which, if any, facilities in her community are Baby-Friendly or working towards this designation. She should be able to refer childbearing families to International Board Certified Lactation Consultants (IBCLC) for help with problems that may arise.

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### International Childbirth Education Association

2501 Aerial Center Pkwy Ste. 103, Morrisville, NC 27560 • Phone 919-863-9487 • Fax 919-459-2075 • [www.icea.org](http://www.icea.org)

