Enagic Kangen Water: The Benefits

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Alkaline Water Benefits

Hydration & Drinkability

Alkaline water is an excellent source of healthful hydration, because not only does it *taste better* with a *superior mouth-feel,* it is more readily absorbed by the body, increasing the "drinkability" of the water by reducing the feeling of being "bloated" by drinking *at least* 8-10 glasses of water every day. In side-by-side taste tests, most people can taste the difference!

Nutritional Catalyst

Alkaline water has been demonstrated by a number of peer reviewed, published scientific studies to improve delivery to the cells of specific nutrition. For instance, one study indicates an increase in the uptake of sodium and potassium and another the uptake of calcium. There are a number of functionalities thought to be the reason for this benefit, such as the phenomenon referred to as the "Micro Clustering" of alkaline water.

Micro Clustering

A university study has evidenced a phenomenon it identifies as "micro clustering," which refers to the exceptionally small "structured" molecules of alkaline water. Numerous benefits have been suggested in association with the phenomenon of micro clustering.

Healthy Digestion and Elimination

Alkaline water supports healthy digestion and the natural processes of waste elimination. For this and other reasons, alkaline water has been demonstrated to be an excellent support of healthy weight management goals.

Healthy Weight Management

It has been well documented that ample hydration during periods of exercise and other weight maintenance regimens is not only useful but essential. Alkaline water promotes the transit of nutrition to the cell and waste out of the cell. Additionally, frequent hydration with alkaline water supports the health of the stomach and the colon while promoting healthy elimination. During periods of fasting and calorie reduction, increased hydration promotes a feeling of fullness while sustaining the cells and organs of the body with essential hydration. In conjunction with a sensible routine of exercise and calorie restriction, alkaline water is a healthful support to sensible weight management.

Free Radical Scavenging

Alkaline water supports the wellness of the organs of the body while promoting the health of organs of the body. Part of the reason for these benefits is that alkaline water has been demonstrated to be an anti-oxidant free radical scavenger.

Encouraging Longevity

All the benefits scientifically recognized and anecdotally reported participate in supporting wellness and longevity. Additionally, the natural benefits of water are *encouraged and enhanced* by alkalinity, which is recognized in numerous scientific papers and studies to be the state in which water is most harmonious with the physiological wellness benefits of water.

Acidic Water

Personal Hygiene

Acidic water—referred to in Asia as "Beauty Water"— is an effective external cleaning agent for use in personal hygiene (external cleansing and bathing, etc.)

Strong Acidic Water

Toxic-free Cleaning

A number of manufacturers build industrial multi-purpose cleaning machines (floor cleaners, etc.) that use *only strong acidic water as the cleaning agent.* Similarly, swimming pool systems are migrating from harsh chlorine systems to ionizing acidic water systems to keep pools clean.

Environmentally Green

One of the reasons strong acidic water is being adopted by institutions as diverse as hospitals and custodial services is that acidic water is non-polluting. Introduced into the environment, both acidic and strong acidic water rapidly return to water's resting pH. Kangen acidic waters are naturally free of phosphates and other pollutants that risk our environment and the future of our world. Kangen alkaline water is similarly non-polluting.

Scientific Studies in Support of Kangen Water Benefits

Research by Advent Communications

The below citations are not complete, nor are they necessarily specific. While we have many citations on file to support each benefit claimed, these citations are provided as evidence of scientific support on file for the "benefits" described.

Alkaline Water Hydration & Drinkability

http://www.ncbi.nlm.nih.gov/pubmed/20836884

Journal of the International Society of Sports Nutrition, 2010 September 13;7(1):29.

Acid-base balance and hydration status following consumption of mineral-based alkaline bottled water.

Heil DP.

ABSTRACT: BACKGROUND: The present study sought to determine whether The consumption of a mineral-rich alkalizing bottled water could improve both acid-base balance and hydration status in young healthy adults under free-living conditions. groups (alpha = 0.05). RESULTS: There were no significant changes in any of the dependent variables for the Control group. The Experimental group, however, showed significant increases in both the blood and urine pH (6.23 to 7.07 and 7.52 to 7.69, respectively), a decreased blood and increased urine osmolality, and a decreased urine output (2.51 to 2.05 L/day), all during the second week of the treatment period ($P<0.05$). Further, these changes reversed for the Experimental group once subjects switched to the placebo water during the 4^{th} week. CONCLUSIONS: Consumption of mineral-rich alkalizing bottled water was associated with improved acid-base balance (i.e., an alkalization of the blood and urine) and hydration status when consumed under free-living conditions. In contrast, subjects who consumed the placebo bottled water showed no changes over the same period of time. These results indicate that the habitual consumption of mineral-rich alkalizing bottled water may be a valuable nutritional vector for influencing both acid-base balance and hydration status in healthy adults.

