

## Water

Water filtration. It's a popular topic we get asked about a lot. As it should be, since the quality of the water we consume is super important.

Did you know our bodies are actually mostly water? Adults are 55-60% water and newborn babies are 78% water. Water is involved in just about every function of the body. So of course the water we drink, cook with, and bathe in makes a difference for our health.

In our last video, we talked about how storing water in plastic adds phthalates, BPA, and other plasticizers to the water's toxic load. Now we are going to focus on tap water and why you want to do what you can to ensure you have clean water.

We'll share various purification options so you can decide the filtration necessary for your specific tap water as well as what options you can afford and maintain.

First, why would we want to toss the toxins in our water?

People usually don't think to connect their tap water with their health issues unless it's blaringly toxic water. And even in those cases, not everyone presents the same health issues or follows a specified timeline, so it can be easy to think the water's not a primary issue. The movie Erin Brockovich is a perfect illustration of how a large group of people exposed to the *same* toxic water presented a variety of health conditions that showed up at various times in their lives.

So even if we think our tap water is clean and not affecting us, it's worth looking into so we know what we're exposed to. Some areas are better than others, but sadly tap water is now a cocktail of chemicals no matter where we live.

A major cause is disinfecting chemicals.

In both well water and municipal water, chlorine and/or chloramines are used as disinfecting chemicals to keep us safe from waterborne illness and parasites. Disinfection is of paramount importance, but there's a downside. Chlorine and chloramines are toxic and can cause respiratory, immune system, skin, and other health issues. Chlorine can displace iodine and impact the thyroid.

And what's worse is that chlorine and chloramines create even more toxic by-products than the Environmental Working Group calls 'toxic trash'. Studies have discovered more than 600 chemicals created when the water treatment disinfectants and the pollutants in the source water interact. These have been shown to cause injury to the brain, nerves, liver, kidneys, eyes, and reproductive systems. They disrupt the digestive system, increase inflammatory free radicals, impact the nervous system, irritate skin and mucous membranes, cause congenital disabilities, and have been associated with thousands of cases of bladder cancer each year.

It's essential to know if your water is treated with chloramines, chlorine or a combination of both, since chloramines require special filtration. *About 20-30% of municipal systems use chloramines.*

Chloramine-treated water is very toxic to fish and should not be used in aquariums, for dialysis, hydroponic gardening, or home brewing. Chloramines are also corrosive to pipes and therefore increase the amount of copper leaching from copper pipes and lead from pipes in older homes built before 1986.

So there's a lot that goes into play here! But don't worry, it's typically easy to find out how your water is treated. If you are on a municipal water supply, simply call your public water utility and ask if it is treated with chloramines or chlorine or both. Or you can check the free annual water report that's available on request or sent annually to homeowners.

If you have well water, there's a test called Water Check by National Testing Laboratories that provides an extensive test of your water and a finished report, which gives what's detected, the levels detected and safe levels.

Unfortunately, there's a plethora of contaminants in water that cause concern. Chlorine and chloramines are not the only issue. As our environment and water table become more and more polluted, the toxicity in our water supply increases and purification becomes more important than ever before.

Some of the biggest offenders are arsenic, fluoride, pesticides, radiation, PFAS - a class of chemicals also known as "the forever chemicals" because they persist and don't easily break down, soil contaminants, fertilizers from farm runoff, industrial waste, pharmaceutical drugs, and heavy metals like mercury, lead, copper, chromium, cadmium and aluminum.

Contamination varies regionally and should be considered when making decisions for home water purification since special filtration materials are required to remove specific contaminants. For example, if you have fluoride, radiation, and chloramines, specialized filtration is needed.

So let's talk about how to toss the toxins in your water.

The ideal action plan is to consult with a water specialist that will analyze your water tests and determine the optimal filter system you need. There are whole house options that connect to the main water line to supply the house water for drinking, bathing and showering, as well as, under the counter at the sink options for drinking water only.

One client of Marilee's had tossed the toxins in her home and diet but still kept having very dry and itchy skin. She loved to take long baths with all kinds of oils, oatmeal baths, etc. After getting a whole house water filter, her skin completely cleared and her thyroid condition improved. If a whole house filter is an option you're considering, you can find more guidance in our additional resources.

In the meantime, there are ways to get safe water right away. And these are options you can do on an ongoing basis in lieu of purchasing an entire filtration system.

The most economical one is reverse osmosis purified water from a vending machine at grocery stores. It costs between 25 to 35 cents a gallon. This is what we did for many years.

