

Appendix *Feeding Infants and Toddlers*

While there is nothing complex about the nutrient needs of infants and toddlers—and the foods that are appropriate for them—it is important for caregivers to receive some education about proper feeding. The tables in this appendix summarize development stages of infants and appropriate foods at each stage, along with practical tips for feeding infants and toddlers.

Table 1 Infant Feeding Guide (0 to 12 months)

Age (mo)	Human Milk or Iron-fortified Formula	Cereals & Breads	Vegetables	Fruits	Other Protein Foods
0–4	8–12 feedings per day 16–32 oz	None	None	None	None
4–6	4–7 feedings per day 24–32 oz	Iron-fortified baby cereal, rice, barley, oatmeal; feed by spoon; mix 2–3 tsp with human milk or formula	None	None	None
6–8	3–4 feedings per day 24–32 oz Begin to offer cup	Add mixed cereal after previous plain ones; 2 servings per day; dry toast or teething biscuit	Plain strained or mashed vegetables 2 times per day	Fresh or cooked fruits: mashed bananas, applesauce; strained plain fruits; 2 times per day	
8–10	3–4 feedings per day 16–32 oz Offer formula in cup	Infant iron-fortified cereals; Cream of Rice; dry toast, teething biscuit	Plain cooked mashed vegetables	Peeled soft fruit wedges: bananas, pears, oranges, apples, peaches	Lean meat and chicken: strained, chopped, or small tender pieces
10–12	3–4 feedings per day 16–32 oz Formula in a cup	Infant cereals, unsweetened cereals, bread, rice, noodles, and pasta	Cooked vegetable pieces	All fresh fruits peeled and seeded; canned fruit in water	Small tender pieces of meat, chicken, or fish; eggs, mild cheeses, yogurt, cooked dried beans

Table 2 Developmental Patterns and Feeding Recommendations for Infancy

	Birth	1mo	2mo	3mo	4mo	5mo	6mo	7mo	8mo	9mo	10mo	11mo	
Mouth Pattern	Suck and swallow reflex Extrusion reflex				Transfer food from front to back Drooling				Begin chewing Side to side movement of tongue Mashing food with jaws		Biting Chewing		
Hand Coordination	Random motion of hands Hand to mouth to signal hunger				Hand to mouth purposefully		Palmar grasp	Pincer grasp	Grabs spoon		Spoon to mouth turned over		
Body Control	Minimal head control				Sits supported, loses balance when reaching			Sits unsupported and while reaching Hand manipulation		Continued improvement of balance while sitting Begins to stand and possibly walks			
Digestive Ability	Can digest appropriate milk				Intestinal amylase increases				Gastric acid volume increases			Can handle balanced amount of unseasoned family food	
Homeostatic Ability	Low, needs breast milk or carefully adapted formula							Increased ability to maintain hydration and chemical balance					
Nutritional Requirements	High nutrient needs for rapid growth		Iron stores depleted for preemies				Iron stores depleted for term infants		Needs gradually being met with solid diet over breast milk/formula		Move to table food and cup		
Feeding Style	Nipple feeding					Begin spoon feeding	Spoon feeding	Introduce cup with meals	Begin self-feed with cup; begin proficiency with spoon			Cup and spoon self-feed	
Food Selection	Breastmilk or formula					Begin solids, iron source		Semi-solid foods	Increase texture		Pieces of soft cooked foods		

Source: Adapted from Satter E. *Child of Mine: Feeding with Love and Good Sense*. 3rd ed. Palo Alto, CA: Bull Publishing Co.; 2000.

Table 3 Practical Feeding Tips**4–6 months old**

Avoid seasonings. Babies enjoy plain foods. Added sugar and salt are unnecessary. Commercially prepared foods are acceptable, but so are home-prepared foods. Mash plain, cooked vegetables or fruit. Add one new food each week.

Work up to a total of one-half cup of cereal per day.

Feed the baby from a dish, not the jar.

Throw out leftovers from the baby's dish.

Once introduced, aim for 2 tablespoons per day of vegetables and fruit.

Use baby-sized spoons, cups, and bowls.

7–9 months old

Cook fruits with a little water to soften them.

Add more finger foods to the diet. Examples include dry unsweetened oat or rice cereal, rice cakes, and cooked rice.

Grate fresh fruits and vegetables, and allow the child to pick them up and self-feed.

Offer a variety of cooked vegetables that can be either mashed or picked up in tiny pieces.

