

LITHIUM & WELL WATER

What is Lithium?

Lithium is a naturally occurring element found in rocks, soils, and groundwater. It can enter well water as water moves through mineral-rich formations, especially in areas with granite or other lithium-bearing rocks. Unlike contaminants introduced by pollution, lithium in well water typically comes from natural sources, and its levels can vary depending on local geology.

Beyond groundwater, lithium has many uses in everyday life. It is a key component in rechargeable batteries, widely used across industries, and is even present in a variety of foods. Lithium also has important medical applications, including its use as a pharmaceutical to treat certain health conditions.

What are the health effects of Lithium in well water?

Lithium is sometimes prescribed in higher doses as a medication for mood disorders, but its presence in drinking water is not well-regulated or widely studied. At very low levels, some studies suggest it may have neutral or even potentially beneficial effects. However, long-term exposure to higher concentrations could raise health concerns, including possible effects on thyroid and kidney function. Sensitive groups, such as pregnant women or people with existing health conditions, may be more at risk.

The U.S. Environmental Protection Agency (EPA) has not set a federal drinking water standard (MCL) for lithium, but it has reviewed available health data. Here's what the EPA currently says:

- **At very low levels (10 micrograms per liter [µg/L] or less):** Exposures are not expected to pose a health concern.
- **At moderate levels (10–60 µg/L):** Health risks are uncertain, so the EPA uses extra safety factors to be protective.
- **At much higher levels (similar to prescription doses):** Lithium could cause health effects, particularly for the thyroid and kidneys.

Because research is still limited, the EPA considers exposures up to 60 µg/L unlikely to increase health risks, but it cannot yet confidently estimate the risk of drinking water with lithium levels above 10 µg/L. Well owners should check with their state or local environmental agency to see if they recommend testing for lithium or have guidance levels in place.

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 Lithium?

Lithium is not included in standard water tests, so you'll need to request it specifically. 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 Lithium 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 treating lithium in well water can be challenging because it is a small, dissolved ion. Traditional filtration methods like sediment filters or conventional activated carbon do not reliably reduce lithium. Reverse osmosis (RO) is the most effective household treatment for lithium. Ion Exchange and Distillation systems may also reduce lithium levels. These technologies may have a wide range of effectiveness based on the amount of lithium in the water supply and other contaminants that may be present in the water.

Currently, there are no NSF/ANSI drinking water certifications specifically for lithium reduction. However, we recommend choosing treatment systems that meet NSF/ANSI 61 or equivalent material safety standards to ensure the products are safe for drinking water.

A certified water treatment professional can help you select the most appropriate system for your needs. To find one in your area, visit the [Water Quality Association's website](#).

Once treatment is installed, it's essential to properly maintain your device and replace filters as directed by the manufacturer or your water treatment professional. Be sure to retest your water after installation and following maintenance to confirm the treatment is working effectively.

For More Information on Lithium & Well Water

Contact your licensed well contractor, local health department, or the [wellcare®](tel:888-395-1033) Hotline at 888-395-1033 for more information on lithium and additional measures you can take to protect your well and well 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®](tel:1-888-395-1033) 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!