

ARSENIC IN YOUR DRINKING WATER AND HOW TO ELIMINATE IT

By Dr. Roy M. Speiser

We cannot assume that our drinking water is safe just because it meets the government's standards. Low levels of heavy metals, industrial chemicals and radiation may be present in your drinking water and still be considered within "safe" limits.

Arsenic in drinking water is an example of this contradiction. Under the old standard you could have up to 50 parts per billion (ppb) of arsenic in your drinking water and it was considered within the acceptable "Maximum Concentration Level (MCL)." The new revised standard allows only up to 10 ppb, so yesterday's safe levels of arsenic are considered unsafe today. Based upon the National Academy of Sciences' 1999 risk estimates, there is an approximate total cancer risk of 1 in 500 drinking 2 liters of water per day with an arsenic level of 10 ppb.

The Natural Resources Defense Council (NRDC) analyzed data compiled by the U.S. Environmental Protection Agency (EPA) of arsenic levels in 25 states and estimates, "34 million Americans drink tap water containing average levels of arsenic that pose unacceptable cancer risks."⁽¹⁾ According to the EPA, Western states have more systems with arsenic levels greater than 10 ppb, but parts of the Midwest and New England have areas with greater than 10 ppb.⁽²⁾ However, it is my experience that many other areas have low levels of arsenic in their drinking water that should be reduced.

There are several types of water filtration technologies that are used to reduce arsenic. Depending upon the amount of arsenic in the water, whether the water source is a well or municipal, or if the water contains high levels of minerals, different filtration equipment is used to effectively reduce arsenic levels.

In drinking water that is treated with chlorine and contains low levels of arsenic, an arsenic reducing filter can be added to a ceramic-carbon filter at the sink. However, when the water is hard, or arsenic levels are above 10 ppb, the best filtration system is a

Reverse Osmosis (R.O.) system under the sink. With well water contaminated with arsenic, an R.O. system is combined with a special whole house arsenic treatment system. Also, it is very important that all filters be maintained and replaced at least as often as is recommended by the manufacturer, otherwise their effectiveness is diminished. You can obtain a water report from your water supplier, or if you have a well it can be tested for arsenic and other water contaminants.

References:

- (1) Natural Resources Defense Council

Web site: www.nrdc.org/water/drinking/qarsenic.asp

- (2) U.S. Environmental Protection Agency, “Arsenic in Drinking Water”

Web site: www.epa.gov/safewater/arsenic/basicinformation.htm

Dr. Roy Speiser is president of CWR Environmental. His experience includes being a microbiologist for the New Jersey Dept. of Health, a research biochemist for Ortho Research Foundation, and a holistic health care practitioner for 30 years with an emphasis on environmental illness. He has achieved a Level 5 water specialist certification from the Water Quality Association, published numerous scientific articles and co-developed several water and air purification systems.