

The Wolfe Clinic News

Alkalinity 101

Which Side of the pH Scale are YOU on?

It's time to cover, in more detail, an important topic which has become trendy to talk about in the media; pH balance. However, it has been popularized in such a manner that it oversimplifies the complex and elaborate processes used by the body to maintain a proper pH level in the blood.

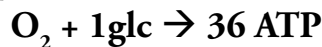
pH is a scale or balance system. The term pH means "potential of hydrogen". In order to understand pH we have to know what pH is measuring: alkalinity and acidity. pH numbers range from 1 to 14 with neutral being 7.0.



body fluids, and as such it must be mildly alkaline. If it is not mildly alkaline, it cannot use oxygen efficiently and if it is unable to use the oxygen effectively, it produces free oxygen radicals.

The alkaline side of the pH scale is called aerobic metabolism, where oxygen burns glucose to create

energy. Oxygen burns one sugar molecule via the kreb cycle to produce 36 energy molecules called adenosine triphosphate (ATP).



This process is called oxidative respiration. It is important to remember that oxygen does not make the environment alkaline;

oxygen is the currency, the substance that is used in an alkaline environment to keep you alive.

What is the definition of alkalinity and acidity? Acidity is the concentration of the hydrogen ion. Alkalinity is the concentration of the hydroxyl ion or OH's. So the difference between acidity and alkalinity is oxygen. The body attempts to maintain a pH of 7.4 in critical



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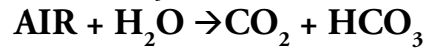
The Wolfe Clinic

"FEAR IS THE GREATEST DISEASE"

There are substances that keep you alkaline called buffers. There are two buffers:

Where does disease begin? Usually at the cellular level inside the cells.

- i) Extracellular fluids found outside of the cell and are made up of air and water, which produces carbon dioxide (CO₂) and bicarbonate (HCO₃).



This process primarily takes place in the lungs and kidneys, but there are other organs that can compensate to help manufacture CO₂ and bicarbonate but CO₂ is injected into the blood by the lungs and the bicarbonate CO₂ balance is maintained primarily by the first organ of activity, the kidney.

- ii) Intracellular fluids found inside of the cell contain buffers called hemoglobin (which can handle approximately 20% of the cellular buffering needs), calcium (Ca), magnesium (Mg), potassium (K), sodium (Na), chloride (Cl) and phosphate (PO₄). These are the buffers that the body uses primarily to maintain alkalinity.

Did you know your body doesn't produce Ca, Mg, K, Na & Cl?

We have all heard of these minerals (Ca, Mg, K, Na & Cl), but the body does not just produce these molecules; you must first bring them into the body.

Minerals bind to other minerals, creating very small compact, tightly bound substances like bone, rock and shells. We are not built to eat things like that, thus, it is difficult for our bodies to dissociate these minerals through ionization. This has to happen in the stomach. One of the reasons that certain products are sold in the mainstream market place to help acidity is because they buffer so significantly. They suck up a lot of acid because it takes a lot of acid to split these minerals apart. Those kinds of minerals do not exist in the food that we eat (vegetation, fish, poultry and meat). The minerals are bound to organic acids, large weakly bound molecules so that when you put them in your stomach, the stomach acid

easily and effortlessly ionizes them because in the blood the minerals are ionic (unbound molecules). So, the ease with which the body can ionize the minerals is an important factor; if you try to eat bones, rocks, or shells, you impose a tremendous challenge on the body's ability to ionize those minerals; therefore, you reduce the ability to utilize those minerals and you impose some stress. If you take something like a calcium sulphate; it that can actually cause intestinal hemorrhaging. Iron is bound to some of those minerals; making them caustic and damaging to the intestinal lining. As such, we like to use organic forms of minerals, not necessarily certified organic but bound to organic acids like lactic acid, malic acid, amino acids, alpha-keto glutaric acid and citric acid; basically large molecules that are easily ionized so that the body can use them.

A Must Read



The Water Puzzle and the Hexagonal Key is not just someone else's ideas about water, it is scientific documentation, collected over a period of 40 years and presented in simple terms.

