

# Chapter 4

## Handling and Storing Breastmilk and Infant Formula

### What's In This Chapter?

By the end of this chapter, child care providers will be able to:

- 1 Describe the differences between breastmilk and formula.
- 2 Give parents information on the best ways to bring breastmilk or infant formula to the child care site.
- 3 Describe how to safely store breastmilk and infant formula.
- 4 Identify how to prepare breastmilk and infant formula for feeding.

It is helpful to understand the difference between breastmilk and infant formula before reviewing the steps for handling and storage.

### How Does Breastmilk Look?

Breastmilk may look different from day to day, and that's okay! The color of breastmilk can change based on what the mother eats and what the baby needs. It is normal for breastmilk to look slightly blue, yellow, or even green in color.

Breastmilk may look thinner than infant formula, especially if the fat, or creamy part, has separated from the breastmilk and risen to the top. This does not mean the breastmilk is spoiled. Just gently swirl it (do not shake) to mix the layers back together.



*Breastmilk with the fat separated at the top.*



*Breastmilk stored in the refrigerator at 40 °F.*

## How Does Breastmilk Smell?

Breastmilk does not smell like infant formula or cow's milk. A mother's breastmilk may also smell different from day to day, and that's okay too! If you think the breastmilk has spoiled, check with the baby's parents first to see what they would like you to do. Some parents may want you to throw it out, while others may want you to save it for them to take home.



*Parent bringing breastmilk to the child care site.*



*Bottles of breastmilk labeled with the baby's full name and the date the breastmilk was pumped.*



*Containers of breastmilk being stored in the freezer at 0 °F.*

## Handling Breastmilk and Infant Formula Before Arriving at the Child Care Site



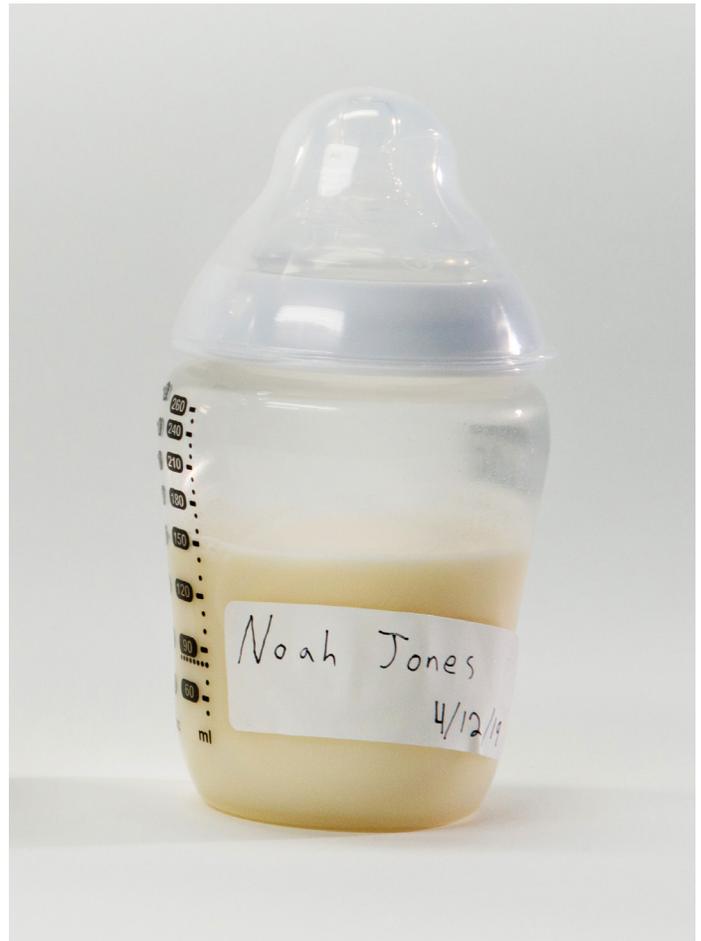
### Ask parents to:

- label the bottle with the baby's full name and the date the breastmilk was pumped or the infant formula was made.
- refrigerate or freeze breastmilk right after it is pumped, and refrigerate formula right after it is made.
- if possible, fill bottles with at least the minimum amount of breastmilk required in the **CACFP** infant meal pattern for a meal or snack.
- bring breastmilk or infant formula in smaller amounts (1–2 fluid ounces) in case the baby wants more after a feeding.
- bring breastmilk or infant formula to the **child care site** in a cooler with ice packs to keep it cold.

