

Testing Your pH

By Chris Melmoth, LMT, EMT

“If you think your disease is going to go away simply because you’re starting to get your pH in the green... forget it.” Dr. Vincent Medici

What is pH?

pH stands for “potential Hydrogen”, and reflects hydrogen ion activity in any given solution. The relative acidity or alkalinity/basicity of substances is measured in terms of pH. The more acidic a solution is, the lower the pH number will be. The more alkaline a solution is, the higher the pH number will be. The pH number scale goes from 0.00 (completely acidic) to 14.00 (completely alkaline). Distilled (pure) water, with a pH of 7.00, is right in the middle – neither acid nor alkaline. An acidic solution can be made more alkaline by adding alkalizing minerals, such as sodium, calcium, or potassium that “buffer” the acid. An alkaline solution can be made more acidic by adding acidifying substances, like sugars.

The pH of a solution can be determined by using strips of chemically treated paper (pH strips). When immersed in the solution, the paper changes color to show the degree of acidity or alkalinity.

pH and Your Health

There’s been a lot of hype over pH in relation to the health of the body. Holistic practitioners of all types believe that the daily testing of your pH is the single most effective way to ensure health, even claiming that its an effective way to prevent & treat cancer naturally. Well, as in everything else in life, there is some truth to their statements, and some ignorance.

The studies that are often quoted by these alternative practitioners were on cellular respiration, and done by Dr. Otto Warburg early in the 20th century. They summarized that the primary cause of cancer is anaerobic respiration, or cellular metabolism in the absence of oxygen. Hence the common notion in alternative medicine that cancer cannot survive in an alkaline environment.

This is what we know for sure...

When the pH of the interstitial fluid is low, the respiration of the cells is poor. You need a sufficient amount of calcium in the interstitial spaces, which allows the cells to uptake oxygen. This allows for proper respiration of the cell, which makes the production of ATP as efficient as possible. Lack of that efficiency causes fermentation, and the production of

lactic acid. The fermentation causes fungus to grow, which eats the dead cells that result from the lactic acid exposure. In a healthy individual, one molecule of glucose (cellular fuel) yields about 30 molecules of ATP (usable cellular energy). But in an individual with poor cellular respiration, that one molecule of glucose may yield only 20 molecules of ATP... or 15... or 10. *Health is efficient respiration.*

Testing The Body's pH

It is believed that by simply testing your saliva and urine you can get a good idea of the pH levels of the fluid around your cells. And that if you slept well enough the night before, have been consuming sufficient amounts of alkalizing minerals, are not submerged daily in a toxic environment, eliminating your bodily waste products efficiently, and not being too affected by harmful emotions... your first mornings urine pH should be at least above 6.4.

But is testing the body's pH reliable?

It should be clear that Warburg's studies are based in hard science. But although his conclusions are likely to be true, this does not necessarily mean that pH readings are reflective of the pH in the body. Nor does it prove that alkaline pH test strips are indicative that the body is free of cancer (or other acid-related diseases).

There is no definitive proof that pH testing is actually giving you an accurate reading of the overall extracellular pH levels in the body. And even IF the pH readings are accurate, a disease process may still be present in certain areas of the body where the pH is acidic. For example, if there is inflammation present in a specific tissue from some past trauma, say a tissue injury or organ disease, there will be scar tissue. This area will likely be acidic, yet will not affect the urine or saliva pH. We must understand that it is possible to be chronically diseased, and still have alkaline pH readings.

Furthermore, pH testing is based in empirical evidence (from experience, clinical and/or personal). Empirical evidence is good, and in many situations can be relied upon, but often may not be able to be confirmed by scientific studies, and therefore cannot support claims.

So, pH testing is good, and we support it. But just because your pH is alkaline, does not necessarily mean your body cannot get cancer, or some other disease or dysfunction. All it means is that these conditions are less likely to occur.

All that being stated, let's now look at the useful aspects of pH testing.

In the body, the pH reading can basically tell us how much oxygen is in the fluid around the cells (extracellular/interstitial fluid). Optimal cellular metabolism occurs when this fluid is in the alkaline range, or at least above 6.4 on the pH scale.

