

Healing Your Body Electric

Balance Your pH to Increase Your Health and Vitality

It's an often overlooked fact that health is highly dependent on energy. While nutrients are important, life is not simply combining static, inert materials.

Think about it. Living tissue is not static like the parts in your cell phone or car. Living tissue is constantly growing, changing, adapting and moving. If you zoom in on the activity of the cell in any living creature you'll see that hundreds of chemical and mechanical processes are taking place thousands of times per second.

These life reactions take energy and this energy is primarily electrical. The vitality of your physical body, therefore, is dependent on a steady flow of electrons to operate your muscles, circulation, nerves and every other tissue.

A loss of energy and vitality is the first sign you are losing health. Another early sign is that your brain gets foggy—you can't think clearly. It's only after you continue to lose energy, that you start to feel sick. When you lose even more energy you experience chronic pain in your body.

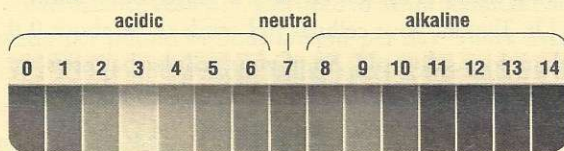
So, if you're sick or experience any type of chronic pain (i.e. headaches, backaches) or are simply tired and not thinking as clearly as you'd like, you need to increase the energy stores in your body. In fact, if you're experiencing any chronic or degenerative disease, you need to boost your body's energy reserves, as nothing in the body can heal if energy stores are too low.

Your Body's Battery Pack

The body generates electrical energy and it also stores this energy, much like a battery does. The more your internal battery packs are charged up, the more vitality you experience and the faster you heal when injured. A high energy charge creates a relaxed, but energized state of being, a clear mind and an overall sense of well-being.

In contrast, the more rundown your internal batteries, the more tired and sick you feel. It appears that all chronic disease may involve a loss of electrical potential. It's chronic, simply because the body doesn't have enough energy reserves to initiate healing.

This issue of *Sunshine Sharing* will help you understand the relationship between electrical energy, pH and health. You'll learn a simple way to test the power level of your internal batteries by checking your pH levels. You'll also discover the best ways to recharge your batteries to aid healing and maintain a high level of vitality and well-being.

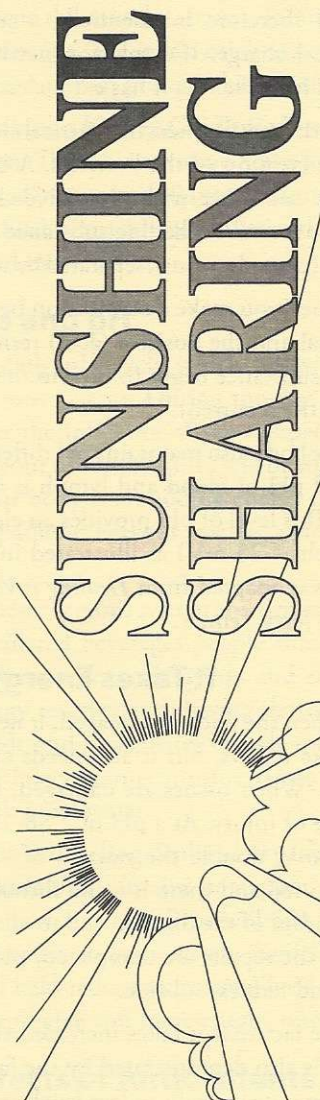


pH and Energy

To understand the bioelectric nature of the body, you need to understand pH as a measure of the electrical potential

of a solution because the body uses an alkaline pH to store and supply energy.

Pure water (H_2O) has a neutral pH of 7, as shown on the scale above. It's neutral because the electrical charges in water are in perfect balance. When water ionizes, it splits into two components, H^+ (hydrogen atom missing an electron, or in other words a single proton) and OH^- (an oxygen and hydrogen pair with an extra electron). The H^+ is acid; the OH^- is alkaline. As shown, the lower the pH, the more acid a solution is; the higher numbers reflect more alkalinity.



Your guide to better health the natural way.

Vol. 30 No. 6

Important Notice

The information in *Sunshine Sharing* is for educational purposes only and should not be used to diagnose and treat diseases. If you have a health problem, we recommend you consult a competent health practitioner before embarking on any course of treatment.

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pH therefore is essentially a measurement of electrical charge. If a solution needs electrons it is acid. If it is alkaline, it has extra electrons to donate.

