Per– and polyfluoroalkyl substances (PFAS) are a large family of human-made chemicals used since the 1940s to make many stain-resistant, water-resistant, and non-stick products. PFAS do not break down naturally, and stay in the environment for a long time.

Some PFAS can build up in your body and, over time, may cause negative health impacts such as increased risk of kidney cancer, lower birth weights and reduced antibody response. People can be exposed to PFAS by drinking or cooking with contaminated water.

At-home water treatment systems filter contaminants out of water, and can help reduce your exposure to PFAS in household tap water used for drinking and cooking.
**Point of Use (POU) Water Treatment Systems**

*Also known as “Under the Sink” or “Countertop” water filters.*

POU water treatment systems filter tap water at your main source for drinking and cooking, like the kitchen sink. They can be purchased online or at your local home improvement store. Every household will have different needs. Several filter styles are available—look at the information on the filter’s box to decide which one is best for your home.

Examples of what different filter styles look like:

![Under the Sink Filter](image1.png)

![Countertop Filter](image2.png)

**Water Filtration Methods**

POU water treatment systems use different filtration methods to reduce PFAS in household tap water. Many filter systems use Reverse Osmosis (RO) filtration methods or Granular Activated Carbon (GAC) filtration methods.

**Granular Activated Carbon (GAC) Filtration Method**

- Uses a container called a “cartridge” that is filled with carbon pieces that PFAS and other contaminants stick to as water passes through.
- Allows water to flow quickly.
- Some filters that use GAC filtration methods are independently tested and certified by NSF to reduce PFOA and PFOS to 70ppt or below in drinking water.

**Reverse Osmosis (RO) Filtration Method**

- Uses a layer of material called a “membrane” that has very small holes to strain PFAS and other contaminants out of water as it flows through.
- Can make water flow slower.
- Can sometimes need a second filter called a “pre-filter” to clean out small particles like silt or dirt.
# Pros and Cons: GAC and RO

<table>
<thead>
<tr>
<th>GAC Pros and Cons</th>
<th>RO Pros and Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually less expensive to purchase.</td>
<td>Usually more expensive to purchase.</td>
</tr>
<tr>
<td>Requires cartridge to be replaced more often. Follow manufacturer directions for replacement.</td>
<td>Does not require membrane to be replaced often. Follow manufacturer directions for membrane and pre-filter replacement.</td>
</tr>
<tr>
<td>Some GAC filters come with an indicator light, but most do <strong>NOT</strong> alert you when the cartridge needs to be replaced. Bacteria can also grow on the filter if it is not replaced regularly. Follow manufacturer directions for replacement.</td>
<td>Water slows down or stops flowing when membrane needs to be replaced.</td>
</tr>
<tr>
<td>High levels of other contaminants in your water can use up the filter and stop it from removing PFAS before the manufacturer recommends you replace it.</td>
<td>High levels of other contaminants in your water may clog the filter before the manufacturer recommends you replace it.</td>
</tr>
<tr>
<td>Does not waste water.</td>
<td>On average, 4 gallons of water are sent down the drain to get 1 gallon of filtered water.</td>
</tr>
<tr>
<td>PFAS are thrown out with cartridge when it is replaced. If filter is not replaced on a regular schedule, it can stop working or increase the amount of PFAS contamination in your drinking water.</td>
<td>PFAS are sent down the drain either to municipal sewer or to your septic tank.</td>
</tr>
<tr>
<td>Some GAC filters are NSF certified for PFOA/PFOS reduction. <strong>See back page for more information on NSF Certified Filters.</strong></td>
<td>Some RO filters are NSF certified for PFOA/ PFOS reduction. <strong>See back page for more information on NSF certified filters.</strong></td>
</tr>
<tr>
<td>Works well with low water pressure.</td>
<td>Needs enough water pressure to work. Check manufacturer guidelines.</td>
</tr>
<tr>
<td>Removes many types of PFAS from drinking water.</td>
<td>Better at removing all PFAS from drinking water.</td>
</tr>
</tbody>
</table>
Not all water filters reduce PFAS.

If choosing a GAC filter, make sure it is certified by NSF for PFAS reduction. A certified filter will have the following statement on the packaging:

**NSF/ANSI Standard 53: Drinking Water Treatment Units — Health Effects**

*Must Also Have Claim of PFOA Reduction and PFOS Reduction*

For more information on PFAS health effects, water testing & treatment, and other PFAS activities in Washington State, visit [www.doh.wa.gov/community-and-environment/contaminants/pfas](http://www.doh.wa.gov/community-and-environment/contaminants/pfas)

To check online if your filter is certified to reduce PFOA/PFOS, go to:

[https://info.nsf.org/Certified/DWTU/](https://info.nsf.org/Certified/DWTU/)

Under “Product Standard” choose “Drinking Water Treatment Units — Health Effects (NSF 53)”. For NSF 53 filters, after you click “Search”, the filter’s PFOS/PFOA reduction claims will be listed on the right hand side of the page under the “Claim” column. If PFOA/PFOS is not listed in the “Claim” column, that filter is not certified for PFAS reduction.

The NSF International Consumer Information Team can also be contacted for help at info@nsf.org or 1-800-673-8010.