

Breastfeeding and Family Foods: Loving and Healthy. Feeding other foods while breastfeeding is continued

A Caring Transition

For the very best start in life, the World Health Organisation (WHO), the United Nations Children's Fund (UNICEF) and health agencies worldwide recommend that mothers breastfeed their babies exclusively for the first six months, and continue breastfeeding together with giving other foods and drinks, up to two years or more, as long as mother and baby want to¹³.

The theme of this year's World Breastfeeding Week (WBW) is continued breastfeeding and giving other foods after six months of age. These foods need to be high in nutrients, the right consistency and appropriately fed. We consider how to make the transition from exclusive breastfeeding, to breastfeeding and eating with the rest of the family, in a way that is loving and caring.

Complementary Feeding using Family Foods

At six months of age, children need other foods in addition to breastmilk to meet their nutritional needs. The term used for giving other foods and drinks in addition to breastfeeding is 'Complementary feeding'. The foods given should 'complement' – make complete – the energy and nutrients provided by breastmilk.

The theme 'Breastfeeding and family foods' was chosen because in most households around the world, older babies (6-12 months) and young children are fed with the same foods that are eaten by the rest of the family. This is not meant to imply that at 6 months babies can move directly from exclusive breastfeeding to eating exactly the same meals as the rest of the family. Older babies and young children need to be given the most nutritious 'best bits' of the family's food, appropriately prepared (mashed, chopped, softened etc) to suit the child's eating abilities

Starting to eat other foods marks a new phase in the social, emotional and behavioural development of older breastfed babies, particularly as people other than their mothers may become involved in feeding. Complementary feeding also provides opportunities to develop communication, hand-to-eye coordination and motor skills and may lay the foundation of responses to food choice that persist well beyond infancy. When carried out with love, care and patience, starting to feed other foods can be a time for extending and strengthening the mother-baby bond of breastfeeding, not ending it.

Continued Breastfeeding

Breastfeeding continues to be important for children's nutrition, development and care after the first 6 months of life. On average, breastfed babies of 6-8 months obtain around 70% of their energy needs from breastmilk, this falls to around 55% at 9-11 months, and 40% at 12-23 months⁷. Breastmilk is also a major provider of protein, vitamins, minerals, essential fatty acids and protective factors. It provides more calories and nutrients per ml than most of the other foods, and much more than the soft cereals, baby rice or pureed vegetables that are typically some of the first foods given to older babies. If babies' stomachs are filled with nutritionally poor foods, they will take less breastmilk and their overall diet and health will be inferior.. The contribution of breastmilk is often overlooked in the enthusiasm to get complementary feeding started. The challenge is how to feed other foods so that they **add** to the nutritional contribution of breastmilk, rather than replace it. (Box A)

BOX A.

Why Breastmilk Continues To Be An Ideal Food For Infants And Young Children Over 6 Months Of Age.

- **Breastmilk is a high quality food.** Breastmilk is a nutrient-rich and energy-rich food, which is easy to digest. Breastmilk contains factors that help with the absorption of nutrients.
- **Babies who continue to breastfeed will never go hungry.** Demand-fed breastfed babies regulate their own food intake; when they are hungry they root, cry or reach to be breastfed. When unrestricted breastfeeding continues together with feeding other foods, babies are still in control of how much they eat. If they don't like a particular food, or the food offered is insufficient, they can take more breastmilk.
- **Breastmilk provides protective factors.** The anti-infective factors in breastmilk provide protection against illnesses and reduce the severity of those that occur. This protection continues to be helpful after 6 months because feeding other foods and drinks can expose older babies to more infections and food-borne pathogens at a time when the infant's own immune system is still maturing. Some protection is provided even if breastfeeding declines to a few breastfeeds a day.
- **Breastfeeding helps recovery from illness.** Sick babies often do not feel like eating foods, but they usually want to breastfeed. Mothers can respond to bouts of illness with nourishing, comforting and therapeutic breastmilk. Growth factors in breastmilk hasten repair of the intestines after diarrhoea. (If breastfed babies are so sick that they don't want to suckle, they need to be taken to a health centre immediately.)
- **Special mother-baby relationship continues.** Breastfeeding provides emotional nurturing for mothers and babies that is valuable and enjoyable well beyond 6 months.

