

IonWays Alkaline Water & ORP Explained

Or...Is a Twenty Minute Read Worth an Extra Five Years of Life?



*By Ian Blair Hamilton
Independent IonWays Dealer*

It's a rhetorical question. We all know the answer - but in my experience the only time such a question seems to become important is when people don't actually *have* five years of life left.

It's often said that people spend more money on their health in the last two years of their life than the total of the rest of their life. In my experience this is so very true.

I don't want to waste time telling you how naughty you've been to fail to learn about your own health. God knows we are all so "busy" just surviving in this crazy world that oftentimes health takes a backstage position until it fails. It's like my son's car. He simply *doesn't* change the oil. He believes everything lasts forever. At age 26, so did I.

I have been asked many times to write down my understanding of acid and alkaline balance and its effects on health. This has usually been asked after I have spent an hour explaining it to someone, for the umpteenth time! So I'm going to give you my grand theory of everything about acid/alkaline balance now, and if you hear what I am saying, I know you'll understand and act upon this most fundamental of all health secrets.

Why is acid/alkaline balance 'fundamental'? Because this is about what happens at the microscopic level within our bodies; beyond the cellular level - at the atomic level. It's all about electricity, and about what happens to create energy in your body at the *atomic* level. It's about what *doesn't* happen, what *should* happen, and what *will* happen if you follow what I am suggesting. Most people I talk to already know that we are too acidic, because of acidic foods, drinks, pollution, lifestyle, stress ... almost everything is acidifying including watching the news at six.

We are *told* we need to alkalize, but what does that really mean? Many of us think that acidic water is just water with lots of acidic minerals in it, and alkaline water is water with lots of alkaline minerals in it - calcium, magnesium, potassium etc. But you can have acidic water with both acid and alkaline minerals in it; just more acids than alkalis, so it's not quite as simple as you may have thought.

Why am I explaining all this? Because if you can really understand this, you can begin a new way of thinking about your own and your loved one's health. The conventional approach to alkalizing something like water has been to take tap water, with its mix of acids and alkalis, then add more alkalis.

What's wrong with that? You're drinking a chemical cocktail - just to get your alkaline water.

But in this twenty minutes we're going to go much farther than this small point.

Let's assume that we have water with no minerals at all; distilled for instance. Then we add some calcium. Now we have **alkaline water**. The pH of this water may have gone from a neutral pH 7 to an alkaline pH 8; ten times more alkaline than pH 7. Most of us learned all this in chemistry class - as long as you weren't looking out the window like me!

Do you know what pH stands for? It comes from French, and means "*per Hydrogen*", which is a measure of the amount of Hydrogen in a liquid. *Note; we're not talking about the amount of alkalizing or acidifying chemicals in a liquid. No, we're talking about the amount of hydrogen atoms.* The chemicals or minerals just react with the water to create hydrogen atoms.

Why is this so important? Hydrogen *fuels* us. Hydrogen *heals* us. Hydrogen is our *most essential* nutrient. Hydrogen provides our life force! And pH equals amount of hydrogen in liquid, so it's a measure, if you like, of **available life force** in a liquid.

Reverse Aging



Sang Whang, that wonderful Korean American scientist and inventor, explains it beautifully in his ground-breaking book *Reverse Aging*. He says water has memory (*we've seen this in Dr. Masaru Emoto's amazing crystal images and in the early works*

of homoeopaths) but he goes further; he says this memory is expressed as a measurable electrical energy. This energy can be measured in volts (*or millivolts, because it's always very small*) and can be lost over time. When water has this electrical potential, it has the ability to cause the hydrogen atoms in it to assume two different forms.

(Sang Whang was diagnosed with high blood pressure at age 56 and was told he'd have to stay on medication for the rest of his life. His book described his discovery of ionized, alkaline water, how he gave up his medication - and at age 75 is looking and sounding as good as I would hope to look at that age!)

Stay with me, this is about as technical as I'm going to get!

When water has electrical energy, it causes the hydrogen within it to assume one of two forms. One is hydrogen that has a positive electrical charge. This water is 'acidic'. The other is hydrogen that bonds with an oxygen atom and becomes negatively charged. This is the building block of life itself, and chemically, it is in the form of OH⁻.

