Breastfeeding, Family Physicians Supporting (Position Paper)

Introduction

The American Academy of Family Physicians (AAFP) has long supported breastfeeding. All family physicians, whether or not they provide maternity care, have a unique role in the promotion of breastfeeding. They understand the advantages of family-centered care and are well positioned to provide breastfeeding support in that context. Because they provide comprehensive care to the whole family, family physicians have an opportunity to provide breastfeeding education and support throughout the course of life to all members of the family.

SEE ALSO

- Breastfeeding (Policy Statement) (https://www.aafp.org/about/policies/all/bre
- Breastfeeding Accommodations for Trainees (https://www.aafp.org/about/policies/all/bre accommodations-trainees.html)
- Maternal/Child Care (Obstetrics/Perinatal Care) (https://www.aafp.org/about/policies/all/ma child.html)
- Breastfeeding Support and Resources Toolkit (https://www.aafp.org/patient-care/public-health/breastfeeding/toolkit.html)
- Hospital Use of Infant Formula in Breastfeeding Infants (http://www.aafp.org/about/policies/all/form hospital.html)

History

Throughout most of history, breastfeeding was the norm, with only a small number of infants not breastfed for a variety of reasons. In the distant past, wealthy women had access to wet nurses, but, with the industrial revolution, this practice declined, as wet nurses found higher-paying jobs. By the late 19th century, infant mortality from unsafe artificial feeding became an acknowledged public health problem. Public health nurses addressed this by promoting breastfeeding and home pasteurization of cows' milk. In the early 20th century, commercial formula companies found a market for artificial baby milks as safer alternatives to cows' milk. During this same period, infant feeding recommendations became the purview of the newly organized medical profession. Partially because of physician support and a vision of "scientific" infant care, the widespread use of formula as a breast milk substitute for healthy mothers and babies emerged.[1, 2] Throughout the mid-20th century, most physicians did not advocate breastfeeding, and most women did not choose to breastfeed. An entire generation of women—and physicians—grew up not viewing breastfeeding as the normal way to feed babies. Despite the resurgence of breastfeeding in the late 20th century in the United States, breastfeeding and formula feeding continued to be considered virtually equivalent, representing merely a lifestyle choice parents may make without significant health sequelae.[3]

Currently, the World Health Organization (WHO) recommends that a child breastfeed for at least two years.[4] The American Academy of Pediatrics, like the AAFP, recommends that all babies, with rare exceptions, be exclusively breastfed for approximately six months and continue breastfeeding with appropriate complementary foods for at least one year.[5] The U.S. Public Health Service's "Healthy People 2020" set national goals of 81.9% of babies breastfeeding at birth, 60.6% at six months, and 34.1% at one year.[6] Targets for exclusive breastfeeding are 46.2% at three months and 25.5% at six months. The United States has not yet met its breastfeeding goals. Data published by the Centers for Disease Control and Prevention (CDC) show that, in 2011, 79% of U.S. mothers initiated breastfeeding; 49.4% were breastfeeding—and 18.8% were exclusively breastfeeding—at six months; and 26.7% were breastfeeding at 12 months.[7] Although some subpopulations come close to Healthy People 2020 initiation goals, most do not, and few mothers breastfeed exclusively.[7] Breastfeeding rates quoted for the United States reflect data that do not always distinguish among exclusive breastfeeding, breastfeeding with supplementation, and minimal breastfeeding.

Despite growing evidence of the health risks of not breastfeeding, physicians—including family physicians—do not receive adequate training about supporting breastfeeding.[8-11] Although physicians make health recommendations about many aspects of infant care, many physicians still worry that advocating breastfeeding will cause parental guilt. However, parents may feel less guilt if they have had an opportunity to learn all the pertinent information and can make a fully informed decision.[12]

Health Effects

Family physicians should be familiar with the health effects of breastfeeding on women and children. The evidence concerning health effects continues to expand in terms of depth of understanding and quality of research. It is beyond the scope of this paper to review all of the primary literature. Several systematic review articles that outline the evidence supporting the role of breastfeeding in optimal health outcomes for mothers and children have been published.[5, 13-16] Because breastfeeding is the physiologic norm, we will refer to the risks of not breastfeeding for infants, children, and mothers.

A systematic review of the effects of breastfeeding on maternal and infant health found that for infants in developed countries, not breastfeeding is associated with increased risks of common conditions including acute otitis media; gastroenteritis; atopic dermatitis; and life-threatening conditions including severe lower respiratory infections, necrotizing enterocolitis, and sudden infant death syndrome.[14, 15, 17] The beneficial health effects of breastfeeding persist beyond the period of breastfeeding.[18] A WHO review showed that children who had not been breastfed had higher mean blood pressure, increased risk of type 2 diabetes, increased risk of obesity, and lower scores on intelligence tests.[13, 19] Children who are not breastfed are also at an increased risk of type 1 diabetes, asthma, and childhood leukemia.[5, 15]

The evidence base also supports the importance of six months of exclusive breastfeeding (when compared with four months) as protection against gastrointestinal tract and respiratory tract infections, including otitis media and pneumonia.[20]

Maternal health outcomes also are affected positively by breastfeeding. In the short term, the data on postpartum weight loss suggest that the role of breastfeeding is minor compared with diet and exercise[15], although studies suggest that at least six months of exclusive breastfeeding may increase maternal weight loss.[21] Another study suggested that longer duration of breastfeeding led to greater sustained weight loss.[22] Not breastfeeding is

associated with an increased risk of postpartum depression.[23] In the longer term, for women in developed countries, not breastfeeding is associated with increased risks of type 2 diabetes[24], breast cancer[25], ovarian cancer[26], hypertension, and cardiovascular disease.[15, 22]

Breastfeeding also has broader economic and social benefits. Health care costs for both children and mothers are increased when breastfeeding duration is suboptimal.[27, 28] Breastfeeding may protect against child neglect and abuse.[29] In addition, breastfeeding helps protect the environment because it involves no use of grazing land for cows, no product transportation or packaging, and no waste.[30]

Key Recommendations

1. Almost all babies should be breastfed or receive human milk exclusively for approximately six months.[20] Breastfeeding with appropriate complementary foods, including iron-rich foods, should continue through at least the first year.[5] Health outcomes for mothers and babies are best when breastfeeding continues for at least two years.[4] Breastfeeding should continue as long as mutually desired by mother and child.
2. Medical contraindications to breastfeeding are rare. The CDC still discourages breastfeeding by HIV-positive women in the United States.[31] HIV-positive women in areas with high rates of infant diarrhea and respiratory illness are encouraged to breastfeed exclusively for six months. When mothers and babies are treated adequately with antiviral medications, breastfeeding exclusively for six months, with continued breastfeeding for 12 months, may be considered.[32] Women who have HIV who do not have access to treatment are discouraged from breastfeeding if replacement feeding is acceptable, feasible, affordable, sustainable, and safe.[33] Breastfeeding is contraindicated when the mother has human T-cell lymphotropic virus type I or type II. Infants who have type 1 galactosemia should not be breastfed; some other inborn errors of metabolism may require feeding modification.[33] If there are active herpes simplex lesions on the breast, the infant should not feed from that side until the lesions heal. Mothers who have active untreated tuberculosis or active varicella in the newborn period should be separated from their babies, although the breast milk may be fed to the infant. Maternal use of drugs of abuse, antimetabolites, chemotherapeutic agents, or radioisotopes may contraindicate breastfeeding. Most maternal conditions can be treated with medications that are safe for breastfeeding.[5]
3. Birthing centers and hospitals need to incorporate baby-friendly principles. Babies should be kept skin-to-skin with the mother at least until the first successful breastfeed.[34] Perinatal care practices should support breastfeeding, optimally following the “Ten Steps to Successful Breastfeeding”[35] (see **Appendix 6**), and mothers and babies should receive care from health care professionals knowledgeable about breastfeeding.[36]
4. Formula supplementation of breastfed babies should occur only when medically indicated.[33] Family physicians should not undermine breastfeeding by providing formula samples or coupons to breastfeeding mothers.[37]
5. Breastfeeding babies and mothers should be seen for follow-up within a few days after birth. Family physicians and all health care professionals who regularly care for mothers and babies should be able to assist with normal breastfeeding and common breastfeeding challenges. When challenges exceed the expertise of the family physician, patients should be referred to someone with a higher level of expertise, such as an International Board Certified Lactation Consultant.[5]
6. Family physicians should establish a breastfeeding-friendly office, even if they do not provide maternity care. Family physicians should advocate for breastfeeding and provide education about breastfeeding throughout the course of life and for the entire family. Family physicians may provide prenatal care and labor support, deliver the infant, help in the prompt initiation and continuation of breastfeeding, and continue caring for the baby and family. Breastfeeding education and support can be integrated into these visits. Family physicians have the unique opportunity to emphasize breastfeeding education beginning with preconception visits and continuing

through prenatal care, delivery, and postpartum care, and during ongoing care of the family. Encouragement from a physician and other family members, especially the baby's father and maternal grandmother, are important factors in the initiation of breastfeeding. While caring for a mother's immediate and extended family, a family physician should remind her social support system to encourage breastfeeding.[38, 39]

7. With all of the health advantages of breastfeeding for mothers and children, as well as its economic and ecological impacts, breastfeeding is a public health issue, not merely a lifestyle choice. Family physicians should work in their communities to advocate removal of barriers to breastfeeding. This could include overcoming cultural issues, encouraging breastfeeding-friendly workplaces, advocating for adequate paid maternity leave, and protecting the right to breastfeed in public.
8. Medical schools and family medicine residencies should include appropriate curricula in lactation physiology and breastfeeding management so that family physicians are adequately trained to provide care to breastfeeding mothers and infants.[40] Medical trainees who are breastfeeding should be given support to attain their breastfeeding goals.

Further information and resources may be found in the following appendices:
Appendix 1: Recommendations for Clinical Management
Appendix 2: Additional Breastfeeding Considerations
Appendix 3: Education of Medical Students and Family Medicine Residents
Appendix 4: AAFP Policies Related to Breastfeeding
Appendix 5: Resources for Family Physicians and Other Health Care Professionals
Appendix 6: National and International Breastfeeding Initiatives

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outcomes. Breastfeed Med, 2012. 7(6): 403-408.

