



HOW SAFE IS YOUR TAP WATER?

Recently the news has been full of dire warnings about chemicals, toxins, bacteria, and other worrisome contaminants turning up in drinking water. National attention has recently been drawn to a public water system in South Dakota that has trace amounts of Radium in their drinking water. How do you find out if the water coming out of your faucet is safe? It's not as hard as you might think – there are great resources out there if you know where to look.

Public water systems in South Dakota are required to meet the requirements of the Safe Drinking Water Act (SDWA). The SDWA is the federal law that protects public drinking water supplies throughout the nation, it was originally passed by Congress in 1974 and has been periodically revised (with major amendments in 1986 and 1996). The SDWA requires systems to be operated by certified operations specialists who are dedicated to delivering safe water to members. To ensure the highest quality product possible, the water is monitored and tested for over ninety potential contaminants.

The EPA sets national standards for drinking water based on sound science to protect against health risks, considering available technologies and costs. National Primary Drinking Water Regulations set enforceable maximum contaminant levels for particular contaminants in drinking water or required ways to treat water to remove contaminants. Each standard also includes

requirements for water systems to test for contaminants in the water to make sure standards are achieved.

Contaminants are introduced to water from one of two sources – they are naturally occurring or manmade. Radium, a naturally occurring contaminant resides in rocks and soil within the earth's crust. Groundwater can contain varying levels of radium depending on local geology. Deep bedrock aquifers used for drinking water sometimes contain levels of radium that exceed health-based regulatory standards. Check your system's Consumer Confidence Report (CCR) to determine if radium has been detected in your community's water.

Land use has the greatest impact in terms of manmade contamination of source water. It is nearly impossible to inhabit a watershed without affecting the water quality in some way. Water readily absorbs constituents as it encounters them, so as the amount of any constituent increases, the likelihood of it showing up in a water supply increases.

The Environmental Working Group's (EWG) web tool aggregates and analyzes publicly available data from nearly 50,000 public water systems across the country. Using the database is an easy way to learn more about what's in your water, and it was quickly picked up by the media. But the way in which the EWG presents its data could cause unnecessary fear.

The EPA sets national standards for drinking water based on sound science to protect against health risks, considering available technologies and costs.

Search the EWG database, and you are more than likely to find at least one "cancer-causing" pollutant at levels above "health guidelines." But what that actually means creates confusion. In many cases, the EWG cherry-picks its benchmarks for contaminants from the lowest recommendation available. Instead of informing people about their water, it may leave them needlessly worried. Search for just about any zip code, and users are shown a handful of scary-sounding chemicals, mated to the word cancer.

But is all the drinking water in the United States causing cancer? Of course it's not that simple. In the US, the EPA sets maximum contaminant levels (MCLs) as part of the Safe Drinking Water Act. Because it found these lacking, the EWG based its analysis partially on its own standards.

"When official guidelines are not available or are insufficient to protect public health, we developed our own health benchmarks using publicly available scientific research," reads EWG's data sources and methodology page.

Similarly, on its "EWG Standards" page, the organization notes the standards were devised using "the best and latest scientific evidence," but does not link to or mention any specific scientific studies used.

An EPA spokesperson provided the following statement when asked for comment about the database: "America's drinking water remains among the safest in the world and protecting drinking water is EPA's top priority. We take our commitment to protecting public health seriously and when issues arise, we work closely with states, local governments, and water suppliers to review and address, as appropriate."

But tell that to the residents of Flint, Michigan, who drank lead-laced water for more than a year. Or the 218 million Americans unwittingly drinking chromium-6 (the carcinogenic "Erin Brockovich" chemical) right from their faucets.

So how do you know if your water is safe to drink? For the most part, America's drinking water is pulled from groundwater or surface water sources and treated at plants to federal and state purity levels before arriving to your tap.

Unless you have a private well, the best way to find out if the water flowing from your faucet is safe is by searching the DENR Drinking Water System Information Page (<http://denr.sd.gov/des/dw/sysinfomap.aspx>) and finding your water system's CCR. This annual drinking water quality report, which your system must complete by July 1 of each year, includes information on where your water comes from, the levels of detected contaminants and your system's compliance with drinking water rules.

For instance, take the CCR for the Mid-Dakota Rural Water System. After sampling results for over 90 substances and elements regulated by the Safe Drinking Water Act, the information provided indicated that they met all drinking water standards for the year. In fact, Mid-Dakota has received the Secretary's Award for Drinking Water Excellence for 16 consecutive years of providing safe water without a violation.

If you have determined that your tap water contains contaminants that exceeds safe levels, you might want to consider filters to reduce or eliminate the contaminants or even bottled water for serious contamination. Both options, however, have caveats.

First, not every filter is created equal. The popular Everyday Brita

Pitcher, for instance, only filters four constituents – chlorine (just the taste and odor), copper, cadmium and mercury. In fact, according to the company's own website, Brita's only product that filters lead is its faucet system that attaches directly to your tap.

There's some debate that filters like Britas are only good for tastier water, not healthier water. It is important to note that unlike municipal water, personal filters aren't subject to any government oversight or regulation, but the independent, nonprofit NSF International provides certification and standards for many filters on the market.

The EWG recommends that you install a water filter to remove contaminants, which is not necessarily a bad idea. But the organization receives a financial incentive through Amazon's affiliate program if you purchase a filter through its website. The more people who buy water filters, the more money EWG stands to make.

As for bottled water, more than \$100 billion is spent each year on bottled water around the globe, with Americans alone spending nearly \$12 billion on bottled water each year. Clearly, there is a demand for bottled water, but is it any safer?

While surveys have found that more than half of Americans believe that bottled water is safer than their tap water, and nearly two out of three Americans prefer the taste of bottled water to tap water, "tap water and bottled water are generally comparable in terms of safety," Katherine Zeratsky, a licensed dietician with the Mayo Clinic, states.

"So, the choice of tap or bottled is mostly a matter of personal preference," she adds.

In fact, some companies just sell bottled tap water from public sources. Bottled water companies may argue that their water is filtered or purified, but does that justify prices that are 240 to over 10,000 times more per gallon than the water flowing from your tap?

Additionally, community water systems are required to publish all their water quality tests; bottled water companies are not. The EWG found 38 contaminants in 10 popular brands. Not only that, some water bottles are made of #7 plastic, which can leach a harmful chemical called bisphenol-A (BPA) into the water it contains. Even if the bottle is made of recyclable material, most people do not bother recycling – about eight out of 10 plastic bottles end up in a landfill or the incinerator.

According to the EPA, the standards for bottled water in the U.S. are exactly the same as those for tap water – and bottled water isn't subject to the same reporting standards as tap water.

Here are some takeaways. You should definitely verify that your local water supply is safe. If it's not safe consider a filter system and maintain the system as required. Utilize a reusable BPA free water bottle while away from home. Finally, other than convenience or personal preference, there is no reason to choose bottled water over the water flowing from your tap. So, raise a glass of tap water, enjoy the refreshment and cheers to you!

**Content provided by the South Dakota
Association of Rural Water Systems
www.sdarws.com**