SUPPORTIVE DOCUMENTATION

MULTI-MAM®

EFFECTIVE NIPPLE CARE FOR BREASTFEEDING MOTHERS

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Content

WHO advice breastfeeding

Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Virtually all mothers can breastfeed, provided they have accurate information, and the support of their family, the health care system and society at large.

Colostrum, the yellowish, sticky breast milk produced at the end of pregnancy, is recommended by WHO as the perfect food for the newborn, and feeding should be initiated within the first hour after birth.

Exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond.

Breastfeeding is one of the most effective ways to ensure child health and survival. Optimal breastfeeding together with complementary feeding help prevent malnutrition and can save about a million child lives.

Globally less than 40% of infants under six months of age are exclusively breastfed. Adequate breastfeeding support for mothers and families could save many young lives.

WHO actively promotes breastfeeding as the best source of nourishment for infants and young children. This fact file explores the many benefits of the practice, and how robust help for mothers can increase breastfeeding worldwide.

10 facts on breastfeeding [1]

1. WHO recommendations

WHO strongly recommends exclusive breastfeeding for the first six months of life. At six months, other foods should complement breastfeeding for up to two years or more. In addition:

- breastfeeding should begin within an hour of birth;
- breastfeeding should be "on demand", as often as the child wants day and night;
- bottles or pacifiers should be avoided.

2. Health benefits for infants

Breast milk is the ideal food for newborns and infants. It gives infants all the nutrients they need for healthy development. It is safe and contains antibodies that help protect infants from common childhood illnesses - such as diarrhea and pneumonia, the two primary causes of child mortality worldwide. Breast milk is readily available and affordable, which helps to ensure that infants get adequate sustenance.

[1] http://www.who.int

3. Benefits for mothers

Breastfeeding also benefits mothers. The practice when done exclusively is associated with a natural (though not fail-safe) method of birth control (98% of protection in the first 6 months after birth). It reduces risks of breast and ovarian cancer later in life, helps women return to their pre-pregnancy weight faster, and lowers rates of obesity.

4. Long-term benefits for children

Beyond the immediate benefits for children, breastfeeding contributes to a lifetime of good health. Adults who were breastfed as babies often have lower blood pressure and lower cholesterol, as well as lower rates of overweight, obesity and type-2 diabetes. There is evidence that people who were breastfed perform better in intelligence tests.

5. Why not infant formula?

Infant formula does not contain the antibodies found in breast milk. When infant formula is not properly prepared, there are some risks arising from the use of unsafe water and unsterilized equipment or the potential presence of bacteria in powdered formula. Malnutrition can result from over-diluting formula to "stretch" supplies. Further, frequent feedings maintain the breast milk supply. If formula is used but becomes unavailable, a return to breastfeeding may not be an option due to diminished breast milk production.

6. HIV and breastfeeding

An HIV-infected mother can pass the infection to her infant during pregnancy, delivery and through breastfeeding. Antiretroviral (ARV) drug interventions to either the mother or HIV-exposed infant reduces the risk of transmission of HIV through breastfeeding. Together, breastfeeding and ARV interventions have the potential to significantly improve infants' chances of surviving while remaining HIV uninfected. WHO recommends that when HIV-infected mothers breastfeed, they should receive ARVs and follow WHO guidance for breastfeeding and complementary feeding.

7. Regulating breast-milk substitutes

An international code to regulate the marketing of breast-milk substitutes was adopted in 1981. It calls for:

- all formula labels and information to state the benefits of breastfeeding and the health risks of substitutes;
- no promotion of breast-milk substitutes;
- no free samples of substitutes to be given to pregnant women, mothers or their families; and
- no distribution of free or subsidized substitutes to health workers or facilities.

8. Support for mothers is essential

Breastfeeding has to be learned and many women encounter difficulties at the beginning. Nipple pain, and fear that there is not enough milk to sustain the baby are common. Health facilities that support breastfeeding - by making trained breastfeeding counsellors available to new mothers - encourage higher rates of the practice. To provide this support and improve care for mothers and newborns, there are now more than 20 000 "baby-friendly" facilities in 152 countries thanks to a WHO-UNICEF initiative.

9. Work and breastfeeding

Many mothers who return to work abandon breastfeeding partially or completely because they do not have sufficient time, or a place to breastfeed, express and store their milk. Mothers need a safe, clean and private place in or near their work to continue breastfeeding. Enabling conditions at work can help, such as paid maternity leave, part-time work arrangements, on-site crèches, facilities for expressing and storing breast milk, and breastfeeding breaks.

