



Chemicals in Private Drinking Water Wells Fact Sheet Florida Department of Health, Bureau of Environmental Health

This fact sheet discusses possible health risks from exposure to low levels of sodium typically found in drinking water wells.

Sodium

What is sodium?

Sodium is a naturally occurring metal found in drinking water. Common table salt consists of sodium and chloride. Every water supply contains some level of sodium.

Sodium is an essential nutrient. Most of the sodium we take in is from food. The National Research Council recommends that health adults consume between 500 and 2400 milligrams of sodium per day (mg/day).

Drinking water contributes only a small fraction to a person's overall sodium intake. Limiting the amount of sodium in drinking water, however, helps people who are on a sodium (salt) restricted diet.

How might exposure to sodium in drinking water occur?

- Sodium occurs naturally in ground water, especially near coastal areas.
- It may also stem from man-made contamination. These include: use of road de-icing salts, discharges from water softeners, human or animal waste disposal, and leachate from landfills.

What is the standard for sodium in drinking water?

The Florida Department of Environmental Protection drinking water standard for sodium is 160 milligrams per liter (160 mg/L). This level protects individuals on low sodium (salt) diets. There is no required sampling of private drinking water wells.

When considering the health importance of sodium, the U.S. Environmental Protection Agency (EPA) assumes that water users consume two liters of water per day. EPA recognizes that, on average, 20 percent of a person's daily sodium intake is from drinking water. The rest of an average person's sodium intake is usually from food. Persons on a sodium-restricted diet should evaluate all possible sources of sodium when they are trying to reduce overall intake. It is easier and cheaper to make dietary changes than change the amount of sodium in drinking water.

Very high sodium levels gives water a salty taste and makes it undrinkable.

How can sodium affect my health?

Drinking water standards are set at very low levels. Drinking water every day at or below the drinking water standard for your entire lifetime is unlikely to cause illness.

To set drinking water standards, scientists study reports of people exposed to chemicals at work. They also study reports of experiments with animals. From these reports, they determine a "no-effect level" or level that doesn't cause illness. Then, to be on the safe side, scientists set drinking water standards hundreds or thousands of times less than the "no-effect level." Therefore, drinking water with levels slightly above the standard for a short time does not significantly increase the risk of illness. The risk of illness, however, increases as the level of chemical increases and the length of time you drink the water increases.

The type and severity of health effects associated with exposure to a particular chemical depends on a number of factors:

- How much of the chemical was someone exposed to each time?
- How long did the exposure last?
- How often did the exposure occur?
- What was the route of exposure (eating, drinking, or breathing)?

How chemical exposures may affect someone can range widely from one person to the next. A number of personal factors also determine health effects. These include:

- How old are they?
- What gender are they?
- Is the person generally healthy or do they already have other health problems?
- What are their health habits? (For instance, do they drink alcohol or smoke tobacco?)
- How likely are chemical exposures to effect someone, in general?

Excess sodium in drinking water is a health risk for those individuals on a sodium-restricted diet. If you are on a sodium-restricted diet, consult a physician or registered dietitian.

To reduce the risks of adverse health effects due to sodium, consult a physician or registered dietitian to plan a healthy diet that reduces the sodium content in your total food intake.

How likely is sodium to cause cancer?

Sodium does not cause cancer.

Is there a medical test for sodium exposures?

Sodium is an important electrolyte the body needs needed for normal functions. The body has many means of controlling the balance of sodium. Blood or urine tests can show the levels of sodium in the body.

Is it safe to keep drinking water with sodium in it?

Levels of sodium less than the drinking water standard are not likely to cause illness. For those individuals on a sodium-restricted diet, drinking water with levels slightly above the drinking water standard for a short time period does not greatly increase the risk of illness. However, because health risks increase as the levels of a chemical (or how long a person drinks it) increases, it is best to drink water that meets standards.

For additional health information, please call the Florida Department of Health at 850-245-4240 or visit us online at www.floridahealth.gov/environmental-health/drinking-water/Chemicals-HALs.html

For more information about the health effects from exposure to sodium in different situations and at higher levels than those usually found in drinking water wells, please see the EPA fact sheet on sodium in groundwater at <http://water.epa.gov/scitech/drinkingwater/dws/ccl/sodium.cfm>