

Water Filter Fact Sheet

A household water filter is an important tool for improving the quality of drinking water in the home. Here are some reasons why:

1. **Removes harmful contaminants:** including bacteria, viruses, parasites, heavy metals, pesticides, and other chemicals.
2. **Improves taste and odor:** A water filter can remove the impurities that cause tap water to taste or smell unpleasant, such as chlorine, sulfur, or other chemicals.
3. **Saves money:** Purchasing bottled water can be expensive and create a lot of waste.
4. **Reduces the risk of illness:** Drinking contaminated water can cause a range of illnesses, including diarrhea, nausea, vomiting, and other more serious health problems.
5. **Convenience:** Having a water filter in the home is convenient and can save time and effort in purchasing and transporting bottled water

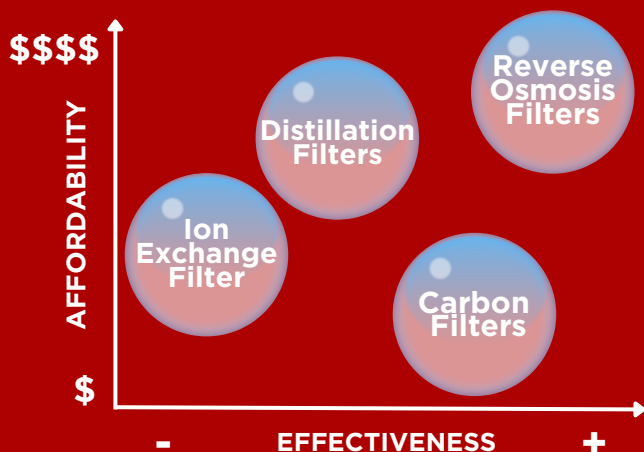
There are several types of household water filters that are available for improving the quality of tap water. Here are some of the most common types:

Carbon filters (Most Affordable): These filters use activated carbon to absorb impurities and improve the taste and odor of the water. They can remove chemicals, such as chlorine and volatile organic compounds (VOCs) and may also remove some bacteria and other microorganisms.

Reverse osmosis filters: These filters use a semipermeable membrane to remove a wide range of contaminants from the water, including bacteria, viruses, parasites, heavy metals, and minerals. They are effective at removing dissolved solids from the water, but they can be expensive and produce a lot of wastewater.

Ion exchange filters: These filters use resin beads to remove minerals, such as calcium and magnesium, from the water. They are often used to soften hard water, which can improve the taste and reduce the buildup of mineral deposits in pipes and appliances.

Distillation filters: These filters boil the water to create steam, which is then condensed back into liquid form, leaving behind many impurities. They are effective at removing minerals, heavy metals, and some chemicals, but they can be slow and require a lot of energy to operate.



Each type of household water filter has its own advantages and disadvantages, and the best type of filter will depend on the specific needs and preferences of the user. It is important to research the different options and choose a filter that is appropriate for the contaminants present in the local water supply.

This research was conducted by the University of Louisville's Center for Integrative Environmental Health Sciences (NIEHS grant P30 ES030283). CIEHS strives to inform the public on environmental health science and build transparent relationships with surrounding communities to support healthier lifestyles. For more information regarding The Center for Integrative Environmental Health Science, please visit <https://louisville.edu/ciehs>.



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