

HARDNESS & WELL WATER

What is Hardness?

Hardness in water consists mainly of calcium and magnesium. As water moves through soil and rock, it dissolves small amounts of these naturally-occurring minerals and carries them into the groundwater supply causing hard water.

Hard water often causes water to taste bitter due to a high level of alkalinity. Hard water also interferes with almost every cleaning task – laundry, washing dishes, and showering – causing poor soap and detergent performance. Clothes can look dingy and feel rough and scratchy. Dishes and glasses get spotted and a film may build up on shower doors, bathtubs, sinks, and faucets. Washing your hair in hard water may leave it feeling sticky and dull. The main concern with hard water is that it can create build-up in pipes and water appliances which can lower water pressure throughout the house.

What are the health effects of Hardness?

Hardness does not pose a health risk and is not typically regulated by state or federal agencies. However, hard water can be a nuisance as previously stated. Therefore, we have provided a table of hardness classification to compare with your water test results (see below).

How do I test for Hardness?

You should test for hardness initially and monitor any level found annually thereafter. Contact your state or local health department or use our [interactive map](#) for a list of state-certified laboratories in your area.

Hardness Classification	Parts Per Million (ppm)	Grains per Gallon (gpg)*
Soft	0 – 17.1	0 - 1
Slightly Hard	17.1 - 60	1 – 3.5
Moderately Hard	60 - 120	3.5 - 7
Hard	120 - 180	7 – 10.5
Very Hard	180+	10.5+

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

What is the treatment for Hardness in drinking water?

The most common treatment for reducing hardness in water is a water softener. Water softeners can increase salts (chloride, potassium, and sodium) in your water which may pose a health concern for your household. It is also important to note that hard water can cause “water spots” on any surface. However, both salts and high Total Dissolved Solids (TDS) can also cause spotting, so it is imperative to have comprehensive water testing done first to determine if you have hardness, salts, and TDS before installing any treatment system.

Look for treatment systems that are certified by [NSF](#) or [Water Quality Association \(WQA\)](#) when possible. 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 necessary to maintain treatment devices 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 Hardness & Well Water

Contact your licensed well contractor, local health department, or the **wellcare®** Hotline for more information on Hardness and well water.

USGS. *Hardness of Water*. <https://www.usgs.gov/special-topics/water-science-school/science/hardness-water>



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!