On the other side of pH

On the other side of the pH scale is the anaerobic metabolism (without oxygen). Here, glucose is only able to produce 2 ATP molecules.

CO₂ → 2 ATP

This reaction uses a kind of fall-back fail system called fermentation. This process is not very efficient because the cells want 36 ATP molecules and are getting only 2, so the cell has to use more fuel to make more ATP. If it was able to make the same amount of energy, it would need a minimum of 18 times more sugar. An increase craving

of sugar is due to high acidity of bodily fluids, if you were more alkaline you would not have that need for sugar. As a matter of fact, this system doesn't work efficiently because lack of oxygen brings decay and death while oxygen brings life. Interestingly, one glucose molecule equals two lactic acid molecules. Lactic acid damages cell membranes, causes pain, and helps to stimulate inflammatory disorders. As such, the body tries to get rid of it. In medicine they look at something called lactate dehydrogenase (LDH). High

levels of LDH on a chem panel, signifies that the body is trying desperately to breakdown lactic acid in the cells. So this is a byproduct of the inefficiency of this system and is why all cancer cells are bathed in lactic acid. Some other anaerobes include yeast, fungi, mold, bacteria, worms and other parasites.

Cancer cells are anaerobic

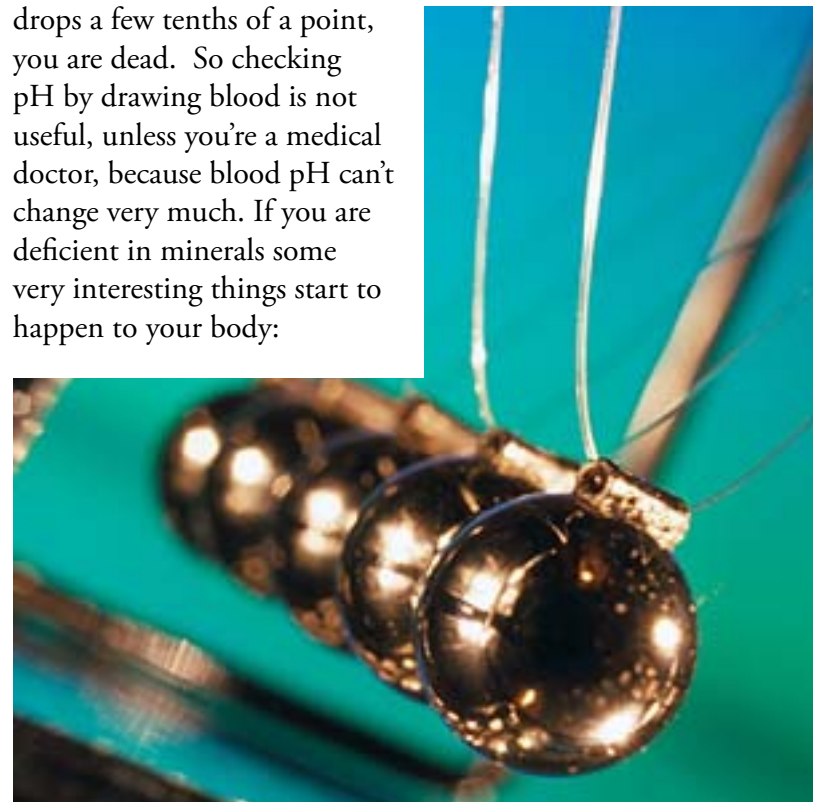
Cancer is an anaerobe, in fact, Dr Warburg (1934) demonstrated that if you put cancer cells in an alkaline solution they die within a short period of time because alkaline solutions contain oxygen and oxygen is toxic to cancer cells.

