

SILICA & WELL WATER

What is Silica?

Silica in well water is a naturally occurring compound made of silicon and oxygen (SiO_2). It's commonly found in rocks, sand, and soil, so it can dissolve into groundwater as water moves through the earth.

There are two main forms of silica in water:

1. **Dissolved Silica (Reactive Silica)** – This is the most common form and stays invisible in water.
2. **Colloidal Silica (Non-Reactive Silica)** – These are tiny solid particles suspended in water which makes it harder to remove.

What are the health effects of Silica in well water?

Studies have shown that silica is not harmful to human health at typical concentrations found in water. The U. S. Environmental Protection Agency (USEPA) has not established a maximum contaminant level (MCL) for silica. Silica concentrations in groundwater typically range from 1 to 100 mg/L.

Elevated silica levels can lead to issues such as clogged filters, fouled reverse osmosis membranes, and damage to household appliances. Additionally, silica may leave white, glassy deposits on faucets, tiles, and glassware.

If you suspect contamination or experience illness, stop drinking or cooking with the water immediately, and do not resume use until testing has proven it to be safe. Always seek the advice of your medical doctor if you have any health concerns.

How do I test for Silica?

You should test for silica initially and monitor any level found annually thereafter. Contact your local or state health department or use our [interactive map](#) to locate a state certified laboratory in your area.

What are the treatments for Silica in well water?

Well owners should contact their local health agency and water treatment professionals for guidance on when to treat their well water as silica can be tough to remove. Some methods include:

- **Reverse Osmosis** – Best for dissolved silica
- **Anion Exchange Resins** – Specialized treatment, typically commercial
- **Ultrafiltration or Coagulation** – For colloidal silica, usually in industrial settings

Note: Pilot testing is important, especially with membrane technology.

These technologies may have a wide range of effectiveness based on the amount and type of silica in the water supply and other contaminants that may be present in the water. 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 Silica and Well Water

Contact your licensed well contractor, local health department, state environmental agency, or the [wellcare®](https://www.wellcarehotline.org) Hotline at 888-395-1033 for more information on silica and additional measures you can take to protect your well and well water.



Information to help maintain and protect your water well system:

[wellcare®](https://www.wellcarehotline.org) is a program of the [Water Systems Council \(WSC\)](https://www.watersystemscouncil.org). 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®](https://www.wellcarehotline.org) information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the [wellcare®](https://www.wellcarehotline.org) 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®](https://www.wellcarehotline.org) 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!