Glossary

Complementary feeding – giving other foods and drinks in addition to breastmilk.

'Complementary feeding' is intended to replace the term 'weaning' because 'weaning' can be interpreted as stopping breastfeeding, as well as introducing solid foods.

'Complementary feeding' gives a clearer signal that the foods and liquids are given to 'complement', not replace on-going breastfeeding.

Family Foods - any foods typically consumed by family members

Older baby - baby aged 6 – 12 months

Micronutrients – vitamins and minerals

Nutrient dense – provides a lot of nutrients in a small volume of food/drink

Staple - main element of household's diet e.g. rice, maize, wheat, plantain, potato.

Toddler – young child who has learnt to walk

Young Child – child aged 6 months to around 2-3 years.

From Exclusive Breastfeeding to Family Foods – a Caring Transition

WHO and UNICEF recommend that complementary feeding should be **Timely, Nutritionally Adequate, Safe and Responsively Fed**¹³

Timely. When to begin?

Exclusive breastfeeding is more than sufficient to meet the nutritional needs of most babies until they reach 6 months of age (26 weeks). Around this time, several milestones in babies' development come together producing a readiness to eat soft and semi-solid foods. They can usually sit-up, control their heads and move food around their mouths. Their digestive and immune systems have also become more mature.

Nutritionally Adequate. What foods to give?

Between 6 – 24 months children grow rapidly and their energy, vitamin and mineral requirements increase, but their stomachs are still relatively small (30ml/kg body weight - about the size of a cup). Throughout this period, children need highly nutritious foods, which provide a lot of nutrients in a small quantity of food (nutrient-dense foods).

Box C: What to give each day:

Frequent Breastfeeding plus...

- **Animal-source foods** (meat, poultry, fish or egg). If not daily, then as often as possible even if the amounts are small – added to the staple.
 - **Legumes/Pulses** (beans, peas, lentils, gram, tofu), **Nut pastes**. Particularly important for vegetarians, or when it is not possible to give animal-source foods.
 - **Milk products** (yoghurt, cheese)
 - **Vegetables** with most meals. Coloured vegetables contain more nutrients than pale.
 - **Fruit** as a snack and with meals. Coloured fruits contain more nutrients than pale.
 - **Whatever 'Staple' is eaten by the family**, such as rice, maize, potato, wheat, plantain with some of the foods above.
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A. Vegetarians and Vegans

When young children are fed vegetarian or vegan diets, careful attention needs to be given to ensure they receive enough nutrients. Egg, legumes, nut pastes or milk products need to be given with the staple at every meal. Depending on the diet, supplements or locally available fortified foods containing iron, zinc and other nutrients, will probably be required (essential, plus vitamin B₁₂ for vegans).

B. Meals and Snacks

- 'Meals' are occasions for feeding combinations of foods for example, meat/pulses, staple and vegetable.
- 'Snacks' should be nutritious foods that are convenient and easy to prepare and which babies can feed themselves, for example, pieces of fruit, bread and peanut butter, pieces of cheese.

C. Giving the 'Best Bits' of family foods

Compared with older family members, young children need proportionately more of the meat, pulses, milk products, and vegetables and less of the 'staple' - rice, maize etc. These can be mashed and softened as necessary with a little expressed breastmilk, cooking water, yoghurt or cows' milk. Young children need the solid or semi-solid parts, rather than the liquid of any sauce, soup or stew; mashed or cut up as needed. In some circumstances, families may prefer to prepare separate nutritious foods specifically for babies 6-12 months old.