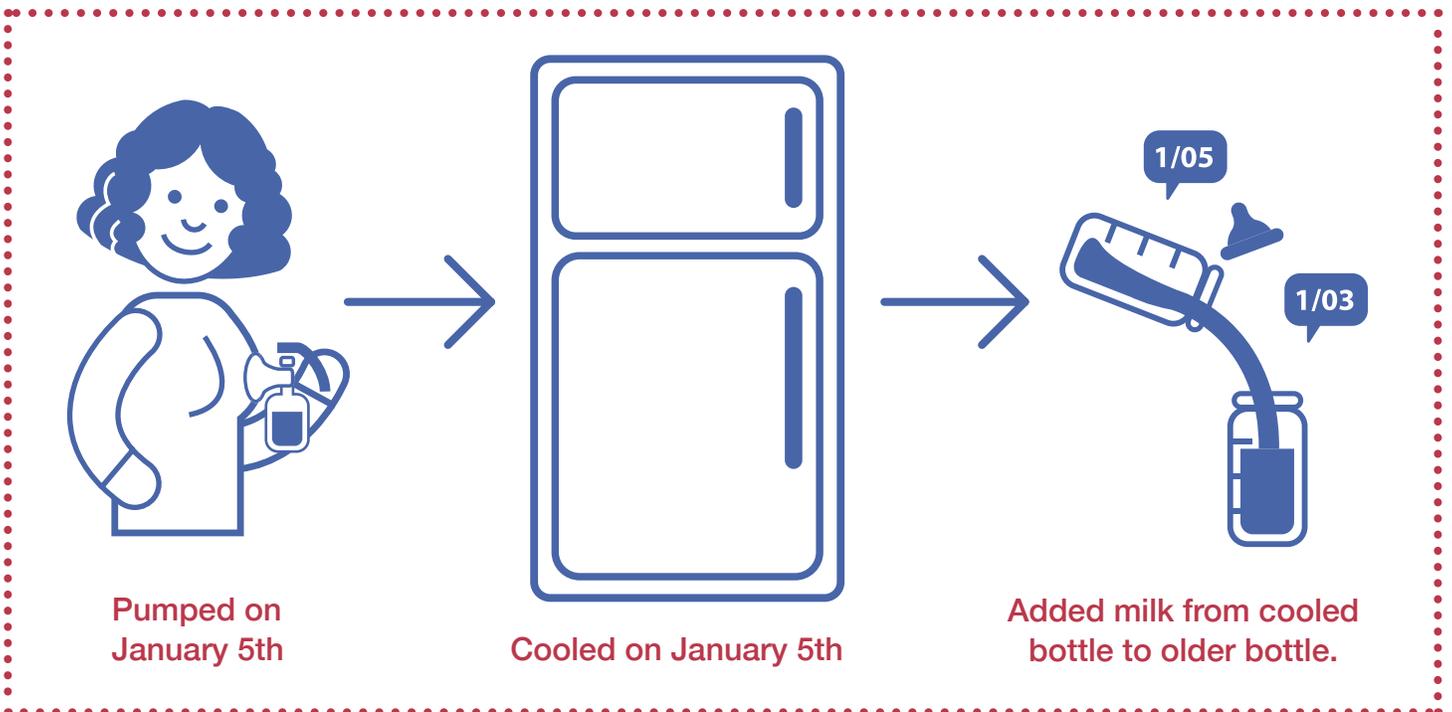
For more information on the proper storage time and temperature, see **Table 5**, Maximum Storage Time and Temperature for Breastmilk at a Child Care Site on **page 44** and **Table 6**, Storing and Handling Infant Formula on **page 47**.

## Storing Fresh Breastmilk and Infant Formula at Your Child Care Site

- Do not accept or use an unlabeled bottle.
- Keep breastmilk and formula refrigerated until it's time to feed the baby.
- Store breastmilk or formula in the back of the refrigerator where the temperature is always cold. The front of the refrigerator can be warmer because of the door opening.
- Store breastmilk and formula so the bottle with the oldest date is served first. One way to do this is to put the new bottles towards the back of the line and move the older bottles towards the front. When it's time to feed the baby, it will be easy to reach the older bottles since they will be in the front.
- If breastmilk is pumped at the child care site, this can be served with refrigerated breastmilk during a feeding. If you want to serve them together in one bottle, the freshly **pumped breastmilk** should be cooled before it's mixed with the refrigerated breastmilk. See diagram below.



*Breastmilk in a container labeled with the baby's full name and the date the breastmilk was pumped.*



## Thawing Frozen Breastmilk at the Child Care Site

- Only thaw the amount of breastmilk needed for one feeding to prevent or reduce waste. Thaw additional breastmilk if the **infant** is hungry and shows signs of wanting more.
- Thaw the container of breastmilk in the refrigerator overnight, under warm running water, or in a container of warm water. Write the date the milk was thawed on the bottle or container.
- Do not thaw breastmilk at room temperature, by mixing with warm breastmilk, placing in boiling water, or heating in a microwave. The breastmilk may become very hot when heated in a microwave, which could burn the baby even though the bottle may feel cool. Also, heating damages some of the important nutrients in breastmilk.

