

PH PRINCIPLES

Maureen Fontaine, B.Ed., ECS, Clinical Nutritionist, Master Herbalist, Wellness Consultant,
Diet & Weight Management Consultant, Ontological Health & Life Coach

pH stands for the potential of hydrogen within the bloodstream and in the urine. The pH adjusts according to the food and liquids we put in our system and the stress load in our lives. This reading is the report card for the quality of fuel we have ingested and represents our body's ability to deal with these choices.

Striving to achieve a urine pH of 6.4 and a saliva reading of 6.4 ensures that the blood pH is at 7.34, which is optimum health. Don't be fooled by the information in the marketplace that suggests that the higher your pH readings the healthier you are. There could be nothing further from the truth!

Physiology textbooks all make significant reference to the importance of the pH balance of the bloodstream as being the most important biochemical balance in the body. pH measures the speed of biochemical reactions within and gives us many clear examples of just how important these biochemical reactions and electrical energies are. An acidic system is fast causing exhaustion and burnout whereas the more alkaline system is slow causing stagnation, congestion and diminished body functions. Note that imbalances on the acidic side are five times more damaging than imbalances on the alkaline side.

Every part of the body is alkaline except the stomach with a pH of 3.0 and the colon, which is slightly acid at 6.8. The human blood pH has a very narrow range between 7.34 and 7.45, which allows for optimum control of the fuel supply from the hormone insulin.

PH controls the efficiency of insulin, which allows sugar to enter into cells, therefore controlling blood sugar levels to fuel the brain. Keeping tabs on your urine and saliva pH ensures that your enzymes remain constructive and that oxygen delivery to cells remains efficient. Balance is the key.

"Taking vitamin and mineral pills or any kind of food supplements without balancing your pH is like forgetting to add the yeast to your chocolate cake recipe." - James Lebeau

THE IMPORTANCE OF PH BALANCING

Lee Sargen, D.C. stated years ago that cancer cells only thrive in an acid environment therefore die in an alkaline environment. Cancer cells do not need oxygen to multiply and are therefore anaerobic.

Think of it this way. A swimming pool will grow all kinds of slime and critters if the pH is out of balance so in order to bring back semblance and health to the water we shock it. We simply balance its pH.

Notice as you monitor your pH that saliva tends to have very little swing during the course of a day whereas the urine pH normally will fluctuate after eating. This is due to the drawing of the acid element chloride out of the blood to make hydrochloric acid.

URINE pH - measures overall body fluid pH levels but more directly the lower body including ***stomach enzymatic ability, kidney and adrenal gland function***. It is most affected by what goes in our mouth.

SALIVA pH - changes slowly. Saliva measures enzyme functioning levels of both the ***pancreas and liver***. This also measures the alkalizing or acidifying effect of foods you have eaten and your stress level over the past few days. Major saliva imbalance produces problems with the lungs.

The pH of the Saliva reflects some of the important functions of the major organs of digestion, and is indicative of the status of the pH of the liver bile, pancreatic fluids and the large intestines. It also provides an indication as to which direction the secretions of the liver, pancreas and colon are heading, that is, either acid or alkaline. The pancreas and liver produce enzymes, which are alkaline and are measured by the pH of the saliva.

Monitoring urine pH is simple! Use a container and collect a small amount of your first morning urine midstream. Dip a piece of pH paper in and match the colors to determine your acid or alkaline numbers. Occasional pH testing can be continued as desired.

Monitor saliva pH as well for an even more accurate reading. Both urine and saliva readings should be done at the same time. The difference between the two numbers indicates just how disruptive the digestive system is.

THE PERFECT SCORE

The perfect reading is 6.4 for both saliva and urine with a swing range between 6.2 and 6.6. Your body is most capable of absorbing nutrients at this level and is also able to fend off bacteria, fungus, viruses and parasites more efficiently. pH numbers lower than 6.0 are considered to be acidic in nature, which means that you are in a state of deterioration. Your cells are breaking down faster than they are rebuilding. If your pH is 7.2 or higher, this could be a sign that your kidneys are secreting ammonia into your system to counterbalance the effects of an acid producing diet. pH numbers do fluctuate during the day and this is normal.

THE ACIDIC BODY- improves with the addition of potassium. This clearly illustrates the connection between adrenal function and pH balance. Providing support to both the adrenal glands and the thyroid is essential for creating the most balanced internal environment.

The body can be receiving signals to produce excess acid when too much protein, grain, sugar or dairy is consumed. Acid is excreted via the urine therefore clearly indicating how food is being assimilated in your system. The immune, hormonal, and digestive systems are aggravated by an acid environment therefore making us more susceptible to such things as viruses and bacteria, insomnia or fatigue and mood swings.

THE ALKALINE BODY - use 1/2 teaspoon of apple cider vinegar with meals when taking calcium supplements. This will add extra resistance that can help the body pick up the calcium more efficiently therefore balancing pH.

PH AND STRESS

pH Numbers - many people understand that when the pH of the soil is out of balance a plant will not grow correctly and will fall prey to disease. To change the soil pH from acid to alkaline we add garden lime, which is a form of calcium, for calcium, has an alkalizing effect.

The body pH indicates whether we are breathing deeply enough. In other words, it shows whether you are getting enough oxygen for calcium available for your liver. The liver requires more calcium by weight than any other mineral to manufacture the bile at the correct strength for the body's energy.

