

Breastfeeding and Family Foods: Loving and Healthy.

Feeding other foods while breastfeeding is continued

Supplementary Information Sheet.

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The following information could not be included in the main briefing document due to lack of space, but may be useful, particularly for those involved in teaching or training health professionals or group leaders.

Risks of Introducing Other Foods (and Drinks) to Breastfed Babies Before 6 months

- Foods may be difficult for baby to eat, digest and excrete.
- Babies will take less breastmilk which means that
 - overall nutrient intake is lowered because the foods given are usually less nutritious than breastmilk, and may reduce the bio-availability of nutrients in breastmilk.
 - babies receive less of the protective factors unique to mothers milk.
 - breastmilk production will be reduced.
- The risk and severity of diarrhoea and other infections increases because of greater exposure to pathogens and decreased protection from breastmilk^{1 2}.
- There risk of developing allergies, eczema, wheeze, asthma³ and latent heart disease increases⁴.
- Giving solids or other milks early interferes with the contraceptive effect of breastfeeding¹.
- For HIV-positive mothers, the risk of transmission of HIV through breastmilk increases when the baby also receives other foods and liquids, known as “mixed feeding”⁵.

Feeding Other Foods to the Breastfed Child – Nutrients of Concern

Improvements in scientific measurement techniques mean we now know that children 6-24 months need about 20% less energy (calories) than previously recommended⁶ but their requirements for micronutrients (vitamins and minerals) are still high⁷. This means there needs to be a shift in emphasis in health advice away from just adding calories, for example by adding oil or sugar to infants’ meals, towards enriching the nutrient content, for example, by adding meat, fish, pulses, milk products and vegetables or fortifying foods.

From 6 months onwards, iron and zinc are the two key nutrients which babies require in greater amounts than can be provided by breastmilk alone. (In some communities, vitamin A, some of the B vitamins, vitamin C, folate and calcium can also be of concern).

Iron and Zinc:

Young children need iron to make new blood, for healthy growth and development and to fight infections. Lack of iron causes anaemia. Zinc also helps children to grow and stay healthy. Iron and zinc are usually found in the same foods. The best sources are foods from animals, particularly liver and red meat. Iron and zinc from plant food sources is not so well absorbed. Vitamin C-rich foods such as fruit and vegetables enhance iron absorption from plant foods so it is good idea to include vegetables (or fruit) with all non-meat/fish meals. Breastmilk also enhances iron absorption so continuing to breastfeed young children together with feeding other foods is helpful. Fermenting

porridges makes the iron more available. Tea, coffee and phytates inhibit iron and zinc absorption (phytates are found in many plant based foods, particularly in the bran of wholegrain products). There is a large variation in individuals' capacity to absorb iron, and when iron status is low the body compensates by absorbing more readily.

Vitamin A.

Vitamin A helps children to have healthy eyes and fewer infections and in vitamin A replete mothers, breastmilk continues to be a major source of vitamin A well into the second year of life. In vitamin A deficient areas, mothers need to receive vitamin A supplements after delivery to increase the levels of vitamin A in their breastmilk. If no supplements are given, children's vitamin A stores are likely to be exhausted by 6 months and it is crucial to feed vitamin A-rich foods when complementary feeding begins. Liver, egg yolk, milk, dark green leaves and orange coloured (non-citrus) fruits and vegetables are rich in vitamin A.

When breastfeeding declines.

If breastfeeding declines to only a few feeds per day, then milk or milk products may need to be offered. Infants over 6 months can generally digest cows milk provided it is boiled, pasteurised or heat treated in some way. Milk should not be given in a bottle, and need not be given as a drink. It may be easier to give cows' milk products such as cheese and yoghurt or to use small amounts of cows' milk, or milk powder to mix with other foods. Fermented milk products are less prone to bacterial contamination.

Feeding Safely

Good food hygiene practices covering the five main routes of contamination are essential when feeding young children.

1. **Hands and utensils** – Caregivers need to wash their hands, their children's hands and utensils before preparing and feeding foods. Washing should be with soap (or other rubbing agent such as ash) and water. Feeding cups are safer and easier to clean than bottles. Bottles are best avoided.
2. **Raw food and ingredients** – Raw food, particularly poultry, milk and vegetables often harbour organisms which cause disease. Cooking until steaming hot will kill them. If fruit or vegetables are given raw, they should be peeled or thoroughly washed with clean water.
3. **Storing Cooked foods** – Unless refrigerated, cooked food provides an ideal environment for germs to breed. Cooked food is best given to children as soon as it is cool enough to eat. If prepared foods have to be stored unrefrigerated, they should be used within 2 hours or saved only until the next meal and reheated thoroughly.
4. **Water** – Water for giving as a drink to young children or mixing with foods needs to be brought briefly to a rolling boil, and cooled. It can be stored in a covered container for up to 24 hours.
5. **Storage and surfaces.** – Foods need to be kept in closed containers to prevent spoilage and stop contaminants falling in. Scraps of food or crumbs can act as reservoirs for germs and attract insects and animals, so surfaces used for food preparation need to be kept clean.

¹ Kramer MS, Kakuma R. Optimal Duration of Exclusive Breastfeeding . A Systematic Review. WHO, Geneva, 2002. WHO/NHD/01.08

² Increasing Rates of Exclusive Breastfeeding. Background paper prepared for the WHO/UNICEF Technical Consultation on Infant and Young Child Feeding. WHO Geneva 13-17 March.

³ Oddy et al. Association Between Breastfeeding and asthma in 6 year old children; findings of a prospective birth cohort study. BMJ 1999 319:815-819

⁴ Wilson et al. Relation of infant diet to childhood health: seven year follow up of cohort of children in Dundee infant Feeding Study. BMJ 1998 316; 21-25

⁵ UNICEF/UNAIDS/WHO/UNFPA. HIV transmission through breastfeeding. A Review of Available Evidence. World Health Organisation, Geneva, 2004

⁶ FAO/WHO/UNU Expert Consultation Report on Human Energy Requirements. Interim Report 2004.

⁷ FAO/WHO/UNU Expert Consultation On Human Vitamin And Mineral Requirements. Interim Report. Bangkok, Thailand. 1998.