POSITION STATEMENT

The Baby-Friendly Initiative: Protecting, promoting and supporting breastfeeding

Nutrition and Gastroenterology Committee and Hospital Paediatrics Section
Canadian Paediatric Society

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Abstract

Breastfeeding confers extensive and well-established benefits and is recognized as an extremely effective preventative health measure for both mothers and babies. Except in very few specific medical situations, breastfeeding should be universally encouraged for all mothers and infants. To improve worldwide breastfeeding initiation and duration rates, the WHO and UNICEF launched the Baby-Friendly Initiative (BFI) in 1991. The goal was to protect, promote and support breastfeeding by adherence to the WHO's "Ten Steps to Successful Breastfeeding". Since then, more than 20,000 hospitals in 156 countries have achieved Baby-Friendly status, with a resultant increase in both breastfeeding initiation and duration. Still, only 500 hospitals are currently designated Baby-Friendly in industrialized countries, including 37 health centres or health authorities in Canada. Health care practitioners have a unique and influential role in promoting and supporting breastfeeding. Provincial and territorial government leadership is essential to ensuring implementation of the BFI in all health care facilities delivering services to families with young children.

Key Words: Baby-Friendly Initiative; Breastfeeding; Breast

Breastfeeding provides many health advantages for infants, mothers, families and society in general (1). Breast milk is species-specific, offering a unique bioactive matrix of compounds that cannot be replicated by artificial formulas. It contains the live cellular components, immunoreactive substances and hormones, and other nutritional components needed for optimal growth, health and development in the newborn. Breast milk is both the physiological norm and the ideal nutrition for the human infant.

The Importance of Breastfeeding

Human milk feeding decreases the incidence of multiple infectious diseases in infancy (2), including bacterial meningitis (3,4), bacteremia (4,5), diarrhea (6-9), respiratory tract infections (9-11), otitis media (6,12,13) and urinary tract infections (14,15). A study conducted in Spain (16) concluded that each additional month of exclusive breastfeeding may reduce hospital admissions secondary to infection by as much as 30% in the first year of life. A meta-analysis of 33 studies examining healthy infants in developed nations showed similar results, with formula-fed infants experiencing three times more severe respiratory illnesses compared with infants who had been exclusively breastfed for four months (10). Breastfeeding has also been linked to a decrease in Sudden Infant Death Syndrome (SIDS) (17), although sleeping position and smoking were two risk factors that were difficult to control for in these studies. Breast milk has also been associated with enhanced performance on neurocognitive testing (18-21). Breastfeeding is an important preventative health measure for the lactating mother, as it is associated with a decrease in the incidence of both breast (22,23) and ovarian cancers (24), and a delay in the return of ovulation and greater postpartum weight loss (25). Breastfeeding is economical for families, with no need to purchase bottles and formula. Cost analyses indicate further savings to society in general; by improving the health of both mothers and infants, breastfeeding reduces loss of productivity due to illness (26). The benefits of breastfeeding are manifold and extensively cited by the Canadian Paediatric Society,

TABLE 1
Ten Steps to Successful Breastfeeding (32)

Step 1	Have a written breastfeeding policy that is routinely communicated to all health care staff
Step 2	Train all health care staff in skills necessary to implement the breastfeeding policy
Step 3	Inform all pregnant women about the benefits and management of breastfeeding
Step 4	Help mothers initiate breastfeeding within a half hour after birth
Step 5	Show mothers how to breastfeed and maintain lactation even when they are separated from their infants
Step 6	Give newborns no food or drink other than breast milk, unless medically indicated

Health Canada, the WHO, UNICEF and many others (27-30).

Given the advantages of breastfeeding for infants and children, the Canadian Paediatric Society and Health Canada recommend exclusive breastfeeding for the first six months of life (27,28) and continued breastfeeding with appropriate complementary foods for up to two years and beyond. In the United States, the Surgeon General has issued a call to action in support of breastfeeding (31), with 'action items' for everyone who plays a role in supporting breastfeeding – families, friends, communities, clinicians, health care leaders, employers and policy-makers. These action items should provide a model for the basis for legislation to promote and support breastfeeding in Canada.

