

## Feeding Your Baby

Breast milk is good for your baby. It is superior to any alternative form of infant formula and is uniquely designed to meet the nutritional needs of your infant. It contains the antibodies which will help protect your baby against illness. Breastfeeding is easy, inexpensive, and convenient; there are no bottles to wash and no formula to prepare. Breast milk is easy to digest and less allergenic, thus there are fewer problems with constipation and diarrhea. Breastfeeding provides a special bonding for the baby and mother. It also helps mom get back into shape by contracting the uterus.

While breastfeeding may be the natural thing to do, it helps to know a little about how to do it. Here are a few steps to help you get started.

- Wash hands with soap and water.
- Hold your baby close to your breast and turn your baby so you are tummy to tummy.
- Hold the breast in your hand and gently stroke the baby's lips with the nipple until the baby opens wide. Your baby has a "rooting reflex" which will make the baby turn his or her mouth toward your touch.
- Pull the baby onto your breast, helping him or her to take in as much of the brown area of the nipple as possible.
- Nurse your baby on both breasts, about 10 minutes per side, burping in between.
- To remove your baby from the breast, place your finger in the corner of his or her mouth to break the suction.
- Proper positioning of your baby on the breast, and using different positions to hold your baby while nursing is very important to reduce nipple soreness.

### How do I know my baby is getting enough milk?

1. Your baby should have at least 6-8 wet diapers per day and frequent bowel movements. Call us if your newborn is stooling less than 4 times a day in the first two weeks of life.
2. Initially, your baby should nurse 8-14 times over 24 hours (every 1 ½ to 3 hours). In the first 2 weeks of life, you should wake your baby for feedings if he or she sleeps beyond 5 hours.
3. Your breast should feel full before feeding and softer after your baby has nursed.
4. In general, your baby should seem satisfied and content after feeding. If you are concerned, you should call us. We may want to have the baby weighed.

### Collecting and Storing Breast Milk

Situations arise where you may need to be separated from your baby; school, work, or an evening out. When this occurs, you may wish to pump and store your milk ahead of time. There are a number of different breast pumps available and you will need to find the one that fits your needs.

Breast milk may be stored in the refrigerator for 48 hours. To freeze breast milk, first cool it in the refrigerator, and then put it into the freezer. Frozen breast milk should be used within 3 months if it is stored in the freezer compartment of a refrigerator. Milk stored in a deep freezer is good for 6 months. Remember to label the breast milk with the date that you pumped it. Thaw milk in the refrigerator or in warm water just before feeding. Thawed milk must be used within 24 hours. Note: freezing breast milk destroys some of its antibodies.

You may introduce a bottle of breast milk or formula at 2-3 weeks of age (2-3 times per week). This is enough to get your baby used to a bottle, but not so much that it will comprise your breast milk supply.

## **Breast Milk Storage Guidelines- As recommended by La Leche League**

Recommend storing milk in 2-4 oz. (to reduce waste)

Refrigerated milk has more anti-infective properties than frozen milk

Cool milk in refrigerator before adding to frozen milk

### **Human milk can be stored:**

-At room temperature (66-72° F, 19-22° C) for up to 10 hours

-In a refrigerator (32-39°F, 0-4°C) for up to 8 days

-In a freezer compartment inside a refrigerator (variable temp due to frequent door opening) for up to 3 months

-In a separate deep freeze (0°F to -19°C) 6 months or longer

### **What type of Container to Use**

Refrigerated or frozen milk may be stored in:

-Hard-sided plastic or glass containers with well-fitting tops

-freezer milk bags that are designed for storing human milk

\*Disposable bottle liners are not recommended

### **How to Warm the Milk:**

-Thaw and/or heat under warm, running water

-Do not bring temperature of milk to boiling point

-Gently swirl milk before testing the temperature

-swirling will also redistribute the cream into the milk

\*It is normal for stored milk to separate into cream and milk layer

Do not use a microwave oven to heat human milk

### **Thawed Milk**

If milk has been frozen and thawed it may be refrigerated- up to 24 hours for later use

-It should NOT be refrozen

-It is not know whether milk that is left in the bottle after a feeding can be safely kept until the next feeding or if it should be discarded

\*\*Expressed milk can be kept in a common refrigerator at the workplace or in a day care center. The US Center for Disease Control and the US Occupational Safety and Health Administration agree that human milk is not among the body fluids that require special handling or storage in a separate container.

## **When a Nursing Mother is Ill and Needs to Take Medications**

When a mother becomes ill, she should not interrupt breastfeeding for fear that she may make her baby sick. Breast milk passes immunity to the baby in many circumstances. Frequent hand washing will also decrease the risk of contagiousness. If you are nursing while ill, it is generally best to avoid most medications. If you wish to take medicine, the following medicines may be taken safely (at the recommended dose) without risk to your baby:

**For fever:** Acetaminophen, Ibuprofen

**For colds:** Sudafed; nasal sprays (e.g. Afrin, Neosynephrin); Benadryl (other antihistamines may be given, but there may be a slight decrease in mother's milk supply)

**For pain:** Acetaminophen, Ibuprofen, Codeine, Demerol, Naprosyn

**For infection:** Antibiotics do not usually produce adverse effects in breast-fed infants.

**You may take:** Penicillins (e.g. Amoxicillin), Ceclor, Cefzil, Lorabid, Suprax, Duricef, Keflex, Augmentin

## **For weight reduction**

After your child reaches one month of age, you may take products with Aspartame (NutraSweet) or saccharin. Mothers who carry the gene for phenylketonuria should consult us before taking Aspartame. If you are taking a medicine which is not listed here, please call and speak with one of our providers or phone nurse.