10. The next step: phasing in new foods

To meet the growing needs of babies at six months of age, complementary foods should be introduced as they continue to breastfeed. Foods for the baby can be specially prepared or modified from family meals. WHO notes that:

- breastfeeding should not be decreased when starting complementary feeding;
- complementary foods should be given with a spoon or cup, not in a bottle;
- foods should be clean, safe and locally available;
- ample time is needed for young children to learn to eat solid foods.

Studies related to Multi-Mam

Multi-Mam® Compresses: Evaluation of the relief and treatment of nipple pain in breastfeeding women

- Nr. of participants: 227
- Study design: Pilot study
- Duration of application: 2 days
- Results: The results of the evaluation of Multi-Mam® Compresses for the relief and treatment of nipple pain in 227 mothers are quite impressive with respect to the complete resolve within 2 days. A significant number of women were extremely satisfied with the relief of pain, inflammation and nipple damage, which greatly contributed to the continuation of breastfeeding.

- *Investigators and Study site: In house study by BioClin B.V, Delft, 2004.*
- *Publication/Report: Study Report, prepared by Dr.Annelize Goedbloed, 2004*

- *Translation of Bactimm Report nr. 01.136*

A moist environment is critical for epithelization, the proliferation and migration of epithelial cells across the surface of a wound during healing. Nipple wounds also heal by this process.

- *Cable B, Stewart M, Davis J. Nipple wound care: a new approach to an old problem. J Hum Lact. 1997 Dec; 13(4):313-8.*

In a study designed by Ziemer MM et al. (1995) maintenance of a moist environment on the nipple skin during the first week of breast-feeding would improve damaged nipple skin condition, as indicated by the presence of eschar, erythema, and fissures, and reduce pain was evaluated.

- *Ziemer, M. M., Cooper, D. M., & Pigeon, J. G. (1995). Evaluation of a dressing to reduce nipple pain and improve nipple skin condition in breastfeeding women. Nursing Research, 44(6), 347-351.*

Studies about breastfeeding problems

Statistics reveal that 80-95% of breastfeeding women will experience some degree if soreness with 26% reporting extreme nipple pain.

- *Newton NK. Nipple pain and nipple damage; problems in the management of breastfeeding. Of Pedr. 1952;41:411-23*

Women with pain and increased physiological stress gave up breastfeeding sooner. Breast diseases are associated with a higher level of psychological stress.

- *Abou-Dakn M, Schäfer-Graf U, Wöckel A. Psychological stress and breast diseases during lactation. Breasfeed Rve 2009 Nov; 17(3):19-26*
  St. Joseph-Hospital, Department of Obstetrics and Gynecology, Berlin, Germany.

Most common problems associated with breastfeeding can be prevented if the mother empties her breasts effectively. If they occur, they should be carefully and adequately approached, thus avoiding the early weaning resultant from painful and stressing situations the mother may face.

- *Giugliani ER. Common problems during lactation and their management. J Pediatr (Rio J). 2004 Nov;80(5 Suppl):S147-54.*
  Universidade de São Paulo, Ribeirão Preto.

Flora related studies

The study showed that mothers with infants younger than 1 month who complained of moderate to severe nipple pain and who had cracks, fissures, ulcers, or exudates had a 64% chance of having positive skin cultures and a 54% chance of having Staphylococcus aureus colonization.

- *Livingstone VH, Willis CE, Berkowitz J. Staphylococcus aureus and sore nipples. Can Fam Physician. 1996 Apr;42:654-9.*
  Department of Family Practice, University of British Columbia, USA.

Staphylococci seem to be the main etiological agents of human lactational mastitis. The combined use of culture and molecular techniques allowed a better characterization of the bacterial diversity in milk from women suffering from infectious mastitis. Our results suggest that this condition could be the result of a disbiotic process where some of the bacterial species usually present in human milk outgrow (staphylococci) while others disappear (lactobacilli or lactococci).

- *Delgado S, Arroyo R, Martín R, Rodríguez JM. PCR-DGGE assessment of the bacterial diversity of breast milk in women with lactational infectious mastitis. BMC Infect Dis. 2008 Apr 18;8:51.*
  Dpt. Nutrición, Bromatología y Tecnología de los Alimentos, Universidad Complutense de Madrid, 28040 Madrid, Spain.

Studies about prevention

The prenatal nipple-conditioning regime significantly reduced the amount of total nipple pain experienced during the first few days of breastfeeding.

- *Atkinson LD. Prenatal nipple conditioning for breastfeeding. Nurs Res. 1979 Sep-Oct;28(5):267-71.*

Studies about solutions

The prevention and improved management of nipple damage could potentially reduce the risk of lactating women developing mastitis.

- *Amir LH, Forster DA, Lumley J, McLachlan H. A descriptive study of mastitis in Australian breastfeeding women: incidence and determinants. BMC Public Health. 2007 Apr 25;7:62. Mother & Child Health Research, La Trobe University, Melbourne, Australia.*