Appendix 1: Recommendations for Clinical Management

SPECIFIC CLINICAL RECOMMENDATIONS

1. Preconception and prenatal education

1. Address the infant feeding decision before conception or as early in pregnancy as possible; women make their decision about breastfeeding very early. Prenatal intention to breastfeed has an influence on initiation and duration of breastfeeding. Continue to bring up the issue of infant feeding throughout the prenatal period.[1]
2. Determine the mother's intent and any concerns or misconceptions she may have. Provide appropriate education and anticipatory guidance to encourage her to consider breastfeeding and determine what support she will need to make and carry out this decision.[2]
3. Elicit any factors in the family medical history that may make breastfeeding especially important (e.g., atopic diseases, diabetes, obesity, cancers) and advise the woman of these factors.[3]
4. Elicit any risk factors for potential breastfeeding problems and any medical contraindications to lactation. Provide appropriate support and education.[4]
5. For multiparous women, document the duration of lactation for each infant, reasons for weaning, and any problems that occurred. (We suggest the history be documented with the labor history of each infant.) For the current pregnancy, document a plan for intervention, including lactation consultation where indicated, on the prenatal form.[1]
6. Encourage the participation of the mother's support persons and educate them as appropriate. Remember that anyone at the prenatal visit or hospital stay is likely to have influence over breastfeeding and other health care decisions.[5, 6]
7. Recognize the feelings of relatives who did not breastfeed or who weaned prematurely. Encourage them to learn what is known about breastfeeding for the optimal health of the mother and baby.[7]
8. In a culturally sensitive manner, encourage the woman and her support persons to attend breastfeeding classes and/or support group meetings during the prenatal period.[1, 6, 7]
9. Provide the woman with accurate, noncommercial breastfeeding literature and recommendations for accurate lay breastfeeding resources (e.g., books, websites).[6]
10. Educate women about the potential breastfeeding problems associated with the use of intrapartum analgesia and anesthesia. Encourage the use of a labor support person (i.e., a doula).[8-10]

2. Intrapartum support

1. Provide appropriate labor support intended to minimize unnecessary analgesics or anesthesia.[11]
2. If mother and baby are stable, facilitate immediate postpartum breastfeeding. Minimize separation of mother and infant, and wait until after the first breastfeeding to perform routine newborn procedures such as weighing, ophthalmic prophylaxis, and vitamin K injection.[12, 13]
3. Provide warming for the stable newborn via skin-to-skin contact with the mother, covering mother and baby if necessary.[12]

3. Early postpartum education and support

1. Advocate for 24-hour rooming in for mother and baby.[15]

2. Encourage the mother's support persons to provide optimal opportunities for breastfeeding.[7]
3. Ensure that breastfeeding is being adequately assessed on a regular basis by qualified professionals. Advocate for lactation consultation services at all hospitals where maternal and infant care is provided.[4, 14, 16, 17]
4. Educate mothers about the importance of frequent, unrestricted breastfeeding with proper positioning and latch.[16]
5. Help mothers recognize the baby's early feeding cues (e.g., rooting, lip smacking, sucking on fingers or hands, rapid eye movements) and explain that crying is a late sign of hunger. Help mothers also recognize signs that the baby is satisfied at the end of a feeding (e.g., relaxed body posture, unclenching of fists).[18]
6. If mother and baby need to be separated, assist with maintenance of breastfeeding and/or ensure that mother receives assistance with expressing milk. Encourage mother to begin expressing her milk within two hours after being separated from her infant.[18]
7. At hospital discharge, provide mothers with clear verbal and written breastfeeding instructions that include information on hunger and feeding indicators, stool and urine patterns, jaundice, proper latch and positioning, and techniques for expressing breast milk.[14, 16, 18]
8. Educate mothers about the risks of unnecessary supplementation and pacifier use.[14, 16, 18]
9. Avoid the use of discharge packs containing formula samples and formula company advertising or literature.[19]
10. Ensure that the mother and baby have appropriate follow-up within 48 hours of discharge and provide the mother with phone numbers for lactation support.[4, 20, 21]
11. Identify breastfeeding problems in the hospital and assist the mother with these before discharge.[16, 18]
12. Develop an appropriate follow-up plan for any identified problems or concerns.[16, 18]
13. Provide the family with information about breastfeeding support groups in the community.16, 18

4. Ongoing support and management

1. Evaluate the mother and baby within 24-72 hours after hospital discharge to assess adequacy of milk intake, newborn jaundice, and breastfeeding concerns. See the mother and baby within 24 hours after hospital discharge if breastfeeding was not going well in the hospital.
2. Continue to support breastfeeding throughout the first year of life and beyond at well-child and other visits. Encourage exclusive breastfeeding for the first six months of life.[4]
3. Be knowledgeable about prevention and management of common breastfeeding challenges.[22]
4. Educate office staff on breastfeeding topics so that they can provide optimal breastfeeding triage and support.[7]
5. Develop a working relationship with professionals with expertise in lactation issues, such as International Board Certified Lactation Consultants. Consult when breastfeeding concerns exceed your level of expertise.
6. Encourage mothers who are returning to work to continue to breastfeed.[7]
7. Encourage mothers who do not feel they can continue to exclusively breastfeed to continue partial breastfeeding as long as possible.

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Appendix 2: Additional Breastfeeding Considerations

Infant Illness

Ill infants benefit from breastfeeding and/or consuming breast milk. These infants often will have poor suck, appetite, and alertness and often need supplementation, ideally with the mother's own expressed milk or pasteurized human milk from a donor. Neonatal illnesses such as hyperbilirubinemia and hypoglycemia may be due to poor milk transfer and warrant an urgent consultation with a skilled lactation consultant. Any necessary supplementation should be with the mother's own expressed milk or with pasteurized human milk from a donor, and should be given by a method least likely to interfere with breastfeeding. The mother's own milk supply should be protected and/or increased by adequate pumping or manual expression. Infants born with defects such as cleft lip and palate often may breastfeed but require consultation with an experienced lactation professional to ensure success. Infants who have other anomalies or syndromes that cause hypotonia also will benefit from such consultation. However, infants who have type 1 galactosemia are unable to breastfeed and must be on a lactose-free diet. Infants who have phenylketonuria should breastfeed, but they must receive supplementation with a low-phenylalanine formula.[1, 2] Breastfed infants who have phenylketonuria have better developmental outcomes compared with those exclusively fed low-phenylalanine formulas.[3]

Maternal Illness

Maternal illness or need to take medication is an often-cited reason that women stop breastfeeding sooner than desired.[4] Women with chronic noninfectious illnesses, including depression, may be empowered by their ability to breastfeed. For most illnesses, medication issues do not prevent breastfeeding because reasonable medication choices almost always can be made. Exceptions include treatment of breast or other cancers, which necessitates use of antimetabolites. Some newer protocols that involve chemotherapeutic agents with short half-lives may necessitate only temporary weaning, and breastfeeding may be resumed after five half-lives. Each agent should be individually assessed.[5]

Women who have severe trauma or acute life-threatening illness may be too ill to nurse or express milk. If maternal illness causes separation, assistance with maintaining lactation should be provided.

Maternal anesthesia rarely contraindicates breastfeeding.[6] Local anesthetics enter the bloodstream in minute quantities, too small for significant amounts to enter the mother's milk. Most agents used for general anesthesia, including those used for inducing anesthesia, have short half-lives and clear the maternal circulation rapidly. There is no need to delay breastfeeding after general anesthesia for a procedure done within the first two to three days postpartum (e.g., tubal ligation) because the amount of colostrum is too small to carry a significant quantity of the anesthetic agents. For surgical procedures done later, the decision about resuming breastfeeding depends on the condition of the infant. Mothers of healthy term neonates can resume breastfeeding once they are awake and able to hold the infant. In the case of a preterm or otherwise compromised neonate, pumping and discarding the milk for 12 to 24 hours after the procedure may be warranted.[6]

It is rarely necessary to interrupt breastfeeding for radiologic procedures. The radioiodides used as intravenous contrast agents for some radiography and computed tomography scanning have an extremely short half-life and virtually no oral bioavailability.[7] Therefore, they pose an insignificant risk to a breastfed infant. Similarly, gadopentetate used as contrast for magnetic resonance imaging (MRI) has such minimal excretion in the milk—and even lower oral absorption—that only extremely small amounts are available to the nursing infant.[7] The knowledgeable family physician can reassure patients undergoing such procedures that there is no need to

interrupt breastfeeding and may need to intervene on a patient's behalf if the radiologist recommends temporary cessation based on misleading manufacturer's literature. Similarly, most diagnostic procedures using radioisotopes do not require interruption of breastfeeding.[8, 9] However, there are some that may require temporary interruption or— rarely—cessation of breastfeeding.[7] References are available that outline the effects of various radioisotopes.[10] For most diagnostic radioactive scanning, it is possible to find a radioisotope that does not require interruption, or at least one with the shortest half-life. The duration of breastfeeding cessation would be five times the half-life. The breastfeeding mother has the option of pumping and storing her milk before the procedure. To maintain her supply, the mother should continue to express her milk after the procedure. She may discard this milk until it is safe to resume breastfeeding, or she has the option of storing this milk in a freezer that is not opened often. Once all of the radiation is gone, this milk can be given to the baby. The nuclear medicine radiologist can guide the mother regarding when the radioactivity would be depleted in the milk; the milk may be tested for residual radioactivity.

Breast Surgery

Some women who have had breast augmentation may not be able to produce sufficient amounts of milk.[11] Some of these women may have had insufficient breast tissue before surgery.[12, 13] However, augmentation surgery itself may cause additional breastfeeding problems.[14] Breast reduction surgery may increase the risk that a woman will not be able to produce sufficient milk[15, 16,] although newer surgical techniques that do not disrupt neurovascular supply and ductal architecture (e.g., inferior pedicle technique) are less likely to cause problems.[17] Breast biopsy with circumareolar incision can interfere with milk supply and transfer in the affected breast.[15] Women who undergo this procedure should be encouraged to breastfeed, but mother and baby need to be followed closely to ensure that the infant has an adequate milk intake. Women who develop a suspicious breast mass during lactation should not wean for the purpose of evaluating the mass. Mammography and breast mass biopsy can be done without interfering with lactation. A milk fistula occasionally develops after breast surgery during lactation; this condition is benign and generally resolves without intervention.

An MRI may provide additional information about lactating breasts.[18, 19] Family physicians should assist their patients with decisions about breast surgery. They should communicate with the surgeon to advocate for their patient's future breastfeeding needs and breastfeeding conservation surgeries whenever medically feasible.

Infectious Diseases

For most maternal infections, breastfeeding helps protect the infant against the disease or decreases the severity of the illness because of anti-infective components in human milk. Only a few maternal infections preclude breastfeeding.