It's these differences in electrical charges that allow for the creation of the batteries. A battery contains an acid substance with a positive charge (deficient electrons) and an alkaline substance with a negative charge (extra electrons), separated by a third substance.

When you make a connection between the negative (alkaline) terminal and the positive (acid) terminal the electrons in the alkaline substance begin to flow to the acid substance. This creates an electrical current.

The body also maintains pH differentials that store energy. The normal pH of blood and lymph is about 7.4, a slightly alkaline state. This level of pH provides an electrical potential of about 25 millivolts (-25 mV) as illustrated in the chart on the right. The chart was adapted from *Healing is Voltage* by the holistic medical doctor Jerry Tennat.



Cell pH	Voltage	Tissue Condition
7.88	-50 mV	Tissue repair (acute inflammation)
7.61	-35 mV	Normal for kids
7.53	-30 mV	
7.44	-25 mV	Normal for adults
7.35	-20 mV	
7.26	-15 mV	Energy loss, you feel tired
7.18	-10 mV	You start to feel sick
7.09	-5 mV	
7.00	0 mV	Polarity shift
6.83	+20 mV	
6.48	+30 mV	Cells mutate and become cancerous

Saliva is made primarily from lymph and provides a good window into the pH of your lymphatic fluid. This is the best indicator of your current cellular voltage.

Urinary pH tells what the body is trying to eliminate. In obtaining electrical charges from food, the body generates acid waste which is removed via the kidneys. If your urinary pH is too low, you are generating too much acid in your system that isn't being properly buffered.

pH levels vary throughout the day so to get a good reading you should check your pH twice daily for at least three or four days. The first test should be when you wake up and the second test should be later in the day, either before dinner or before bedtime.



Urinary pH should be lowest (more acidic) in the morning, when the body is dumping acid generated while you were sleeping. Urinary pH should be higher (more alkaline) later in the day.

To check urine pH, urinate for a couple of seconds and then catch a urine sample in a cup midway through urination. Dip the strip into the urine sample. Compare the color of the strip with the key that comes with the test paper and record your reading.

To check saliva pH, do so before eating or brushing your teeth. Spit a couple of times to clear the saliva in your mouth and then spit onto a spoon and dip the test strip in the saliva. Don't put the strip in your mouth. As before, compare the color to the provided key and record your reading.

After checking your pH for several days, average your readings. According to Dr. Tennat, your cellular pH tends to be about 0.8 units higher than your saliva pH. So, if your cellular batteries are properly charged, your salivary pH should average about 6.5-6.7, which puts your cellular pH around the desired 7.4 (7.3-7.5).

Your urinary pH will typically be lower (more acidic), but should average higher than 6.0. If your readings are lower than this, you are generating too much acid and your buffering systems are overwhelmed.

Remember that an overly acidic pH means your body doesn't have enough electrical energy to keep you healthy. So, you need to recharge your cellular batteries by alkalizing your pH.

It Takes Energy to Heal

When the body is damaged, it needs raw materials (nutrients) to make repairs, but it also needs energy—specifically electrical energy. When tissues are damaged, there is an increase in pH at the site of injury. At a pH of 7.88, the electrical energy increases to -50mV, double the normal of -25mV. Tissues change from pink to red and there is acute throbbing pain. This is a signal to be mindful of the damage and to allow the body to rest and heal. When the repairs are completed, pH returns to normal, and the pain and redness subside.

The fact that it takes increased electrical energy for tissues to repair is also demonstrated by the fact that animals who are able to regenerate lost tails or legs (such as lizards) start the regenerative process with increased electrical activity at the site of injury. It is also demonstrated by the fact that low voltage electrical current can be used to stimulate tissues to heal that were not previously healing. It's also the basis for healing by touch, as electrical energy can pass from one person to another, aiding healing.

Acid pH = Low Energy = Chronic Disease

When the pH is too low, there is not enough electrical energy for healing. The result is chronic inflammation and dull, aching pains. Less energy potential also means fatigue, brain fog and increased aches and pains. Muscles become tense as they lose energy and become more acidic. As the table shows, if the tissues become too acidic, cells mutate in order to survive and become cancerous.

In order to keep the blood pH balanced, the body has numerous buffering systems. The digestive, respiratory and urinary systems play critical roles in pH balance, as do the mineral reserves held in bones and muscle. These buffering systems are critical to life because only a slight deviation in blood pH would end your life.