The Baby Friendly Initiative

Over the past few decades, awareness of the importance of breastfeeding has grown worldwide. In a 1989 joint statement, the WHO and UNICEF developed "Ten Steps to Successful Breastfeeding" (Table 1) to support the initiation and continuation of breastfeeding (32). In 1990, policy-makers from 40 countries produced the Innocenti Declaration (33), which called on governments to undertake programs to protect, promote and support breastfeeding. The declaration, endorsed by all participants, including Canada, concluded: "As a global goal for optimal maternal and child health and nutrition, all women should be enabled to practice exclusive breastfeeding and all infants should be fed exclusively on breast milk from birth to four to six months of age. Thereafter, children should continue to be breastfed, while receiving appropriate and adequate complementary foods, for up to two years of age or beyond. This child-feeding ideal is to be achieved by creating an appropriate environment of awareness and support so that women can breastfeed in this manner". Operational targets were developed to meet this goal and were updated in 2005 (Table 2). (34)

The Baby-Friendly Initiative (BFI) was launched in 1991, based on the Ten Steps to Successful Breastfeeding, the Innocenti Declaration and the WHO International Code of Marketing of Breast-milk Substitutes (Table 3) (35). Maternity facilities receive the Baby-Friendly designation when they adhere to all ten steps and fully comply with WHO code provisions. The WHO code seeks to protect breastfeeding by ensuring the ethical marketing of breast-milk substitutes by industry. To be designated Baby-Friendly, an institution needs to follow each of the ten steps for at least 80% of all the women and babies it cares for. Over 20,000 maternity facilities and health authorities world-wide have this designation, with only 12 hospitals or birthing centres and 25 community health centres and health authorities in Canada as of May 2012. The majority of these facilities are in Quebec, the first province with a provincial breastfeeding strategy that includes BFI implementation. The Breastfeeding Committee for Canada is the national authority responsible for conferring Baby-Friendly designation.

Evidence from the literature

In Canada, recent studies show that breastfeeding initiation rates are high, between 87% and 90.3%. Only a minority of babies are still exclusively breastfeeding at six months, with reported rates ranging from 14.4% to 24.4% (36-38). Eastern provinces have the lowest rates of exclusive breastfeeding at six months, and British Columbia and the Yukon Territory have the highest. A recent survey of maternity experiences in Canadian hospitals found low adherence to BFI practices (36), despite the wealth of evidence that compliance increases both the duration and exclusivity of breastfeeding. In Cuba (39), the rate of exclusive breastfeeding increased from 25% to 72% between 1990 and 1996, when 49 of the country's 56 maternity facilities became Baby-Friendly. In China (39), which has more than 6000 Baby-Friendly hospitals, exclusive breastfeeding in rural areas rose from 29% in 1992 to 68% in 1994. In urban areas, the increase was from 10% to 48%. In a cluster randomized

TABLE 2
Ten Steps to Successful Breastfeeding (32)

1. Appoint a national breastfeeding coordinator with appropriate authority, and establish a multisectoral national breastfeeding committee composed of representatives from relevant government departments, non-governmental organizations and health professional associations.

2. Ensure that every facility providing maternity services fully practices all the "Ten steps to successful breastfeeding" set out in the WHO/UNICEF statement on breastfeeding and maternity services.

3. Give effect to the principles and aim of the International Code of Marketing of Breast-milk Substitutes and subsequent relevant Health Assembly resolutions in their entirety.

4. Enact imaginative legislation protecting the breastfeeding rights of working women and establish means for its enforcement.

