



Perfect pH

The Key to Optimal Health

WE ARE ALKALINE BY DESIGN AND ACID BY FUNCTION

Maintaining alkalinity is essential for life, health and vitality. All leading biochemists and medical physiologists have recognized pH or acid / alkaline balance as the most important aspect of a balanced and healthy body. They have long known, that the maintenance of an alkaline pH, is critical to cellular health.

WE LIVE AND DIE AT THE CELLULAR LEVEL

In order to understand and have a basic knowledge of pH balance, it is necessary to realize that all cells (billions of them) of the human body, should be slightly alkaline and must maintain constant alkalinity, if they are to produce acid that give us energy and function.

OPTIMUM ALKALINITY AT CELL LEVEL OPTIMUM LEVEL OF HEALTH

As each alkaline cell performs it's task of respiration, it secretes metabolic wastes, which are acid, the end product of cellular metabolism, which although used for energy and function, must not be allowed to build up. We need to constantly replenish supplies of alkaline minerals to neutralize the acids that result from cellular metabolism.

The body goes to great lengths to neutralize and detoxify these acids before they are in a position to act as poisons in and around the cell, changing the environment of the cell. Alkalinity is Anabolic (Builds Up) Acidity is Catabolic (Tears Down).

pH is an abbreviation used in chemistry to measure if a substance is acid or alkaline. The scale goes from a 1 to 14 with 7 being neutral. Anything below 7 is acid and anything above 7 is alkaline. Pepsi and Coke for example is very acid; 2.5

Remembering that the alkaline cells are tiny bundles of enzymes producing energy, the tremendous number of biological reactions that take place within the cell such as growth and repair, can only occur in a very special environment. The enzymes that work within the cell, as well as those beyond the cell wall, work with-in very narrow pH margins, and can only function when the interstitial fluid and fluids inside the cell are as close to neutral as possible. The only exception is the gastric secretions of the pyloric section of the stomach and lower extremities of the large colon which must be acid for maintenance of intestinal flora and management of pathogenic bacteria. It is important to remember that anything that changes the pH of the cell environment can inactivate or change the level of activity of cellular enzymes. This will result in cellular starvation and death of the cell.

ACIDITY SPEEDS UP ALKALINITY SLOWS DOWN

Regulation and control of pH range is given top priority by the body. The range of the blood for example is 7.35 to 7.45. If it moves substantially out of range, the result can be fatal, but not only must the blood be kept slightly alkaline (ideal level for carrying oxygen) but the liver, pancreas, even insulin, can only function in an alkaline medium.

With the average Western diet so high in acid forming foods, how does the body regulate and control these delicate balances and at the same time, be able to supply all the cells with the necessary alkaline forming agents?

MINERALS AND THE NERVOUS SYSTEM

First among the many factors that the body uses to influence and protect the balances of the body's various systems, lies in the nature of minerals found in food and made available to the cell. When food is digested it leaves either an acid ash residue at the cell





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level or an alkaline ash. It is this acid or alkaline material, the body uses to control and regulate nerve activity and prevent drastic swings either way.

When we consider that stress, exercise, physical activity, coffee, sugar, processed, cooked and high protein foods, all create acidity in the body (remember, acids speed up), no wonder there are so many nervous hypertensive people around. But to understand how the body uses minerals we need to understand some simple chemistry. If we wish to make a solution more acid, we add an acid substance to it. If we wish to make a solution more alkaline we add an alkaline substance to it. The body does the same thing. Some minerals are alkaline forming such as calcium, sodium, potassium and magnesium. Other minerals are acid forming such as chlorine, sulphur and phosphorous. Fresh fruit and raw vegetables are alkaline forming. But when we consider that our bodies are basically "acid making machines" we begin to understand the need for plentiful alkaline minerals to protect it from the effect of excess acid formation. Changes in cellular pH can inactivate enzymes and result in starvation and death of the cell. That is why it is important for the body to have an ample supply, as well as reserves of alkaline minerals to protect it from becoming too acid.

No other system of the body is so dependent on nutritional care, as is the nervous system. The autonomic nervous system consists of two divisions. One side acts to speed up reactions and is the acid side of us. It is (catabolic) in its reaction. The other side acts to slow reactions (anabolic). The nervous system is supported by alkaline forming foods.

It is also important to realize that neither side works independently of each other. It is a see-saw arrangement, and it is only when one side becomes persistently dominant, do we get these feelings we associate with nervousness. Some of these conditions can be monitored and changed.

MONITORING pH

In order to test pH, we can use litmus paper. Upon contact with saliva or urine, this paper will change

color to give a numerical value. Both urine and saliva can be tested, but we will confine this exercise to urine. An ideal test would be a first morning reading before breakfast, and again before dinner. A healthy reading would be between 6.4 to 7.0. Most people fall below the "healthy range" (acidosis) while those with long-term, chronic states of acidosis will reflect a highly alkaline pH (alkalosis) as a result of ammonia being produced by the body in an attempt to neutralize the constant acid pool in which cells are forced to live. Symptoms associated with acidosis: insomnia, colitis, irritability, racing heart-beat, hard stool, restlessness, anxiety and nervousness, dry skin and mouth, acid urine, ammonia in urine, urinary calculi, diarrhoea and dehydration, breathlessness, excessive dietary intake of carbohydrates, protein, avoidance of green leafy vegetables and citrus.

Associated with alkalosis: joint stiffness, night cramps, slow pulse, allergies, bursitis, high cholesterol and osteo-type arthritis, alkaline urine, no ammonia in urine, water and fluid retention, decreased respiratory rate.

"There are no specific diseases, only specific disease conditions."

FLORENCE NIGHTINGALE - 1893

IMBALANCES OF MINERALS ARE AS IMPORTANT AS THEIR DEFICIENCIES.

Bearing in mind, that disease favors certain pH conditions, there is much we can do with our diet to help correct these imbalances. We should lean heavily on salads, fruits and vegetables (raw is better).

Since the majority of us consume foods grown in soil void of microbes and minerals, we might consider supplementation of not only macro and micro minerals but also vitamins, essential fatty acids, amino acids and chlorophyll. Remember, activity of all nutrients are impaired and reduced if our pH is not in balance. The more extreme the deviations in pH, the more extreme the symptoms.

