AQUAFEW
Functional Electrolyzed Water

Alkaline Ionized or Electrolyzed Alkaline Water

Whenever articles have appeared in the peer-reviewed scientific literature about so-called alkaline ionized water, the water has, more appropriately, been referred to as “electrolyzed reduced water” or ERW, and sometimes as, reduced water or RW, or as "electrolyzed alkaline water". The word "reduced" comes from the fact that the water has been chemically "reduced" where reduction is a chemical process by electrolysis, which is the opposite of oxidation. The research in the scientific literature and in dozens of labs around the world has shown that ERW often does exhibit strong health-enhancing benefits, among which perhaps the most primary effect is an antioxidant effect. The health-enhancing benefit of ERW to humans and animals when consumed internally does not seem to be due to its alkalinity, but rather to the presence in the water of a powerful antioxidant as negative hydrogen ion. This ion is, due to its powerful properties, is short-lived in nature and is present in the water in a protected or clustered form, wherein each negative hydrogen ion is protected by a cage (or cluster) of water molecules. The scientific research shows that it is the presence of this H-minus ion which gives so-called "alkaline ionized water" its powerful antioxidant effects. Due to the presence of the H-minus ion, the water also exhibits a clustering effect different from normal water or tap water and shows a reduced cluster size and reduced surface tension. These two latter properties (reduced cluster size and reduced surface tension), which are also created by the presence of the H-minus ion, are shown to have beneficial effect upon the health of humans and animals.

In summary, it appears that any beneficial health effects of alkaline ionized water, or more properly, ERW, are due not to its alkalinity or alkaline mineral (calcium, magnesium) content, but rather due primarily to the presence of the antioxidant negative hydrogen ion. There may be some secondary beneficial bio-effects due to the reduced cluster size of the water and its reduced surface tension...

Lastly, it is important to understand that the alkalinity of ERW, even when in the pH 11 to pH 12 ranges, is what is known as "weakly buffered", and thus will not damage tissue, as it is almost immediately neutralized by other substances. However, for this same reason, this alkalinity is not strong enough or well-buffered enough to significantly shift the acid-alkaline balance of the body. With the above and Electrolyzed Reduce Waters’ enhanced cellular hydration and ability to remove toxins from the body it should be the choice for all concerned with optimum health and wellness.

Acid Ionized Water or Electrolyzed Oxidized Water

The term "acid water" or "acid ionized water” is somewhat misleading, since it could imply that the antimicrobial and antiseptic effects of the water are due to its acidity. Indeed, many vendors and manufacturers of water ionizers who claim beneficial and antiseptic effects of the water upon human and animal skin health and upon plants from the "acid water" do attribute the beneficial effects rather vaguely to the "acidity" of the water. Whenever articles appear in peer-reviewed scientific literature about "acid ionized water", the water has, more appropriately, usually been referred to as "electrolyzed oxidized water"," or EAW, and more rarely, as "electrolyzed” or EAW, and sometimes as "electrolyzed acidic water” or EAW.

The word "oxidized" or acidic water” or EAW, comes from the fact that the water has been chemically "oxidized" by electrolysis, where oxidation (as in rust) is a chemical process which is the opposite of reduction. The research in the scientific literature and in dozens of labs around the world has shown that EAW does exhibit markedly strong antiseptic and anti-microbial effects, with no damage to skin of humans or animals and with little or no damage to the exterior surfaces of plants. The antiseptic effects of

EAW, in the lab, and on the skin surface of humans, animals and plants, does not seem to be due to acidity, but rather due to the presence in the water of a wide variety of powerful oxidizing agents, collectively known as peroxides and super oxide ions, as well as a variety of other highly reactive forms of oxygen ions. The scientific research shows that it is the presence of these strong oxidizing ions which gives so-called "acid ionized water" its powerful antioxidant effects.

In summary, it appears that any antiseptic effects of acid ionized water, or more properly, EAW, is due not to its acidity or acid mineral content, but rather due to the presence of several species of oxidizers, some of oxidizers, some of which are superoxide ions and peroxide ions. It is important to understand that the acidity of EAW, even when in the range of pH 2 to pH 3 is what is known as "weakly buffered", and should not damage human, plant or animal tissue as it is almost immediately neutralized by other substances. However, for this same reason, the acidity is not strong enough or well-buffered enough to significantly shift the acid-alkaline balance in the environment and thereby damage micro-organisms. Rather, any antiseptic/antimicrobial effects of EAW (and they are often pronounced) are due to the oxidizing effects as well as the ORP.

Additional thoughts on the use of Reduced Water

One should keep in mind that although there may be conflicting views as to the benefit of drinking water based on an alkaline pH, there can be no such conflict as to the need to maintain the body's' proper pH balance. This balance is a product of what we put into our body. It is important to consume a pH balanced diet including that which we drink. If we look at water for hydration and food as nourishment be it solid or liquid our food intake should be 80% alkaline and 20% acidic to maintain pH balance (would be different if we were in Africa or the Artic). If one is drinking acidic beverages as food (which would be anything that is not water) it does affect the pH of the body. In turn if you drink water with an alkaline pH it will not have a negative effect. When you add the enhancement of dissolved hydrogen and the increase of Ionic product with resultant increased SOD activity which in turn raises the body's ability to fight free radical damage and an increase in cellular hydration it would seem that the choice would be to drink ERW. There are many more reasons to drink this water; remove lactic acid from muscles, relieve nerve pain and reduced inflammation is just a few. The reduction of pain in muscle and nerve has been experienced by those using ERW and is based on empirically data supplied by those using the water. However those who used ERW had significant pain relief and or total pain relief (depending on the individual). Initial dose would be to consume 16oz 4 to 5 times a day (depending on body weight) with an eventually maintenance dose of 3 x daily based on individual use.

Note: The individuals who used this water experienced reduced pain while using the water and a return of pain without the water. This cycle of use and nonuse was repeated with the same results over an extended period until each individual was satisfied the pain reduction was due to the water.

This may not qualify as science however the reduction of pain and the resulting increase in daily function was real.

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