

If you have a private well,

the Office of Environmental Health recommends that all private wells be tested at least **once per year** for total coliform bacteria and nitrates. You should test your well for arsenic, fluoride, and uranium **every five years**.

In addition to the schedule above, test your well when:

There are known problems with well water in your area.

You have experienced problems near your well (flooding, wildfires, land disturbances, nearby waste disposal sites).

You notice a change in water quality (taste, color, odor).

If anyone in your family has an unexplained illness.

Independent laboratories can test the water from your private well. For a list of current laboratories certified for testing water samples:

Visit <http://azhealth.gov/labs4h2o>

Or call (602) 364-0720

Office of Environmental Health

150 N 18th Avenue, Suite 140

Phoenix, AZ 85007

Phone: (602) 364-3118

Fax: (602) 364-3146

Toll Free: (800) 367-6412

www.azhealth.gov



ARIZONA DEPARTMENT
OF HEALTH SERVICES

What you should
know about

ARSENIC

in Arizona
groundwater

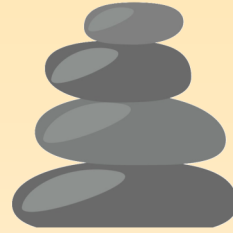


Arsenic

IS A NATURALLY OCCURRING METAL IN SOILS. DRINKING WATER WITH TOO MUCH ARSENIC CAN CAUSE HEALTH PROBLEMS.

In Arizona, arsenic is present in almost all groundwater supplies. Because **private wells** are the primary source of water for rural residents of Arizona, it is important to make sure the water is safe to drink.

The Office of Environmental Health (OEH) recommends testing **all new wells** for 3 metals: arsenic, lead, and uranium, as well as fluoride, nitrates, and bacteria, before the water is used for drinking or cooking purposes.



Arsenic can enter the air through rock erosion, mining activity, or forest fire.



Arsenic can get into groundwater when the water has been filtered through arsenic-rich rock.



Obtaining drinking water and water for cooking from a source rich in arsenic can increase the risk of arsenic exposure.

Arsenic **cannot be removed by boiling** the water before use. In fact, boiling the water may **increase** the concentration of arsenic.

How can arsenic affect me and my family?

Arsenic in small amounts, taken over many years, can cause certain cancers. Skin cancer is the most common. Exposure to arsenic can increase your risk of developing cancer or other health outcomes.

Health Effects of Arsenic Exposure

Possible health effects from low levels:

nausea, vomiting, decreased red and white blood cells levels, damage to blood vessels, "pins and needles" sensation

Possible health effects from high levels:

skin cancer, liver cancer, bladder cancer, lung cancer, and possibly death.

How can arsenic be removed from the water?

Arsenic can be removed from the water by several methods, but the most common method for household use is by a **reverse osmosis** filtration system.

How much arsenic is too much arsenic?

The Office of Environmental Health has developed a simple method to determine if the arsenic levels are too high, using a color code.

In public water systems, 10 ppb is the maximum level arsenic may be present.

EPA's Maximum Contaminant Level (MCL) for arsenic in drinking water is 10 ppb. If you have arsenic in your drinking water at levels higher than the EPA's MCL, an alternative source of water should be used for drinking and cooking should be considered.

Above 200 ppb or 0.2 mg/L

This water should **not** be used for drinking or cooking! You should obtain your drinking water from another source immediately, or install and maintain a home treatment device.

11-200 ppb or 0.011-0.2 mg/L

This water will increase the risk of long term or chronic health problems. Don't panic! Remember, chronic conditions develop over a long time. Make plans to obtain water from another source or install and maintain a home treatment device.

Less than 10 ppb or 0.01 mg/L

It is ok to drink and cook with this water.

Water with **500 ppb of arsenic or less** can be used for bathing, laundry, and brushing teeth. Children should not use water with more than **200 ppb** for brushing their teeth.

Units: **ppb** is parts per billion and **mg/L** is milligrams per liter.