

Nutrition Fact Sheet

Up-to-date nutrition information
for the health care professional

Infant Feeding for Full Term Infants

Throughout the first year, many changes occur that allow infants to consume foods of varying composition and texture. As an infant's mouth, tongue, and digestive tract mature, the infant shifts from being able to only suck, swallow and take in liquid foods such as breastmilk, to being able to chew and eat a wide variety of foods. At the same time, infants progress from needing to be fed to feeding themselves. As infants grow, food and feeding patterns continually change.

Birth to 6 months

Breastmilk is the ideal source of infant nutrition to support optimal growth and development for the first 6 months. Gradual introduction of iron-enriched solid foods in the second half of the first year should complement the breastmilk diet. It is recommended that breastfeeding continue for at least 12 months, and thereafter for as long as mother and infant desire. Infants weaned before 12 months of age should receive iron-fortified infant formula. Preterm infants may need breastmilk or formula beyond 12 months chronological age.

During infancy, "demand feeding" allows the infant to associate feelings of hunger and fullness or satiety with the beginning and ending of a feeding. Helping parents to become familiar with the different kinds of hunger and fullness cues can increase their confidence in knowing when to start and when to stop feeding their infant.

Hunger cues

- rooting and mouthing
- flexed arms and legs, clenched fingers and fists over chest and tummy
- feeding or sucking sounds

Crying is a late sign of hunger and the infant will need to be calmed before feeding.

Fullness or satiety cues

- fingers, arms and legs extended
- turning head away
- look of contentment or relaxation
- falling asleep

A breastfed infant will usually feed 8-12 times per 24 hours for the first 4-6 weeks. After 4-6 weeks, the number of feedings may decrease to 6-10 per 24 hours. Breastfed infants are receiving enough breastmilk if they are: stooling 2 times per 24 hours, urinating 6-8 times per 24 hours, and gaining ½ - 1 ounce per day after the breastmilk becomes abundant.

Infants fed iron-fortified formula will also feed 8-12 times per 24 hours in the early weeks. Intake of iron-fortified formula may range widely depending on the infant's age, growth rate, and activity level.

Healthy, full-term infants usually require little or no supplemental water, except in hot weather.

Complementary Solids - 4 to 6 months

Complementary or supplemental solids should be introduced when the infant is able to sit with support and has good neuromuscular control of the head and neck. An intake of breastmilk or infant formula of more than 32 ounces per day is **not** an accurate indicator of readiness for solids.

At this stage of development, about 4 to 6 months, the infant is able to indicate a desire for food by opening their mouth and leaning forward and can indicate fullness by leaning back and turning the head away. An iron-fortified, single grain infant cereal, such as rice cereal, is a good first choice.

6-12 Months

During the period from six to twelve months, the infant becomes skilled at transferring food from the front of the mouth to the back, progressing to a chewing pattern. At this same time the palmar grasp develops and the infant progresses to using a spoon. The gradual introduction of a variety of foods contributes to a nutritionally balanced diet and helps promote good eating habits.

Appropriate foods include a variety of plain fruits, vegetables, grains and meats introduced one at a time, at intervals of 5 days or more. The texture of the foods will start with pureed or mashed at 6-8 months, advancing to small pieces or “finger foods” at 8 to 10 months, and at 10 to 12 months soft easy to chew foods from the family’s meal.

100% fruit juice may be introduced when the infant can drink from a cup, usually about 6-9 months. Juice is a good source of carbohydrates and Vitamin C. However, juice should not replace breastmilk or infant formula in the diet. Infants who drink more than 8 to 10 ounces of juice a day may be more likely to have loose stools and diarrhea.

Whole, reduced-fat, low-fat or fat-free cow’s milk, or goat’s milk are not recommended for use during the first 12 months.

Dental Health

Good nutrition, use of proper feeding techniques, and careful attention to keeping the mouth and teeth clean, are all important for assuring that an infant develops and maintains healthy, strong teeth.

During well-child exams the health care provider can:

- Examine the teeth for signs of decay starting as soon as the teeth erupt.
- Identify feeding habits and other practices that may contribute to dental problems and provide anticipatory guidance.
- Teach the caregiver proper oral health practices.

Early childhood caries may result from **improper** practices such as:

- Offering a pacifier dipped in honey, syrup or sugar.
- Letting the infant nap or sleep with a bottle.
- Not cleaning the teeth regularly, starting as soon as the teeth erupt.
- Offering sugar water, juice, or other sweetened drinks in a bottle.
- Using a bottle beyond one year of age.
- Using a cup that requires the child to “suck” rather than “drink” the liquid.

Supplementation

Routine supplementation of vitamins and minerals is generally unnecessary for healthy, full-term infants receiving breastmilk or iron-fortified infant formula. Supplementation of fluoride, Vitamin D and iron may be necessary in certain circumstances.

Fluoride supplementation should begin at 6 months of age for those infants who are exclusively breastfed, infants receiving ready-to-feed infant formula, or infant formula mixed with non-fluoridated water.

Vitamin D supplementation is recommended for breastfed infants that are dark-skinned, who have inadequate exposure to sunlight, or whose mother follows a diet that excludes meat, fish and dairy products. Adequate exposure to sunlight for white infants is 30 minutes per week, clothed only in a diaper or 2 hours per week fully clothed with no hat.

Iron stores are depleted around 4 to 6 months in healthy, full-term infants. Breastfed infants may need an additional source of iron in their diet, after 4 to 6 months of age. If formula is used, it should be an iron-fortified infant formula. Iron fortified cereals are also a good source of iron.

References:

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