

www.consumerlab.com/reviews/water-filters-review/water-filters/

Water Filter Pitchers Review

See the Best Pitchers For Different Filtering Needs



Medically reviewed and edited by Tod Cooperman, M.D.

Updated June 02, 2025 



Watch the video

Summary

Which water filter pitchers did ConsumerLab test?

Popular counter-top water filter pitchers from *Amazon*, *Aquagear*, *Aquasana*, *Berkey*, *Brita*, *Kirkland* (Costco), *LifeStraw*, *PUR*, and *ZeroWater* were purchased, tested, reviewed, and compared.

Which are ConsumerLab's [Top Picks among water filter pitchers](#)?

- If your water is [chlorinated](#), we selected a pitcher that gets out the chlorine (which can impair water flavor) at very low cost (less than 1 cent per cup), while leaving fluoride (for strengthening teeth) and essential minerals.
- If you use [well water](#) high in fluoride, we selected two pitchers that can help by either reducing fluoride by 25% to 31%, at very reasonable cost, or removing it entirely.
- If your tap water has an [earthy flavor](#) from high dissolved solids, we selected a pitcher that can entirely remove dissolved solids, although it will also remove nearly all fluoride.
- To remove [microplastics](#), we selected a pitcher that has been shown to reduce the majority of plastic particles while not dumping in many carbon particles (as many filters did).
- To remove [PFAS](#) ("forever chemicals"), we selected a pitcher that removes 65% to 99.9% of PFAS based on testing from independent groups, as we did not test for PFAS removal.



(Although we identified several pitchers that remove 90% or more [arsenic](#) from water, none is a *Top Pick* — [find out why](#).)

How well did water filters pitchers remove each of the following? (See [What CL Found](#) and [How Products Were Evaluated](#)):

- **Chlorine** – which is added by many water systems as a disinfectant but can impact water taste – was well removed except by all but one filter pitcher.
- **Fluoride** – which may be added to water systems to help protect teeth – was removed completely (which may not be desirable) by one filter pitcher, while the others removed 10.7% to 31% of the fluoride.
- **Lead and other toxic heavy metals** – Each pitcher did an excellent job at removing **lead**, **cadmium**, and **mercury**. For **arsenic**, some of the pitchers removed essentially all of it, while others removed as little as 15%.
- **Total Dissolved Solids (TDS)** – which includes many essential minerals – were left largely intact by most pitchers, as is generally desirable. Removing all dissolved solids removes essential minerals, can result in bland-tasting water, and reduces the life of filters. However, if your tap water has an unpleasant, earthy flavor, we found some pitchers that can eliminate these compounds or significantly reduce levels.
- **Microplastics** – Four water filter pitchers were able to remove the majority of microplastic particles. Among the others, several removed a modest amount and one actually *added* substantial amounts of plastic to the water. Some also added large amounts of carbon particles. *Although not suggested in all product instructions, it may be helpful with some filters to discard several pitchers of water before drinking the water, as microplastic and carbon levels appear to decline with use.*
- **Perfluoroalkyl substances (PFAS, such as PFOA and PFOS)** – We did not test water filter pitchers for their ability to remove potentially toxic PFAS, but six of the products claim to remove at least 94% of PFOA and PFOS. However, as we explain, water filter pitchers may not be the best strategy for removing PFAS from drinking water.

How do water filter pitchers compare on cost?

The cost to get a cup of water ranged more than 7-fold from just 0.7 cents to as much as 5 cents after factoring the initial cost of the pitcher and filters, replacement filters, and the number of gallons handled by each filter. Some filters need to be changed after every 20 to 40 gallons of water while others can filter as many as 3,000 gallons. (See [Cost](#)).

Avoid Counterfeits

Counterfeit water filters have been sold in the U.S. See our separate article about [how to avoid buying counterfeit filters online](#).

Products tested in 2020, 2023 and 2024

Updates

ZeroWater

We have received numerous emails from CL members who contacted ZeroWater for a response to our finding (in this Review) that the *ZeroWater* filter pitcher added large amounts of microplastic particles to filtered water when used according to the product's set-up instructions and one or more flushes of the filter and pitcher. ZeroWater's responses were shared with us.

As chronicled below, **ZeroWater has been providing inaccurate and misleading information about ConsumerLab's tests and about its product**. The information we have received has given us no reason to believe that our results for *ZeroWater* are incorrect.

(10/25/20): A CL member shared lab results provided by ZeroWater supposedly to support its claim that its water filter pitcher reduces microplastics in water by 99%. However, we found that the results were limited to a small subset of microplastics, specifically fibers 3 to 10 microns in length, and excluded larger and broader particles despite the fact that microplastics are typically defined as particles up to 5,000 microns (5 millimeters) in length. Based on these results alone, it does not seem accurate for ZeroWater to claim, as it has (below), that "*...our filter removes micro plastic, with an overall reduction percentage of 99%.*" In

addition, the results were not recent (they are from 2018) and are not based on the validated method that we used and provided to ZeroWater. In fact, the microplastic particles that we found coming from the ZeroWater filter had surface areas of 10 to 5,000 square microns.

(10/22/20): A ZeroWater representative recently informed several CL members that *"... contrary to the Consumer Labs report, our EPA certified lab reports that our filter removes micro plastic, with an overall reduction percentage of 99%. We duplicated the Consumer Labs test and confirmed that our ZeroWater filter has nothing to do with this issue, however, when the pitcher is not properly washed per instructions, we did get similar results. We are in the process of making the washing instructions more prominent and also ensuring that our factory is adhering to our high standard of quality."*

We find ZeroWater's statements to be inaccurate and misleading. First, the response runs counter to Zerowater's statement last week (below) that CL did not provide adequate information for ZeroWater to run its own tests. Having apparently found a way to do this, ZeroWater admits that it got "similar results" to ours, but claims that this occurs "when the pitcher is not washed per instructions." However, the instructions on the product do not indicate that washing is required before use. In addition, prior to performing our tests, we discarded the first reservoirful of filtered water, which should have removed pre-existing particles from the pitcher if they were present. We then filtered and discarded from the pitcher three more reservoirsful of water and ran the test again, still finding large amounts of microplastics being added by the filter to the water.

If the ZeroWater filter can, as claimed by its representative, reduce microplastic particles by "99%" we certainly did not find this to be the case. Instead, it increased the number of particles by over 1,200%. It is possible that after many more flushes the filter might reduce microplastics, although this would further reduce the lifespan of the filter which is already very short compared to other filters.

Be aware that the EPA does not certify labs for microplastic testing, so ZeroWater's claim of using an EPA certified lab means, at best, that the lab is certified for other types of tests. The laboratory that ConsumerLab used, for example, is EPA certified for performing heavy metal testing of water, is accredited by the National Environmental Laboratory Accreditation Program (NELAP) for chlorine and fluorine testing in water, and validated the test for microplastics as discussed in the prior update below.

(10/17/20):Yesterday a CL member forwarded to us an email exchange in which a ZeroWater Customer Service representative indicated that they are working to address the concerns raised by our tests but stated, *"Unfortunately, Consumer Labs is not sharing the name of the lab they used, their testing protocol, the sample size used or any of the other data we need to replicate their results, determine their accuracy or be able to take appropriate steps if needed."*

This is not accurate. On October 5, a ZeroWater representative emailed us with a request, stating: "We would like to understand the tests that were performed and the protocol associated with the testing. We would also love to see the samples that were tested if possible." In response, on October 6, we provided ZeroWater with a detailed report of our findings and how the products were evaluated. On October 7, ZeroWater asked us for more information about the size of the microplastic particles found in the filtered water, and the testing protocol. We provided this information in detail on the same day, including a [published paper](#) in which the method was used, noting that more than one independent laboratory has validated this method, including the laboratory used by CL for this Review. A [summary of the testing method](#) has also been available, free to the public, since we published this Review, as we provide this information [for every Review](#) as a public service.

Due to threats in the past by manufacturers against laboratories that ConsumerLab has used, ConsumerLab does not release the names of the laboratories it uses. However, it would not be difficult for ZeroWater to identify a laboratory specializing in water testing to follow the product's instructions for setting up product, filter water with it, and perform the validated method used in this

Review to test for microplastic particles. We hope that ZeroWater does this and releases its findings, which we would be happy to report here.

Background:

What's in Water?

Plain water remains the overall best source of hydration of any beverage, and tap water is the least expensive and most convenient way of obtaining it. At the same time, tap water can contain a range of undesirable compounds and particles including:

- **Chlorine:** This chemical is often added to disinfect community water supplies. However, it can add an unpleasant taste to water.
- **Fluoride:** A small amount of fluoride helps build strong teeth, which is why fluoride is in toothpastes and is frequently added to community water supplies. However, too much fluoride (as occasionally occurs in private wells) can make teeth and bones brittle and cause tooth discoloration. (You can also get too much fluoride from drinking excessive amounts of [green tea](#).)
- **Total dissolved solids (TDS):** These are all the dissolved minerals and other dissolved substances in water. Dissolved solids can impart flavor — good or bad. That is, if you remove all dissolved solids from a "mineral water," it would taste bland. However, "earthy-tasting" water, for example, may be improved by removing the dissolved solids. The United States has established a secondary water quality standard of 500 mg/L to provide for palatability of drinking water. A simple, electronic TDS meter (which comes with the ZeroWater pitcher) can be used to approximate TDS levels. This meter uses an electric current to measure the conductivity of the water, which is a function of ionized dissolved solids. It gives a read-out in parts per million (ppm), which approximates mg/L.
- **Heavy metals: Lead, cadmium, mercury, arsenic,** and others such as uranium and radium. Be aware that children, pregnant women, and people with *chronic kidney disease* are particularly susceptible to heavy metals. With kidney disease, even low levels of lead in drinking water have been associated with lower levels of hemoglobin (due to competition by lead with iron uptake), and, among those also on dialysis, greater need for medication to stimulate red blood cell production ([Danziger, JAMA Intern Med 2024](#)). Among women, long-term exposure to even low levels of inorganic arsenic from drinking water (below the EPA maximum contaminant level (MCL) of 10 mcg/L) was associated with an increased risk of ischemic heart disease in a large study in California — although this does not prove cause-and-effect. Compared to women whose drinking water contained less than 1 mcg/L of inorganic arsenic, women with average 10-year exposure to drinking water containing 5 to 9.99 mcg/L of inorganic arsenic had an 18% to 20% increased risk of ischemic heart disease, and those exposed to water containing 10 mcg/L or more had a 42% increased risk of ischemic heart disease. The study did not include men ([Medgyesi, Environ Health Perspect 2024](#)).
- **Microplastics:** Plastic pollution in drinking water is a growing concern, with [studies](#) finding much of the world's tap and bottled water to be contaminated with extremely small bits of plastic known as microplastics. Studies in mice that ingested large amounts of microplastics found the particles to accumulate in the liver, kidney and gut, and affect blood markers of energy and fat metabolism, oxidative stress, and neurotoxicity, as well as brain development in offspring. Nanoplastics have also been found in the plaque in carotid arteries in people, and a study in the U.S. found an association between microplastic exposure and increased rates of high blood pressure, diabetes, and stroke (See our article about [microplastic in water, salt, foods, and beverages](#).)

