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## Introducing Solid Foods to Infants

The introduction of solid foods is an important milestone for your baby. We hope this information helps you. After all, feeding *should be fun and nutritious*.

### When do I introduce solid foods to my infant?

In the past, parents had few guidelines about introducing solid foods into their baby's diet. Today we know that breast milk (with Vitamin D supplementation) or commercial formula meets all of the nutritional requirements of the healthy baby for the first six months. There are no advantages (but there are possible disadvantages) to introducing solid foods before four to five months. Younger infants do not have the oral-motor skills needed to eat solid foods. Introducing solid foods too early may be associated with gastrointestinal issues, obesity, and food allergies.

We prefer to introduce solid foods at about five months of age. Keep in mind an important goal of introducing solids foods is developing adequate motor skills in the mouth and coordinating this with swallowing movements. Some of your infant's early oral reflexes have faded. At this age, spoon-feeding solids is easier, and becomes an appropriate adjunct to sucking liquids.

(Note: adding solid foods such as cereal to a bottle *is not appropriate*.)

### Q: With which foods do I begin?

A: *Cereals, then vegetables, then fruits:*

We generally recommend beginning with *iron fortified infant cereals* after five months of age. Why? Most full term infants have enough iron stored for several months. As solids are introduced, however, the liquid source of iron diminishes, especially among breast fed infants.

- With regard to baby cereals, note that rice is the most hypoallergenic and is a good first food. Oatmeal and barley may be less "binding" or constipating for some babies.<sup>1</sup> See which one your baby likes; there is no best cereal or brand.
- Once your infant is accustomed to eating cereal from a spoon you can introduce vegetables into his or her diet. Babies typically show an initial preference for yellow and orange vegetables over green ones. Later, try mashed avocado.
- Fruits are naturally sweet but in the long run, may be less nutritionally important than vegetables. Dairy products, such as yogurt, can be introduced afterwards. As chunkier textures are introduced, try cottage cheese. Defer introducing more complex proteins, such as those found in meats, until your child is at least nine months old.

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<sup>1</sup> Any change in dietary ingredients is likely to result in changed bowel habits. Stools may become firmer and less frequent with the addition of formula to a breast milk diet, the introduction of solid foods at five months, the switch to whole milk at twelve months, and so on. Softening stools can be accomplished by adding prune juice or pureed (or stewed) prunes to the diet. Infrequent, yet soft, stools are usually not abnormal.

### **A few brief points:**

- Infants are developmentally ready to start eating solid foods at five months because at that age a baby normally is able to sit in a high chair (or equivalent) with good head control. Your baby has been watching you eat, and will begin to anticipate food. If your baby's mouth does not begin to open when food comes, or if instead of accepting food your baby's tongue pushes food out so it dribbles over the chin, you may need to dilute the cereal more and/or wait another week or two before successfully introducing solid foods.
- Introduce a new food every few days so that if a reaction occurs, the offending food is more easily identified.
- Initially, foods should be pureed. As your child's eating abilities progress, the texture of foods can increase. Let your child's ability to coordinate food orally be your guide.
- Breast milk or formula should be continued until your infant's first birthday, at which time your child can be switched to cows' milk or continued on breast milk. (The fat content of whole milk is best for a growing brain. Whole milk is less important after two years of age and low-fat milk should replace it in the diet at that time, unless we tell you otherwise.)
- Eggs can be introduced after nine months. Some allergists feel that it is best to introduce egg that has been baked into a product such as bread. Next, on two or three separate occasions, offer yolks that have been scrambled. The white (albumin) causes allergic reactions in some individuals. If the yolks with their tiny amounts of white are well tolerated, the whole egg is likely to be safe.

### **How often do I feed my baby solid foods?**

Your infant will be more motivated to eat if hungry, hence offer cereal before nursing or bottling. Begin with a small amount of cereal in formula or breast milk (for example, a tablespoon of cereal in ~4-5 tablespoons of liquid) once or twice a day. Once your child "gets it," increase feeding frequency to three 'meals' a day, and begin adding more variety to the feedings. Let your infant tell you when s/he is done. There is no need to encourage your infant to eat more than s/he wants to eat.

### **Homemade vs. Commercial baby food**

Commercial baby foods are processed under strict controls that make them safe while preserving vitamin and mineral content. Yielding to consumer pressure, manufacturers have typically reduced or removed added salt

and sugar additives (including starch) from many (but not all) products. So-called "baby food dinners," for example, may contain less protein and more water and modified food starch than plain meat. "Modified food starch" is a thickener and anti-separation ingredient that adds calories without adding nutritional value.

"Desserts" or fruit mixtures with added sugar simply promote a preference for sweets. Commercial foods have the advantage of being convenient; healthy ones can be found if one chooses carefully. Homemade baby foods may be more time consuming but can be more inventive. Parents who make their own can eliminate additives but must use good techniques of buying, storing, and preparing foods to ensure excellent products.

**Remember: food habits are formed in infancy and early childhood.** The formation of poor habits in young children can lead to obesity and other medical problems in adults. The frequent addition of sugared food and juices to the diet can displace foods with much higher nutritional value. Their constant presence can lead to poor dietary habits. Generally think of juice as a treat---not a staple; nutritionally, *it is much like cotton candy.*

### Finger foods

Babies are ready for finger foods and self-feeding when they are able to sit up and grasp objects, and begin to make chewing movements. Teeth are not required for finger foods! Take care to give foods that can be easily gnawed by gums. Avoid foods that are choking hazards (such as hot dogs). Initially, infants grasp with the whole hand so that a piece of melba toast or zwieback may be easier to negotiate than a cheerio that may be lost in the palm. Food becomes easier to manipulate as your child develops a "pincer grasp." *We like to see children largely finger feeding themselves by twelve months of age.*

Some suggested finger foods include:

- Vegetables that are soft or soft-cooked, and cut into small cubes or pieces
- Fruits that are peeled and sliced very thin (foods such as thinly sliced apples are also good for teething because they massage gums)
- Breads and cereals, such as zwieback, Cheerios, Kix, frozen bagels, graham crackers
- Proteins such as cottage cheese (large curd), shredded cheese, cheese sticks and cubes, finely diced cold-cuts, tofu squares, scrambled or hard-boiled eggs

### Toddlers!

Toddlers begin to limit their dietary repertoire. *It is natural* for your toddler's food preferences to narrow as s/he leaves infancy. Toddlers often eat the same things everyday and are frequently not adventuresome with food. Further, toddlers are learning to control their environment. Parents who "work hard to get their toddler to eat" often become unnecessarily frustrated. They unknowingly stimulate behavioral problems in their child!

Toddlers often want to drink when they are hungry. Avoid providing too much to drink: encourage nutritious meals instead.

Many children enjoy the oral gratification a bottle provides and weaning can be difficult. *The American Academy of Pediatrics* recommends that *sippy* cups be introduced at six months of age, and bottles should disappear by 12 months of age. In our experience, it often takes a little longer.

Supplanting the bottle with an object that replaces its emotional significance (a stuffed animal, a favorite blanket) is often a prerequisite to weaning the bottle.

Finally, as children grow, asking "***are you still hungry,***" may be healthier than "***are you full?***"

### Choking precautions

Young children (under age 5 years) commonly choke on the following: chunky peanut butter, nuts and seeds, popcorn, raw carrots, hot dogs, grapes, gum drops and jelly beans. Either avoid these and similar items altogether, or chop them into tiny pieces first. (Grapes, for example, should be quartered, carrots should be sliced into strips and cooked, hotdogs should be split lengthwise before cutting into tiny cubes.) Learning anti-choking maneuvers is recommended.