Do It Yourself Baby Food

Fact Sheet FS1160







Cooperative Extension

FAMILY AND COMMUNITY HEALTH SCIENCES

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Can you imagine a time when there was no such thing as baby food sold in jars? No grocery store shelves with hundreds of varieties to choose from? Hard to imagine, isn't it? Commercial baby food didn't get its start until 1928 when Gerber® introduced strained fruits and vegetables to the national market. Beech-Nut® followed in 1935. Though it was commercially available, many older adults today remember when making baby food was something you did in your own kitchen with fresh fruits and vegetables bought daily at the neighborhood market. Commercial baby food is convenient and nutritious but there is growing interest in making your own. Home-made baby food may help cut food costs and will help your baby get used to foods the family eats.

When Is Your Baby Ready For Solid Foods?

The American Academy of Pediatrics (AAP) recommends exclusive breast feeding for the first six months of life with few exceptions. Their policy statement says "Pediatricians and parents should be aware that exclusive breastfeeding is sufficient to support optimal growth and development for approximately the first six months of life and provides continuing protection against diarrhea and respiratory tract infection." Exclusive breastfeeding also decreases the risk of childhood obesity. Early feeding experiences can promote healthy eating patterns. Food flavors are transmitted to breast milk and research indicates that infants whose mothers eat fruits during lactation will consume more fruits during childhood.

As babies grow, they develop the motor skills necessary to begin eating complementary foods. These are nutrient containing foods fed to children during the period when they are still fed breast milk or formula. According to the Start Healthy Guidelines for Infants and Toddlers from the American Dietetic Association "all infants need complementary foods for exposure to flavors and textures, as well as to master eating skills." Additionally, by six months of age, if the baby is still exclusively breast fed, human milk becomes insufficient to meet the requirements of an infant for energy, protein, iron, zinc, and some fat-soluble vitamins like vitamin D. Complementary foods rich in iron should be introduced gradually beginning around six months of age. Recognizing that each baby is different, the AAP states that "the unique needs or feeding behaviors of individual infants may indicate a need for introduction of complementary foods as early as four months of age, whereas other infants may not be ready to accept other foods until approximately eight months of age."

Your baby is ready for complementary foods when he can hold his head in a steady, upright position, sit with support, is interested in what he is eating, and can move his tongue from side to side. In order to swallow solid foods the baby must be able to move the food from the front of the mouth to the back. Before four to six months of age, instead of swallowing the food, babies push their tongues against the spoon or the food. This tongue-pushing reflex is necessary when breastfeeding or drinking from a bottle. Based on these signs of readiness, parents, along with their pediatrician, can decide when to begin. The desire to have the baby sleep through the night is not a cue to start feeding solid foods.

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What Types of Food Can Be Offered?

At about six months of age pureed (liquid-like) smooth foods such as cereal thinned with breast milk or formula, peaches or sweet potatoes can be offered. As babies grow from six months to one year they learn to chew with their new teeth and use their thumb and pointer finger to grasp pieces. At that time, you may offer finely chopped foods and eventually larger pieces of foods.

There is no particular order of what food to offer first. New foods should be introduced individually, one every two to seven days, rather than in combination. This helps to identify any signs of food allergy such as hives, rash, breathing problems, diarrhea or vomiting. Contact your doctor if symptoms develop that seem to be related to particular foods.

Although many babies start with commercially prepared iron-fortified infant cereal mixed with either breast milk or formula, many pediatricians now recommend more nutrient-rich foods like meats, vegetables, and fruits. Cow's milk is a poor source of iron and should not be used as the main drink before 12 months, although small volumes may be added to complementary foods such as mashed potatoes as the baby gets older.

You can prepare your own baby food using fruits or vegetables - fresh, frozen or canned without added salt, sugar, fat, or spices. Choose non-citrus fruits like bananas, pears, peaches or apples. Citrus fruits like oranges, tangerines or grapefruit may be more likely to cause allergic reactions and can be added once your baby reaches one year of age. Ripe bananas need only be pureed or mashed, no cooking is needed. Potatoes, sweet potatoes, or green peas are good vegetable options. Home-made cereals can be made from rice, oats, or barley. Lean meats, chicken or turkey are also safe to use when properly prepared.

How Do I Prepare Baby Food?

Start with clean hands, clean workspaces, and clean equipment and utensils. You'll need a blender, food mill, or strainer. Wash the fruit or vegetable by scrubbing under cool water and remove the skin, seeds and pits. Cook by steaming or boiling in a small covered saucepan with a small amount of water until soft. The less water used, the more nutrients stay in the food. Puree in a blender or baby food mill or just mash with a fork. Check for any large lumps and cool food before feeding. Add liquids such as cooking water, breast milk or formula if the food is thick or dry. Do not add sugar, salt or fat to home-made baby food.

To prepare meat or poultry, remove all bones, skin, connective tissue, gristle and fat before cooking. After cooking, remove tough parts and visible fat. All meats, poultry, and fish should be cooked to at least 165° to kill harmful bacteria. Use a thermometer to determine when it is done. Cut cooked meat into small pieces or thin slices and puree.

How Do I Store the Food Safely?

