

About Acid

We are alkaline bodies by design, but acid-generating by function. Acid is produced by the parietal cells of the stomach to aid in digestion, and acid is consumed in organic form in fruit. However, other than the stomach, no part of the body should be acid. Despite this, one of the most widespread and insidious causes of illness that plague our society is acidosis – an accumulation of more acid than the body can effectively process. Patients often initially consult a doctor seeking relief from symptoms of a chronic condition - arthritis, diabetes, emphysema, arteriosclerosis, or cancer. Regardless of the particular symptomatology, all of these conditions originate with an increase in the amount of acid in the body.

Acidosis is generally seen by medical science as a part of the pathology of several different diseases including impaired liver function. It is encountered often enough to be assumed to be normal; however, acidosis is definitely not normal. It is the forerunner of most, if not all, chronic degenerative diseases including cancer, diabetes, arthritis, and heart disease. These diseases are rampant enough to be considered epidemic in our country. Acidosis is often a covert condition, where the patient feels good in the early stages of acid accumulation. In fact, he may boast of an exaggerated feeling of well-being and an unusually high level of energy. Unfortunately, this is an inaccurate perception resulting from the "stimulatory" reaction of the body's regulatory systems that are operating in high gear to process the excess acid. Both the good feeling and high energy level will disappear as more acid accumulates. In a continued effort to maintain alkalinity, the neutralizing alkaline reserves are depleted and the liver becomes increasingly congested and is unable to perform its function of detoxification. When the extra cellular and intracellular fluids lose their alkalinity, the person is considered to be in a condition of acidosis.

▪ ATTITUDE and ACIDOSIS

Prolonged periods of acidosis affect not only the physical condition but also the mental and emotional states of patients. Similarly, mental attitude can affect the physical state. It is possible for a person to maintain a diet high in fruits and vegetables and still be acid. Regardless of the diet followed, the person who is negative in his outlook on life is acid. Negative thoughts act to stimulate the action of the adrenal glands that in turn speed up the body's metabolic activity. As this occurs, more acid is produced and since the process is continuous, the amount of acid overpowers the alkaline from the good food and the net result is acid. And the cycle can be perpetuated; the more acid we become, the more negative, defensive, argumentative and unpleasant we become. The pessimist who can find nothing good about anything is almost certainly in some degree of acidosis.

▪ SYMPTOMS OF ACIDOSIS

Symptoms of prolonged acidosis that are caused by the consumption of excess protein can easily be mistaken for individual character or personality traits. However, definite attitudes and mannerisms develop as a result of the super-charged internal activity of the body as it works toward ridding itself of the damaging excess acid. The person who is on a high-protein diet moves through a progression of symptoms.

Initially, the person . . .

- Has an exaggerated sense of well-being
- Is a high achiever, a *"mover and shaker"*

- Believes himself to be perfectly well
- Is overly ambitious and restless due to the irritation of the nerves.

Later, the person . . .

- Sees only the pessimistic side of issues and life
- Can't sleep restfully
- Wakes up as tired in the morning as he was when he went to bed
- Constantly finds fault with everyone and everything
- Is tired and experiences generalized aches and pains
- Becomes irritable, ill tempered, and difficult to please
- Shows signs of "aging" as the body removes alkalizing substances from the muscles then calcium from the bones

Although everyone who is suffering from acidosis does not experience all of these symptoms, it is helpful for the practitioner to be able to correlate some *"personality traits"* with clinical findings and to recognize indications that the patient's body is over taxed and headed toward chronic degenerative disease.

• 10 Reasons To Avoid Acidosis

1. **Corrodes Arteries, Veins and Heart Tissues** like acid eating into marble – acidosis erodes and eats into cell wall membranes of the heart, arteries and veins, weakening cardiovascular structures and inter connective tissues.
2. **Accelerates Free-Radical Damage and Premature Aging** – Acidosis causes partial lipid breakdown and destructive oxidative cascades. This accelerates Free Radical Damage of cell walls and intracellular membrane structures, which then unravel, killing cells in the process. Acidosis is thus thought to be the first step toward premature aging, accelerating oxidative cascades of cell wall destruction, creating wrinkling, age spots, dysfunctional hormonal systems, interfering with eyesight, memory, and a host of other age-related phenomena.
3. **Causes Weight Gain, Diabetes and Obesity** – An acid pH has considerable influence over the majority of weight problems, including Diabetes and Obesity. It seems that a habitually acid pH can directly cause immediate weight gain. Here's what happens when a system is too acid. A condition known as Insulin Sensitivity or Syndrome X results, which forces too much insulin to be produced, and the body is flooded with insulin so that it won't waste any calories, it diligently converts every calorie it can into fat.