5. Develop, implement, monitor and evaluate a comprehensive policy on infant and young child feeding, in the context of national policies and programs for nutrition, child and reproductive health, and poverty reduction.

trial performed in the Republic of Belarus (40), women giving birth in maternity centres that practiced a BFI-based intervention were more likely to exclusively breastfeed their infant at three months (43.4% versus 6.4%) and at six months (7.9% versus 0.6%) when compared to women giving birth in regular centres. A more recent American study showed that 68% of mothers who experienced at least five of the ten steps described by the WHO and UNICEF were still breastfeeding at 16 weeks compared to 53% of mothers who did not (41). None of the hospitals involved in this study met Baby-Friendly criteria. The barriers to implementing each of the ten steps and suggestions to overcome these were published in 2004 by the Maternal and Child Health Bureau in the United States (42).

Breastfeeding should be perceived as the normal way to feed a baby. Evidence from Canadian research shows that feelings of restriction or resistance toward breastfeeding (eg, 'breastfeeding is better done in private') are common among university-aged men and women, even though they recognize the desirability of breastfeeding for their own future children (43,44). Their intention to breastfeed was predicted by their knowledge of breastfeeding as well as by their perceptions of social norms. This finding supports the importance of early education about breastfeeding.

There are special considerations for breastfeeding and the BFI, particularly in the neonatal intensive care unit (NICU), where it may not be medically feasible to practice all ten steps to successful breastfeeding (eg, rooming-in). However, human milk has added benefits for the most vulnerable infants, such as very low birthweight babies. When there is an inadequate volume of a mother's own milk, the use of pasteurized human donor milk should be strongly considered in hospitalized preterm and selected ill term infants (45).

Although pacifiers may play a role in protecting against Sudden Infant Death Syndrome (46), it may be prudent to delay the introduction of pacifiers until after breastfeeding is established. Evidence on this topic is conflicting and requires further study (47,48). In the NICU, pacifiers may be used for suck training (49) and pain relief (50).

Baby-friendly practices benefit families and infants well beyond the promotion of breastfeeding and should not be restricted to breastfeeding mother-infant pairs. For example, newborns should receive skin-to-skin contact ('kangaroo care') within their first half hour of life even if they are not expected to breastfeed (51). Also, mothers of babies who have been carried by a gestational surrogate or mothers who are adopting should be offered as many of the BFI practices as possible, even though breastfeeding may not be feasible.

Contraindictions to Breastfeeding

Contraindications to breastfeeding are few but do exist. The Canadian Paediatric Society's Infectious Diseases and Immunization Committee has developed a list of infectious disease-related contraindications (52). Most notably, mothers who are HIV-positive in Canada are recommended to formula-feed their infants. Mothers receiving cytotoxic chemotherapy should be counselled to discontinue breastfeeding for the duration of treatment (53). Mothers receiving radioactive isotopes or radiation therapy may also be counselled to temporarily suspend breastfeeding during their treatment course. Infants with classic galactosemia should not receive breast milk (54). While breastfeeding was considered contraindicated in phenylketonuria in the past, current practice in many, if not most, metabolic disease treatment centres encourages breastfeeding to supplement a low-phenylalanine formula, along with strict monitoring of phenylalanine levels (55).

Although every effort should be made to help mothers with smoking cessation, mothers who smoke should be encouraged to breastfeed as breastfeeding may mitigate some of the negative effects of smoking on the health of their infant (56). Mothers who continue to smoke should avoid smoking in the

TABLE 3
International Code of Marketing Breast-milk Substitutes (35)

No advertising of products to the public under the scope of the Code.
No free samples to be given to mothers.
No promotion of products in health care facilities.
No company representatives to advise women.
No gifts or personal samples to be given to health care workers.
No words or pictures idealizing artificial feeding, including pictures of infants, on the labels of products.
Information to health workers should be scientific and factual.
All information on artificial feeding, including that contained in product labels, should explain the benefits of breastfeeding and the costs and hazards associated with artificial feeding.
Unsuitable products, such as sweetened condensed milk, should not be promoted for babies.
All products should be of high quality and take account of the climatic and storage conditions of the country where they are used.
Promote and support exclusive breastfeeding for six months as a global public health recommendation with continued breastfeeding for up to two years of age or beyond.
Foster appropriate complementary feeding from the age of six months, recognizing that any food or drink given before it is nutritionally required may interfere with breastfeeding.
Complementary foods are not to be marketed in ways that undermine exclusive and sustained breastfeeding.
Financial assistance from the infant feeding industry may interfere with professionals' unequivocal support for breastfeeding.

