

Alkaline water myth

Technologies have emerged globally, that promote alkaline water for cellular healing or supporting blood alkalinity.

There are commercial of alkaline water systems that claim a range of health benefits. These systems have a water science based on the use of an ORP (Oxidation Reduction Potential) meter to measure and promote the health benefits of water's negative ORP. Firstly, the claim that ORP measures voltage is flawed. There is a diagram below on page 2 that shows swamp water with a negative (-) ORP (with low oxygen and low diversity of biological life), so this is near dead water. Water that is living and in a structured form has a positive (+) ORP. On the other hand, water that is natural living water has a negative mV voltage, however this voltage is measured with a voltmeter, not an ORP meter.

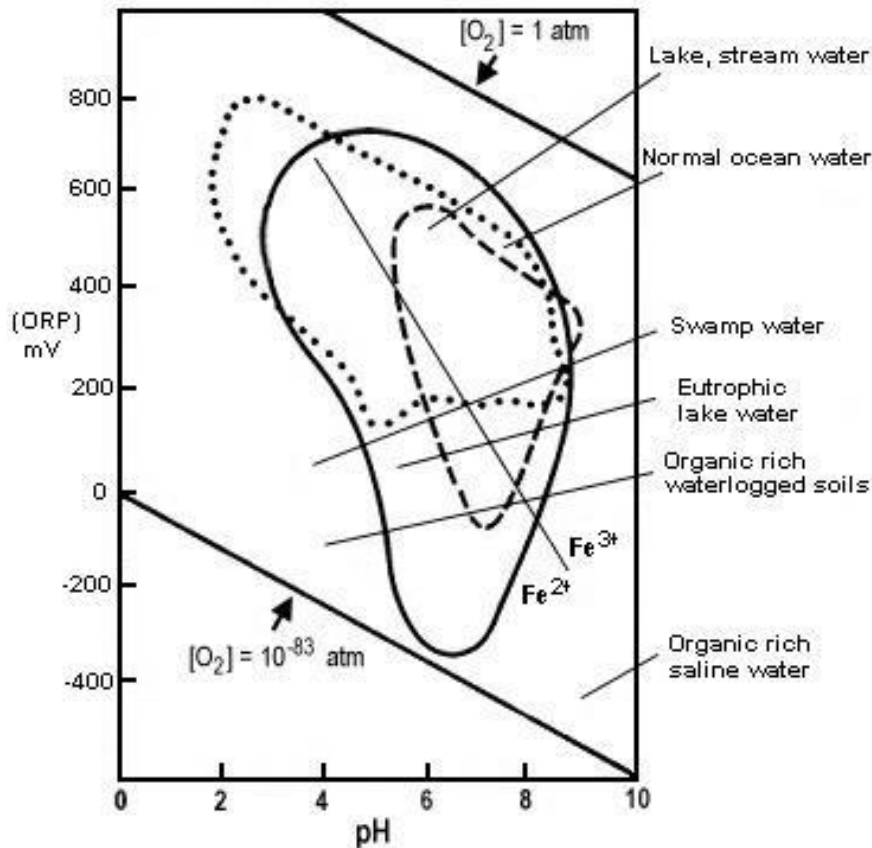
Natural flowing water in pristine rivers, creeks and springs is living water. This natural water carries a **negative voltage (charge) and has a full range of trace minerals including alkaline earth minerals or metals**, like lithium, sodium, potassium, magnesium, calcium, rhodium and strontium. When water is not flowing (eg. water held in a tank, pond, dam, reservoir, etc.) it turns to a positive charge. **Phi'on** has a patented magnetic device to hold a **permanent negative charge** in water that imitates water from nature. This voltage or charge is measured with a **volt meter**. This water restructuring device is called MEA (magnetic, energised and activated). The device converts the water to its natural, six-sided crystalline structure, and this water is commonly called structured water. When water is in this form, it holds negative voltage due to the increase in oxygen molecules (ie. the water has high or positive oxygen potential or positive + ORP). Also, we have independent laboratory data that shows that the MEA water device will destroy pathogenic microbes.

