

BENEFITS OF BREASTFEEDING IN THE SECOND YEAR OF LIFE AND BEYOND

WHY FOLLOW-UP FORMULAS FOR CHILDREN 6-36 MONTHS SHOULD BE CLASSIFIED AS BREASTMILK SUBSTITUTES

1. WHO and UNICEF recommend breastfeeding be continued for up to two years and beyond¹. There are a number of reasons for this recommendation:
 - a. **MORTALITY:** Continued breastfeeding in the second year of life protects against mortality. In a 2015 meta-analysis², Sankar et al. identified six studies that examined the mortality effect of breastfeeding vs. not breastfeeding at 12-23 months of age. The pooled relative risk was 1.97 (1.45-2.67) times higher mortality in the non-breastfed children (total n=17,761). This means that children who are not breastfed at 12-23 months of age are about twice as likely to die as those who are breastfed in the second year of life.
 - b. **NUTRITION:** Breastmilk makes important and unique contributions to the dietary intake of young children in the second year of life. In low- and middle-income countries, the average breastmilk intake at 12-23 months has been estimated to be 550 g/day, contributing approximately 35-40% of the young child's energy needs.³ Breastmilk is a key source of essential fatty acids. It provides 70% of vitamin A requirements, 40% of calcium and 37% of riboflavin at 15-18 months of age.⁴ During illness, breastmilk intake is maintained even when appetite for other foods decreases.^{5,6} Clinical studies have confirmed that continued feeding during infections reduces the duration of illness and improves nutritional status.^{7,8}
 - c. **CHILDHOOD OVERWEIGHT:** The protection of breastfeeding against childhood overweight is strongest for those breastfed for more than one year. In a large study among low-income children in the United States, those breastfed for at least 12 months were 28% less likely to be overweight at four years of age than those never breastfed (AOR 0.72, CI: 0.65-0.80).⁹ In a meta-analysis of 17 studies conducted in seven countries,¹⁰ Harder et al. found that each additional month of breastfeeding reduced the risk of childhood obesity by 4%.
 - d. **MATERNAL HEALTH:** Mothers who breastfeed benefit from longer durations of breastfeeding. Continued breastfeeding delays the return to fertility, contributing to longer birth intervals in the absence of contraceptive use. Breastfeeding for more than 12 months reduces breast cancer by 26%, based on a meta-analysis of 50 published studies.¹¹ In the same paper, the reduction in ovarian cancer for breastfeeding longer than 12 months was 37%, based on 29 studies. Each additional year of lifetime duration of breastfeeding was associated with a 9% protection against type 2 diabetes (RR 0.91, 95% CI: 0.86-0.96).¹²
2. Breastfeeding through the second year of life is common practice in many countries. A majority of children (>50%) continue breastfeeding for at least two years in 41 out of the 130 countries with data in the UNICEF IYCF database.¹³ It is important to protect continued breastfeeding from the competitive marketing pressure of milk products targeted at this age range.



3. Distinguishing between a breastmilk substitute and a complementary food hinges on whether the food directly reduces breastmilk consumption or adds to it. Complementary foods are consumed in addition to breastmilk when breastmilk becomes insufficient to meet nutritional requirements. Milk feedings, on the other hand, replace the intake of breastmilk in young children. When milks are introduced, breastfeeding mothers either reduce the number of breastmilk feedings a day or stop breastfeeding altogether¹⁴. Thus, milks targeted specifically to young children less than 3 years of age replace the intake of breastmilk and are de facto substituting for breastmilk.
4. Whether a food is a breastmilk substitute is not dependent on whether that food is suitable for that purpose. The International Code of Marketing of Breast-milk Substitutes was explicit on this point in defining breastmilk substitutes (Article 3): “Breast-milk substitute means any food being marketed or otherwise presented as a partial or total replacement for breast milk, whether or not suitable for that purpose.”¹⁵ As a result, it is illogical to presume that because follow up formulas for children 6-36 months have different compositional requirements from infant formula, they would cease to substitute for breastmilk.
5. There is no basis on which to base a different categorization for products marketed for children below 12 months of age compared to those marketed for children 12-36 months of age. The Code makes no distinction at 12 months of age. Global recommendations for breastfeeding make no distinction at 12 months of age. Similarly, the PAHO/WHO Guiding Principles on Complementary Feeding of the Breastfed Child¹⁶ apply to all children under 24 months of age.

