


Clear Choices

Which Product Claims Don't Hold Water?



Some water-filter manufacturers tout their products' ability to eliminate pharmaceuticals from drinking water. But the claims aren't as clear as you might think. Industry experts say no standard for removing pharmaceuticals from drinking water exists. Furthermore, some water experts say there's no evidence to suggest that pharmaceuticals that are found in drinking water are even a problem.

By Lisa Bonnema

Perhaps you've read the news reports, or maybe your neighbor mentioned it at the last dinner party: There are pharmaceutical contaminants in your drinking water. We understand how scary that sounds. But despite what some water-filter manufacturers say, don't run out just yet to buy a new pitcher filter or faucet-mount or under-sink filtration system.

Although a few manufacturers of water-filtration products claim that their products can remove these contaminants from your water, many experts believe that these claims might be premature. (Incredibly, one company that makes these claims all but acknowledged this, as you'll read later.) Not only is

there no industry standard in place to certify a product's effectiveness at removing pharmaceuticals from the water that flows from your home's tap, but some scientists say the concentrations of pharmaceuticals in tap water are so low that removing them might not be necessary in the first place.

Trace of Concern. Ever since The Associated Press released details of an investigative report in March 2008 that revealed that there are traces of prescription and nonprescription drugs in the drinking water of 24 major metropolitan areas, there has been concern among consumers, public health officials and the water-filtration industry as a whole. After the report hit, manufacturers say they received an overwhelming influx of calls from consumers who wanted to know whether their

products removed traces of pharmaceuticals, such as antibiotics, antidepressants, painkillers and sex hormones, from their drinking water.

The problem was that manufacturers didn't have any answers. And based on the statements of industry experts and water-purification scientists whom we interviewed, there's still no strong evidence that manufacturers have any better answers today.

But that hasn't stopped four companies from touting the benefits of their

products. Both Brita and PUR claim that their pitchers remove certain pharmaceuticals, and Culligan and Everpure have implied indirectly that their products that use reverse osmosis (RO) purification can remove pharmaceuticals, as well. None of the manufacturers charges extra for models that they claim remove pharmaceuticals.

However, their claims are questionable and misleading. Consumers should know that national testing laboratories still are developing standards to detect

and identify these compounds in drinking water. And neither of the two main third-party testing bodies for water-filtration products—National Sanitation Foundation (NSF) and Water Quality Association (WQA)—have developed a test to certify a water filter's effectiveness at removing pharmaceuticals. Both organizations, as well as industry manufacturers, created a task force to develop a pharmaceutical testing standard; however, NSF says it could be a year before it has the beginning stages of a standard



Best Buys in Water Filters

Best Buy Categories:

[P]=Premium selection;
[M]=Midrange selection;
[E]=Economy selection.
See page 72.

Best Buys in water-filtration systems and filters were selected based on the number and efficiency of contaminants removed, filter life, ease of filter replacement, features and warranty.

Performance of products must be certified under standards that are set by National Sanitation Foundation, Water Quality Association and/or Underwriters Laboratories.

The content of source water can vary greatly among different locations, so you should check with your local water-treatment agency regarding your area's water quality before determining which



Wellness Kitchen

system will best meet your household needs.

Unless otherwise noted, all faucet-mount, countertop and showerhead filters have a white finish. Best Buys for showerhead filters do not include showerheads and will work with your existing showerhead, unless otherwise noted.

Best Price is a reflection of the lowest retail price available at press time and is subject to change.

Filter Pitchers

[E] PUR CR-6000C

MSRP: \$19.99; *Best Price*: \$18.82

The CR-6000C is one of the lowest price models that is available on the market that can improve taste and reduce heavy metals, such as lead and mercury, and microbials, such as cryptosporidium and giardia. There isn't a less expensive model that has an electronic filter-life indicator. A similar model that doesn't have an LED filter-life indicator, the **CR-6000** (\$14.99), also is a Best Buy.