## Foods to avoid while breastfeeding

Most women find they can eat whatever they like while breastfeeding and it will have no affect on their baby's behavior. However, some foods can change the taste of your milk, cause gas and discomfort, or interfere with your baby's sleep. The following is a partial list of common food offenders.

Foods that can be gassy:

- Onions
- Cabbage
- Garlic
- Cauliflower
- Broccoli
- Cucumbers
- Peppers
- oranges
- Pineapple
- Grapefruit
- Lemon
- Tomatoes
- Limes
- Strawberries
- Kiwi

Foods that can change the flavor of breast milk:

- Cinnamon
- Garlic
- Curry
- Chili pepper
- Onion

Foods that can interfere with sleep:

- Coffee (more than 2 cups)
- Some sodas
- Chocolate
- Tea
- Some over the counter medicines

### Lactation Consultants

If you are having difficulty breastfeeding, having questions, need supplies, or need support the following people should be able to assist you.

Lactation Support through Emerson Hospital: 978-287-3317

Mary King Groton, MA 978-877-0167

Maureen Allen Groton, MA 978-448-2364

Michelle Stollow Maynard, MA 978-897-3637

## Bottle Feeding

If you decide to bottle feed your baby, rest assured in knowing that formulas will provide your baby with all the nutrients he or she needs to grow and be healthy. An advantage in bottle feeding is that it's easy for dad and others to feed the baby when mom needs a break.

There are basically two kinds of formula which you may choose to use: cow's milk protein or soy protein. Formulas are labeled "with Iron" or "low Iron". Formula "with Iron" is recommended so your baby won't become anemic. Most babies will do fine on cow's milk-based formula and it is recommended unless your doctor recommends a different formula.

## Bottle Preparation

There is no need to boil water for formula or sterilize bottles and nipples if you live in a city with sanitized water. To avoid bacterial infection you should thoroughly wash the bottles and nipples in hot soapy water using a bottle brush. Most bottles may be placed in the dishwasher. Always rinse your infant's bottle after it is empty to avoid bacterial growth; it is very hard to remove dried milk after it hardens.

When preparing formula, you should always start with clean hands. Here are some general guidelines for mixing formula:

**Ready to Feed:** No mixing required. Pour directly into bottle

**Concentrated Liquid:** This must be mixed in a 1:1 ratio with water. If you make a 4 ounce bottle, add two ounces of concentrated liquid to two ounces of tap water.

**Powdered:** Add one scoop of formula to every two ounces of water. Measure the water first and then add the formula and shake.

Breast milk or formula is recommended for your baby's entire first year. Whole milk should not be given to infants under 12 months unless it is recommended by your doctor.

**Tip:** Always hold your baby during feedings. Never prop the bottle and don't give your baby a bottle in bed.

If your baby doesn't finish his or her bottle, you may offer it up to one hour later. If refrigerated, you may keep it up to four hours. Bottles for nighttime feedings that are prepared in advanced should not be left at room temperature. They should always be refrigerated

## FORMULA FEEDING

Breast Milk is best for babies, but breast feeding isn't always possible. Use an infant formula if

- You decide not to breast feed
- You need to discontinue breast feeding and your infant is less than 1 year of age.
- You need to occasionally supplement your infant after breastfeeding is well established.

**Note:** If you want to breast feed but feel your milk supply is insufficient, don't discontinue breast feeding. Instead seek help from your physician or a lactation nurse.

### COMMERCIAL FORMULAS

Infant formulas are a safe alternative to breast milk. They have been designed to resemble breast milk and fulfill the nutritional needs of your infant by providing all known essential nutrients in their proper amounts. Most formulas are derived from cow's milk. A few are derived from soybeans and are for infants who may be allergic to the type of protein in cow's milk. Bottle feeding can provide your child with all the emotional benefits and many of the health benefits of breast feeding. Bottle fed babies grow as rapidly and are as happy as breast fed babies. A special advantage of bottle-feeding is that the father can participate.

Use a commercial formula that is iron fortified to prevent iron deficiency anemia, as recommended by the American Academy of Pediatrics. The amount of iron in iron-fortified formula is too small to cause any diarrhea or constipation. Don't use the low-iron formulas.

Most commercial infant formulas are available in three forms: powder, concentrated liquid, and ready-to-serve liquid. Powder and ready-to-serve liquids are the most suitable forms when a formula is occasionally used to supplement breast milk.

### PREPARING COMMERCIAL FORMULAS

The concentrated formulas are mixed 1:1 with water. Two ounces of water are mixed with each level scoop of powder formula. Never make the formula more concentrated by adding extra powder or extra concentrated liquid. Never dilute the formula by adding more water than specified. Careful measuring and mixing ensure that your baby is receiving the proper formula.

