Fitness Experts Alliance
Clinical Director · Daniel E. Gutierrez

Research summary · Water quality

Gravity Water Filters: What the Lab Tests Show

A plain-language summary of independent testing on 18 countertop gravity filters, using city tap water and dirty pond water.

All testing and data by BOS Water (bos-water.com), Sara and Raoul. Sources: *The Best Gravity Water Filters We Tested (2026)*, updated November 27, 2026, and their video *We Put E. coli Pond Water Through the "Best" Gravity Filters* (September 6, 2026). Independent labs hired by BOS Water analyzed the water, and BOS publishes the full lab reports. Prices are from July 13, 2026. BOS Water earns commissions on some product links. This summary is for education only. Fitness Experts Alliance has no ties to any filter maker.

How BOS Water tested

- They tested **18 setups** in two rounds, using tap water in Texas and then Massachusetts.
- They sent water from before and after each filter to **professional labs** for comparison.
- They also scored **taste, speed, ease of use and cost**, and checked official NSF/ANSI certifications.
- Then they ran **dirty pond water** through the 5 filters sold for use with unsafe water.

The top picks

Best Overall

Phoenix system with Patriot Pure Nanomesh filters

4.39 out of 5

Best tap water lab results. About $321.

Best Value

Phoenix system with carbon filters

4.18 out of 5

Easiest to use. About $189.

Strong Filtering

Patriot Pure Ultimate (older model)

4.08 out of 5

Same filters as #1, but slower. About $296.

Best for Germs

Alexapure Pro

3.81 out of 5

The only one tested for bacteria, viruses and cysts. About $400.

All 18 setups, ranked

	System and filters	Score	Price
1	Phoenix + Patriot Pure Nanomesh	4.39	$321
2	Phoenix + Carbon	4.18	$189
3	Patriot Pure Ultimate (older model)	4.08	$296
4	Alexapure Pro	3.81	$400
5	Phoenix + Carbon + Fluoride filters	3.71	$259
6	Rorra Countertop	3.65	$549
7	Purewell + Black Carbon + Fluoride	3.60	$229

8	Big Berkey + Black Berkey + PF-2 *	3.56	$521
9	British Berkefeld + Ultra Fluoride	3.36	$340
10	Purewell + Black Carbon	3.33	$149
11	Culligan Scout	3.11	$199
12	Big Berkey + Phoenix NM filters	2.96	$544
13	Santevia Gravity	2.84	$180
14	British Berkefeld + Ultra Sterasyl	2.66	$305
15	ProOne Traveler+	2.41	$293
16	BOROUX Legacy	2.39	$485
17	Waterdrop King	2.30	$260
18	Radiant Life Countertop	1.69	$379

Scores cover tap water filtering, ease of use and cost. Germ removal is scored separately below. * Black Berkey filters can no longer be bought because of an EPA stop-sale order.

Tap water: what the top three removed

The lab measured each contaminant in city tap water before and after filtering. **100% means none was left.**

Contaminant	What it is	Phoenix + Nanomesh	Phoenix + Carbon	Alexapure Pro
Chlorine	Disinfectant the city adds	**100%**	**100%**	**100%**

Chloroform	Disinfection byproduct	**100%**	**100%**	**100%**
Fluoride	Added to many city supplies	**100%**	**56%**	**76%**
Nitrate	Fertilizer runoff	**100%**	**90%**	**91%**
Copper	From home plumbing	**100%**	**100%**	**90%**
Manganese	Natural mineral	**100%**	**78%**	**100%**
Barium	Natural mineral	**98%**	**69%**	**98%**
Taste and smell	Tester's judgment	**Clean**	**Clean**	**Clean**

There was no lead or PFAS in the test water. For those, look at certifications: the Nanomesh filter is NSF/ANSI certified to remove 99.9% of lead and of PFOA/PFOS ("forever chemicals").

Pond water: can they stop germs?

BOS filled a bucket from a city pond used by dogs and geese and ran it through the five filters sold for unsafe water. The numbers show **bacteria per 100 mL** (about 3 ounces). For safe drinking water, the E. coli count should be **zero**.

