

Arsenic

Basic Information

Arsenic occurs naturally in rocks and soil, water, air, and plants and animals. It can be further released into the environment through natural activities such as volcanic action, erosion of rocks and forest fires, or through human actions. Approximately 90 percent of industrial arsenic in the U.S. is currently used as a wood preservative, but arsenic is also used in paints, dyes, metals, drugs, soaps and semi-conductors. High arsenic levels can also come from certain fertilizers and animal feeding operations. Industry practices such as copper smelting, mining and coal burning also contribute to arsenic in our environment.

Higher levels of arsenic tend to be found more in ground water sources of drinking water. The demand on ground water from municipal systems and private drinking water wells may cause water levels to drop and release arsenic from rock formations. Compared to the rest of the United States, western states have more systems with arsenic levels greater than EPA's **drinking water standard of 10 parts per billion (ppb)**.

To find more information about arsenic go to the following US EPA website:
<http://water.epa.gov/drink/contaminants/basicinformation/arsenic.cfm>

What are Arsenic's health effects?

Human exposure to arsenic can cause both short and long term health effects. Short or acute effects can occur within hours or days of exposure. Long or chronic effects occur over many years. Long term exposure to arsenic has been linked to cancer of the bladder, lungs, skin, kidneys, nasal passages, liver and prostate. Short term exposure to high doses of arsenic can cause other adverse health effects, but such effects are unlikely to occur from U.S. public water supplies that are in compliance with the arsenic standard.

If you are looking for more information about health effects, you can also visit the Center for Disease Control's arsenic website at <http://www.atsdr.cdc.gov/csem/arsenic/>

How can arsenic be removed from my drinking water?

The following treatment method(s) have proven to be effective for removing arsenic to below the MCLs for very small systems: ion exchange, reverse osmosis.

NDEP Note: Additional testing will likely be necessary to determine the type of arsenic in the water source. Homeowners are encouraged to contact the NDEP, Bureau of Safe Drinking Water for additional information and assistance. While Reverse Osmosis treatment units can be readily purchased from home improvement stores, the NDEP also encourages homeowners to contact a licensed plumber regarding proper installation and understand proper maintenance requirements to ensure effective arsenic removal.

Where can I get more information about drinking water and private wells?

<http://water.epa.gov/drink/info/well/index.cfm>

Information excerpted from the US EPA web pages at:

<http://water.epa.gov/drink/contaminants/basicinformation/arsenic.cfm>

<http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/basic-information.cfm> and

<http://water.epa.gov/drink/info/well/index.cfm>