



Athletes & Kangen Water

How Professional Athletes Benefit from Alkaline Water

By Dr. Robert Burns, PhD / Dr. Susan Lark, MD

Competitive, elite athletes and sports trainers know that subtle changes in pH can have profound effects on the overall health, feeling of wellness, level of fatigue, pain, weight, ability to train and athletic performance. Muscles work best in a narrow range of Ph. At rest, muscle pH is about 6.9, while arterial blood is about 7.4. When we exercise, the increased use of muscle glycogen for energy produces lactic acid, pyruvic acid, and CO₂, which decreases muscle pH. The harder you exercise the quicker your muscles become acidic, which leads to fatigue. Accumulation of acid also limits the production of ATP, the energy molecule, and disrupts enzyme activity that produces energy. For example, the enzyme phosphofructokinase is the rate-limiting step in muscle use of glycogen. When muscle pH falls below 6.5 it stops working altogether. Acidity also reduces muscle power directly by inhibiting the contractile action of muscle fibers.

“Endurance and elite sports athletes should be concerned about maintaining a healthy pH balance,” says Robert Burns, PhD. He notes that lactic acid build-up or hydrogen ion excess is of most concern. As the body metabolises food, acid waste is created which must be removed or neutralised through the lungs, kidneys (urine) and skin. *“pH balance and acid buffering are crucial to human health and slowing the aging process,”* he explains. Athletes, coaches and practitioners of holistic and traditional medicine are paying more attention to this area. *“We may be able to buffer or slow the negative effects that acidosis has on athletes as well as the many disparate maladies that share acidosis as a common thread,”* he concludes.

The use of alkaline water is proving to increase competitiveness and overall performance in world class athletes. A diet that supports alkalinity is also recommended by sports nutritionists. Consuming alkaline water will reduce the accumulation of acidity in exercising muscles, improving workout intensity and recovery time. Former Denver Bronco, Bill Romanowski, was introduced to the power of ‘ionised’ water late in his career doing anything legal to maintain his competitive edge.

Competitive bodybuilder, Wade Lightheart credits the use of alkaline water for motivating him to come out of retirement. He says he has increased his training volume by 2.5 times with decreased recovery time and no muscle soreness. In his opinion, all sports teams should be drinking alkaline water because it will reduce injuries and allow for more efficient training (see testimonial below).

In her book *“The Chemistry of Success: Secrets of Peak Performance”*, Susan Lark, MD, talks about the role of acid/alkaline balance in peak performance and health. The following is her assessment of alkaline water:

“The benefits of the alkaline water created through electrolysis far exceed just its ability to gently raise the pH of the cells and tissues of the body and to neutralize acids. Because the alkaline water has gained a significant number of free electrons through the electrolysis process, it is able to donate these electrons to active oxygen free radicals in the body,

thereby becoming a super antioxidant. By donating its excess free electrons, alkaline water is able to block the oxidation of normal tissue by free oxygen radicals.”

She continues by noting that another significant benefit of the electrolysis process is that the cluster size of the alkaline water is reduced by about 50% from the cluster size of tap water. *“This allows ionized alkaline water to be much more readily absorbed by the body, thereby increasing the water’s hydrating ability and its ability to carry its negative ions and alkalizing effect to all the cells and tissues of the body .If you are overly acidic an alkaline water device can provide a safe, gentle and effective way of restoring the pH balance of all the cells in your body as well as providing excess free electrons to act as super antioxidants,”* Lark recommends.

Most people, including most athletes, do not consume enough alkaline rich foods, such as nuts, fruits, and vegetables. Instead their diets contain high amounts of acid forming foods, such as meat, fish, poultry, eggs and dairy. Because of this dietary imbalance, they may be at risk for increased acidosis that affects overall health and sports performance. Since proper hydration is also a key factor in preventing exercise fatigue, consuming alkaline water before, during and after exercise can help.

Alkaline water is quickly replacing “energy drinks” as the best on-site option for staying hydrated and improving performance. Elite athletes are discovering the performance-enhancing benefits of alkaline water. And not just “on the field.” By drinking alkaline water throughout the day, regardless of their training competition demands, they are able to keep their bodies hydrated and balanced before, during and after strenuous workouts.

Muscle Use & Acid Production

As muscles work, acids and CO₂ are produced, decreasing the muscle pH. Once muscle pH dips below the 6.5 level it is no longer able to function. As the muscle creeps closer to that 6.5 pH level, you start to feel the pH drop in the form of muscle fatigue. The body is naturally wired to maintain proper pH balance however during a workout, acids are being produced at a rate higher than the body can effectively handle. An alkaline water regimen helps to maintain optimal blood and muscle pH levels when the body is in a resting or low activity state. By starting at an alkaline state, effective performance times are increased and the longer it takes for muscle fatigue to set in. Rehydrating with alkaline water during a workout helps the body balance the excess acids being produced by the muscles, extending peak performance time. Everyone from elite athletes to “weekend yard work warriors” has felt the pain of post-exertion muscle pain. Overworked muscles and acids produced can cause soreness for days. By rehydrating with alkaline water immediately after exertion and maintaining an alkaline water regimen, muscle pain and the length of time you feel it can be reduced.