[Note: It is generally believed that only nanoplastics smaller than 200 nanometers (0.2 microns) can pass through the gut and lungs into the blood. However, the current water filter standard for the removal of particles (NSF/ANSI 42, Class I) only extends down to particles as small as 0.5 microns (Class I particles), so it unclear how well filters certified to the NSF/ANSI standard remove the nanoplastics of concern.]

A study of tap water samples from 14 countries including the U.S. found man-made particles in 81% of the samples tested and estimated the annual intake per person of microplastic from tap water at 4,400 to 5,800 particles ([Kosuth, PLoS One 2018](#)). This, however, is only a small part of the estimated total annual consumption per person of 39,000 to 52,000 particles of microplastic from all food and water.

In the study of tap waters above, the water samples contained an average of 5.45 particles (fibers and fragments, although mostly fibers) per liter, although samples from the U.S. had the highest average for any for any country – 9.24 particles per liter. When these water samples went through a filter that could remove particles as small as 2.5 microns, 41.5% of the samples were still contaminated.

- **Other potentially toxic or dangerous compounds:** There are dozens of other mostly man-made compounds that, in high enough concentrations, can pose a risk. These include bisphenol A (BPA), perfluoroalkyl substances (PFAS, such as PFOA and PFOS), pharmaceuticals, solvents, and pesticides. (As noted in our [article about PFAS](#), the concentration of PFAS can be reduced with water filter pitchers, although other forms of filtration appear to be more effective.)

Types of Water Filters

Many types of home water filtration systems exist to improve water that is contaminated or unpleasant to drink. These systems include whole-house filtering, under-the-sink filters, or filters that attach to a faucet. However, the most common type of home water filtration is free-standing counter-top units that also serve as water pitchers or dispensers. The popularity of these counter-top products stems from the fact that they are relatively inexpensive, easy-to-use, and require no installation. Due to their popularity, ConsumerLab chose to test this type of water filter.

Quality Concerns and Tests Performed:

Water filtration products typically provide filtration performance data certified by accredited certification programs run by organizations such as NSF and WQA (Water Quality Association). This data shows how well the filters reduce concentrations of a wide range of compounds in water within a specified number of uses of the filter (i.e., the filter capacity, which varies from filter to filter). The data is not necessarily based on what a consumer would initially experience immediately after following manufacturers' instructions (typically 1 to 3 flushes) but, rather, after filters have been flushed many times (typically 20 or more). In addition, many products do not offer information about how well they filter microplastic particles.

To determine performance of counter-top water filter pitchers as a consumer would initially experience them, ConsumerLab.com purchased several products that were popular among its readers and sold in the U.S. Four products were tested in 2020, with an additional five in 2023 and one in 2024.

Each product was conditioned according to its manufacturer's protocols and then tested for its ability to filter heavy metals (lead, mercury, cadmium, and arsenic), fluoride, chlorine, and total dissolved solids from tap water that was "spiked" as needed to contain specific concentrations of each of these according to NSF/ANSI 42 and 53 guidelines. Effects of the filter pitchers on amounts of microplastic and carbon particles were also evaluated by measuring amounts in tap and filtered waters. (See [How Products Were Evaluated](#).)

What CL Found:

[Note — Expanded Review: This Review was originally posted in 2020 based on tests of four products. In April 2023, five water filter pitchers popular among ConsumerLab readers were added, and one more product was added in January 2024. The year of testing of each product is shown in the [Results table](#).]

Before testing, each water filter pitcher was conditioned by discarding at least the first fully-filtered reservoir of water unless product instructions specified additional flushes – as was the case for *Amazon Basics*, *Aquagear*, *Berkey*, *Kirkland*, and *LifeStraw* (first two runs discarded) and for both *Britas* (first 3 runs discarded). We also ran an extra test of *PUR* and *ZeroWater* for microplastics removal after discarding the first 3 runs due to the [increases in microplastics](#) or [carbon particles](#) seen when they were tested after discarding just one run.

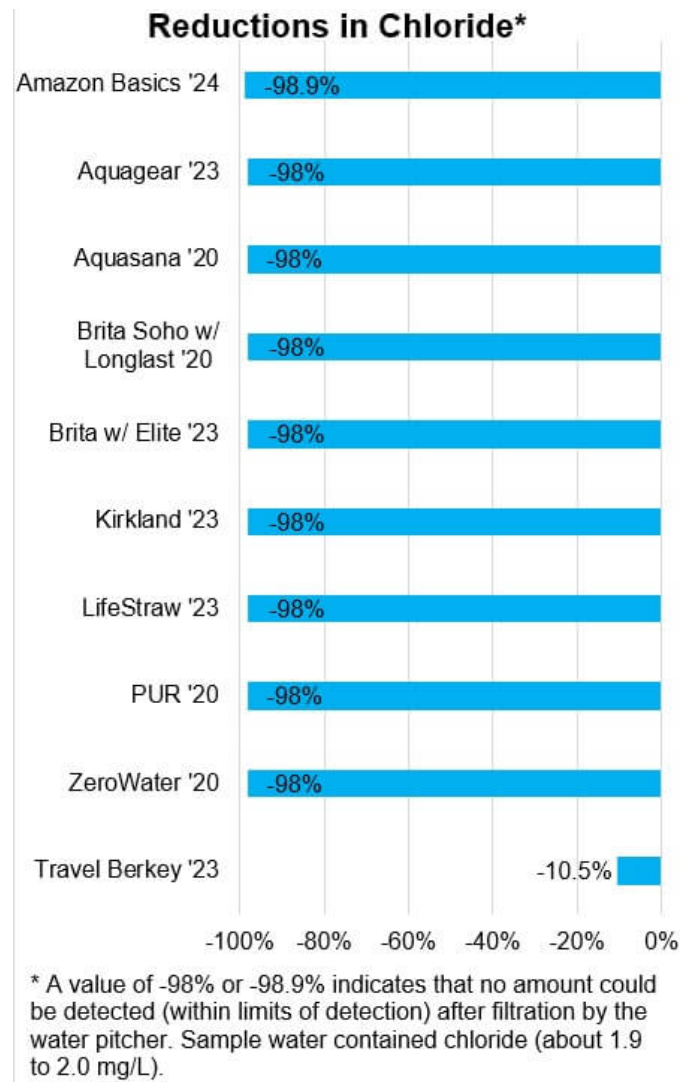
Every filter did an excellent job at removing the heavy metals **lead, cadmium, and mercury**, such that none of these toxic metals could be detected in the filtered water (meaning that the filters removed *at least* 96.9% of mercury, 96.2% of lead, and 88% of cadmium from the original water, based on detection limits for each metal).

However, as described below, products **differed significantly in their ability to remove chloride, fluoride, arsenic and microplastic particles** -- with *ZeroWater* actually *increasing* the number of particles. *Aquasana*, *ZeroWater*, and *Amazon Basics* also added large numbers of **carbon particles** to filtered water. On the other hand, *ZeroWater* uniquely removed virtually all **dissolved particles** as well as **fluoride** from water, although this is not always desirable, as discussed below.

Chlorine — All filters, *except Berkey*, removed essentially all *chlorine*.

Chlorine is often added to tap water to kill potentially dangerous microbiological organisms, but it imparts an undesirable taste. Many people specifically use filters to remove the added chlorine (which, in water, is in the ionic form, chloride) to improve the taste of tap water before drinking.

As shown in the graph below, our tests showed that most of the filters removed essentially all the chlorine (as chloride ions) from tap water — except for *Berkey*, which removed only 10.5%. Consequently, **if you're buying a water filter pitcher to remove chlorine-taste, *Berkey* appears to be a poor choice**. Interestingly, a [report from 2014](#) on the Berkey website indicates that its Black Berkey filter (the type in the *Travel Berkey*) removes >99.6% of chloride. However, this report also shows the filter to remove >99.9% of fluoride, but, the Berkey site says that you should purchase its separate [fluoride filter](#) (the Berkey Fluoride Water Filter-PF2, which attaches to the end of the Black Berkey filter) to achieve 97% fluoride reduction — which is lower than claimed with the Black Berkey alone. For us, this raises questions about the results presented in Berkey's 2014 report.



Fluoride — Typically, not something to filter out

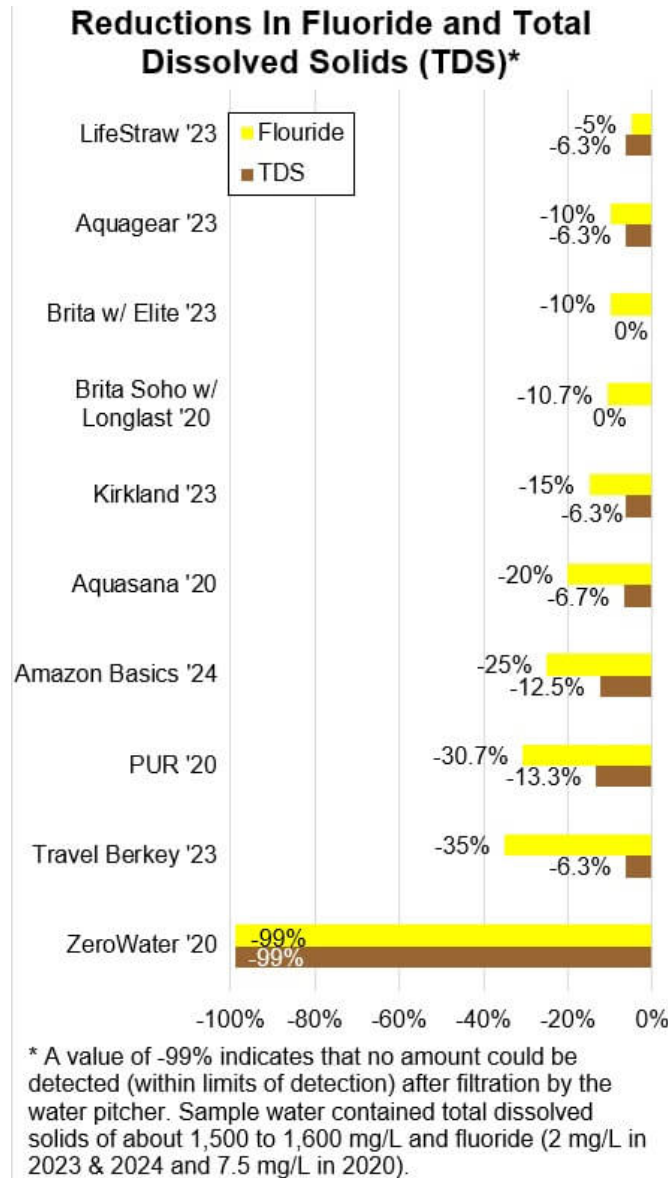
Fluoride is also often added to tap water because it strengthens teeth against decay. This helps keep a *low level* of fluoride in saliva and dental plaque throughout the day, which can help prevent tooth decay (although research shows that *combined use of [fluoride toothpaste](#) and fluoridated water provides greater benefit than either form used alone*). For this reason, many communities in the U.S. add fluoride to the drinking water, with the recommended concentration being 0.7 mg of fluoride per liter of water ([CDC, 10-10-2019](#)). This is of greatest importance when children are in the household, as fluoride strengthens developing teeth, significantly reducing the risk of cavities. It is not necessary to remove the small amounts of fluoride added to water supplies. However, excessive fluoride can cause fluorosis and make teeth, as well as bone, too brittle. Excessive amounts can naturally occur in some water supplies, such as some private well water, and should be reduced. As noted in the second column of the results table, only *ZeroWater* claims to remove fluoride — in fact, it claims to remove 99% of it.

