

INFANT FEEDING - THE FIRST YEAR

Your baby's feeding experience during the first year of life is crucial in the setting of his future eating habits, physical growth, and personality development. Mealtime serves as a time for nourishment as well as a social experience for you and your baby.

The foods that you feed your baby during this time should provide the required nutrients to sustain your baby's rapid growth while minimizing excesses or deficiencies. For the first four to six months of life, your baby needs only breast milk or formula with iron to provide just the right nutrients in just the right amounts.

Plain water may be given between feedings if you wish and should be sterilized (boiled for five minutes, then cooled) during the first four months of life. NYC tap water contains fluoride as does Beech Nut Baby Spring Water (baby water). Most spring water (other than baby water) needs to be sterilized as well. If you live in Nassau County, please speak to me about the possible need for fluoride supplementation after six months of age.

Infant formula should be warmed up to room or body temperature prior to feeding. You can continue to use this bottle for up to an hour after preparation, after which time it should be thrown away and not placed back in the refrigerator.

Infant formula is available in three preparations:

Ready to Feed (do not dilute with water)

Concentrate (mix one part formula with one part water)

Powder (usually one scoop powder added to two ounces of water; please follow directions from manufacturer)

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Once formula is prepared, it may be stored in the refrigerator for 48, but preferably 24 hours prior to use. Bottles and nipples should be cleaned with warm soapy water and a brush; they need not be sterilized, although frequently people find it easier to do so. Breast milk similarly may be stored in the refrigerator for 24 and up to 48 hours. It may be stored in the freezer for at least two weeks and probably up to two months. If you have a separate deep freeze it can be stored for six months. (Steven P. Shelov, editor; "Caring for your baby and young child")

It is important for you to hold your baby during feeding time. This provides the love and security he/she needs. Propping the bottle does not promote this; it only promotes tooth decay and ear infections.

The amount of formula an infant should take per feeding is variable; most babies leave the hospital taking 1 ½ to 2 ½ ounces per feeding every three to four hours. Most two month olds will take 4 to 5 ounces per feeding. If your baby seems to have gas pain or spits up too much, consider giving smaller, more frequent feedings. Place in each bottle ½ ounce more than you expect your baby will eat. This way the air fluid level will be above your baby's mouth and he/she will not suck in air and get a tummy ache. If your baby is extra hungry he/she can drink the extra ½ ounce. Whatever is left over in the bottle should of course be disposed of, and not reused. There are certain special bottles such as Avent, Playtex, and Dr. Browns specially designed to minimize swallowing air and resulting colic.

Introduction of solid (complementary) foods is not recommended before the age of four to six months because:

1. Solids introduced earlier may contribute to obesity.
2. Solids may provide more salt than the baby's system can handle easily.
3. Solids can contribute to iron deficiency by filling your baby up without supplying the iron he needs to maintain healthy growth and prevent anemia.
4. Food allergy may be linked to the early introduction of solid foods.
5. Most, if not all babies are not developmentally prepared to take solids, and can not yet show preference for different foods.

6. Baby's intestinal tracts are not prepared to handle these foods. Early introduction of solid foods may lead to diarrhea and other illnesses.

If your baby is exclusively breastfed it would be wise to consider delaying the introduction of solid food until six months of age. This is so that your baby will obtain as much benefit from breast milk as possible, including its immune and anti-inflammatory qualities in helping to prevent illness.

Introduction of Solid Foods- General Ideas

Whenever a new food is introduced it should be introduced as a single food in small quantities. Never introduce mixed foods before introducing each single food component separately. One may then increase the quantity of this food over the next three to five days until reaching a single serving. During this time we are checking for any untoward reaction including fussiness, gas pain, vomiting, diarrhea, or skin rash. After these three to five days, a different food may be added or substituted until we reach three meals a day.

Resist the temptation to add salt or sugar to prepared jar foods. Remember certain tastes are acquired, and we do not wish to teach our children to eat sweet or salty foods. The natural foods have their own unique tastes without the addition of seasoning even if they seem bland to you.