Shortened Recovery Times

Elite professional athletes and fitness enthusiasts alike are enjoying greater endurance and better performance. They also find that post work-out fatigue is reduced dramatically – or eliminated altogether – and recovery times are shortened significantly. Traditional methods of hydration and electrolyte replacement do little to address the issue of acid produced during exertion. Instead, they gear the body up to continue to do more and produce more acids. In fact, many popular sports drinks contribute to dehydration as the sugars and carbohydrate content prevent absorption of fluids. Kangen water is full of antioxidants, which helps rid the body of the acids and free radicals produced during performance. The smaller water clusters allow the body to absorb the water at a higher rate – and the minerals in the water carry an electrical charge for electrolyte replacement. Athletes using alkaline water before, during and after performance reduce incidents of muscle soreness, have shortened recovery times and don’t experience the “crash” often associated with many sports drinks.

Testimonials:

"It is with great pleasure that I take this opportunity to write about and the benefits of Kangen Water. In my 12 years serving as a certified athletic trainer and strength coach, I have never seen a product provide the type of results that we experienced while using this product. Let me preface this by saying, I have always been a skeptic to these types of "just drink the water and you'll feel great" claims. The term "snake oil" and "voodoo medicine" always came up in my mind and I chose to go along with the mainstream. Focus on what the so called scientists said was right for my body and my athlete's bodies. But I stand here today to tell you I am a Kangen Water Junkie. This water has not only impacted my athletes but it has impacted me on a personal level as well. Before I discuss how this product dramatically affected my athletes, I first want to give a personal testimony to the effects of Kangen Water. Greg Norton first came into my office in September praising the benefits of drinking his water. He gave us the sales pitch and provided us with some samples, just asking that we try it out. I gave a gallon jug to one of my assistants and kept one for myself. I tucked mine under the desk still thinking "yea right it can do all that and it's just water".

During this time our athletic teams were battling a nasty virus that was knocking athletes out for 4-7 days with flu like symptoms (we believe it was H1N1). Late that afternoon low and behold here come the symptoms on me. Hit me like a ton of bricks. I looked down and there was my gallon jug. I grabbed that thing quick and finished the bottle within 2 hours. Some may say it was all mental or I just was dehydrated but within an hour of finishing that bottle I felt completely normal. No symptoms.

Had two other instances with my family where my wife and son woke up coughing or with a fever and by the end of the day drinking Kangen water, they felt totally normal again. The skeptic turned into a believer in a short amount of time and I decided that if it can have this kind of effect on my family and I then I have to introduce it to my athletes. At this time I was working primarily with our football team. Prior to this season, the football team had a tremendous time dealing with exertional cramps. Several key players would "cramp up" during every game. They were drinking water, Gatorade, even Pedialyte. They were given supplements and "heat aid" and still not able to finish a game without suffering from severe cramps in their calves, thighs, hamstrings and/or low back.

We decided this would be our test group. We had seven athletes who we classified as "crampers". Greg agreed to supply us with enough water and gallon jugs for these guys. We had them drink a whole jug Wednesday-Friday and at least ½ a jug on Saturday (game day). This was fairly close to or equal to the amount of fluid they drank normally. We started the week before our 9/26/09 game and continued for the rest of the season.

No cramping episodes from any of the seven during this time. We did experience cramping episodes from athletes not on the program. We quickly started them on the Kangen Water and had no more episodes. In fact, after the second game of using Kangen Water we talked with Greg about getting a loaner machine for the Athletic Training Room. He also loaned us a 5 gallon cooler unit. Most of the team began drinking the water by the cup full. They would come in after practice, pull up a stool to the cooler and drink cup after cup. Starting calling the water "miracle water" and "smooth water" because of the way it tastes.

They all loved it because they felt like they could drink and drink and never feel bloated (Greg would later tell me this has to do with the micro clustering of the water). On 10/24 we took a trip down to Daytona Beach, FL. We had been practicing in 70 degree weather with little humidity. We show up down there and we got upper 80's and 60% humidity. Alarms start going off! Went through the whole game and not one athlete cramped. Actually had several of the opposing teams' players go down late in a close game due to cramps. This is a team that had been practicing in those conditions, acclimated if you will. All my guys were saying "See they should be drinking that smooth water. They wouldn't be cramping".

When the season was over the decision to buy our own unit was easy. Since we had our unit it has been introduced to all of our athletes with similar results to above. I've had several athletes say they feel "stronger", "more athletic" or "lighter on their feet" since they've started drinking Kangen Water. When an athlete tells you those things it means something.