We found that *ZeroWater* did, in fact, remove all the fluoride from tap water (but be aware that it [can lose much of this filtering ability](#) after filtering around 10 gallons of water). All the filters removed less fluoride, with reductions of 35% with *Travel Berkey*, 30.7% with *PUR*, 25% with *Amazon*, 20% with *Aquasana*, and 15% with *Kirkland*. *LifeStraw* removed the least fluoride (5%), followed by the two *Britas* and *Aquagear*, which each removed about 10%. It's notable that *Amazon*, which is promoted as a replacement filter for *Brita* removed significantly more fluoride than the *Brita* filters — although that is not necessarily desirable.

The *Travel Berkey* and *PUR* removed about one-third of it. The *Travel Berkey* requires the purchase of optional fluoride filters to remove up to 97% of fluoride, as noted earlier. (Note: Berkey's fluoride filter uses aluminum oxide, also known as "activated alumina," to remove fluoride. A website, [WaterFilterGuru](#), claims that this introduces aluminum into filtered water, according to its own tests. However, as

noted on Berkey's [website](#), activated alumina is not associated with the same adverse effects as elemental aluminum. It's not clear if the tests cited by WaterFilterGuru distinguished between activated alumina and aluminum and, in any event, the amounts introduced were well below risk levels for chronic aluminum exposure. Berkey advises fully priming the filters before using to help further reduce amounts of activated alumina in the filtered water.) (**Note:** The PUR filter tested by ConsumerLab in 2020 was model PPF951K. In 2023, PUR introduced a new model – CRF950Z – which can be used in the PUR Plus pitchers. ConsumerLab has not tested the newer model for its ability to remove fluoride, and fluoride is not listed on the product's [Performance Data Sheet](#).) However, a PUR representative informed ConsumerLab on June 27, 2024 that the filtration system in the current PUR 7-Cup Water Filter Pitcher and its replacement filters is not different from what ConsumerLab tested in 2020 despite new packaging and re-branding.)

LifeStraw removed the least fluoride (5%), followed by the two Britas and Aquasana, which each removed about 10%.



Total Dissolved Solids (TDS) – Typically, not something to filter out

Like fluoride, it is not always desirable to remove total dissolved solids (TDS). As discussed earlier, total dissolved solids represent all the dissolved minerals and ions (including calcium) and other dissolved compounds in water – good and bad. Most of the dissolved solids are likely to be essential minerals, particularly iron (although it is not well absorbed from water), calcium (typically in the form of calcium carbonate), sodium and chloride (as in table salt, as opposed to chlorine), and smaller amounts of potassium and magnesium. These minerals exist in much larger quantities in tap water than chlorine, lead, and the other compounds.

Only ZeroWater, which has one of the most massive filters of all the products we reviewed, promises to remove essentially all dissolved solids and our tests showed that it makes good on that promise, as seen in the graph above. Others remove only small percentages of total dissolved solids: PUR reduced TDS by 13.3%, Amazon by 12.5%, Aquasana by 6.7%, Aquagear, LifeStraw, and Kirkland by 6.3%, both Britas had little effect. As Amazon's filter is marketed as replacement for Brita filters, the difference between these should be noted, although the difference is not great.

TDS is a major focus on the marketing of ZeroWater, which comes with an electronic TDS measurement device. If you use this device and get a reading of, for example, "100" from your tap water and then "0" from the filtered water, much, if not most, of what you removed is minerals, so, instead of getting the benefit of these minerals from your water, they are now in your water filter, which is why the ZeroWater filter needs to be replaced much sooner than other water filters (see [Cost](#)). On the other hand, removing dissolved solids may be desirable if your tap water is known to contain such large amounts that it negatively affects taste — giving it an earthy flavor.

Microplastics — *Only a few filters were very effective at removing microplastic particles. One filter added more plastic than in the original water!*

There were *dramatic differences* in how well the products reduced microplastic particles, as shown in the graph below:

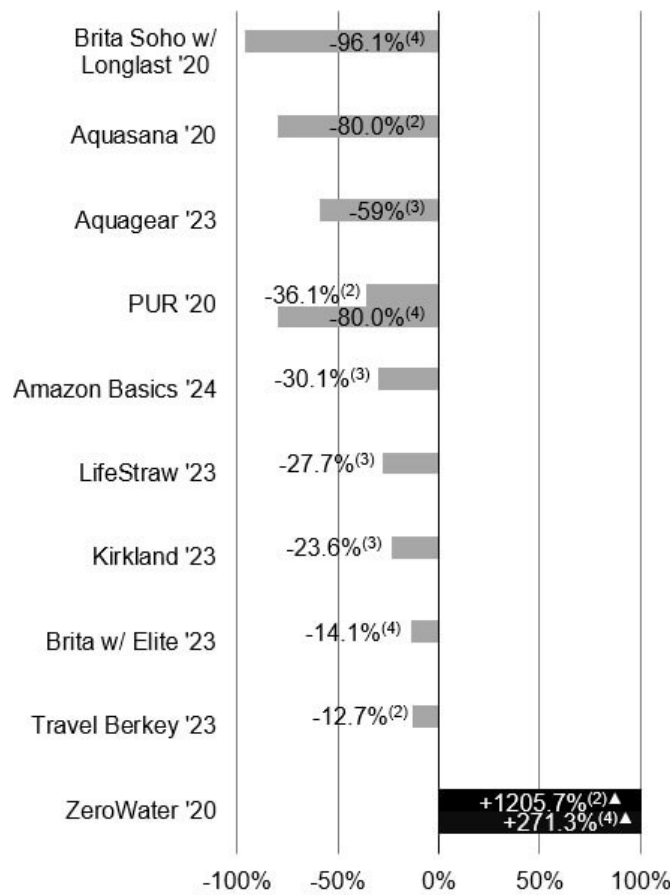
- Only Brita Soho with Longlast Filter eliminated essentially all of the plastic particles (i.e., none could be detected in the filtered water). This filter was tested by us in 2020. Since then, Brita has replaced the Longlast filter with its Elite filter, which Brita claims are the same (based on correspondence from Brita), although our tests of the Elite (below) did not find it to remove microplastics as well as the Longlast filter.
- Aquasana and Aquagear removed the majority of plastic particles. PUR did as well, but only after being flushed three times — it is likely that after just one flush, it is both removing *and* adding particles. (**Note:** In 2023, PUR replaced its filter that was tested by ConsumerLab in 2020 (model PPF951K) with a new model (CRF-950Z). ConsumerLab has not tested this newer model but, according to its [Performance Data Sheet](#), it is certified to remove 99.8% of microplastics from water, similar to the claimed performance of the earlier model.) Aquasana and Aquagear are certified to remove 99.9% of microplastics.
- Amazon, LifeStraw, Kirkland, Brita Elite, and Berkey removed moderate to small percentages of particles.

Be aware that [LifeStraw claims](#) to remove 99.999% of microplastics but our tests showed only a 27.7% reduction. This dramatic difference could potentially be due to microplastics being added by the filter, as we found nearly twice as many microplastic particles 100 µm to 500 µm in size in the filtered water than in the tap water, although there were decreases for smaller particles. This may be more of an issue with early use of the filter — although we flushed the system twice before running out test, as per product instructions. The difference may also be a function of how LifeStraw performed its own tests, which do not seem to be disclosed.

Similarly, [Brita claims](#) that its Elite filter removes 99.6% of microplastic particles, although this claim can be misleading for two reasons. First, it is based on the NSF/ANSI Standard 401 which is limited only to particles between from 0.5 to 1 µm in size — a very narrow range of the very smallest microplastic particles. Although there is no official definition of the size of microplastics, they are commonly defined as 1 µm up to 5,000 µm (5 mm). We looked at particles ranging from 6.5 to 5,000 µm ([Frias, Marine Polut Bull 2019](#)). That is, Brita's testing would not have even looked for particles of the size we found. Second, it is possible that Brita didn't even test for microplastics, since the standard it applied permits use of results from a test based on reducing particulate material in general — not necessarily microplastics ([Andrew, WC&P 2022](#)).

- **ZeroWater increased the number of microplastic particles to more than 1,200%** of the original level (exceeding the scale of the graph). Even after 3 flushes, it was still adding particles, although a fewer than after its suggested single flush. Most of the microplastic particles it added were relatively large — 100 µm to 5 mm in size.

Microplastic Particle Removal Or Addition by Filters*



* Microplastic particles were added to water to be filtered. Percentages shown reflect removal or addition of particles by filters. Units were flushed per product instructions, which varied but included at least one discarded fill. The fill on which the test was performed is indicated in parenthesis "()". Two products were additionally evaluated to determine the impact of additional flushes prior to testing.
▲ Exceeds scale of graph.

Running at *least* 3 to 4 full reservoirs of water through these filters before using appears to be prudent to reduce levels of microplastics that may be added by water filter pitchers.