In the United States, women who have human immunodeficiency virus (HIV) are currently advised not to breastfeed because of the potential risk of transmission to the child. In countries with high infant mortality rates caused by infectious illnesses or malnutrition, the benefits of breastfeeding may outweigh the risk of HIV transmission. Additionally, recent studies suggest that a combination of exclusive breastfeeding for six months and antiretroviral medications may decrease the risk of transmission.[20, 21]

Two other infections that are less prevalent in the United States but also contraindicate breastfeeding are human T-cell lymphotropic virus (HTLV) type I and type II, and untreated brucellosis.[22, 23]

Most infections do not preclude breastfeeding, but in a few specific infections, certain considerations apply. In women who have active tuberculosis, the mother and infant should be separated until both are receiving appropriate anti-tuberculosis therapy, the mother wears a mask, and the mother understands and is willing to adhere to infection control measures. The mother's expressed milk may be given to the infant. Once the infant is receiving isoniazid, separation is not necessary unless the mother has possible multidrug-resistant Mycobacterium tuberculosis, or has poor adherence to treatment and direct-observation treatment is not possible.[24] During active herpes simplex outbreaks, it is safe for a woman to nurse unless she has lesions on her breasts. It is recommended that she not nurse from the affected breast until lesions resolve.[5] Babies born to mothers who develop chickenpox within five days antepartum or within two days postpartum are at risk of more serious chickenpox infections. It is recommended that baby and mother be separated until the mother is no longer infectious, but expressed milk may be supplied, as long as the milk does not come into contact with active lesions.[5] Transmission of hepatitis C through human milk has not been established. The risk of infection from mothers with hepatitis C is the same in breast- or bottle-fed infants. However, bleeding or cracked nipples may put an infant at risk of transmission of the virus.[25]

Additionally, mothers acutely infected with H1N1 virus should be isolated from their infants during the febrile period, but their milk is safe to provide to their infants.[26] Some other uncommon serious maternal infections, such as Ebola virus and brucellosis, may require temporary interruption of breastfeeding.[27]

Medication and Substances

Almost all prescription and over-the-counter medications taken by the mother are safe during breastfeeding. Several resources are available to help estimate the degree of drug exposure an infant will receive through breast milk.[7]

Physicians must weigh the risks of replacing breastfeeding with artificial feeding against the risk of medication exposure through breast milk. Even a temporary interruption in breastfeeding carries the risk of premature weaning, with the subsequent risks of long-term artificial feeding. There are very few substances for which breastfeeding should be stopped. Generally, it is recommended that breastfeeding should be interrupted if the mother ingests most drugs of abuse, antimetabolite medications such as chemotherapeutic agents, and certain radioactive compounds.[28] Among antidepressants, cardiovascular medications, immunosuppressants, and many other classes of medications, certain drugs are preferred over others for lactating women.[7, 29] In a particular class of medications, it is best to choose a drug that has the least passage into breast milk, a shorter half-life, fewer active metabolites, and/or is used locally rather than systemically.[7, 29, 30] Physicians should counsel patients before ordering medications or procedures. Often, patients will be counseled inappropriately by well-meaning health care professionals to "pump and dump" or to stop breastfeeding based on old information or package inserts. Family physicians should be aware of up-to-date information and advocate for patients to continue breastfeeding safely. Some medications and substances, such as bromocriptine, cabergoline, pseudoephedrine[31], and estrogen-containing oral contraceptives, are known to decrease milk supply. Contraceptive alternatives for breastfeeding mothers are discussed below (see Contraception in the Breastfeeding Mother section).

Contraception in the Breastfeeding Mother

Breastfeeding mothers have a number of options for contraception. The lactational amenorrhea method has been shown to be highly effective when practiced according to three specific criteria: 1) exclusive breastfeeding takes place without routine supplements or delays in feedings; 2) infant is younger than six months; and 3) menses

have not returned (i.e., no bleeding after 56 days postpartum). [32-34] In a Cochrane analysis of 13 studies that met inclusion criteria, the pregnancy rates at six months ranged from 0.45% to 2.45%.[35] In the absence of any one of these three criteria, this method is unreliable and additional precautions are needed. Mothers who wish to avoid contraceptives can be instructed in fertility awareness methods; however, menses may remain irregular during lactation, which makes use of these methods more challenging.

Contraceptive options that may be used once the lactational amenorrhea method is ineffective include barrier methods, intrauterine devices (IUDs), and hormonal contraceptives. The main advantage of barrier methods (e.g., condoms, diaphragms) is the lack of potential adverse effects to the nursing infant, whereas their main disadvantage is lower effectiveness. They may have their greatest use as a complement to lactational amenorrhea or fertility awareness methods. Diaphragms must be refitted at least six weeks postpartum prior to use. Copper IUDs are an excellent choice for breastfeeding mothers because of their effectiveness and low risk of adverse effects in the infant. As in nonlactating women, they are not recommended for women with multiple partners or for those who have a history of sexually transmitted infections.[36]

Hormonal methods may be prescribed for breastfeeding mothers but generally are not considered as first-line agents, especially in the early weeks postpartum before the establishment of the maternal milk supply. Studies suggest that progestin-only methods, including injectable medroxyprogesterone acetate, do not decrease milk supply when started after initiation of lactation.[37] However, many anecdotal reports link hormonal contraceptives to a decrease in milk supply, and a Cochrane review found that the data are inconsistent and limited.[38] In particular, many of the studies do not consider exclusivity of breastfeeding. Progestin-only methods including the "mini-pill," injectable depot medroxyprogesterone acetate, etonorgestrel subdermal implant, and progestogen-containing IUD are best started after the milk supply is well established. If there are concerns about milk supply, it may be best to start with the mini-pill because the other forms are not easily reversible. Studies of the effects of combined oral contraceptives are of poor quality and show inconsistent results regarding effects on breastfeeding and infant weight gain.[39] Hormonal methods are best avoided in mothers with existing or previous low milk supply, a history of breast surgery, multiple or preterm birth, or compromised maternal or infant health. Mothers who choose to use hormonal methods should be encouraged to breastfeed, and infant growth should be monitored.

Tobacco and Alcohol Use

Infants should not be exposed to cigarette smoke. Children of mothers who smoke cigarettes have elevated cotinine levels in their urine compared with children of nonsmoking women. Nursing women who smoke pass a significant amount of cotinine through breast milk to the baby, such that the baby's cotinine levels are higher than those of babies exposed to passive cigarette smoke only.[40-42] Babies who are breastfed immediately after their mother smokes demonstrate changes in their sleep and wake patterns.[42] Breastfeeding infants who bed share with parents who smoke have a higher risk of sudden infant death syndrome (SIDS).[43] Breastfeeding women who smoke are at risk of insufficient milk supply because of the negative effect of nicotine on prolactin levels.[44] Women who breastfeed are advised not to smoke, but if they cannot quit, it is probably still more valuable to breastfeed, although they should be advised not to smoke in the infant's environment, to smoke as little as possible, and to smoke immediately after nursing (rather than before) to minimize the nicotine levels in their milk. Breastfeeding women can use nicotine supplements to aid in tobacco cessation, although it is best to use the lowest possible dose because of the adverse effects of nicotine on the infant and maternal milk supply.[29]

Alcohol passes easily into breast milk but is also cleared from breast milk as rapidly as it is cleared from the bloodstream. Although it is safest for nursing mothers to consume no alcohol, small amounts of alcohol (e.g., one serving of wine or beer per day) appear to be safe. It is ideal for the mother to wait 2 to 2.5 hours after finishing the alcoholic beverage to nurse again.[29]

Toxins and Pollutants in Infant Feeding

Infant exposure to toxins and pollutants occurs primarily through feeding and air. Breastfeeding women without specific occupational or other known poisonous exposures to pollutants may nevertheless be found to have a variety of polluting chemicals in their bodies.[45] Some of these chemicals may be transferred to fetuses in utero and possibly to infants postnatally through breast milk, as well as through formula and complementary foods.

While breast milk receives much scrutiny and media coverage about the toxins it contains, it is important to understand that infant formula (primarily cow's milk and soy) also contain many of the same toxins, as well as manufactured substances that are added by the formula industry. Many of these manufactured substances (e.g., docosahexaenoic acid [DHA], arachidonic acid [ARA]) have been determined to be "safe" by the U.S. Food and Drug Administration (FDA); however, there is no proof of their benefit to infants in infant formula.[46] Infant average daily dose exposures by inhalation of volatile organic compounds (VOCs), such as benzene, toluene, and methyl tertiary butyl ether (MTBE), have been found to exceed human milk ingestion rates by 25- to 135-fold.[47]

Women who breastfeed are concerned about chemicals in breast milk. Reporting of chemicals in breast milk may lead to early termination of breastfeeding.[48] It is important that family physicians educate parents that formula contains many of the same toxins, phthalates, heavy metals, and pesticides, and potentially many more. By using formula, they do not reduce exposure to environmental toxins. The risk of cancers and less-than-optimal neurologic development remains higher in formula-fed babies compared with breastfed babies in similar environments.[49, 50]

Women who have average environmental exposure do not need to worry about having their milk screened for pollutants. For women who have known poisonous exposures, testing of breast milk may be necessary. Bisphenol A (BPA) is a common chemical used to make many plastics, including baby bottles. Further study is needed on the exact effects of BPA in humans. BPA-free bottles do exist, and parents may choose to use those to limit exposure.[51]

Concerns have been raised about heavy metal toxins—primarily mercury—in fish, causing some to reduce fish consumption during pregnancy and lactation. However, there appear to be beneficial effects on cognitive development in children with increased consumption of fish. The Environmental Protection Agency (EPA) now encourages women to eat more fish that are lower in mercury.[52] The EPA maintains information on mercury levels in fish (www.epa.gov/waterscience/fish), and most states, U.S. territories, and Native American tribes provide information on mercury levels in fish. The FDA and EPA are in the process of updating their recommendations regarding fish intake. Information about the draft update may be found at www.gpo.gov/fdsys/pkg/FR-2014-06-11/pdf/2014-13584.pdf (http://www.gpo.gov/fdsys/pkg/FR-2014-06-11/pdf/2014-13584.pdf).

In addition to the concerns about the effect of toxins on infants, consideration needs to be given to the effect that environmental toxins, as well as medical, biologic, and even social toxins, have on lactogenesis, an area that has had little study.[53]

Although the presence of toxic chemicals in humans' fetal environment and milk signals the urgent need to reduce community exposure to these pollutants, the weight of the evidence indicates that breastfeeding remains the healthiest option for mothers and babies.

