

BREAST FEEDING

BREAST FEEDING AND FAMILY FOODS

LOVING AND HEALTHY

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Breastfeeding is universally recognised as the natural and best way to feed babies and young children, but as they grow older young children need to share with the family the same food and meals. The objective of this topic is to insure transition from breastfeeding to family foods in a way that is loving and healthy.

In Sudan, the need for modifying home food to suit the needs of infants and young children is particularly pressing. That is because of the well known limited financial resources, poor nutritional education and high illiteracy rate among mothers in most of the families.

The criticism rose recently against the use of genetically engineered nutritional material in the industry of imported ready-made baby formula and food added more doubt on the nutritional value of these products(1).

Worldwide, health advice is for mothers to breastfeed their babies exclusively for the first six months, and continues breastfeeding for two years or beyond. This means giving babies nothing else but breastmilk for the first six months, and continuing to breastfeed when babies and young children are having other foods and drinks, for as long as mother and baby want to. This recommendation supersedes earlier advice to begin giving other foods from 4-6 months, however many textbooks and food labels have yet to be updated (1).

Infants and young children from 6-18 months are particularly

vulnerable to malnutrition. To ensure that their nutritional needs are met, complementary feeding needs to be Timely, Nutritionally Adequate, Safe and Properly Fedi. We look at each of these aspects below.

Feeding infants and young children is more than a means of delivering nutrients. It affects children's psycho-social and emotional welfare as other members of the family become involved in feeding of the child. It provides opportunities for development of motor skills and hand-to-eye coordination, for social and communication skills and it lays the foundations of behavioural patterns around food choice and eating that persist well beyond infancy. In Sudan, the mother supported by grand mother (habboba) and other members of the extended family contribute effectively in this feeding procedure and by this strengthens the emotional bond with the whole family.

Late introduction of complementary feeding, especially semisolid and solid food, is widely practiced in many regions in Sudan. Feeding is typically infrequent, nutritionally inadequate, and hygienic practices are poor.

Estimates suggest that improving complementary feeding practices after 6 months of age could save 6% of deaths in children under five years(1). If this was coupled with action to improve breastfeeding practices and prevent premature introduction of solids, 19% of child deaths could be prevented (2).

There have been considerable development in our understanding of the dietary needs for infants and young childrenii, but translating this into action has been slow. Many of the existing guidelines on starting solids are over-prescriptive and give confusing messages on the relevant types of food in different ages and the frequency of meals most suitable for these ages.

Cultural and economical diversity in Sudan necessitate flexible menu. Guidelines currently in practice are based on tradition rather than on evidence. It is time to take a fresh look so as to provide simple practical guidelines.

When should feeding family foods begin?

Exclusive breastfeeding is more than sufficient to meet the nutritional needs of most babies to around 6 months of age. Around this time, several milestones in babies' development come together producing a readiness to move onto family foods. They can usually sit-up, control their heads, move food around their mouths and their digestive and immune systems have become more mature. There is no evidence that introducing solids earlier is better for health or development, but there is a growing body of evidence that early solids bring a greater risk of infections, tummy upsets, allergies and illness in adult life. (See Box A).

Box. A

Costs of Starting Introducing Family Foods Before 6 Months.

Foods may be difficult for baby to eat, digest and excrete. Babies will take less breast milk this will lead to early lactation failure. The foods typically given are less nutritious than breastmilk, so that the overall nutrient intake is lowered. In addition, the foods will reduce the bio-availability of nutrients in breast milk (6). .

There is an increased risk and severity of diarrhoea and other infections(3)

There is an increased risk of allergies, eczema, wheeze, latent heart disease and asthma (3).

Giving solids or other milks early interferes with the contraceptive effect of breastfeeding.

There is an increased risk of transmission of HIV from breastfeeding by HIV- infected mothers when mixed feeding is practiced. Exclusive breast feeding adds minimal risk to vertical transmission (4).

What foods should be given?

Breastmilk is a nutrient-rich and energy-rich food, which typically provides more than half a child's nutritional needs from 6-12 months, and up to a third from 12-24 months. For children under 1 year of age, the main gaps between the nutrients physiologically required for health and development, and the nutrients which breastmilk can deliver are for iron and zinc. Predominant breastfeeding can meet almost all the infants' energy needs up to 12 months, so if a young child shows little interest in family foods to begin with, there is no reason to be overly concerned. (5)

What to give: Breastfeeding on demand plus:

The following are just suggestions which might be modified according to the region:...

