

Benefits of Breastfeeding

Fact Sheet 9.385

Food and Nutrition Series | Health

Updated by J. Clifford and S. Mi* (05/22)*

Breastfeeding Recommendations

Breastfeeding is regarded as the optimal feeding method for infants. In fact, infants who breastfeed have a decreased risk for ear infections, allergies, as well as gastrointestinal and respiratory infections. Breastfeeding is also associated with a lowered risk of Sudden Infant Death Syndrome (SIDS), which is the leading cause of infant deaths (after 1 month of age) in the United States. Research has demonstrated that children who were breastfed as infants also have a lowered risk for chronic conditions such as obesity, type 1 and type 2 diabetes, asthma, and leukemia. Additionally, mothers who breastfeed have a lowered risk of breast and ovarian cancer, type 2 diabetes, and postpartum depression. Since many health outcomes are affected by the duration of breastfeeding, the longer a mother can breastfeed her infant (after 6 months of age) the healthier both mother and infant will be.

The American Academy of Pediatrics recommends that mothers exclusively breastfeed their infants for 6 months. Upon addition of complementary foods to an infant's diet, mothers should continue to breastfeed until their infants are at least 12 months old, when possible.

J. Clifford, Colorado State University Extension Nutrition Specialist and Registered Dietitian and S. Mi, Colorado State University Graduate. 05/22. Originally written by L. Bellows, R. Moore, J. Hunley, A. Reeder, and A. Clark (10/13)

Benefits of Breastfeeding

Nutrition. Breast milk inherently meets the majority of the nutrition needs of infants. Early breast milk, also known as colostrum, is especially rich in antibodies that aid in the protection of infants from infections immediately following birth. Mature breast milk, expressed approximately 3 to 5 days after birth, has the right balance of protein, carbohydrates, fat, and water, to promote healthy infant growth and development. In addition to breast milk, it is also important to supplement an infant's diet with 400 IU of vitamin D daily, beginning shortly after birth. This recommendation is the same for formula fed infants as well.

Cost. Current estimates place the cost of 12 months of formula feeding at approximately \$1,500. Breast milk is free, as it does not require purchasing infant formula. Additionally, infants who breastfeed are generally healthier than those who formula feed, which can translate to lower individual and societal healthcare costs.

Public and Environmental Impact. Breastfeeding has numerous benefits to society. Research has demonstrated that if 90 percent of American families exclusively breastfed their infants for at least 6 months in duration, approximately 700 infant deaths could be prevented each year.



Quick Facts

- Breastfeeding has numerous benefits for babies, families, and society alike.
- The American Academy of Pediatrics recommends exclusively breastfeeding for 6 months, followed by breastfeeding alongside complementary foods until the infant is at least 12 months of age.
- Breast milk contains antibodies and nutrients that are perfectly suited for infant growth and development.
- Breast feeding is a budget- and environment-friendly way of feeding infants and has protective health effects for mothers.

Breastfeeding also lowers the amount of time parents must spend away from work because breastfed infants are generally less sick than formula fed infants. Finally, breastfeeding is better for the environment, as it does not produce as much waste, from packaging, as formula feeding does.

Developing Strong, Healthy Families. Breastfeeding is a way for mothers and infants to take time throughout the day to connect emotionally and physically. Research demonstrates that skin-to-skin contact from breastfeeding can help infants feel warm, comforted, and safe, in addition to promoting a strong mother-infant bond. Research has also demonstrated that this strong mother-infant bond may translate into improved brain development among children who were breastfed as infants. Additional research suggests that the biochemical components of breast milk, including both hormones and fatty acids (DHA and EPA), may also play a role in healthy brain development and infant attachment.

Maternal Diet during Breastfeeding

Well-nourished breastfeeding mothers have an increased energy requirement of 330-400 calories per day. This need can be met with small increases in food consumption from a well-balanced, healthy diet. The recommended dietary allowances for some nutrients, such as iodine and choline, increase while breastfeeding. Some professionals recommend the continued use of pre-natal supplements during lactation, especially for moms with vegetarian and vegan diets. However, nutrient needs for women who are lactating differ from those who are pregnant. Continued use of a prenatal vitamin postpartum may exceed the iron and folic acid needs of a breastfeeding mother who is on a regular diet. Women should seek guidance from a healthcare provider on appropriate use of prenatal or other dietary supplements during lactation based on their unique needs.

The current dietary guidelines also recommend lactating women to consume at least 8 and up to 12 ounces of a variety of seafood per week, from choices lower in methylmercury. For more information in choosing low-mercury seafood, please visit: FDA.gov/fishadvice.

Strategies to Increase Breastfeeding Duration

Breastfeeding an infant can be a very rewarding experience. Unfortunately, one of the most significant barriers to continuing to breastfeed is the mother's return to work or school after giving birth. Transitioning back to work after maternity leave can be challenging; however, many working mothers can continue to feed their infants' breast milk to meet the American Academy of Pediatrics recommendations.