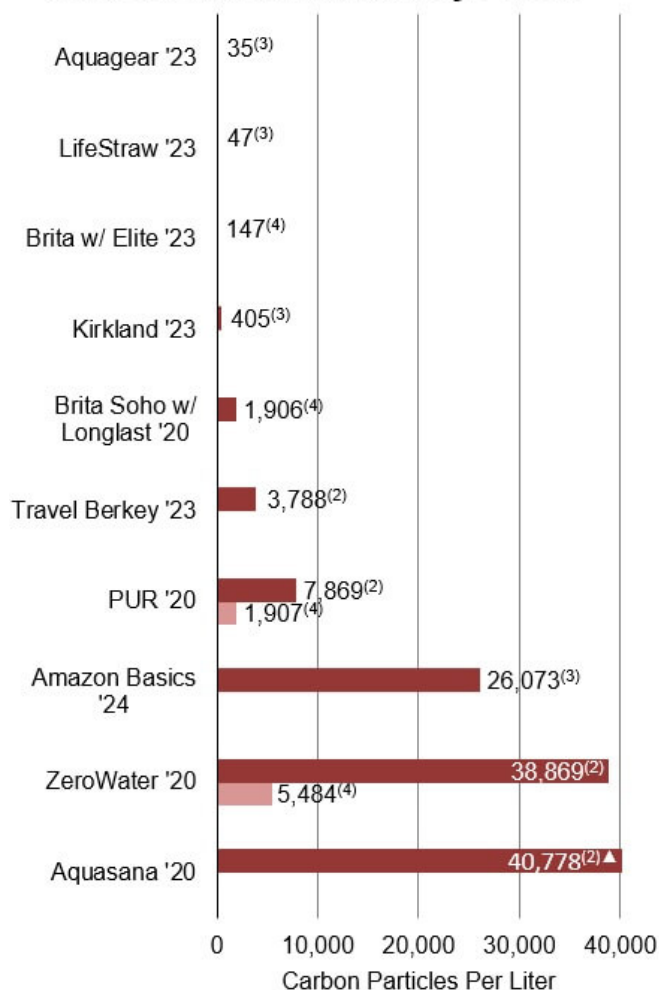
It is possible to thoroughly filter for microparticles, but this generally requires more sophisticated, expensive, and energy-intensive filtration systems that perform ultrafiltration, nanofiltration, or reverse osmosis.

Carbon particles — Often released into filtered water

Carbon (in the form of activated charcoal, which is treated to create tiny pores that provide greater surface area than regular charcoal) is used in filters, and it is not uncommon for some carbon particles to be released into filtered water, particularly during the first few uses. These particles are not thought to be a health concern and were not an original focus for our review, but our tests showed some products released very large amounts of carbon particles into the filtered water (at least during early rounds of filtering).

As shown below, *Aquasana*, *ZeroWater*, and *Amazon* added very large amounts of carbon particles to the water (26,073 to 40,778 particles per liter) and *PUR* also added more than 7,000 particles per liter. With additional flushing of *PUR* and *ZeroWater* (prompted by the increase in microplastics discussed above), carbon particle levels fell substantially for both, and this would be likely to occur with the other filters. The fewest carbon particles were added by *Aquagear*, *LifeStraw*, *Brita Elite*, and *Kirkland*.

Carbon Particles Added by Filters*

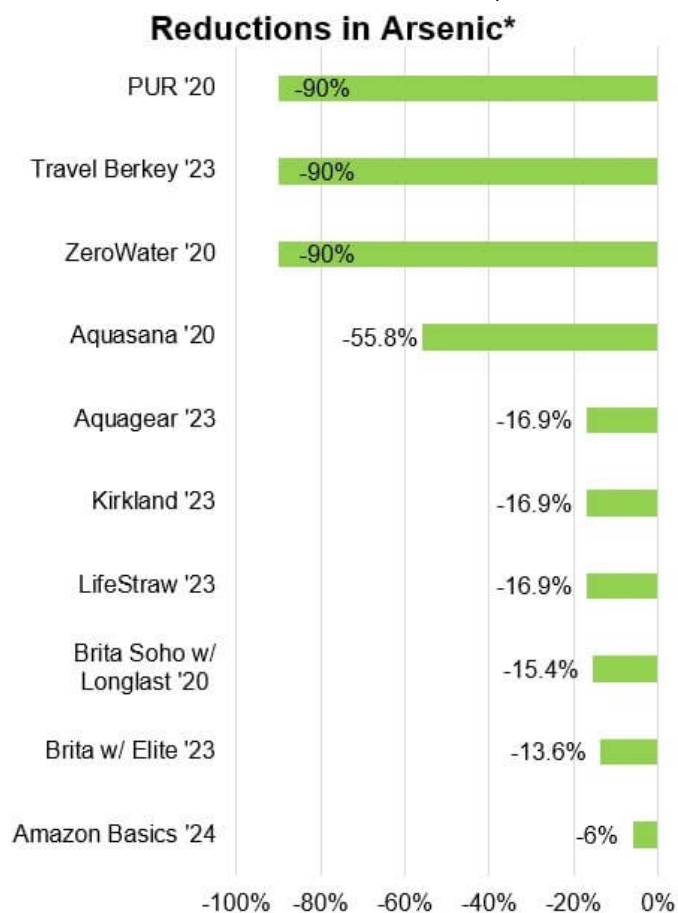


* Amounts shown are carbon particles added to water due to use of each water filter pitcher system. Units were flushed per product instructions, which varied but included at least one discarded fill. The fill on which the test was performed is indicated in parenthesis "()". Two products were additionally evaluated to determine the impact of additional flushes prior to testing.
▲ Exceeds scale of graph.

Heavy Metals — All filters did a great job removing lead, mercury, and cadmium, but not arsenic

An important benefit of water filters is that they can remove toxic heavy metals from water. The performance data from the manufacturers (summarized in the second column of the [Results table](#)) indicate that each product should remove nearly all lead and mercury, and all – except *Aquasana* and *PUR* – additionally claim to remove cadmium. We found that every product did a great job removing lead and mercury, as well as cadmium. (**Note:** The *PUR* filter tested by ConsumerLab in 2020 was model PPF951K, which is marketed for reducing lead. In 2023, *PUR* introduced a new model – CRF950Z – which is not certified to remove lead or arsenic, but, according to its [Performance Data Sheet](#), is certified to remove 98.9% of cadmium and 96.4% of mercury. ConsumerLab has not tested this newer model.)

However, only *ZeroWater* and *Travel Berkey* claim to remove arsenic. As seen in the graph below, as promised, *ZeroWater* and *Travel Berkey*, as well as *PUR*, removed at least 90% of arsenic in water (the maximum reduction the test could measure), while *Aquasana* removed about half of it, and the others removed only about 6% to 17%.

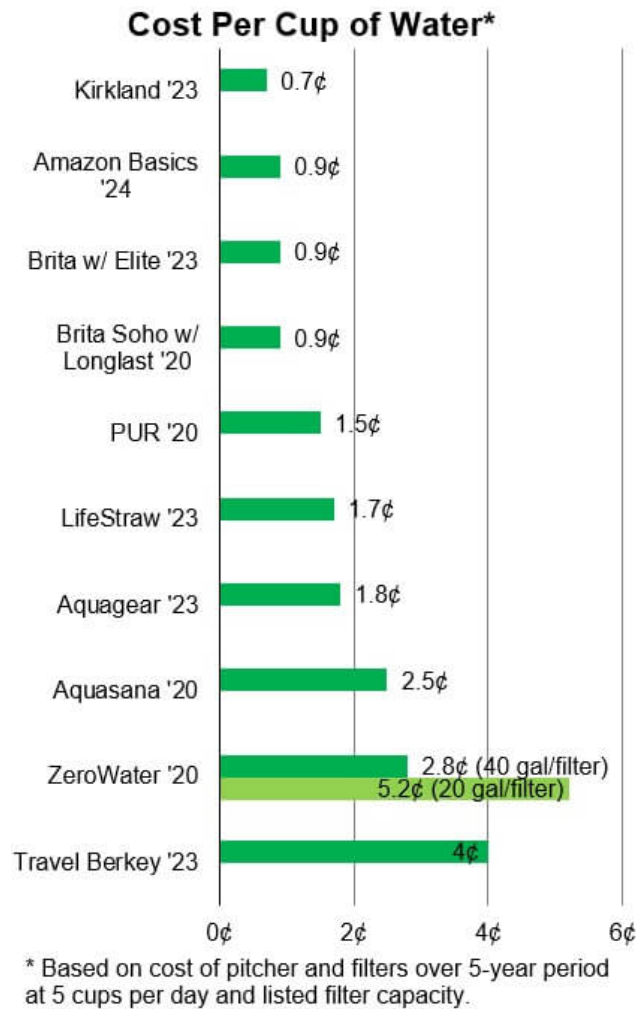


* A value of -90% indicates that no amount could be detected (within limits of detection) after filtration by the water pitcher. Sample water contained arsenic (50 to 59 mcg/L).

Cost

Depending on the product you buy, your cost per cup of filtered water could be 7 times as much with one product than another.

Assuming a 5-year life of the pitchers at five 8-oz. cups of water per day, **the cost per cup of filtered water ranged from less than one cent for Kirkland, Amazon, and the Britas to 4 cents for Travel Berkey.** The cost per cup from ZeroWater will depend on the level of dissolved solids in your water (high levels dramatically shorten filter life), ranging from about 3 cents to 5 cents.



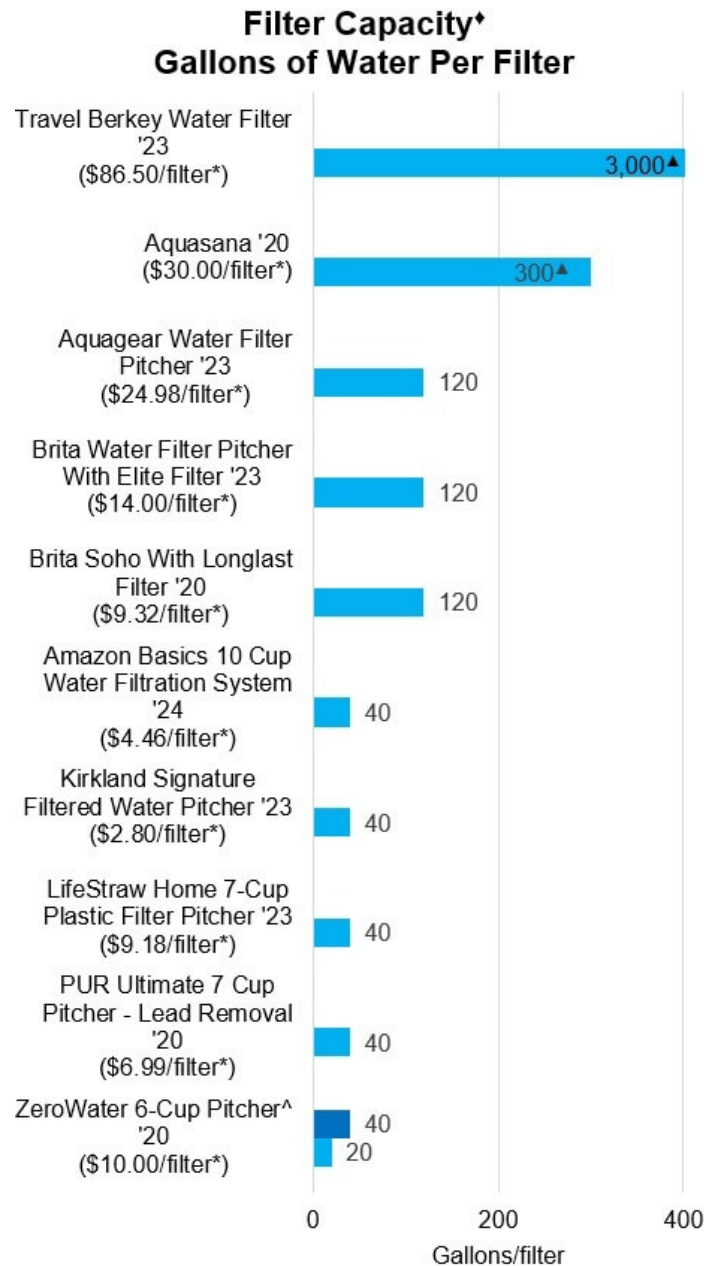
The cost per cup depends on the cost of the pitchers and included filters (about \$25 to \$30 for most, although \$199.99 for *Aquasana* and \$362 for *Berkey*), the cost of replacement filters (under \$3 for *Kirkland* and \$4.46 for *Amazon*, but about \$10 to \$25 for most others, and \$86.50 for *Berkey*), and how many gallons of water a filter can clean before replacement is needed, which ranges (as shown in the graph below) from 40 gallons (*Amazon*, *Kirkland*, *LifeStraw*, and *PUR*, as well as *ZeroWater* at the maximum of its 20 to 40 gallon range) to 120 gallons (*Aquagear* and *Brita*), 300 gallons (*Aquasana*), and as much as 3,000 gallons for *Berkey*.