Filter	E. coli	All coliform bacteria	Result
Pond water, unfiltered	326	over 2,420	

Alexapure Pro	0	0	Passed
British Berkefeld Ultra Sterasyl	0	0	Passed
British Berkefeld Ultra Fluoride	0	79	Partial
Purewell Black Carbon	0	over 2,420	Partial
Patriot Pure Nanomesh	63	over 2,420	Failed

BOS could not test viruses, because no lab will test a home water sample for them. A zero result here shows that at least 99.7% of bacteria were removed. The official standard for a water purifier is 99.9999%.

The surprise: the best filter for city water, Patriot Pure Nanomesh, let E. coli through. The Ultra Sterasyl stopped every bacterium, yet its water was the **cloudiest** of all. Clear water is not the same as safe water.

Key takeaways

Great for city water.

The top systems removed chlorine, disinfection byproducts and most metals completely, and the water tasted clean.

Price is not quality.

Filtration scores ranged from 4.26 down to 0.00, and price did not predict the result.

Only one met the germ standard.

Alexapure Pro is the only system tested to the official purifier standard (NSF P231) for bacteria, viruses and cysts.

Add a second step for unsafe water.

Alexapure's own manual says to disinfect unknown water as well, for example with chlorine dioxide.

Check certifications.

Look for NSF/ANSI 42, 53 or 401 covering the contaminants in your water.

Know your water.

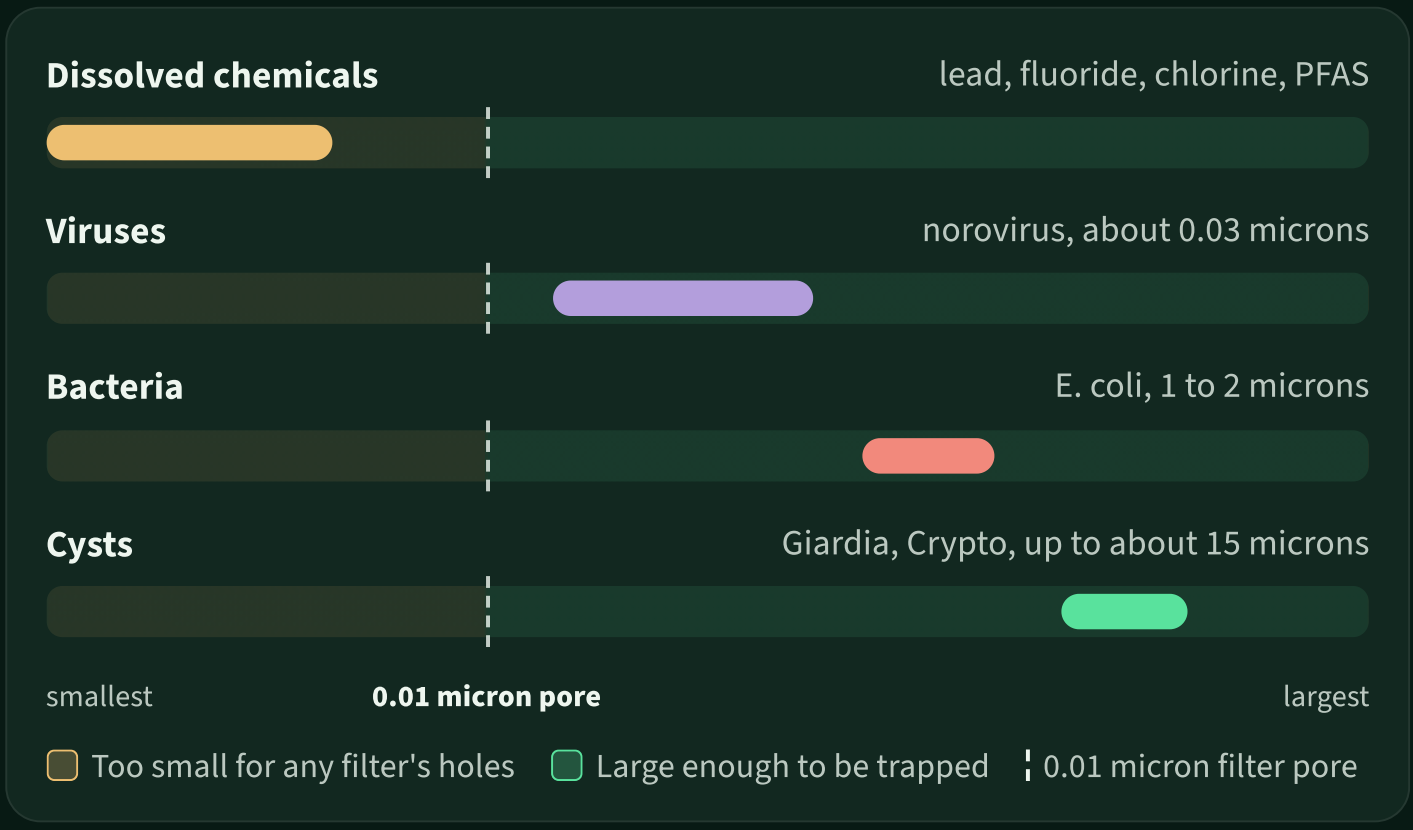
Read your water utility's yearly quality report, or get a home lab test.