TABLE 4
Levels of Evidence and Strength of Recommendations (59-60)

Level of Evidence	Description
I	Evidence obtained from at least one properly randomized trial
II-1	Evidence obtained from a well-designed controlled trial without randomization
II-2	Evidence obtained from well-designed cohort or case controlled analytic studies, preferably from more than one centre of research
II-3	Evidence obtained from comparisons between times and places, with or without the intervention. Dramatic results in uncontrolled experiments could also be included in this category
III	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees
Recommendations for preventive measures	
A	There is good evidence to support this recommendation
B	There is fair evidence to support this recommendation
C	There is poor evidence to support this recommendation, but a recommendation could be made on other grounds
D	There is fair evidence to support the recommendation of exclusion
E	There is good evidence to support the recommendation of exclusion

presence of the infant and within the home. Alcoholic beverages should be limited as alcohol passes freely into breast milk. Mothers and physicians should refer to Motherisk (57) for questions about drug safety and breastfeeding. Interruption of breastfeeding is not recommended for physiological jaundice or for breast milk jaundice (58), and a search for alternate diagnoses should be undertaken in prolonged or refractory cases. For breast-milk jaundice, the health care provider needs to assess the infant's latch thoroughly, teach appropriate breastfeeding skills and monitor feeding closely. Referral to a certified lactation consultant should be strongly considered for breastfeeding difficulties.

Conclusion

Given the health, social and economic advantages that breastfeeding confers for mothers, children and society in general, breastfeeding is a critical public health initiative. Health care professionals caring for infants and their mothers must recognize the importance of breastfeeding and strive to transfer that knowledge to the families they work with. The BFI facilitates the promotion, protection and support of breastfeeding and has been proven to be an effective tool to increase breastfeeding initiation, duration and exclusivity.

Recommendations

As an evidence-based, global program that improves breastfeeding outcomes for mothers and babies, the BFI can serve as the basis for a comprehensive approach to protecting, promoting and supporting breastfeeding in Canada. Leadership from each province and territory is essential to ensure implementation of the BFI in all health care facilities delivering services to families with young children. To that end, the Canadian Paediatric Society recommends the following:

- Breastfeeding should be protected, promoted and supported, since breast milk is the ideal form of nutrition for all infants and young children. (Evidence II-1A).
- Governments should work to increase breastfeeding initiation, duration and exclusivity rates, given that breastfeeding confers important health, immunological, emotional and cognitive benefits for infants and young children. (Evidence II-1A).
- All health care facilities and providers caring for mothers, infants and children should aim to adhere to BFI practices, which are known to increase the initiation, duration and exclusivity of breastfeeding. (Evidence IA).
- Provincial/territorial ministries of health should mandate the development of a strategy for the implementation of the BFI in all health care facilities providing maternal/child health services, including hospitals, public health units, community health centres and physicians' offices (Evidence II-2B). A provincial- or territorial-level coordinator should be put in place to develop and coordinate the provincial/territorial BFI strategy (Evidence III).
- A provincial/territorial breastfeeding education strategy should be implemented for all health care providers, managers and volunteers working in hospitals and community services that care for mothers and children (Evidence II-2B).
- Provinces and territories should each put in place a long-term, standardized data collection system for tracking breastfeeding initiation, duration and exclusivity rates (Evidence III).
- Governments, health care facilities and health care providers should make every attempt to adhere to the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly Resolutions (Evidence II-3A).

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