The most critical pH is in the blood. The body is constantly making adjustments in the organs & tissues to maintain a strict pH between 7.35 and 7.45 in the blood.

Under low pH, your blood cannot carry as much oxygen to your cells as necessary for optimal health & function. This forces the cell into an anaerobic state, which leads to inflammation, fermentation, and weakness & scarring of body tissues.

How To Test The Body's pH

There are several indicators that can tell you if your body is acidic. When you wake up in the morning, does your body feel stiff? If you try to make a fist, is it weak? Does your urine smell like ammonia, or is it foamy? If you said, "yes" to any or all of these, your pH is likely in the acid range. But if you are still not sure, you can follow the instructions below.

Here is the proper way to test the body's pH. Hydrion pH test paper can be purchased online or at most health food stores. Testing urine and saliva after sleeping at least five hours may give you an idea of how your body is operating. Urine pH is used to tell you how your body is responding to the food & drinks you've been consuming. Saliva pH is used to tell you how your body is adapting to your thinking and the stresses of your life. Although your saliva pH should be in the alkaline range, it is more of an indicator of mouth health rather than whole body health.

Testing Urine: This will reflect your body's ability to process your daily protein intake, and may be an indirect indicator of your body's alkaline mineral reserve levels. This possibly is the simplest biochemical test you can do to check your overall potential for health.

>Dip the end of a pH test strip into the mid-stream of your first morning urine. Do this every few days for several weeks, recording the numbers and obtaining an average pH over time according to the colors they match on the test strip container. This will give you a good idea of how healthy your extracellular fluids are.

Week 1 Average _____ Week 2 Average _____ Week 3 Average _____

Ideally you want to achieve a daily urine pH of above at least 6.40. And although it is possible for the pH to be too high, this would be a very rare situation.

Testing Saliva: This will tell you how much the effects of emotional stress are having on your overall body pH. If the resulting number is in the "acid" range, it may mean that you are not dealing with stress properly, and it is having a negative effect on your body.

> Wait two hours after eating. Touch the end of a pH test strip to the saliva in your mouth. Record the resulting number according to the color it matches on the test strip container. Put an acidic substance in your mouth, such as a Vitamin C tablet, powdered ascorbic acid, or lemon juice, and swish it around for about twenty seconds. Spit out the substance, and then swallow four times. Then re-test the pH of your saliva with another test strip, and record the new number according to the color it corresponds with.

Before _____ After _____

If there is no significant drop in your “after” number here, your body probably has enough minerals stored up to deal with your daily emotional stresses without any acidifying effects. But if there is a significant drop in the pH of the second number, either your body does not have enough stored up alkalizing minerals, or your daily stresses are simply too much for your body to handle.

How to improve your pH

Most of the pH-raising recommendations that healthcare practitioners make are based upon nutrition, when in fact the foods & drinks you consume have far less to do with your body’s pH than your lifestyle & mindset. As a matter of fact, if you lived in the right environment, were relaxed for most of your day, and got plenty of sleep, you could be a cigarette smoker (a very acid-producing activity) and yet still have an alkaline pH. This is the case in Ikaria, Greece and other so called “Blue Zones” around the world, where people live the longest lives.

Here are some of the ways to raise the body’s pH, in order of importance.

1. **Autonomic Balance.** Reaching a genuine level of relaxation in your body that lasts throughout the day, even under pressure and stress. Getting enough quality sleep to rebuild cells. And being out in nature often enough to keep the body full of electrons and resonating with the earth’s magnetic field.
2. **Exercise and “breath work”.** Getting sufficient amounts of exercise helps to increase oxygen levels in the body and keeps that oxygen circulating into the cells. This includes spending time in clean air environments. Since oxygen is the primary nutrient of our cells, it has been postulated that people of ancient cultures lived much longer than the people of today because there was more oxygen in the air.
3. **Alkalizing Foods & Supplements.** You must build up your body’s levels of alkaline “ash” by eat foods that are rich in oxygen, such as live foods, “superfoods”, sprouts, raw meats, eggs & fats, fruit & vegetables smoothies, oxygenated water, etc, and consuming organic minerals, such as calcium, magnesium, potassium, sodium, phosphorus (electrolyte minerals) all can help to raise the pH.