D. Foods which are best avoided:

- Packets of fried savoury snacks, such as crisps and puffs, are of poor nutritional value and much too salty for young children.
- Sugary foods, sweets, fizzy drinks and colas provide energy but no nutrients (empty calories). They fill children's stomachs and lower their appetite for more nutritious foods. They can also lead to tooth decay when babies' teeth start to come through.
- Teas and coffee also fill children's stomachs. Thirsty children can be offered breastmilk or plain boiled water.

E. Commercial Infant Formula and Cows Milk

In some communities, the first 'other food' given to breastfed babies is commercial infant formula. This is often in the mistaken belief that formula, or 'follow-on formula' which is marketed as suitable for babies from 6 months, is better than other foods. Slogans on the tins such as "*better growth and development*", and "*enriched with iron and vitamins*" help to create this impression. There is no need to give infant formula or cows milk as a drink to children 6-24 months who are breastfeeding on demand. The formula/milk simply replaces breastmilk and introduces an unnecessary risk of illness. However, it is useful to give milk products, (yoghurt or cheese), or use cows' milk or milk powder to mix with other foods to ensure children get enough calcium. This is particularly important when children are not consuming animal-source foods regularly.

F. Commercial Baby Foods

Commercially made baby foods, which are properly fortified with suitable amounts of added vitamins and minerals are convenient and can be helpful. They are usually quick and easy to prepare, **but** they are often an expensive means of feeding young children and may contain inappropriate fillers and additives.

Box D

The 'International Code' and Complementary foods

World Health Assembly resolutions, which have the same status as the International Code of Marketing of Breastmilk Substitutes, give clear guidance on the promotion of complementary foods and drinks:

- They should not be used or marketed in ways that undermine breastfeeding (WHA 49.15 1996). This applies throughout the period when breastfeeding would normally be continued.
- They should not be labelled, advertised or commercially promoted as being suitable for infants under 6 months (WHA 39.28 1986, WHA 54.2 2001).
- Initiatives to improve complementary feeding should recommend the widest possible use of indigenous nutrient-rich food stuffs (WHA 54.2 2001).

Safe. Preparing and feeding hygienically.

Giving breastfed babies other foods at 6 months exposes them to a new source of potential infection, and young children are particularly vulnerable to diarrhoea and gastrointestinal infections at this age. Most diarrhoea episodes in children are due to food borne contamination⁴. Good food hygiene practices are essential when feeding young children.

Responsively Fed. Sensitive to child's needs

Starting to feed other foods to breastfed children requires a new pattern of responses to children's needs and cues by their mothers and caregivers. The consistency and texture of the foods given, how they are fed, and the amounts offered needs to change as children grow and learn how to move food around in their mouths, to chew, to hold foods and a spoon, and in time to feed themselves. What is appropriate at 6 months is not the same as at 12 or 18 months. This child-sensitive feeding is referred to as 'responsive feeding' and involves carers helping and encouraging children to eat, (without force feeding), feeding slowly and patiently, experimenting with different foods and minimising distractions so that feeding becomes a time for learning and love. Complementary feeding and continued breastfeeding is part of a caring transition from exclusive breastfeeding through to family foods.

Captions for pictures of responsive feeding:

- *Young children often like to feed themselves but they need help.*
- *It is good if someone sits and encourages a child at mealtimes.*
- *Baby's love to copy what they see and there is evidence that when babies are given the chance to join the family at meal times, they are more likely to eat a wider range of foods¹⁴.*
- *Feeding is the family's responsibility – it is good for fathers to be involved.*
- *Children will learn to feed themselves sooner if feeding is enjoyable.*

How to feed other foods while continuing to breastfeed.

6 – 8 months. Exploring Food and Starting to Eat.

