

Why Buy an Ionizer and How is Ionized Water Different?

How Ionized Water is Different

AlkaViva ionized water is tap water that firstly has been very efficiently filtered using our own patent pending, USA made, UltraWater filters - while still retaining the essential alkalizing minerals. It is then altered using electrolysis to create OH⁻ ions (that increase the pH), plus molecular hydrogen (H₂). Preliminary testing in Reno, using our 5 plate Athena model, showed a significant production of hydrogen-rich water at a palatable pH, that was at least comparable to other larger plate, ionizer brands on the market.

When water is passed through the electrolysis chamber over charged platinum-electroplated, titanium electrodes, water is physically split into acidic and alkaline water. These two types of water concentrate on different sides of a membrane. One benefit of water ionizers is that they create alkaline water that has an abundance of hydrogen molecules (H₂), while acidic water has an abundance of positively charged hydrogen ions (H⁺). The beneficial ionized alkaline water exits through the drinking water spout, and the acidic water exits through the acidic water hose.

pH, Hydrogen and Alkaline Minerals

If the TDS (total dissolved solids) levels are low then when water passes through an AlkaViva water ionizer, it concentrates the essential, beneficial alkaline minerals like magnesium, calcium and potassium (that occur naturally in water) in the alkaline water output. As previously mentioned, one benefit of ionized alkaline water made by a water ionizer is that it also contains an abundance of hydrogen molecules; the same super-small molecules that the body uses to help reduce free radicals and heal itself. These molecules and minerals are essential in maintaining optimal health.

Redox Potential

Normal tap water, for example, with a pH around 7 is neutral on the pH scale of 0 to 14. When measured with an ORP (oxidation reduction potential) meter its redox potential is approximately +400 to +500 mV. Because it has a positive redox potential, it is apt to acquire electrons and oxidize other molecules. Reduced ionized water, on the other hand, has a negative redox potential of approximately -250 to -550 mV (or less). This means one of the benefits of ionized water is that it has a large mass of antioxidants or hydrogen gas, ready to donate to electron-thieving, free radicals.

Optimal Hydration

The turnover of "fresh water in and waste out" helps our cells to work at peak performance. Foggy thinking, joint pains, constipation and digestive issues often resolve with proper hydration. Proper hydration takes your body from a stagnant "polluted lake" to one that is sparkling and "fed by

glacial streams". Alkaline water from a water ionizer is incredibly beneficial to your health and hydration goals.

Antioxidant Activity

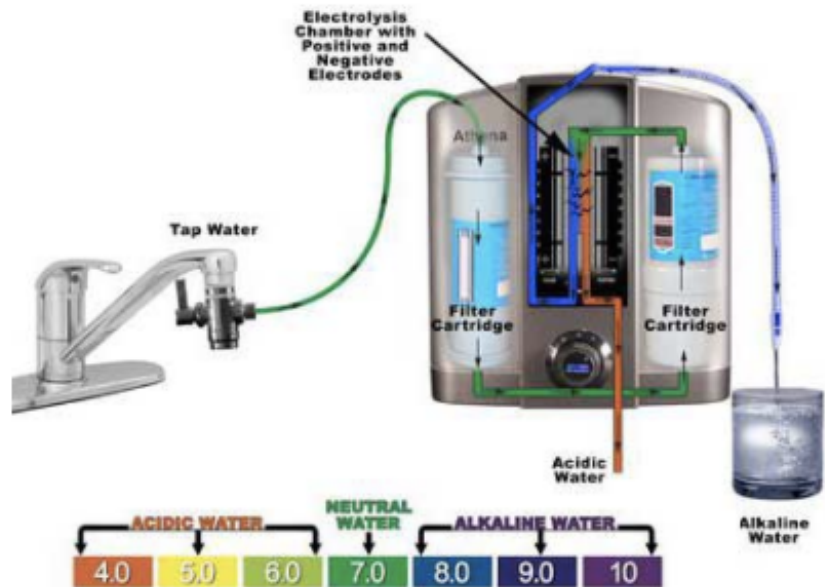
The hydrogen molecule is a perfect antioxidant found naturally in ancient water sources like glacier streams, deep wells or aquifers, springs and lakes. The H_2 molecule is the original antioxidant that allowed life to form and sustain itself. An AlkaViva water ionizer produces clean water with an abundance of beneficial H_2 molecules.

Another benefit of ionized water is that it carries hydrogen molecules that can (as you change from dehydrated to hydrated) help neutralize free radicals in the body and block the oxidation of normal cells. Drinking alkaline water is like drinking glass after glass of anti-oxidants that cling to and help neutralize the damaging, oxidizing, free-radicals within your body.

Water Ionizer 101: How a Water Ionizer Works

The classic water ionizer, slightly taller and thicker than a large dictionary on end, is an electrical appliance connected to your kitchen water supply to perform electrolysis on tap water before you drink it, or use it in the kitchen, for cooking or cleaning.

A special attachment re-directs tap water out of the faucet (or from under the counter) through tubing and into the water ionizer. Inside the alkaline water machine, the water moves first through the patented UltraWater filter. Next, the filtered water passes into an electrolysis chamber in the alkaline water machine equipped with a platinum-coated titanium electrode where electrolysis takes place.



Cations, positive ions, gather at the negative electrodes to create cathodic water (reduced water). Anions, negatively charged ions, gather at the positive electrode to make anodic water (oxidized water). The reduced water comes out of the faucet, and the oxidized water comes out of a separate hose leading into the sink. You can use the reduced water for drinking or cooking. The oxidation potential of the oxidized water makes it a good cleaning agent, ideal for washing hands, cleaning food or kitchen utensils, and treating minor wounds.

Redox Potential Comparison

Compare these measurements of these three types of water: tap water before electrolysis, the reduced (alkaline) water made with a water ionizer, and the oxidized (acidic) water.

Reduction-oxidation (redox) potential			
Water Type	Leads to:	pH	What it Means
Tap Water	+400 – +500mV	7	Slight oxidation potential
Reduced Water	-250 to -550mV	9	Strong reduction potential. Hydroxide ions increase alkalinity and concentrate essential minerals. Contains a surplus of hydrogen molecules that can be donated to free radicals.
Oxidated Water	+700 to +800mV	4	Strong oxidation potential,. A shortage of electrons giving it the ability to oxidize and sterilize.