Recommendations & Troubleshooting your pH Testing

It is recommended that you keep your pH strips in your bathrooms for easy access. You may also want to continue testing your pH throughout the day to help build the habit and to monitor your pH fluctuations.

Also, keep in mind that extreme chronic acidity in the body may lead to false readings. Highly acidic bodies will register in the dark green or bluish level, from ammonia in the body. After supplementation & life changes, the pH reading will show as yellow, then it will slowly rise to green as alkalization occurs.

If you're having trouble raising your pH, this can be due to several factors.

The most important factor in pH balance is **Autonomic Balance**. The Autonomic Nervous System (ANS) is the basic control center for all of the activities in the body, and consists of the Sympathetic branch (fight, flight, or freeze) and Parasympathetic branch (relaxation, reproduction, and rejuvenation). The body is designed to function optimally when it spends the majority of its time in the Parasympathetic mode, and should only use its Sympathetic actions when it is in danger. When the body is genuinely relaxed, it is doing all that it can to keep the cells bathed in an alkaline, oxygen-rich, environment. But commonly, many people are too "sympathetic" throughout their day, which quickly burns out the cells oxygen & alkaline mineral "ash" reserves, leading to acidity, inflammation, oxidation, and degeneration.

So basically what Autonomic Balance means is... Are you getting enough quality sleep? Are you dealing with daily stress effectively? Are you relaxed enough throughout your day? And are your adrenal glands strong enough to get through your day without the use of stimulants?

The next factors to look at have to do with **diet & exercise**. First of all, the kidneys MUST be healthy enough to improve pH, and for supplementation. If you have any kidney deficiencies, please get your doctor's approval before increasing your dietary mineral intake. If your body IS healthy enough for supplementation, are you consuming *and digesting* enough alkaline-producing nutrients? Are you exercising regularly to keep the oxygen freely circulating throughout your body? And if there is a disease process present, such as diabetes or COPD, the cells may not be able to get & store enough oxygen. This would have to be resolved before the pH will rise. Simply adding mineral supplements to the diet will not help.

Also, understand that different body types have different nutritional needs. If you are a "fast-oxidizer" (the "yang" type, in Chinese medicine), you will likely need more calcium & magnesium in order to raise your pH. If you're a "slow-oxidizer" (the "yin" type, in Chinese medicine), you will likely need more sodium & potassium to raise your pH. "Mixed-oxidizers" must find their unique balance of alkalizing minerals. Highly metabolic body types (usually O-blood types) may need more protein to raise their pH, requiring more amino acid to repair their cells. Without it, the cells die faster than they repair (cachexia), which causes fungus to grow (candida), producing the acid aldehyde that lowers the interstitial pH. *For more information on these body types, please see the work of Drs. George Watson and Paul Eck.

The final aspect to examine is your **physical environment**. Do you live around, or work in, a polluted or toxic environment that is constantly keeping your cells in an anaerobic state? And are you eliminating these toxins from your body (via the liver/gall bladder, kidneys, intestines, lungs, and skin) efficiently enough?

If you are still having trouble with your pH, you may need to contact your best holistic health practitioner to help you identify the source(s) of your problem.

In conclusion, I would just like to reiterate... Efficient ATP metabolism is the key to cellular health and high energy levels, and this is why we measure pH. Although we may not be able to completely trust the results of pH testing, it definitely can be a simple, valuable and useful tool in helping you to reach your optimal health goals.

And I'd like to leave you with this final insightful quote...

“For a series of reasons, that we know have nothing to do with your genetics... If the environment in which the cell respirates begins to corrode the environment, it will start to flip the switch on the epigenetic factors that determine whether or not your mother gene is going to express your disease... And you can control that terrain by not destroying your respiratory cycle.” Dr. Vincent Medici

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