Alkaline Water Nutritional Catalyst

http://www.ncbi.nlm.nih.gov/pubmed/19954569

Proc Nutr Soc. 2010 Feb;69(1):166-73. Epub 2009 Dec 3.

Postgraduate Symposium: Positive influence of nutritional alkalinity on bone health.

Wynn E, Krieg MA, Lanham-New SA, Burckhardt P.
University Hospital (CHUV), 1011 Lausanne, Switzerland.

http://www.ncbi.nlm.nih.gov/pubmed/18926940 Bone. 2009 Jan;44(1):120-4. Epub 2008 Sep 26.

Alkaline mineral water lowers bone resorption even in calcium sufficiency: alkaline mineral water and bone metabolism.

Wynn E, Krieg MA, Aeschlimann JM, Burckhardt P.

At University Hospital in Lausanne, Switzerland, Dr. Krieg and her team not only re-confirmed that there is a positive link between dietary alkalinity and bone health in the very elderly, this further study discovered that in 30 young women although acidic calcium-rich water had no affect on bone resorption, ingested alkaline bicarbonite-rich water was linked to a positive affect on bone loss.

Alkaline Water Micro Clustering

http://www.ncbi.nlm.nih.gov/pubmed/12371874

J Am Chem Soc. 2002 Oct 16;124(41):12302-11.

How ions affect the structure of water.

Hribar B, Southall NT, Vlachy V, Dill KA.

Faculty of Chemistry and Chemical Technology, University of Ljubljana, Askerceva 5, 1000 Ljubljana, Slovenia. The two main ideas captured here are (1) that charge densities govern the interactions of ions with water, and (2) that a balance of forces determines water structure: electrostatics (water's dipole interacting with ions) and hydrogen bonding (water interacting with neighboring waters). Small ions (kosmotropes) have high charge densities so they cause strong electrostatic ordering of nearby waters, breaking hydrogen bonds. In contrast, large ions (chaotropes) have low charge densities, and surrounding water molecules are largely hydrogen bonded.

Alkaline Water Digestion & Elimination

http://www.ncbi.nlm.nih.gov/pubmed/15617863

Med Hypotheses. 2005;64(3):543-6.

Selective stimulation of the growth of anaerobic microflora in the human intestinal tract by electrolyzed reducing water.

Vorobjeva NV.

Department of Physiology of Microorganisms, Biology Faculty, Lomonosov Moscow State University, 119992 Moscow, Russia.

Many diseases of the intestines are due to a disturbance in the balance of the microorganisms in the gut. Dr Vorbjea and his team at Moscow State University found favorable evidence indicating that electrolyzed water specifically encourages the growth of residential (good) microflora in the gut.

Alkaline Water Weight Management

http://www.ncbi.nlm.nih.gov/pubmed/20203630

(Available on 12/20/2010)

Obesity (Silver Spring). 2010 Nov;18(11):2101-4. Epub 2010 Mar 4.

Dietary calcium intake is associated with less gain in intra-abdominal adipose tissue over 1 year.

Bush NC, Alvarez JA, Choquette SS, Hunter GR, Oster RA, Darnell BE, Gower BA.

Department of Nutrition Sciences, University of Alabama at Birmingham, Birmingham, Alabama, USA.

Abstract

Calcium intake is reported to enhance weight loss with a preferential loss in trunk fat. Therefore, the purpose of this study was to determine associations between dietary calcium intake and 1-year change in body composition and fat distribution, specifically intra-abdominal adipose tissue (IAAT). A total of 119 healthy, premenopausal women were evaluated at baseline and 1 year later. and 49.3 ± 81.1 cm(2), respectively. Average calcium intake was significantly, inversely associated with 1-year change after adjusting for confounding variables. For every 100 mg/day of calcium consumed, gain in IAAT was reduced by 2.7 cm(2). . In conclusion, dietary calcium intake was significantly associated with less gain in IAAT over 1 year in premenopausal women.

Alkaline Water Free Radical Scavenging

http://www.ncbi.nlm.nih.gov/pubmed/19202298

Biosci Biotechnol Biochem. 2009 Feb;73(2):280-7. Epub 2009 Feb 7.