Understanding filtration

Why a filter can remove chemicals but miss germs

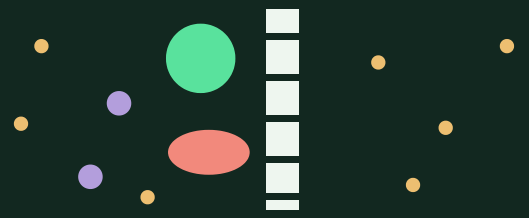
Filters remove different things in different ways. That is why one filter can ace a city water test and still fail a pond water test.

1. It starts with size



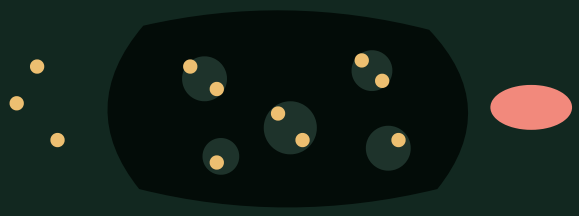
Each step to the right is 10 times larger. A human hair is about 70 microns wide. A filter with pores of 0.01 micron or smaller is generally considered fine enough to catch viruses, bacteria and cysts. Dissolved chemicals are hundreds of times smaller still, so no filter's holes can catch them.

2. Two different jobs, two different tools



The strainer: stops germs

Ceramic, nanomesh and hollow-fiber filters work like a very fine strainer. Anything bigger than the holes is held back. This is how gravity filters remove **cysts, bacteria and viruses**. Nothing is killed, only blocked, so a single crack or loose filter lets germs straight through.



The sponge: grabs chemicals

Activated carbon is full of tiny tunnels with a huge surface area. **Chlorine, disinfection byproducts, PFAS** and many odors stick to it. Lead and fluoride need special materials that trap them. A carbon-only filter can remove all the chlorine and still **stop no germs at all**.

3. Why "99.9%" is not enough for germs

Start with 1,000,000 germs. Here is how many get through at each level:

100,000	10,000	1,000	100	10	1
90%	99%	99.9%	99.99%	99.999%	99.9999%

The official water purifier standard (EPA, NSF P231) requires removing 99.9999% of bacteria, 99.99% of viruses and 99.9% of cysts.

Bottom line: removing chemicals and removing germs are separate jobs. Clear, good-tasting water tells you nothing about germs, and a strainer-type filter gives no warning when it fails. For pond, creek or any water you are unsure of, use a filter tested to NSF P231 **and** disinfect the water too, by boiling it or using chlorine dioxide.

Sizes and standards: BOS Water, citing the CDC and EPA. Drawings are simplified, not to scale. Educational only, not medical advice.