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# Protecting Breast-feeding

## *Family physicians' role*

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## SUMMAR

Many mothers express a desire to breast-feed but are unable to initiate successful lactation, overcome minor difficulties, or maintain an adequate milk supply due to hospital routines and lack of appropriate advice from health care professionals. "Doulas" were traditional female assistants who helped mothers breast-feed. Physicians must assume this role and promote breast-feeding prenatally, protect it in hospital, and support it postnatally. This will empower mothers to breast-feed for as long as they wish and will improve the health and nutritional status of Canadian children. *(Can Fam Physician 1992: 38:1871-1876, 1923)*

## RESUME

Nombreuses sont les mères désireuses d´allaiter mais qui, à cause des protocoles hospitaliers et en l´absence de conseils appropries de la part des professionnels de la santé, se retrouvent incapables de réussir les premieres phases de l´allaitement, de surmonter les difficultés mineures ou de maintenir une production adéquate de lait. Les "doulas" étaient traditionnellement des femmes qui assistaient les mères à allaiter. Les médecins doivent assumer ce role et promouvoir l´allaitement pendant la période prénatale, le préserver durant l´hospitalisotion et l´encouroger pendant la période postnatale. Les mères pourront ainsi allaiter aussi longtemps qu´elles le veulent, ce qui contribuera à l´amélioration de l´état nutritionnel et sonitaire des jeunes Canadiens.

BEASTFEEDING IS A VITAL natural resource that can make an important contribution to health and family planning. It is the most cost-effective and health-promoting activity mothers can undertake; no other single intervention provides so many health advantages. These advantages include optimum nutrition,[1] increased immunologic protection leading to fewer hospital admissions, [2] fewer respiratory and gastrointestinal infections,[3] fewer allergies,[4] less eczema, less childhood cancers[5] and diabetes,[6] significant psychologic benefits,[7] and effective family planning.[8] In recognition of the outstanding benefits of breast milk and breast-feeding, the Canadian Pediatric Society recommends that infants should be exclusively breast-fed for 4 to 6 months and weaned during the second year.[9]

During the last two decades, the number of young mothers wishing to breast-feed has increased, but recently this trend seems to be reversing worldwide. Up to 80% of mothers in Canadian hospitals express the desire to breast-feed, but less than 30% exclusively breast-feed.[10] Most infants have already started artificial feedings in hospital and do not breast-feed for more than a few weeks. Mothers have good intentions, but the experience is often so unsatisfactory or their expectations so unrealistic that they abandon breast-feeding. Most mothers fail to reach their own breast-feeding goals due to difficulties they are unable to overcome.[11] Less than l0% of mothers follow the recommended Canadian infant feeding guidelines.

Society and the health care system are partly to blame for the short duration of breast-feeding. Most breast-feeding failures are directly related to obstacles placed in the way of the nursing dyad: natural childbirth being less common, mothers and babies being separated in hospital, 24-hour rooming-in not being universally available, prelacteal and complimentary foods being offered without compunction, and the public display of breast-feeding being distasteful to many Canadians. Children are not reared in an environment where breast-feeding is the norm, and cultural beliefs do not condone breast-feeding toddlers. Many people naively believe in the virtues and equality of formula and minimize or disregard the unique, active biologic properties of human milk.

Hospital confinements influence a mother's behavior in several respects. The institutional context dictates when and how often the mother is able to see, touch, and suckle her baby. Many routines provide mothers with messages about alternative methods of feeding and can promote confusion. Hospital practices often expose mothers to medications and procedures that can make it difficult for them to establish lactation or for the baby to breast-feed. Staff attitudes can be ambiguous, contradictory, and occasionally harmful.[12] It is paradoxical that women who rely most on the medical establishment for information and advice on infant feeding are the least likely to breast-feed successfully.

## Promoting breast-feeding

Families must be fully informed about the benefits of breast-feeding and the risks of using artificial feeding. Worldwide, millions of infants continue to die from malnutrition, misuse of formula, and a lack of the protective properties of breast milk. It is well documented that breast milk substitutes are inferior and carry significant health risks, which increase infant morbidity. Substitutes can be nutritionally inadequate or contain chemical and infectious contaminants.[13] In Canada, one in five families lives in poverty and cannot afford formula (approximately $120 per month). Infants in these families are at risk from receiving other less suitable fluids. Up to 30% of infants are admitted to hospital within the first year, and 30% of those admissions are due to respiratory tract infections.[10] Lack of the anti-infective properties of breast milk is partly to blame.