**Table 5**

Maximum Storage Time and Temperature for Breastmilk at a Child Care Site

	Countertop 77 °F or colder (25 °C)	Refrigerator 40 °F (4 °C)	Freezer 0 °F or colder (-18 °C)
<b>Freshly Pumped Breastmilk</b>	Do not use after 4 hours	Do not use after 3 days (72 hours)*	Within 6 months is best. Do not use after 12 months.
<b>Thawed Breastmilk</b>	Do not use after 1–2 hours	Do not use after 1 day (24 hours)	Never refreeze thawed breastmilk.
<b>Leftover from a feeding (baby did not finish the bottle)</b>	Do not use after 2 hours after the baby is finished feeding.		

\*Per policy memorandum CACFP 02-2018: *Feeding Infants and Meal Pattern Requirements in the Child and Adult Care Food Program; Questions and Answers*, this is the storage time for breastmilk in a child care setting.

If your State or local authorities have stricter health and safety regulations for handling and storing food, including breastmilk or formula, then follow those regulations.



## Preparing a Bottle For a Feeding

- Wash your hands before preparing a bottle of breastmilk or infant formula.
- Prepare at least the amount of breastmilk or infant formula required in the CACFP.
  - For breakfast, lunch, and supper, babies 0 through 5 months of age need 4 to 6 fluid ounces. Babies 6 through 11 months of age need 6 to 8 fluid ounces.
  - For snack, babies 0 through 5 months of age need 4 to 6 fluid ounces. Babies 6 through 11 months of age need 2 to 4 fluid ounces.
- Gently swirl the bottle of breastmilk before feeding the baby because breastmilk may separate into two layers when it is stored. This separation is normal. It is also normal to see bubbles in breastmilk.
- Bottles can be served cold from the refrigerator and do not have to be warmed. However, if you choose to warm the bottles, hold the bottle under warm (not hot) running water or place it in a bowl of warm water immediately before serving. Do not heat in a microwave. Microwaving can destroy important nutrients in the breastmilk and cause hot spots, which can burn the baby.

If an infant is receiving breastmilk and regularly drinks less than the minimum amount required, you may prepare bottles with smaller amounts. See **Chapter 2: Feeding the Breastfed Baby** on **page 20** for more information on breastmilk and the CACFP infant meal pattern.

- If the bottle was warmed, make sure the breastmilk or infant formula is not too hot before feeding the baby.
- Do not put cereal or other food in the bottle. According to the American Academy of Pediatrics, putting cereal in the bottle can be a choking hazard. It can also cause the baby to gain weight too quickly. If cereal is mixed with breastmilk or infant formula, the child care site cannot claim the cereal or the breastmilk or infant formula in the bottle unless this practice is supported by a **medical statement** signed by the baby's **health care provider**. The statement must be kept on file in a secure location at the child care site.
- Babies should only be fed their mother's breastmilk or the infant formula that was chosen for them by their parent. Never give a baby breastmilk or infant formula that is not labeled or that is meant for another baby.
- Do not use the unused breastmilk left in the bottle 2 hours after the baby has finished a feeding. Throw away any unused infant formula left in the bottle right after a feeding.



### Tip:

Never put cereal in a bottle. If it is mixed in a bottle with breastmilk or infant formula, then the cereal and breastmilk or infant formula cannot credit towards a **reimbursable meal** or snack.



## Purchasing Infant Formula

- Do not buy or use infant formula if the container has dents, bulges, pinched tops or bottoms, puffed ends, leaks, rust spots, or has been opened. The formula in these containers may be unsafe.
- Check the infant formula “use by” date. If the “use by” date has passed, the quality of the formula may not be as good and you should not buy it.
- Store unopened containers of infant formula in a cool, dry, indoor place—not in a refrigerator or freezer, or in vehicles, garages, or outdoors. In these places, the cans are exposed to moisture and temperature changes, which can affect the quality of the formula.



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## Preparing, Storing, and Handling Infant Formula

Make sure the water used to mix the infant formula is from a safe source approved by the local health department. If there is doubt, ask the local health department to test the water to make sure it is safe and does not contain anything that might harm a baby or child, such as lead, bacteria, nitrate, pesticides, or other chemicals.

The U.S. Environmental Protection Agency recommends that child care sites routinely test their drinking water for lead and other unsafe contaminants to make sure it is safe. If the drinking water is not safe, the local health department should recommend a safe source of water.

