wellcare® information for you about

SODIUM & WELL WATER

What is Sodium?

Sodium is the sixth most abundant element on Earth and is widely distributed in soils, plants, water, and foods. Most of the world has significant deposits of sodium-containing minerals, most notably sodium chloride (salt).

Sodium and chloride occur naturally in ground and surface water as a result of dissolving earth minerals and erosion. The concentration of sodium in both ground and surface water can increase due to residential, commercial, and industrial activity, and to road salting and saltwater intrusion from ocean water.

What are the health effects of Sodium?

Knowing how much sodium is in your drinking water may be important to your health. Sodium is an essential nutrient and adequate levels of sodium are required for good health. However, too much sodium is one risk factor for hypertension (high blood pressure). For most people, food is the main source of daily sodium intake. Sodium levels in drinking water are usually low and unlikely to cause adverse health effects. Sodium in drinking water is only a health concern when the sodium level is high or when a person's natural tolerance for sodium decreases.

The U.S. Environmental Protection Agency (EPA) does not mandate a maximum level of sodium permitted in public water supplies. Drinking water containing between 30 to 60 mg/L is unlikely to be perceived as salty by most individuals and would contribute only 2.5% to 5% of the dietary goal if tap water consumption is 2 liters per day. However, EPA has released a guidance level recommending sodium levels not exceed 20 mg/L for those individuals on a sodium restricted diet.

Do water softeners contribute to Sodium levels in water?

Hard water is treated using ion exchange, a process that replaces the calcium and magnesium with either sodium chloride or potassium chloride. If you use this type of water treatment, sodium may be added to water during the water softening process. The chart on page 2 shows the amount of sodium added to drinking water after treatment of various levels of hard water by a water softener. The last column on the table shows the amount of sodium typically consumed over the course of a day by individuals who drink water that has been treated with a water softener. Keep in mind that the U.S. Food and Drug Administration's definition of a "low sodium" food includes those that contain 140 mg or less per serving.

Hardness Classification	Parts Per Million (ppm)	Grains per Gallon (gpg)*	Estimate of sodium added to water during softening (mg of sodium per liter)	mg of sodium in 2 quarts per day (amount usually consumed)
Soft	0 – 17.1	0 - 1	0 - 7.125	0 - 14.25
Slightly Hard	17.1 - 60	1 - 3.5	7.125 - 25	14.25 - 50
Moderately Hard	60 - 120	3.5 - 7	25 - 50	50 - 100
Hard	120 - 180	7 - 10.5	50 - 75	100 - 150
Very Hard	180+	10.5+	75+	150+

** 1 grain per gallon (gpg) is equal to 17.1 ppm or mg/L*

How do I test for Sodium?

If you have a water softening treatment system that uses sodium and/or anyone in the household is at high risk for hypertension, heart disease, or on sodium restricted diet, you should test for sodium in your drinking water. Contact your state or local health department or use our **interactive map** for a list of state-certified laboratories in your area.

What are the treatment for Sodium in drinking water?

First, determine the source for the elevated sodium level. In some cases, a malfunctioning water softener may cause very high levels of sodium, especially after a regeneration cycle. Have a water treatment professional inspect the operation of the water softener. If the elevated sodium is from the well, then consider installing a separate bypass faucet or dedicating the cold-water faucet in the kitchen to water drawn directly from the well and untreated with the softener.

Another option is to treat the water with a reverse osmosis or distillation system. This equipment can remove sodium added by water softening or from other sources. However, when saltwater intrusion is the source of the sodium, it is advised that the well structure be inspected, and the source of the salt water identified. Correcting problems to the well structure may be recommended over water treatment. Contact a licensed well contractor in your area for assistance.

These technologies may have a wide range of effectiveness. Look for treatment systems that are certified by **NSF** or **Water Quality Association (WQA)**. Certified water treatment professionals can help you select the right treatment. To locate a certified water treatment professional in your area, visit **WQA's website**.

It is imperative to maintain treatment devices and change filters as specified by the manufacturer or your water treatment professional. You should also retest your water after treatment is installed and after maintenance to confirm the effectiveness of the device.

For More Information on Sodium and Well Water

Contact your licensed well contractor, local health department, certified water treatment professional, or the wellcare® Hotline for more information on Sodium.

Information to help maintain and protect your water well system:

wellcare® is a program of the Water Systems Council (WSC). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 wellcare® information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the wellcare® Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE wellcare® Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!