Testing the Charge on Your Cellular Batteries

A simple way to get a readout on your cellular energy level is to check the pH of your urine and saliva. This is easily done with pH test strips which are available both online and in many pharmacies.

Recharging Your Cellular Batteries



If your body is overly acidic, the first thing you need to do is build up your reserves of alkalizing minerals. Seven elements act as electrolytes to create energy flow. The four alkalizing mineral electrolytes are calcium, magnesium, potassium and sodium. They combine with

three acid-forming elements in various ways to form twelve different mineral salts. These salts include calcium chloride, calcium phosphate, magnesium sulfate, potassium chloride and so forth.

When the body is acidic, it is a good indication that you aren't getting enough calcium, magnesium and/or potassium. (Most people get plenty of sodium through table salt, sodium chloride.)

Alkalizing Minerals

If you feel tense, nervous and tired, you're probably depleted in magnesium, a common mineral deficiency. An overly acidic system borrows magnesium from the muscles and nerves which results in tense muscles, muscle spasms, nervousness and poor sleep. Try taking between 200-800 mg. of a **Magnesium Supplement** containing magnesium citrate and magnesium malate.

An overly acidic system causes the body to draw calcium from tissues to buffer the acids. Calcium is a less common deficiency than magnesium, but should be supplemented in addition to magnesium when overly acidic. Calcium carbonate, in particular, is a powerful acid buffer, which is why it is used in over-the-counter antacids.

A **Sea-Based Calcium Supplement** derived from *Lithothamnium*, a hard, brittle red algae that grows off the southwestern coast of Ireland is a very good pH buffer. This seaweed's mineral matrix contains plant-based calcium (including calcium carbonate) in a proper 2:1 ratio with magnesium and up to 70 other minerals, including boron, copper and zinc.

Kidney Function, Hydration and pH

As previously mentioned, a primary job of the kidneys is to remove acid waste. The kidneys need water to dilute the acid and eliminate it. If you aren't drinking enough water, your urine becomes overly acidic and is very irritating to the urinary passages, which makes you need to urinate frequently and can cause discomfort during urination. Unfortunately, this often makes people drink less water, not more, compounding the problem.

To balance your pH, you need to drink about 1/2 ounce of clean water per pound of body weight per day. That's over two quarts for a 150 pound person. Milk, juice, coffee and tea don't count.

Traditional Chinese medicine has recognized a connection between the health of the kidneys, bones and muscles thousands of years ago. This connection is known as *kidney qi (chi) deficiency*. It is a weakness of the kidney energy and is characterized by low back pain, weak knees and ankles, muscle pain, weak joints and other structural problems.

Remember that when the kidneys can't filter the acid, the body has to use its reserves of potassium, magnesium and calcium

to buffer the acids. This weakens the muscles, bones, joints and other tissues that need these minerals. The excess calcium passing through the kidneys, also makes a person prone to kidney stones.

Drinking more water and taking a **Kidney Chi Tonic Formula** will help to rectify this situation. The Chinese tonic herbs for the kidneys such as eucommia bark, dipsacus (teasel) root and morinda (noni) root, help the kidneys flush the acid more efficiently and improve structural strength and muscle tone.

Stress and pH

Your body has a natural daily pH cycle which follows the activity of the autonomic nervous system. During the day, your batteries are discharging under the influence of the sympathetic nervous system and the pH of your urine and saliva will be slightly more acid. At night, when your body is rebuilding energy under the influence of the parasympathetic nervous system, your pH readings will be more alkaline.

Stress activates the sympathetic nervous system and drives your pH more acidic. So the caffeinated beverages people think are giving them more energy, such as coffee, cola drinks and energy drinks, are draining their energy reserves and driving the system more acidic. The carbon dioxide and phosphates in soda make it one of the most acid forming drinks you can consume. If you want more energy, alkalize and drink more water.

If you're under a lot of stress and feeling depleted, try taking a **Chinese Mineral Tonic Formula** that contains potassium, trace minerals and various Chinese herbal tonics. This will add more of the alkalizing mineral potassium to your system (which also aids kidney function) and will help reduce your stress level. This will help to alkalize your pH and give you more energy reserves.

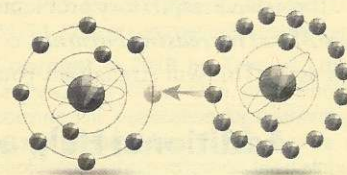
The Alkalizing Effects of Antioxidants

Food isn't just a source of calories and nutrients, it's also a source of electrical energy. Raw food has more electrical energy than cooked or processed food. Fresh food has more energy than food that has been in storage for a long time, even if it's still raw.