Interestingly, even though an *Amazon* filter (\$4.46) costs only one-third as much as a *Brita Elite* filter (\$14), the cost per cup of water is the same from both because *Brita Elite* can filter three times as much water as *Amazon* — you'll just have to change the *Amazon* filter more often.

For reference, a gallon of water is 16 cups (based on 8 oz. per cup). If you fill just 5 cups of water per day, for example, that's about 150 cups or 9.4 gallons per month. At that rate, a filter with a 40-gallon capacity (like *Amazon*, *Kirkland*, and *LifeStraw*) could last a bit more than 4 months, a filter with a 120-gallon capacity (like *Aquagear* and *Brita Elite*) could last a little more than 1 year, but *Brita* and *Aquagear* suggest replacing it every 6 months — although this assumes that you are using about one full pitcher of water daily. Similarly, a 300-gallon capacity filter (*Aquasana*) would theoretically last about 2.5 years, although *Aquasana* suggests replacing it every 6 months. A 3,000-gallon capacity filter (*Travel Berkey*) would theoretically last 25 years, but note that *Berkey* suggests cleaning the spigot and tank chamber monthly and scrubbing the filters "every 3-6 months or when the flow rate is noticeably slower." For all counter-top products, it's suggested that the pitcher, reservoir, and lid be washed periodically.

More details about costs are shown in the 5th column of the [Results table](#).

Interestingly, the cost per cup from *Berkey* is relatively high due to the cost of its metal dispenser. However, if you deduct that cost, the actual cost per cup is very low due to the large capacity of its filters. In contrast, the potentially high cost of water from *ZeroWater* results from having to frequently replace filters, while the pitcher and filters are not particularly expensive.



◆ Filter capacity based on information from manufacture.

* All filters were purchased in packs. Prices shown are per filter.

▲ Exceeds scale of graph.

^ According to the ZeroWater website, its filter capacity will depend on the level of total dissolved solids (TDS) in one's tap water. For our comparisons, we selected two filter capacities: 40 gallons (for tap water in areas of "moderate" TDS: 2 to 50 ppm) and 20 gallons (for tap water in areas of "high" TDS: 201 to 300 ppm).

Top Picks:

Overall *Top Pick* Water Filter Pitcher: *Aquagear*

While there is no perfect water filter to meet every need, our **overall *Top Pick* among water filter pitchers is *Aquagear*** as it does a good job at many things and is reasonably priced. It is very good at removing chloride (which greatly improves taste) and removing lead (a problem in older water systems), and does a decent job at reducing microplastics while *not* adding carbon particles. It also does a fairly good job at removing PFAS according to its certification sheet and some independent testing (we did not test for this). It also leaves minerals, including fluoride, in your water, which is desirable unless you have very high levels of fluoride and/or dissolved solids in your water. It does all this for a moderate cost of 1.8 cents per cup of filtered water.

For specific or special uses, other filters may be less expensive or more effective, as described below.

To remove *chlorine* taste: *Brita with Elite Filter*

Brita with Elite Filter does a great job at filtering out chloride (to improve the taste of chlorinated water) as well as lead, mercury and cadmium, while largely leaving fluoride in water. In addition, its filter is relatively long-lasting and inexpensive, yielding one of the lowest costs per cup of filtered water — under 1 cent. The pitcher and starter filter cost \$25.98 and replacement filters cost \$27.99 per 2-pack, with each filter good for 120 gallons of water.

We also commend *Brita* for suggesting that the first 3 pitchers of filtered water be discarded because, as seen with some of the other products, those initial volumes of water are likely to contain loose carbon particles or even microplastics. However, with that said, *Brita with Elite Filter* did not do as good a job at filtering out microplastics as our previous *Top Pick*, *Brita Soho with Longlast filter*, but the *Longlast filter* is being phased out. (*Brita with Elite Filter* also did not seem to live up to its claimed removal of 98.1% of PFAS chemical when tested independently in 2023, as [discussed below](#), so would not be recommended in areas where PFAS are known to be an issue.)

[Update (8/21/23): A [class action lawsuit was recently filed in California](#) against The Brita Product Company alleging that Brita products do not live up to the company's representations of removing and effectively reducing hazardous contaminants commonly found in drinking water. Examples given in the filing are failure to remove, or reduce to levels below detection limits, contaminants "such as arsenic, chromium-6 (hexavalent chromium), nitrate and nitrites, PFOA, PFOS, radium, total trihalomethanes, and uranium, among others." However, it is not apparent to ConsumerLab that Brita products claim to remove any of these specific contaminants entirely or to below detectable levels.] In an August 30, 2023 statement about the lawsuit to [Today.com](#), a representative of Clorox, Brita's parent company, stated that the *Brita Elite* pour-through filter is "certified under NSF ANSI 53 to reduce PFOS/PFOA, as well as lead and other identified contaminants to at-or-below maximum allowable levels that are set by the EPA or other applicable regulatory authorities, under specified conditions," and also noted there is "no legal requirement or industry standard to list every contaminant that its filters do not remove."

A reasonable runner-up to remove chlorine taste is *Kirkland Signature (Costco) Filtered Water Pitcher*, which performed similarly to *Brita with Elite Filter* in our tests. It costs \$2 more for the pitcher and starter filter than the *Brita*, but its replacement filters cost much less (\$27.00/pack of 10). The downside is that the *filters must be replaced three times as often* (they are good for only 40 gallons of water), but this still works out to be slightly less expensive per cup of water than *Brita with Elite Filter*.

Another low-cost option is the *Amazon Basics 10 Cup Water Filtration System*. It performs roughly as well as *Brita Elite* and *Kirkland*, although it dumped much more carbon into the water (at least during early use) and removed somewhat less arsenic and somewhat more fluoride — making it less desirable, in our opinion, considering that that the cost-per-cup of filtered water with *Amazon* is about the same as with *Brita Elite* and *Kirkland*. Note that among these three, low-cost filter pitchers, only *Brita* is certified to remove [PFAS](#) — although it is only modestly effective according to some independent tests.

To reduce *fluoride* levels: *Amazon*

If your water contains a *high* concentration of fluoride, as in some [private well water](#), and you want to reduce this a bit, *Amazon* will reduce it by 25% at low cost (0.9 cents per cup). (Be aware that private well water can also contain too little fluoride. It's best to have your well water tested.)

(We had originally suggested the *PUR* filter for modestly reducing fluoride but the model we tested in 2020 (model PPF951KT) is being replaced with a new filter (model CRF950Z) that we have not tested and does not appear to be certified for fluoride removal.)

If you absolutely need to remove even more fluoride, consider *ZeroWater*, which removed virtually all fluoride, although it was "Not Approved" by us because it *added* microplastic particles to water and is one of the most expensive water filters. Keep in mind that *small* amounts of fluoride are intentionally added to tap water to strengthen teeth and it is not recommended that this be removed.

If you purchase *PUR* or *ZeroWater*, be sure to discard *at least* the first three pitchers of filtered water to help clear out microplastic and carbon particles that can end up in your water.

Note: We tested the *PUR Ultimate 7 Cup Pitcher*. *PUR* no longer sells a product by this name, but now sells a *PUR Plus 7 Cup Pitcher*. The filters for both products look identical, although the reservoir in the *Plus* pitcher is a lighter blue than in the *Ultimate* pitcher. We have not tested the *Plus* filter but when we inquired about the difference between it and the *Ultimate* filter, a representative of *PUR* responded that, "...we have made a change to our packaging from *PUR Ultimate* to *PUR Plus*. This change will have no effect on the product's performance."

To remove excess *arsenic*:

If your water contains a high concentration of arsenic, you'll want to remove as much of it as possible. We found that three of the tested products removed 90% of arsenic (*PUR*, *Travel Berkey*, and *ZeroWater*), but only *Travel Berkey* and *ZeroWater* are certified to remove arsenic. Unfortunately, *Travel Berkey* filter cartridges are not currently being distributed and *ZeroWater* added microplastics to water in our tests. Consequently, we have no *Top Pick* for arsenic removal.

To remove *earthy taste* (due to high minerals):

If your water has a very high level of dissolved solids, making it unpalatable, consider *ZeroWater*. Just keep in mind that it will remove just about *all* the fluoride in your water and we found it to add microplastic particles, particularly during early use (which is why it is not a *Top Pick*).

To remove *microplastics*: *Aquagear*

Although an obvious choice for removing microplastics initially seemed to be *Brita's Soho with Longlast Filter* (which removed 96.1% of microplastics in our tests in 2020), its replacement, *Brita with Elite Filter*, did not fare as well in 2023, removing just 14.1% of microplastics. Two products removed 80% of microplastics: *Aquasana* and *PUR*, although neither was a clear winner because *PUR* only achieved this after 3 flushes of the filter, reducing microplastics by only 36.1% after one flush (likely because it *added* microplastics during the earlier run) and *Aquasana* dumped more carbon particles into the filtered water than any other product.

The next most effective filter for removing microplastics was *Aquagear*, which reduced particles by 59% (after two flushes) and its website posts a certificate of analysis claiming that it can remove 99.9% of microplastics (although it's not very clear how that measurement was made). *Aquagear* also added the smallest number of carbon particles to water of any filter (just 35 particles, compared to 40,778 added by *Aquasana*!). If you are concerned about removing microplastics, as well as not having carbon particles added to your water, our *Top Pick* is *Aquagear*, which is mid-level in cost, with a cost-per-cup of 1.8 cents. *PUR* (if flushed at least 3 times) is a good runner up, as it cleared somewhat more microplastics than *Aquagear*, but you'll likely get more carbon particles in your water than with *Aquagear*.