As a matter of fact, there are some clinics around the world that use ozone (O₃) to kill cancer cells. Unfortunately, you can kill all the cancer cells you want but the problem with this approach is that it is rather like swatting mosquitoes in order to get rid of a stagnant pond. It simply isn't going to help; you have to clean up the pond to finally get rid of the mosquitoes. So to

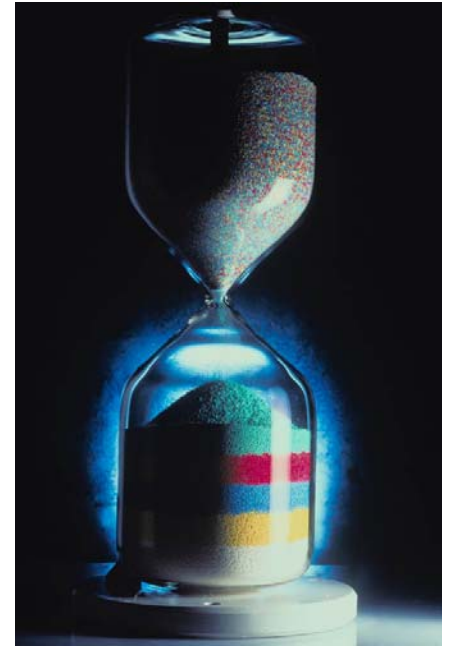
cure disease, we have to correct the acidic environment of the body; not go after the parasite that is associated with an acidic pH.

Many individuals use pH test strips to check the pH of the body, but it must be clearly understood that when you test urine or saliva pH, it is not telling you what the pH of the body is. What it is telling you is the overall burden that the body is imposing on non-critical fluids for buffers to keep blood at a pH of 7.4. If that critical pH level

drops a few tenths of a point, you are dead. So checking pH by drawing blood is not useful, unless you're a medical doctor, because blood pH can't change very much. If you are deficient in minerals some very interesting things start to happen to your body:



- i) It robs minerals from your saliva because saliva is a non-critical body fluid and as such a change in the pH of your saliva will not cause your body to die.
- ii) It robs minerals from the muscles which are why you get muscle cramps, twitches, charlie horses, leg shakes, night shakes, eye twitching and many other physical disorders associated with electrolyte deficiency or mineral deficiency.
- iii) It robs minerals such as calcium phosphate and calcium carbonate from the bone, but not the organic forms needed for your diet. The body needs these minerals for pH regulation. So where does it send these minerals in order to ionize them? To the kidney, since the kidney is where acidic and alkaline levels of the body are maintained (CO_2 and HCO_3), hoping that the acidity of the CO_2 will ionize the minerals so that they can be used for the important role of maintaining pH. Calcium is the most abundant mineral in the body and has the most rapid turnover in pH maintenance.



Risk of mineral deficiency

This leaves the individual who is mineral deficient at risk of developing kidney stones, gall stones, bone spurs, calcium deposits, tendon and ligament tears, muscle strains and sprains, muscle scar tissue, heart problems and atherosclerotic plating. The sequence of problems begins to escalate, but it all starts with low back pain and large muscle cramping.

For example, finger twitching can occur when writing because the arm is resting on a nerve and there are electrolyte deficiencies in the body. So, you need to consume healthy forms, either ionic minerals or weakly organically bound forms of minerals in your diet. When you take a pill that has minerals in it, for example, one that is proposed to contain 1000 mg of calcium, it comes from substances that are made from bones, rocks and shells; however, that form of mineral is not going to provide the best source of nutrition for you. But if you eat a piece of steak or chicken that contains 1000 mg of

calcium, you will be getting your calcium, magnesium, and potassium in your food and/or supplements that contain organic forms and/or in water that has coral calcium in it that is ionized and readily available. For example, when you put the teabag of ionic coral calcium in water and you shake it up, you ionize the minerals in there (Ca, Mg & K), and it probably doesn't even have the chance to get to the stomach because it is flash absorbed. It is ionic and looking for a partner with which to bind.

So if you are craving carbohydrates and you are getting muscle aches, muscle cramps and twitches and low back pains and you have headaches, neurological problems and your digestion is down, you

know that you are acidic. Yeast problems, worms and parasites are all low level symptoms of issues of acidosis. All life exists in a healthy alkaline pH, where oxygen can be efficiently utilized to burn sugar and make energy. If oxygen can not be utilized on the acidic side of the scale, the body produces a lot of free oxygen radicals. If you want to be healthy you have to be alkaline. Does that mean eating alkaline foods? No, it means eating foods rich in fatty acids because fatty acids and minerals work together like "handshakes." But you need to have the minerals, because the minerals in your food and water help to fund the resources needed to maintain an alkaline pH.