The big vending companies - like Glacier that uses reverse osmosis with a UV light to treat the water - are great because they keep regular checks for purity on their filters, and they record the readings on the machine. You can look for the sticker that documents the routine checks and there should also be a phone number provided where you can inquire about the frequency of servicing and the average total dissolved solids count for that machine.

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Total dissolved solids, or TDS, is used as an indicator of the general quality of the water. It refers to any minerals, salts, metals, cations, and anions dissolved in water. A high level does not necessarily mean that the water is contaminated, it means it could be contaminated or could just have a high mineral content. A reverse osmosis purifier is designed to remove all elevated levels of dissolved solids, which could include lead, nitrate, arsenic, copper, aluminum, etc.

If you're going to buy your water from a water store or a vending machine, it's a good idea to have your own digital TDS meter so you can monitor the water yourself. They're inexpensive and super easy to use. You want an ideal reading of 5 to 10, but it shouldn't be any higher than 15 to 20.

While we completely get that it can be easier, and safer, to load up and carry out large plastic containers at the store versus glass, we recommend transferring the water to glass once you get home if you do fill up in plastic. In our resource section, you can find some easy examples of glass storage and how to clean the bottles in between fillings.

Whatever you decide for bottles, we recommend adding trace minerals to the water. Reverse osmosis water, like distilled water, is called empty water and is very aggressive water that can leach minerals from the body if no minerals are added. Adding trace minerals or a pinch of sea salt to each glass of water or an eighth to a quarter teaspoon salt per gallon adds minerals and aids in hydration.

If you don't want to fill up water at a store dispenser, there are home delivery options available in many areas. Of course it's more convenient but also more expensive. Mountain Valley spring water in glass bottles is a good option. Mountain Valley Water is tested daily by a quality control staff and is rigorously monitored for pH, bacteria, viruses, total dissolved solids, chemical contamination, etc.

A third economical option is a gravity filter that sits on top of your counter. We prefer the Ultra Gravity Emergency Filter from CWR Environmental as no priming is required, it has a cleanable ceramic filter, filters to .5 microns, removes fluoride and heavy metals, and addresses chloramines.

Those options take care of drinking water and water used for soups, smoothies, etc. but bathing water is something that you would still want to address.

The water we bathe and shower in is just as important as the water you drink.

It's been shown that after a 10-minute shower we have 10 times more toxic chlorine byproducts, called trihalomethanes, and other chemicals in our body than if we drank 8 glasses of the same unpurified water.

At 100 degrees, the steam cloud is full of chlorine byproducts we're both breathing in and absorbing through our skin pores. Exposure to chlorine is especially important if you have thyroid issues because chlorine can displace iodine which is essential to thyroid function.

On top of that, the chlorine and chloramines rob the skin of oils. Dry skin can be attributed to hard water or the soap used, but it may be the chlorine or chloramines drying the skin out rather than the soap.

A whole house water filter is the most convenient and optimal route, but there are several more economical options along with things you can do to minimize exposure to contaminants.

One is to run the tap at the sink, tub and shower for about 30-60 seconds to reduce chemicals that may have leached from the pipes like plasticizers from PEX pipes, copper from copper pipes, or lead from older pipes. This drains the contaminants that leached into the water sitting still in the pipes. This is especially important in the morning after the water has been sitting in the pipes overnight. If you have copper or lead containing pipes, make sure the filtration you choose takes care of this.

A KDF shower filter removes chlorine, its by-products, and other harmful chemicals. If you have a shower and bath together, then you can use the showerhead to fill the bathtub in order to get filtered water for your showers and baths from the same filter. For bathtubs without a showerhead, you can use a bath ball filter.

Unfortunately, these will not remove chloramines, which are more dangerous than chlorine. If your water has chloramines, you can add 1,000 mg. Of Vitamin C to a full bath as an inexpensive way to neutralize chlorine *and* chloramines. Just add 1 teaspoon of Vitamin C powder to your bath water 2-5 minutes before entering the bath.

If you want to absorb even more toxins in your water, you can add Bentonite Clay after adding Vitamin C. Mix 2 Tablespoons Bentonite Clay in a glass jar of water and shakeup. Pour into the bath water after the Vitamin C has been in the bath for about 5 minutes. Upon contact with liquid, bentonite clay absorbs toxins from the water.

This may seem like a lot of extra steps, especially if you're trying to bathe little ones, but for any time you're not doing a quick rinse, it's worth it. And if you have everything you need right there near the tub, I promise it's easier than it may sound!

We encourage you to dig into our resources as you take steps to toss the toxins in your water. The bottom line is you don't want to drink or bathe in unfiltered tap water on a daily basis. You will be doing yourself and everyone in your home a huge service by ensuring you have safe, clean, healthy water!

