

## FAQ Responses Regarding Arsenic in Food Containing Organic Brown Rice Syrup

### **Q: Which types of baby formula should I be worried about?**

**A:** Our researchers tested two toddler formulas on the market that use organic brown rice syrup. Please see <http://abcnews.go.com/Health/Diet/arsenic-organics-rice/story?id=15642428#.TOLIEIW18F>, <http://video.msnbc.msn.com/nightly-news/46420960/#null>, and [http://articles.boston.com/2012-02-17/health-wellness/31065888\\_1\\_arsenic-levels-rice-syrup-baby-formula](http://articles.boston.com/2012-02-17/health-wellness/31065888_1_arsenic-levels-rice-syrup-baby-formula). Both products contained amounts of *total* arsenic that are above 10 parts per billion\*\* (ppb), the legal standard set by the U.S. EPA for public drinking water, and amounts of *inorganic* arsenic that are equal to or greater than this regulatory limit. See, <http://water.epa.gov/drink/contaminants/basicinformation/arsenic.cfm>

### **Q: What are the risks from ingesting these products?**

**A:** The risks to an infant or young child who drinks these products for a relatively short period of time are not well-studied. Chronic life-time exposure to arsenic (for example from drinking private well water containing arsenic levels at 10 ppb and above every day), does result in increased risk for bladder, skin, lung and liver cancers, heart and respiratory disease. Very little is known about exposure to low doses of arsenic for short periods of time, but scientists at Dartmouth and other universities are currently studying the health effects of dietary exposure in infants and children.

### **Q: What can we do?**

**A:** To be cautious, switch to a product that does not contain brown rice syrup. Please consult your pediatrician before you make this change.

### **Q: I gave this formula to my child for two years—what should I do?**

**A:** Arsenic does not accumulate in the body so when your child is no longer exposed to arsenic it will leave his/her system in a day or two. Long-term health consequences are unknown because previous studies have not examined childhood exposure at doses equivalent to levels found in these formulas. Scientists at Dartmouth and other universities are studying the potential health effects of dietary exposure to arsenic in infants and children.

To ensure that your children are not exposed to arsenic from other sources, make sure to have your well water tested. If you have additional questions about potential health effects and sources of arsenic, consult your pediatrician and a registered dietician.

The UK Food Standards Agency states that “as a precaution, toddlers and young children between 1 and 4.5 years old should not have rice drinks as a replacement for

cows' milk, breast milk, or infant formula.” The Food Standards Agency represents the UK Government on food safety and standards issues in the European Union.

**Q: Should I get my child tested for arsenic?**

**A:** No. Arsenic does not accumulate in the body, and the body normally excretes arsenic in the urine within one to two days of exposure. This is why scientists at Dartmouth are most concerned with long-term exposure. If you have a private well, you should test your well for arsenic to minimize exposure.

**Q: Should I be worried about Cereal/Energy Bars/Energy Shots?**

**A:** Some of these products contain rice or organic brown rice syrup, all of which may contain arsenic. Eating 2-3 large bars (~70 g) per day could contribute up to 10 ppb of inorganic arsenic to the diet.

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\*\*In 2001, the EPA set 10 ppb as the legal standard for public drinking water for adults, but it determined the public health goal should be 0 ppb. The EPA set the legal standard based on human adults; it does not account for the low body weight of infants and the corresponding increase in arsenic consumption per pound of body weight. This 10 ppb standard was set as close to the public health goal (0 ppb) as possible, considering cost, benefits and the ability of public water systems to detect and remove arsenic. According to the EPA and many scientific studies, people who drink water containing arsenic in excess of 10 ppb over many years could experience skin damage, problems with their circulatory system, and may be at an increased risk of getting cancer and heart and respiratory disease.

**For more information about arsenic and health, please consult these reliable independent sources:**

- The World Health Organization produced a 2010 report titled: “Exposure to Arsenic: A Major Public Health Concern.” <http://www.who.int/ipcs/features/arsenic.pdf>
- The latest U.S. CDC/ATSDR public health statement on arsenic, published in 2007, recognizes inorganic arsenic as a “human poison.” <http://www.atsdr.cdc.gov/phs/phs.asp?id=18&tid=3>
- American Cancer Society 2011 Facts on Arsenic <http://www.cancer.org/Cancer/CancerCauses/OtherCarcinogens/IntheWorkplace/arsenic>
- Consumer Reports articles: <http://www.consumerreports.org/cro/magazine/2012/01/arsenic-in-your-juice/index.htm>; <http://www.consumerreports.org/cro/magazine/2012/11/arsenic-in-your-food/index.htm>