Features:

- * Filter life: 2 mo. (40 gal.)
- * Filter best price: \$19.95 (package of 3)
- * Pitcher colors: Blue, clear, silver, white
- * Warranty: 90-day

Faucet-Mount Systems

[M] Brita FF-100

MSRP: \$30; *Best Price*: \$21

The FF-100 is the least expensive model that we found that has a

nonwoven screen surrounding the filter. That's a great feature if you have stuff like tiny bits of sand or rust in your water supply, which can make traditional filters more clog-prone. The FF-100 also offers the most affordable replacement filters of any multistage faucet-mount model. It comes in three standard finish options (white, white/chrome and black/chrome).

Features:

- * Filter life: 4 mo. (100 gal.)
- * Filter best price: \$22 (package of 2)
- * Warranty: 1-yr.

[E] Instapure F5 Complete

MSRP: \$17.99; *Best Price*: \$14.99

Thanks to its carbon-block technology, the F5 Complete can reduce lead and 99.99 percent of microbials, and it lasts twice as long as other models that can remove the same contaminants. You won't get an electronic filter-life indicator, but the F5 Complete does include standard features, such as a diverter valve to switch between filtered and unfiltered water. The same model in a chrome finish is \$19.99.

Features:

- * Filter life: 3 mo. (200 gal.)
- * Filter best price: \$9.20
- * Warranty: 1-yr.

Countertop Systems

[P] Amway eSpring Water Purifier

MSRP: \$577; *Best Price*: \$577

The eSpring Water Purifier is the only countertop model that uses ultraviolet technology to naturally dis-



Amway eSpring Water Purifier

infect water, like a distiller. That means that it's the only model that can destroy bacteria, rather than just remove or reduce it, as other models do. This unit also has the longest filter life of any countertop system. This model is available only through Amway home businesses.

Features:

- * Filter life: 1-yr. (1,320 gal.)
- * Filter best price: \$173
- * Warranty: 2-yr.

[P] Wellness Kitchen

MSRP: \$595; *Best Price*: Not available at press time

The filter life for the Wellness Kitchen is better than that of any other countertop model that can be purchased in brick-and-mortar and online retailers. The carbon-block filter includes an extra nano-ceramic layer that removes even more micro-organisms, bacteria and cysts than other models that have car-

in place. But Joe Harrison, WQA technical director, says, "We aren't even close."

In other words, for now, you have to take a company's word regarding a product's ability to eliminate or reduce pharmaceuticals. And that's a lot to ask.

It's difficult for us to accept the claims that are made by Brita and PUR, because there are no independent tests to back up the internal tests on which their claims are based. How do Brita and PUR justify their claims? Both companies tell us that their tests are based on their

knowledge of how NSF and WQA test for nonpharmaceutical contaminants. But as we've made clear, neither NSF or WQA has a test for pharmaceuticals, so it seems to us that Brita and PUR only can be guessing as to how those tests should work.

What's more, you have to carefully read the labels and pay attention to the asterisks to understand the claims that PUR makes about its products' effectiveness at removing pharmaceuticals. For instance, labels that are on its faucet-

mount filters claim that the filters "can remove over 99 percent of pharmaceuticals*." The asterisk applies to fine print on the label that discloses that "pharmaceuticals" refers to only 12 kinds, including specific hormones, antibiotics, antidepressants, anti-anxiety medication and painkillers. Brita claims that its pitcher filter can reduce the amount of four pharmaceuticals that are found in drinking water. Of course, saying a product *can* do something doesn't mean that it *will*.

bon-block filters.

Features:

- * Filter life: 1 yr. (1,200 gal.)
- * Filter best price: \$95
- * Warranty: 1-yr. limited

[M] Multi-Pure Aqua Dome

MSRP: \$225; Best Price: \$165
The Aqua Dome's three-stage filtration process means that it filters water as effectively as most premium models do but at half the cost. This unit also has the best warranty that is on the market, particularly its 90-day money-back guarantee. A 3-foot dual hose allows you to push this countertop model out of the way while you get filtered water from your tap faucet.

