

Feeding Infants and Toddlers

During the first year, babies develop and change rapidly and their food and feeding patterns must change with their development.

Each baby develops and changes at his/her own rate. In order to know when to change feeding routines, you have to watch for physical clues from each individual baby.

How Do I Know What to Feed and When?		
Age	Developmental Signs	How/What to Feed
Birth through 3 months	Swallows liquids but pushes solid objects out of mouth Poor control of head, neck and upper body Begins to bring hand to mouth	Serve liquids only (breast milk or formula)
4 through 6 months	Sits with support Good head control Uses whole hand to grasp objects Displays up-and-down munching movement Can take in and swallow a spoonful of pureed food without choking Draws in upper or lower lip as spoon is removed Drinks small amounts from cup when held by another person	Serve breast milk or formula and add semisolid foods in this order: – infant cereal with iron – strained vegetables – strained fruit
5 through 9 months	Begins to control the position of food in the mouth Positions food in between jaws for chewing Begins to sit alone unsupported Follows food with eyes Begins to use thumb and index finger to pick up food and feed self with hands Teething	Serve breast milk or formula and add mashed foods
8 through 11 months	Begins to curve in lips around rim of cup Begins to chew in a circular pattern Sits alone easily Experiments with spoon but prefers to feed self with hands	Serve breast milk or formula in a cup and serve finely chopped food, small pieces of soft food, strained meat, cottage cheese, yogurt or cheese strips, pieces of soft bread and crackers.
10 through 12 months	Begins to put spoon in mouth and hold cup Circular chewing continues Good eye-hand-mouth coordination	Serve breast milk or formula from a cup and chopped food, small pieces of soft cooked table foods.

How to store and handle breast milk...

Most grandparents raising grandchildren full time will not have the opportunity to feed breast milk. However, many grandparents will have access to expressed breast milk for their grandchildren and need to know how to keep it safe.

- Breast milk should be stored in the freezer or refrigerator as soon as it is collected.
- Bottles of breast milk should be labeled with the baby's name and the date and time the breast milk was collected. Do not use unlabeled bottles that have been accidentally accepted.
- Store the breast milk in hard plastic bottles.
- Fill the bottles with the amount of breast milk the baby usually drinks at one feeding.
- Do not save and reuse breast milk left over from bottles.
- Carry bottles of fresh or frozen breast milk to the facility in a cooler with an ice pack to keep the milk at a cold temperature.
- To prevent spoiling, do not allow bottles of breast milk to stand at room temperature.
- Use refrigerated bottles of fresh breast milk within 48 hours from the time they were collected.
- Breast milk can be stored in a freezer for up to 3 months from the date it was collected.
- Rotate frozen breast milk, using the oldest milk first.
- Thaw frozen breast milk in the refrigerator or hold it under cold running water. Do not thaw it at room temperature, on a stove or in a microwave.
- Once thawed, do not refreeze breast milk.
- For babies who prefer a warm bottle, hold the bottle under warm running water. Do not warm it in the microwave.
- Shake the bottle of breast milk before the feeding.



Bottle-feeding an infant...

- Wash your hands well with soap and water before feeding.
- Gently and slowly calm and position the infant for feeding.
- Cradle the baby in your arms holding him or her partially upright. The baby's head should be a little higher than the rest of his/her body. This prevents milk from backing up into the inner ear and also prevents choking.
- Hold the bottle during feeding. Do not prop the bottle. Propping bottles can cause choking and suffocation, ear infections, tooth decay and deprive the baby of important human contact.
- Feed in a smooth and continuous fashion, following the baby's lead on when to feed, how long to feed and how much to feed. Avoid disrupting the feeding with unnecessary burping, wiping, juggling and arranging.
- Make sure that if you hold the bottle upside down, falling drops from the nipple hole follow each other closely but do not make a stream.
- Do not allow a baby to carry a bottle around. Babies who carry a bottle around can develop cavities, may drink too much liquid and may share their bottles with other babies.
- Do not offer the bottle in bed at nap or sleep time. Allowing babies to sleep with bottle can lead to choking, ear infections, cavities and problems with speech.
- Wait for the baby to stop drinking before burping. Do not be surprised if the baby does not burp.

To make it easier to identify a possible food allergy or intolerance when introducing new foods, it is recommended to:

- Introduce new foods one at a time.
- Introduce foods gradually (wait at least 1 week between each new food).
- Introduce a small amount (about 1 to 2 teaspoons) of a new food at first.
- Use single-ingredient foods at first to easily see how the baby reacts to each new food.