It is thought that an acid pH immediately signals the powerful genetic response to an impending famine, directly interacting with the all important and very sensitive, Insulin- Glucagons Axis. This makes the body produce more insulin than usual, and in turn, produce more fat and store it. In general, the more insulin is available to the body, the higher the probability that fat will be produced and stored, rather than used and burned as energy. Thus, an acid pH will probably alert the genetic response to famine, directing more insulin to be produced and storing more fat than usual. Conversely, a healthy, slightly alkaline pH, will be more likely to yield normal fat burning metabolic activity, making no demands on the body to overly produce insulin and make fat, allowing fat-weight to be burned and naturally lost. And, with a healthy pH, there's less likely to be any yo-yo effect, or rebounding from a diet with additional weight gain. As long as nutritional stores are maintained, a healthy, slightly alkaline pH allows fat to burn normally for energy, rather than being hoarded under the mistaken biochemical belief of an impending famine. With increased pressure to produce insulin under the worst conditions, beta cells lose phase with one another, cellular communication is thwarted and the Immune System begins to over- respond. Stress within the cells

increases, making it difficult for them to perform adequately, and further, survive. In a very real sense, they simply burn out! Acidosis is thus thought an important yet often underestimated precursor to Diabetes Mellitus. Interestingly, before the advent of synthetic insulin, diabetes was treated historically by buffering the system with base or alkaline causing powders.

4. **Causes Cholesterol Plaque to Form** – LDL-Cholesterol is laid down at an accelerated rate within an acid chemical environment of the cardiovascular system, inappropriately lining the vascular network, and clogging up the works! The amount of cholesterol in the diet has not been found to be a major factor in cholesterol plaque formation. Rather, pH status appears to be the factor more directly involved, binding cholesterol with heavy metals and other cellular debris.
5. **Disrupts Blood Pressure** – with acidosis, (pH<7.20) arteries become dilated. Yet, severe lowering of blood pH also causes persistent venous vasoconstriction (a disease in the caliber of blood vessels). When this happens, peripheral blood is shifted more centrally: the more acidic the patient, the greater the fractional redistribution of blood to the central vessels. This central redistribution of blood adds to the heart's workload when its contractibility is compromised
6. **Disrupts Critical Lipid and Fatty Acid Metabolism** – Acidosis disrupts general lipid and fatty acid metabolism within the body. Fatty acids are intimately involved in nerve and brain function. When fatty acid metabolism is disturbed, neurological problems may arise including Multiple Sclerosis, Macular Degeneration and others, as well as problems with hormonal balance within the endocrine system.
7. **Inhibits Metabolism of Stored Energy Reserves** – An acid pH inhibits efficient cellular and body metabolism. Acidosis causes chemical ionic disturbances, interfering with cellular communications and functions. Acidosis reduces Ca (calcium) binding of plasma proteins, reducing the effectiveness of this intracellular signal. Acidosis also leads to a disease of calcium cations (positive Ca) entry through positive Ca channels, resulting in reduction of cardiac contractibility, or the ability of the heart to pump efficiently and rhythmically.

Also, positive Ca and positive H (Hydrogen) regulate the activity of intracellular proteins and are driven out of cells, because of the "*Sodium-Potassium pump*" (Na-K pump), which provides a strong incentive for sodium to be driven into cells. There are some 10 times the amount of positive Na in extra cellular fluids than in cells. The Sodium-Potassium pump regulates the amount of sodium and potassium each cell in the body stores, and uses up as much as 25% of our caloric input per day to run. Positive Ca exchanges the positive Na, being forced out of cells, but naturally, the electrochemical gradient for positive Ca favors both positive H and positive Ca entry into cells, as there is less calcium and positive H in cells than in the extra cellular fluids.

Therefore, in acid solutions, less sodium will be present, slowing down the processing and induction of nutritional items going into cells. (Calcium may become inordinately leached from bone mass, causing osteoporosis.) An acid pH drains us of energy and disallows stored energy reserves to be used. Furthermore calcium may become inordinately leached from bone mass, causing osteoporosis.

