What is TCE?

Trichloroethylene (TCE) is a type of Volatile Organic Compound (VOC). TCE is a colorless, nonflammable liquid with a somewhat sweet odor and sweet burning taste. It is used as a solvent to remove grease from metal parts and in dry cleaning operations. It is also in adhesives, lubricants, refrigerants, paints and paint removers, pesticides, and other products.

Major environmental releases of TCE are due to air emissions from metal degreasing plants. Wastewater from processing industries may also contain TCE. TCE that spilled or was dumped on the ground can leach through soil and into groundwater. When TCE is found in water, it can enter your body when you drink the water, touch the water, or when you breathe in steam from the water.

What are the health effects of TCE?

Studies have shown those in contact with TCE may experience immune system development and immune effects such as hypersensitivity or risks for autoimmune disease, heart defects in the developing fetus if the mother is exposed in the first trimester, and increased risk of cancer (kidney and liver cancer and Non-Hodgkin Lymphoma) from long-term exposure. Higher TCE exposures can also harm the central nervous system, kidney, liver, and male reproductive system.

The U.S. Environmental Protection Agency (EPA) requires public water suppliers to test for TCE and treat water with levels above 0.005 parts per million. It is recommended that well owners follow this standard. If your state has a lower maximum level for TCE in drinking water, this level supersedes the EPA level and should be used in its place.

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 TCE?

If you live in an area at risk for TCE contamination or believe you have TCE in your well water have your water tested as soon as possible. Contact your state or local health department for a list of state-certified laboratories in your area or use our interactive map.
What are the treatments for TCE in well water?

The treatment used to remove or reduce TCE in drinking water is Granular Activated Carbon (GAC) filtration. Some situations may require the additional use of packed tower aeration. These technologies may have a wide range of effectiveness. Further water testing may be necessary to determine the best water treatment to use.

Contact a certified water treatment professional for guidance. To locate a certified water treatment professional in your area, visit WQA’s website. 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.
For More Information on TCE & 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!