A baby having an allergic reaction to his or her food may have one of these symptoms:

- diarrhea
- vomiting
- coughing and wheezing
- congestion or stuffiness
- ear infection
- stomach pain
- hives

- skin rash
- extreme irritability
- severe reactions like shock or difficulty breathing

If a baby has a severe reaction to a food, contact Emergency Services immediately.

If you have a baby that is developmentally delayed, you must follow the feeding instructions from the baby's doctor.

Feeding solid foods before babies are ready will not help them sleep through the night or make them eat fewer times in a day.

Introducing new foods to a baby...

What's first?

Iron-fortified infant cereal is a good first solid food because it is easy to digest. It is also the least likely food to cause an allergic reaction, and its consistency can be changed to meet the baby's developmental needs.

Infant cereal can be prepared with breast milk, formula, water or juice. Use juice only if the baby is 6 months or older and the baby has already tried the juice and had no reaction to it.

Other cereals:

- Start with rice cereal.
- Oat and barley infant cereal can be added at 1-week intervals after rice cereal.
- Wait to serve wheat cereal until babies are 8 months old because wheat is the grain most likely to cause a reaction in babies. The risk of intolerance decreases by age 8-9 months.
- Serve mixed grain cereals only after the baby has been introduced to each grain separately.

What's next?

Vegetables and fruits may be introduced when the baby readily accepts 2 to 3 tablespoons of infant cereal at each meal. Babies often start on vegetables and fruits around 6 months of age. Remember to wait 1 week after introducing a new food before you introduce another new food. Babies between 6 and 12 months old may be served soft-cooked vegetables and fruit as long as the texture of the food is appropriately modified. As a baby's mouth skills progress, gradually increase the thickness and lumpiness of vegetables and progress from pureed to ground to fork-mashed and eventually to diced.

Due to the risk of choking, do not feed babies the following vegetables and fruits:

- raw vegetables (including green peas, string beans, celery, carrot, etc.)
- cooked or raw whole corn kernels
- whole pieces of canned fruit
- hard pieces of raw fruit such as apple, pear or melon
- whole grapes, berries, cherries, melon balls or cherry and grape tomatoes
- uncooked dried fruit (including raisins)

What's after that?

Meat and meat alternatives are generally introduced by 8 months of age. It is not necessary to add oil, butter, margarine, lard, cream, salt or seasonings to these foods. Peanut butter and other nut butters should not be fed to babies.

Examples of good lean meats and poultry are strained or pureed well-cooked lean beef, pork, lamb, chicken, turkey and liver and boneless fin fish. Observe a baby closely when introducing fish because some babies can have allergic reactions to fish. Do not feed any shellfish (includes shrimp, lobster, crab, crawfish, scallops, oysters and clams) to babies less than 1 year of age – these types of seafood can cause severe allergic reactions in some babies. Avoid feeding babies the following foods because they are high in fat and low in protein: hot dogs, sausage, bacon, bologna, salami, luncheon meats, other cured meats, fried meats and the fat and skin trimmed from meats. Egg yolk may be introduced to infants at, or after, 8 months of age. Do not introduce egg whites and whole egg to children younger than 1 year. Egg whites contain substances that may cause an allergic reaction.

Cheese and yogurt may be introduced to infants who are 8 months or older. Small, thin slices of cheese are easier for them to handle and are safer. Do not serve chunks of cheese or processed cheese food.

Commercially prepared plain yogurt, made from low-fat or whole milk, may be served in small amounts. Since cheese and yogurt are made from cow's milk, be sure to watch closely for allergic reactions.

Any cooked dried beans and dry peas, such as kidney beans, lima beans, pinto beans or chick peas, may be served to babies 8 months or older. Serve small quantities (1 to 2 teaspoons) of mashed or pureed cooked beans or peas at first. If canned beans are used, drain the salty water and rinse the beans with clean water before using.

Bread or crackers may be served at the snack or with meals throughout the course of the day. At 8 or 9 months, babies enjoy having finger foods so they can practice picking up the foods. Also at that age, a baby's risk of having a reaction to wheat decreases.

Examples of bread and cereal foods to serve babies include:

- strips or small pieces of dry bread or toast or crackers
- plain crackers, preferably low in salt
- small pieces of soft tortilla or soft pita bread
- teething biscuits.

