

Why Alkalize?

Each system of the body has its own physiological pH value and when the tissue or organ varies too far from that pH range, it becomes susceptible to disease. It so happens that humans live in an acidic environment with poorer quality and highly processed foods, polluted water and air, environmental toxins, poor breathing techniques, and acidifying prescription medications consistently adding to the acidic burden of the body. Most diseases arise from an acidic milieu. An acidic body is a reactive body, thus by reducing acidity, one can also reduce allergic symptoms, tendency towards inflammation, and reverse the trend towards chronic conditions. An alkalizer will aid in reducing tissue acidosis and will shift the acid-base balance to a normal range, promoting good health and well-being. If an alkalizing diet is embraced and an alkalizer (such as Alkalan) is used to shift the acidic pH during the initial period of therapy, then the pH balance will often normalize within a few months.

Alkalizing the body can be explained with basic chemistry and physiology. ($\text{NaCl} + \text{H}_2\text{O} + \text{CO}_2 = \text{HCl} + \text{NaHCO}_3$). To begin, the border cells of the stomach produce hydrochloric acid (HCl) and sodium hydrogen carbonate (NaHCO_3) from salt (NaCl) in the blood, water (H_2O) and carbon dioxide (CO_2). The HCl leaves the border cells of the stomach wall and enter the lumen, where the stomach prevails over acidic reactions to break down the proteins into polypeptides. Once the polypeptides enter the duodenum, they will be further broken down into amino acids by trypsin from the pancreas. The base mixture of NaHCO_3 proceeds through the blood via the 'alkalophilic' organs and into the intestines. These alkalophilic organs need bases (large amounts of NaHCO_3) in order to produce their digestive secretions and include the liver, gall bladder, pancreas, and Brunner's gland of the small intestine. If the alkaline reaction in the duodenum is insufficient, the digestion of fats, carbohydrates, and proteins remain incomplete and decomposition or fermentation sets in. In addition, the acids including phosphoric acid, sulphuric acid and uric acid are not neutralized and further accumulate in the connective tissues.

The four buffering minerals used in the body include sodium, potassium, calcium and magnesium. The key ingredients in a good alkalizing agent are sodium bicarbonate and potassium bicarbonate. The sodium and potassium help bring the bicarbonate component into the cells via the sodium-potassium pumps. The bicarbonate then becomes raw material to support the digestive and alkalophilic organs including: the pancreas to form enzymes; the stomach to form hydrochloric acid; and the liver to form bile. In this process, the excess hydrogen ions are being used up in the chemical reactions, thus decreasing the acidic burden of the milieu and restoring the normal acid-base balance.



The pH levels for blood, urine and saliva

The blood will remain within its narrow pH range of 7.34 to 7.43. When excess acid (or hydrogen ions) enters the blood during assimilation, the body buffers the blood by dumping the excess hydrogen ions into the connective tissue (milieu or extracellular matrix). In normal circumstances during the night, the body detoxifies and transports the excess acid to the kidneys where the acid is filtered out of the blood and into the urine. However, as the milieu becomes overburdened with acid, the detoxification process will not be as efficient and an accumulation of acid will build up in the connective tissues. Over time, this leads or lays the foundation for chronic degenerative conditions.

Through the detoxification process, the first morning urine is naturally more acidic (6.0 - 6.4). The normal urinary pH value range during the day should be between 6.8 and 7.4. When measuring the pH values, if the values are below either of these ranges, then this is an indicator for tissue acidosis.

Salivary pH is generally more alkaline than urinary pH and is ideally between 7.0 - 7.5. This is an indicator of how the digestive processes are functioning.

How to take an alkalizer

The ideal times to take an alkalizer are 10:00 am and 4:00 pm. This is the low energetic time for the pancreas according to Traditional Chinese Medicine. Taking an alkalizer during these times supports and boosts the activity of the pancreas in addition to aiding digestion. If one is not able to take an alkalizer during these times, then take it twice daily in the morning and before bed.

Alkalizers should be taken on an empty stomach to avoid interference with the hydrochloric acid production needed for digestion of food. Be sure to take it 20 minutes before or two hours after eating. An alkalizer should be taken with warm water, as this allows the alkalizer to bypass the stomach through the pyloric sphincter and go directly into the duodenum to be absorbed. It is important to monitor the levels of the pH during the time of alkalizing and the pH values should remain between 7.0 and 8.0 while alkalizing, as this alkaline state helps use up the excess hydrogen ions. Dosage is generally between ½ teaspoon to 1 teaspoon two to three times daily, depending on how acidic the body is.

The length of time to take an alkalizer depends on the pH values. Generally, an alkalizer is taken for approximately three months and should be followed by an alkaline diet. It is recommended that an alkalizer is initially taken for one month, then stopped for a few days, then the pH levels are measured again. If these values are still on the acidic side, then continue alkalizing for another month. The alkalizer is mechanically shifting the acid out of the body, and it is said that what an alkalizer can do in three months, will take over two years to accomplish the same results eating a vegetarian diet alone.

Other considerations

Bacterial infections of the urinary tract and many prescription medications can create alkaline urine. In addition, an acid block can also show 'normal' pH values for the urine. An acid block occurs when the body is unable to eliminate the acid waste properly from the body overnight, thus accumulates in the milieu at a faster rate. This is often due to the kidneys and is characterized by an alkaline urinary pH for the first morning void while chronic symptoms indicate an acidic terrain. While all cases still need alkalizing for acid-base balance, for cases of acid block, it is advised to look deeper into the health of the kidneys and the possible heavy metal burden.