Animal food sources (meat, poultry fish, egg) daily or as often as possible.

Facia fava (foul Masri) ground beans (foul Sudani), Lobia, fasolia, peanuts, lentils, or soya products on remaining days of the week.

Fruit as a snack and with meals.

'Staple' such as sorghum (dura) rice, maize, potato with some of the foods above Iron and Zinc are the two main 'problem nutrients' for young children. The best sources of iron and zinc are animal food sources, particularly liver and red meat. Iron and zinc are present in plant food sources, but this is not so well absorbed. Teas, coffee and wholegrain products containing lots

of bran inhibit iron and zinc absorption; vitamin C rich foods such as fruit and vegetable enhance absorption hence advice to include vegetables (or fruit) with all non-meat meals

In many parts of the world, the first 'food' given to breastfed babies is commercial infant formula (5). 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 family foods. Slogans on the tins such as "better growth and development", "enriched with iron and vitamins" help create this impression. Unlike breastmilk, the iron in infant formula is not well absorbed. There is no need to give formula to a breastfed baby who is moving onto family foods and breastfeeding several times a day. The formula simply replaces breastmilk and introduces an unnecessary risk of illness. The money would be better spent on buying some meat, fruit or vegetables.

If breastfeeding declines to only one or two feeds per day, then milk or milk products may need to be offered. Commercial infant formula contains a better range of nutrients than cows' milk, but if the child is eating a range of foods this is not a major concern. Infants over 6 months can generally digest cows milk provided it is boiled, pasteurised or heat treated in some way.

Healthy Family Foods

There are five main routes of contamination which need to be addressed when feeding young infants

Hands and utensils

Raw food and ingredients

Storing Cooked foods (contamination)

Water Storage and surfaces (insects)

How to give family foods

Exploring Food - New tastes and textures.

To begin with the aim is simply to introduce babies to the taste and experience of foods. Until this point they have had a liquid diet from their mother's breast. Having food in their mouths is a very new experience. The exact timing of developmental readiness for eating varies from one baby to another, some babies are much more enthusiastic about starting family foods at 6 months than others. It doesn't matter if they spit their food out or seem to play with it rather than eat it because they will be getting most of their nutrition from breastmilk. New research on baby-led weaning suggests that if we let babies go at their own pace, they will progress with feeding more readily. (7)

At first babies need soft foods which do not require much chewing. This doesn't have to be a puree; babies of 6 months are often happier with a piece of soft cooked vegetable which they can hold and suck or bite using their gums. Try them with any suitable foods which you are eating (see Box on Foods to Avoid). Breastfed babies have been exposed to the taste and flavours of their mother's foods in-utero and through breastmilk and there is good evidence that this helps shape their early taste preferences. Babies are more likely to accept foods which share the flavour of their mother's foods (8). They can enjoy the same flavours as mothers' foods, though salty and sugary foods must be avoided. (Box B).

Box B

Foods to avoid.

Allergies. - Families with a history of allergy, eczema, and asthma or food sensitivity may want to avoid certain foods until the child is older, at least over 12 months. If the family's food allergen is known, for example families with coeliac disease

know to avoid cereals containing gluten, these foods should not be given. If the food allergen is not known, then it may be advisable to delay introducing foods which can cause problems and introducing them one at a time a few days apart, so that any reaction can be noticed. Foods which can cause problems include dairy products, soya products, peanut and other nuts and nut based products, gluten containing cereals (wheat, rye or barley) with coeliac disease, eggs, fish and shell fish, citrus fruits and juices and strawberries. Some foods only cause problems when the child is young and can be tolerated once their digestive systems have matured. Remember most families do not have allergies, so do not avoid these foods unless there are strong signs of family allergy.

Honey – honey sometimes contains a bacteria which produces toxins leading to infant botulism in young babies. Avoid honey until 12 months of age.

Salty foods – baby's young kidneys cannot cope with high levels of salt. In the UK, recommended average salt intakes are less than 1g/day for infants 7-12 months, and less than 2g/day for 1-3 years. One packet of crisps or savoury snacks would exceed this amount.