Enhanced induction of mitochondrial damage and apoptosis in human leukemia HL-60 cells due to electrolyzed-reduced water and glutathione.

Tsai CF, Hsu YW, Chen WK, Ho YC, Lu FJ.

Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan.Doctors at Chung Shan Medical University examined the effect of alkaline water and its oxidation-reduction potential. Results suggest that electrolyzed reduced water is an antioxidant.

http://www.ncbi.nlm.nih.gov/pubmed/16244454

Biomed Res. 2009 Oct;30(5):263-9.

Electrolyzed hydrogen-saturated water for drinking use elicits an antioxidative effect: a feeding test with rats.

Yanagihara T, Arai K, Miyamae K, Sato B, Shudo T, Yamada M, Aoyama M.

MiZ Co., Ltd., Fujisawa-shi, Kanagawa, Japan.

Abstract

A new type of electrolyzed hydrogen-saturated (EHS) water was produced using a water-electrolyzing device equipped with a special exchanger. Use of the EHS water for drinking in a feeding test with rats elicited an antioxidative effect. These results suggest the possibility that this drinking water shows an effect in reduction of oxidative stress in the body.

Alkaline Water and Longevity

http://www.ncbi.nlm.nih.gov/pubmed/9169001

Biochem Biophys Res Commun. 1997 May 8;234(1):269-74.

Electrolyzed-reduced water scavenges active oxygen species and protects DNA from oxidative damage.

Shirahata S, Kabayama S, Nakano M, Miura T, Kusumoto K, Gotoh M, Hayashi H, Otsubo K, Morisawa S, Katakura Y.

Institute of Cellular Regulation Technology, Graduate School of Genetic Resources Technology, Kyushu University, Fukuoka, Japan.

Active oxygen species or free radicals are considered to cause extensive oxidative damage to biological macromolecules, which brings about a variety of diseases as well as aging. The doctors at Kyushu University in Japan showed that as a result of reduced water exhibiting high pH, low dissolved oxygen (DO), extremely high dissolved molecular hydrogen (DH), and extremely negative redox potential (RP) values, it suppresses single-strand breakage of DNA, and can scavenge oxygen as well as hydrogen peroxide.

http://www.ncbi.nlm.nih.gov/pubmed/14703901

Ambio. 2003 Nov;32(7):440-6.

Hair element concentrations in females in one acid and one alkaline area in southern Sweden.

Rosborg I, Nihlgård B, Gerhardsson L.

Department of Occupational and Environmental Medicine, Lund University, Sweden.

Drs. Rosborg and Gerhardsson, at Lund University in Sweden discovered that the hair concentrations of boron and barium were significantly higher in hair samples from the acid region, the hair levels of calcium, strontium, molybdenum, iron, and selenium were significantly higher in the alkaline region. In addition, the increased ratio of selenium/mercury concentrations in hair samples obtained in the alkaline districtindicates that these subjects may have better protection against the toxic effects of mercury.

http://www.ncbi.nlm.nih.gov/pubmed/19202298
Biosci Biotechnol Biochem. 2009 Feb;73(2):280-7.

Epub 2009 Feb 7.

Enhanced induction of mitochondrial damage and apoptosis in human leukemia HL-60 cells due to electrolyzed-reduced water and glutathione.

Tsai CF, Hsu YW, Chen WK, Ho YC, Lu FJ.

Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan.

Abstract

Electrolzyed-reduced water (ERW) is a higher pH and lower oxidation-reduction potential water. In the present study, we examined the enhanced effect of ERW in the apoptosis of leukemia cells (HL-60) induced by glutathione (GSH).

Results

These results suggest that ERW is an antioxidant, and that ERW, in combination with GSH, has an enhanced apoptosis-inducing effect on HL-60 cells, which might be mediated through the mitochondria-dependent pathway.

Acid Water Toxic-Free Cleaning

http://www.ncbi.nlm.nih.gov/pubmed/19610348

J Food Prot. 2009 Jun;72(6):1315-20.

Efficacy of electrolyzed water and an acidic formulation compared with regularly used chemical sanitizers for tableware sanitization during mechanical and manual ware-washing protocols.

Handojo A, Lee J, Hipp J, Pascall MA.

Department of Food Science and Technology, The Ohio State University, 2015 Fyffe Road, Columbus, Ohio 43210, USA.