- One means for increasing breastfeeding duration among working mothers and their infants is to pump breast milk at work and store it for later use. It is important for women to communicate their breastfeeding needs to their supervisors prior to returning from maternity leave. In this way, employers can best support breastfeeding women. Colorado law requires workplaces to provide breastfeeding women breaks during the day to pump milk, as well as private space for pumping.
- It is also important to find a childcare center that is receptive to the notion of providing breast milk to the infants for whom they care. Ensuring that a childcare center is versed on the importance of breastfeeding and practical aspects of breastfeeding (such as breast milk storage and safety) is crucial to guaranteeing continued breastfeeding duration upon the mother's return to the workforce. This may include the childcare facility feeding the previously pumped milk or mid-day visits from mom to nurse the baby.



- Properly storing breast milk is important to ensure that infants have continued access to breast milk that is safe. Breast milk can be safely refrigerated (at lower than 40 F) for up to 4 days. Breast milk can also be frozen for up to 12 months (although freezing breast milk for longer than 6 months is not recommended). Breast milk can be stored at room temperature for up to 4 hours.
- At times it may seem like your infant wants to nurse for longer (for example during a growth spurt) or shorter periods of time, or your breasts may not feel full (breasts do not need to feel full to have enough milk). These are common feelings during breastfeeding and do not necessarily indicate that your infant is not receiving enough milk.

Common Concerns

Well-nourished breastfeeding mothers have an increased energy requirement of 330-400 calories per day. This need can be met with small increases in food consumption from a well-balanced, healthy diet. Breastfeeding is the best choice for an infant, but some women may experience concerns during breastfeeding. In most cases one should not stop breastfeeding even if any of these concerns arise as continuing to breastfeed may actually help improve these conditions. Meet with your health care provider or certified lactation consultant with any concerns involving the following conditions:

- **Sore nipples:** Mothers may experience tender nipples if the infant is in a poor feeding position or is not properly latched-on to the breast.

Helpful Tips: Try to form a good latch or change positions often when breastfeeding. [Click here to watch a correct positioning and latching tutorial.](#) Avoid wearing tight clothing or bras, as well as using products with harsh chemicals. If you are delaying feedings or using creams or shells/shields, it is important to get advice from a certified lactation consultant.

- **Low milk supply:** Breastfeeding mothers can be concerned about having enough milk for their infants.

Helpful Tips: Following an infant's lead, nursing more often, rest, good nutrition, and proper fluid intake, will each help build milk supply. Offer both breasts at each feeding. Avoid giving your baby formula or cereal because it may decrease interest in breast milk. Check your infant's weight and growth regularly, or let your health care provider or lactation consultant know that you are concerned that your infant may not be receiving enough milk.

- **Oversupply of milk:** Some mothers experience milk production in excess, which can lead to uncomfortable feedings for mother and infant.

Helpful Tips: Breastfeed on one side for each feeding, and increase the time of each feeding. If pressure is felt in the breast, express the milk for a few moments and use a cold compress to decrease swelling. Feed your infant before he or she is hungry, which can prevent aggressive suckling. If oversupply persists, you can choose to donate extra breast milk to [a registered milk bank.](#)

- **Engorgement:** Engorgement happens when milk isn't fully removed from breast, such as milk transformed from colostrum to mature milk and skipped feedings or pumping's. Breasts may feel hard, full, warm, tender, and painful. It can lead to plugged ducts and breast infection if untreated.

Helpful Tips: Breastfeed first from the engorged breast. If your breast is hard, [hand express or pump](#) a little milk before nursing. Only express enough milk to soften your breasts or provide comfort.



If expressed too much, you may encourage milk production and keep getting engorged. Between feedings, put cold compresses on your breasts to help reduce swelling and pain.

- **Plugged milk duct:** A plugged duct is an inflamed duct that has not properly drained. This condition happens to most women at some point during breastfeeding, especially if a mother skips feedings or pumping's. With this condition, the breast may feel tender, and a lump could be present.

Helpful Tips: Breastfeeding will often help to keep the milk moving freely. A gentle massage, warm compress, wearing a bra that is not too tight, or sleeping with your feet up, may help in healing.

- **Breast infection:** Symptoms of an infection are very similar to a plugged milk duct, and include inflammation, tenderness, and a lump in the breast. Breast infections are not as common as a plugged duct. Breast infections that do not improve within 24 to 48 hours should be treated with medicine.

Helpful Tips: Mother should contact her health care provider if this lasts longer than 24 hours, if she has a fever and if she experiences flu-like symptoms. Breastfeeding will often help to keep the milk moving freely. A gentle massage, warm compress, wearing a bra that is not too tight, or sleeping with your feet up, may help in healing.

- **Fungal infection:** A fungal infection (also known as yeast infection or thrush) may form on nipples or within the breast—the bacteria live off of milk that is produced. Usually the organism is present in the body at healthy levels, but can grow out of control when the body becomes out of balance. Sore, pink, flaky, shiny, itchy, or cracked nipples are a sign of a fungal infection.

- Your infant can also show signs of infection with white spots on the inside of the mouth, refusal to nurse, or cranky behavior.