This converted skeptic can honestly say you owe it to yourself and your athletes to start them on Kangen Water sooner rather than later". - Rob Woodall, MS, LAT, ATC, CSCS Director of Sports Medicine, Winston Salem State University



"I discovered that alkaline water has additional benefits to ordinary filtered water or mineral-depleted reverse osmosis water. More research is also becoming available to demonstrate the performance enhancement aspects of hydrogen rich, structured water... red blood cell movement depends on optimal pH and hydration. I've been drinking this water for a year now and it's certainly been the healthiest, happiest, strongest year of my life so far!" – Keegan Smith, Head Performance Coach, Sydney Roosters



I've been drinking alkaline water for about 9 months now, I knew about how it helped rid my body of excess acid and balanced my ph levels, however, I just started working out again and couldn't figure out why I'm not nearly as sore as I used to be. Makes sense now" – Melissa



"I love the water and funny enough I really struggle to drink bottle water (when traveling) as taste like plastic. Obviously I am doing a lot of different things for my training so difficult to pull the things apart and conclude how much water is contributing to my increased energy – but it has and I am flying and what I noticed is that I recover much quicker than I used to and as far as I can conclude this part seems to be mainly due to the ionized water – so happy about that as it helps me stick to my training plan." - Smiles Regitze, Iron Man Tri-Athlete



"I'm real excited to talk about my experience with Kangen Water? What happen just a few months ago really shocked me and, I believe, it will be sending another shock wave into the athletic world. I was introduced to Kangen Water when I was invited to attend a demonstration. I went over to check it out and considered myself fairly knowledgeable about water, as I write about it in my books and I recognize the importance. I went over and had my first glass of water and I can honestly say that, from my very first glass, I said "Wow! There is something very different with this water.

I know my body very well and I knew that I had never tasted any water like this before. There was something going on at a cellular level as the water went into my body. I started drinking the water and I watched the presentation. Everything that was said during the presentation totally fit in with everything I had learned in the last 20 years. I wasn't aware of any technology

that could produce the results that I was feeling. I had been exposed to other ionizers and, frankly, I hadn't been impressed. This time I was feeling something quite different in my body in just the first few hours.

Over the next few days I drank more water and saw the presentation a few more times. By the 3rd day I looked in the mirror and I could not believe the results. I was losing body fat at a rate that was quite shocking. My recovery at the gym was at a phenomenal rate. I felt like I could run thorough the gym walls. The water was doing something so positive that I decided to put my reputation on the line and I entered the National Bodybuilding Championships. With only 2 weeks preparation I won in two different categories and qualified to compete for Natural Mr. Olympia in Greece. Because of the Kangen Water my physique transformed; my life transformed; I'm thrust back into competition. I believe that Kangen Water, produced by the Enagic® machine, is going to be the next great thing in athletic performance!"

~Wade Lightheart (Wade McNutt), Natural Bodybuilding Champion



"Within the last four months I have learned that I was missing a huge important principal of health that was right before me this whole time. I had always felt that I was providing my elite athletes with all the key factors needed for health and success and energy and vitality, because I was giving them what I believed to be the most important. And even though I taught the principles and the need for hydration, I never understood until about four months ago the need for proper hydration. I taught for fifteen years in the nutrition industry that I cared more about nutrient utilization than simply nutrient consumption. That same principle holds true in the area of hydration and I didn't really realize that. It's not about how much water or liquid you drink it's about how much is actually being utilized within the body.

When I was introduced to a company called Enagic®, they provide a very simple technology that improves the hydration of the water that goes into the body. And it's very simple it hooks up to your water faucet at home. Now, when they started telling me about this, I thought to myself, no way no way, my reputation has always been impeccable in the area of, I only represent things that make a big difference and truly has proven to be beneficial to people, so I thought, water is water. That couldn't have been further from the truth. I was missing a very key component of our health, and that is proper hydration. Enagic® makes a water called Kangen Water. Kangen in the Japanese word meaning "return to origin.

"The water we consume today through tap, or bottled water, through purification systems, all of that water is very acidic. I had no idea. If you go back to the basics of nature, and you take water from natural springs coming out of the earth, all of that water has a very high pH or alkalinity to it, and the waters that we drink out of the tap or purification systems, or bottled water is far from alkaline, in fact it is more acidic. I didn't realize that. Acidic water is actually damaging to the body. Acidic water is something we'd want to stay away from. Anything acidic! I spent fifteen years trying to teach people to reduce the acidity within the body and we can do that through the food that we eat. But, that really takes a complete lifestyle change, when in reality I know realize that we can change very quickly, effectively in the water that we drink. This Kangen Water technology is truly nothing short of miraculous in my opinion, because it really provides three different very important aspects to our health that I find very intriguing. Number one is this machine provides a very high antioxidant based water. The second thing I am really impressed with is its micro-clustering abilities and the third component [its alkalinity], Kangen Water is up to a 9.5 pH."

- **Shan Statton, Sports Nutritional Consultant for the NBA, NFL, MLB, PGA, LPGA, NASCAR, NHL, NY Yankees, AZ Diamondbacks, Houston Rockets, LA Dodgers**