If a safe source of water is unavailable, water can be purchased for use at your child care site. The purchase of water must be considered necessary by your sponsoring organization or State agency.

Prepare, use, and store infant formula according to the product directions on the container or as directed by the baby's health care provider. For

powdered formula, measure the amount of formula using the scoop provided with the container. The instructions for preparing infant formula are different for each product. Using more or less water and powdered formula than instructed changes the amount of calories and nutrients in the bottle. This can affect a baby's growth and development. Formula that is not prepared correctly cannot credit towards a reimbursable meal or snack in the CACFP. If a parent asks you to prepare formula in a way that is different from what is stated on the container, a written medical statement from the baby's health care provider must be kept in a secure location at your child care site.

**Important:** Read and follow instructions on the container of infant formula.

**Table 6** Storing and Handling Infant Formula

Storing prepared infant formula	<ul style="list-style-type: none"><li>• Keep bottles of prepared infant formula in the refrigerator at a temperature at or below 40 °F (4 °C) until ready to use. Never freeze infant formula.</li><li>• Use infant formula that has been in the refrigerator within 24 hours after it is prepared.</li></ul>
Handling prepared infant formula <i>before</i> a feeding	<ul style="list-style-type: none"><li>• Do not take infant formula out of the refrigerator more than 2 hours before a feeding.</li></ul>
Handling prepared infant formula <i>after</i> a feeding	<ul style="list-style-type: none"><li>• Once you start feeding a baby, make sure the infant formula is consumed within 1 hour.</li><li>• Throw away any leftover infant formula that is in the bottle.*</li></ul>

\*Germs can get into the bottle during a feeding. This can cause bacteria to grow, which can make a baby sick if the leftover infant formula is given to the baby at a later time.

## In This Chapter

In this chapter, you have learned how to properly handle and store breastmilk and infant formula. In the next chapter, you will learn about feeding a baby with a bottle or cup at your child care site.



Breastmilk can be refrigerated at the child care site (at 40 °F or below) for up to 72 hours (3 days) from the date the breastmilk was pumped. If your State or local health and safety regulations are stricter, follow those guidelines.



Always prepare and store infant formula according to the instructions on the back of the container. Putting too much water or not enough infant formula in the bottle can affect a baby's growth and development.



Bottles can be served cold from the refrigerator and do not have to be warmed. If you choose to warm a bottle, hold it under warm running water or place the bottle in a bowl of warm water before serving.



Routinely have water used for preparing infant formula tested for lead and other unsafe contaminants. Contact your local health department if you have any concerns regarding the safety of your drinking water.



Provide parents with information about how to safely bring labeled breastmilk or infant formula to the child care site to help prevent spoilage and waste.

## Check Your Knowledge

- 1. A mother brings in powdered infant formula** for her baby. The child care provider has worked with babies for years, and prepares the infant formula the same way she does with all other formulas without checking the instructions on the package. Is the child care provider preparing the infant formula correctly? Why or why not?
- 2. A child care provider adds more water** to the infant formula than what is recommended on the label of the container because she thinks the baby weighs more than he should. Is this acceptable? Why or why not?
- 3. A child care provider has been busy** watching all of the children in his care and accidentally leaves a bottle of infant formula out on the counter for 2 ½ hours. Can he put it back in the refrigerator and use it later? Why or why not?
- 4. A mother asks the child care provider** to add iron-fortified dry infant cereal to her baby's bottle of breastmilk before naptime. She says it helps her baby sleep better. The child care provider knows that she will not be able to claim the infant cereal or breastmilk in the bottle as part of a reimbursable meal or snack since they are served in the same bottle and the mother did not have a medical statement. What should she tell the baby's mother?

**ANSWERS:** 1. No. The child care provider is not preparing the infant formula the correct way. She should always follow the instructions on the package to make sure she is adding the correct amount of water to the powdered infant formula. 2. No. Adding more water than instructed is not acceptable. Adding more water to dilute the formula means the baby will not get the calories and nutrients he or she needs to grow. 3. No. The child care provider should not put the bottle of infant formula that he left out on the counter for 2 ½ hours back into the refrigerator. Once you begin feeding a baby infant formula, it should be consumed within 1 hour. Any leftover formula should be thrown away. The baby's saliva can get into the bottle of formula during a feeding. This can cause bacteria to grow and can make the baby sick. 4. The child care provider can let the mother know that putting cereal in a bottle can be a choking hazard and can cause a baby to gain weight too quickly. Therefore, it is not a recommended practice and the child care site cannot do this unless there is a medical statement signed by the baby's health care provider.