Employment

Family physicians have an opportunity and responsibility to promote breastfeeding in the workplace as community leaders, business owners, supervisors, and/or employees. Research suggests that a key reason for low breastfeeding rates lies in employment and the lack of paid maternity leave in the United States.[54] American mothers who plan to continue their jobs are forced to make a relatively rapid return to employment. Federal law currently provides mothers reasonable break times to express milk in a private, non-bathroom location for one year after the child's birth.[55]

Providing lactation support is not only highly desired by breastfeeding employees who return to work after childbirth; it also can improve a company's return on investment by saving money in health care and employee expenses.[56] Employer benefits include:

- Lower medical costs and health insurance claims for breastfeeding employees and their infants (up to three times less for breastfeeding employees)
- Reduced turnover rates (86% to 92% of breastfeeding employees returning to work after childbirth when a lactation support program is provided compared with the national average of 59%)
- Lower absenteeism rates (up to half the number of one-day absences)
- Improved productivity
- Higher employee morale and loyalty to the company

Resources to help family physicians educate employers in their communities are available. The Business Case for Breastfeeding is a comprehensive program designed by the U.S. Department of Health and Human Services to educate employers about the value of supporting breastfeeding employees in the workplace.[57] The program highlights how such support contributes to the success of the entire business. The Business Case for Breastfeeding offers tools to help employers provide worksite lactation support and privacy for breastfeeding mothers to express milk. The program also offers guidance to employees' rights and responsibilities regarding breastfeeding and working.

Pumping, Expressing, and Storage Guidelines

Expressing milk can be accomplished in various ways. The optimal method varies with the length of the mother's absence from the infant and maternal preference. For occasional brief absences, hand expression and/or the use of a hand pump is usually sufficient. The longer and more frequent the separations, the more important it is for the mother to use a hospital grade double-pumping electric pump. This is especially important in cases of maternal-infant separation caused by illness or prematurity and maternal return to full-time work in the absence of on-site day care.[5] To avoid a significantly reduced milk supply during the work week, mothers who work full-time can try frequent breastfeeding when they are with their infants, pumping at a frequency as close to the feeding frequency as possible, and instructing the infant caregiver not to feed a full bottle to the infant shortly before the mother's arrival to pick up the infant. Furthermore, bottle-feeding may cause an excessive volume of milk to be taken by the infant, putting additional pressure on the mother to pump larger volumes. To prevent this, the caregiver may be instructed in techniques that minimize the amount of milk the infant takes from a bottle at each

feed, which include the “paced bottle-feeding” method, cue-based feedings, and frequent breaks during a feeding. Mothers whose milk ejection reflex is inhibited at work can be encouraged to use an item of the infant’s clothing and/or the infant’s picture as a stimulus and to ensure as comfortable an environment as possible for pumping.[5]

Mother’s milk can be stored safely for longer periods than were previously recommended.[58] For working mothers with healthy, term infants, the milk can be stored at room temperature for six to eight hours, in an insulated cooler bag with ice packs for 24 hours, and in the refrigerator for up to five days. Milk can be stored in a freezer for up to six months. Storing milk in a freezer for up to 12 months may be acceptable. Small amounts of milk can be added to previously expressed milk, but the fresh milk should be chilled before adding to already frozen milk. Room should be left in the container for expansion during freezing.[59]

The best storage containers are hard plastic or glass containers. It is best to avoid clear plastic containers because of the possible leaching of BPA into the milk during warming. Warming and thawing of milk should not be done in the microwave. Thawing can be accomplished by placing the frozen milk in the refrigerator overnight, or with the use of a bowl of warm water or running warm water.[59] Once thawed, the milk should not be refrozen but can be stored in the refrigerator for 24 hours. Because any thawed milk that has been partially consumed must be discarded, it is advisable to use small containers to avoid unnecessary waste.

Supplementation

Routine supplementation of healthy, term breastfeeding infants is not recommended unless medically indicated. Mothers who supplement their nursing infants with infant formula are at risk of a decrease in their milk supply caused by decreased demand. In addition to potential loss of milk, supplementation should be used only when medically indicated[60] because it can also interfere with other psychosocial and neurodevelopmental benefits of breastfeeding. (Note the American Academy of Family Physicians [AAFP] policy on Hospital Use of Formula in Breastfeeding Infants in **Appendix 4**). Common situations that require infant supplementation include infant hypoglycemia not responsive to breastfeeding, insufficient maternal milk supply, delay in lactation, excessive infant weight loss, infant illness such that feeding at the breast is not effective, and maternal-infant separation.[61]

Supplementation may be done with expressed mother’s milk, pasteurized human milk from a donor, or infant formula. Methods of supplementation include cup feeding, finger feeding with a syringe attached to a feeding tube, using a supplemental feeding tube at the breast, and bottle feeding. One method is not necessarily more suitable than another, and the choice of method depends on individual evaluation of the mother-infant pair. Parents need professional guidance when supplementation is necessary, and consultation with a certified lactation consultant or other knowledgeable health care professional is recommended.

Sunlight has historically been the primary source of vitamin D for humans. Human mothers and babies receive much less sun exposure than they historically did because of urban/indoor lifestyles, migration, and sun avoidance or use of sunscreens to prevent skin cancer. Human milk contains low levels of vitamin D, leaving breastfed babies, especially dark-skinned babies, at increased risk of rickets. It is recommended that all babies receive 400 IU of vitamin D supplementation daily beginning soon after birth. Babies receiving 500 mL or more of vitamin D-fortified infant formula do not need additional vitamin D supplementation.[62] Recent studies suggest that it may be possible to supplement breastfeeding mothers to a high enough level to meet the needs of the breastfeeding infant through mother’s milk.[63] It is also important to supplement pregnant women so that babies are born with sufficient vitamin D levels.[64]

Breastfeeding and the Preterm Infant

The period following the birth of a premature infant can be overwhelming for families. The advice and support of a trusted family physician can be invaluable to parents confronted with unforeseen decisions and numerous uncertainties. Some relatively mature preterm infants may be able to breastfeed right away. Family physicians can provide immediate guidance on maintaining lactation when mother-infant separation is required.

Preterm human milk differs from term human milk, in that it has a higher concentration of protein, immunoglobulin A, infection-fighting cells, immune modulators, and anti-inflammatory factors, and it provides short- and long-term health advantages for preterm infants. Premature infants who receive their mother's milk have a decreased risk of necrotizing enterocolitis, improved gut motility and maturation, improved neurodevelopmental outcomes[65], and reduced rates of sepsis[66] and retinopathy of prematurity[67] compared with infants who receive milk substitutes. The decrease in necrotizing enterocolitis appears to outweigh any short-term increase in growth achieved with preterm formula feeding.[68]

Evidence of improved feeding tolerance, earlier full enteral feeds, and decreased risk of atopic diseases has been inconsistent to date. A meta-analysis of 20 studies concluded that breastfeeding is associated with long-term cognitive advantages and that preterm infants derive more benefit than full-term infants.[69] Other long-term health benefits from human milk feeding in the preterm infant include decreased risk of metabolic syndrome and hypertension[70], decreased insulin and leptin resistance[71], and lower low-density lipoprotein levels.[72]

Preterm infants who are provided human milk in the neonatal intensive care unit (NICU) have lower rates of rehospitalization.[73] Human milk also has been associated with enhanced retinal development and visual acuity in preterm infants. However, protein fortification may be necessary for smaller or more fragile preterm infants.

Studies have shown that preterm infants show greater cardiac and respiratory stability when breastfeeding rather than bottle-feeding.[74] Therefore, initiating breastfeeding in preterm infants does not require the demonstrated ability to bottle-feed. In addition to promoting physiologic stability in premature infants, skin-to-skin contact (i.e., "kangaroo care") increases maternal milk supply and breastfeeding rates.[75, 76]

Mothers of preterm infants should be presented with information about the benefits of breastfeeding and human milk for the premature infant. A woman who is hesitant to make a long-term commitment to breastfeeding can be encouraged to nurse or express colostrum and milk for her infant until hospital discharge. The mother of a preterm infant faces many challenges, such as infant illness; maternal-infant separation; infant feeding difficulties at the breast; the possibility of prolonged pumping; and the emotional and physical stress of juggling personal care with other commitments to her family, job, and newborn. When family physicians work as part of a medical team of neonatologists, nurses, social workers, dietitians, and lactation consultants, they can be effective in supporting the successful initiation and continuation of breastfeeding the preterm infant.

Breastfeeding the Late Preterm Infant

Newborns born at 35 to 37 weeks of gestation have special nutritional needs and require extra lactation support compared with newborns who are full term. These babies tend to be sleepy and are at high risk of not feeding effectively enough at the breast to support sufficient growth. This increases their risk of hypoglycemia and dehydration. Because of their relative immaturity, they are also at risk of delayed hepatic bilirubin excretion leading to jaundice. These babies require monitoring of adequate breast milk intake and often need supplementation of expressed colostrum or mother's milk until they are sufficiently vigorous at the breast to maintain proper growth.[77]

Donor Milk

There are 17 nonprofit human milk banks in the United States and Canada that are members of the Human Milk Banking Association of North America, with four additional banks in the developing stage (www.hmbana.org). Each milk bank carefully screens donors and then pasteurizes and distributes human milk from donors to a variety of infant and child populations in need. Banked pasteurized human milk from donors has been found to be safe and nutritionally sound for babies who do not have access to their own mother's milk.[78, 79] Certain premature infants, such as those weighing less than 1,500 g (3 lb, 4 oz), generally need the protein fortification of banked donor milk to achieve optimal growth.[80, 81]

In recent years, a new trend of casual milk sharing has emerged among some mothers, in which unpasteurized milk is shared with or sold to other mothers, without benefit of medical screening. One study found that milk purchased anonymously over the Internet frequently was contaminated[82], though these results may not be generalizable to situations in which donor and recipient mothers are acquainted and shipping is not necessary.[83] Mothers accepting milk from unscreened donors should be warned of the potential dangers, including possible transmission of HIV, hepatitis, and other infectious diseases; unknown hygiene of collection and storage techniques; and unknown medication history of the donor mother. Age and health status of the recipient baby should also be considered, and mothers should make a fully informed decision in their particular situation, weighing the risks of unscreened and unpasteurized human milk from a donor versus risks of artificial infant formula.

