

## JUST THE FACTS FOR CONSUMERS



# ARSENIC IN YOUR DRINKING WATER

## What is arsenic?

Arsenic is a toxic chemical element that is unevenly distributed in the Earth's crust in soil, rocks, and minerals.



## How does arsenic get into my drinking water?

Arsenic occurs naturally in the environment and as a by-product of some agricultural and industrial activities. It can enter drinking water through the ground or as runoff into surface water sources.

## How is arsenic in drinking water regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law directs EPA to issue non-enforceable health goals and enforceable drinking water regulations for contaminants that may cause health problems. The goals, which reflect the level at which no adverse health effects are expected, are called maximum contaminant level goals (MCLGs). The MCLG for arsenic is 0 parts per billion (ppb).

The enforceable standard for arsenic is a maximum contaminant level (MCL). MCLs are set as close to the health goals as possible, considering cost, benefits, and the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

## Why should I be concerned about arsenic in my drinking water?

Although short-term exposures to high doses (about a thousand times higher than the drinking water standard) cause adverse effects in people, such exposures do not occur from public water supplies in the U.S. that comply with the arsenic MCL.

Some people who drink water containing arsenic in excess of EPA's standard over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Health effects might include:

- ◆ Thickening and discoloration of the skin, stomach pain, nausea, vomiting, diarrhea, and liver effects;
- ◆ Cardiovascular, pulmonary, immunological, neurological (e.g., numbness and partial paralysis), reproductive, and endocrine (e.g., diabetes) effects;
- ◆ Cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate.

## What is EPA's standard for arsenic in drinking water?

To protect consumers served by public water systems from the health risks of long-term (chronic) arsenic exposure, EPA recently lowered the arsenic MCL from 50 ppb to 10 ppb.

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### What types of public water systems must comply with the standard?

The 10 ppb arsenic standard applies to all community water systems. The standard also applies to non-transient, non-community water systems.

### How will I know if there is arsenic in my drinking water?

Every year, your community water system sends you a consumer confidence report (sometimes called a water quality report), listing any levels of arsenic detected. EPA also requires all community and non-transient, non-community water systems to give you public notice when their water supply violates the arsenic standard. You will be given information about what is being done to correct the situation.

### What is a community water system?

A community water system is a system that serves 15 locations or 25 people year-round, including most cities and towns, apartment buildings, and mobile home parks with their own water supplies.

### What is a non-transient, non-community water system?

Non-transient, non-community water systems serve at least 25 of the same people more than six months of the year, such as schools, churches, nursing homes, and factories.



### How much is 10 ppb?

10 parts per billion (ppb) of arsenic in water means that there are 10 molecules of arsenic for every 999,999,990 molecules of water. That is roughly equivalent to a few drops of ink in an Olympic-sized swimming pool.



### Should I have my water tested for arsenic?

If your water comes from a municipal or privately-owned water company that has more than 15 service connections or serves 25 people more than 6 months of a year, they are already testing for arsenic in your water.

If you have your own household water supply, you are responsible for maintaining and testing it. Contact your local health department to find out whether arsenic is a contaminant of concern in your area. Your state's drinking water agency can give you names of laboratories that are certified to test drinking water.

NSF International ([www.nsf.org/certified/DWTU](http://www.nsf.org/certified/DWTU)), the Water Quality Association ([www.wqa.org](http://www.wqa.org)), and the Underwriters Laboratories, Inc. ([www.ul.com/water](http://www.ul.com/water)) web sites list certified home treatment units.

## FOR MORE INFORMATION

Safe Drinking Water Hotline  
**1-800-426-4791**

### Arsenic in drinking water

<http://www.epa.gov/safewater/arsenic>

### Arsenic health effects

<http://www.atsdr.cdc.gov/toxprofiles/phs2.html>

### Your private well

<http://www.epa.gov/safewater/privatewells>

