

Home water treatment systems to reduce levels of PFAS in drinking water:

There are two different ways to treat the water in your home for PFAS. One way is to install point of use (POU) systems. POU water treatment systems treat the water at a specific location within the house, typically the kitchen sink or main source of water for drinking and cooking; some also provide water to the refrigerator. The second way would be to install whole home water treatment systems at the point of entry or at the point of use can reduce the levels of per- and polyfluoroalkyl substances (PFAS) in a home's drinking water. Whole house water treatment systems (also called point of entry [POE]) treat all the water entering the household plumbing system.

Both types of water treatment have pros and cons that should be considered before selecting the best option for your home. The type of treatment system selected should consider the amount of water that will be used, the number and locations where water is used, and the type of PFAS identified in the laboratory result.

If water for drinking, cooking, and making ice is primarily obtained from the kitchen sink, the installation of a POU treatment unit below the sink or on the sink faucet is an option. If drinking water and ice are obtained from the refrigerator, it is important to consider treating the water line to the refrigerator also. If drinking water is obtained from multiple locations in a home, a (whole house treatment system) may be preferred.

See [\[PFAS – Whole House Water Treatment\]](#) fact sheet for more information.

If possible, it is important to choose a treatment system that has been tested and certified to reduce the PFAS present in the water based on data provided by the public water system provider or from a laboratory analysis.

Certified POU water treatment products to reduce PFOA and PFOS:

Certified products are either granular activated carbon (GAC) filtration or reverse osmosis (RO) treatment systems. It should be noted that some of the products certified to treat water at the point of use are countertop products or pour-through (like a pitcher filter that you fill from the tap as needed).

NSF International and the Water Quality Association (WQA) are independent third-party testing agencies that currently test and certify products to reduce two specific PFAS: PFOA and PFOS. In April 2024, U.S. EPA released drinking water maximum contaminant levels (MCLs) for PFOA and PFOS. However, there are currently no POU options certified by NSF or WQA certified to reduce PFAS and PFOA to meet the lower MCLs, nor have the NSF or WQA tested the removal capabilities of products for additional PFAS substances now regulated by U.S. EPA.

Look for products identified as certified to:

- [NSF/ANSI Standard 53:](#) Drinking Water Treatment Units – Health Effects with the claim of “PFOA Reduction” and “PFOS Reduction.”
- [NSF/ANSI Standard 58:](#) RO Drinking Water Treatment Systems with the claim of “PFOA Reduction” and “PFOS Reduction.”

The NSF International consumer information team can also be contacted at info@nsf.org or **1-800-673-8010** for assistance with finding a certified product.

Products tested and certified by the Water Quality Association (WQA) can be found [here](#).

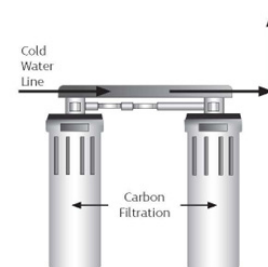
Product certifications are tested to meet either NSF/ANSI Standard 53: Drinking Water Treatment Units – Health Effects for the reduction of PFOA and PFOS with GAC filtration systems, or to NSF/ANSI Standard 58 RO Drinking Water Treatment Systems for the reduction of PFOA and PFOS with RO systems. There is currently no standard for certification of other types of treatment systems.

POU water treatment products to reduce other PFAS:

There are currently no certified standards for removing PFAS other than PFOA and PFOS; however, consideration of the type of PFAS can inform the selection of the best water treatment system. PFOA and PFOS are longer-chain PFAS than other chemicals in the PFAS family. Long-chain chemicals are larger, which makes it easier for a filter or membrane to trap them. Short-chain PFAS are harder to reduce with GAC treatment alone. Although there is no product certification standard at this time, research has shown that RO treatment systems can effectively reduce a wide range of PFAS, including short-chain PFAS.

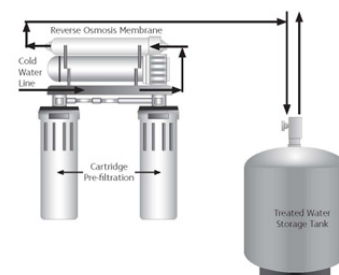
Considerations for POU granular activated carbon (GAC) treatment:

- Physical filter cartridge “traps” contaminant(s). At the end of its rated lifecycle, it is removed and disposed.
- Filter must be replaced on a regular schedule, as identified by the manufacturer.
- Generally, GAC filters provide more water flow than a RO system.
- This option may not effectively treat short-chain PFAS if present in addition to the long-chain PFOA and/or PFOS.



Considerations for POU reverse osmosis (RO) treatment:

- To maximize the life and effectiveness of the membrane, RO typically requires the installation of pre-filtration to reduce sediment and small particles.
- Large volumes of water are wasted in the treatment process. Typically, for every 10 gallons sent into the treatment unit, only two to three gallons of treated water are produced. The remaining seven to eight gallons are sent down the drain as waste.
- Membranes and pre-filtration cartridges must be replaced on a regular schedule, as identified by the manufacturer.
- Research has shown that RO can effectively reduce short-chain PFAS in addition to the long-chain PFOA and/or PFOS.



Costs:

U.S. EPA has estimated costs for different types of POU water treatment systems. ODH developed a factsheet listing NSF/ANSI and WQA certified water treatment equipment and costs.

See the [\[PFAS Point of Use Water Treatment Options\]](#) factsheet for more information.

	Approximate Initial Equipment Purchase Cost	Approximate Replacement Treatment Media Cost
Certified Point of Use Granular Activated Carbon (GAC) Filter	\$100 to \$1,200	\$200 to \$300 Each Year
Certified Point of Use RO	\$400 to \$700	\$200 Each Year

Maintenance:

Any water treatment system requires regular maintenance to ensure effective performance. Follow the instructions that come with your system. These instructions will identify how often the filters and membranes need to be replaced as well as the specific filters or membranes that must be used.

If a system is not properly maintained, water will still flow through it, but the system will not work, and the water will not be treated. The taste, smell, or color of the water are not indicators of when a system needs maintenance, because PFAS do not change these water qualities. Always refer to the manufacturer's recommendations for how and when to maintain your system.

For more information:

For more information on PFAS, including the health effects of PFAS, PFAS in drinking water, water testing, and treatment, and other PFAS activities in Ohio, visit the [Ohio PFAS webpage](#).

For more information on treatment systems, visit [U.S. EPA Reducing PFAS in Drinking Water with Treatment Technologies](#).

For more information on water treatment to reduce PFAS concentrations, contact the ODH Residential Water and Sewage Program at Privatewater@odh.ohio.gov or at (614) 644-7558.