Phi'ón scientists have measured natural flowing water all over the world and have found that most (possibly >95%) are slightly acidic (ie. 6.6pH) to acidic (5.5pH). When water pH is high alkalinity, oxygen (measured as ORP) is low (or -ORP). When water pH is low (below pH 7) the ORP is high and positive (+) and carrying more oxygen. All body regulation and healing require oxygen, and high levels of oxygen in water is highly desirable because oxygen carries a negative charge. Also, see **Phi'ón** papers on the results of using negatively charged (including + ORP) water on plants (MEA Water Measurement Results). These papers provide clear evidence that all living species require negatively charged (voltage) water and high levels of oxygen (+ ORP) water. There is something to be said for the **messages or laws in nature for natural water** systems.

The myth in the alkaline water story is the belief that ORP is a measure of voltage in water. It is not. Voltage in water is measured with a voltmeter: that measures charge or voltage (- or +). An ORP meter only measures **oxidation reduction potential** or the ability /state of water to gain

or lose oxygen. Phión has invented a meter technology to measure voltage in water. In many respects, the alkaline water is dead water and not life-affirming, as claimed. Alkaline water is rarely found in nature (except from limestone or carbonate groundwater (fractured rock) systems and humans never evolved or adapted to using highly alkaline water. It most likely that the voltage in these human-made alkaline waters is positive (+).

The diagram below, shows that pristine waters in rivers and creeks have slightly acidic pH and an ORP value that is positive, and often well above +200 mV. By way of contrast, organic rich saline water has a pH of about 9 and an ORP value of -300mV. This sounds like the water promoted by *alkaline water companies*. It is concluded that the consumption of alkaline water has no relevance in terms of cellular health. In fact, alkaline (high pH above 7.5pH) water is deprived of oxygen and these waters are not life-affirming. However, pristine water that is well mineralised (particularly with alkaline minerals) and oxygenated (high positive ORP) will produce the best structured water results.



The key to water integrity is the negative charge (-) and the amount of primary alkalisng minerals (eg. bicarbonate, Lithium, Sodium, Potassium, Calcium, Magnesium, Rubidium and Strontium) in the water. It is these minerals that keep your blood alkaline, not the alkaline pH of water.

Alkaline water does not provide the natural negative charge of flowing, pristine water. As soon as you drink alkaline water it becomes acidic in the stomach as the stomach is acidic (1-3pH). Studies have shown that pathogenic microbes (with gram negative membranes) are destroyed in water with a pH of 2.5 or below, and this fact is one reason your stomach is acidic. Your stomach is also acidic to breakdown food into the small particles that microbes can digest in the small intestines. If you put alkaline water into the stomach, then the stomach must put more acid (mainly hydrochloric acid) into the stomach to counter the pH imbalance.

Clearly, there is some value from the alkaline minerals and extra hydrogen in any natural alkaline water. However, all food and water you swallow become acidic within seconds of reaching the stomach and therefore the alkaline water pH is rendered useless at this point. Also, alkaline water will have less dissolved oxygen due to the higher, alkaline pH (the hydrogen ions reduce the oxygen ions in non-structured water forms). Every cell in your body requires a negative charge to create a new cell (see *Healing is Voltage, by Jerry Tennant*) It is the negative charge in water that neutralises the positively charged free radicals in your body. Also, anti-oxidants (eg. Vitamins A, C and E) do the same thing, along with fresh, raw vegetables and fruit. The best thing you can do for your cardiovascular system is to drink negatively charged (MEA) water developed by my research company, and eat fresh, organic, raw vegetables and fruit at least daily. Himalayan and Celtic salt are **complex salts** that have more than 70 trace minerals and are full of alkalisng minerals. You need an adequate daily intake (about ½ a teaspoon at least) of complex salt (sodium and magnesium) to:

- Regulate heart rhythm
- Metabolise the water into the cells
- Balance blood pH and pressure
- Encourage digestion and elimination
- Sustain nerve and muscle function
- Regularise the quantity of bodily fluids (eg. blood contains about 10grams of sodium per litre)

