

# Quick Guide To Water Filtration

Everything from lead, arsenic, and chromium-6 to radium and pharmaceutical waste has been found in drinking water. When it comes to tap water, the best offense is a good defense in the form of a water filtration system.



## Household Water Sources

**Water coming into the home can come from three main sources:**

**Municipality** – Centrally treated water that is distributed to multiple homes through a distribution of pipes and plumbing. The source of the water treated by the municipality can vary from lakes, aquifers, rain, etc.

**Well** – Underground water that is brought to the surface by a pump for use in a home, business, or municipality.

**Alternate sources** – Other sources of water such as rainwater or snow melt can be collected for use.

## How to Determine Water Quality

**Sometimes the signs of water contamination are obvious, including changes in:**

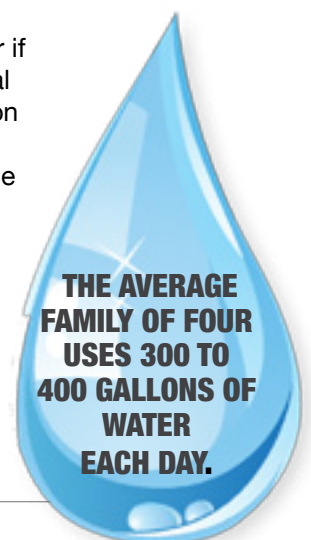
- Color
- Taste
- Odor
- Stains
- Scale Build-Up

**Sometimes the contamination is less obvious, such as when it is:**

- **Organic** – Volatile compounds such as some pesticides and herbicides;
- **Inorganic** – Metals such as lead, arsenic, and hexavalent chromium;
- **Particulate** – Materials such as sand, rust, or silt;
- **Microbiological** – Bacteria, virus, and cyst.

**Consumers can check their water quality by:**

- Reviewing their Consumer Confidence Report from the municipality.
- Having a laboratory test the water if using well water or post-municipal contamination from the distribution system or home is suspected. To find a reputable laboratory, use the contact information provided by the **USEPA** (<http://water.epa.gov/scitech/drinkingwater/labcert/statecertification.cfm>). A Water Professional will also provide this service. To find a Water Professional go to: [www.wqa.org/members.cfm?section=1](http://www.wqa.org/members.cfm?section=1).

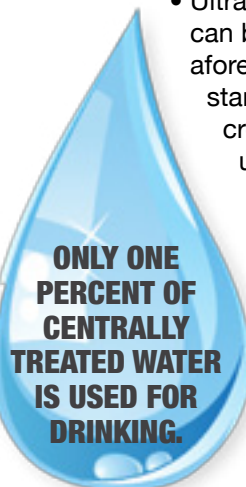


## Water Filtration Solutions

There are a number of solutions to filter contaminants out of your water.

**Point-of-Use (POU) Filtration** – Water treatment applied to a single tap used for the purpose of reducing contaminants in water. POU treatment is often used to treat water for drinking and cooking only. Such devices include:

- Gravity devices, such as a pitcher containing carbon or other filtration media, which remove contamination at the point of consumption;
- Inline filters, which are cartridge-type devices containing either packed-medium or membranes that are typically installed under a sink and have a separate faucet for dispensing water;
- Reverse Osmosis, a water treatment device that removes materials from water by using pressure to force water through a membrane leaving other materials in the waste stream;
- Ultraviolet Light is a technology that can be incorporated into any of the aforementioned devices or used as a stand-alone device that disinfects microbiologically unsafe water sources using intense light;
- Distillers are countertop systems that evaporate water leaving behind contaminants or dispelling contaminants as gases. The evaporated water is cooled and condensed back to a liquid with most contaminants being removed.

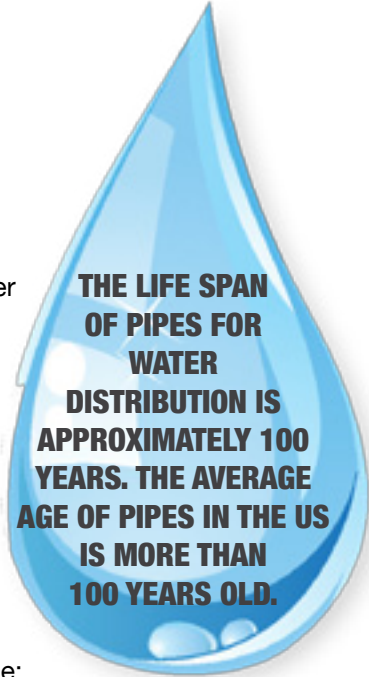


**ONLY ONE PERCENT OF CENTRALLY TREATED WATER IS USED FOR DRINKING.**

## Point-of-Entry (POE)

**Filtration** – Whole house water treatment applied to the water entering a house or building for the purpose of reducing contaminants in the water. POE treatment is often used to produce working water, which is not intended for drinking, but for close human contact such as showering, brushing teeth, washing dishes and clothes, flushing toilets, etc. Such devices include:

- Softeners, which remove calcium and other minerals that can cause working water to damage household property;
- Tank Filtration, a tank-style device applied to the water entering a house or building which water flows through for the purpose of removing various contaminants;
- Inline Filtration systems for POE are typically larger versions of POU inline filters. Common examples of POE tank filters are iron removal filters, PH neutralizers, and chlorine-reducing filters using activated carbon and KDF.



**THE LIFE SPAN OF PIPES FOR WATER DISTRIBUTION IS APPROXIMATELY 100 YEARS. THE AVERAGE AGE OF PIPES IN THE US IS MORE THAN 100 YEARS OLD.**

## Finding the Right Filtration Solution



To find the right water solution for your home:

- Look for certified products. [Find a Gold Seal Product - www.wqa.org/goldseal/goldsealSearch.cfm](http://www.wqa.org/goldseal/goldsealSearch.cfm).
- NSF, IAMPO, CSA and Underwriters Laboratories also can help homeowners find a filtration solution.
- Use a Water Professional for guidance and installation. [Find a Water Professional - www.wqa.org/members.cfm?section=1](http://www.wqa.org/members.cfm?section=1).