

# wellcare® information for you about PFOA and PFOS & Well Water

---

## What are PFOA and PFOS?

Perfluorooctanoic acid (PFOA), also known as C8, and Perfluorooctanesulfonic acid (PFOS) are manmade organic chemicals of a larger family of chemicals called perfluoroalkyl substances (PFASs). PFOA and PFOS have been the most produced and studied from this family of chemicals. They have been used to make water, grease, or stain resistant products including carpets, clothing, furniture fabrics (e.g. Scotchgard™), cookware (e.g. Teflon®), and food packaging. They are also used for firefighting at airfields and other industrial processes.

PFOA and PFOS break down very slowly in the environment. They can enter groundwater through landfills, septic systems, or from a nearby industrial facility where these chemicals were produced or used during manufacturing. Other potential sources of contamination include oil refineries, airfields, and locations where the chemicals were used for firefighting purposes.

## What are the health effects of PFOA and PFOS?

Studies indicate that PFOA and PFOS can cause increased cholesterol levels, low infant birth weights, effects on the immune system, cancer for PFOA, and thyroid disruption for PFOS. Additional studies on laboratory animals indicate reproductive and developmental, liver, kidney, and immunological effects.

To protect the general public, the Environmental Protection Agency (EPA) has established a health advisory level for PFOA and PFOS in drinking water of 70 parts per trillion (ppt), which is equivalent to 0.00007 micrograms per liter (ug/L). When both PFOA and PFOS are found in drinking water, the combined levels should be compared to the health advisory level of 70 ppt. Some states may have recommended levels even lower than those provided by EPA. Check with your state environmental agency for more information.

Since PFOA and PFOS have been used in an array of consumer products most people have been exposed to low levels.

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 PFOA and PFOS?

There is no taste, smell, or color associated with PFOA and PFOS. So the only way to know if your water is contaminated with these chemicals is to have your water tested. Testing for these chemicals can be expensive, but should be performed especially in areas near manufacturing facilities. Contact your state or local health department for a list of state-certified laboratories in your area.

## What are the treatments for PFOA and PFOS in well water?

If testing confirms that water contains PFOA and PFOS at individual or combined levels greater than 70 ppt, you should contact a local water treatment professional in your area regarding the best type of treatment for your situation. Some treatment types that have shown to be effective in removal of PFOA and PFOS are activated carbon filtration and reverse osmosis. **Do not boil your water; this will not remove the chemical and will only increase its concentration.**

## For more information about PFOA & PFOS

U.S. Environmental Protection Agency. Fact Sheet: *PFOA & PFOS Drinking Water Health Advisories*. [https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories\\_pfoa\\_pfos\\_updated\\_5.31.16.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf)

U.S. Environmental Protection Agency Office of Research and Development (ORD) and Office of Water (OW). EPA Monthly Webinar Series: Challenges and Treatment Solutions for Small Systems Drinking Water and Wastewater Systems. *Perfluorinated Chemicals: Analytics, Occurrence, and Treatment*. September 27, 2016

National Institute of Environmental Health Sciences. *Perfluorinated Chemicals (PFCs)*. [https://www.niehs.nih.gov/health/materials/perfluorinated\\_chemicals\\_508.pdf](https://www.niehs.nih.gov/health/materials/perfluorinated_chemicals_508.pdf)

Centers for Disease Control and Prevention, National Biomonitoring Program. *Perfluorooctanoic Acid (PFOA)*. [http://www.cdc.gov/biomonitoring/PFOA\\_FactSheet.html](http://www.cdc.gov/biomonitoring/PFOA_FactSheet.html)

**FOR MORE INFORMATION** to help you maintain your well and protect your water supply



**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 the 43 million people nationwide who depend on household wells for their water supply.

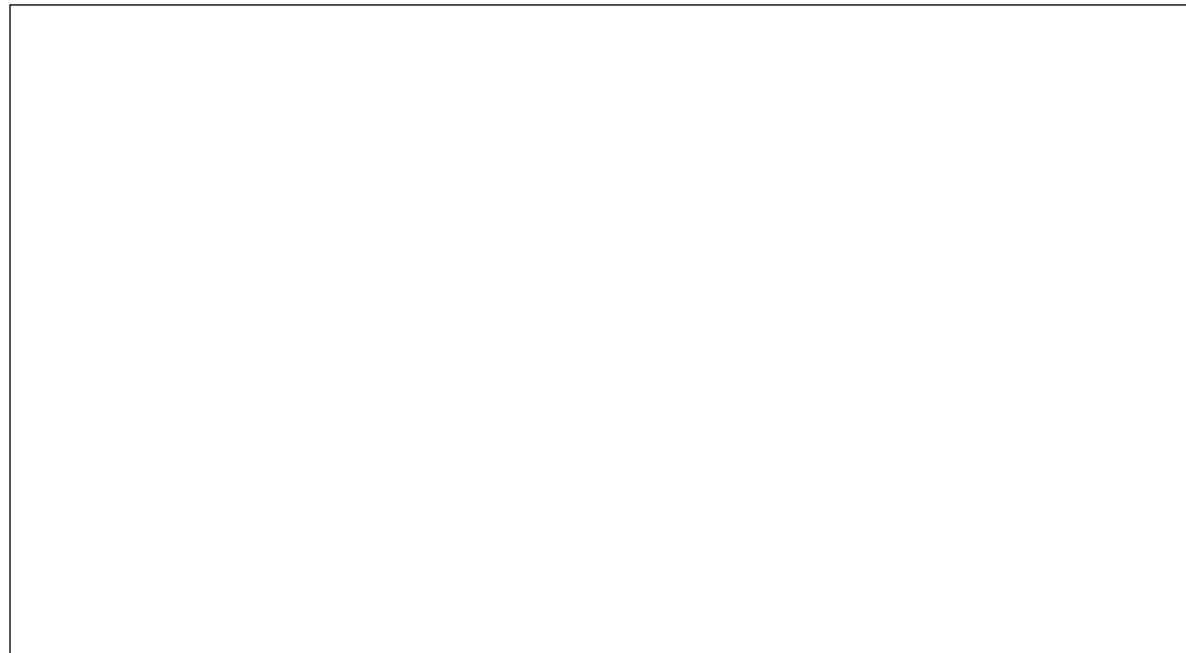
This publication is one in a series of **wellcare®** information sheets. There are more than 90 information sheets available **FREE** at [www.watersystemscouncil.org](http://www.watersystemscouncil.org).

Well owners and others with questions about wells or groundwater can also contact the **FREE** wellcare® Hotline at 1-888-395-1033 or visit [www.wellcarehotline.org](http://www.wellcarehotline.org).

**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.watersystemscouncil.org](http://www.watersystemscouncil.org) or [www.wellcarehotline.org](http://www.wellcarehotline.org).



*This publication was developed in part under Assistance Agreement No. EPA-OW-OGWDW-15-02 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA. The views expressed in this document are solely those of WSC. EPA does not endorse any products or commercial services mentioned in this publication.*