

# Bottle-Feeding (Formula) Questions

## Definition

- Common questions asked about formula and feeding from a bottle

## Health Information

### Topics Covered

Go directly to the topic that relates to your question for advice:

1. Types of formulas
2. Switching formulas and milk allergies
3. Powdered versus liquid formulas
4. Whole cow's milk, 2%, 1% and skim milk
5. Vitamins and iron
6. Water to mix with the formula
7. Extra water
8. Amounts: How much per feeding?
9. Schedules or frequency of feedings
10. Length of feedings
11. Night feedings: How to eliminate?
12. Formula temperature
13. Formula storage
14. Cereals and other solids
15. Burping
16. Baby bottle tooth decay
17. Traveling
18. Nipples and bottles
19. Normal stools
20. Normal urination
21. Breast discomfort

## Care Advice

1. **Types of Formulas:**
  - Milk-protein formulas, soy-protein formulas, and hydrolysate formulas
  - Soy formulas don't contain lactose or cow's milk protein. Currently, 20% of infants in the U.S. are fed soy formula. Often, switching to soy is not done with a valid reason.
  - Hydrolysate formulas mean the protein is broken down. These are advised when children are sensitive to both soy and milk protein.
2. **Switching Formulas and Milk Allergies:**
  - Switching from one milk-based formula to another is not helpful for any symptom. It is also not harmful.
  - Switching from milk formula to soy formula is sometimes helpful for severe diarrhea. This may occur from temporary low lactase levels. It may also be used for those families who are vegetarian.
  - Switching from milk formula to soy is sometimes helpful for cow's milk allergy. A cow's milk allergy occurs in 1-2% of infants. Most often, protein hydrolysate formulas (such as Alimentum or Pregestimil) are advised. This is because 15% of these infants are also allergic to soy protein.
  - Switching formulas for frequent crying, spitting up or gas is rarely helpful.
  - Don't switch formulas without talking with your child's doctor.

**3. Powdered Versus Liquid Formulas:**

- Formulas come in 3 forms: powder, concentrated liquid and ready-to-feed liquid.
- Concentrated formulas are mixed 1:1 with water.
- Ready-to-feed formulas do not need any added water.
- Powdered formulas are mixed 2 ounces (60 ml) of water per each level scoop of powder. Never add extra water because dilute formula can cause a seizure.
- Powdered formula costs the least. Ready-to-feed formula costs the most.
- Powdered formula is the easiest to use to supplement breastfeeding.
- Ready-to-feed formula is the easiest to use for traveling.

**4. Whole Cow's Milk, 1%, 2% and Skim Milk:**

- Cow's milk should not be given to babies before 12 months of age. Reason: Raises risk of iron deficiency anemia and allergies.
- Skim milk (fat free milk), 1% low fat milk or 2% milk should not be used before 2 years. Reason: The fat content of whole cow's milk (3.5%) is required. It is needed for rapid brain growth.

**5. Vitamins and Iron:**

- For all infants, use a formula that has iron in it. This helps to prevent iron deficiency anemia.
- The iron amount in iron-fortified formulas is too small to cause any symptoms. Iron in formulas does not cause constipation or diarrhea.
- Iron-fortified formulas contain all the vitamins and minerals needed.
- Extra vitamins are therefore not needed for infants taking formula.
- Fluoride: Babies don't need to take fluoride drops. Reason: The fluoride in toothpaste works very well.

**6. Water to Mix With the Formula:**

- Most city water supplies are safe for making 1 bottle at a time. Run the cold tap water for 1 minute. Don't use warm tap water. (Reason: To avoid potential lead exposure). Heat cold water to desired temperature. Add this to powder or formula concentrate.
- Exceptions:
  - Untested well water OR
  - City water with recent contamination OR
  - Your child has decreased immunity.
- For these conditions, use distilled water, bottled water, or filtered tap water.
- Another option is to use city water or well water that has been boiled. Boil for 10 minutes. Add 1 extra minute per each 1,000 feet (305 meters) of elevation.
- Bottled water costs more than distilled water.
- If making a batch of formula, distilled, bottled or boiled water is needed.