To remove *microbes*:

We did not test for removal of microbes from water – as this is typically addressed by chlorination and other techniques applied to public water supplies – so we have no *Top Pick* for this category. However, if this is a concern to you, two of the products claimed to remove microbes: *LifeStraw* ([parasites and bacteria](#)) and *Travel Berkey* ([enteric bacteria](#)). Be aware that microbes can potentially grow in water sitting in water filter pitchers (as discussed [below](#)), and refrigerating filtered water can help reduce this growth.

[UPDATE (10/9/23): Berkey water filters (and replacement filters) may not be currently available in certain areas due to regulatory issues. In December 2022, the U.S. Environmental Protection Agency (EPA) issued a Stop Sale Order to BerkeyFilters.com after reclassifying its filter products as "pesticides" as they contain silver prevent microbial growth within the filter and are marketed with statements suggesting that they kill >99.999% of viruses and pathogenic bacteria in water. Product making such statements must be registered with the EPA as a pesticide, but the Berkey filters are not ([EPA, FIFRA-0802023-0011](#)). (The *Amazon* filter also contains silver as a preservative but does not claim it protects users from bacteria.) BerkeyFilters.com claimed that it had removed such claims from its website and packaging by July 2023, but the EPA stated in meetings with New Millenium Concepts, Ltd. (NMCL), the manufacturer of Berkey water filters, that it still considers the company to make pesticide claims. In August, 2023, NMCL filed a lawsuit against the EPA seeking to stop the EPA from classifying Berkey filter products as pesticides ([Case 4:23-cv-00826-P](#)).]

As of 2/26/24, Berkey filters remain unavailable, although Berkey pitchers and accessories are still sold. Be aware that several companies sell filters as replacements for Black Berkey filters. We have not tested these. One is **Kainasch**, which has apparently been promoted on Amazon as being certified to the NSF/ANSI 42 standard to remove chloride and other aesthetic impurities, but NSF issued a [public notice](#) on February 4, 2024 that Kainasch is *not* NSF certified. Kainasch does not seem to have a company website and sells its filters at a low price – \$33.95 for two filters, each claimed to filter a remarkable 6,000 gallons of water (twice that of a Berkey filter). A second is **ProOne G2.0** (\$135.95 for two filters, each claimed to filter 900 gallons of water), which is [NSF certified](#) to the ANSI 42 standard. Although not also certified to the ANSI 53 standard – which relates to removal of removing lead, PFAS, and other toxins – it [shows results](#) suggesting significant removal of these compounds as well as microbes, pesticides, and larger microplastics (2 microns and larger). A third is "**Boroux foundation**," which sells a set of 2 filters for \$140, each with a claimed lifespan of 5,000 gallons. Boroux does not claim any certification and does not claim removal of microbes or microplastics, but [provides results](#) suggesting significant removal of chlorine, lead and other heavy metals, PFAS and other compounds. *Among these filters, ProOne G2.0 provides the best evidence of filtration similar to the Black Berkey, but has a shorter lifespan – although still long compared to other filters.*

To remove **PFAS** (PFOA and PFOS): *Aquagear*

There is increasing concern about the [potential adverse health effects](#) of PFAS and the levels of PFAS found in drinking water. The EPA has created [new federal standards for PFAS in drinking water](#) limiting the amount of two longer-chain PFAS – PFOA and PFOS – in drinking water to 4 ppt (parts per trillion) as well as limits for four others: PFNA, PFHxS, PFBS, and HFPO-DA (commonly referred to as GenX Chemicals) ([EPA 2024](#)). However, the standards do not apply until 2027 and action to reduce high levels are not required until 2029. The standards do not apply to private well water. (Note: Current NSF/ANSI certification standards do not indicate that a filter removes PFAS down to the EPA's new federal standards ([EPA 2024](#)).

Use of home water filters can help remove PFAS. A study of residents of an area in North Carolina known to have high concentrations of PFAS in its municipal water supply found that those who used a pitcher or other type of home filter had lower blood levels of all seven PFAS measured than those who did not use a filter. Blood levels of PFOA, for example, were 37% lower among filter users ([Cuffney, Environ Res 2023](#)).

We did not test for removal of PFAS, but six of the products we tested claim to remove PFOA and PFOS, which are longer-chain PFAS: *Aquagear* (99.9+% reduction), *Travel Berkey* (99.9+% reduction), *Brita Soho with Longlast Filter* (98.1% reduction), *Brita Water with Elite Filter* (98.1% reduction), *Aquasana* (96% reduction), and *ZeroWater* (94.9% reduction). Activated carbon water filters tend to remove longer-chain PFAS (such as PFOA and PFOS) but may not remove shorter chain PFAS.

LifeStraw also claims to remove PFAS from water, but the reported maximum levels of PFOA and PFOS in water purified with this filter is <10 ppt, which may still be above the proposed federal limit of 4 ppt. *Amazon*, *Kirkland* and *PUR Ultimate* do not claim to remove PFAS.

Independent testing of water filter pitchers by the [Environmental Working Group \(EWG\)](#), published in July 2023 showed the following reductions in PFAS — some of which varied widely from reductions reported by the companies selling the pitchers. Reported reductions were, from best to worst: *Travel Berkey* (100% vs. 99.9% claimed), *Clearly Filtered* (100% vs "up to 99.5%" claimed), *ZeroWater* (100% vs. 94.9% claimed), *Epic Pure Pitcher* (98% vs. 99.98% claimed), *PUR Plus* (79% vs. no claim), *Brita Standard* (66% vs. no claim), *Aquagear* (65% vs. 99+% claimed), *Amazon Basics 10-Cup* (54% vs no claim), *Seychelle Gen 2 Dual* (48% vs 98% to 99% claimed), and *Brita Elite* (22% vs. 98.1% claimed). Similarly, tests by researchers in Canada using tap water in Montreal and Saint-Donat showed that, even after filtering 160 liters of water, average removal of PFAS was 99-100% for *ZeroWater*, 96-99% for *Clearly Filtered*, 60-77% for *Aquagear*, 20-48% for *Brita Elite*, and 38% for *Brita Standard* (which was only tested in Montreal). The researchers noted that the particular characteristics of tap water will impact the effectiveness of filters, explaining the range in results by region ([Teymoorian, Front Environ Chem 2024](#)).

Possible reasons for differences between EWG's results and those of the companies are, first, that EWG tested for 23 additional PFAS compounds in addition to the two (PFOA and PFOS) covered in the method typically used by companies (NSF/ANSI 53), and some of these additional compounds were shorter chain PFAS, which are harder to remove. Second, EWG conducted its tests with local tap water versus water spiked with PFOA and PFOS. Regarding the results for the two *Brita* filters, which *Brita* claims to be identical, EWG noted that "the Elite filter didn't seal well, so leaks could be one reason this water filter had the lowest overall reduction of all the filters tested."

Based on the information above, our *Top Pick* for removing PFAS was, at the time we first published this Review, *Travel Berkey* based on its claim to remove 99% of PFAS and EWG's independent testing that found it to remove 100% of tested PFAS. Unfortunately, *Travel Berkey* filters are not currently being distributed. *ZeroWater* seems to do a great job removing PFAS but, as noted earlier, *ZeroWater* also removes nearly all minerals and it added microplastics in our tests. At this time, our **Top Pick for reducing levels of PFAS is *Aquagear***, as it removes 60% to 99.9% of PFAS. *PUR* may remove PFAS, but it is not certified to do so.

A filter called *Purefast* by Cyclopure, which can fit on a *Brita* but uses crosslinked cyclodextrin (Dexsorb®) rather than activated carbon to filter water, claims to meet NSF/ANSI 53 standards for reducing concentrations of PFOA/PFOS to below 70 ppt. In addition, according to results shared with ConsumerLab by Cyclopure regarding internal testing of the filter, *Purefast* can reduce levels of PFAS to below the proposed federal limit. Be aware that a CL member who installed the *Purefast* filter on a *Brita* pitcher informed us that it filters "quite a bit more slowly than a standard *Brita* filter." Also, it is more expensive than many other filters we tested, costing \$45 for 65-gallon capacity compared to *Aquagear*, for instance, which costs about \$25 for 120-gallon capacity.

For details about other water filtering treatments, such as reverse osmosis, that may be more effective for removing PFAS from drinking water, see our article about [PFAS](#).

A free [tool](#) to help estimate your exposure to, and blood levels of, PFAS, from your water is available from the U.S. government. It doesn't cover every region, but you can input your zip code and find out. The tool will also ask your age, weight, and several other questions. The results include [tips for reducing exposure](#).

Test Results by Product:

Listed alphabetically below are test results, cost comparisons, and additional product information (including claims to remove additional contaminants such as microbes and PFAS) for nine water filter pitchers selected by ConsumerLab.com for testing. Products are identified by the year tested. Products listed as "Approved" met ConsumerLab filtration requirements (see [Passing Score](#)). Instructions for use for each product are shown in the last column.

Results of ConsumerLab.com Testing of Water Filter Pitchers

(Price Checks are not included in printed reviews)

Approval Status Product Name	Heavy Metal & Ion Reductions (✓ = Met Claim)	Microplastic Reduction in Water (% Reduction)	Carbon Particles Per Liter In Filtered Water	Cost Filter Capacity Cost Per 8 oz Cup	Directions
➤ APPROVED ➤ Top Pick to reduce fluoride levels Amazon Basics 10 Cup Water Filtration System  2024	Reductions found: Fluoride: 25% Arsenic: 6% Dissolved solids: 12.5% Lead: >96.2% Cadmium: >88% Claimed reductions: Chlorine: 86.6% ✓ Mercury: 88.3% ✓ (not tested): Benzene Additional Information Reductions found: Fluoride: 25% Arsenic: 6% Dissolved solids: 12.5% Lead: >96.2% Cadmium: >88% Claimed reductions: Chlorine: 86.6% ✓ Mercury: 88.3% ✓ (not tested): Benzene Others covered by NSF/ANSI Standard 42 and 53	On 3rd Fill: Total microplastic particles: -30.1%	On 3rd Fill: Total carbon particles: 26,072.91	\$22.88/pitcher (includes 1 filter) \$13.39/3 pack of filters 40 gal/filter 5-Year Cost: \$82.05 0.9¢/cup - over 5 years 0.7¢/cup - for filter only	Clean the lid, pitcher and reservoir with a mild detergent, not an abrasive cleaner. The pitcher and the reservoir may be washed in the dishwasher (max. 122 °F / 50 °C). The lid is not dishwasher-safe and must be hand-washed Additional Information Clean the lid, pitcher and reservoir with a mild detergent, not an abrasive cleaner. The pitcher and the reservoir may be washed in the dishwasher (max. 122 °F / 50 °C). The lid is not dishwasher-safe and must be hand-washed. To prepare your water filter cartridge, remove the protective wrapper. Immerse the filter cartridge in cold water for a few seconds and shake it gently to remove any air bubbles. Place the filter cartridge in the hollow of the reservoir and press firmly down. Ensure the cartridge is placed squarely in the holder. Fill the reservoir with cold tap water and allow the water to filter through. Discard the first two fillings. These first two fillings are used to flush and prepare the filter cartridge. Now re-fill the reservoir and the system is ready for use.