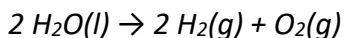
A good summary of the issues with drinking alkaline water is on Wikipedia (see extract on page 4 below) and the website of Dr. Mercola (www.mercola.com) He says: *In my interview with water filtration expert, Houston Tomasz, I asked for his thoughts on the growing use of alkaline water. There are several potential problems with alkaline water. Firstly, most water ionizers and alkalizers are marketed by multi-level marketing (MLM) companies with questionable ethics. Some people experience an initial "high" when they start drinking alkaline water. This can easily be attributed to detoxification, and the fact that they are likely just becoming better hydrated. Detoxification is about the only benefit of alkaline water, and this benefit is limited to very SHORT-TERM USE (no more than a week or two). An additional concern is that many individuals have stomach dysfunctions like GERD or ulcers that are largely related to having too little stomach acid. Long-term use of alkaline or ionized water can interfere with your body's natural*

digestive process by reducing the acid needed to properly break down and absorb food. This could then lead to an upset of your body's good bacteria, which can then open the door to parasitic infection, ulcers and malabsorption.

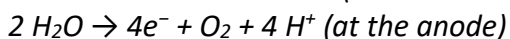
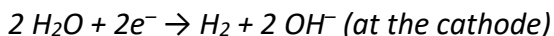
If you want to boost the alkalising minerals in your water put a few drops of magnesium oil or Himalayan salt into your drinking. That is, add the alkalising minerals to your water and use the MEA bottle top device to charge the water: or install the Phión, MEA in-line water device (either the ½" or ¾" device) to the house supply and then add the alkalising minerals. The house device will ensure all water in the house is negatively charged and at a cost of about \$1,375, with no ongoing maintenance required.

Finally, this is what **Wikipedia** has to say about ionized or alkaline water: A **water ionizer** (also known as an **alkaline ionizer**) is a home appliance which claims to raise the pH of drinking water by using electrolysis to separate the incoming water stream into acidic and alkaline components. The treated water is called **alkaline water**. Proponents claim that consumption of the alkaline stream results in a variety of health benefits, making it similar to the alternative health practice of alkaline diets. **Such claims are not accepted in chemistry, physiology, and evidence-based medicine.** The machines originally became popular in Japan and other far eastern countries before becoming available in the USA and Europe.

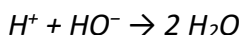
Despite being described as 'water ionizers' the machines are designed to work as water electrolyzers. This is an electrochemical process in which water is split to form hydrogen and oxygen by an electric current. The overall chemical reaction is shown below:



During this process, the water near the anode is acidic while the water near the cathode is alkaline.



Water ionizers work by simply siphoning off the water near the cathode. Water siphoned off the cathode side contains increased levels of hydroxide (OH⁻) and would be expected to have a higher pH (ie. be more alkaline), whereas water siphoned off near the anode would have increased levels of H⁺ making it acidic. The acidic water is claimed to be useful for household disinfecting. The effectiveness of the process is debatable because electrolysis requires significant amounts of time and power; hence, the amount of hydroxide that could be generated in a fast-moving stream of water such as a running tap would be minimal at best. Additionally, the process of reversing the reaction requires much less energy, so if the area between the alkaline and acidic water is at least semi-permeable, the water will undergo another reaction that just leaves neutral water. The second reaction is shown below:



Similar machines have been used to produce electrolyzed water which is chemically much different because it also contains sodium hypochlorite, the main ingredient in bleach, and may therefore be used as a disinfectant.

*Water ionizers are often marketed based on health claims which are normally focused on their putative ability to make water more alkaline. A wide variety of benefits have been claimed, including the ability to slow aging, prevent disease, offer protection from nuclear fallout, give the body more energy, and offset the effects of acidic foods. There is no empirical evidence to support these claims, nor the claims that drinking ionized water will have a noticeable effect on the body. **Drinking ionized water or alkaline water does not alter the body's pH due to acid-base homeostasis.***