One oxygen atom, one hydrogen atom with this negative electrical charge. That's ionized water. It now has energy it wants to donate to any compatible atom in your body. And it is called 'alkaline'.

In both forms, these ions or atoms, now have the capability to precipitate chemical reactions of other minerals in water. What has that got to do with your health and longevity?

Nothing happens in our bodies without a chemical reaction.

And every chemical reaction *only* happens when the 'electricity' between just *two* atoms is compatible. So we can say that we are a chemical organism - by courtesy of electricity.

At the molecular level, way beyond the cells, trillions of electrically uniting and repelling is going on every millisecond of your life. *It's a veritable orgy of unity, and it's happening right now in your body, it always has, and it continues until the balance of acid and alkaline reactions - the battle between them - is over.*

And what wins this battle of the ions? Acid - every time. We all know that our body acids take over after we die to break

down the body. Let me tell you, they've been doing just that for many, many years before you die. They're doing it now! *Rusting, decaying, breaking down, burning, oxidizing* - all a natural part of our balanced metabolism.

So.. life as we know it is an internal 'battle' between positively charged atoms (ions) and negatively charged atoms (ions). We can equally - but less accurately - say life is a battle between acid and alkaline, because that's exactly what pH is all about.

pH = acid/alkaline balance = ionizing = O.R.P.

Coming back to water - when there are more H⁺ ions in the water than OH⁻ ions, it will read as acidic. When there are more OH⁻ than H⁺, it's **alkaline water**.

I'd like to pause here a minute and review what we have discussed. I'll put it in point form:

- *Acid or alkaline liquid is measured as pH.*
- *pH is a measure of hydrogen ions (atoms)*
- *The more H⁺ in a liquid, the more 'acidic'*
- *The more OH⁻, the more alkaline.*
- *Acid and alkaline can be thought of electrically as ions of Hydrogen carrying either a positive or negative charge of electricity.*
- *All chemical processes in your body are begun and completed when the correct electrical charge is found to match the electrical charge of another atom. Nothing happens without electricity. Electricity and chemistry, therefore, are the same in the body.*

Are we OK with that? If not, please spare another five precious minutes and read it all again, because what comes next rests upon your understanding so far and is the key to the secret of health and anti aging that I'm communicating. Okay. So water can have hydrogen ions in it. Are you OK with me using the word 'ion'? An *ion* is an atom with an electrical charge.

We can measure pH using litmus paper or an electronic pH meter. It will give us a reading of from 0 to 14, with pH 7 being neutral; neither acid nor alkaline. Or we can use an ORP meter which tells us a lot more. It tells us the **O** = Oxidizing or **R** = reducing or donating **P**otential of a liquid. That's what O.R.P. means.

Oxidizing means the ability to oxidize. To burn up. To rust. To break down, and the example I used earlier of a cadaver breaking down is an excellent one. It is oxidizing.

Reducing is not as easy to understand. Scientifically, it means giving away, or donating, so if a liquid has 'reducing potential' it has the ability to donate energy to the body.

The ORP meter actually measures the electrical charge of the water and if it reads above zero, it's **oxidizing** (acidic and an ionic 'robber'). If the voltage is negative it's **reducing** (alkaline and a giver)!

Now we can begin to see that we aren't simply talking about choosing alkaline foods and drinks. We are choosing ways to 'alkalize' and 'energize', to add to our negative ion energy store and to neutralize the acidic, positively charged atoms in our bodies.

Now we are getting very, very fundamental, and we are using water to carry this energy into the body.

Why would this be so wonderful for you? Take a quick look at blood. As we know, blood has lots of water in it, and so it also has a ratio of the two types of water, the acidic and the alkaline as we discussed. When there are more alkaline ions, in the form of OH⁻, there is *more oxygen* in the blood, available to us as instantaneous fuel for life. In fact, if your blood is just a tiny bit more alkaline (from 7.3 to 7.45), it will be holding around 2/3 more oxygen!

I remember my first few weeks on ionized, alkaline water; I was like a kid on Christmas day; up at 3 am looking for presents! I had just so much energy! Of course, once my system realized it had this new supply of oxygen, it put it to good use, modifying my early hour 'high' into sustained energy throughout the day,

Is it possible that the lethargy you may be feeling could simply be the inability to carry oxygen in your blood? Can you also imagine the effect of proper oxygen levels in an athlete or sportsperson's blood?