Breastfeeding Multiples

Mothers of twins and higher order multiples should be encouraged to breastfeed. In highly motivated mothers and those with good support, breastfeeding initiation rates in twins can be as high as 70% to 90%.[84, 85]

Mothers of multiples will need additional support for breastfeeding. Most mothers can fully breastfeed twins. Success with breastfeeding triplets and even quadruplets has been reported.[86] A consistent concern about breastfeeding multiples is whether there will be enough supply. One study showed adequate supply, with mothers of twins producing twice the volume of milk with adequate nutrient composition compared with mothers of singletons, and mothers of triplets capable of producing more than three liters per day.[87] Wet nurses in France in the 17th century were reported to breastfeed three to six infants, often of different ages and requirements.[84] Encouraging simultaneous feedings may be helpful to the breastfeeding mother of multiples, and attendance at support groups also can be beneficial.[88]

Physicians need to recognize that, while breastfeeding multiples is a challenge, with support, it can be successful. They must be prepared to counsel prior to delivery and support breastfeeding with reassurance of adequate supply, along with the usual recommendations of proper rest, nutritious diet, and the need for intensive support and help. Physicians should be familiar with techniques for increasing milk supply and recognize that even partial breastfeeding is beneficial.

Adoptive Breastfeeding

Family physicians often care for adoptive parents. The physician should discuss with the adoptive mother the option to breastfeed her child.

A knowledgeable physician or lactation consultant may help the mother develop a milk supply before or after an adoption. The family physician who is supporting lactation induction or relactation should begin as early as possible in the adoptive process. The physician should facilitate placing the newborn to the breast as soon as

possible after the birth of the adopted child.[89]

Many adoptive mothers are physiologically capable of producing milk, to a greater or lesser extent. A multiparous woman will likely produce significantly more milk than a nulliparous mother.[90] Although the adoptive mother may not develop a full milk supply, with induced lactation techniques and the use of galactagogues, it is often possible to provide a significant amount of mother's milk. It is also important to be knowledgeable about the informal milk-sharing resources in communities and on the Internet and to counsel adoptive mothers about the potential risks of such arrangements. Suckling at the breast has developmental advantages for babies. In many cases, the opportunity to emotionally bond during nursing is the primary benefit of breastfeeding for adoptive mothers and babies.[91]

Nursing Beyond Infancy

As recommended by the World Health Organization, breastfeeding ideally should continue beyond infancy, but this is not the cultural norm in the United States and requires ongoing support and encouragement. It has been estimated that a natural weaning age for humans is between two and seven years.[92] Family physicians should be knowledgeable regarding the ongoing benefits to the child of extended breastfeeding, including continued immune protection,[93, 94] better social adjustment[95], and availability of a sustainable food source in times of emergency. The longer women breastfeed, the greater the decrease in their risk of breast cancer.[96] Mothers who have immigrated from cultures in which breastfeeding beyond infancy is routine should be encouraged to continue this tradition. There is no evidence that extended breastfeeding is harmful to mother or child. Emerging research on nutrient content of human milk into the second year of lactation suggests that breast milk continues to offer significant nutritional and immunological benefits.[94] Breastfeeding during a subsequent pregnancy is not unusual. If the pregnancy is normal and the mother is healthy, breastfeeding during pregnancy is the woman's personal decision. If the child is younger than two years, the child is at increased risk of illness if weaned.

Breastfeeding the nursing child during pregnancy and after delivery of the next child (tandem nursing) may help provide a smooth transition psychologically for the older child.[5]

Weaning

Weaning has nutritional, behavioral, and psychosocial components. From a strictly nutritional perspective, weaning is the gradual process of transitioning infants from mother's milk to complementary foods and, ultimately, to an older child's diet. In this sense, weaning begins with the introduction of solids around the middle of the first year. Complete weaning, or complete cessation of breastfeeding, ideally should be a gradual process accomplished over a long period. There is no evidence that a specific age of weaning is necessary or mandated. Like other developmental milestones, weaning takes place when a child is ready, physically and psychologically. Anthropological data suggest a wide range of normal self-weaning ages, from 2.5 to 7 years of age.[92] As mother's milk decreases in nutritional importance in the growing child's diet and complementary foods are added for additional needed protein, minerals, and other nutrients, behavioral and psychosocial factors become more important in the bonding and comforting aspects of nursing.

The role of the family physician involves knowledge of the physiologic norm for weaning and the provision of culturally sensitive anticipatory guidance and counseling to mothers and families during the process. It is important to recognize and counsel mothers about the difference between weaning and a nursing strike because mothers may misinterpret an abrupt breast refusal—especially in an infant younger than one year of age—as a sign that the baby is ready to wean. It is also important to avoid inappropriate recommendations for premature weaning for noncontraindications.

If the mother chooses to wean, she can be supported to go about it gradually to lessen the risk of engorgement, plugged ducts, galactoceles, mastitis, and breast abscess for herself; emotional trauma for herself and the child; and the risk of infectious illnesses, dehydration, and malnutrition in the child.

Medications to decrease or stop milk production are not necessary and should be avoided. If the mother is interested, she can be encouraged to try a partial, rather than complete, weaning. In rare cases in which abrupt weaning is necessary, the advice of a lactation consultant should be sought to minimize the risks. Regardless of the reasons for weaning, whether premature and abrupt or gradual and mother- or child-led, many mothers feel a sense of grief or loss as breastfeeding ends.[97] The family physician can provide anticipatory guidance and support for the mother and the family during this phase.

Father's Role in Breastfeeding Support

In the United States, the role of the father has been shown to be one of the most powerful influences on a mother's decision to breastfeed.[98-100] To support and increase breastfeeding initiation and continuation, the father's opinion, attitude, and knowledge about breastfeeding and his relationship to his baby and the baby's mother must be considered.[101]

Approval and support of breastfeeding by the father is associated strongly with the decision to breastfeed.[100] Mothers who perceive their partners to prefer formula or to be ambivalent about the feeding method are significantly more likely to discontinue breastfeeding before discharge compared with those who perceive their partners as being supportive.[102] If the mother thinks that the father has a negative attitude toward breastfeeding —even if that perception is incorrect—she is more likely to bottle-feed.[103]

Much of the focus on breastfeeding support is on the maternal-infant dyad. This focus may lead some fathers to feel excluded and resentful of breastfeeding.[104] The father's negative perceptions of breastfeeding's potential negative effects on sexual relations or breast appearance also can a lead the mother to bottle-feed.[104, 105]

In general, fathers whose children are bottle-fed have poor knowledge about breastfeeding. Fathers who had previous breastfed children, had attended breastfeeding classes, and had received information about breastfeeding from medical personnel had a significantly higher chance of having a better knowledge about breastfeeding.[106] Providing postpartum advice and educational materials to fathers is associated with higher incidence of exclusive breastfeeding or receiving maternal milk within the first three months.[107] If the decision by the mother to breastfeed is made after she becomes pregnant and not before, she is more likely to discontinue breastfeeding before discharge, so it is important for the couple to begin discussing breastfeeding before pregnancy.[107]

For fathers who have no breastfeeding role models, who have not discussed breastfeeding with their partner, or who have not attended a breastfeeding class, their first exposure to breastfeeding may be at the time of delivery. Family physicians must encourage pre-pregnancy and prenatal participation by fathers to promote breastfeeding. Family physicians who provide maternity care should include fathers in the prenatal visits and invite their questions or concerns about breastfeeding.

Five main attributes of father support in relationship to successful breastfeeding have been identified: (1) knowledge about breastfeeding; (2) positive attitude toward breastfeeding; (3) involvement in the decision-making process; (4) practical support; and (5) emotional support.108 Family physicians must be prepared to help support these paternal attributes, to educate fathers on the benefits of breastfeeding for mother and baby, and to dispel

any myths and misperceptions fathers may have. They need to understand that what they may perceive as problems, such as soreness, physiologic infant weight loss, jaundice, baby fussiness, and frequency of feedings, especially at night, do not necessitate a switch to formula.

Adolescents and Breastfeeding

Although teenage mothers share issues with their adult peers, they also face many unique pressures. The family physician is well positioned to assist the pregnant and breastfeeding teenager and her family. All adolescent mothers should be encouraged to breastfeed.[109]

Many adults in the United States may have a negative attitude toward the pregnant teenager. It is essential for the family physician to be aware of these negative attitudes, including his or her own feelings. The family physician can help pregnant teenagers cope with these issues and encourage breastfeeding. Enlisting and educating the teenager's support system is important; including her own mother and other female relatives, peers, friends, and the baby's father, may make the difference.[109] Since teenage mothers living with their own mothers may be at especially high risk of early weaning,[110] maternal grandmothers should be included with the adolescent mother in all counseling sessions on breastfeeding. Peer counseling by other breastfeeding teenagers can be powerful. Adolescents usually are interested in learning about the practical issues of breastfeeding and learn quickly. However, they often may have an incorrect understanding, and dispelling myths is key.[111]

Pregnant and breastfeeding adolescents often have significant concerns about body image. These concerns can be addressed by providing positive images of discreet breastfeeding and educating teens about changes that will occur during pregnancy and breastfeeding. Often, teenagers are disinclined to bring up such concerns, but, if asked, they are willing to discuss body image concerns, as well as issues such as sexuality and contraception. Because teenagers worry about their changing bodies, it is important to share information about proper nutrition, diet, exercise, and weight loss proactively with the mother and those in her support system.[112]

Continued support of the adolescent mother will help her maintain breastfeeding. It is also important to help create environments suitable for her success in breastfeeding. The physician may need to advocate on the mother's behalf at school or work to provide time for breastfeeding and pumping. In addition, anticipatory guidance about her baby's growth and development, as well as ongoing parenting education, will help the mother and her family to maintain breastfeeding as part of her lifestyle.

Breastfeeding in Underserved Populations

Since the enactment of the Patient Protection and Affordable Care Act (ACA) in 2010, an estimated 19 million women have become covered by the breastfeeding provisions.[113] ACA protections for expressing breast milk in the workplace will serve to equalize opportunities for breastfeeding across lines of socioeconomic status. Employment and breastfeeding will be more compatible for those who historically have faced the greatest challenges combining these activities.

Women in a relatively weak position in the labor market, including those who are poor, young, do not hold a college diploma, or are African American, also historically have had low rates of breastfeeding.[114, 115] These women most often are covered by ACA workplace breastfeeding protections. This first estimate of coverage is based on an analysis of the 2009 Annual Social Economic Supplement to the Current Population Survey.[116] The ACA provisions therefore appropriately target mothers who are most likely to benefit from the provisions.