To begin with, the aim is simply to encourage breastfed babies to experiment with the new experience of having food in their mouths. The exact timing of developmental readiness for eating varies from one baby to another. Some babies are much more enthusiastic about starting other foods at 6 months than others. It doesn't matter if on some days they spit out their food or seem to play with it rather than eat it, because they will be getting most of their nutrition from breastmilk. If children refuse foods, they need to be encouraged to try different foods, tastes and textures. Frequent breastfeeding on-demand can provide almost all babies' energy needs between 6-8 months so if they show little interest in eating but are being breastfed frequently, there is no reason to be overly concerned. From 6 months, the two key nutrients which babies require in greater amounts than can be provided by breastmilk alone are iron and zinc, so the priority would be to give red meat, supplements or appropriately fortified foods.

At first babies need soft foods that do not require much chewing such as a thick puree of mashed meat, fish, egg, pulses, vegetables. Some babies are also happy with pieces of soft food, such as a 'sticks' of cooked vegetable, which they can hold and suck or bite using their gums. Breastfed babies have been exposed to the taste and flavours of their mother's foods through breastmilk and studies suggest that they are more likely to accept foods that share the flavour of their mother's diet¹⁵.

Gradually the amount and the variety of food offered can be increased, building up to offering meals two or three times a day. At this age, there is no advantage to offering more often because this is likely to displace breastmilk and may lower baby's overall intake.

Illustration. Consistency of food for older babies. Just right – too thin. Foods with a thick soft consistency which stay on the spoon will nourish the child.

9-11 months - Eating More.

As older babies get used to eating, the number of meals offered can increase to 3 or 4 times a day, with 1 or 2 snacks if needed. Breastfeeding on demand should continue, but it can be helpful to establish a pattern of regular meal times. New foods should continue to be introduced to widen the variety of foods (and nutrients) consumed.

12 – 24 months. Settling into the family's eating pattern.

By around 12 months of age most children are physically able to eat foods similar in consistency to those eaten by the rest of the family. They always need to have their own portion, because they won't eat as fast as older family members. Some foods will still need to be cut up into small pieces or softened.

Need for Action on Complementary Feeding

The need for improved complementary feeding practices is evident all over the world. The practice of giving foods or other milks and liquids before 6 months is widespread in both economically developed and developing countries. In less developed countries, some sections of the population also introduce other foods too late. Complementary feeding practices are often inadequate - too little food offered, infrequently, of poor nutritional value and passively rather than responsively fed. Estimates suggest that improving complementary feeding practices amongst the 6-24 months age group, could prevent 6% of deaths in children under five years⁸. If this improved complementary feeding was coupled with action to increase exclusive breastfeeding and prevent premature introduction of solids, almost 2.5 million child deaths (19%) could be prevented saving more lives than anti-malarial measures, vaccination and vitamin A supplementation put together.

Improving local feeding practices.

In this international briefing document we have set out some general guidance on making the transition from exclusive breastfeeding to family foods and continued breastfeeding. The practical details about WHAT foods to use and HOW to prepare to prepare and feed nutrient-dense family foods to older babies and young children need to be addressed locally, to reflect the specific foods, meals, cooking methods and eating patterns of the local community. Local adaptation of complementary feeding guidelines is best achieved through consultative research with mothers, caregivers and other key informants to explore the barriers, constraints and opportunities for improving feeding practices (See *resources section*).

Box E

Feeding Other Foods While Continuing to Breastfeed. 10 Guiding Principles for Complementary Feeding.

- 1. Start giving other foods at 6 months.** Breastfeed exclusively from birth to 6 months, then begin to give tastes of other foods while continuing to breastfeed frequently and on-demand.
- 2. Continue breastfeeding for 2 years or longer.** Continue breastfeeding as often and for as long as you and your baby want to.
- 3. Practice 'Responsive Feeding'.** Respond to your child's signs of hunger and feeding abilities. Give help and encouragement (without force feeding), feeding slowly and patiently, experimenting with different foods, tastes, combinations and textures, minimising distractions, using plenty of smiles, eye contact and encouraging words, so that feeding becomes a time for learning and love.
- 4. Prepare and store foods safely.** Wash and clean your hands, your child's hands and utensils before preparing food and feeding. Ideally, foods should be given immediately after preparation. If you have to store prepared foods unrefrigerated, use within 2 hours or save only until the next meal and reheat thoroughly. Store ingredients in cool closed containers so that they cannot get contaminated. Avoid using feeding bottles because they are difficult to keep clean.

