



# Is Homemade Baby Formula Safe?

By: Steven A. Abrams, MD, FAAP

Infants need a specific balance of nutrients—not too much or too little of anything—to grow and be healthy. Human breastmilk contains everything in exactly the right amounts, and infant formula ([/English/ages-stages/baby/formula-feeding/Pages/default.aspx](#)) can provide excellent nutrition when families can't or choose not to breastfeed. But, keep in mind:

**It's important for your baby's health to stick with products that meet federal standards, prepared according to directions on the label.**



## Risks of homemade baby formula recipes

Although recipes for homemade formulas circulating on the internet may seem healthy, less expensive or an answer to the baby formula shortage ([/English/tips-tools/ask-the-pediatrician/Pages/are-there-shortages-of-infant-formula-due-to-COVID-19.aspx](#)), they are risky. Homemade formula may not be safe or meet your baby's nutritional needs. The U.S. Food & Drug Administration (FDA) reports (<https://www.fda.gov/food/alerts-advisories-safety-information/fda-advises-parents-and-caregivers-not-make-or-feed-homemade-infant-formula-infants>) that some babies fed homemade formula have been hospitalized for hypocalcemia (low calcium), for example.

## Some formula-feeding tips from the American Academy of Pediatrics:

*If you feed your baby formula, make sure to always:*

- Choose a formula product that has been reviewed by and meets FDA (<https://www.fda.gov/food/people-risk-foodborne-illness/questions-answers-consumers-concerning-infant-formula>) minimum nutritional and safety requirements
- Prepare it according to directions on the label, unless you are given different instructions by your pediatrician because of a special medical need your baby has.

*What's important NOT to do:*

- Do not make a homemade formula from ingredients at the store, such as powdered cow milk or raw milk and sugar.
- Do not feed your infant under 1 year old cow milk or other milk substitutes ([/English/healthy-living/nutrition/Pages/Milk-Allergy-Foods-and-Ingredients-to-Avoid.aspx](#)) from the dairy section of the grocery store, such as almond or soy beverages (sometimes labeled as milk).
- Do not use imported formulas from other countries that are not reviewed by the FDA.
- Do not water down formulas by adding more water when mixing powdered formula or adding extra water to ready-to-serve, non-concentrated liquid formula.

## Why can't I make my own formula or use regular milk or milk substitutes from the dairy aisle?

Although feeding babies regular milk or making homemade formula was common decades ago, it is not a safe or recommended practice. In the United States, laws and other government rules make sure that all infant formula sold in stores meets very strict rules about their ingredients, to make sure it supports healthy growth and development.

The FDA also oversees how approved formulas are made and stored. The government inspects both the formulas and the manufacturing facilities regularly to be sure the rules are followed to avoid contamination and spoilage.

Formula mixtures made from online or other resources may not have vital components, such as enough iron or vitamins for a baby. Or, they may have too much salt or other nutrients that your baby's kidneys and liver cannot handle in large amounts.

In addition, regular dairy products like cow milk or alternatives such as soy, hemp, or almond milk are not designed with the right amount of very important nutrition sources including protein, iron, calcium, and vitamins that a baby needs. Even if it seems like they have enough from the label, the chemical forms of the nutrition may not be easily absorbed by the baby's body. Or, certain ingredients may affect each other (such as calcium and phosphorus) in ways that is not ideal for things like bone growth.

## Why are a baby's nutritional needs so specific?

The first year of life is a key time for your baby's brain and body to grow. If your baby doesn't get enough of the important parts of infant formula—even for a few days or weeks—they can suffer long-term effects on their abilities grow strong and do well in school. Lack of these nutrients can lead to severe health problems and even death. Homemade formulas may also lead to risks of contamination, causing infections ([/English/health-issues/conditions/infections/Pages/default.aspx](#)) or may even cause serious problems with high or low levels of minerals like calcium or electrolytes such as sodium.

## The chemicals on the infant formula label seem scary. How do I know these are safe for my baby?

The label lists the names for specific chemical forms of ingredients like calcium and iron. These are forms considered safe to feed a baby. Every formula that is reviewed by the FDA has been shown to lead to good infant growth.

## Is it OK to buy formulas online that are imported from other countries and supposedly better for babies?

No. These formulas have not gone through FDA review and are not always safely shipped or stored correctly. They are often very expensive and do not offer any benefits for babies that have been shown in research. Despite what you might read or see online, there is no scientific evidence that imported formulas are better for babies than what is on your grocery shelf in the formula aisle.

## Can I stretch the formula by adding a bit more water than the instructions say?

No. Although this might seem like a harmless way to help save money, FDA-approved infant formula is designed for just the correct amount of nutrition as described by the label. Adding extra water ([/English/ages-stages/baby/formula-feeding/Pages/How-to-Safely-Prepare-Formula-with-Water.aspx](#)) decreases and dilutes the nutrients and may cause serious growth problems or imbalances in vital nutrients like salt that can lead to serious health problems.

## Can you use toddler formula for babies under 12 months old?

No, this is not a good idea, because the nutritional needs of a small infant is not the same as it is for a toddler. Also, toddler formula doesn't have to be FDA reviewed like infant formulas is. Look at the label on the formula and make sure it says that it is designed for infants. If you have any questions, ask your pharmacist or pediatrician to help you make sure that you are choosing the best formula for your baby.

## What should I do if I can't afford formula?

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- **Special Supplemental Nutrition Program for Women, Infants and Children (WIC):** Mothers who qualify based on income can enroll in WIC to receive vouchers for formula. Learn how to apply here (<https://www.fns.usda.gov/wic/wic-how-apply>).
- **Supplemental Nutrition Assistance Program (SNAP):** You can use your SNAP Electronic Benefits Transfer card (formerly called food stamps) to buy formula. If you are enrolled in WIC, you also might qualify for SNAP.
- **Temporary Assistance for Needy Families (TANF):** This program offers temporary cash assistance to qualified families. Locate your state TANF program here. (<https://www.acf.hhs.gov/ofa/help>)

## Where can I get help if I do not qualify for benefits?

- **Feeding America** is a nonprofit network of 200 food banks. Many provide free baby food, infant formula, diapers and other supplies. Find your local food bank (<https://www.feedingamerica.org/find-your-local-foodbank>).
- **Dial 2-1-1** to be connected to a community resource specialist who can help you find local resources. The number can be dialed from almost anywhere in the U.S. You also can get help online (<http://www.211.org/services/food>).

## More information

- Ask the Pediatrician: With the baby formula shortage, what should I do if I can't find any? (/English/tips-tools/ask-the-pediatrician/Pages/are-there-shortages-of-infant-formula-due-to-COVID-19.aspx)
- Choosing an Infant Formula (/English/ages-stages/baby/formula-feeding/Pages/choosing-an-infant-formula.aspx)
- Why Formula Instead of Cow's Milk? (/English/ages-stages/baby/formula-feeding/Pages/Why-Formula-Instead-of-Cows-Milk.aspx)
- Ask the Pediatrician: How should we feed our baby if we're running low on money? (/English/tips-tools/ask-the-pediatrician/Pages/how-should-we-feed-our-baby-if-running-low-on-money.aspx)

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