8. **Inhibits Cellular Regeneration & DNA-RNA Synthesis** — For DNA-RNA synthesis and healthy cell proliferation to occur, cell pH must not be acidic. However, cancerous cells grow well in acidic mediums; therefore an acid pH actually accelerates and increases the possibility of cellular mutations (Cancer).

CANCEROUS CELLS DO NOT CONTAIN HYDROGEN ATOMS. WHEN HEALTHY CELLS HAVE PLENTY OF HYDROGEN THEY CANNOT BECOME CANCEROUS. IF WE CAN GET HYDROGEN INTO ANY UNHEALTHY CELLS, THEY CAN HEAL.

9. **Inhibits Oxygen Getting to the Tissue** – Acidosis or an acid pH decreases the amount of oxygen that can be delivered to cells, making normally healthy cells unhealthy so eventually they die.
10. **Inhibits Life Giving Electrolyte Activity** – Life-essential functions, like electrolyte Potassium (K plus) and Sodium (Na plus) channels, are inactivated by acidosis. This has far reaching effects cardiovascular, since without sufficient electrolyte management, heart attacks are likely to occur. Without appropriate electrolyte management, our heart literally stops beating. Inhibition of electrolyte activity also affects the way we feel and behave, and is intimately involved in the energy levels we experience, because of the nature of the Na-K Pump and cellular metabolism.

▪ An Acid pH Is the Seed-Bed of Degenerative Diseases

- Cardiovascular Disease: Arteriosclerosis, Heart Attacks, Stroke, High Cholesterol, and High Blood Pressure
- All Forms of Cancer
- Diabetes, Insulin Sensitivity, Obesity
- Neurological Diseases, MS, MD, ALS and Parkinson's disease
- Liver & Kidney Disease
- Senility, Dementia, Alzheimer's
- Immune Deficiencies
- Osteoporosis, Osteoarthritis and Tooth Loss
- Hormonal Imbalances
- Premature Aging, Male Prostate Problems

▪ Understanding pH Level and Why Many People Have Disease / Cancer

According to the research of Dr. Enderlin, total healing of chronic illness only takes place when and if the blood is restored to a normal, slightly alkaline pH. Just in case you missed it, let's state it again . . .

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pH: What does it mean? pH is the abbreviation for *potential of hydrogen*. The pH of any solution is the measure of its hydrogen-ion concentration. The higher the pH reading, the more alkaline and oxygen rich the fluid is. The lower the pH reading, the more acidic and oxygen deprived the fluid is. The pH range is from 0 to 14, with 7.0 being neutral. Anything above 7.0 is alkaline, anything below 7.0 is considered acidic.

Human blood stays in a very narrow pH range around 7.35 - 7.45. Below or above this range means symptoms and disease. If blood pH moves too much below 6.8 or above 7.8, cells stop functioning and the patient dies. The ideal pH balance for blood is 7.4

▪ **A healthy blood pH without cancer has acid / alkaline balance almost equal.** Actually a healthy body is slightly alkaline measuring approximately 7.4. This ideal blood 7.4 pH measurement means it is just slightly more alkaline than acid.

▪ **If you have a health problem, most likely you are acidic.** We have seen that research shows that unless the body's pH level is slightly alkaline, the body cannot heal itself. So, no matter what type of modality you choose to use to take care of your health problem, it won't be effective until the pH level is up. If your body's pH is not balanced, you cannot effectively assimilate vitamins, minerals and food supplements. Your body pH affects everything.

Like most living things on earth the body has to have a balanced pH like most living things on earth or it does not function correctly. The alkaline level is very important because research has already proven that disease cannot survive in an alkaline state and yet thrives in an acidic environment.

FACT: An acidic balance will: decrease the body's ability to absorb minerals and other nutrients, decrease the energy production in the cells, decrease its ability to repair damaged cells, decrease its ability to detoxify heavy metals, make tumor cells thrive, and make it more susceptible to fatigue and illness.

FACT: If your body's pH is not balanced, you cannot effectively assimilate vitamins, minerals and food supplements. Also, mucus on the small intestine can block your body from vitamin and mineral absorption.

