

There is a lot that we can learn about our water just by the way it **looks**, **tastes**, and **smells**; these are certainly important to us all. If you are concerned about the quality of your water, it is always best to have it tested but we can discover much about it at home. We can learn much about what is in our water with simple, at-home tests.

When using an ionizer, many things in our water can be condensed into higher, more noticeable levels. Some are desired, others are not. If you are on a public treated water system, you can always ask for a Consumer Confidence Report, or CCR. These are done annually to insure the public of drinking water safety.

The easiest way to obtain this report is to call your local water authority and ask for the most recent CCR. You can also ask them if they are using chloramines as a disinfectant. Chloramines are fairly new in the treatment of water systems in most areas, and may not show up on the report. Chloramines are definitely unwanted, and require a different type of filtration than the standard chlorine removal methods.

Although it is a great idea to look at your CCR, you can always take it one step further and have the water at your home tested individually. Keep in mind that the Consumer Confidence Reports are shown in averages and may not reflect exactly what is coming in to your home. If you are on a well water system, it's important to test your water before running an ionizer as well water is untreated and can contain contaminants not present in treated water systems. Acting on this information can protect your health, as well as the life of your ionizer.

To obtain a water report for your well water, you can call your local health authority and express concerns for your drinking water. They will usually have a place locally to do the necessary testing. The test to ask for is called "A Routine Domestic Panel", and should be reasonably priced.

Water reports will list a bunch of numbers that can be a little confusing, but once you learn to read the report you will be able to see exactly what is in your water. The important numbers to look at will be the levels recorded, as this is the amount found in your water, and the MCL, or Max Contaminate Level. In comparing these two sets of numbers you can judge if the levels are safe or should be addressed before using your new ionizer.

If the MCL levels are lower than, or close to the levels recorded you may want to consider pre-filtration. You would also want to consider pre-filtration anytime you have specific concerns. In this list we will be covering some basic at home tests for testing drinking water contaminants, what they are, where they come from, and how you can remove them. Of course the ultimate filtration is provided by an AlkaViva Reverse Osmosis system with a Remineralizer, which will remove any concerns and issues you may have with your water to ensure that you have only the beneficial alkaline minerals that you need. In addition to our RO system, AlkaViva offers many alternate filtration options. The following tests are simple ways to determine which cartridge or filter may be needed for your ionizer to work optimally. There are many things that these tests can tell us; unfortunately, they cannot tell us everything. For example there is no good way to test at home for fluoride, bacteria, and arsenic. To complete these simple tests at home, all you will need is your faucet and a clear glass.

The Way that Water Tastes

⇒ Chlorine or Chemical Taste

This taste is usually caused by normal chlorination, or an abundance of chemicals in either treated municipal water systems, or chlorinated wells. This is normally removed by upgrading to the AlkaViva BioStone Plus internal filter, but if this is not enough to remove the unpleasant and possibly harmful carcinogens AlkaViva recommends using the Chloramines cartridge and housing.

⇒ Metallic Taste

A metallic taste is usually caused by manganese, or other heavy metals. These can be present in well water systems, and in older homes with metal pipes. To remove these heavy metals we recommend the **Heavy Metal Reduction Filter** (pre-filter, requires housing).

⇒ Water no longer tastes as sweet as it used to.

This is caused by the lack of iron present in your source water. Some folks complain that the water no longer taste as sweet as it used to. This is caused by the removing of iron. Although iron is a harmful heavy metal, it adds a pleasant sweet taste to the water. And often after changing to non metallic pipes, or adding a **Heavy Metal Reduction Cartridge**, the lack of sweetness can be present. Usually after a week or two, it is no longer noticeable.

⇒ Water tastes fishy, or earthy.

A fishy or earthy taste is generally caused by harmless organic matter and is usually associated with surface water supplies. To remove this, we recommend an internal filter change to the **BioStone Plus** filter.

The Way Water Smells

⇒ Detergent or Soapy Smell

Detergent, soapy smell or septic odors all are an indication that you need to hire a plumber, or call your city water authority. This is caused by the leaking of a sewer system into your water supply, and should be addressed as soon as possible.