➤ APPROVED ➤ Top Pick ➤ overall, to remove microplastics, and to remove PFAS Aquagear Water Filter Pitcher  2023	Reductions found: Fluoride: 10% Arsenic: 16.9% Dissolved solids: 6.3% Claimed reductions: Chlorine: 99.96% ✓ Lead: 99.4% ✓ Cadmium: 96.6% ✓ Mercury: 95% ✓ (not tested): Asbestos Additional Information Reductions found: Fluoride: 10% Arsenic: 16.9% Dissolved solids: 6.3% Claimed reductions: Chlorine: 99.96% ✓ Lead: 99.4% ✓ Cadmium: 96.6% ✓ Mercury: 95% ✓ (not tested): Asbestos Volatile organic chemicals PFOA & PFOS (Also see) BPA Drugs Others covered by NSF/ANSI P473 & NSF/ANSI 401	On 3rd Fill: Total microplastic particles: -59.1%	On 3rd Fill: Total carbon particles: 35	\$69.95/pitcher (includes 1 filter) \$49.95/2 pack of filters 120 gal/filter 5-Year Cost: \$163.67 1.8¢/cup - over 5 years 1.3¢/cup - for filter only	Step 1: Flush Attach or hold the flushing assembly to your faucet and run cold water for 2 minutes at low pressure. The flushing assembly bulb does not have to fit perfectly on the faucet. Simply press the bulb as firmly to the faucet as possible Additional Information Step 1: Flush Attach or hold the flushing assembly to your faucet and run cold water for 2 minutes at low pressure. The flushing assembly bulb does not have to fit perfectly on the faucet. Simply press the bulb as firmly to the faucet as possible. It is normal for some water to seep up around the cap of the flushing assembly. You can lower the water pressure of your sink to help prevent this. Step 2: Insert Screw the filter cartridge onto the reservoir securely. Place the reservoir in the carafe and secure the lid on top of the pitcher. Step 3: Fill The easy-fill opening will open automatically. Enjoy fresh, filtered water!
--	---	---	---	---	--

APPROVED Aquasana® The Clean Water Machine  2020	Reductions found: Fluoride: 20% Arsenic: 55.8% Cadmium: >88.8% Dissolved solids: 6.7% Claimed reductions: Chlorine: 96.1% ✓ Lead: 99.4% ✓ Mercury: 97% ✓ (not tested): Asbestos Additional Information Reductions found: Fluoride: 20% Arsenic: 55.8% Cadmium: >88.8% Dissolved solids: 6.7% Claimed reductions: Chlorine: 96.1% ✓ Lead: 99.4% ✓ Mercury: 97% ✓ (not tested): Asbestos BPA Drugs PFOA & PFOS Chloramines Solvents Others covered by NSF/ANSI 401 & NSF P473	On 2nd Fill: Total microplastic particles: -80%	On 2nd Fill: Total carbon particles: 40,778	\$199.99/pitcher (includes 1 filter) \$59.99/2 pack of filters 300 gallons/filter 5-Year Cost: \$227.02 2.5¢/cup - over 5 years 0.6¢/cup - for filter only	Slide lid right to lift off. Insert the filter. Replace lid by sliding left. Plug into outlet. Fill the inner chamber with tap water. Firmly place on dock. The system will automatically filter entire pitcher. Wait at least 15 seconds after blue light turns off before you remove. Place in fridge for chilled water.
--	--	--	--	---	---

APPROVED Brita Soho® With Longlast® Filter  2020	Reductions found: Fluoride: 10.7% Arsenic: 15.4% Dissolved solids: 0% Claimed reductions: Chlorine: 97.4% ✓ Lead: 99.5% ✓ Cadmium: 96.9% ✓ Mercury: 95.5% ✓ (not tested): Asbestos Benzene Additional Information Reductions found: Fluoride: 10.7% Arsenic: 15.4% Dissolved solids: 0% Claimed reductions: Chlorine: 97.4% ✓ Lead: 99.5% ✓ Cadmium: 96.9% ✓ Mercury: 95.5% ✓ (not tested): Asbestos Benzene BPA Drugs PFOA & PFOS (Also see) Others covered by NSF/ANSI 401	On 4th Fill: Total microplastic particles: >96% decrease	On 4th Fill: Total carbon particles: 1,906	\$27.99/pitcher (includes 1 filter) \$27.99/2 pack of filters 120 gallons/filter 5-Year Cost: \$80.51 0.9¢/cup - over 5 years 0.7¢/cup - for filter only	Flush your filter with cold water for 15 seconds. Insert the filter into the reservoir by lining up the groove in filter with the ridge in the pitcher's reservoir. Press firmly to ensure a tight seal. Add cold tap water. Discard your first three containers worth of filtered water Additional Information Flush your filter with cold water for 15 seconds. Insert the filter into the reservoir by lining up the groove in filter with the ridge in the pitcher's reservoir. Press firmly to ensure a tight seal. Add cold tap water. Discard your first three containers worth of filtered water. (Or, use it to water plants!) It's normal for carbon dust to appear in your first few fillings. Replace filter regularly to maintain optimal performance.
--	---	--	---	---	--

➤ APPROVED ➤ ➤ Top Pick ➤ to remove chlorine taste Brita Water Filter Pitcher For Tap And Drinking Water With Elite Filter  2023	Reductions found: Fluoride: 10% Arsenic: 13.6% Dissolved solids: 0% Claimed reductions: Chlorine: 97.4% ✓ Lead: 99.5% ✓ Cadmium: 96.9% ✓ Mercury: 95.5% ✓ (not tested): Asbestos Benzene BPA Additional Information Reductions found: Fluoride: 10% Arsenic: 13.6% Dissolved solids: 0% Claimed reductions: Chlorine: 97.4% ✓ Lead: 99.5% ✓ Cadmium: 96.9% ✓ Mercury: 95.5% ✓ (not tested): Asbestos Benzene BPA Drugs PFOA & PFOS (Also see) Others covered by NSF/ANSI 401	On 4th Fill: Total microplastic particles: -14.1%	On 4th Fill: Total carbon particles: 147	\$25.98/pitcher (includes 1 filter) \$27.99/2 pack of filters 120 gallons/filter 5-Year Cost: \$78.50 0.9¢/cup - over 5 years 0.7¢/cup - for filter only	Hand wash pitcher/dispenser, lid and reservoir. Rinse well. With clean hands, insert filter into reservoir by lining up groove in filter with ridge in reservoir. Press firmly for a tight seal. To set the filter life status indicator, press the status button and hold it down for 6 second Additional Information Hand wash pitcher/dispenser, lid and reservoir. Rinse well. With clean hands, insert filter into reservoir by lining up groove in filter with ridge in reservoir. Press firmly for a tight seal. To set the filter life status indicator, press the status button and hold it down for 6 second, until the green light next to elite filter blinks three times. Open the lid and fill the reservoir with cold tap water. Pour out the first 3 pitchers/ first dispenser of water, or use to water plants. To check filter life status, quickly press and release the status button. When the light blinks red, you should replace your filter and reset the indicator, about every 6 months for the average household.
--	---	---	--	--	---

2023

➤ APPROVED ➤ LifeStraw Home 7-Cup BPA-Free Plastic Filter Pitcher  2023	Reductions found: Chloride: >98.8% Fluoride: 5% Arsenic: 16.9% Dissolved solids: 6.3% Claimed reductions: Lead: 98.9% ✓ Cadmium: 99.7% ✓ Mercury: 83.3% ✓ (not tested): Asbestos Additional Information Reductions found: Chloride: >98.8% Fluoride: 5% Arsenic: 16.9% Dissolved solids: 6.3% Claimed reductions: Lead: 98.9% ✓ Cadmium: 99.7% ✓ Mercury: 83.3% ✓ (not tested): Asbestos Bacteria BPA Drugs Parasites Others covered by NSF P231/US EPA, NSF/ANSI 401 & NSF P231/NSF 53	On 3rd Fill: Total microplastic particles: -27.7%	On 3rd Fill: Total carbon particles: 47	\$31.96/pitcher (includes 1 filter) \$18.36/2 pack of filters 40 gallons/filter 5-Year Cost: \$153.67 1.7¢/cup - over 5 years 1.4¢/cup - for filter only	Rinse Carbon filter: Unwrap the carbon filter. Rinse under cold, running tap water for 1 minute. Clean filter housing and pitcher: Remove filter housing and rinse with water only. Hand wash the pitcher with a mild detergent and rinse. Rinse membrane microfilter: Put the filter housing back into the pitcher Additional Information Rinse Carbon filter: Unwrap the carbon filter. Rinse under cold, running tap water for 1 minute. Clean filter housing and pitcher: Remove filter housing and rinse with water only. Hand wash the pitcher with a mild detergent and rinse. Rinse membrane microfilter: Put the filter housing back into the pitcher. Run one batch of water through the filter. Discard water. Install carbon filter: Remove filter housing, pat dry. Pull down and twist the bottom cap of the filter housing to remove. Install carbon filter into housing cap. Press cap back onto housing. Final Rinse: Put the filter housing back into the pitcher, ensuring spouts align. Run one batch of water through the filter. Discard water.
---	---	--	--	--	--

APPROVED	Fluoride: 30.7%	Total	Total	\$26.96/pitcher (includes 1 filter)	Soak the filter in cold water for 15 minutes.
PUR Ultimate 7 Cup Pitcher With Lead Removal	Arsenic: >89.6%	microplastic	carbon		Hand wash pitcher, lid, pour tray and removable filter cover with mild, soapy water.
	Dissolved solids: 13.3%	Particles:	particles:	\$24.99/3 pack of filters	Rinse well. Hold filter under cold running tap water for 10 seconds. Allow excess to drain.
2020	Cadmium: >88.8%	-36.1%	7,869	40 gallons/filter	Attach removable filter cover. Twist counterclockwise to lock
	Claimed reductions:	On 4 th Fill: Total microplastic particles:	On 4 th Fill: Total carbon particles:	5-Year Cost:	Additional Information
	Chlorine: >97.5% ✓			\$137.40	Soak the filter in cold water for 15 minutes.
	Lead: 99% ✓	-80%	1,907	1.5¢/cup - over 5 years	Hand wash pitcher, lid, pour tray and removable filter cover with mild, soapy water. Rinse well. Hold filter under cold running tap water for 10 seconds. Allow excess to drain. Attach removable filter cover. Twist counterclockwise to lock. Insert the filter into the pour tray and push down and twist clockwise to lock.
	Mercury: 96% ✓			1.4¢/cup - for filter only	
	(not tested): Asbestos Benzene BPA Additional Information				
	Reductions found:				
	Fluoride: 30.7%				
	Arsenic: >89.6%				
	Dissolved solids: 13.3%				
	Cadmium: >88.8%				
	Claimed reductions:				
	Chlorine: >97.5% ✓				
	Lead: 99% ✓				
	Mercury: 96% ✓				
	(not tested): Asbestos Benzene BPA Drugs Additional solvents Others covers by NSF/ANSI 401				

