

PREPARATION AND USE OF INFANT FORMULA

Breastfeeding is the optimal method of providing infant nutrition, and your health care provider can answer your questions about the many benefits of breastfeeding. However, if you are not able to breastfeed your baby, today's infant formulas can provide the appropriate nutrients to support growth and development of infants. If you choose to bottle-feed your baby, be sure to give your baby formula, not cow's milk, for the first year of life. Young infants cannot fully digest regular cow's milk as completely or easily as formula.

Types of Formulas

- Most commercially prepared infant formulas are available in ready-to-feed liquid forms, concentrates, and powders. Ready-to-feed formulas are convenient but are the most expensive.
- Formula made from concentrate is prepared by mixing equal amounts of concentrate and water. Once the can of concentrate has been opened, store covered in the refrigerator for no more than 48 hours.
- Powder formula is the least expensive form of infant formula. The standard preparations of powders require the addition of one level scoop of powder for every two ounces of warm water. Mix thoroughly to make sure there are no clumps of undissolved powder in the bottle.
- Formula also comes in several different types of bases: cow's milk, soy, and specialized. Most formulas are available with added iron. The American Academy of Pediatrics recommends that iron-fortified formula be used for all bottle-fed infants from birth to one year of age. Your baby's primary care provider will advise you if your child has special needs.

Preparing Formula for Bottle-Feeding

- Clean all bottles, nipples, and other utensils you use to prepare formula or feed your baby.
- You may use your dishwasher or wash the utensils in hot tap water and detergent. If you have well water or nonchlorinated water, either place the utensils in boiling water for five to ten minutes or use a process called terminal heating (see below).
- Terminal heating: the bottles are cleaned, but not sterilized, prior to filling. The bottles are filled with prepared infant formula and capped loosely. Then the bottles are placed in a pan of water filled halfway up the bottles. The water is brought to a gentle boil for about 25 minutes.
- Follow the manufacturer's directions exactly for the formula type you choose.
 - Too much water—the baby won't get the calories and nutrients he/she needs for proper growth.
 - Too little water—the formula will be too concentrated. This may cause diarrhea or dehydration and will give your baby too many calories.

- Most pediatricians discourage the use of homemade infant formulas. Do not give your baby homemade formula without your pediatrician's advice.
- All pre-prepared formula should be stored in the refrigerator. Formula not used in 24 hours should be discarded.
- Refrigerated formula doesn't necessarily have to be warmed up for your baby, but most infants prefer it at least at room temperature.

Thawing and Warming Infant Formula

- The *easiest* way to warm refrigerated or frozen milk is to place the container in warm water and rotate it frequently.
- Refrigerated formula may also be warmed by placing the container or bottle in a pan of water at low heat on the stove
- Formula can be thawed by leaving it at room temperature, but this takes much longer and can lead to bacterial growth if left for many hours.
- *Microwave ovens should never be used for heating bottles.*
 - This process may overheat the formula in the center of the container. Bottles that feel comfortably warm to your touch may be extremely hot in the center and scald your baby's mouth.
 - The bottle itself can explode if left in the microwave too long.
- Always test the temperature of the formula by shaking a few drops on your hand or wrist to be sure it is not too hot.
- After the formula is thawed, its fat may separate, but it is still safe to drink. Shake the container gently until the milk returns to its uniform consistency.
- *Thawed milk should be used within four hours. Never refreeze it.*

Bottle-Feeding Instructions

- The person feeding the baby should be in a comfortable position, with the infant positioned with the head higher than the trunk and facing the person who is feeding.
- Tilt the bottle to allow milk to enter the nipple.
- The nipple can be touched to the infant's lips to stimulate the suckling reflex.
- The baby should be burped initially after every ounce, and then after every one to two ounces as the baby grows.
- Spitting up formula after a feed with a burp can be normal; however, vomiting a large amount of the feeding is not, and, if it continues, it should be reported to the health care provider.
- The full-term newborn will drink one to two ounces of formula every two to four hours to meet its nutritional requirements.
- Approximately 12 to 24 ounces of formula per day is normal as the baby grows.

Introducing Solid Foods

- **Babies can develop iron deficiency anemia between six months and two years of age.**
 - **It is recommended that iron-fortified rice cereal be introduced to the diet by six months of age.**
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Burping

- **Bottle-fed babies need to be burped after each ounce of milk.**
- **The person feeding the baby should protect his/her clothing with a towel or cloth diaper.**
- **Spend only a minute or two tapping the baby's back (if no burp occurs in that time, the child may not need to burp). Some babies swallow more air than others during feeding, and you will soon learn the needs of your baby.**