If you use tap water for preparing formula, use only water from the cold tap. If the water hasn't been used for several hours, let the water run for 2 minutes before you use it. (Old water pipes may contain lead-based solder, and lead dissolves more in warm water or standing water.) Fresh, cold water is safe. If you make

one bottle at a time, you don't need to use boiled water. Just heat cold tap water to the preferred temperature. Most city water supplies are quite safe. If you have well water, either boil it for 10 minutes (plus one minute for each 1000 feet of elevation) or use distilled water until your child is 6 months of age. If you prefer to prepare a batch of formula, you must use boiled or distilled water and closely follow the directions printed on the side of the formula can. This prepared formula should be stored in the refrigerator and must be used within 48 hours.

### HOMEMADE FORMULAS FROM EVAPORATED MILK

If necessary, you can make your own formula temporarily from evaporated milk. Evaporated milk formulas carry some of the same risks as whole cow's milk. This formula needs supplements of vitamins and minerals. It also requires sterilized bottles because it is prepared in a batch. If you must use it in a pinch, mix 13 ounces of evaporated milk with 19 ounces of boiled water and 2 teaspoons of corn syrup. Place this mixture in sterilized bottles and keep them refrigerated until used.

### WHOLE COW'S MILK

Whole cow's milk should not be given to babies before 12 months of age because of increased risks of iron deficiency anemia and allergies. The ability to drink from a cup doesn't mean you should switch to cow's milk. While it used to be acceptable to introduce whole cow's milk after 6 months of age, studies have shown that infant formula is the best food during the first year of life for babies who are not breast fed. Skim milk or 2% milk should not be given to babies before 2 years of age because the fat content of regular milk (approximately 3.5% butterfat) is needed for rapid brain growth.

### TRAVELING

When traveling, use powdered formula for convenience. Put a required number of scoops in a bottle, add cold tap water, and shake. A more expensive alternative is to use throwaway bottles of ready-to-serve formula. This product avoids problems with contaminated water.

### FORMULA TEMPERATURE

In summer many children prefer cold formula. In winter most prefer warm formula. By trying various temperatures, you can find out which your child prefers. If you do warm the formula, be certain to check the temperature before giving it to your baby. If it is too hot, it could burn your baby's mouth.

## AMOUNTS AND SCHEDULES

Newborns usually start with 1 ounce per feeding, but by 7 days they can take 3 ounces. The amount of formula that most babies take per feeding (in ounces) can be calculated by dividing your baby's weight (in pounds) in half. Another way to calculate the ounces per feeding is to add 3 to your baby's age (in months) within a maximum of 8 ounces per feeding at 5 or 6 months of age. The average ounces of formula a baby needs in 24 hours is the baby's weight in pounds multiplied by 2. The maximal amount recommended per day is 32 ounces. Overfeeding can cause vomiting, diarrhea, or excessive weight gain. If your baby needs more than this and is not overweight, consider starting solids.

In general, your baby will need more than 20 minutes. If it does, you are overfeeding your baby or the nipple is clogged. A clean nipple should drip about 1 drop per second when the bottle of formula is inverted.

**Formula Storage.** Prepared formula should be stored in the refrigerator and must be used within 48 hours. Prepared formula left at room temperature for more than 1 hour should be discarded. At the end of each feeding, discard any formula left in the bottle, because it is no longer sterile.

## LENGTH OF FEEDING

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## EXTRA WATER

Babies do not routinely need extra water. They should be offered a bottle of water twice daily, however, when they have a fever or when the weather is hot and dry.

## BURPING

Burping is optional. It doesn't decrease crying. Although it may decrease spitting up, air in the stomach does not cause pain. Burping two times during a feeding and for about 1 minute is plenty.

## VITAMINS/IRON/FLUORIDE

Commercial formulas with iron contain all your baby's vitamin and mineral requirements except fluoride. (*Note:* All soy-based formulas are iron fortified.) In the United States the most common cause of anemia of children under 2 years old is iron deficiency (largely because iron is not present in cow's milk). Iron can also be provided at 4 months of age by adding iron-fortified cereals to the diet.

From 6 months to 16 years of age, children need fluoride to prevent dental caries. If the municipal water supply contains fluoride and your child drinks at least 1 pint each day, this should be adequate. Otherwise, fluoride drops or tablets (without vitamins) should be given separately. This is a prescription item that can be obtained from your child's physician. Added vitamins are unnecessary after your child has reached 1 year of age and is on a regular balanced diet, but continue the fluoride.

## CUP FEEDING

Introduce your child to a cup at approximately 4 to 6 months of age. Total weaning to a cup will probably occur somewhere between 8 and 18 months of age, depending on your baby's individual preference.

## BABY-BOTTLE TOOTH DECAY: PREVENTION

Sleeping with a bottle of milk, juice or any sweetened liquid in the mouth can cause severe decay of the newly erupting teeth. Prevent this tragedy by not using the bottle as a pacifier or allowing our child to take it to bed.