It is unfortunate that Canadian hospitals continue to accept free donations of large amounts of ready-made formula in individual sterile bottles. This practice has resulted in a disappearance of the hospital milk kitchen and, with it, the knowledge of how to prepare formula. More than 70% of infants in hospital are given bottles of premixed formula, and mothers are often given samples to take home without adequate instruction about how to prepare and use the ready-made formulas.[10] Even if the mothers are taught how to use formula correctly, many child care staff are not, and they might not have the necessary skills to reconstitute formula properly. Twenty-nine percent of Canadians are illiterate to the level of not being able to read simple instructions or not having the necessary mathematic skills to reconstitute powdered or concentrated formula safely. The potential for misuse of formula, particularly in disadvantaged families in Canada, is high.[14,15] Families must be fully informed about the risks of using artificial feedings.[16]

## Protecting breast-feeding

One of the most powerful advertising strategies for selling health care products is to gain credibility for companies' claims through association with respected institutions and professionals. The multinational infant formula companies are no exception. Endorsement by association occurs every time a hospital or physician offers samples of formula to a mother. Company statistics show that 93% of mothers will remain loyal to the hospital brand.[17]

In an effort to curb the aggressive marketing practices of formula companies, the World Health Assembly adopted the International Code of Marketing of Breast Milk Substitutes. Canada was a signatory to this document.[18] In 1983, many Canadian organizations made formal resolutions and recommendations in support of the code, including the Canadian Medical Association, the Canadian Hospital Association, the

Canadian Nurses Association, and the Canadian Pediatric Society. These organizations recognized that they had a crucial role in promoting good infant health.

Physicians and nurses must be aware of the marketing ploys of multinational companies whose tactics permeate every aspect of health workers' lives, including filling physicians' shelves with free samples of formula, sponsoring continuing educational courses and conferences, providing equipment to hospitals, persuading hospitals to sign exclusive contracts for unlimited free formula, and offering patient educational handouts on baby care, along with measuring tapes, toys, bibs, etc.

Recently, breast-feeding programs have been initiated to improve the status of breast-feeding around the world; the programs usually 1) provide information and education to families; 2) improve health education for professionals and modify hospital policies, procedures, and practices; 3) develop special programs for employed mothers; and 4) restrict the marketing practices of formula companies. These programs have been shown to be successful with a minimal interventionist approach to hospital childbirth.[14]

## The doula

Traditionally, societies supported new mothers and passed the skills of parenting from generation to generation through the extended family. Doulas were female assistants who offered practical advice and support for breast-feeding mothers.

Today, the doula does not exist. Advice givers do not have traditional wisdom and lack current scientific knowledge; what advice they give is often inaccurate, impedes lactogenesis (initiation of lactation), and prevents successful galactopoiesis (ongoing milk production). Bottles of formula are offered as the solution to breast-feeding difficulties, usually without the mother's informed consent. This can undermine the mother's confidence and aggravate breast-feeding difficulties, which can result in early breast-feeding failure.[19] Physicians must now assume the doula's role. They are in a crucial position to protect breast-feeding and help increase the duration of breast-feeding among their patients.

## Prenatal lactation assessment

Physicians can promote breast-feeding prenatally. Preparation begins with a discussion about infant feeding. Many women have thought about it, even before pregnancy, but they can be indecisive. A doula will explore patient beliefs, experiences, and expectations; often, the patient's basic information is inadequate and fallacious or her past experiences unsuccessful. Physicians must provide information about early infant nutrition that is accurate and understandable. A prenatal lactation assessment should be done to identify risk factors that might impede successful lactation and breast-feeding (*Table 1*). A breast examination should be performed during the last trimester.

*Table 1*. RISK FACTORS ASSOCIATED WITH BREAST-FEEDING FAILURE:

*These factors are associated with failure to initiate breast-feeding or premature termination of breast-feeding, often because of impeded lactogenesis or impaired galactopoiesis.*

| MATERNAL FACTORS | INFANT FACTORS |
|---|---|
| • Adolescent mothers<br>• Single mothers<br>• Low socio-economic status<br>• Certain ethnic minority groups<br>• Mothers who abuse substances (eg, alcohol or illicit drug use) for which breast-feeding is contraindicated | • Multiple birth<br>• Low birth weight<br>• Premature birth<br>• Congenital abnormalities (eg, cleft palate)<br>• Medical problems, particularly neurologic, or pulmonary |