Slightly more than 25,000 mothers living in poverty do not breastfeed their infants through six months of age because of stringent work requirements under the Temporary Assistance to Needy Families program.[117] Conservative estimates suggest that an overlapping group of 16,500 mothers living in poverty will likely breastfeed as a result of the ACA provisions, partly redressing some of the effects of welfare reform.[113]

Unfortunately, the ACA's requirement of coverage of "breastfeeding support, supplies, and counseling" applies only to private health care plans. It does not apply to Medicaid; rather, coverage decisions for Medicaid are managed at the state level. In 2012, the Centers for Medicare & Medicaid Services published an issue brief on Medicaid coverage of lactation services. The United States Breastfeeding Committee encourages states to go beyond current requirements to include lactation services as separately reimbursed pregnancy-related services and provides examples of current state practices.[56]

Issues of Ethnicity and Culture

Ethnic subgroups within U.S. society also face significant obstacles to breastfeeding, even when economics is not a factor. First-generation immigrants from countries where breastfeeding is the norm are more likely to breastfeed than are second- and later-generation women. This may be because of convenience, belief in modern food technology, and attempts to acculturate into a society where bottle-feeding is perceived to be the norm. Thus, breastfeeding role models are lost with successive generations. Additionally, accurate breastfeeding information is less available in languages of smaller ethnic minorities. Few lactation consultants or other health care professionals are equipped to help women who speak languages other than English or Spanish. Some ethnic and cultural groups are underrepresented in the lactation consultant field. Many cultures also have unique beliefs about lactation, including rituals regarding milk production, concerns about colostrum, sexual taboos, and beliefs about wet-nursing.[118] These beliefs need to be taken into account when counseling patients about the lactation process.

Family physicians can promote lactation among their patients of various ethnicities and socioeconomic levels in a number of ways, including:

- Learning about the family structure of their patients. Support from key family members may assist greatly in the promotion of breastfeeding. This often will include the baby's father and maternal grandmother, but could also include a key family decision maker, such as the patriarch or the paternal grandmother.
- Ensuring that parents from diverse cultures understand the importance of breastfeeding to their children's growth and development
- Respecting cultural traditions and taboos associated with lactation and adapting cultural beliefs to facilitate optimal breastfeeding, while sensitively educating about traditions that may be detrimental to breastfeeding
- Encouraging exclusive lactation in the hospital in a culturally sensitive manner
- Providing all information and instruction, whenever possible, in the mother's native language in a culturally relevant manner and assessing for literacy level when appropriate
- Understanding the specific financial, work, and time obstacles to breastfeeding, working with families to overcome them, and providing specific means to address the obstacles
- Being aware of the role of the physician's own personal cultural attitudes when interacting with patients

Military Issues

Military mothers have many issues in common with other employed mothers but also face some unique challenges. There is not a comprehensive Department of Defense policy about breastfeeding, but most branches of the service do have some kind of instruction regarding active-duty women and breastfeeding.
The military environment provides unique challenges to breastfeeding servicewomen. In general, active-duty mothers may return to work six weeks after delivery, and mothers are deployable four months postpartum. In partnership with their family physician, servicewomen may request medical extensions when medically indicated. Another challenge is the variety of resources, support, time, and environmental factors that vary from command to command. In the military environment, the attitudes of leaders, such as personnel commanders, are important to the success of any breastfeeding program. Family physicians should be aware of the unique challenges these families face and be actively involved in working with the military to educate commanders, supervisors, and peers about the benefits of breastfeeding and how to support maintenance of breastfeeding.

Family Physicians and Breastfeeding Advocacy

Family physicians have many opportunities to advocate for and support breastfeeding because they care for all members of the family, and often the extended family, and practice in a variety of community settings. Family physicians who provide maternity care can advocate for and support breastfeeding before conception, during the pregnancy, and after the delivery; no other specialty has that unique opportunity.
Family physicians can serve as breastfeeding advocates in physician offices, hospitals, residency education, medical schools, birthing centers, workplaces, legislatures, and insurance companies.

The AAFP endorses the “Ten Steps to Successful Breastfeeding” for making hospitals and staff more breastfeeding friendly (see Appendix 6).[119] These 10 steps are the core of the Baby Friendly Hospital Initiative (BFHI). While BFHI-designated facilities have been shown to increase breastfeeding rates, successful breastfeeding requires prenatal and post-delivery education and support.[120] Family physicians can play an important role in helping their hospital or birthing facility implement the provisions of the 10 steps and eventually seek BFHI “Baby-Friendly” designation.

Studies have shown that a physician’s recommendation to breastfeed increases breastfeeding initiation and duration rates.[121, 122] Eliminating formula company literature, advertising, and distribution of samples encourages breastfeeding as normal infant feeding.[123] Family physicians need to ensure that office and hospital policies support breastfeeding patients. Family physicians can advocate for breastfeeding in their offices by making their office and staff “breastfeeding friendly.” The Academy of Breastfeeding Medicine’s (ABM) Clinical Protocol #14: Breastfeeding-Friendly Physician's Office: Optimizing Care for Infants and Children offers guidelines for establishing a breastfeeding-friendly office.[124]

Family physicians should support and advocate for public health policies and research that would increase breastfeeding rates. Recent legislative efforts of states have ensured protection for lactating mothers.[125, 126] Family physicians should promote legislation actively and provide testimony that encourages the ease, safety, and security of breastfeeding on demand. Although an individual family physician is not likely to be involved in all areas of advocacy for breastfeeding, family physicians working together as a group or through their state academies can become effective advocates for breastfeeding patients. Family physicians should advocate for and become involved with breastfeeding-related research aimed at increasing innovative educational models in training programs.

In advocacy for breastfeeding issues related to insurance coverage and workplace changes, the economic benefits of breastfeeding are essential points. Several studies have shown a substantial increase in cost to families, communities, health care systems, and employers when babies are not breastfed.[127-129] Physicians must be aware of these data to be effective advocates in promoting change in policies regarding breastfeeding.

Family physicians have assumed many administrative roles in hospitals, managed care plans, insurance companies, and large physician organizations. In these roles, family physicians are in a position to promote breastfeeding and ensure appropriate payment for lactation services provided by physicians or lactation consultants. Family physicians should advocate for improved access to lactation services by encouraging increased availability of lactation consultants.

Family physicians are active and influential in their communities. By projecting a positive attitude toward breastfeeding in the office and the community, they can strongly affect a patient's decision to breastfeed. The U.S. Preventive Services Task Force recommends structured breastfeeding education and counseling to improve breastfeeding rates.[130] Family physicians provide a wealth of patient education in their offices. As a part of their health education and promotion activities in schools, family physicians should incorporate breastfeeding into their education for boys and girls. Making breastfeeding education available to all family and community members will make breastfeeding the community norm.

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Appendix 3: Education of Medical Students and Family Medicine Residents

Medical Students

In the preclinical years, courses in anatomy, physiology, and biochemistry, among others, should include aspects pertinent to lactation. These include anatomy of a lactating breast and how this relates to baby's latch-on, physiology of milk production and the milk ejection reflex, and biochemistry of human milk and the vast differences in artificial substitutes. Aspects of lactation relevant to particular disciplines could be integrated into the existing curriculum. For example, the basics of the passage of medications into human milk could be incorporated into the pharmacology course. In the introductory clinical course, students should be taught how to take a breastfeeding history (when appropriate) and how to examine lactating breasts. In the clinical years, patient care experience in family medicine, obstetrics, and pediatrics should include instruction in care for normal breastfeeding mothers and babies and in common breastfeeding problems.

Family Medicine Residency

The family medicine residency curriculum should reinforce the concept that breastfeeding is the physiologic norm for mothers and children. All aspects of normal breastfeeding and management of common problems should be covered and integrated longitudinally in the three-year residency curriculum. The American Academy of Pediatrics has developed a residency curriculum that is easily modified for use in family medicine residencies.[1] This curriculum, which includes advocacy, community outreach, coordination of care, anatomy and physiology, basic skills, peripartum support, ambulatory management, and cultural competency, has been shown to improve breastfeeding outcomes for patients cared for by family medicine residents, pediatric residents, and OB-GYN residents.[2]

Specific elective experiences in breastfeeding medicine should be made available for residents who want more intensive education.[3] Multidisciplinary breastfeeding education has proven beneficial to interns across primary care.[4] Residency practices should model support of their breastfeeding patients. Specific support also should be provided for medical students and residents (and other staff members) who are breastfeeding. Evidence shows that physicians tend to base their breastfeeding advice on their personal experiences.[5]

All family physicians should be trained to understand and practice according to the United States Breastfeeding Committee (USBC) Core Competencies.

CORE COMPETENCIES IN BREASTFEEDING CARE AND SERVICES FOR ALL HEALTH PROFESSIONALS

(Endorsed by the American Academy of Family Physicians)

Revised Edition

ABOUT USBC

The United States Breastfeeding Committee (USBC) is an independent nonprofit coalition of more than 40 nationally influential professional, educational, and governmental organizations. Representing over half a million concerned professionals and the families they serve, USBC and its member organizations share a common mission to improve the Nation's health by working collaboratively to protect, promote, and support breastfeeding. For more information, visit www.usbreastfeeding.org (http://www.usbreastfeeding.org).

BACKGROUND

Breastfeeding is a basic and cost-effective measure that has a significant positive impact on short- and long-term health outcomes for individuals and populations.[6] The greatest health impact is found with early initiation, exclusive breastfeeding for the first six months of life, and continued breastfeeding with appropriate complementary foods for the first year of life and beyond.[7] Lack of breastfeeding is a significant risk to the public health of our nation and increases health care spending.[8]

In order to establish and maintain breastfeeding, women need education and support from a knowledgeable health care community.[9] Evidence-based knowledge, skills, and attitudes are lacking among health professionals in many disciplines.[10] The volume of new information, advances in treatments and technologies, and health care system challenges, combined with the relative paucity of professional training in human lactation and breastfeeding, leave many providers without satisfactory answers for their patients.[11, 12]

PURPOSE

These core competencies in breastfeeding care and services were developed to provide health professionals with a guideline and framework to integrate evidence-based breastfeeding knowledge, skills, and attitudes into their standard health care delivery practices. The United States Breastfeeding Committee recommends that all health professionals possess the core competencies identified in this document in order to integrate breastfeeding care effectively and responsibly into current practice and thus provide effective and comprehensive services to mothers, children, and families.

