

Drinking Water Health Guidelines

Arsenic: EPA drinking water standard: 0.010 mg/l

The potential adverse health affect from consumption of water with levels of arsenic above the drinking water standard are numerous and complex. We recommend you seek advice from your doctor if the arsenic level exceeds the standard. You should seriously consider installation of an arsenic treatment or seek an alternative source of drinking water.

Cadmium: The primary drinking water standard for cadmium is 0.01 milligrams per liter.

Cadmium in high concentrations can cause short-term intestinal illness. Since cadmium tends to accumulate in the body, long-term effects may occur, including intestinal, lung and kidney damage.

Calcium and Magnesium (Hardness): Hardness in water is the total concentration of calcium and magnesium, which are picked up by water passing through these underground mineral deposits. Hard water is not considered contaminated, but it does retard the cleaning action of soap and forms a scale on cooking utensil, hot water pipes and heaters. (Build-up may eventually reduce pipe capacity and water pressure). *There is not EPA drinking water standard for hardness – 0 to 75mg/l Considered soft, 75 – 150 mg/l Considered moderately soft, 150 – 300 mg/l Considered hard, Over 300 mg/l Considered very hard.* Hard water is not harmful to health. Calcium and magnesium are essential body elements. Studies show that hard water is better for cardiovascular health than soft water, though the reasons for this are not yet known.

Coliform Bacteria: Coliform are a type of bacteria that live in the intestines of most warm-blooded animals, including humans. If coliform are detected in a water sample, it is an indication that the source may be contaminated with germs and/or other more harmful organisms may be present. If coliform are detected, the water from the source should not be used for consumption, cooking, bathing or other human contact. The source should be disinfected and retested until no coliform are detected. The source should be retested frequently until no bacterial contamination is detected.

Copper: EPA drinking water standard: 1.3 mg/l

Short-term exposure to copper levels above the standard can cause gastrointestinal distress. Long-term exposure can cause liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the standard. Copper sometimes enters tap water through corrosion of plumbing materials

Iron & Manganese: EPA secondary drinking water standard: Iron – 0.3 mg/l Manganese – 0.05 mg/l

Elevated levels of iron and manganese will cause black or brown staining of laundry and water using appliances.

Lead: EPA drinking water standard: 0.015 mg/l

Lead in drinking water can also cause a variety of adverse health effects. In babies and children, exposure to lead in drinking water above the action level can result in delays in physical and mental development, along with slight deficits in attention span and learning abilities. In adults, it can cause increases in blood pressure. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials.

Nitrate & Nitrite Nitrogen: Nitrate: EPA drinking water standard: 10 mg/l Nitrite: EPA drinking water standard: 1 mg/l

Excessive levels of nitrate in drinking water have caused serious illness and sometimes death. The serious illness in infants is due to the conversion of nitrate to nitrite by the body, which can interfere with the oxygen-carrying capacity of the child's blood. This can be an acute condition in which health deteriorates rapidly over a period of days. Symptoms include shortness of breath and blueness of the skin. Typical sources of nitrate and nitrite in drinking water are manure, fertilizer and septic system.

pH: The pH of a water sample indicates its acidity. pH values range from 0 (Very acid) to 14 (very basic); 7.0 indicates water that is neutral (neither acid nor basic). Most ground waters have pH values ranging from about 5.5 to slightly over 8.

Radon: A naturally occurring radioactive gas that may cause cancer and may be found in drinking water and in indoor air. Some people who are exposed to Radon in drinking water may have an increased risk of getting cancer (especially lung cancer) over the course of their lifetime. Radon in soil under homes is the biggest source of Radon in indoor air and presents a greater risk of lung cancer than Radon in Drinking Water.

Zinc: The secondary drinking water standard for zinc is 5 mg/l. Zinc levels above this standard may give water a chalky appearance and bad taste. The presence of zinc in drinking water does not generally present health risks in small amounts is essential for health.