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|---|---|
| • Mothers who have tested positive for HIV infection or other infections for which breast-feeding is contraindicated<br>• Mothers who lack knowledge, motivation, and support<br>• Unusual nipple or breast anatomy or a history of breast surgery<br>• Mothers who use some prescription drugs<br>• Significant maternal illness<br>• Anteportum obstetric complications<br>• Gestationol diabetes<br>• Depression or other major psychiatric disorders<br>• Pregnancy-induced hypertension<br>• Inadequate nutrition<br>• Previous breast-feeding difficulties<br>• Early hospital discharge<br>• Separation of mother and infant | abnormalities that interfere with suckling or respiration<br>• Admission to observation or special care nursery<br>• Low Apgor score<br>• Significant infant illness<br>• Prolonged separation of mother and infant<br>• Jaundice<br>• Adoption |

During pregnancy, breasts undergo a process known as mammogenesis, which is the development of glandular and ductal tissue. Women commonly notice their breasts enlarging and can feel tenderness or tingling. Nipples and areolar tissue change shape during pregnancy, becoming more protuberant and elastic. Some nipples remain flat or inverted, which can lead to technical difficulties with latching. Hard nipple shells can be worn inside the bra toward the end of pregnancy to encourage the nipple to protrude and possibly to improve distensibility. No evidence indicates that these nipple shells or stretching exercises actually improve the infant's grasp of the nipple.

There are many culturally dictated methods of preparing nipples for breast-feeding, ranging from rubbing with harsh materials to soaking with potent solutions designed to toughen the skin. The belief is that they will prevent sore, cracked nipples. In all likelihood these methods only focus attention on the breasts and prepare women emotionally for the breasts' future practical function. Nipples and areolar tissue should be soft and elastic for successful breast-feeding; soreness is a mechanical problem that is avoided by correct latching.

Breast surgery can impair lactation by disrupting the duct and nerve innervations of the breast. Breast augmentation can be associated with decreased lactation ability. It is important to identify the reason for augmentation; small, hypoplastic breasts can be anatomically unusual and have inadequate glandular tissue. Reduction mammoplasty is an invasive surgical procedure. Nipple transplant and duct severance results in decreased milk production and impaired milk ejection. Mothers should be counseled that they can nurture their babies at the breast but might not be able to provide all the nutrition.

Women should be encouraged to attend prenatal breast-feeding classes and learn the principles of good breast-feeding technique. Their visual image of a suckling infant at the breast is often derived from aesthetically pleasing pictures in books and pamphlets, and from the few relatives and friends who bravely breast-feed in public. The idealistic image of a little bundle, held in the crook of an arm, smiling up at mom, while turning towards a peek-a-boo breast, does not convey reality. Prenatal classes provide an excellent opportunity for women to learn about lactation and the art of breast-feeding. They can practise putting a baby to the breast, using a doll supported on a cushion. Unfortunately, the focus of most childbirth classes is on childbirth and not on learning parenting skills.

Breast-feeding should be considered as the fourth stage of labor; childbirth is not complete until the baby is latched on to the breast and is suckling. The ability to take in information directly after labor and delivery is minimal — mothers cannot assimilate new knowledge at this time. It is unreasonable to expect them to grasp the subtleties of positioning and latching at the first breast-feed unless they have been coached beforehand.

## Hospital support

Mothers need considerable support from a doula while still in hospital. The process of initiating a flow of milk and subsequent successful breast-feeding depends on receiving good help. Many labor and delivery nurses and physicians do not have the technical skills and knowledge to place a newborn infant correctly at the breast. Some believe in a hands-off approach, allowing a mother to "figure it out" herself. Unfortunately, breast-feeding is a learned skill. Infants instinctively know how to suckle and will competently latch and suckle when they are positioned appropriately or allowed to root for the breast. Studies have shown that this suckling instinct can be impaired if foreign objects are inserted into an infant's mouth soon after birth.[20]

A doula must teach the art of breast-feeding. In order for a baby to latch on to the breast effectively, the mother should be sitting comfortably with her arms and back supported. The baby should be placed on a pillow, level with her uncovered breast, facing directly toward it. She should cup her breast with one hand, using all her fingers underneath, and lift it up slightly, directing the nipple toward her baby's mouth. She should use the other hand to support her baby's shoulders and back of head, and then gently lift the baby on to her breast as soon as he or she opens his or her mouth widely. Young infants do not have the ability to maintain their position at the breast alone; thus, the mother must continue to support her breast and the baby throughout the duration of the feed. Infants instinctively know when to stop; they should be allowed to feed on demand as long as they wish. Babies will spontaneously let go of the breast when satisfied. The first breast should be emptied and feel soft before offering the second.