5. Gradually increase the amount of food offered. Start with small amounts at 6 months and increase the amount offered as your child shows more interest, while maintaining frequent breastfeeding. The energy needs from complementary foods are approximately 200 kcal/day at 6-8 months, 300 kcal/day at 9-11 months, 550 kcal/day at 12-23 months.

6. Vary the consistency and variety of foods offered. Respond to your child's interest and ability to handle different textures and consistency. To begin with, babies need soft foods, but they soon learn to chew. By 8 months babies can eat 'finger foods' – foods that they hold themselves. By 12 months they can eat most family foods, cut into small pieces or softened as needed, but they still need to be given the nutrient-rich 'best bits' of the family's food.

7. Increase the number of times food is offered. Offer 2 to 3 times a day at 6-8 months and 3 to 4 times a day at 9-24 months, plus nutritious snacks once or twice a day, as desired, in addition to breastfeeding.

8. Give nutrient-rich foods. Give meat, poultry, fish, and/or eggs daily or as often as possible. Give beans, peas, lentils, nut-pastes, and/or milk products particularly if meals do not contain animal-source foods. Give coloured fruits and vegetables daily. Try not to give the 'staple' food on its own, for example, don't give plain rice or maize porridge, but add a nutrient-rich food such as, ground fish, egg, pulses or nut paste. Don't give sodas, sugary drinks, coffee or tea. These drinks fill tummies and displace more nutritious foods. If your child is thirsty, offer breastmilk or plain boiled water.

9. Protect Health with Vitamins and Minerals. Give a wide variety of foods as this will increase the chance of meeting vitamin and mineral requirements. Young children fed vegan or vegetarian diets usually need suitable vitamin and mineral supplements or fortified foods to meet their nutrient needs. Other mothers and children may also need to use appropriately fortified foods or take supplements according to local conditions.

10. Breastfeed more frequently during illness. Offer more fluids, and favourite foods during illness. For at least two weeks after illness, encourage your child to eat more food.

Adapted from Guiding Principles for Complementary Feeding of the Breastfed Child. PAHO/WHO, 2002¹.

Ideas for Action.

You can't improve infant feeding practices until you know what currently happens and why.

- Find out about any national guidelines or reports on complementary feeding practices.
- Talk to mothers/carers about what they feed and why they give those foods. (The manuals in the Resources List below have examples of useful questions).
- Talk with any families whose child feeding seems to be going well, this may give you useful ideas about how others similar households could do better¹⁶.
- Find out where carers get their information about complementary feeding from. Grandmothers and fathers often have a lot of influence. Who is usually feeding the child? It may be an older sibling, the maid or childminder. This will help you to decide which is the best way to give new information.

Possible methods might include:

- Holding a meeting of grandmothers to explain some of the new ideas
- Getting a radio or TV spot with "Five ways to improve your child's diet"
- Writing a character line into a local TV soap-story
- Writing an article for the local paper
- Making a poster to put up in a local clinic or health centre, or in a community centre

Try out ideas for improving child feeding – Consumer Testing.

If you have suggestions for improving infant feeding practices, ask carers to try them out first to check that they are practical and realistic for your target audience.

Recipes, Demonstrations, Baby and Toddler Clubs

Mother support groups, or baby and toddler clubs may be able to help promote better practices in the community. Perhaps they could help to write a young children's recipe book or give practical demonstrations.

Keeping in touch with health professionals

Use copies of this leaflet to discuss complementary feeding and continued breastfeeding with local health staff..