**7. Extra Water:**

- Babies less than 6 months of age should not receive any extra water. Reason: enough water present in formula. Also risk of harm.
- Infants over 6 months of age can have some extra water. Reason: water may be needed after starting solid foods or if weather is very hot. Also safe at this age.
- Limit for infants age 6 to 12 months: Don't give over 4 ounces (120 mL) of extra water per day. On hot days, can give up to 8 ounces (240 mL) per day. (AAP)

**8. Amount Per Feeding: Newborn Month**

- Here are average amounts per feeding during the first 4 weeks of life:
  - First 24 hours: 2-10 ml per feeding (1/2 -2 tsp)
  - 24-48 hours of life: 5-15 ml per feeding (1-3 tsp)
  - 48-72 hours of life: 15-30 ml per feeding (1tbsp-1 ounce)
  - Day 4 of life: 30-60 ml per feeding (1-2 ounces)
  - Day 5 - 4 weeks: 60-90 ml per feeding (2-3 ounces)

**9. Amounts - How Much Per Feeding: 1 to 6 Month Olds**

- The average amount of formula that babies take per feeding is:
- 1 month old: 4 ounces (120 ml) per feeding
- 2 months old: 5 ounces (150 ml) per feeding
- 4 months old: 6 ounces (180 ml) per feeding
- 6 months old: 7-8 ounces (210-240 ml) per feeding
- The amount can vary depending on the baby's weight. It will also increase if the baby is going through a growth spurt.
- A baby's appetite varies throughout the day. If the infant stops feeding or loses interest, that feeding can be stopped.
- If healthy babies are less hungry at feedings, may need to increase the feeding interval.
- The most amount of formula advised per day is 32 ounces (1 liter).
- Over-feeding can cause vomiting, diarrhea or too much weight gain.
- If your baby needs more than 32 ounces (1 liter) and is not overweight, start solids.
- Get rid of any formula left in bottle at end of each feeding. Do not reuse this leftover formula. Reason: Contains germs that can grow.

**10. Frequency Of Feedings (Schedules):** Babies mainly need to be fed when they are hungry. If your baby is fussy and it's been more than 2 hours, feed him. Some guidelines are listed below:

- From birth to 3 months of age, feed every 2 to 3 hours.
- From 3 to 9 months of age, feed every 3 to 4 hours.
- Infants often set their own schedule by 1 to 2 months of age.

**11. Length Of Feedings:**

- Feedings shouldn't take more than 20 minutes.
- If the feeding is prolonged, check the nipple to be sure it isn't clogged.
- A clean nipple should drip about 1 drop per second. Check this when the bottle of formula is turned upside down.

**12. Night Feedings - How to Get Rid of Them:**

- Most newborns need to be fed at least twice each night.
- Most formula-fed babies give up night feedings by 4 months of age. The tips below can help your baby sleep for longer stretches during the night:
- Keep daytime feeding intervals to at least 2 hours. Slowly stretch them to 3 hours.
- During daytime, your baby shouldn't sleep for more than 3 hours at a time. If your baby naps longer than that, wake him for a feeding.
- Place your baby in the crib drowsy but awake. Don't bottle feed or rock until asleep.
- Make middle-of-the-night feedings brief and boring compared to daytime feedings. Don't turn on the lights or talk to your child. Feed him rather quickly.

**13. Formula Temperature:**

- Most babies like formula at body temperature.
- In the summertime, some infants prefer formula that's cooler.
- In the wintertime, some prefer warm formula.
- The best temperature is the one your infant prefers. Either way, there's no health risk involved.
- Just make sure the formula is not too hot. Reason: It can burn your baby's mouth.

**14. Formula Storage:**

- If you can, make your child's formula fresh for each feed. However, if formula needs to be made ahead of time:
- Prepared formula should be stored in the refrigerator. It must be used within 24 hours.
- Open cans of formula should also be kept in the refrigerator. They should be covered and used within 24 hours.
- Prepared formula left at room temperature for more than 1 hour should be discarded.
- Leftover used formula should always be tossed. Reason: Contains germs that can grow.

**15. Cereals and Other Solids:**

- Bottle-fed infants should be started on baby foods between 4 and 6 months. First baby foods can be cereals and/or fruit.
- Starting before 4 months is not needed. Starting before 4 months makes feedings messier and longer. Early use of solids can also cause gagging.
- Solids don't increase sleeping through the night for bottle-fed infants.
- Delaying solids past 9 months of age is not advised. The delay runs the risk that your infant will refuse solids.