EFFECTING CHANGE

Educators are in a unique position to lead the way by incorporating these core competencies into the undergraduate, graduate, and post-graduate curricula of health professionals.[2, 13-15] These core competencies provide a structure for educators to respond to the emerging necessity of educating all health care providers regarding breastfeeding and human lactation in the context of findings from the World Health Organization (WHO)[16] and the Agency for Healthcare Research and Quality (AHRQ).[17]

Maternal and child health (MCH) education and practice is based upon a life cycle framework that recognizes that there are pivotal periods in human development that present both risks and opportunities for improving health outcomes for individuals and populations.[18] In particular, USBC calls upon MCH leaders to emphasize the synergistic value of these breastfeeding core competences to the health of women, children, and families.

BREASTFEEDING CORE COMPETENCIES

Competence in the following areas represents the minimal knowledge, skills, and attitudes necessary for health professionals from all disciplines to provide patient care that protects, promotes, and supports breastfeeding. At a minimum, every health professional should understand the role of lactation, human milk, and breastfeeding in:

- The optimal feeding of infants and young children[8, 19]
- Enhancing health and reducing:
  - long-term morbidities in infants and young children[7, 19]
  - morbidities in women[19, 20]

All health professionals should be able to facilitate the breastfeeding care process by:

- Preparing families for realistic expectations
- Communicating pertinent information to the lactation care team[21]
- Following up with the family, when appropriate, in a culturally competent manner after breastfeeding care and services have been provided[22]

USBC proposes to accomplish this by recommending that health professional organizations:

- Understand and act upon the importance of protecting, promoting, and supporting breastfeeding as a public health priority[7, 8, 20, 23, 24]
- Educate their practitioners to:
  - appreciate the limitations of their breastfeeding care expertise[21, 25]
  - know when and how to make a referral to a lactation care professional[21, 25]

Regularly examine the care practices of their practitioners and establish core competencies related to breastfeeding care and services.[24, 26]

KNOWLEDGE

All health professionals should understand the:

1.1 basic anatomy and physiology of the breast[13, 27]
1.2 role of breastfeeding and human milk in maintaining health and preventing disease[7, 19]
1.3 importance of exclusive breastfeeding, and its correlation with optimal health outcomes[19, 28]

1.4 impact of pregnancy, birth, and other health care practices on breastfeeding outcomes[23, 29]
1.5 role of behavioral, cultural, social, and environmental factors in infant feeding decisions and practices[30, 31]
1.6 potentially adverse outcomes for infants and mothers who do not breastfeed[32]
1.7 potential problems associated with the use of human milk substitutes[33]
1.8 few evidence-based contraindications to breastfeeding[34, 35]
1.9 indications for referral to lactation services[21]
1.10 resources available to assist mothers seeking breastfeeding and lactation information or services[34, 36]
1.11 effects of marketing of human milk substitutes on the decision to breastfeed and the duration of breastfeeding[6, 37, 38]

SKILLS

All health professionals should be able to:

2.1 practice in a manner that protects, promotes, and supports breastfeeding[7, 8, 20, 26]
2.2 gather breastfeeding history information sufficient to identify mothers and families who would benefit from specific breastfeeding support services[39]
2.3 seek assistance from and refer to appropriate lactation specialists[26, 28]
2.4 safeguard privacy and confidentiality[40]
2.5 effectively use new information technologies to obtain current evidence-based information about breastfeeding and human lactation[26, 41]

ATTITUDES

All health professionals should:

3.1 value breastfeeding as an important health promotion and disease prevention strategy[34, 42]
3.2 recognize and respect philosophical, cultural, and ethical perspectives influencing the use and delivery of breastfeeding care and services[22, 26]
3.3 respect the confidential nature of the provision of breastfeeding care and services[40]
3.4 recognize the importance of delivering breastfeeding care and services that are free of commercial conflict of interest or personal bias[26, 27, 38]
3.5 understand the importance of tailoring information and services to the family's culture, knowledge, and language level[22, 43]
3.6 seek coordination and collaboration with interdisciplinary teams of health professionals[21]
3.7 recognize the limitations of their own lactation knowledge and breastfeeding expertise[21]
3.8 recognize when personal values and biases may affect or interfere with breastfeeding care and services provided to families[13]
3.9 encourage workplace support for breastfeeding[44]
3.10 support breastfeeding colleagues[45-47]
3.11 support family-centered policies at federal, state, and local levels[14]

All health professionals do not need to have the level of competence expected of those practitioners who care for childbearing women, infants, and young children. Health professionals who care for childbearing women, infants, and young children can be further divided into two groups:

1. Those that provide primary care are front-line practitioners who care for women of childbearing age and/or infants and young children.
2. Those that provide secondary care may be front-line practitioners or practitioners with enhanced knowledge and skills specifically referable to the use of human milk and breastfeeding.

Those health professionals who provide primary and secondary care for childbearing women, infants, and young children should be able to:

4.1 understand the evidence-based Ten Steps to Successful Breastfeeding[29, 48]
4.2 obtain an appropriate breastfeeding history[49]
4.3 provide mothers with evidence-based breastfeeding information[28]
4.4 use effective counseling skills[22]
4.5 offer strategies to address problems and concerns in order to maintain breastfeeding[28, 50]
4.6 know how and when to integrate technology and equipment to support breastfeeding[40]
4.7 collaborate and/or refer for complex breastfeeding situations[51]
4.8 provide and encourage use of culturally appropriate education materials[37]
4.9 share evidence-based knowledge and clinical skills with other health professionals[39, 52]
4.10 preserve breastfeeding under adverse conditions[28, 53]

In addition, those health professionals who provide secondary or more direct “hands-on” care for childbearing women, infants, and young children should also be able to:

5.1 assist in early initiation of breastfeeding[54]
5.2 assess the lactating breast[55]
5.3 perform an infant feeding observation[41, 55]
5.4 recognize normal and abnormal infant feeding patterns[55, 56]
5.5 develop and appropriately communicate a breastfeeding care plan[55, 56]

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Appendix 4: AAFP Policies Related to Breastfeeding

AAFP Policy Statement on Breastfeeding (http://www.aafp.org/about/policies/all/breastfeeding.html)

AAFP Policy Statement on Hospital Use of Infant Formula in Breastfeeding Infants (http://www.aafp.org/about/policies/all/formula-hospital.html)

AAFP Policy Statement on Breastfeeding Accommodations for Trainees (http://www.aafp.org/about/policies/all/breastfeeding-accommodations-trainees.html)

Appendix 5: Resources for Family Physicians and Other Health Care Professionals

The following is a limited list of references and resources to assist family physicians in their efforts to support recommendations of the American Academy of Family Physicians (AAFP) position paper on breastfeeding.

GOVERNMENT SUPPORT SERVICES

Centers for Disease Control and Prevention (CDC) (http://www.cdc.gov/breastfeeding)

www.cdc.gov/breastfeeding (http://www.cdc.gov/breastfeeding) (www.cdc.gov (http://www.cdc.gov))
The CDC is committed to increasing breastfeeding rates throughout the United States and to promoting optimal breastfeeding practices as a means of improving the public's health.

Resources:

- Maternity Practices in Infant Nutrition and Care (mPINC) is a national survey of maternity care practices and policies that is conducted by the CDC. The survey is administered to all hospitals and birth centers with registered maternity beds in the United States and U.S. territories.
- CDC Guide to Strategies to Support Breastfeeding Mothers and Babies.
- Breastfeeding Report Card, by State

The National Women's Health Information Center

www.womenshealth.gov/breastfeeding (http://www.womenshealth.gov/breastfeeding)
A project of the U.S. Department of Health and Human Services (HHS) Office on Women's Health
Resources:

- HHS Blueprint for Action on Breastfeeding
- The Business Case for Breastfeeding
- Breastfeeding: Best for Baby, Best for Mom

State Departments of Public Health

Many states have comprehensive programs that support breastfeeding and breastfeeding education.

State Universities

Many state universities or extension services offer information, training materials, and educational opportunities for physicians and other health care professionals.

National Library of Medicine Drug and Lactation Database
(http://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm)

toxnet.nlm.nih.gov/newtoxnet/lactmed.htm (http://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm)

Resources:

- LactMed is a user-friendly source for information on the use of drugs and other chemicals to which breastfeeding mothers may be exposed.

Surgeon General
(http://www.surgeongeneral.gov/library/calls/breastfeeding)

www.surgeongeneral.gov/library/calls/breastfeeding (http://www.surgeongeneral.gov/library/calls/breastfeeding)
Resources:

- The Surgeon General's Call to Action to Support Breastfeeding – 2011

PRINT AND INTERNET RESOURCES

Breastfeeding: A Guide for the Medical Profession
Ruth A. Lawrence, Robert M. Lawrence 7th ed.
(2011)
Mosby, Inc.

Breastfeeding Handbook for Physicians
American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists (ACOG)
2nd ed. (2014)
www.aap.org/bookstore (http://www.aap.org/bookstore)

Breastfeeding and Human Lactation
Jan Riordan
4th ed. (2010)
Jones and Bartlett Publishers

Drugs in Pregnancy & Lactation: A Reference Guide to Fetal & Neonatal Risk
Gerald G. Briggs; Roger K. Freeman; Sumner J. Yaffe
9th ed. (2011)
Lippincott, Williams & Wilkins

Medications and Mothers' Milk 2012
Thomas W. Hale, PhD
15th ed. (2012)
Hale Publishing

Nonprescription Drugs for the Breastfeeding Mother
Frank J. Nice RPh, DPA, CPHP
2nd ed. (2011)
Hale Publishing

Textbook of Human Lactation
Thomas W. Hale, PhD; Peter Hartmann, PhD
2007
Hale Publishing

Lactation Management: Strategies for Working with African-American Moms
Katherine Barber
2013
Hale Publishing L.P.

ORGANIZATIONS AND EDUCATIONAL RESOURCES FOR PHYSICIANS

American Academy of Family Physicians
www.aafp.org (http://www.aafp.org)
A national organization representing more than 115,000 members who provide comprehensive, coordinated, and

continuing care to all members of the family and serve as the patient's advocate in the changing health care system. Breastfeeding support materials and continuing medical education (CME) training are available.

Resources:

- AAFP Policy Statement on Breastfeeding (http://www.aafp.org/about/policies/all/breastfeeding.html)
- The AAFP Commission on Health of the Public and Science coordinates breastfeeding-related clinical information and policy.
- Additional courses with AAFP Prescribed credit are listed in the AAFP CME database.

American Academy of Pediatrics

www.aap.org (http://www.aap.org)

Resources

- Policy Statement, Section on Breastfeeding – Breastfeeding and the Use of Human Milk
- Breastfeeding Promotion in Physicians' Office Practices Program (BPPOP III) provides support for pediatric, obstetric, and family medicine residents; practicing physicians; and other health care professionals in effective breastfeeding promotion and management (www2.aap.org/breastfeeding/curriculum/index.html (http://www2.aap.org/breastfeeding/curriculum/index.html)).

