

Choosing Wisely



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By Tina Donda

No longer is choosing a water treatment product as simple as trusting a commercial on TV. It is prudent for you to do your homework and educate yourself to gain knowledge on which types of products are right for your clients.

The first thing to determine is the content of the water. In the U.S., this is relatively easy to accomplish. Each municipality sends out a drinking water report annually (also available online). This report provides details regarding which contaminants are in the locally provided water. The report will include information similar to Table 1, which was pulled from an actual report provided by a municipality. In general, these documents show levels for contaminants the U.S. Environmental Protection Agency (EPA) has established as safe for humans to consume on a daily basis, as well as the concentration of the contaminant found in the local water. In the example below, copper was not detected in the water from the municipality above the action level (AL). As a result, it would not make sense to purchase a water treatment device that was specific for the reduction of copper.

The next thing that requires focus is the family that occupies the home in which water treatment is desired. This is important, because some contaminants are considered acute health contaminants, meaning that exposure could cause immediate health issues. Nitrate/nitrite, for example, may cause blue baby syndrome in some infants. Adults, however, are able to consume fairly large amounts of nitrates without cause for immediate concern. In fact, nitrates are found in many of the foods we eat as part of a normal healthy diet. A household with an infant, for example, would want to ensure that if tap water is being used for mixing formula, and the tap water contains nitrate/nitrite above allowable levels, that a water treatment device

made specifically for their reduction be used.

After the type of water to be treated and the household characteristics have been taken into consideration, the right product can be chosen.

POU vs. POE

A point-of-use (POU) product works only at the point you are using it. For example, a drinking water treatment device that is plumbed in underneath a kitchen sink will only treat the water that is used in the kitchen. A point-of-entry (POE) product treats all of the water that flows through the entire household.

Each type has its pros and cons. POU products can be specialized, and there are multiple options available for them. Some of these products allow for the water to be either treated or untreated through the use of diverters and/or faucets. POU products also provide a greater range of treatment technologies. On the other hand, POU products typically require more maintenance and ongoing costs. Most have cartridges or elements that require replacement after a certain amount of water has passed through the product or a certain amount of time has elapsed.

POE products require less maintenance, but are more limited in the reduction claims they offer. Because they treat all water that flows through a household, consideration must be taken to ensure that all of the water should be treated—including the water used to sprinkle the lawn. There are options to install bypass valves, which allow the homeowner to bypass the POE system while filling the pool, for example. POE systems typically last many years without requiring media replacement; however, initial upfront costs are higher than simple POU products.

Certified vs. Non-Certified

There are thousands of drinking water treatment companies advertising

and selling these types of devices. Choosing which specific product to purchase can be quite daunting. The easiest way to set some of the products above the rest is to look for a certification mark from a certifier that maintains accreditation from a third party. In the U.S. there are currently five main companies that offer certification for drinking water treatment products and are accredited: the Water Quality Assn., NSF Intl., UL, the International Assn. of Plumbing and Mechanical Officials and Truesdail Laboratories Inc. If a product bears the mark of one of these certifiers, it provides multiple levels of quality assurance.

The easiest way to capture the meaning of certification is to say that certified products have been subjected to testing to verify that the certified claims the manufacturer is making are accurate and meet industry standards. Beyond the simple surface answer lie many intricate details. Testing and evaluation of certified products verify that no materials in the device will impart harmful contaminants into drinking water by way of daily contact. Products also undergo performance claim testing and structural integrity testing—which verifies that the product will maintain its integrity when subjected to normal line pressure. If a company claims that the product is certified for chlorine reduction, for example, the product will undergo a chlorine reduction test. Literature associated with the certified products also undergoes review.

Beyond testing and literature requirements, each manufacturing facility that produces certified products undergoes onsite inspections at least once per year to review manufacturing processes, procurement control and verification that all certified products are manufactured in the same way. *wqp*

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Factors to consider when evaluating drinking water treatment systems

Table 1. Excerpt From Drinking Water Report

Contaminant (units)	Maximum Contaminant Level Goal	AL	90 th Percentile	Number of Sites Over AL	Sample Date	Typical Source of Contaminant
Copper (ppm)	1.3	1.3	<0.1	0	2009	Corrosion of household plumbing systems, erosion of natural deposits and leaching from wood preservatives