**16. Burping:**

- It is not harmful if a baby doesn't burp.
- Burping is an option, but not required.
- It can decrease spitting up, but it doesn't lessen crying.
- Burping can be done twice per feeding, once midway and once at the end.
- If your baby does not burp after 1 minute of patting, it can be stopped.

**17. Baby Bottle Tooth Decay:**

- Some older infants and toddlers are used to a bottle before sleeping.
- Falling asleep with a bottle of milk or juice can cause severe tooth decay.
- Prevent this bad habit by not using the bottle as a pacifier. Also, do not use the bottle as a security object.
- If you cannot stop the bottles, fill it with water. Use water instead of formula or milk at bedtime.

**18. Traveling:**

- Use bottles of ready-to-feed formula (most expensive).
- Or mix formula ahead of travel and carry in a cold insulated container.
- Or use powdered formula. Put the required number of scoops in a bottle. Carry clean water in a separate bottle. Mix before each feeding.

**19. Nipples and Bottles:**

- Any nipple/bottle products are fine.
- It is not necessary to sterilize bottles or nipples. Wash them with soap and water. Rinse them thoroughly.
- It is also safe to wash bottles and nipples in the dishwasher.

## 20. **Formula-fed Stools, Normal:**

- **Meconium Stools** are dark greenish-black, thick and sticky. They normally are passed during the first 3 days of life.
- **Transitional Stools** are a mix of meconium and milk stools. They are greenish-brown and more loose. They are passed day 4 to 5 of life.
- **Normal Milk Stools** without any meconium are seen from day 6 on.
- Formula-fed babies pass 1 to 8 stools per day during the first week. Then it starts to slow down to 1 to 4 per day. This lasts until 2 months of age.
- The stools are yellow in color and thick like peanut butter. Green stools are also normal (usually caused by bile).
- After 2 months of age, most babies pass 1 or 2 stools per day. They can also pass 1 every other day. They are soft and solid.
- Some pushing or straining with stools is normal at any age. Babies under 6 months also normally grunt, become flushed, and draw up legs.

## 21. **Breast Discomfort In Bottle-feeding Mothers:**

- Even though you chose not to breastfeed, your breasts will make milk. Breastmilk comes in on day 2 or 3. Swollen breasts can be painful for a few days. Here is what to do:
- **Ibuprofen.** Take 400 mg of ibuprofen 3 times per day. This will help to lessen pain and swelling. There's no special prescription medicine for this.
- **Ice.** Use a cold pack or ice bag wrapped in a wet cloth. Put it on your breasts for 20 minutes. Do this as often as needed. This will decrease milk production. Do not use heat. Heat will increase milk production.
- **Pumping.** For moderate pain, hand express or pump off a little breastmilk. This will help to reduce your pain. Pumping breastmilk can increase milk production. But, doing this to take the edge off your discomfort is not harmful.
- **Bra.** Wear a bra that offers good breast support or a sports bra. Wear it 24 hours a day.
- **Binding.** Binding the breasts by wearing a tight bra is no longer advised. Binding by using an elastic wrap is also not advised. Binding can increase the risk of breast infections (mastitis).

## 22. **Normal Urination in Formula-fed Infants:**

- Urine production increases quickly in formula fed babies. The number of wet diapers per day depends on how much formula the baby consumes.
- Day of life (DOL) 1 at least 2 wet diapers; DOL 2 at least 4 wet diapers.
- By DOL 3, your baby should have 6 or more wet diapers/day. (passing urine every 3-4 hours)
- From 1 week to 12 months of age, babies normally pass urine every 2 - 4 hours. Frequency depends on the amount of formula consumed.
- Wet diapers can normally decrease during warm weather or if the home is warm. Lack of urination is not abnormal until 8 hours have passed without any urine.
- Super absorbent diapers can make it difficult to tell if your child has passed urine. To count a diaper as being wet, it should feel much heavier than a dry diaper. Another tip for detecting urine passage is to place a tissue or cotton ball in the diaper.
- Note: Some diapers have a line on them that changes color when your baby passes.

## Call Your Doctor If

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- Your baby's suck becomes weak
- Your baby starts looking or acting sick
- Your baby starts looking or acting abnormal in any way
- Your baby is always hungry
- You think your baby needs to be seen

### **Pediatric Care Advice**

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