An acidic pH can occur from, an acid forming diet, emotional stress, toxic overload, and/or immune reactions or any process that deprives the cells of oxygen and other nutrients. The body will try to compensate for acidic pH by using alkaline minerals. If the diet does not contain enough minerals to compensate, a build up of acids in the cells will occur.

There are two factors that are ALWAYS present with cancer no matter what else may be present. Those two factors are Acid pH and Lack of Oxygen. Can we manipulate those two factors that always have to be present for cancer to develop and by doing so will that help reverse the cancer? If so, we need to learn how to manipulate those two factors.

Cancer needs an acid and low oxygen environment to survive and flourish within. Terminal cancer patients are around 1000 times more acidic than normal healthy people. The vast majority of terminal cancer patients possess a very low body pH. Why? In the absence of oxygen, glucose undergoes fermentation to lactic acid. This causes the pH of the cell to drop from between 7.3 to 7.2 down to 7 and later to 6.5 in more advanced stages of cancer and in metastases the pH drops to 6.0 and even 5.7 or lower. Our bodies simply cannot fight disease if our body pH is not properly balanced.

The normal human cell has a lot of molecular oxygen and a slightly alkaline pH. The cancer cell has an acid pH and lack of oxygen. Cancer cells cannot survive in an oxygen rich environment. Again, the higher the pH reading, the more alkaline and oxygen rich the fluid is. Cancer and all diseases hate oxygen / pH balance. pH balance is very important for one's health.

▪ **How To Test Your pH Level**

Test your pH level... If you are sick or have cancer, simply use a pH Test Stick with your saliva 2 hours after a meal. This will give a reflection of your state of health.

▪ **Salivary pH Test:** While generally more acidic than blood, salivary pH mirrors the blood (if not around meals)

and is also a fairly good indicator of health. It tells us what the body retains. Salivary pH is a fair indicator of the health of the extra cellular fluids and their alkaline mineral reserves.

Optimal pH for saliva is 6.4 to 6.8. Spit upon arising before anything is put into the mouth. A reading lower than 6.4 is indicative of insufficient alkaline reserves. Two hours after eating, on testing - the saliva pH should rise to 7.8 or higher. Unless this occurs, the body has alkaline mineral deficiencies (mainly Calcium and Magnesium) and will not assimilate food very well. To deviate from ideal salivary pH for an extended time invites illness.

▪ **Acidosis**, an extended time in the acid pH state, can result in rheumatoid arthritis, diabetes, lupus, tuberculosis, osteoporosis, high blood pressure, most cancers and many more health problems. If salivary pH stays too low, the diet should focus on fruit, vegetables and still mineral water as well as removing strong acidifiers such as sodas, whole wheat and red meat.

▪ **Urinary pH Test:** The pH of the urine indicates how the body is working to maintain the proper pH of the blood. The urine reveals the alkaline building (anabolic) and acid tearing down (catabolic) cycles. The pH of urine indicates the efforts of the body via the kidneys, adrenals, lungs and gonads to regulate pH through the buffer salts and hormones. Urine can provide a fairly accurate picture of body chemistry, because the kidneys filter out the buffer salts of pH regulation and provide values based on what the body is eliminating. Urine pH can vary from around 4.5 to 9.0 for its extremes, but the ideal range is 5.8 to 6.8.

Foods considered to be alkaline-forming and thus helpful to people with consistently acid pH include: almonds, aloe vera, apples, apricots, bee pollen, buckwheat, cabbage, cantaloupe, celery, carrots, cucumbers, dairy products except hard cheese, dates, dulse, poached eggs, figs, grapefruit, honey, lettuce, millet, parsley, raisins, peaches, fresh red potatoes, pineapple, soy products, sprouted seeds, cooked spinach, turnip tops, wakame miso soup, adzuki beans, rice, mineral water.

People who remain too acid often display symptoms such as: anxiety, diarrhea, dilated pupils, extroverted behavior, fatigue in early morning, headaches, hyperactivity, hyper sexuality, insomnia, nervousness, rapid heartbeat, restless legs, shortness of breath, strong appetite, high blood pressure, warm dry hands and feet. Acidosis (overly acidic body) is the primary indicator of Calcium Deficiency Disease.

Balancing the pH is a major step toward well-being and greater health. Scientists have discovered that the body fluids of healthy people are alkaline (high pH) whereas the body fluids of sick people are acidic (low pH). Balancing the pH is a major step towards well-being and greater health.