⇒ Water Smells Fishy or Earthy

Fishy or earthy smell, again, is generally caused by harmless organic matter and is usually associated with surface water supplies. To remove this we recommend an internal filter change to the **BioStone Plus** filter.

⇒ Rotten Egg Smell from the Tap

Dissolved hydrogen sulfide gas in the source water, or raw sulfur deposits in a well water situation. Sulfur deposits are naturally occurring and common in some areas. Dissolved hydrogen sulfide comes as a result of organic matter decomposing in a raw water situation, such as plant matter in a well, (think of tree roots). This gas reacts to an ionizer and can become much more noticeable after ionization and is condensed into the alkaline stream. To remove this gas we recommend using the **External Sulphur/Iron Reduction Cartridge** (pre-filter, requires housing).

⇒ Rotten Egg Odor from Hot Water Only

Rotten egg odor from the hot water only is caused by sulfates reacting with magnesium anode rod in your hot water system, which will react to create hydrogen sulfide gas and cause this odor to only be present when using hot water. To remove the rotten egg smell you need to have a plumber replace the anode rod with one made of aluminum.

⇒ Chlorine or Chemical Smell

This odor is usually caused by normal chlorination, or an abundance of chemicals in either treated municipal water systems, or chlorinated wells. This is normally removed by upgrading to the **BioStone Plus** internal filter, but if this is not enough to remove the unpleasant and possibly harmful carcinogens we recommend using the **Chloramines Reduction Cartridge** (pre-filter, requires housing).

The Way Water Looks

⇒ White stains on cookware and in glasses

This is a sign of high alkalinity, which is exactly what we do with our ionizers. Completely harmless and nothing to worry about, but not the best looking. An easy way to remove this is to soak in a solution of white vinegar and water. Be sure to rinse all the vinegar off before using.

⇒ Suspended stuff in my glass

This is caused by sediment. It is common in well water using pumps, and in older homes and neighborhoods. This can easily be removed with the **Sediment, E.Coli, and Bacteria Reduction Cartridge** (pre-filter, requires housing)

⇒ Green stains on sinks and fixtures

Green stains in your sink or on other household fixtures can be caused by acidic water with a pH of 6.8 or lower reacting with brass and copper pipes and fittings. Your best bet is to hire a plumber to update these to a more modern system.

⇒ Red or yellowish water

If water is clear when first poured but turns yellowish or reddish after 24 hours of standing time, there is un-dissolved iron in your water. If it is yellow or reddish when at first poured but clears up after 24 hours then there is dissolved iron in your source water. Iron is a big concern with ionizers as it can directly cause damage to your ionizer. In either case we would recommend using an **External Sulphur/Iron Reduction Cartridge** (pre-filter, requires housing).

⇒ Black tint to water

A black tint to water that clears up after 24 of standing is dissolved manganese. This is easily removed with the **External Sulphur/Iron Reduction Cartridge** (pre-filter, requires housing).

⇒ Blacking, pitting, and tarnishing of metal sinks, pipes, and utensils

The blackening, pitting, and tarnishing of metal sinks, pipes, and utensils is caused by chlorides and sulfates, (salts) or hydrogen sulfide gas. Both are removed using an **External Sulphur/Iron Reduction Cartridge** (pre-filter, requires housing).

⇒ **Milky water**

If your water looks milky after ionization, do not worry. This appearance is caused by the ionization process and is a sign of both the high alkalinity and the micro clustering. Micro clustering creates air pockets that can make water look milky. The increase in alkaline minerals can also cause this milky water, Scale Guard Inserts would be recommended to protect your ionizer from scale damage. Excessive scaling may result in repairs.

This list in no way can replace the results of full water work up done in a laboratory environment, but can help to trouble shoot quickly and at no cost.

All of the cartridges that AlkaViva provides require a pre-filter housing, and these housings can be run in sequence if there is more than one concern. The cartridge life expectancy will vary by the level of contamination for each individual, but at normal levels of use you can expect about a 9-12 month replacement.

If you have any questions, please feel free to contact:

AlkaViva Technical Support at (775) 324-2400/Opt. 2.