

9 Unexpected Things in Drinking Water

By Dana Chivvis

(Dec. 8, 2009) -- Charles Duhigg of The New York Times today delivered the latest unsettling news about the nation's water supply: It's not as clean as you might think. An analysis of federal data from the last five years revealed that more than 20 percent of the nation's water-treatment systems have broken provisions of the Safe Drinking Water Act, the standards enforced by the Environmental Protection Agency. The result? As many as 19 million Americans are sickened each year.

Over the years, the EPA has identified many substances in water supplies far and wide. Here are nine unexpected things that they've spotted.

Arsenic A naturally occurring element found in soil and minerals, arsenic is used as a pesticide and wood sealant. Ingesting high levels of arsenic, Madame Bovary can tell you, is deadly. At lower levels, over longer periods of time, it can darken skin and spur corns and warts. A carcinogen, arsenic can increase the risk of skin, liver, bladder and lung cancers.

The EPA has said that more than 3 million Americans have been exposed to water with illegal concentrations of arsenic since 2005.

Uranium The element Iran insists on enriching despite howls from the U.S. and other Western nations, it is also used in helicopters, airplanes, armor, fertilizer and household items like certain microwaves. After it's mined and processed, some of it is released back into the environment in waste material, called mill tailings. Large amounts of uranium can lead to kidney disease and cancer, though naturally occurring uranium is much less radioactive.

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The EPA says levels of uranium in drinking water are usually low and safe, according to the Agency for Toxic Substances and Disease Registry. However, the 3 million Americans exposed to illegal amounts of arsenic were also exposed to illegal amounts of radioactive substances.

Radium This radioactive metal has been used to treat cancer, for scientific research and in instrument calibration. Everyone is exposed to low levels of the substance, but higher levels are found near uranium mines, coal-burning industries and sometimes in drinking water that comes from wells. Radium can cause anemia and cataracts. At high levels, it is a carcinogen, causing increased bone, liver and breast cancer.

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Tetrachloroethylene Used in dry cleaning and for metal degreasing, this chemical usually evaporates when it meets water, soil or air, but high exposure can cause headaches, dizziness, confusion, nausea and unconsciousness. Women who are exposed to high levels of tetrachloroethylene may have menstrual problems and even spontaneous abortions. It is also believed to be a carcinogen.

The New York Times found that the drinking water in Ramsey, N.J., located 35 miles outside of New York City, has had illegal concentrations of tetrachloroethylene since 2004.

Lead Houses built before 1986 are more likely to have lead pipes than newer ones. Because hot water dissolves lead more easily, people who live with older plumbing should never drink hot water from the tap. Kids who drink lead-tainted water above the legal limits are at risk for physical and mental development problems. In adults, lead can lead to high blood pressure and kidney trouble.

The EPA's threshold for lead is 0.015 parts per million. If you are concerned about the levels of lead in your water, you can have it tested at a certified laboratory.

Prozac, Birth Control, Makeup, Shampoo Along with deceased goldfish and incriminating evidence, it turns out Americans like to flush their drugs and personal care products down the toilet, too. These substances leave the toilet (or bathtub and shower) and end up in our waterways. In fact, most of the waterways the EPA tested had pharmaceuticals and personal care products (PPCPs) in them.

While there is evidence that ecological harm can come from PPCPs in the water, scientists are not yet sure of the threat to humans.

You can find reports on the drinking water in your area at the [EPA Web site](#).