Abstract

This study investigated residual bacteria and different food types left on tableware items after various washing and sanitization protocols. Escherichia coli K-12 and Staphylococcus epidermidis were inoculated into whole milk and soft cream cheese. The milk was used to contaminate regular drinking glasses and the cheese was used to contaminate plates and silverware.

Results This study revealed that NEW and the acidic formulation are as effective as the other chemical sanitizers for food contact surface sanitization in manual and mechanical ware washing.

Acid Water
Personal Hygiene

http://www.ncbi.nlm.nih.gov/pubmed/12073573

Kansenshogaku Zasshi. 2002 May;76(5):373-7.

[Antimicrobial effects and efficacy on habitually hand-washing of strong acidic electrolyzed water—a comparative study of alcoholic antiseptics and soap and tap water]

[Article in Japanese]
Sakashita M, Iwasawa A, Nakamura Y.
Department of Nursing, Showa University Fujigaoka Hospital.

Abstract

The rate of bacterial elimination for the stamp method was compared with regular hand-washing (using soap and tap water), hygienic hand-washing (using alcoholic antiseptics), and hand-washing using strong acidic electrolyzed water (the SAEW method) in routine work patient's body.

Results

The rate of bacteria elimination for hand-washing with soap and tap water after taking care of a patient was insufficient. From these results, the following manual for sanitary hand washing is recommended: 1. At first, dirty hands should be cleaned and the number of bacteria should be reduced using soap and tap water or by scrubbing with disinfectants. 2. After the number of bacteria has been reduced, use the SAEW method routinely.

Acid Water
Preparing Fruits & Vegetables

ncbi.nlm.nih.gov/pubmed/19777886
J Food Prot. 2009 Sep;72(9):1854-61.

Reduction of Escherichia coli O157:H7 on produce by use of electrolyzed water under simulated food service operation conditions.

Pangloli P, Hung YC, Beuchat LR, King CH, Zhao ZH.

Department of Food Science and Technology, University of Georgia, 1109 Experiment Street, Griffin, Georgia 30223-1797, USA.

Abstract

Treatment of fresh fruits and vegetables with electrolyzed water (EW) has been shown to kill or reduce foodborne pathogens. We evaluated the efficacy of EW in killing Escherichia coli O157:H7 on iceberg lettuce, cabbage, lemons, and tomatoes by using washing and/or chilling treatments simulating those followed in some food service kitchens tomato, respectively.

Results

Application of AcEW using procedures mimicking food service operations should help minimize cross-contamination and reduce the risk of E. coli O157:H7 being present on produce at the time of consumption.

Acid Water Environmentally Green

ncbi.nlm.nih.gov/pubmed/200004034

Int J Food Microbiol. 2010 Jan 1;136(3):255-60. Epub 2009Dec7

Evaluation of bactericidal activity of weakly acidic electrolyzed water (WAEW) against Vibrio vulnificus and Vibrio parahaemolyticus.

Quan Y, Choi KD, Chung D, Shin IS.

Faculty of Marine Bioscience & Technology, Gangneung-Wonju National University, 120 Gangnung daehangno, Gangnung city, Gangwon 210-702, Republic of Korea.

Abstract

Vibrio parahaemolyticus and Vibriovulnificus cause severe foodborne illness in humans; thus, to reduce outbreaks of disease, it is clearly important to reduce food contamination by these pathogens. Although electrolyzed oxidizing (EO) water has been reported to exhibit strong bactericidal activities against many pathogens, it has never been tested against V. vulnificus and V. parahaemolyticus conditions,

Results

WAEW kills these microorganisms more quickly than a chemical product such as sodium hypochlorite (NaClO), even at equivalent ACCs.

http://www.ncbi.nlm.nih.gov/pubmed/10456736

J Food Prot. 1999 Aug;62(8):857-60.

Inactivation of Escherichia coli O157:H7 and Listeria monocytogenes on plastic kitchen cutting boards by electrolyzed oxidizing water.

Venkitanarayanan KS, Ezeike GO, Hung YC, Doyle MP.

Department of Animal Science, University of Connecticut, Storrs 06269, USA.

Abstract

Plastic cutting boards were inoculated with cultres containing One milliliter of Escherichia coli O157 and Listeria monocytogenes. They were then soaked in both ionized and electrolyzed water.

Results

This study revealed that immersion of kitchen cutting boards in

only the electrolyzed oxidizing water could be used as an effective method for inactivating foodborne pathogens on smooth, plastic cutting boards.