ASK DR. WOLFE

ANSWERS TO YOUR MOST COMMONLY ASKED QUESTIONS ON pH

Q: It looks as though, in the environment that we live in today, we have mold and bacteria and other parasites in our bodies. If we are acidic, we are giving them an environment in which they activate and grow. And if I keep my body alkaline, I prevent their growth? Do I understand this correctly?

A: That is correct. Anaerobes thrive in an oxygen deficient, decaying, acidic environment and since the body is not systemically consistent, where certain compartments of the body can become acidic while other compartments are remaining alkaline, it is kind of a prioritization. In other words, your blood has to stay alkaline while your breast or prostate is willing to sacrifice itself because it is not as critical, so there is this elaborate backup defense system that steals buffers in order to keep the blood alkaline and increases the risk of yeast, parasites, molds, bacteria, infections and cancer.

Q: If my body is no longer acid, there is no way that my body would have cancer or any other known disease?

A: The process of maintaining an alkaline pH is not a one time stable stamp of activity or of being. It is a very dynamic exchange and interchanging environment that is similar to other variations and fluctuations that your body goes through in cycles to maintain equilibrium. There are times when certain areas of the body become more acidic and buffers are applied to make them more alkaline. So you do get manufactured cancer cells many hundreds, if not thousands of times a day, but the elaborate, protective measures of the body are able to intervene and terminate those processes and kill the cells and the associated bad bacteria. So it is not a linear, stable relationship, it is a very dynamic environment with major fluctuations and falls back to the fact that you have to put good things into your mouth in order for your body to have the resources to do what it needs to do to stay alkaline. Thus, I can't say that you won't have cancer. What I can say is that cancer cells will not thrive in a healthy alkaline, life promoting environment. If you change the stagnant pond and make it a clean pond, you don't get the mosquitoes. (**Read "Reclaim Your Inner Terrain" and "Spoiled Rotten."**) Conventional medicine, unfortunately, too often looks at swatting the mosquitoes: killing the cancer cells, cutting out the cancer cells, poisoning the cells ability to live, without addressing the basic issues. The main one being the elements and compounds that make up the body and how they interact to sustain a healthy alkaline pH.

Q: Can I become too alkaline?

A: There are disorders of alkalosis and alkalinity that are addressed in medical literature on pH. The problem seems to be one of sequence, generally, disorders of alkalosis occur only after a pre-existing, chronic and long-term state of acidosis. The body goes through a process where it desperately attempts to alkalize that environment by literally cannibalizing every available buffer and dumping them in those compartments that are too acidic. Often, that alkalosis occurs near the end stage of termination. When the body gets far too acidic and it has endeavored to use all of its resources to try and keep you alkaline, it literally gets all the alkaline buffers that it can obtain and then basically floods the compartments that are acidic resulting in the development of alkalosis. I have not seen it to be a long term disorder, it is relatively short lived and prior to the end.

Q: Can I drink too much alkalizing water and cause a negative effect to my body?

A: No, because the acids are buffers as well and the body does regulate the pH, our only problem is that the standard American diet is high in sugars and refined fatty acids, which are also acid promoting. These push the scale to the acid side and draw upon the alkalizing buffers. Buffering is the process of maintaining equilibrium in the middle, it doesn't just mean alkaline. Acids are also buffers when you get too alkaline. However, by the time you've gone through the gamut of being too acidic and your body is trying to flood itself with alkalizers and alkalosis takes place, you have disrupted the system so severely that bad things will happen. If you are just drinking ionically charged water, you would probably drown before you could get too much alkalization.

Q: It is a known fact that detoxification is a key aspect in your body remaining healthy. We've heard a lot about coral calcium and the fact that it is a great detoxifying product and it can help you to stay detoxified on a regular basis. Is that true?