When feeding directly from a jar, any unused food in the jar should be disposed of and not kept in the refrigerator for later use. Therefore, if you plan to use only a portion of the feeding, it would be wise to first remove from the jar the portion that you plan to use.

Stage one foods are usually fed before stage two; and stage two before stage three. Portion size increases from stage one to three as does the consistency (thickness) of the food. For instance if one adds water to a stage three serving, and then blend

the contents, you may be left with several stage one servings. In addition, stage one never includes mixed foods.

Cereals

The first solid food is usually a baby cereal. These are especially iron fortified for our babies developing needs unlike adult cereals. Your child until this time has only learned to suck, and chewing will be a new experience. Cereals should initially be diluted by mixing one tablespoon of cereal with seven tablespoons of breast milk or formula in your child's bowl. This will give the cereal a soupy character which will approximate sucking. In fact this is also a primary reason that cereals are usually baby's first food. Seat your child in an infant seat or car seat so that he/she is upright, and feed him/her with an infant spoon. If your child tongue thrusts the food out of his mouth instead of chewing, he may not yet be developmentally ready for solid foods; wait a few days, and try again. Solid foods should almost never, with rare exception, be fed from a bottle.

Baby cereal is available as rice cereal (most easily dilutes with breast milk or formula but may constipate), oats, and barley (useful to help the bowel movements along, but may produce gas). Mixed cereal may be used after each individual type has been tried without any untoward reaction.

Vegetables and Fruit



Vegetables are a good source of Vitamins A, B and Iron, while fruits are an important source of vitamin C. As fruits are significantly sweeter than vegetables, many experts suggest introducing vegetables first, but by all means this is not a hard fast rule. A simple mnemonic once suggested to me some years ago works well for an approach to introduction of veggies. We start at the top and work our

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way down the traffic light: starting with red sweet potatoes, then carrots, squash and finally sweet peas. Fruits are then introduced including apples, pears, apricots, peaches, bananas, avocado, and prunes. Many foods can be prepared at home by cooking them, adding water, and pureeing with the use of a blender. A strainer may be necessary at times. Peas should not be prepared at home for infant feeding. Raw bananas and apples can be scraped and fed directly without other preparation needed.

Please never feed or allow a baby to teeth on a raw carrot, or similar object. The risk of aspiration is significant even after three to five years of age.

Meats and Poultry

Small slivers of soft boiled chicken can be fed after six months of age and can be used as a finger food to encourage your baby to be an active eater. Chicken, meats, and turkey can be introduced at this time, and are excellent sources of protein and iron. These foods are frequently pureed, and are usually given as part of a meal once a day.

Complementary Foods Possibly More Allergenic

Until recently, scientific theory recommended delaying the introduction of cow milk products, eggs, fish, substances containing nuts and various other foods. The idea was that by doing so we would cause a decrease in allergic conditions several years down the road. Evidence based medicine examined real life, and this did not turn out to be true. Currently it is felt that the delayed introduction of complementary foods after six months of age has no bearing on the subsequent development of atopic (allergic) conditions.

A reasonable suggestion would therefore be:

Yogurt made with whole milk can be introduced after six months of age.

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Egg Yolk may be introduced at eight months; egg white, which is more allergenic, two to three weeks later. Bomba (a snack containing peanut butter), while not being the healthiest food as it is fried, may be fed after nine months. Fish, may be fed after ten months.

Other Ideas

Biter biscuits (Gerber) can be introduced at seven or eight months of age depending on your child's developmental skills. Cheerios remain a very reasonable and healthy first finger food as they usually dissolve in the mouth, and exercise a nine month olds new found developmental skill of the pincer grasp. Remember never to feed honey to any infant less than a year old due to the risk of infant botulism.

Juices may be introduced when your child is sitting well, and should preferably not be placed in a bottle to prevent bottle rot of the teeth; a sippy cup should be used. We usually start with clear juices such as grape or apple. One can feed a baby up to five ounces of juice a day without worrying about negatively effecting his nutrition. Juice is also an excellent source of Vitamin C.

**Please use this space for any questions you have
for me at the next office visit:**