Offer a variety of protein sources: cooked fish; chicken; turkey; beef; mashed, cooked beans.

10–12 months

Allow the child to self-feed with a spoon and cup.

Have the child join the rest of the family at meals.

Feed the child both meals and healthful snacks, sometimes just smaller versions of the meal, to fulfill his or her energy needs.

Remember to offer the child water from a cup.

Table 4 Feeding Practices and Foods to Avoid

Practices or Foods to Avoid	Rationale
Leaving baby alone during feeding	Infants and toddlers need to be supervised at all times. Children can accidentally choke during mealtime.
Adding salt, seasonings, and spices	Children prefer plain foods and do not need additional seasoning. Excessively salty foods can place a burden on the developing kidney system.
Egg whites and wheat	Common sources of food allergies. Neither is necessary in the diet before age 1.
Cow's milk	Neither necessary nor well tolerated until age 1. Associated with increased allergic potential and iron-deficiency anemia.
Honey and corn syrup	Both products contain spores of <i>Clostridium botulinum</i> . In infants, these spores can cause botulism, a deadly foodborne illness.
High-risk choking foods	Foods that are choking hazards for infants and toddlers include hot dogs, nuts, peanuts, raw carrots, sausage pieces, raisins, apple chunks, popcorn, hard candy, potato chips, gum, hard pretzels or pretzel nuggets, chicken bones and wings, grapes, and plain peanut butter from a spoon. Because peanuts are a common food allergen, peanut butter should not be introduced in the first year.
Heating foods on the stove/microwave	Accidental injury or burns can occur with uneven and excessive overheating of infant foods. The baby cannot tell the caregiver that the food is too hot.
Excessive amounts of breast milk or formula	During the second half of the first year, the child gradually decreases consumption of breast milk and formula in order to increase the amount of solid foods needed for energy and iron.
Excessive intake of fruit juices/drinks	Both failure to thrive and overweight have been seen from excessive consumption of juice or other drinks.
Goat's milk	Goat's milk is too low in folate, iron, vitamins C and D, and is not a suitable substitute for either human milk or formula.

Table 5 Common Food Habits of Toddlers

- *Playing with food:* Toddlers frequently appear disinterested in food, merely playing with it, and refusing to let the caregiver feed them. They actually need to play with food to discover its texture, smell, and taste.
- *Food jags:* A toddler may want nothing but macaroni and cheese for dinner for a while, or refuse foods that aren't white. Nothing lasts forever, however. The caregiver should continue to offer new foods, but allow the toddler to refuse them. One day both the caregiver and the toddler may be surprised when a new food is eaten and enjoyed!
- *Food protests:* A toddler's communication skills are not as developed as his opinions or strength, which means unwanted food may end up on the floor or walls. Although this behavior is normal, it does not have to be tolerated. The toddler needs to know that the caregiver is disappointed in her. The caregiver should model positive, corrective behavior.
- *Irregular eating patterns:* Toddlers are active and need energy. However, their growth has slowed considerably by this stage, and energy requirements per unit of body weight have decreased. Toddlers will slow down their food intake and may skip meals. It is important to continue to offer both regular meals and snacks, but the caregiver should not be disappointed when the child refuses to eat. Toddlers and children do regulate their caloric intake over time: they eat when they need to and don't when they are not hungry, yet their average caloric intake remains fairly constant. Forcing children to eat only diminishes the importance of internal signals of hunger, satiation, and satiety.

Table 6 Survival Guidelines for Toddler Mealtimes

- Prepare for a mess. Feed the toddler in the kitchen or a part of the home that is easy to clean.
- High chairs or booster seats help define the place and time of meals and keep the toddler focused on exploring only the meal, not the entire environment.
- Keep food for meals, not for punishment or reward. This sets a foundation for healthful food habits and associations.
- Continue to present new foods to picky eaters. Then stand back and observe. Try again if necessary.
- Try not to show frustration. Keep mealtime as positive as possible.
- Learn to trust the toddler's hunger cues. If he or she doesn't seem hungry, wait until the next meal or snack.
- Allow the toddler to choose as many foods as possible, carefully framing and limiting the choices: "Would you like a banana or applesauce?"
- Encourage self-feeding with cup and child-sized utensils.
- Remember, it is the parent's job to present a healthful nutritious diet and a safe eating environment, and it's the child's job to eat it or not!

Source: Adapted from Satter E. *Child of Mine: Feeding with Love and Good Sense*. 3rd ed. Palo Alto, CA: Bull Publishing Co.; 2000.