AlkaLife
Reverse Acidosis • Reverse Aging

Water Ionizer and AlkaLife

by Sang Whang

In tap water, there are alkaline minerals and acid minerals; alkaline minerals are positively charged and acid minerals are negatively charged. A water ionizer converts regular tap water into alkaline water and acid water by electric separation means.

In the ionizer, there are two chambers with opposite polarity electrodes. Alkaline minerals in the positive electrode chamber migrate into the chamber with negative electrode; the positive electrode repels positive charges and the negative electrode attracts positive charges. As these positively charged alkaline minerals enter the negative electrode chamber, they combine with hydroxyl ions (OH^-) in H_2O, kicking out hydrogen ions (H^+). These hydrogen ions then travel to the negative electrode and give up their positive charge and become electrically neutral hydrogen molecule (H_2).

The opposite process takes place with acid minerals. Acid minerals migrate into positive electrode chamber and combine with hydrogen ions (H^+) in H_2O, kicking out hydroxyl ions (OH^-). These hydroxyl ions then travel to the positive electrode, lose negative charge and become water (H_2O) and oxygen (O_2). In the ionizer, oxygen gas is released from the acid water chamber and hydrogen gas is released from the alkaline water chamber. Both chambers remain electrically neutral.

Alkaline water created by a water ionizer is relatively acid free and, depending upon the alkaline mineral content of the tap water and the setting of the ionizer, the pH value of the alkaline water can range from 8.5 to 10.5. The main alkaline minerals of tap water are calcium and a small amount of magnesium.

AlkaLife® is a trademark registered alkaline concentrate designed to turn ordinary drinking water into strong alkaline water with a high pH value similar to that of alkaline water made by a water ionizer. AlkaLife® does not eliminate acid minerals in the original drinking water; it simply adds more alkaline mineral hydroxides to increase the pH value of the water. However, as long as both types of alkaline water have the same pH value, the number of hydroxyl ions (OH^-) in them is the same. These hydroxyl ions will be looking for the same number of acid radical, hydrogen ions (H^+), in the body to reduce the body's acidity.

The patented ingredients in AlkaLife® are potassium hydroxide ($KOH = K^+ + OH^-$) and a lesser amount of sodium hydroxide ($NaOH = Na^+ + OH^-$) in the proper ratio so as not to upset the ratio of potassium and sodium minerals in the human body. As stated, the predominant alkaline minerals are potassium and sodium. In the pecking order of ion exchange of the four alkaline minerals in water, potassium is the strongest, next is sodium, then calcium, and the last is magnesium. Stronger minerals can replace weaker minerals, but not the other way around.

For example, sulfur in food creates sulfuric acid. Since sulfuric acid is dangerous to the human body, the body robs calcium from the skeleton and combines it with the sulfuric acid to form sulfate, a weaker acid salt that doesn't dissolve well. Calcium or magnesium cannot kick out calcium from sulfate, but potassium or sodium can, thus releasing calcium back to the skeleton. Sulfuric acid combined with potassium or sodium is more soluble for the kidneys to process and discharge.

Potassium and sodium are better than calcium or magnesium in reducing sulfate, urate, phosphate, and other acidic salts. Webster defines uric acid as "a white colorless crystalline substance found in urine, being one of the products of nuclein metabolism. It is nearly insoluble in water, alcohol, and ether, but soluble in solutions of alkaline salts." Here also, potassium will work better than calcium. Many people reported relief from gout (which is caused by uric acid) after drinking alkaline water. My observation indicates that those people who drink alkaline water made by adding AlkaLife experienced faster relief from gout.

I personally add AlkaLife drops to the alkaline water made by an ionizer to get the benefits of acid-free alkaline water and strong alkaline minerals such as potassium and sodium.