Acceptable medical reasons for use of breast-milk substitutes.

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Introduction

Almost all mothers can breastfeed successfully, which includes initiating breastfeeding within the first hour of life, breastfeeding exclusively for the first 6 months and continuing breastfeeding (along with giving appropriate complementary foods) up to 2 years of age or beyond.

Exclusive breastfeeding in the first six months of life is particularly beneficial for mothers and infants.

Positive effects of breastfeeding on the health of infants and mothers are observed in all settings. Breastfeeding reduces the risk of acute infections such as diarrhoea, pneumonia, ear infection, Haemophilus influenza, meningitis and urinary tract infection(1). It also protects against chronic conditions in the future such as type I diabetes, ulcerative colitis, and Crohn's disease. Breastfeeding during infancy is associated with lower mean blood pressure and total serum cholesterol, and with lower prevalence of type-2 diabetes, overweight and obesity during adolescence and adult life (2). Breastfeeding delays the return of a woman's fertility and reduces the risks of post-partum haemorrhage, pre-menopausal breast cancer and ovarian cancer (3).

Nevertheless, a small number of health conditions of the infant or the mother may justify recommending that she does not breastfeed temporarily or permanently (4). These conditions, which concern very few mothers and their infants, are listed below together with some health conditions of the mother that, although serious, are not medical reasons for using breast-milk substitutes.

Whenever stopping breastfeeding is considered, the benefits of breastfeeding should beweighed against the risks posed by the presence of the specific conditions listed.

INFANT CONDITIONS

Infants who should not receive breast milk or any other milk except specialized formula

- classic galactosemia: a special galactose-free formula is needed;
- maple syrup urine disease: a special formula free of leucine, isoleucine and valine is needed;
- phenylketonuria: a special phenylalanine-free formula is needed (some breastfeeding is possible, under careful monitoring).

Infants for whom breast milk remains the best feeding option but who may need other food in addition to breast milk for a limited period

- very low birth weight infants (those born weighing less than 1500g);
- very preterm infants, i.e. those born less than 32 weeks gestational age;
- newborn infants who are at risk of hypoglycaemia by virtue of impaired metabolic adaptation or increased glucose demand (such as those who are preterm, small for gestational age or who have experienced significant intrapartum hypoxic/ischaemic stress, those who are ill and those whose mothers are diabetic (5) if their blood sugar fails to respond to optimal breastfeeding or breast-milk feeding.

[1] This document is quoted in its entirety, and is the property of the World Health Organization and UNICEF.

MATERNAL CONDITIONS

Mothers who are affected by any of the conditions mentioned below should receive treatment according to standard guidelines.

Mothers who may need to avoid breastfeeding

- HIV infection[2]: if replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS) (6).

Mothers who may need to avoid breastfeeding temporarily

- Severe illness that prevents a mother from caring for her infant, for example sepsis;
- Herpes simplex virus type 1 (HSV-1): direct contact between lesions on the mother's breasts and the infant's mouth should be avoided until all active lesions have resolved;
- Maternal medication:
    - sedating psychotherapeutic drugs, anti-epileptic drugs and opioids and their combinations may cause side effects such as drowsiness and respiratory depression and are better avoided if a safer alternative is available (7);
    - radioactive iodine-131 is better avoided given that safer alternatives are available – a mother can resume breastfeeding about two months after receiving this substance;
    - excessive use of topical iodine or iodophors (e.g., povidone-iodine), especially on open wounds or mucous membranes, can result in thyroid suppression or electrolyte abnormalities in the breastfed infant and should be avoided;
    - cytotoxic chemotherapy requires that a mother stops breastfeeding during therapy.

Mothers who can continue breastfeeding, although health problems may be of concern

- Breast abscess: breastfeeding should continue on the unaffected breast; feeding from the affected breast can resume once treatment has started (8).
- Hepatitis B: infants should be given hepatitis B vaccine, within the first 48 hours or as soon as possible thereafter (9).**
- Hepatitis C.
- Mastitis: if breastfeeding is very painful, milk must be removed by expression to prevent progression of the condition(8).
- Tuberculosis: mother and baby should be managed according to national tuberculosis guidelines (10).

