Drinking cold liquids from some No. 7 plastics for just one week can increase bisphenol A urine levels more than two-thirds.

The Story of Bottled Water

Valerie Connors, 11/7/2013

Water bottles are the ultimate grab-and-go product that the world has fallen in love with. There are thousands of brands with unique offerings in the form of nutrients and even "smarts" in their water. However, these water bottles are some parts convenient, but predominantly dangerous.

The plastic in water bottles is made from petrochemicals (yes, *petro*leum) or "polyethylene terephthalate plastic", with many being "partially" natural. This plastic is so toxic that consumers are warned to avoid drinking out of these bottles after they have been in extreme conditions/temperatures (like in your hot car all day in Florida, or in the microwave). This is because the plastics leach (i.e. to drain a chemical) over time, leaving the contents of the bottle toxic to consume.

"But bottled water is safer, and tastier than tap water." On the contrary: bottled water companies are not even regulated by the FDA to disclose to consumers where the water is from, how it did in testing, and what contaminants it contains (Story of Stuff, website). "Tony Clarke of Canada's Polaris Institute points out in his book, Inside the Bottle, 'unlike other resource production processes, where raw materials like timber, minerals, and oil are transformed into new products, bottled water is different. Bottled water is about turning *water into water*.'"

Read Beth Berry's full article below, and watch the video Story of Stuff: http://storyofstuff.org/movies/story-of-bottled-water/

Are Plastic Drink Bottles Safe to Reuse for Drinking Water?

by Beth Berry, Demand Media

http://homeguides.sfgate.com/plastic-drink-bottles-safe-reuse-drinking-water-79290.html

Plastic bottles are hugely popular these days for their convenience and perceived purity, as portrayed by effective marketing strategies. But according to the Natural Resources Defense Council, consumers should not assume that bottled water is any more pure or safe than tap water (see References 1). Reusing plastic drink bottles is not recommended, as it increases the likelihood of impurities due

to the introduction of bacteria and the potential leaching of plastic compounds into the water (see References 4).

Common Types of Plastic Drinking Bottles

Polyethylene terephthalate or PET plastics (No. 1) are most commonly used for disposable plastic water bottles. High-density polyethylene, or HDPE (No. 2); low-density polyethylene, or LDPE (No. 4); and polypropylene (No. 5) are also used for drinking containers, though less frequently. PVC (No. 3) and styrene (No. 6) are sometimes used for food and beverage containers but are generally considered unsafe for this purpose. No. 7 plastics are a mix of different plastics and generally contain bisphenol A (BPA), which is under much scrutiny for its potential health risks. (See References 2)

Bacteria Concerns

All plastic bottles, when reused, are subjected to high levels of bacteria due to contact with hands and mouths, creating moist conditions that encourage bacteria growth. According to a study of water bottles at one elementary school, the bacteria levels were high enough that health officials would have issued boil-water advisories had the samples come from the tap (see References 6). Water bottles can be washed with warm soapy water and allowed to dry before being reused. But the process of washing and agitation has been shown to damage the structure of the bottle, causing release of chemical compounds (see References 3).

Leaching Concerns

PET and BPA plastics are the most common types of containers for water and other drinks. Both PET plastics and BPA plastics have been shown to leach over time. PET plastics tend to leach when exposed to realistic though extreme conditions, such as exposure to sunlight, heat and storage time (see References 4). The Harvard School of Public Health has shown that exposure to BPA can interfere with reproductive development in animals. It has also been linked with cardiovascular disease and diabetes in humans (see References 3).

Safe Alternatives to Reusing Plastic Bottles

Stainless steel bottles are considered the safest alternative to plastic bottles. They are durable and do not leach. Aluminum bottles may also be considered, but Toxic-Free Canada warns that some aluminum bottles have lining that may still leach chemicals. Glass is another safe alternative but less practical due to its breakable nature. (See References 5).