I have had quite a few people asking me why they get such a boost from oxygen supplements (*Hydrogen Peroxide*). It isn't hard to identify them as an acidic person, and without fail, those people who tell me that they get a boost from the supplements are all, in my estimation, trapped in an acid cycle lifestyle.

I get no boost at all from any of the oxygen boost supplements, so I have concluded that I have the oxygen already available in my alkaline balanced bloodstream, and the people who get a boost are deficient, or acidic. It just makes sense!

Isn't this fabulous information? I am so grateful to have learned about acid/alkaline! We've all concentrated on finding the latest supplement or miracle cure to 'fix' our ailments when the real support work can be done using what we are primarily and overwhelmingly composed of.

What's that? Water!

We are 70% water - yet we've basically ignored it! So now we are going to look at how water can change us fundamentally. But to do this I need to let you see what happens in an acidic body - bearing in mind that unless you are the one in 100 who is naturally alkaline, this means YOU!

Let's just imagine we've wolfed down a Super sized burger along with a giant sugary soft drink. Even while it's still in your mouth - your nerves are already sending signals to your belly. The chemicals in your mouth have sampled the pH of the food, and (don't ask me how), your nervous system has told your stomach how much of this monster meal is '*coming on down*'.

Most people still think the stomach is a bagful of acid into which the burger is going to just 'ker-splosh'. *It's just not true.*

Your stomach is a vessel that is used to hold just the right amount of acid; not too much, not too little - as calculated by the mouth (*and I suspect, the eyes - we've all heard the old saying, his eyes are bigger than his stomach!*) You won't see a big bag of acid down there. You'll see a precisely controlled mish mash, evolutionarily trained to work with just the right amount to break down the food and pass it into the lower gut for absorption. What you also won't see is the bicarbonate of soda that is also exuded from the bloodstream, and now coats the lining of the stomach to protect it from the acid. The acid, by the way, is also delivered to the stomach from reserves in the blood, known as the 'acid buffer'. If I have time, I'll talk about why older people are short on acids, but let's keep on track.

Now you've swallowed this humungous mess, your body has had ample chance to understand that it just swallowed something with the potential to kill. It knows that if the pH of your blood falls to neutral 7 instead of its normal pH 7.35,

you will go into a coma and die. Right now, courtesy of Fast Food and Drink Corporations, your body is being flooded with acids and your blood pH is beginning to fall. Your adrenals are screaming! They are telling you things are dire; but guess what?

You've interpreted the message as the 'hit' you always get when you gulp a Coke. You've actually learned to love it!!

The adrenals are our early warning system. They are telling all of our systems to drop everything and source some alkaline minerals or negative hydrogen to neutralize this acid flood. Our major organ systems are *hard wired* to respond because this is a survival imperative. It's been with you since Paleolithic times. You don't digest dinner when a dinosaur is chasing you - you never have, because you've learned that *death* is the result of both scenarios.

So what happens down there? Well, the '*all systems alert*' firstly calls on the pancreas, because one of the pancreas's jobs is to secrete alkaline chyle to neutralize the acids now mixed up with the food you have now tossed around in your stomach.

The real problem is that you've been making a habit of this. Not only have you eaten a Burger, Fries and Soft Drinks for lunch, you've been downing beers, eating lots of sugar in fruit because someone told you you should eat more fruit, and you've been stressed out at work. You've been robbing the pancreas so long that it's just exhausted. It has nothing more to give.

So the next port of call is body tissues. "*Alkalis? Alkalis? Anyone?*" "Sorry. None here." Next stop is bones and teeth, and yes, we actually erode our own skeleton to feed our acid habit. That's one big reason there's a plague of Osteoporosis in the West today.

In the meantime, because our blood pH is plunging dangerously, the stomach has been told to stop what it's doing and let the body use its limited available energy to work on alkalizing this deadly acid flood, so what does it do? It dumps its half processed McLoad into the lower intestine.

It's acidic, it's lumpy, it's half digested, and the poor old pancreas, the gate keeper to the lower intestine, can't do a thing to change it and fulfil its purpose of protecting the lower gut. It's like a lorry load of toxic waste sneaking past a helpless sentry.

