

# ***Importance of Alkalinity***

## **"Health Is A Team Effort"**

Offered By: "Naturopathic Health Practitioner"

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We live and die at the cellular level. **All the cells (billions of them) that make up the human body are slightly alkaline, and must maintain alkalinity in order to function and remain healthy and alive.** However their cellular activity creates acid and this acid is what gives the cell energy and function. As each alkaline cell performs its task of respiration, it secretes metabolic wastes, and these end products of cellular metabolism are acid in nature. Although these wastes are used for energy and function, they must not be allowed to build up. One example of this is the often painful lactic acid which is created through exercise. The body will go to great lengths to neutralize and detoxify these acids before they act as poisons in and around the cell, ultimately changing the environment of the cell.

**Most people and clinical practitioners believe the immune system is the body's first line of defense, but in actuality it is not.** It is very important, but more like a very sophisticated clean-up service. We must instead look at the importance of pH balance as the first and major line of defense against sickness and disease and for health and vitality.

The human body is very intelligent. As we become more and more acidic the body starts to set up defense mechanisms to keep the damaging acid from entering our vital organs. It is known that acid gets stored in fat cells. After all, if the acid does come into contact with an organ the acid has a chance to eat holes in the tissue. **This may cause the cells to mutate.** The oxygen level drops in this acidic environment and calcium begins to be depleted. So as a defense mechanism, your body may actually make fat to protect you from your overly-acidic self. Those fat cells and cellulite deposits may actually be packing up the acid and trying to keep it a safe distance from your organs. The fat may be saving your vital organs from damage. Many people have found that a return to a healthy inner biological terrain helps them to lose excess fat.

## **Benefits of Alkalinity**

Today's lifestyle causes a multitude of disorders and malfunctions in the metabolism of our bodies. Despite the efforts of the Food and Drug Administration and the Environmental Protection Agency, our food supply, drinking water, air and soil are becoming increasingly contaminated with toxic chemicals. Never before has the human body been presented with such a heavy burden of foreign substances to metabolize and eliminate thus taxing the body beyond its natural capabilities of detoxification.

Many people just don't feel good anymore. Some find themselves being much more susceptible to colds, or to whatever "bug" is currently going around. Much more serious are the increasing cases of autoimmune diseases such as lupus, rheumatoid arthritis, multiple sclerosis, chronic fatigue syndrome, and fibromyalgia. "Health" and "wellness" have become relative terms. **Low-level toxicity from many sources can be very difficult to detect.** The combined action of all these toxins creates a "toxic cocktail" effect which can seriously weaken the body and the mind through a process we call "fermentation" or the over-acidification of the blood and tissue as a result of the proliferation of yeast, fungus, and bacteria.

Yeast and fungus are single cell life forms which inhabit the air, soil, water, and many of the foods we eat. They are more highly developed than the intermediate states of bacteria or the early stages of viruses. Over the years, they have developed into over 500,000 different species. They are opportunists and survivalists. They are constantly looking for new places to house themselves where they may begin to colonize and proliferate. *Being that they are single cell life forms, they can only be seen under a microscope but once colonized, these cells make a visible presence in the form of mushrooms, and molds on food.*

Yeast, fungus, bacteria, mold, and viruses tend to house themselves in very specific sites in the body, depending on their particular requirements for nutrients and colonization conditions. **All are capable of causing severe fermentation through the by-products of their metabolism**, which enter the extra cellular fluid or the blood and then are distributed throughout the body. This culminates in the over-acidification of the blood and tissues which systemically poison and destroy the cells of the body. This condition we call over-acidification is a direct result of an inverted way of eating - the abundance of animal protein, especially red meat and pork, dairy products (milk, cheese, ice cream), sugar in any form (sucrose, fructose, glucose). Therefore, there is only one sickness and one disease.

The primary source of nourishment for yeast, fungus, and bacteria is sugar. As these organisms feed off the sugar and proteins of our bodies they produce and excrete waste called toxins. **These toxins effect us physically, emotionally, and spiritually.** The solution to this growing problem is to cleanse the blood and nourish the cells. We do this by eliminating those foods which create over-acidification and eating more foods that are alkaline. Yeast, fungus, bacteria, mold, and virus can only survive in an acid base, they cannot survive in an alkaline base.

It is, therefore, very important that there is a proper ration between acid an alkaline foods in the diet. When an ideal ratio is maintained, yeast fungus, bacteria, mold, and virus will revert back to their normal healthy state. **The ideal ration in a normal body is 4 parts alkaline to 1 part acid which will allow the body to maintain a pH factor of 7.365.** To avoid a lengthy chemistry lesson, we will get right to the point that pH refers to the relative concentration of Hydrogen (H+) ions in a solution. Low pH values indicate higher concentrations of Hydrogen ions or acids, and high pH values indicate low concentrations of Hydrogen ions or alkaline. For example, 10 to -1 is more acidic than 10 to -14.

#### ◆ 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 favours 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.

### **More background information on Acidosis**

#### **◆ 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 & 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. In case you missed it, let me say it again...

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pH: What does it mean? **pH is the abbreviation for potential 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.

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.

♦ **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.**

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.

#### **IMPORTANT NOTE - WORK WITH YOUR HEALTH CARE PRACTITIONER**

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