Possible messages and ideas to discuss with families and groups

Give your child a variety of foods. Encourage carers to offer lots of different foods. This improves the range of nutrients that children eat.

Respond to child's demands. Encourage carers to respond to children's demands for food by giving snacks between meals. This is not 'spoiling' the child.

Add colour to meals

Discourage carers from giving meals consisting solely of the staple. Staples are usually pale in colour, so one way of getting the message across may be to recommend adding something colourful, such as meat, fish, pulses, vegetables or fruits.

Check how much is actually eaten.

It is no use preparing nutritious foods if they aren't eaten. Suggest that carers really take notice of how much children eat and always give them their own separate portion.

Make meal-time enjoyable

Talk with carers including grandmothers, fathers and older siblings to explain that feeding can be a time for teaching and developing communication skills. Words for foods are often some of the first words babies learn. Suggest songs and games for meal times so that it is a special time that children will look forward to.

Resources

A supplementary page of additional information which could not be fitted into this printed document is available for download from our web site.

Books/ Monographs (*indicates available electronically).

1. PAHO/WHO. Guiding Principles for Complementary Feeding of The Breastfed Child. Pan American Health Organisation, Washington, 2002.*
2. LINKAGES project. Guidelines for Appropriate Complementary Feeding of Breastfed Children 6–24 Months of Age. Facts for Feeding. AED, Washington, April 2004.*
3. WHO. Complementary Feeding. Family Foods for Breastfed Children. WHO, Geneva, 2000. WHO/NHD/00.1, WHO/FCH/CAH/00.6.*
4. WHO. Basic Principles for the preparation of safe food for infants and young children. WHO, Geneva, 1996.*

Manuals on Devising locally appropriate guidelines, information and advice.

5. AED. Designing by Dialogue. Consultative Research to Improve Young Child Feeding. AED, Washington, 1999.
6. WHO/UNICEF. Integrated Management of Childhood Illness IMCI Adaptation Guide. August 2001.*

Journal Articles

7. Food and Nutrition Bulletin. 2003, 24 (1) Special Issue Based on World Health Organisation Expert Consultation On Complementary Feeding.*
8. Jones et al. How many children could we save? Child Survival II, *Lancet* 2003;362:65-71.*
9. UN Standing Committee on Nutrition. Meeting the Challenge to Improve Complementary Feeding. *SCN News* 2003; Number 27.*

Training Modules

10. WHO. Complementary Feeding Training Course. WHO 2002.
11. LINKAGES Project. Formative Research: Skills and Practice for Infant and Young Child Feeding and Maternal Nutrition. AED, Washington, 2004.*

Videos

12. LINKAGES Project. Care and Feeding of Young Children Video and Discussion guide. AED, Washington, 2002.

Websites for information and electronic copies of resources

- **Breastfeeding Promotion Network of India.** Introducing Solids. (Complementary Feeding). <http://www.bpni.org/cqi1/introducing.asp>
- **LINKAGES** - www.linkagesproject.org
- **SCN (UN Standing Committee on Nutrition)**– www.unsystem.org/scn/
- **WHO** - <http://www.who.int/child-adolescent-health/publications/pubnutrition.htm>

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¹³ WHO. Global Strategy for Infant and Young Child Feeding. WHA55/2002/REC/1.

¹⁴ Rapley G. Can Babies Initiate And Direct The Weaning Process?. MSc Thesis. MSC Inter-professional Health and Community Studies (Care of the Breastfeeding Mother and Child) 2003, Kent University, UK.

¹⁵ Mennella J et al. Prenatal And Postnatal Flavour Learning By Humans. Pediatrics 2001;107:e88.

¹⁶ Core. Positive Deviance/Hearth. A Resource Guide for Sustainably Rehabilitating Malnourished Children. Child Survival Collaborations and Resources Group, Nutrition Working Group. February 2003. WHO Infant and Young Child Feeding:Tools and Materials CD Rom.