About now it's oozing into the intestine. And because you've been acidic for so long - (*a byproduct of acidosis is constipation as the water from the stools is sucked out into the abdominal cavity to help move garbage*) - your bowel is what doctors call "lazy". It moves slowly because it's full of hard faeces. And being acidic, it burns the sensitive absorbent villi on the intestinal walls as it goes, even to the point of bursting through the intestine wall, flooding the abdominal cavity with filthy, rotting, acidic McGarbage that only a few hours ago was sitting on a shelf in a fast food outlet.!

So now we come to where all of the effects of excess acid conspire against us and our future health.

But first, do you know what a free radical really is? It's a positively charged oxygen atom or ion. And as we have learned it is **oxidative**. It breaks things down. It burns, it rusts.

So as always, in a perfect body, things work perfectly. In this perfect body it has a perfect purpose as the perfect little janitor, moving about and reacting with garbage, toxins or putrefying matter to oxidize it and render it down to its basic components.

Note that I said that's what it does in a perfect system, but an acidic system isn't a perfect system. As we have already discussed, virtually every system in an acidic body is under siege and working at far less potential than it was designed for. So things go wrong. They either over or under-perform, or they perform in a way they shouldn't. So it is with our free radical system. In a state of siege, or acidity, it produces too many free radicals, (*ah well, better more than not enough, folks!*) and being eager little fully active critters, they go forth and oxidize - anything! Not just putrid food or waste, but healthy cells! *That's* why our scientists say it is aging us. They are acidic - positively charged, acting as a result of acid, in an acidic system.

How could they possibly work in the way they were designed?

So what do we do about all this mess? We see the glossy advertisement for anti-oxidant capsules, tablets, exotic juices and the like and we spend six, seven, ten dollars a day gobbling them down.

What is it they have in those little capsules? They have chemical cages holding something we've now heard about; the H- hydrogen ion, the great donator, the giver, the

lifesaver! Instead of drinking negative hydrogen loaded alkaline water at about two cents a liter, people are told they have to get their antioxidants in pills! What a setup! Companies make millions from the theory!

But does water really work? I was attending an exhibition of health systems three years ago. I'd been on our stand for three days. Three days of non-stop talking, and when someone told me there was a stand where you could have your antioxidant ability tested, my first reaction was that I couldn't possibly have a good reading. I was just too tired. However, it was free, and things were quiet, so I went to see what it was all about. Sure enough, there was the man, the computer and the test report coming out of a printer. He was trying to sell people on buying his brand of antioxidant pills, but he was quite happy to test me. "I've been talking non stop for three days." I said. "Will it still work?"

"That makes no difference," he replied. "The probe measures the carotene in the skin, and that's the best indicator of antioxidant ability."

"So what is a good score?" I asked. He explained that the top score was thirty on the computer's scale, and that very few people got anywhere near that.

I held out my wrist. He applied the probe and a minute later pulled the results from the printer, looking puzzled.

"Are you sure you're not on some form of antioxidant supplement?" he asked with a slightly suspicious frown.

"None at all." I answered. "Why?"

"Because your score is the highest I've done all week. You are over the scale. You scored forty! What is it you do to get a score like that?"

I looked him in the eye to watch his reaction.

"I drink alkaline water."

In the years since that test, I get calls from clients from all over. It seems that wherever he goes with his machine, he finds one of our clients.

"Guess what? I had my antioxidant ability tested! And." they say.

"And your reading went off the scale, right?"

"How did you know?" they ask, astounded.

So I DO know the alkaline water works as a powerful antioxidant. All alkaline foods will work to some degree, but it just makes so much sense that if you are 70% water, and if water is everywhere in your body, then - to my mind - water in an antioxidant form is a far more efficient and economical mode of countering free radicals than food or pills.

I'll stop talking about myself at this point; there are literally hundreds of stories that we have received over the last seven years about the effects and power of drinking IonWays water. These are all real stories from real people just like you; athletes, housewives, businesspeople, doctors, naturopaths, families young and old. You'll find just a few of their stories on our brochures and on our website, but more come in every week, and they are always amazing.

Do you know the really cool thing for me? Yes, it's wonderful water and it has great effect on me every day of my life. But it's also clever water. It splits into acid water that I use to cleanse and remove bacteria from my food, my kitchen, my bathroom, my skin and hair. It also provides the alkaline water I have already described.