Living foods spoil through a process called oxidation, which involves a loss of their electrical energy. You've seen this when the flesh of an apple starts to turn brown after it has been cut. The browning is the result of free radicals stealing electrons from the apple tissues, a process called oxidation.

But, if the apple is dipped into some water with fresh lemon juice added to it, it will take longer for the apple to turn brown. The lemon juice helps preserve the apple from spoiling because it contains antioxidants like vitamin C and citric acid.

As shown in the picture, an antioxidant (right) donates an electron to the free radical (left). This stabilizes the free radical and prevents tissue damage. This is like the electron moving from the alkaline side of a battery to the acid side. So, antioxidants help to preserve the electrical energy and alkaline pH.



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It also helps to understand why it isn't the pH of the food that determines whether it helps to acidify or alkalize the body. Lemon juice is sour and acidic, but it is ultimately alkalizing in the body because of its antioxidants. Many sour fruits are high in antioxidants and have an alkalizing effect. In traditional Chinese medicine and Western herbalism sour fruits are considered cooling and have been used to help inflamed tissues heal.

ORAC (oxygen radical absorbance capacity) is a term used to describe antioxidant potential. Many people find that a **High ORAC Juice Drink or Supplement** not only protects them against free radicals, it also gives them an energy pick-up, reduces chronic inflammation and pain and improves their overall health. These supplements contain sour antioxidant fruits like mangosteen, lycium, acai berries, sea buckthorn, plus green tea and turmeric.

Respiration and pH

The lungs are one of the major systems that buffer pH. Oxygenated blood helps alkalize the body, while a high level of CO₂ makes the blood more acidic. Deep breathing helps one stay more alkalized as does having healthy blood to carry oxygen.

Many people have found that drinking liquid chlorophyll helps to oxygenate the blood and create a more alkaline pH. Combining chlorophyll with the High ORAC Juice Drink mentioned earlier provides quick, caffeine-free, alkalizing energy pick up.

If you have respiratory problems, try taking **cordyceps** or a **Chinese Metal Increasing Formula**, containing astragalus, platycodon and aster. This will strengthen your lungs ability to buffer pH.

Additional Help and Information

For more information about the relationship between the body's energy level and pH, testing your pH and balancing your pH to create a higher state of health, contact the person who gave you this newsletter. You can also consult the following resources:

Blood Type, pH and Nutrition charts from treelite.com

Healing is Voltage by Dr. Jerry Tennat

Body Balance: Revitalize Your Health with pH Power by Karta Purkh Khalsa

Diet and pH

In the long run, adopting a more alkaline diet is essential to maintaining a properly energized body. To keep things simple, eat more fresh, and where possible, raw fruits and vegetables. These foods are alkalizing due to their live, high energy state, the antioxidants nutrients they contain and the alkalizing mineral electrolytes in them like calcium, magnesium and potassium.

On the other hand, meat and seeds (grains and legumes) tend to be more acid-forming. This is because the metabolism of protein for fuel creates more acid waste and the predominant minerals in these foods tend to be the more acid forming phosphorus and sulfur. Refined and processed foods also tend to be acid-forming because they have been denatured and contain less electrical energy.

Raw milk and fermented dairy tend to be pH balancing, but pasteurized milk, cheese and ice cream are more acid-forming. Fats and oils like coconut oil and olive oil are pH neutral.

Ideally about 70-80% of your diet should be alkaline foods and the remainder acid-forming foods. For more detailed information on what foods are acid-forming and which are alkalizing consult Tree of Light's *Blood Type, pH and Nutrition* charts.

Additional Tips to Increase Electrical Energy

The earth itself is a source of electrical energy. When you walk barefoot in the grass or the sand, hug a tree or lie on the ground you absorb electrons from the earth. That's why connecting with the earth *grounds* you.

Running water is also highly charged and donates electrons, which is why taking a shower can help you feel refreshed. The same thing can be said for swimming or wading in the ocean.

Touch can also transfer electrical energy. When a parent hugs or massages a sick child it transfers electrical energy that aids healing. When a healthy person touches a sick person it helps them heal.

The important thing to remember is that your health doesn't just depend on nutrients. It also depends on energy. Following some of the tips in this newsletter will help provide more electrical energy so you can charge your body for greater health and vitality.