A: Yes, because the body needs to have the complete arsenal of resources, especially the most plentiful ones in the environment. Calcium is an extremely copious mineral and is probably the most abundant mineral in the body. It's required for the body to support itself on an ongoing basis and to detoxify its cells. As well, oxygen is needed in an alkaline environment to fund energy production. When you have too many toxins in the body, they actually occupy the receptors where oxygen would need to be attached in order to be utilized. Therefore, acidosis also occurs due to toxins in the system that hinder oxygen usage and force the body to slide into the acidic side. In order to intervene in that process, you need to supply the body with the minerals that it needs to fund those detoxification systems. You also need an enhanced hydrating water, fiber and other vitamins and minerals as well.

Q: If we get our pH alkaline, is it true to say that it really aids us in the simulation of our food when we eat it?

A: Yes, but let me make one point. We always have to attain and keep our body alkaline. There is never a static point. It is an ongoing process dependent upon the constant consumption of all the resources needed to maintain that process. There is a question of cycling: your body is constantly living in a dynamic state where acid and alkaline are opposing forces and the things that you consume to promote acidity have to be countered by the things that you consume to promote alkalinity in order to maintain a pH of 7.4 in the blood. So, even though the digestive system has a somewhat different acid-alkaline dynamic, the tissues supporting the acid-alkaline dynamic have to fall within the guidelines of 7.4 pH, even though the actual digestion environment pH may change quite dramatically.

About 80% of the lymphatic tissue resides in and around the gastral intestinal tract. This is interesting, since it must also be healthy, alkaline and well nourished in order to detect and respond to agents, foods, substances and toxins. It must differentiate between things that are supposed to be in the body from foreign matter. So the digestion system does not just work for digestion, it is also a very active, immunological process that takes place on an ongoing basis within that environment. As such, maintaining an alkaline pH in that system is critical for digestion, absorption and assimilation.

Q: Does stress have any affect on pH?

A: Absolutely! Stress is a metabolic demand or burden on not only resource utilization but also the body's hormonal system. It poses a large demand on your bodies need to function under those demanding circumstances.

Q: Does it create a more acid environment?

A: Again absolutely, because when you are using up your sugar you are increasing the velocity of sugar utilization. Therefore, you are increasing the velocity and need of mineral and fatty acid utilization and other nutrients. So stress uses up nutrients quicker and you have a greater predisposition to fall into the acid arena. The two groups most prone to acidosis are the elderly and elite athletes. They seem to develop the same types of disorders.

Q: In regard to balancing our body, are there any acidic foods or drinks that we should stay away from?

A: Sodas are a catastrophic imposition on the body. It takes approximately 30 glasses of water to rehydrate what is being dehydrated by the imposition of a carbonated soda. In addition, the carbonation process effortlessly cannibalizes very acidic food that also leaches minerals

and the phosphates that bind to minerals out of the digestive system. So it definitely does promote osteoporosis and osteoarthritis. Removing minerals on the acidic side of the scale can lead to bone demineralization and osteoporosis; mineral deficient bone disorders.

Q: You have always made an important point on the significance of bioavailability of minerals in the foods that we eat and the importance of restructured enhanced water we drink and that we have to have ionized minerals in order to buffer the body to make it more alkaline versus acidic. Is it possible to eat enough of the right kind of foods in order to achieve the buffering effect from the minerals?

A: In a perfect world the answer would be yes, but since the early 30s, the agro business has devoted itself to finding ways to produce more abundant foods from our dwindling land sources. 98% of our domestically produced food comes from the same 2% land mass, year after year. Factory farms are designed to produce mass quantities of food with only minimal attention to the full spectrum nutritional status of the soils from which they are produced. In addition, they are gassed and put on ice to be shipped across the country to distribution centers and then into your grocery stores. That process takes about 4 to 7 days in which, if food is not sustained in suspended animation, it begins to die gradually. That is why it is radiated and gassed to kill everything that is in the food to minimize that death process so that by the time it gets to your grocery store that it at least looks good. The sum total of that is that there are pesticides, herbicides and growth enhancers that make the food look really good. Much of the food that we consume today is missing those important substances that give them the fullness of flavor and nutritional value. In sum, we do not get enough nutrition needed even from the fresh food that is available and certainly not from the packaged processed food that we excessively eat. We are a country that is overfed and undernourished; therefore, we need to supplement with foods that have quality nutrients in them from a diverse source: food, water and dietary supplements. (Again, please read "Reclaim Your Inner Terrain" and "Spoiled Rotten.") The most recent food guide pyramid that is due to be released recommends supplementing your diet; the Journal of American Medical Association recently recommended that it is proven for all Americans to supplement their diet with a vitamin mineral compound. I would suggest that while it is possible to get the nutrients from a perfect food in a perfect world, the current rate of degenerative disease in our culture is pretty much solid enough evidence that it is not happening and we do need to supplement. As well, since we are 70% water, the type of water we ingest is as important as the type of minerals we consume.