28/32

➤ NOT APPROVED ➤ Added microplastic particles to water ZeroWater® 6-Cup Water Filter Pitcher  2020	Claimed reductions: Chlorine: 99% ✓ Fluoride: 99% ✓ Arsenic: 98% ✓ Dissolved solids: 99.6% ✓ Lead: >99% ✓ Cadmium: 97% ✓ Mercury: 92% ✓ (not tested): Chromium hexavalent PFOA & PFOS (Also see)	On 2nd Fill: Total microplastic particles: +1,205.7% On 4th Fill: Total microplastic particles: +271.3%	On 2nd Fill: Total carbon particles: 38,869 On 4th Fill: Total carbon particles: 5,484	\$23.99/pitcher (no filters included) \$31.88/2 pack of filters 20 to 40 gallons/filter For 40 or 20 gallons/filter: 5-Year Cost: \$251.26 or \$478.53 2.8¢/cup or 5.2¢/cup- over 5 years 1.4¢/cup or 2.9¢/cup - for filter only	Remove lid and water reservoir from top of the pitcher and remove filter from packaging. Twist filter into the bottom of reservoir (from below) and tighten filter to obtain a complete seal with the reservoir. Do not drop the filter in from above. Tighten until there is a complete seal between the filter, o-ring and reservoir. Fill reservoir with cold tap water and place lid on top Additional Information Remove lid and water reservoir from top of the pitcher and remove filter from packaging. Twist filter into the bottom of reservoir (from below) and tighten filter to obtain a complete seal with the reservoir. Do not drop the filter in from above. Tighten until there is a complete seal between the filter, o-ring and reservoir. Fill reservoir with cold tap water and place lid on top. Allow all water to pass through the filter before filling again. Pour or dispense using spigot to fill your cup or glass once the reservoir has emptied into the body. Cleaning Instructions Clean your device in warm water using mild soap. Rinse and dry thoroughly
Unless otherwise noted, information about the products listed above is based on the samples purchased by ConsumerLab.com (CL) for this Product Review. The samples are from a single lot of the respective product. Be aware that there may lot-to-lot variation in products, particularly natural products. Manufacturers may change ingredients and label information at any time, so be sure to check labels carefully when evaluating the product you use or buy as it may be different from the product we tested. Manufacturers may also change ingredient suppliers, which can affect product quality. Pricing can change over time and vary based on retailer, promotions, and other factors. The information contained in this report is based on the compilation and review of information from product labeling and analytic testing. CL applies what it believes to be the most appropriate testing methods and standards. The information in this report does not reflect the opinion or recommendation of CL, its officers or employees. CL cannot assure the accuracy of information. Copyright ConsumerLab.com, LLC, 2025 All rights reserved. Not to be reproduced, excerpted, or cited in any fashion without the express written permission of ConsumerLab.com LLC					

Products tested in 2020, 2023 and 2024

ConsumerTips™:

What to Consider When Buying:

- **Look at the certified performance data** published by the manufacturer (we've linked to them in the 2nd column of the results table above). If, for example, you are buying a water filter just to reduce chlorine to improve taste, make sure the filter does not

also remove fluoride added by community water systems to help protect your teeth.

- **Find out the filter capacity**, i.e., how often the filter needs to be changed. Changing a filter frequently can get expensive. Capacities range from about every 20 gallons to 3,000 gallons. Filters range from about \$3 to more than \$80 in cost.
- **Avoid Counterfeits**: Counterfeit water filters have been sold in the U.S. See our separate article about [how to avoid buying counterfeit filters online](#).

Other Water Filter Pitchers *Not Tested* in This Review

This Review focused on the products most suggested by readers. After publication, several readers asked us about the following filter pitcher. We may test this and additional products in the future. For now, here is our assessment of this product based on its published capabilities:

Clearly Filtered Water Pitcher with Affinity Filtration Technology (\$90 for pitcher/filter and \$55 per additional filter — each filter processes about 100 gallons.) This pitcher and filter cost about 3 *times* as much as our *Top Pick, Brita with Elite Filter* and many other products that were Approved, resulting in a cost per cup of water of nearly 4 cents. Is it worth the higher cost? Not if your main concerns are removing chlorine or lead, since *Brita* and the others do this very well at lower cost. If you are looking to remove all the fluoride from your water (which is generally *not* advisable), *Clearly Filtered* claims to remove 99.5%. At the same time, however, it also removes more than 99% of iodine, iron, zinc, and copper, which are essential minerals. *Clearly Filtered* does, however, appear to do a good job removing PFAS, claiming to remove PFOS (99.5%), PFOA (>99%), and about 95% or more of several other PFAS.

If your water is known to be contaminated with high levels of arsenic, pesticides, herbicides, or radioactive elements, *Clearly Filtered* claims to remove 98% or more of many such compounds.

For removing microplastic particles, *Clearly Filtered* claims to remove 99.9% but its [website](#) shows this (see below) in terms of a reduction in "CFU" which is a term used to measure *microbes* such as bacteria, not *microplastics*, so it's not clear how this product handles microplastics.

What to Consider When Using:

Don't drink the first few pitchers of water

Even if the instructions don't suggest it, dispose of the first 3 pitchers of water. You may be sparing yourself a lot of unwanted plastic and carbon particles!

Unusually slow filtering?

If air bubbles get into a filter, they can clog it, impeding and slowing filtering. To help avoid this, when filling, do not pour water directly on top of the filter. Instead, pour water *along the side of the reservoir*, allowing it to flow to the filter. The filter time can also be affected by how the activated carbon has settled in the filter. If filtering seems unusually slow, try the following steps: 1) Tap the pitcher while there is water in the reservoir to dislodge any trapped air in the filter, 2) remove the filter, then either tap it firmly on a solid surface or shake it for a few seconds before re-inserting it, and 3) remove the filter and fully submerge in cold water for 15 minutes while periodically tapping it or squeezing it.

Why it's important to replace filters

Over time, filters can lose their filtering ability, and some even start *adding* back the things they originally filtered out. A study that evaluated nine popular water filters found, for example, that *ZeroWater* initially removed about 100% of fluoride from tap water, but, after filtering 8 gallons (30 liters) of water, it removed only about two-thirds of fluoride and, by 13.2 gallons (50 liters), it removed hardly any. This loss of filtration happened sooner than expected, as *ZeroWater* suggests filter replacement every 20 to 40 gallons. Filters from *Epic*

and, to a lesser extent, *Clearly Filtered*, also showed dramatic losses in fluoride filtering with repeated use. Interestingly, *ZeroWater* also initially removed all sodium, but, after filtering 13.2 gallons of water, it was actually *adding* sodium to the water, increasing sodium in the water by about 40% to 80% ([Hazzazi, J Pub Health Dent 2024](#)).

Fishy odor: Cause for concern?

Filtered water can sometimes develop a fishy taste or smell, which can become more apparent when the water is heated. Reasons for this include 1) the filter becoming less effective in removing certain metals or compounds that can contribute to odor and 2) some ion-exchange resins (used in filters to remove metals and other minerals from water) can, over time, release trimethylamine (TMA), a compound also produced by decomposition of organic matter known for its fishy smell ([Boraphech, J Hazard Mater 2015](#)). A CL member informed us in May, 2025 of experiencing this odor with water (heated for tea or coffee) filtered from *PUR Plus* replacement filters obtained in the past two years but not earlier. According to the [EPA](#), TMA is thought to generally be safe in the low concentrations in which it naturally occurs in the environment and in food products. Its odor can be detected at *extremely* low concentrations, so smelling this compound doesn't necessarily indicate a health concern. According to [ZeroWater](#), if your water smells fishy *after* being filtered through the ZeroWater filter, this is an indication that the filter is reaching the end of its lifespan and should be replaced. All of the water filter pitchers tested in this review use ion-exchange, but it's not clear if they use resins that can release trimethylamine.

Risk of bacterial contamination?

Most water filter pitchers are *not* designed to remove bacteria. In addition, bacteria can collect and grow in these devices, particularly in the filters ([CDC 2021](#)). A series of small studies in Germany that tested water filters from Brita and Aquafine by running tap water through them and collecting the filtered water in sterile containers found that, after one week, most of the filters produced water with higher bacterial counts (up to 10,000 times higher) than in water prior to filtration, suggesting biofilm formation and bacterial growth in the filters. Although most of the bacterial strains found in the filtered water were considered "harmless" for healthy people, some, such as *Sphingomonas paucimobilis* and *Burkholderia cepacian*, could cause infection in immunocompromised or susceptible individuals. Refrigerating the filtered water (at a temperature of 40 °F) appeared to slow bacterial growth, but bacterial cell counts were still significantly higher than in the tap water ([Daschner, Eur J Clin Microbiol Infect Dis 1996](#)). To reduce risk, be sure to replace water pitcher filters as suggested by the manufacturer, and consider storing the pitcher in the refrigerator.

Is it useful to "double filter?"

Some people have considered running their water through two different filter systems to be more certain of the purity of their water. However, unless you know that each system has an important deficiency corrected by the other system, it's probably not necessary to "double filter." For example, if you have a reverse osmosis filtration system (which generally does a good job at removing minerals – including chlorine, metals – including lead, microplastics, and PFAS), it should generally be unnecessary to run that filtered water through a water filter pitcher. In fact, since reverse osmosis removes all minerals, some systems include a "remineralizer" to intentionally add some back, but a water filter pitcher like *ZeroWater* will remove those minerals. Similarly, if you use a water filter pitcher that has been shown to do a good job removing the contaminants of interest to you, there's no need to run it through a second water filter pitcher.

Removal of radium?

While water filter pitchers can remove certain heavy metals, such as lead, cadmium and arsenic, *carbon-based* water filters are not very effective at removing radium from drinking water; for example, it has been reported that *Brita's* standard filter only removes 1% to 44% of radium ([Pure Water Blog, 2022](#)). A 2018 press release indicated that *ZeroWater's* 5-stage *ion exchange* filter could remove up to 99.6% of radium from water ([PR Newswire, 2-20-2018](#)), but radium is not listed as a metal removed by the 5-stage filter on [ZeroWater's website](#). It is recommended that radioactive heavy metals such as radium or uranium be removed by other water treatment strategies such as ion exchange water softening, lime softening or reverse osmosis ([Illinois Department of Public Health Fact Sheet, 1-2008](#)).

+ 23 sources

Information on this site is provided for informational purposes only. It is not an endorsement of any product nor is it meant to substitute for the advice provided by physicians or other healthcare professionals. The information contained herein should not be used for diagnosing or treating a health problem or disease. Consumers should inform their healthcare providers of the dietary supplements they take.

[back to top](#)

Member: 905351 | Printed: 08/22/2025 11:27 a.m.