
BOTTLED WATER: IS IT SAFE TO DRINK?

A recent circulating "urban legend" claims that the singer, Cheryl Crowe, developed breast cancer from drinking bottled water that had been stored in her car. The facts are that she did not directly attribute her cancer to chemicals that supposedly leached from the plastic water container.

The major question that needs to be addressed is whether bottled water is safe. For that matter, the concern can be expanded to include sports drinks, sodas, and prepared frozen foods in plastic containers.

Plastic bottles used for commercially sold water as well as all food contact plastic containers are regulated by the Food and Drug Administration (FDA) and are held to the same safety standards as food additives and preservatives, for example. The scientific data on safety of plastics including the leaching of chemicals into the liquids or food must fall within acceptable safety standards. Alternatively stated, the FDA has affirmatively determined that when plastics are used as intended in food contact applications, the nature and amount of substances that may migrate, if any, are safe. These safety data are based on extensive toxicity studies. This is not to say that bottled water is absolutely free of contaminants, or that chemical leaching does not occur.

Most of the plastic used in bottled water is made from polyethylene terephthalate (PET). PET itself is biologically inert if ingested [taken into the body]. However, other reusable plastic water bottles (sports bottles) use a different plastic called polycarbonate (PC). The chemical contaminant of most concern in these PC bottles is bisphenol A (BPA). Scientific opinion varies as to its risks. Studies have shown that BPA leaching could pose a risk to the brains of fetuses, babies and children. However, there are no studies that link this chemical to cancer development in adults. Further, most healthy adults can tolerate trace amounts of this and other contaminants if exposed. But there are some individuals who are more vulnerable to these contaminants, especially people diagnosed with multiple chemical sensitivities (these individuals have bad reactions to food/drug preservatives, food additives and other chemicals involved in food processing). [See NY Times Article]

Another misconceptions floating throughout the Internet is that dioxin, a know carcinogen, can be leached from plastic water bottles, especially if you freeze the bottled water. This is simply not true. PET bottles do not contain dioxin.

The plastic composition of a beverage container can be determined by the markings on the bottom of the bottle. Bottles made from PET have the number one on the bottom enclosed by a triangle. Plastic bottles that may contain BPA will have a number seven on the bottom. According to a recent discussion on the Today show, consumers should try to avoid plastic bottles that have numbers 3, 6 or 7 on the bottoms. Even though plastic #1 (PET) is deemed relatively safe for single use, one should avoid constant reuse of these bottles. Although chemical leaching may occur with aging bottles that are reused, a larger concern is microbial (germs!!) contamination from the recycling process.

The next column will be an eye opener regarding the types of bottled water currently marketed and whether they are healthier for you than municipal drinking water, better known as tap.

JPegues

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