Academy of Breastfeeding Medicine

www.bfmed.org (http://www.bfmed.org)

A worldwide organization of physicians dedicated to the promotion, protection, and support of breastfeeding and human lactation. Membership is open to all physicians.

Resources:

- Clinical protocols - Evidence-based clinical guidelines for the care of breastfeeding mothers and infants: Useful for hospital and clinical policies. Annotated bibliographies. Updated regularly with some foreign translations.
- Fellowship (FABM) recognizes physicians with additional training, experience, and knowledge in the clinical, research, academic, or public policy areas of breastfeeding medicine
- *Breastfeeding Medicine*: A peer-reviewed physician journal
- Academy of Breastfeeding Medicine Annual International Meeting: Offers the "What Every Physician Needs to Know about Breastfeeding" pre-conference course and a health team meeting for nonphysician health professionals

Breastfeeding Basics

www.breastfeedingbasics.org (www.breastfeedingbasics.org)

Resources:

An online short course on the fundamentals of breastfeeding; geared primarily for the medical professional.

Wellstart International

www.wellstart.org (http://www.wellstart.org)

A nonprofit organization that promotes maternal and child health, specializing in the area of breastfeeding. Wellstart provides educational opportunities for perinatal health care professionals, focusing on the scientific basis and management of human lactation.

Resources:

- Lactation Management Curriculum – A Faculty Guide for Schools of Medicine, Nursing, and Nutrition
- Lactation Management Self-Study Modules, Level 1

American Congress of Obstetricians and Gynecologists www.acog.org/breastfeeding (http://www.acog.org/breastfeeding)

Resources:

- "Breastfeeding in Underserved Women: Increasing Initiation and Continuation of Breastfeeding." Committee Opinion #570
- "Breastfeeding: Maternal and Infant Aspects." Committee Opinion #361: Provides a brief introduction to concepts detailed in a special report from the American Congress of Obstetricians and Gynecologists of the same title

La Leche League International

www.llli.org (http://www.llli.org)

Their mission is to help mothers worldwide to breastfeed through mother-to-mother support, encouragement, information, and education, and to promote a better understanding of breastfeeding as an important element in the healthy development of the baby and the mother.

Resources:

- *The Womanly Art of Breastfeeding*, 8th revised ed. (July 2010)
- Numerous resources on breastfeeding, the law, and education

International Board of Lactation Consultant Examiners
www.iblce.org The internationally recognized certifying agency for lactation consultants.

International Lactation Consultants Association

www.ilca.org (http://www.ilca.org)

The professional association for International Board Certified Lactation Consultants (IBCLCs) and other health care professionals who care for breastfeeding families.

Resources:

- *Journal of Human Lactation*

The Joint Commission

www.jointcommission.org/perinatal_care (http://www.jointcommission.org/perinatal_care)

An independent, not-for-profit organization that accredits and certifies more than 20,500 health care organizations and programs in the United States.

Resources:

- *Speak Up: What you need to know about breastfeeding*
- Perinatal Care Core Measure: Includes a performance measurement for "exclusive breastfeeding." Mandatory for all hospitals with >1,100 births per year, effective January 1, 2014.

United States Breastfeeding Committee

www.usbreastfeeding.org (http://www.usbreastfeeding.org)

Composed of representatives from health care professional associations, relevant government departments, and nongovernmental organizations organized for coordination of breastfeeding activities in the United States.

World Alliance for Breastfeeding Action

www.waba.org.my (http://www.waba.org.my)

A global network of individuals and organizations concerned with the protection, promotion, and support of breastfeeding worldwide.

Appendix 6: National and International Breastfeeding Initiatives

The Baby-Friendly Hospital Initiative

(http://www.babyfriendlyusa.org)

www.babyfriendlyusa.org (http://www.babyfriendlyusa.org)

The Baby-Friendly Hospital Initiative (BFHI) is a worldwide project of UNICEF and the World Health Organization (WHO). The goal of the initiative is to recognize hospitals and birth centers that take special steps to provide an optimal environment for breastfeeding and implement the “Ten Steps to Successful Breastfeeding.” Baby-Friendly USA (BFUSA), Inc., is the accrediting body for the BFHI in the United States. In the United States, hospitals and birth centers may take a first step toward receiving “Baby-Friendly” designation through the Certificate of Intent program.

Baby-Friendly facility designation is awarded after a comprehensive process of self-assessment, policy development, staff training, data collection, quality improvement, and BFUSA on-site assessment. The process is guided by the BFHI Guidelines and Evaluation Criteria for Facilities Seeking Baby-Friendly Designation. Baby-Friendly designation requires successful implementation of the “Ten Steps to Successful Breastfeeding” and the International Code of Marketing of Breast-milk Substitutes.

Ten Steps to Successful Breastfeeding

(Endorsed by the American Academy of Family Physicians)

1. Develop a written breastfeeding policy and routinely communicate it to all health care staff.
2. Train all health care staff in skills necessary to implement the policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within half an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in: Allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

The WHO/UNICEF Code of Marketing of Breast-milk Substitutes

(http://www.who.int/nutrition/publications/code_english.pdf)

www.who.int/nutrition/publications/code_english.pdf (http://www.who.int/nutrition/publications/code_english.pdf)

In 1981, the World Health Assembly adopted the International Code of Marketing of Breast-milk Substitutes as a tool to protect breastfeeding. Formula marketing targets women. New mothers are given free samples of formula,

babies are given bottles in hospitals, coupons or food samples arrive in the mail, and booklets and videotapes are distributed on breastfeeding and weaning. The Code prohibits marketing of these products in these ways. It covers formula, other milk products, cereals, teas, and juices, as well as bottles and teats.

The Code has significant provisions that require the following:

1. No advertising of any of these products to the public
2. No free samples to mothers
3. No promotion of products in health care facilities, including the distribution of free or low-cost supplies
4. No company sales representatives to advise mothers
5. No gifts or personal samples to health care professionals
6. No words or pictures idealizing artificial feeding or pictures of infants on labels of infant milk containers
7. Information to health care professionals should be scientific and factual
8. ALL information on artificial infant feeding, including that on labels, should explain the benefits of breastfeeding and the costs and hazards associated with artificial feeding
9. Unsuitable products, such as sweetened condensed milk, should not be promoted for infants
10. Manufacturers and distributors should comply with the Code's provisions, even if countries have not adopted laws or other measures

Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding

(http://www.unicef-irc.org/publications/pdf/declaration_eng_v.pdf)

www.unicef-irc.org/publications/pdf/declaration_eng_v.pdf (http://www.unicef-irc.org/publications/pdf/declaration_eng_v.pdf)
The Innocenti Declaration was produced and adopted by participants at the WHO/UNICEF policymakers' meeting on "Breastfeeding in the 1990s: A Global Initiative," co-sponsored by the U.S. Agency for International Development (AID) and the Swedish International Development Authority (SIDA). In 2005, the Innocenti Declaration updated operational targets for action (full text available online at www.unicef-irc.org/publications/pdf/declaration_eng_v.pdf (http://www.unicef-irc.org/publications/pdf/declaration_eng_v.pdf)).

THE GLOBAL STRATEGY FOR INFANT AND YOUNG CHILD FEEDING: OPERATIONAL TARGETS (UPDATED 2005):

• *Four operational targets from the 1990 Innocenti Declaration:*

1. Appoint a national breastfeeding coordinator with appropriate authority, and establish a multisectoral national breastfeeding committee composed of representatives from relevant government departments, nongovernmental organizations, and health care professional associations.
2. Ensure that every facility providing maternity services fully practices 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 World Health Assembly resolutions in their entirety.
4. Enact imaginative legislation protecting the breastfeeding rights of working women and establish means for its enforcement.

• *Five additional operational targets:*

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.

6. Ensure that the health and other relevant sectors protect, promote, and support exclusive breastfeeding for six months and continued breastfeeding up to two years of age or beyond, while providing women access to the support they require—in the family, community, and workplace—to achieve this goal.
7. Promote timely, adequate, safe, and appropriate complementary feeding with continued breastfeeding.
8. Provide guidance on feeding infants and young children in exceptionally difficult circumstances and on the related support required by mothers, families, and other caregivers.
9. Consider what new legislation or other suitable measures may be required, as part of a comprehensive policy on infant and young child feeding, to give effect to the principles and aim of the International Code of Marketing of Breast-milk Substitutes and to subsequent relevant Health Assembly resolutions.

Healthy People 2020

(http://www.healthypeople.gov)

www.healthypeople.gov (http://www.healthypeople.gov)

Department of Health and Human Services
MICH – Maternal, Infant, Child Health – Breastfeeding Objectives and Targets:
MICH-21.1 Increase the proportion of infants who are ever breastfed: 81.9%
MICH-21.2 Increase the proportion of infants who are breastfed at six months: 60.6%
MICH-21.3 Increase the proportion of infants who are breastfed at one year: 34.1%
MICH-21.4 Increase the proportion of infants who are breastfed exclusively through three months: 46.2%
MICH-21.5 Increase the proportion of infants who are breastfed exclusively through six months: 25.5%
MICH-22 Increase the proportion of employers that have worksite lactation support programs: 38%
MICH-23 Reduce the proportion of breastfed newborns who receive formula supplementation within the first two days of life: 14.2%
MICH-24 Increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies: 8.1%

U.S. Preventive Services Task Force

(http://www.uspreventiveservicestaskforce.org/uspstf/uspsbrfd.htm)

www.uspreventiveservicestaskforce.org/uspstf/uspsbrfd.htm (http://www.uspreventiveservicestaskforce.org/uspstf/uspsbrfd.htm)

An independent, volunteer panel of national experts in prevention and evidence-based medicine. The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medications.
Recommendation Statement:
The USPSTF recommends interventions during pregnancy and after birth to promote and support breastfeeding. Grade: B recommendation. Date: October 2008

World Health Organization

(http://www.cdc.gov/growthcharts/who_charts.htm)

www.cdc.gov/growthcharts/who_charts.htm (http://www.cdc.gov/growthcharts/who_charts.htm)

The WHO standards establish growth of the breastfed infant as the norm for growth. Breastfeeding is the recommended standard for infant feeding. The WHO charts reflect growth patterns among children who were predominantly breastfed for at least four months and were still breastfeeding at 12 months.
Resources:

-WHO Growth Charts and Centers for Disease Control and Prevention (CDC) Growth Charts

(2001) (2014 COD)

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