If the pureed food is not being used immediately it should be refrigerated or frozen in individual portion sizes according to the following guide. To freeze, pour cooled food into an ice cube tray or divide into two tablespoon sized servings on a cookie sheet, cover, and place in freezer. After cubes or servings are frozen, wrap them in a plastic freezer container or freezer bag and date them.

Food	Refrigeration Storage Time	Freezer Storage Time
Fruits or vegetables	2-3 days	6-8 months
Meats or egg yolks	1 day	1-2 months
Meat & vegetable combinations	1-2 days	3-4 months

DO NOT USE FOOD PRODUCTS THAT CONTAIN HONEY AND DO NOT ADD HONEY OR CORN SYRUP TO HOME-MADE BABY FOOD.

Honey and corn syrup may contain naturally occurring Clostridium botulinum bacteria that cause infant botulism, a serious form of food poisoning in babies less than 12 months old. After one year of age, a baby's digestive system will handle any of these bacteria without causing a problem. Symptoms of botulism appear between three to 30 days after an infant consumes the bacterial spores. Constipation is often the first sign of botulism that parents notice (although many other illnesses also can cause constipation). Call your doctor if your baby hasn't had a bowel movement in three days. Other symptoms can include flat facial expression, poor feeding (weak sucking), weak cry, decreased movement, trouble swallowing with excessive drooling, muscle weakness or breathing problems. Infant botulism can be treated, but it's important to get medical care as soon as possible. Call your doctor right away if you see any of the warning signs in your baby. With early diagnosis and proper medical care, affected infants should fully recover.

How Do I Warm the Food?

Baby foods do not have to be warmed prior to feeding, however many parents prefer to warm them. Refrigerated food may be warmed on the stove over low heat by placing the food in a small, heat proof dish, preferably glass, which is then placed into a saucepan with enough water to be ½ inch below the rim of the dish, stirring often. If microwaving, stir the food and turn the dish often to avoid hot spots. It is best to microwave in glass dishes rather than plastic. Let the microwaved food stand for one to two minutes to allow for temperature rise. Stir it again and test the temperature before serving. Frozen food may be thawed in the refrigerator or by placing the frozen portion either in its plastic bag or in a covered dish under cold running water. It may also be warmed in the microwave using the defrost mode taking the precautions outlined above.

What Is the Correct Portion Size?

Portion size is variable depending on the age and growth rate of your child. In the beginning, feed your infant small serving sizes of one to two tablespoonfuls. Watch the baby's cues to learn signs of hunger and signs of being full (satiety). Signs of hunger may include crying, excited arm and leg movements, opening mouth and moving forward as the spoon approaches, swiping food toward the mouth and moving the head forward. Signs of being full may include falling asleep, becoming fussy during feeding, slowing the pace of eating, stopping sucking, spitting out or refusing of nipple, refusing spoon, batting the spoon away and closing the mouth as the spoon approaches. As the baby grows he should eventually be eating three small meals and two to three healthy snacks. Introducing a variety of foods in the first two years of life helps children accept a wider variety of foods.

Nitrates in Vegetables and Well Water

Vegetables such as beets, carrots, spinach, squash, turnips, collard greens, cabbage, broccoli and green beans contain high levels of nitrates. Babies younger than six months are unable to block the conversion of nitrates to nitrites. Nitrites hinder proper oxygen transportation in the red blood cells which leads to oxygen deprivation. Symptoms are difficulty breathing and a bluish skin tone. This condition requires immediate medical attention. By 6 months, the digestive system is developed enough to handle nitrate containing foods safely. Commercial baby food companies voluntarily test their products for nitrates. Some private well water may be high in nitrates and should therefore not be used in infant formula or food preparation unless tested and found safe. The New Jersey Department of Health and Senior Services recommends testing for nitrates once a year. Contact the New Jersey Department of Environmental Protection, your local health department or Cooperative Extension office to find a certified testing lab. Municipal or city water is safe. While we encourage babies to be fed only breast milk for the first six months, if parents choose to feed their babies formula or solid food made with well water during this time, particularly if their baby is less than three months old, they need to have their water tested and avoid the vegetables listed above.



Oatmeal Cereal

Ingredients:
¼ cup of ground oats (regular preferred over instant or steel-cut)
¾ cup – 1 cup water

Directions:
- Grind oats in a blender or food processor until powdery.
- Bring liquid to a boil in saucepan. Add the oatmeal powder while stirring constantly.
- Simmer for 10 minutes, whisking constantly until cooked.
- Mix in formula or breast milk and fruits if desired and serve warm.

Yummy Fruit

Ingredients:
¾ cup ripe fruit (uncooked peaches, nectarines, pears or apricots) without sugar. May substitute frozen or canned in natural fruit juice if fresh is unavailable.
1 tablespoon unsweetened fruit juice (not citrus for babies less than one year old)

Directions:
- Remove skin and seeds.
- Puree ingredients in baby food mill or blender until smooth.
- Heat the puree to about 180°F, or to a simmering temperature.
- Let cool, then serve or freeze. Freeze no longer than one month for best quality.



Green Peas

Ingredients:
1 cup frozen peas
¾ cup water

Directions:
- Place peas and water in a saucepan. Bring to a boil over high heat and cook for 6 minutes.
- Let cool 10 minutes, then puree until smooth.
- Serve or freeze. Freeze no longer than one month for best quality.

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www.wholesomebabyfood.com

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