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from the competitive marketing pressure of milk products targeted at this age range.**

References:

1. World Health Organization. Global Strategy for Infant and Young Child Feeding. 2003. http://www.who.int/nutrition/publications/gi_infant_feeding_text_eng.pdf. Accessed March 9, 2017.
2. Sankar MJ, Sinha B, Chowdhury R, et al. Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis. *Acta Paediatr.* 2015;104(S467):3-13. doi:10.1111/apa.13147
3. Dewey KG, Brown KH. Update on Technical Issues concerning Complementary Feeding of Young Children in Developing Countries and Implications for Intervention Programs. *Food Nutr Bull.* 2003;24(1):5-28. doi:10.1177/156482650302400102
4. Prentice AM, Paul AA. Fat and energy needs of children in developing countries. *Am J Clin Nutr.* 2000;72(5):1253s-1265s. doi:10.1093/ajcn/72.5.1253s
5. Brown KH, Stallings RY, de Kanashiro HC, Lopez de Romaña G, Black RE. Effects of common illnesses on infants' energy intakes from breast milk and other foods during longitudinal community-based studies in Huascar (Lima), Peru. *Am J Clin Nutr.* 1990;52(6):1005-1013. doi:10.1093/ajcn/52.6.1005
6. Paintal K, Aguayo VM. Review Article Feeding practices for infants and young children during and after common illness. Evidence from South Asia. 2016;12:39-71. doi:10.1111/mcn.12222
7. Duggan C, Nurko S. “Feeding the gut”: the scientific basis for continued enteral nutrition during acute diarrhea. *J Pediatr.* 1997;131(6):801-808. <http://www.ncbi.nlm.nih.gov/pubmed/9427881>. Accessed August 24, 2018.
8. King CK, Glass R, Bresee JS, Duggan C, Centers for Disease Control and Prevention. Managing acute gastroenteritis among children: oral rehydration, maintenance, and nutritional therapy. *MMWR Recomm reports Morb Mortal Wkly report Recomm reports.* 2003;52(RR-16):1-16. <http://www.ncbi.nlm.nih.gov/pubmed/14627948>. Accessed August 24, 2018.
9. Grummer-Strawn LM, Mei Z, Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. Does breastfeeding protect against pediatric overweight? Analysis of longitudinal data from the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. *Pediatrics.* 2004;113(2):e81-6. <http://www.ncbi.nlm.nih.gov/pubmed/14754976>. Accessed July 26, 2018.
10. Harder T, Bergmann R, Kallischnigg G, Plegemann A. Duration of Breastfeeding and Risk of Overweight: A Meta-Analysis. *Am J Epidemiol.* 2005;162(5):397-403. doi:10.1093/aje/kwi222
11. Chowdhury R, Sinha B, Sankar MJ, et al. Breastfeeding and maternal health outcomes: a systematic review and meta-analysis. *Acta Paediatr.* 2015;104(S467):96-113. doi:10.1111/apa.13102
12. Aune D, Norat T, Romundstad P, Vatten LJ. Breastfeeding and the maternal risk of type 2 diabetes: A systematic review and dose-response meta-analysis of cohort studies. *Nutr Metab Cardiovasc Dis.* 2014;24(2):107-115. doi:10.1016/j.numecd.2013.10.028
13. United Nations Children's Fund (UNICEF). The State of the World's Children 2016: A fair chance for every child. 2016. https://www.unicef.org/publications/files/UNICEF_SOWC_2016.pdf. Accessed March 8, 2017.
14. Bellew B, Kelly B, Hector D, et al. Systematic Reviews of Evidence on the Marketing of Breast Milk Substitutes Foods & Non-Alcoholic Beverages. Update of the Evidence to December 2014. [Draft Report]. 2015.
15. World Health Organization. International Code of Marketing of Breast-milk Substitutes. 1981.
16. Dewey KG. Guiding Principles for Complementary Feeding of the Breastfed Child. 2003.