What is Perchlorate?
Perchlorate is a naturally occurring and man-made chemical anion that dissolves easily in water. Perchlorate contamination in water and soil is mainly from military bases, aerospace installations, and defense contractors that build rockets. Perchlorate is commonly used in solid rocket propellants, munitions, fireworks, airbag inflators, matches, and roadside flares. Perchlorate may occur naturally, particularly in arid regions such as the southwestern United States and is found as an impurity in hypochlorite solutions used for drinking water treatment and in nitrate salts used to produce nitrate fertilizers, explosives, and other products.

What are the health effects of Perchlorate?
Perchlorate can disrupt the thyroid gland. It is linked to child development problems and thyroid cancer. It poses the greatest threat in the drinking water of nursing and expectant mothers, children under twelve, and persons with improperly functioning thyroids.

While there is currently no federal standard for perchlorate in drinking water, some states have set enforceable drinking water standards for perchlorate. You should check with your state environmental agency for a maximum level in your state and use this level as guidance for when to treat your well water. The U.S. Environmental Protection Agency (EPA) has committed to issue a proposed National Primary Drinking Water Regulation for perchlorate by November 21, 2025, and a final regulation by May 21, 2027.

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

How do I test for Perchlorate?
If you live near a military base, aerospace manufacturing and defense industry, or have concerns about perchlorate you should have your water tested. Contact your state or local health department for a list of state-certified laboratories in your area or use our interactive map.

What is the treatment for Perchlorate in well water?
Perchlorate can be reduced using regenerable and single-pass ion exchange, reverse osmosis, and fixed- and fluidized-bed biological treatment. Treatment systems should be certified by NSF or Water Quality Association (WQA) when available. To find treatment systems that are certified visit NSF or WQA websites. 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. Contact a certified water treatment professional for guidance. To locate a certified water treatment professional in your area, visit WQA’s website.
For More Information on Perchlorate & Well Water

Contact your licensed well contractor, local health department, state environmental agency, or the wellcare® Hotline.

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!