Never feed babies these foods, due to choking:

- snack potato or corn chips, pretzels or cheese twists
- cookies or granola bars
- crackers or breads with seeds, nut pieces or whole grain kernels
- whole kernels of cooked rice, barley or wheat
- raw vegetables (including green peas, string beans, celery, carrot, etc.)
- whole pieces of canned fruit
- hard pieces of raw fruit such as apple, pear or melon
- whole grapes, berries, cherries, melon balls or cherry and grape tomatoes (cut these foods into quarters, with pits removed, before feeding to older babies)
- uncooked dried fruit (including raisins)

Never feed a baby under 12 months these foods, due to allergic reaction risk:

- shrimp
- lobster
- crab
- crawfish
- scallops
- oysters
- clams
- egg whites

Toddlers: Food for Thought

Feeding the Right Kind of Food

In managing toddler eating, remember who is responsible for what. Adults are responsible for deciding what the child is offered to eat, where it is offered and when it is presented. The child is responsible for how much she eats.

Feed child-size portions from the 5 Food Groups.

A toddler-size serving is about two-thirds of the adult portion. Although toddlers are not good about eating meat and other protein sources, it is not likely that they won't get enough protein. For example, it only takes 16 ounces of milk, plus one ounce of meat to provide enough protein for children up to three years old.

If a child doesn't want to drink milk, that is okay. It is better not to force them or talk about it because this may actually cause them to believe they don't like milk, and they will never try it again. If you leave them alone, a toddler will probably drink milk again, because they haven't been reminded that "they don't like milk."

Gradually change from whole milk to lower-fat milk so that a child is drinking 1% or fat-free milk by age 5.

Catering to Likes and Dislikes

With a toddler, it is good to plan meals that include at least one food they like. However, a toddler may really like a food at one meal, and won't touch the same food at another meal. Don't do short order cooking. If a toddler refuses to eat anything, ignore his or her whining. Don't give her the idea you are upset or concerned about her complaining.

Toddlers will eat better if their food is easy to eat. Here are some strategies for presenting food in a form they can eat:

- Cut foods in bite-size pieces, preferably before he gets there. Toddlers cannot use knives but may have a tantrum about not being allowed to try.
- Make some foods soft and moist.
- Allow him to eat his food at room temperature.
- Give salads without dressing and serve them as finger food.
- Either make soups thin enough to drink from a cup or thick enough to eat from a spoon easily.
- Put a little extra color in foods. Children are interested in a little parsley in the hot dish or some carrot grated into the coleslaw.
- Cater to their preferences on shapes. Children may insist on having their sandwiches quartered or prefer carrot rounds to sticks. Orange wedges with the skins attached are often eaten better than sections.

Don't regularly provide cute foods because this tends to help them confuse food with playthings. Food should look like food, not like toys.

Sugar

A child does not need any added sugar in her diet. It is best to serve foods high in added sugar with a heavy meal and not as a snack in order to avoid the child getting tired and irritable when the sugar wears off. When making healthy food choices, stick to whole grains, milk, lower fat meat sources, vegetables and fruit without added sugar.

Listed below is the sugar content of some common foods:

Food	Teaspoons of Sugar
candy bar (1 ounce)	7
cookies, 1 to 3 inch	1-2
brownies, 2 inch square	1-2
frosted cake, two layer, 1/16	7
fruit pie, 1/7 of 9 inch pie	6-9
pumpkin pie, 1/7 of 9 inch pie	3-5
ice cream, 1/2 cup	3
chocolate milk, 1 cup	3
milkshake, 10 ounces	9
sweetened soda pop, 12 ounces	6-9
Kool-Aid, 8 ounces	6

It is best to offer high sugar, low nutrient-dense foods only occasionally and not allow free access to these foods. It is perfectly alright to use sugar to flavor nutritious foods, especially if it makes it more acceptable to the toddler. Some desserts can be nutritious as well, such as custards, puddings, oatmeal or peanut butter cookies and pumpkin pie.

Adults should not use dessert as a reward for finishing a meal or withhold it as a punishment for not finishing a meal. This teaches a child to overeat in order to get the dessert, and it also teaches them that dessert is the only desirable part of the meal.

It is important to remember that sugar, added or naturally occurring, promotes tooth decay. Therefore, adults should not allow children to sip pop or fruit juice for a very long time. Use water to quench thirst. Beware of sticky foods such as caramels and raisins because they stick to the teeth, which can lead to tooth decay.

References

Satter, Ellyn, R.D., M.S. *Child of Mine: Feeding with Love and Good Sense*. Bull Publishing Company, 1986.

Feeding Infants: A Guide for Use in the Child Nutrition Programs, United States Department of Agriculture, Food and Nutrition Service, FNS-258

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