If the soils pH determines the growth rate of plants due to mineral absorption, then it also measures the mineral needs for the body. It represents a universal principle in Nature.

If the urine and saliva pH are not correctly balanced in the body it will manifest mineral deficiencies. No matter how wholesome the food, if the both are out of balance, the body is unable to assimilate minerals found in the food.

ACCEPTABLE PH RANGE 6.2 - 6.6

SALIVA pH

A high alkaline saliva pH indicates that the digestive enzymes are weak. This leads to weight gain, as well as possible problems with insulin levels; or a stressed liver that will affect gall bladder function and lead to the production of gallstones.

A high acid saliva pH will indicate inefficiency of liver function with weak bile. There will be a deficiency of the alkaline enzymes and a lack of energy. If the pH of the urine is also acid, the digestion speeds up producing a tendency toward stomach ulceration, colitis and loose stools.

URINE pH

When the urine pH moves into an alkaline environment, many food substances and especially proteins, are not broken down, and these build up as undigested protein wastes. The greater the alkalinity, the more a person becomes constipated, with an increase of toxic wastes which eventually leads to stress on the function of the liver. When the pH of the urine is alkaline for a considerable period of time, symptoms of constipation, nervous stress, immune deficiency, and exhaustion due to stress on the adrenal glands, may manifest.

High acid level of the urine pH shows deeper levels of acidity in the intestines. These produce putrid soft stools with smelly gas. The greater the acidity of the urine pH, and the older the individual, then symptoms such as ulceration of the stomach, increased heart rate, kidney stress; dry skin and dry mouth, may develop. High mineral loss to the organism occurs leading to many deficiency type problems.

When the Calcium is reduced in the diet, and/or is more of one type than another, the pH eventually will be affected by drifting away from 6.40 range. Knowing this we can see that the resistance levels, of the digestion, can be manipulated by Calcium's and those elements that assist it in function. This is the reason for calcium supplementation.

By altering the resistance of the digestion, through the use of diet, supplements, and lifestyle when the liver is unable to, it will increase the mineral energy available to the liver.

STRESS AND PH READINGS

It is common for the pH to fluctuate during the day, usually more acidic in the morning and more alkaline by late evening. Extremes in either direction illustrate acidosis or alkalosis but the less radical the fluctuations the more healthy the body is. Both conditions indicate stressful body chemistry, which in the long run have negative consequences on the body. The adrenal cortex produces aldosterone, which controls both potassium and sodium in the kidneys. Let's take a look at which organs help control the pH.

ADRENAL GLAND INFLUENCE ON PH

Stress of any kind influences the adrenal glands ultimately sending us into a high gear catabolic state, breaking down more tissue and reserve energy and producing an excess of acid.

The pH-controlling hormone produced by the adrenal glands is aldosterone. Aldosterone's control of potassium and sodium is critical to body chemistry and an imbalance can lead to problems on either end of the pH scale.

If there is not enough aldosterone, too much potassium is released therefore competing with hydrogen ions for exchange with sodium ions. Fewer hydrogen ions result in bicarbonates in the fluids outside of the cells, which is a primary contributor to acidosis.

If too much aldosterone is produced, then sodium is reabsorbed into the body fluids. The body then secretes more hydrogen ions, which results in alkalosis.

An excess of toxins circulating in the body increases the amount of aldosterone produced by the adrenal glands in an attempt to balance pH, but the most common result of this is a pH reading that reaches the 7's and 8's. With this pattern, adrenal fatigue results and aldosterone production is reduced. Low aldosterone results in acidosis and plummets the pH into the 5.0 - 5.5 zone where it can remain for some time.

LUNGS INFLUENCE ON PH

Breath is in fact a pH control in the body, the lungs being major blood pH balancers. Excess carbonic acid resulting from excess carbon dioxide from the cells causes us to breathe more rapidly in a more alkaline

pH, whereas more CO₂ creates an acidic pH. Where does carbon dioxide come from? Anytime that glucose is burned in the cells for energy, carbon dioxide is produced.

If your saliva pH is most acid in the morning upon waking this is because of depressed breathing patterns during sleep allowing for the buildup of carbon dioxide. Kidneys Influence on pH

The kidneys ultimately control the concentration of the bicarbonate ion in the bodily fluids. Once carbon dioxide enters the membranes of the kidneys, it combines with water to form carbonic acid, which is extremely unstable. This bicarbonate ion joins with sodium forming a sodium bicarbonate. Once they enter the kidney tubule, they part ways and the bicarbonate joins the hydrogen ion forming carbonic acid, which is unstable. This completes the cycle by becoming carbon dioxide once again and spills into the bladder. The kidneys will work endlessly to balance pH and are amazing work horses in their attempt to rectify imbalance.

SYMPTOMS OF PH IMBALANCE

How we eat, drink, think and behave greatly affects the outcome of our pH testing. Lifestyle patterns perpetuate themselves and permeate our physical being.

Urine pH and saliva pH have to be considered both separately and together. The actual pH indicates the overall speed and direction of digestion and tells us where the digestion is heading and determines your body's pattern within. (see pH Symptomatic Chart)

STABILIZE PH WITH FOODS

Without a doubt the most important control mechanism for pH balance is food intake. A diet based on fresh and raw food provides live enzymes that work 'with' the body rather than against it. Make an appointment for support and apply the simple considerations accordingly.

Remember – What you eat constitutes 80% of the results you will produce. Your program is only as successful as the food you eat.