

Plastic Drinking Bottles Unsafe

Are you in the habit of reusing plastic water bottles such as from Dasani, Aquafina, Evian, and the like? It's a kind of recycling, right? But that may not be such a good idea. Just when you thought it was safe to drink the water comes a study from the journal *Reproductive Toxicology* that says the plastic bottles we use may be leaching plastic ingredients into our water. The particular type of plastic the study addressed is called polycarbonate. It happens to be the strongest, clearest, and was until now, considered the safest plastic container. It's ubiquitous. You'll find it in the heavy, five gallon size water dispenser bottles sitting upside down in the office water coolers. It's also used as an inside liner for the metal cans used for canned food. And plastic baby bottles are made from it. There's no doubt, it's a handy substance. They make eyeglass lenses with it and it's strong enough to be used in helmets to protect our heads. But with repeated use, the chemical bond of polycarbonate's constituents breaks down and some of those released chemicals may leach into our baby bottles, water bottles, canned food, etc.

Bisphenol-A (BPA), is the chemical that is allegedly leaching out of these bottles when they are reused over and over again, washed, or heated as is sometimes done for baby formulas. BPA is an estrogen-like compound that mimics the natural female sex hormone estradiol. Animal research has linked even low-level exposure to a variety of disorders including early puberty, breast and prostate cancer, decreased sperm count, and developmental problems in infants.

Whether the animal study findings translate to humans is up to debate. As usual, there are two sides. There's the independent group of 38 scientists that endorsed the study published in the journal of *Reproductive Toxicology*, and a group of 12 doctors and researchers from the federal government, the American Cancer Society, and drug companies Pfizer and Schering-Plough. This 12 doctor panel was convened by the *Center for the Evaluation of Risks to Human Reproduction* (CERHR) which is a part of the US government's *National Institutes of Health*. They generally downplayed the threat to human health. After all, the studies have never been done on humans. But even this panel concluded there is "some concern" that BPA could pose some "risk to the brain development of fetuses, infants or children."

The Environmental Working Group, a non-profit consumer protection agency <http://www.ewg.org/>, found nearly 300 errors of fact and

interpretation in the government's (CERHR) study. Their report is entitled: "*Assessment Fails Basic Scientific Standards.*" Here is the link to read the details about what they had to say: <http://www.ewg.org/node/22333>

You can read more about the government's report downplaying the concerns about BPA by visiting the WebMD site here:

Expert Panel Notes No Major Health Concerns About Plastic Chemical Bisphenol A

http://www.webmd.com/news/20070808/plastic-chemical-safety-weighed?src=RSS_PUBLIC

Are There Any Alternatives?

In the 1950s we had to be concerned about lead in paint and pencils. These days, the threat is plastics. But there are BPA-free bottles on the market. And there are also several manufacturing offering stainless steel water bottles. You can find these products in better health food stores. Since we've all been using these plastic bottles, the question becomes: Is there anything we can do? If a child has already used bottles with BPA, is it too late? Unfortunately, we don't know. According to Fred vom Saal, of the *University of Missouri at Columbia*, an outspoken critic of BPA, you can only "hope that (a child) is not really sensitive to this type of chemical," he said. "As with everything, there is quite a range of sensitivity between individuals."

To learn more about the issues of possible toxicity from BPA visit the website of the **Environmental Working Group**

<http://www.ewg.org/reports/bpaformula>.

What Do the Numbers on the Bottle Mean?

Want to know more about what the numbers on the bottom of plastic bottles mean? Here is a brief synopsis. The numbers only define the type of plastic they contain. Here they are:

- 1 - PET, polyethylene terephthalate
- 2 - HDPE, high-density polyethylene
- 3 - PVC, polyvinyl chloride
- 4 - LDPE, low-density polyethylene
- 5 - PP, polypropylene
- 6 - PS/PS-E, polystyrene / expanded polystyrene
- 7 - OTHER, such as polycarbonate or other complex materials

All of these plastics contain potentially carcinogenic elements such as BPA and DEHA (diethylhydroxylamine) should they break down. The plastics are designed to remain safe and stable for initial use. Multiple washing and rinsings, changes in acidity, heat and light, will cause them to break down and leach. Better to invest in bottles that are designed for multiple usage.

MORE FREE INFORMATION

For more about the benefits of proper hydration, read my article entitled: **Water the Ultimate Cure** <http://sproutman.com/sprouting.html>

For my latest recommendation on how to energize and alkalinize your water, read my article: **Is Purified Water Good Enough?** <http://sproutman.com/sprouting.html>

For more information about the benefits of proper hydration, and the selection of which water purifying device is best for your situation, read my book **Water The Ultimate Cure** <http://sproutman.com/water.html>

To start cleaning up the water in your shower or at your tap, see my recommendations here: <http://sproutman.com/appliance.html>



Steve Meyerowitz

www.Sproutman.com 413-528-5200, fax 413-528-5201

Copyright ©2007 by Steve Meyerowitz, Sproutman®