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[2] The most appropriate infant feeding option for an HIV-infected mother depends on her and her infant's individual circumstances, including her health status, but should take consideration of the health services available and the counseling and support she is likely to receive. When replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS), avoidance of all breastfeeding by HIV infected women is recommended. Mixed feeding in the first 6 months of life (that is, breastfeeding while also giving other fluids, formula or foods) should always be avoided by HIV-infected mothers.

**CDC now recommends that all infants receive Hepatitis B vaccine within the first 12 hours after birth; those that are born to Hepatitis B surface antigen positive mothers should additionally receive HBIG in that same time frame.

- Substance use[3] (11):
    - maternal use of nicotine, alcohol, ecstasy, amphetamines, cocaine and related stimulants has been demonstrated to have harmful effects on breastfed babies;
    - alcohol, opioids, benzodiazepines and cannabis can cause sedation in both the mother and the baby.

  Mothers should be encouraged not to use these substances and given opportunities and support to abstain.

References

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(2) Evidence on the long-term effects of breastfeeding: systematic reviews and meta-analyses. Geneva, World Health Organization, 2007.
(3) León-Cava N et al. Quantifying the benefits of breastfeeding: a summary of the evidence. Washington, DC, Pan American Health Organization, 2002. http://www.paho.org/English/AD/FCH/BOB-Main.htm, accessed 26 June 2008).
(4) Resolution WHA39.28. Infant and Young Child Feeding. In: Thirty-ninth World Health Assembly, Geneva, 5–16 May 1986. Volume 1. Resolutions and records. Final. Geneva, World Health Organization, 1986 (WHA39/1986/REC/1), Annex 6:122–135.
(5) Hypoglycaemia of the newborn: review of the literature. Geneva, World Health Organization, 1997 (WHO/CHD/97.1; http://whqlibdoc.who.int/hq/1997/WHO_CHD_97.1.pdf, accessed 24 June 2008).
(6) HIV and infant feeding: update based on the technical consultation held on behalf of the Inter-agency Task Team (IATT) on Prevention of HIV Infection in Pregnant Women, Mothers and their Infants, Geneva, 25–27 October 2006. Geneva, World Health Organization, 2007 (http://whqlibdoc.who.int/publications/2007/9789241595964_eng.pdf, accessed 23 June 2008).
(7) Breastfeeding and maternal medication: recommendations for drugs in the Eleventh WHO Model List of Essential Drugs. Geneva, World Health Organization, 2003.
(8) Mastitis: causes and management. Geneva, World Health Organization, 2000 (WHO/FCH/CAH/00.13; http://whqlibdoc.who.int/hq/2000/WHO_FCH_CAH_00.13.pdf, accessed 24 June 2008).
(9) Hepatitis B and breastfeeding. Geneva, World Health Organization, 1996. (Update No. 22).
(10) Breastfeeding and Maternal tuberculosis. Geneva, World Health Organization, 1998 (Update No. 23).
(11) Background papers to the national clinical guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn. Commissioned by the Ministerial Council on Drug Strategy under the Cost Shared Funding Model. NSW Department of Health, North Sydney, Australia, 2006. http://www.health.nsw.gov.au/pubs/2006/bkg_pregnancy.html

Further information on maternal medication and breastfeeding is available at the following United States National Library of Medicine (NLM) website:
http://toxnet.nlm.nih.gov/cgibin/sis/htmlgen?LACT

[3] Mothers who choose not to cease their use of these substances or who are unable to do so should seek individual advice on the risks and benefits of breastfeeding depending on their individual circumstances. For mothers who use these substances in short episodes, consideration may be given to avoiding breastfeeding temporarily during this time.

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