

## Resources

Any amount of breastfeeding, if possible, is beneficial to an infant. The La Leche League International provides many resources to help breastfeeding mothers and mothers-to-be. You can find information at [www.llli.org](http://www.llli.org) or contact a La Leche League Group by calling 1-800-LALECHE.

<sup>1</sup>Labiner-Wolfe J, Fein SB, Shealy KR. Infant Formula Handling Education and Safety. Pediatrics. 2008;122;S85-S90.

<sup>2</sup>Infant Formula – Q&A from the Food and Drug Administration. [www.fda.gov/Food/FoodSafety/Product-SpecificInformation/InfantFormula/ConsumerInformationAboutInfantFormula/ucm108079.htm](http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/InfantFormula/ConsumerInformationAboutInfantFormula/ucm108079.htm). Accessed October 30, 2009.

<sup>3</sup>[http://www.fda.gov/ohrms/dockets/ac/08/briefing/2008-0038b1\\_01\\_07\\_FDA%20Reference%20Material-FDA%20Memo%20Cumulative.pdf](http://www.fda.gov/ohrms/dockets/ac/08/briefing/2008-0038b1_01_07_FDA%20Reference%20Material-FDA%20Memo%20Cumulative.pdf). Accessed November 17, 2009.

<sup>4</sup><http://www.food.gov.uk/multimedia/pdfs/formulaguidance.pdf>. Accessed November 17, 2009.

<sup>5</sup>FDA Statement on Release of Bisphenol A (BPA) Subcommittee Report from October 28, 2008. [www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2008/ucm116973.htm](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2008/ucm116973.htm). Accessed October 30, 2009.

Herbold N, Scott E. A pilot study describing infant formula preparation and feeding practices. International Journal of Environmental Health Research. 2008 18:451-459.



## Center for Hygiene & Health in the Home and Community

Reports suggest that infants under the age of 1 suffer more infections associated with food than older children and adults. Some of these infections are likely related to unsafe infant formula preparation and use.<sup>1</sup> Infant formula is regulated by the Food and Drug Administration (FDA). Formula must include a number of ingredients in specific amounts to meet the nutrition needs of babies, and production facilities are inspected by the FDA every year.<sup>2</sup> However, infant formula must also be prepared and stored properly at home to be nutritious and germ-free.

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## Feeding Baby Formula:

## Keeping It Safe



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## Types of Formula

In the U.S., infant formula comes in three forms:

- Ready-to-feed
- Liquid Concentrate
- Powdered



Ready-to-feed and concentrate are sterile (germ-free); powdered is not. Your pediatrician can help you choose the appropriate formula for your infant, especially if your baby has health issues. Always check the “use by” date – the manufacturer guarantees the nutritious quality of the formula only up to that date.

The manufacturers properly registered to produce infant formula in the U.S. are:

- Abbott Nutritionals
- Mead Johnson Nutritionals
- Nestle USA
- PBM Nutritionals
- Solus Products LLC

## Formula Preparation

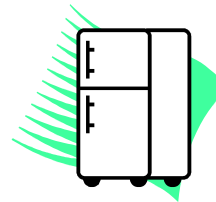
- Wash your hands with soap before handling infant formula.
- Use clean bottles and nipples for every feeding. Bottles and nipples can be sterilized in the dishwasher or in boiling water for 5 minutes.<sup>3</sup>
- For liquid concentrate or powdered formula, dilute in clean water **exactly as instructed** on the container. Adding too much water may not provide enough calories and nutrients; too little water may lead to dehydration, diarrhea, and excess calories.



- Where drinking water quality is good, formula can be mixed directly with cold (35-75°F) water from the tap; however, follow local authority recommendations during water contamination emergencies and also in homes using well water. If in doubt boil and cool water for formula preparation.
- In regions or countries where tap water is not safe to drink, the World Health Organization recommends boiling water for formula prep and mixing the formula with sterile water no cooler than 70°C (158°F) in a sterile bottle.
- Bottled water marketed for infant formula preparation *is not sterile*. Always check with your pediatrician if your baby requires boiled, sterile water for her formula..

## Storage of Formula

- Infant formula should be consumed within 2 hours of preparation or discarded.
- Prepared formula can be stored up to 24 hours in the refrigerator at 35-40°F.
- Do not freeze formula.



## Transporting Formula

Bacteria can grow quickly in prepared formula kept at room temperature.

- Unopened ready-to-feed formula is sterile and can be transported at room temperature.
- For concentrate or powdered formula, prepare individual bottles as usual and refrigerate at least one hour.
- Transport formula in an insulated bag with an ice pack.
- Within 4 hours of preparation, the formula must be used or refrigerated for up to 24 hours.<sup>4</sup>



## Reheating Formula

- A bottle of refrigerated formula can be heated under warm running water or in a pot of hot water. Always stir the bottle and check the formula’s temperature before feeding.
- Many babies will accept unheated formula.
- **Never microwave a bottle of formula.** The uneven heating may cause burns.



## Bottle Safety

There is concern that plastic baby bottles could release bisphenol A (BPA) into formula or breast milk, potentially promoting cancer and other health problems. Regulatory agencies in the U.S., Canada, Europe, and Japan have concluded that, according to current evidence, BPA exposure levels **do not** pose a health risk to humans, including infants.<sup>5</sup>

As a precaution, parents should:

- Not heat formula or breast milk in polycarbonate plastic bottles.
- Not wash plastic bottles in hot water or the dishwasher.
- Use BPA-free bottles (most BPA plastic has the **number 7** on the bottom).
- Use glass baby bottles.



## Reporting Complaints

If you believe that your infant has suffered a harmful effect or illness from formula, you should:

- Report the problem to the FDA by telephone (1-800-FDA-1088), internet ([www.fda.gov](http://www.fda.gov)), or in writing.
- Inform your health care provider who can report the issue through the FDA’s MedWatch hotline.
- Call the formula manufacturer’s toll-free telephone number provided on the label of the formula.
- All reporting to the FDA is confidential.