

The Data-Driven Guide to Healthy Baby Food

Six tips to reduce babies' exposures to toxic heavy metals in their diet

Toxic heavy metals like lead and arsenic are found in 94% of homemade and store-bought baby foods. They can harm children's ability to learn and increase the risk of cancer. The government hasn't set safety standards for heavy metals in many popular foods. Until they do, there are easy ways to reduce toxic metals in your baby's or toddler's diet.

A healthy mix

1 Is there a food you serve day after day? Add variety instead.

Serving the same food every day for a long time can concentrate one or more contaminants in a child's diet. Rotate it with other healthy foods. **A varied diet of wholesome food** ensures a healthy mix of nutrients, too.

2 Are meals ever skipped? Serve regular meals and snacks.

Meal skipping and fasting is linked to higher blood lead levels in children and greater lead absorption for adults. Serve **regular meals** to help reduce exposure.

3 Next time at the doctor: Ask about iron. Many babies don't get enough.

Babies 6-12 months old need extra iron, from formula, iron-fortified cereal (oatmeal or multi-grain), or other foods. Along with **calcium, zinc, and vitamin C, iron** can help reduce the toxic metals absorbed into the body. Among the many foods rich in these nutrients are beans and lentils, lean red meat, iron-fortified cereal, yogurt and cheese, leafy greens, citrus fruit, strawberries, kiwi, and peppers.

Foods to skip, swap, and serve

4 Skip: 4 rice-based foods contaminated with arsenic

Avoid serving **rice cakes, baby food puff snacks, brown rice with no extra cooking water used, and crisped rice cereal.**

5 Swap: Safer picks.

- **Iron-fortified oatmeal and multi-grain infant cereal** over **rice cereal**, for less arsenic.
- **Frozen banana** or **chilled, peeled cucumber** over **rice-based teething biscuits**, for less arsenic.
- **Whole fruit and purees** over **fruit juice**, for fiber and nutrient upsides.
- **Healthy low-metal snacks** over **puffs and rice cakes**. Recommended: Soft-cooked, diced, or mashed to fit a child's age — Apples, applesauce (unsweetened), bananas, barley with diced vegetables, beans, cheese, grapes (cut lengthwise), hard-boiled eggs, peaches, and yogurt.
- **A variety of grains** and **white rice cooked in extra water**, over **rice cooked in just enough water**, for less arsenic.

Tip: Cook rice like pasta, in extra water you pour off before eating to remove over half of the arsenic. Choose basmati rice from California and white over brown for lower metals. Rotate rice with other grains—try amaranth, quinoa, buckwheat, millet, and polenta (all gluten-free), or bulgur, barley, and farro (these contain gluten, a problem for those with celiac disease or gluten sensitivity).








6 Serve: Fruits and vegetables, either baby food brands or homemade, with these tips:

The fruits we tested are low in heavy metals. Vegetables are a daily essential, but some of the most nutritious like carrots and sweet potatoes have more metals.

- To remove surface metals as well as dirt and bacteria, wash all produce under cold running water for 20 seconds, scrubbing tough skins using a vegetable brush or your hands.
- **Carrots and sweet potatoes:** Eat each less than daily; rotate with other vegetables. For homemade purees vary what you buy, choosing different brands or varieties or shopping from different stores each week to avoid accidentally eating a high-metals source often. Peel before serving.
- **Spinach:** Eat less than daily, rotate with other greens, choose **baby spinach**.
- **Squash:** Choose **butternut squash** over **acorn or Hubbard squash** for less cadmium and arsenic.
- And of course, wash hands before eating. It makes a difference. Contaminated dust sticks to babies' hands and ends up in their mouths.



The 40 Baby Foods Menu: What to serve, limit, and avoid to lower babies' exposures to toxic heavy metals

 Serve Lowest heavy metals - Eat freely	Limit or Rotate Moderate heavy metals - Eat each food less than daily ★ = Nutritious food: keep it on the menu, rotate with other foods.	Serve rarely High heavy metals	Avoid Highest heavy metals
FRUIT			
Fresh & frozen fruit Baby food fruits	★ Cantaloupe - Keep in the diet but less than daily Canned fruit - Better choice: fresh, frozen, or baby food	Dried fruit	None
VEGETABLES			
 Baby food, fresh, or frozen: Green beans, peas, butternut squash	Rotate - Serve a variety of these, not the same one every day: ★ Sweet potato, potato, carrot, and other root and tuber veggies (baby food or fresh/frozen, peeled) ★ Leafy greens, baby spinach	Full-size spinach (Better choice: baby spinach)	None
PROTEIN-RICH FOODS			
 Baby food brand meats, eggs, soft or pureed meats & beans	Peanut butter - Avoid serving every day	Sunflower seed butter	None
CEREALS & GRAINS			
 None	★ A variety of non-rice grains like oatmeal, barley, millet, and farro, not the same grain every day: Infant cereal - Iron-fortified oatmeal & multi-grain Rice - limit, and use these varieties and cooking methods: <ul style="list-style-type: none"> • Rice cooked like pasta, in extra water and then drained • Basmati rice grown in California, India, Pakistan • Sushi rice grown in the U.S. • White rice, not brown 	Infant rice cereal Rice - avoid these varieties and cooking methods: <ul style="list-style-type: none"> • Rice with no extra cooking water used • Rice grown in Arkansas, Louisiana, Texas or "U.S." • Brown rice 	Crisped rice cereal Brown rice with no extra cooking water used
DRINKS			
 Infant formula - Ready-to-feed or made with lead-free tap water Tap water tested for lead	100% fruit juice (not grape) - Better choices: fresh fruit and water	Grape juice	None
SNACKS			
 The "Serve" fruits & veggies above, and applesauce (unsweetened), beans, cheese, grapes (cut lengthwise), hard-boiled eggs, yogurt	The "Limit or rotate" fruits and veggies above	Oat ring cereal	Puffs (rice) Rice cakes
TEETHING FOODS			
 Peeled & chilled cucumber Frozen banana	Non-rice teething biscuits & crackers	Rice-based teething biscuits & rusks Arrowroot teething crackers	Rice cakes

Source: HBBF analysis of over 7,000 tests of arsenic, lead, cadmium, and mercury in food, from HBBF food testing programs, 2017-2022, and FDA national market basket testing, 2014-2020.