Q: Because of all of the problems we are seeing with our children,, at what point should they begin to use supplementation and how much of an affect do you think deficient food and the use of carbonated beverages is having on not only the children's health but the incidence of diabetes and obesity in our children under 12.

A: We should start immediately; mothers should nurse their children and take care of their own health. Parents need to be healthy so that their genetic program is as perfect as it can be when it is passed on to their offspring. Mothers need to be well nourished. It is a fact that mothers who develop gestational diabetes during their pregnancy, go on to develop adult onset diabetes. That is because the baby is lobbying all of the minerals out of mom

(in this case chromium) in order to support its ability to have a healthy body. When resources are dwindling within the mother, a vicious battle goes on between the baby and the mom. Even when the baby is still a fetus, nutrition is essential. We are only made of food, air, water and sunshine. To the extent that those resources are compromised or suboptimal, is the extent to which abnormalities abound. Not even just health abnormalities per se, but even genetic expressions influenced negatively by a deficiency in those nutrients. I would suggest that all mothers initially start with breast milk and then if she wants to wean off, she should go with milk that may be fortified with good organic colostrums, electrolytes and bacteria; because an infant does not have lactobacillus acidophilus bacteria. These bacteria only develop as the child ages. When children who are deficient in the proper nutrients begin their Standard American diet of sodas and candies, they quickly produce anaerobes. Pediatricians commonly see ailments such as colic, ear infections, eye problems and childhood rheumatoid arthritis. This is just a few of the many disorders found in children.

Q: What should our priorities be?

A: Your priority should simply be to take care of yourself and take control of your family's health.

Reclaiming your Inner Terrain means following a custom tailored plan that guides you to better and more vital health. You need a proven program with unlimited support that works! This includes a cleansing program as well as cutting-edge nutritional products, supplements and minerals. Cleansing the body is an essential and necessary part of each and every health program. And let's not forget water! Your body is over 70% water and my professional experience has proved to me the health benefits of including clean, alkalizing, restructured and enhanced water in any wellness program. Water is the most important compound you put into your body.

To get on the proper health track, call our 800 number today and book a telephone consultation with me, Dr. Wolfe. All of my health programs include unlimited follow up support. May you bless yourself with vibrant health!

product that help

Wellness Filters



Ridding your water of nitrates, pesticides, heavy metals and parasites.

The Water Vitalizer Plus



Use the natural principles nature to enrich you water.

Microhydrin



A New Defense Against Free Radicals

All Theta Minerals



Mineral dietary supplements that are the purest minerals available!

Bioxy Cleanse



Oxygen Colon Rejuvenator
The Next Generation in Superoxidization.

HydraCel



Enhances the power of all foods and nutritional products consumed with it!

Coral Calcium



Restores pH balance for optimum health.

GreensFirst



Healthy Never Tasted So Good!

Neutralizer



Use the natural principles nature to enrich you water.

UltraBioMinn



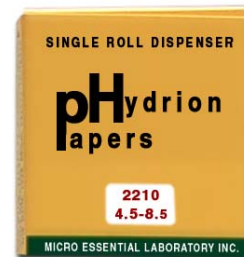
Use the natural principles nature to enrich you water.

pH Kit



Use the natural principles nature to enrich you water.

pH Paper



Excellent for testing both saliva and urine.

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