The initiation of lactation depends on the delivery of the placenta (which causes a fall in circulating lactogens), early breast stimulation, and the avoidance of engorgement. The doula must protect the mother from a variety of hospital routines that interfere with successful lactogenesis. A direct correlation exists between the time of the first feed following delivery and the duration of breast-feeding — the longer the delay in starting to breast-feed, the shorter the duration of lactation.[21] Mothers need to be warned of the adverse effects of early supplementation and night sedation on lactogenesis. Routine supplementation is unnecessary; it takes away the infant's hunger drive and decreases the number of times the baby goes to the breast; it also introduces the infant to a rubber nipple, which can lead to nipple confusion. Night sedation encourages mothers to sleep through the night, giving nurses the opportunity to cuddle and feed the baby. This decreases the frequency of early breast stimulation and can impede lactogenesis. Mother's informed consent should be obtained before doing anything that might interfere with breast-feeding. This is the responsibility of the physician who writes the orders and the nurse who carries them out.

Mothers and infants should not be separated unnecessarily while in hospital. Bedding-in is superior to rooming-in; it allows the baby unlimited access to the breasts. Mothers who have had cesarean section birth can enjoy having their babies tucked up beside them. The best observers of newborn babies are their parents. Parenting starts at birth; hence, the hospital staff should encourage mothers to assume this role as soon as possible. Nurses must give parents the tools of the trade and encourage them to practise under supervision, while in hospital. If a mother has to wait until she is alone at home to start, she can feel very inadequate. Nighttime feedings are reality and, if a mother can gain breast-feeding skills during her short hospital stay, she will be more likely to manage well at home.

## Postpartum support

Following hospital discharge, the doula should keep in close contact with breast-feeding mothers. This is because of the high incidence of early breast-feeding difficulties following hospital discharge. Engorgement is common in the first few days; it prevents infants from latching effectively. This leads to sore nipples caused by tongue trauma, inadequate drainage, and insufficient milk intake. The intraductal pressure increases, causing atrophy of the alveolar glands. Inadequate ongoing milk production is a direct result of impeded lactogenesis. Mothers must be shown how to express their milk, either manually or by using an efficient pump. This will help relieve engorgement and prevent milk stasis.[22] If an infants' breast milk intake is insufficient, he or she can remain hungry and receive formula supplements. In the absence of continuing support, breast-feeding can be a negative experience.

Sometimes parents misinterpret the infant's cues and either underfeed or overfeed him or her. Many well-meaning grandmothers and friends rely on their personal experiences and encourage bottle-feeding as a solution to all feeding difficulties. Breast-feeding is at an extremely vulnerable stage at this time; lack of knowledge, lack of confidence, and lack of support culminate in breast-feeding abandonment. The doula is essential and must have a high profile during the early postpartum phase. Once mothers have overcome the early difficulties associated with breast-feeding, they can successfully breast-feed for as long as they wish.

## Conclusion

In 1989, the World Health Organization and the United Nations International Children's Education Fund (UNICEF) outlined 10 steps that should be incorporated into maternity care in order to help the breast-feeding dyad (Table 2[23]). In 1991 UNICEF and the World Health Organization launched the "Baby-Friendly Hospital Initiative" as part of a global effort to give babies the best possible start in life. This initiative focuses on an educational training program for health professionals to offer training and support necessary for implementing these 10 steps. The aim is to contribute to the provision of safe and adequate nutrition for infants by protecting and promoting breast-feeding in hospital and by ensuring the proper use of breast milk substitutes, when they are necessary, through providing adequate information.

*Table 2.* TEN STEPS TO SUCCESSFUL BREAST-FEEDING THAT EVERY FACILITY PROVIDING MATERNITY SERVICES AND CARE FOR NEWBORN INFANTS SHOULD TAKE

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| *1.* Have a written breast-feeding policy that is routinely communicated to all health care staff. |
| *2.* Train all health care staff in skills necessary to implement this policy. |
| *3.* Inform all pregnant women about the benefits and management of breast-feeding. |
| *4.* Help mothers initiate breast-feeding within a half-hour of birth |
| *5.* Show mothers how to breast-feed and how to maintain lactation even if they are separated from their infants. |
| *6.* Give newborn infants no food or drink other than breast milk, unless medically indicated. |
| *7.* Practise rooming-in, allowing mothers and Infants to remain together 24 hours doily. |
| *8.* Encourage breast-feeding on demand. |
| *9.* Give no artificial teats or pacifiers (also known as "dummies" or "soothers") to breast-feeding infants. |
| *10.* Foster the establishment of breast-feeding support groups and refer mothers to them on discharge from the hospital or clinic. |

*Data from United Nations International Children's Education Fund.*[23]

When these simple steps are routine in all maternity hospitals, when the health profession abides by the International Code of Marketing Breast Milk Substitutes, [24] and when physicians become doulas, mothers will become empowered to do what they intend to do: they will be able to successfully breast-feed for as long as they wish.

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