

Is tap water chlorine dangerous?

Written by EarthTalk® from the Editors of E/The Environmental Magazine
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Dear EarthTalk: I am very concerned about the amount of chlorine in my tap water. I called my water company and they said it is safe just let the tap run for awhile to rid the smell of the chlorine. But that just gets rid of the smell, perhaps, not the chlorine? -- Anita Frigo, Milford, CT

Thousands of American municipalities add chlorine to their drinking water to get rid of contaminants like nitrates, arsenic and pesticides. But this inexpensive and highly effective disinfectant has a dark side. “Chlorine, added as an inexpensive and effective drinking water disinfectant, is also a known poison to the body,” says Vanessa Lausch of filter manufacturer Aquasana. “It is certainly no coincidence that chlorine gas was used with deadly effectiveness as a weapon in the First World War.” The gas would severely burn the lungs and other body tissues when inhaled, and is no less powerful when ingested by mouth.

Lausch adds that researchers have now linked chlorine in drinking water to higher incidences of bladder, rectal and breast cancers. Reportedly chlorine, once in water, interacts with organic compounds to create trihalomethanes (THMs)—which when ingested encourage the growth of free radicals that can destroy or damage vital cells in the body. “Because so much of the water we drink ends up in the bladder and/or rectum, ingestions of THMs in drinking water are particularly damaging to these organs,” says Lausch.

The link between chlorine and bladder and rectal cancers has long been known, but only recently have researchers found a link between common chlorine disinfectant and breast cancer, which affects one out of every eight American women. A recent study conducted in Hartford, Connecticut found that women with breast cancer have 50-60 percent higher levels of organochlorines (chlorine by-products) in their breast tissue than cancer-free women.

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But don't think that buying bottled water is any solution. Much of the bottled water for sale in the U.S. comes from public municipal water sources that are often treated with, you guessed it, chlorine. A few cities have switched over to other means of disinfecting their water supplies. Las Vegas, for example, has followed the lead of many European and Canadian cities in switching over to harmless ozone instead of chlorine to disinfect its municipal water supply.

As for getting rid of the chlorine that your city or town adds to its drinking water on your own, theories abound. Some swear by the method of letting their water sit for 24 hours so that the chlorine in the glass or pitcher will off-gas. Letting the tap run for a while is not likely to remove any sizable portion of chlorine, unless one were to then let the water sit overnight before consuming it. Another option is a product called WaterYouWant, which looks like sugar but actually is composed of tasteless antioxidants and plant extracts. The manufacturer claims that a quick shake of the stuff removes 100 percent of the chlorine (and its odor) from a glass a tap water. A year's supply of WaterYouWant retails for under \$30.

Of course, an easier way to get rid of chlorine from your tap water is by installing a carbon-based filter, which absorbs chlorine and other contaminants before they get into your glass or body. Tap-based filters from the likes of Paragon, Aquasana, Kenmore, Seagul and others remove most if not all of the chlorine in tap water, and are relatively inexpensive to boot.

CONTACTS: Aquasana, www.aquasana.com; WaterYouWant, www.wateryouwant.com.

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