Features:

- * Filter life: 1-yr. (750 gal.)
- * Filter best price: \$57
- * Warranty: 1-yr. parts, lifetime housing

[E] Paragon P3200W

MSRP: \$90; Best Price: \$90
The P3200W costs at least \$28 less than comparable countertop models, which makes it a no-brainer choice. Its 500-gallon-capacity filters are the most affordable replacement filters that are in this category, and they eliminate as many contaminants as any other model that is in this price range. A model that has a chrome finish is available for \$100.

Features:

- * Filter life: 1-yr. (500 gal.)
- * Filter best price: \$50 (package of 2)
- * Warranty: 90-day

Under-Sink Systems

[P] Kenmore Elite Premier Reverse Osmosis Drinking Water System

MSRP: \$300; Best Price: \$255
The Elite Premier is the least expensive reverse-osmosis system that is available in brick-and-mortar stores that offers this much daily filtering capacity (14.5 gallons per day). This is twice as much as that found in most other systems that are in this price range. We also like its "no-mount" design (you can lay it flat if you'd like), because it takes up less room under your sink than other units do, and it eliminates the need to drill holes in your cabinetry.

Features:

- * Filter life: 6 mo. (4,500 gal.), 1-3 yrs. for membrane
- * Filter best price: \$45 (pack of two); \$51 for membrane
- * Warranty: 1-yr.

[M] American Plumber WLCS-1000

MSRP: \$243; Best Price: \$140
The dual-stage carbon-filter system for the WLCS-1000 delivers the highest capacity and tackles more contaminants than any other model that is in this price range. With a filter life of 1 year, it is hard to believe that the replacement cartridge kits are the least expensive among models that are in this price range. This model is available only through plumbing specialty retailers.

Features:

- * Filter life: 1-yr. (1,000 gal.)
- * Filter best price: \$25
- * Warranty: 1-yr.



Brita FF-100

[E] Culligan US-EZ-4

MSRP: \$75; Best Price: \$48
You'd have to pay at least \$40 more to get a model that removes as many contaminants as the US-EZ-4, which uses a carbon-filter system. It also comes with features that you'd expect on higher price models, such as a faucet and an indicator light that tells you when to change the filter. We also like the easy twist-and-lock filter-replacement mechanism, because it requires no tools.

Features:

- * Filter life: 6 mo. (500 gal.)
- * Filter best price: \$18.55
- * Warranty: 2-yr.

Showerhead Filters

[M] Sprite High-Output line

MSRP: \$40; Best Price: \$37
The reversible filter cartridge in the six-model High-Output line lasts twice as long as nearly every other model that is in this price range. And its filters are the only models to use two types of reduction-oxidation media for more advanced filtration. The base model is a filter

that attaches to your existing showerhead. But you can pay as much as \$62 to get a unit that has a showerhead, which is available in three finishes—chrome, gold and white.

Features:

- * Filter life: 1-yr. (10,000 gal.)
- * Filter best price: \$17.95
- * Warranty: 1-yr.

[E] GE GXSM01HWW

MSRP: \$22; Best Price: \$17.95
The GXSM01HWW is certified to filter out contaminants as effectively as any other showerhead model. In addition, no other economy model has a better filter life. It's also easy to install or remove, because it attaches to your shower system with garden-hose-like couplers and requires no tools.

Features:

- * Filter life: 6 mo. (10,000 gal.)
- * Filter best price: \$9.98
- * Warranty: 1-yr.

For more information on the above Best Buys, contact the manufacturers directly. See page 68.

However, even if those claims are valid, it's worth noting that, as of 2007, Environmental Protection Agency identified more than 100 individual pharmaceuticals and personal-care products in environmental samples of drinking water and says the number is growing. With more than 3,000 pharmaceutical products available today, we have to question the benefit of a product that removes only four or 12 of them from drinking water, as Brita and PUR claim, respectively.

