

## Feeding the toddlers

Let me say this upfront that feeding the toddlers is not as easy as it sounds. It requires a lot of hard work and great deal of patience. However, it is the most important intervention, if we are to fight the scourge of under-nutrition among the under-fives, especially in the LMICs. Most mothers can successfully breastfeed the baby, which is good for both mother and the baby. Exclusive breast feeding is the method of choice for at least first six months of life, as it is the wholesome and safe nutrition for the baby. Early breast feeding difficulties or insufficient breast milk is a separate subject, requiring expert help and is beyond the scope of this article. The period of six months to three years is the most crucial period because the baby grows at the fastest rate during this period, hence all nutrition needs of the child must be met. Commercialisation of baby foods has made feeding rather an expensive affair. Most urban and middle class mothers are made to feel that there is no other option but to use baby formulas.

First, some problems associated with formula feeding:

1. It is expensive so parents are tempted to stretch its use by reducing quantities prescribed for each feed;
2. Quality assurance of baby feeds, manufacturing and retail sales for many brand names in many developing countries opens avenues for adulteration and price fixing;
3. It encourages use of bottle feeding, at least in early stages, which is difficult to keep clean unless strict measures are used for cleaning and sterilisation;
4. Preparation of feeds in unhealthy situations, such as travel by train or bus, makes it even more risky;
5. Many feeds require mixing with water or other fluids to the powder, which allows chances for contamination, if proper hygiene is not maintained;
6. Some studies have suggested that infants who receive formula feedings are at a higher risk of conditions like acute asthma, inner ear infection, diabetes, allergies, eczema, obesity, and lower respiratory tract infections;
7. Formula feeds take longer time to digest and likely to encourage additional use of sugars in addition to what is already in the feed.

The main thrust of this article is to look around and see what local options are available to mothers for feeding their babies a nutritious food. It is not difficult to find healthy and good value food items which can be given to babies without relying on expensive artificial formulas. Plenty of food is available at homes and in the local markets that can be used for feeding the babies.

Demand breast feeding is considered the best during first six months of life. As breast milk supply decreases with increased demand of the baby, the weaning period, need for supplementary feeds become apparent. Whilst breast feeding can be continued according to the choice and ability of the mother, supplementary feeds must start at six months.

There are three important considerations which play an important role in adequate feeding:

1. **Quality of food:** it is important that balance of carbohydrates, proteins and fats must be maintained. In addition essential vitamins A, B, C and D and minerals, such as iron, folic acid and calcium are important in addition to some tracer elements like zinc and selenium. But adopting a habit of using variety in children's feeds should address this need.
2. **Quantity of food:** At the time of weaning the quantity of food is a major problem as babies spit out most of the feed given to them with a spoon. But it becomes easier in a few days when the baby start to take more and more in. Once spoon feeding established, it will take 10-15 minutes to feed the baby, and will refuse to take more, once satisfied. Starting with smaller amounts, each feed must go up to 6-8ozs or 180-200ml. (3/4 of cup). Soon babies will regulate their intake from day to day to meet their own specific needs.
3. **Frequency of feeds:** it is important that frequency of feeds should not be matched to adult feeding times, but babies should be fed every 3-4 hours during day time along with some milk, fruit juice or water.

With baby feeding in my mind I went to the local market to observe what could easily be given to babies as weaning foods after six months of breastfeeding and thereafter. To my surprise there was a lot of food that one could use and buy cheap.

**Among Drinks** (fluids), unsweetened soy milk, regular milk, yogurt, coconut water, cooked rice water at home are freely available in the markets and are cheap. Pre-packed soy milk, cow's milk and other mixed drinks and fruit juices, cokes and other carbonated drinks, are all loaded with sugar and synthetic flavors and should be avoided at all costs. They are cheap and freely available and many mothers find it easy to give it to their children, which is dangerous. I have come across in Laos and Thailand, many small children who are obviously obese and on interrogation, been told that they insist on taking several packs of sweetened soy milk every day in addition to their meals.

**Cereals for porridges:** Cereals like coarsely ground wheat (semolina or bulgur), maize/corn (polenta), oats, millets like *Eleusine coracana*, or finger millet (African millet or *raagi* in S India is rich in calcium and vitamins A and B) are best for porridges and gruel to feed toddlers. Rice flour mixed with 1/3 lentil or chick pea flower forms a balanced nutritious mixture (In South India the mixture to make *idali* or *dosai*). One or two servings of porridges daily are very good for growing babies. A little bit of locally used oil or butter in the porridge increases the calories in feeds.

**Nuts:** Cheap nuts like groundnuts, sunflower, pumpkin seeds are always available in the markets, either boiled or roasted (not raw), are a good source of fats and proteins. Nuts should be crushed/pounded into a paste, mixed with other foods before feeding small babies.

**Animal products** depending on where one hails from, animal products are available everywhere. Eggs, liver, finely minced meats (fish, chicken, pork, lamb etc.), clotted blood, are some examples. An egg a day for a child can provide most of protein and fat requirements of an under-five. Children easily like eggs and tolerate it. It is a good supplement to start after six months. Can be easily mixed with milk. Duck eggs should be avoided for very small babies and when given should be well cooked. Chicken and other animal liver can be a useful source of iron and fats. Cooked clotted blood, commonly available in South East Asia, is another good source of iron for lactating mother and small children. In rural areas seasonal

bugs are a great delicacy and provide proteins and fats in the diet.

**Roots and tubers:** sweet potato, potato, taro and roots like carrots, beetroot and pumpkins can be very useful energy foods for children, usually boiled, mashed and mixed with fluids mentioned above.

**Vegetables** like local spinach, green beans, bean sprout (*mung*) and many other greens can be found in homes and markets. Boiled, mashed and mixed with porridges, form a good source of iron and minerals required for children.

**Fruits:** bananas are available in most places right through the year. Other local seasonal fruits such as papaya, pineapple, guava, apple, pear etc. are easily available. Boiled or simply mashed can form a nice gruel for babies. Banana, especially ripe ones, which are cheap and freely available everywhere, make good accompaniment with a variety of feeds.

These are just a few foods I noticed in the market and remembered from what we taught in growth monitoring clinics. But one can use own imagination to create modifications of adult foods for children.

There are some cautions for the modern parents:

1. As far as possible, bottle for feeding should be avoided. Spoon and cup is quite efficient and practical way of feeding. Moreover it strengthen the bond between mother and the baby;
2. Most important is to ensure children do not get used to sugary treats and drinks. There is far too much sugar in everything we buy in the market;
3. Avoid processed food as much as possible. Too much of fat and salt, as in sausages and pizzas, is bad for health;
4. Too much of fatty food is bad for everyone, including children;
5. Encourage children to be active from early days so that they get used to remain active in adult life, to avoid being overweight and obese.

Visit gallery below for variety of foods that can be given to babies and toddlers from the market.