Helpful Tips: Keep nursing items clean (nursing pads, towels, clothing, pacifiers, nipples, breast pump). Always wash or boil these items in very hot water (above 122 F). Call your health care provider if you or your infant has signs of a fungal infection.

- **Refusal to breastfeed:** The way that your infant breastfeeds will change from day to day. If your infant suddenly refuses to breastfeed or becomes fussy during feedings, it may mean that something is wrong. Many factors can lead to an infant refusing to feed: fungal infections, ear infections, pain from a certain position, change in normal routine, distraction while feeding, cold or stuffy nose, reduced milk supply, others arguing while feeding, or stress. When milk builds up from lack of feeding, it may become uncomfortable for the mother.

Helpful Tips: Try to stay on the same schedule as your infant, and feed when he or she is hungry. Experiment with another type of feeding method such as a cup, dropper, or spoon. Check your infant's diapers frequently to make sure he or she is getting enough milk. Stay persistent while attempting to breastfeed your infant. Try different feeding positions like rocking back and forth in a quiet room with no distractions. Focus your attention on your infant, and comfort him or her with touch. If you are concerned, it is best to contact your health care provider.

- **Special circumstances:** Breast milk is still the best option for infants with health problems (e.g. premature, cleft lip, reflux disease, jaundice), as well as for twins and triplets. Sometimes special modifications must be made, such as pumping breast milk and then feeding the infant from the bottle.



- A certified lactation consultant can be helpful to discuss your unique breastfeeding needs with during and after your hospital stay.

Summary

Breast milk continues to be regarded as the best form of infant nutrition. Breastfeeding also has numerous benefits for families and society alike, making it the best possible means for feeding infants. Despite the knowledge that breastfeeding is a superior means of feeding infants, the majority of infants in the United States are not breastfed exclusively for 6 months and up to or greater than 12 months with complementary foods, per the American Academy of Pediatrics recommendation. A challenge for some mothers is when they return to work or school, but there are many established programs at the state and national level that can assist mothers in being successful. An important way in which mothers can continue to feed their infants breast milk and work concurrently is to pump their breast milk and store it for later use. Mothers are also encouraged to continue breastfeeding through the challenges such as breast infections and plugged milk ducts, since breastfeeding is the best option for both mothers and infants.

Additional Resources

Colorado Breastfeeding Coalition provides resources in support of their mission: To ensure optimal health and development of all Colorado families by fostering a society-wide approach to breastfeeding. Visit their website at <http://cobfc.org>.

La Leche League International's 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 mother.

Visit their website (www.llli.org) to get breastfeeding help, learn about breastfeeding and the law, and find resources.

WIC is The Special Supplemental Nutrition Program for Women, Infants and Children. WIC does not ask or keep information about visa status or citizenship. It gives you resources, knowledge, and tools to help you and support your family. It's free for moms, dads, grandparents, foster parents and all families who qualify. Visit their Colorado website at <https://www.coloradowic.gov>

References

Centers for Disease Control and Prevention. (2020). Breastfeeding Report Card 2020, United States: Process Indicators [Data file]. Retrieved from <https://www.cdc.gov/breastfeeding/data/reportcard.htm>

Colorado Department of Labor and Employment. (2022). Workplace Accommodations for Nursing Mothers. Retrieved from <https://cdle.colorado.gov/workplace-conditions/workplace-accommodations-for-nursing-mothers>

Krol, K. M., & Grossmann, T. (2018). Psychological effects of breastfeeding on children and mothers. *Psychologische Effekte des Stillens auf Kinder und Mütter. Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, 61(8), 977–985. <https://doi.org/10.1007/s00103-018-2769-0>

Unger, M. (2020). Barriers to fully informed decisions on whether to breastfeed or formula feed in the United States. *Hastings Women's LJ*, 31, 183.

Odar Stough, C., Khalsa, A. S., Nabors, L. A., Merianos, A. L., & Peugh, J. (2019). Predictors of exclusive breastfeeding for 6 months in a national sample of US children. *American Journal of Health Promotion*, 33(1), 48-56.



Special Supplemental Nutrition Program for Women, Infant and Children. (2022). Learn what engorgement is—and how to treat it. WIC Breastfeeding Support. Retrieved from <https://wcbreastfeeding.fns.usda.gov/engorgement>

US Department of Health and Human Services, Office on Women's Health. (2010). Breastfeeding and going back to work. Retrieved from <https://www.womenshealth.gov/breastfeeding/breastfeeding-home-work-and-public/breastfeeding-and-going-back-work>

US Department of Health and Human Services and US Department of Agriculture. Dietary Guidelines for Americans 2020-2025. Ninth Edition. 2020. Retrieved from https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf

US Department of Health and Human Services, Office on Women's Health. (2022). Your Guide to Breastfeeding. Retrieved from <https://owh-wh-d9-prod.s3.amazonaws.com/s3fs-public/documents/your-guide-to-breastfeeding.pdf>

Whitley, M. D., Ro, A., & Palma, A. (2021). Work, race and breastfeeding outcomes for mothers in the United States. PloS one, 16(5), e0251125.