Sugary foods - sugar provides calories but no nutrients (empty calories) and sugary foods may fill an infant's stomach and lower their appetite for more nutritious foods. Sugary foods and drinks also encourage a sweet tooth and lead to too decay when babies' teeth start to come through.

Juices, teas, sugary drinks and sodas - these should NOT be given. These drinks fill infants' stomachs and lower their appetite for more nutritious foods. The best drinks for infants are water and breast milk.

Starting to Eat:

Once babies start to show more of an interest in food, and have learnt how to move it around in their mouths and to swallow, real eating rather than experimenting with food will naturally begin. Gradually increase the amount and variety of food offered, and offer it more often. If babies become curious about what you or other family members are eating, let them try it. Baby's love to copy and there is evidence that when babies are given the chance to join the family at meal times, they are happier to eat and consume a wider range of foods. They will start to feed themselves and eat a wide range of foods (7). There are also anecdotal reports that breastfed babies who begin solid foods at 6 months may be reluctant to accept spoon-feeding, and feeding is more successful when they are given foods which they can feed themselves (7).

These babies have been in control of how often and how much they feed. They have been used to attaching to the breast on demand, not having something pushed into their mouths.

They are skilled at regulating their own intakes to match their exact nutritional needs.

Eating More:

As babies get used to eating, build up to offering foods 5 or 6 times a day, as 3 or 4 'meals' with 1 or 2 snacks. Babies' stomachs are small, so they need little and often. Snacks should be nutritious foods which are convenient and easy to prepare and which babies can feed themselves, such as fruit, bread and peanut butter. Packets of fried savoury snacks, such as (Pringles, Batal), are of poor nutritional value and much too salty for young children. 'Meals' are occasions for feeding combinations of foods for example, meat, staple and vegetable. These can be the foods which other family members are eating, which are mashed and softened as necessary with a little cows' milk or cooking

water. Fermented porridges (Aseeda, Madeeda) are particularly good because fermentation makes iron more available. Try to get into a pattern of regular meal times and keep introducing new foods to widen the variety of foods baby eats.

Settling into the family eating pattern:

By 12 months most babies are ready to eat the same foods as the rest of the family, and to eat meals when the family has meals. Make sure they have their own portion, as they won't eat as fast as the others, and some foods will still need to be cut up into small pieces or softened. Remember that compared with older family members, young children need proportionately more nutrients (minerals and vitamins) than calories, so give them more of the sauce/stew/ meat/vegetable and proportionally less 'staple' dura , rice, maize etc. But toddler's stomachs are small and they still need snacks and breastfeeds between meals

Loving and Caring:

How babies are fed family foods can be more important than what they are offered. A recent study in Bangladesh found that the amount of time mothers spent with their children had more influence over their nutritional status than what foods they ate (7). Very often the beginning of feeding foods coincides with the mothers return to work, and babies are fed by siblings or carers who may be less inclined to devote the time, care and patience required unless specifically encouraged to do so. Feeding time is a caring time, when babies develop their communication skills and need someone to be there to encourage them eat in a loving and caring way.

References:

- (1) WHO. Global Strategy for Infant and Young Child Feeding. WHA55/2002/REC/1
- (2) Jones et al. How many children could we save? Child

Survival II, Lancet 2003

- (3) Dewey K, Brown K. Update on technical issues concerning complementary feeding of young children in developing countries and implications for intervention programs. Food & Nutr Bulletin. 2003;24(1):5-28
- (4) Zvitambo study group and humphrey JH Early exclusive breastfeeding reduces the risk of postnatal HIV transmission and increase HIV free survival AIDS 2005,19:699-703
- (5) WHO. Approaches for improving complementary feeding of infants and young children. Background paper for WHO/UNICEF technical consultation on IYCF Geneva, march 2000.

Kramer MS, Kakuma R. Optimal Duration of Exclusive Breastfeeding . A Systematic Review. WHO, Geneva, 2002. WHO/NHD/01.08.
- (6) 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
- (7) Dewey K, Brown K. Update on technical issues concerning complementary feeding of young children in developing countries and implications for intervention programs. Food & Nutr Bulletin. 2003; 24(1):5-28.
- (8) Mennella J et al. Prenatal and Postnatal flavour learning by humans. Pediatrics 2001; 107:e88.