But here's the great thing. It costs me two cents a liter, and I NEVER have to buy another throwaway plastic bottle of water.

- **This machine has been a Godsend!!!** My son and I work with a Ministry called Restoration Ranch. We take the machine up there and fill the water bottles every two days. There are about 35 men ages starting at 22 yrs to 60 yrs old. They are alcoholics and drug users which the court has sent to the ranch as a last resort before sending them to prison. However the miracle of the detox water is that I hear reports from the men that they sleep through the night, their muscles are not cramping up, head aches have disappeared, sugar cravings have diminished or completely gone away, tremors in the nerves have subsided, and what I have heard the most is that those who were depressed are acting somewhat normal. They can actually keep their focus on the good things of life and there is much more. These things are happening in just several days using the water.

- A satisfied IonWays User

A Quick Comparison of Water Health Systems

Now that you know what happens with ionized, alkaline water you will have a very good idea about other so-called ionized water. There are many, many water filters that frankly, wish they were ionizers.

The difference is in the basic principle we have discussed about negative hydrogen ions; the superior antioxidant ability of the water.

The only reason the water alkalizer works so well is that it actually *splits water* into two optimized forms:

1. The alkaline water we've talked about - ionized, negatively charged, oxygenated, micro-clustered, super-hydrating.
2. The 'other' water that is simultaneously separated from the alkaline water; acid, astringent, antimicrobial. This water is a wonderful addition to your home because it can be used as a non-chemical cleanser for food, for greens, for work surfaces, for windows, for hair and skin. This is the same water used instead of harsh chemicals at the massive Tokyo Fish Market to clean up daily. It is also used in many Japanese and Korean hospital and clinics.

Only a true electronically controlled water ionizer splits the water this way. The alternatives you may read about all use a magnet in the water stream. Although this does create a little less positive ionization in the water, (*not enough to become negative*) it will quickly re-associate back to normal H₂O when it leaves the magnet's field. So there's no lasting stream of OH⁻ molecules as we discussed earlier and there's no alternative acid stream output.

Over the years of working with the water alkalizer, I've heard so many stories invented by other manufacturers about why their system is better, but it all boils down to one simple fact.

They can't alkalize like the systems we've been talking about. End of story.

However ... there are some questions I hear again and again which I'll share now.

Q: Does it remove fluoride?

A: Fluoride is an acid molecule and the majority of it passes out in the acid stream. I am in possession of a test on a similar system from Sequoia Labs USA showing full removal. Fluoride is a sneaky molecule that can join with other molecules in the water, and so we can't promise total effectiveness.

Q: Can I over-alkalize?

A: The alkaline water isn't loaded with alkaline minerals that will keep on alkalizing when in your body. It is loaded with sacrificial hydrogen ions that unites with positively charged molecules in your body. Then their work is finished. I've never seen anyone too alkaline. Alkalinity, unlike acidity, is managed by the body by immediate elimination.

Q: How does the filter in it compare to normal filters?

A: Most water filters are 1 micron exclusion rating. The Jupiter BioStone water filter cartridge in the alkalizer is 0.1 or .01 micron; ten or one hundred times more effective.

Q: Isn't Reverse Osmosis the most effective water filter?

A: Yes. It is so effective that it takes all minerals and everything out, making the water so 'empty' that it will begin uniting with CO₂ in the air and turning acid. RO systems are not popular today because they waste approximately 9 liters per liter supplied.

Q: What about a distiller? That doesn't waste water.

A: True. A distiller doesn't waste water, but it is very power-hungry and has the same problem of RO. It is also so 'clean' that it also ends up acidic. If you look at our own history, you'll realize we have never had access to pure water and therefore our bodies are not made to process it. We need mineralized alkaline water because that's what we are made of; saline, mineralized, alkaline water! Drinking pure water - remembering the fact that the body is always balancing everything - means it has to find minerals from its own reserves to mineralize the water you paid so much to process and drink!

Q: Lots of systems say they alkalize.

A: Many do, but they do just by adding alkaline minerals - usually calcium - to the water as it is filtered. You still get all the acids in the water.

Ian Blair Hamilton is a researcher, journalist, author and alternative health lecturer.

He is also a Founding Member and Dealer for IonWays, LLC.