As for Culligan and Everpure, they make pharmaceutical-reduction claims without having done any testing to support the claims. Both manufacturers issued press releases—Everpure just one day after the AP report was published—that imply that their under-sink RO filter systems can remove pharmaceutical contaminants from your water. What's the basis for their claims? The officials whom we interviewed at each company cite research that has shown that RO technology is effective at removing some pharmaceutical compounds, which means that they are only assuming that their systems could do so, as well.

Water Worries. So, let's be clear: Whether a company has in-house tests to back up claims, it certainly seems as if manufacturers are using a hot-button issue to help sell their products. The fact is that, to date, there is no definitive evidence that exposure to pharmaceutical compounds that are found in drinking water poses any human health risks.

As AP and other research reports—some of which date back 20 years—indicate, the concentration levels of the pharmaceutical compounds that are found in drinking water are extremely low—in the range of parts per trillion and parts per billion.

PUR's Dan Hill, who is a senior scientist for the company, wouldn't say whether pharmaceutical concentration levels should concern you but says PUR's products can provide you with—you guessed it—"peace of mind." What was most stunning and what should make everyone question the value of Brita's claims is that Brita spokesperson Drew McGowan suggests that a lot of what the media has reported about pharmaceuticals in drinking water amounts

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to hype. "When you really dig into the studies that were done, it is such a minute amount in drinking water," McGowan says. "If the media wants to write about it, that's fine, but I don't think it's much of an issue."

So, why is Brita making such a big deal out of this? McGowan says Brita is simply reacting to consumer concerns. But it seems to us that it's trying to inflate—and benefit from—consumer fears, perhaps unnecessarily.

Seven water-quality experts whom we interviewed agree that current research indicates that there is little evidence that you should be concerned about pharmaceuticals in your drinking water. But at least two researchers believe that there still might be some reason for you to pause. Kelly Reynolds, who is an associate professor of Community Environment and Policy at University of Arizona's College of Public Health, says the real concern is what happens if you are exposed to a wide variety of pharmaceutical compounds—even at low levels—over a long period of time. (Reynolds wouldn't say specifically how long, but one can assume she means many years).

So far, the only research that links such exposure to serious side effects has been performed on aquatic life in wastewater. And Jörg Drewes, who is an associate professor in the Environmental Science & Engineering Division at Colorado School of Mines, is adamant that the studies of pharmaceutical compounds' effects on aquatic life aren't relevant to humans. "We are not consuming the same water a fish would consume, and we are not exposed to the same concentrations, because we are not

drinking untreated wastewater," he says.

Pouring Perspective. So, where does all of this leave you? No industry standards will be in place for at least another year, so you should be skeptical, for now, about claims that a product can remove pharmaceuticals. Unfortunately, the jury still is out on what technologies for residential products will be the most effective at removing pharmaceutical compounds from drinking water.

Drewes says no single treatment process can remove the wide spectrum of pharmaceutical compounds. "If you really want to remove everything, you have multiple treatment processes in place, and that would not be cost-efficient or even practical for a household or these point-of-source devices," Drewes says.

Reynolds, however, says it can't hurt to try using any water-filter system to reduce possible exposure to pharmaceutical compounds. In general, she believes that an RO under-sink system that also uses a carbon filter seems to have the highest efficacy for a wider variety of pharmaceutical compounds. But models that combine those two filter systems can cost you a lot—well over \$1,000 in some cases. And you'll need to fork over extra money to have professionals install and service even the least expensive RO systems.

So, with no industry standards in place for pharmaceutical-compound removal with any type of water filter, it's difficult for us to recommend that you should buy any product with the certainty that it will eliminate those compounds.

The way that we see it, there are no sure-fire answers. But it's clear that manufacturers are devoting lots of resources and money these days to study the issue, so it would be only standard operating procedure for them to eventually pass some of those costs on to you. When certified products finally do hit the market, they likely will be a filter not only for your water, but for your wallet, too. ●

Freelance writer Lisa Bonnema is the former editor of Appliance Magazine, a trade publication. She covered the technical side of a wide range of household products for the past 9 years.