



## Cramping Your Style

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*The Running Nutritionist®*

Muscle cramping has cost athletes great workouts, Olympic medals & probably even our troops during battle. Although cramping can be caused by a number of reasons, nutritionally it is often due to the loss of electrolytes in sweat.

Electrolytes are minerals like sodium and potassium, which are added to most sport drinks. The electrolytes also include other minerals such as calcium, magnesium, and chloride. These electrolytes send messages to nerves and muscles throughout the body. Electrolytes are involved with muscle contraction and relaxation while you're training, so an imbalance can impact the actual contraction of the muscle itself.

Sodium losses through sweat are the most common cause of cramping, but potassium losses can lead to cramping too. Excess water replacement in the absence of supplemental sodium during extended training can lead to *hyponatremia* or decreased plasma sodium concentrations. Research suggests that exercise-induced *hyponatremia* may also result from fluid overloading during prolonged training. Hyponatremia is also associated with calorie/sugar conscious athletes who drink plain water in excess of their sweat losses or who are less physically conditioned and produce a more salty sweat.

When blood is diluted of sodium, your thirst drive is affected too. So the key is to rehydrate with fluids that replace sodium. Commercial vegetable juices, juice bar juices, or preparing your own juice spiked with a salt packet as well as including salty whole foods such as pretzels, baked chips, salted almonds & organic canned soups are just a few healthier options for replacing sodium losses.

Potassium is another electrolyte involved with maintaining body fluids. As the major electrolyte inside the body's cells, potassium works in tandem with sodium and chloride to maintain body fluids and generate electric impulses in the nerves and muscles including the heart. Loss of potassium from muscle has been linked with fatigue.

Although potassium supplements are not necessary, finding sport drinks and recovery beverages that include potassium is one way of meeting your needs. Sports drinks contain sodium and potassium in various amounts to prevent cramping. Whole foods with electrolytes like fresh kiwi, tomatoes, bananas & coconut water are just a few natural sources of potassium. Snacking on organic baby food packets like bananas or sweet potatoes or adding them to a fruit smoothie is two easy portable ways you can add a few hundred milligrams of potassium to your diet. The baby food will also help thicken your beverages naturally.

Another electrolyte, magnesium, is required for hundreds of functions in the body. For athletes, the most important are energy production, oxygen uptake by muscles, and electrolyte balance. Magnesium also helps the heart to beat steady, supports your immune system, keeps bones strong, and is involved in protein synthesis required for building muscle. In addition, research suggests that deficiencies in magnesium can affect performance, amplifying the stressful effects of high intensity exercise on cells.

High intensity exercise can increase urinary and sweat magnesium losses by 10 to 20 percent. Seven out of 10 individuals are deficient in magnesium so if you detest greens, beans, nuts, and whole grains you're may be at a lost. You can hide your magnesium rich greens or beans in a soup or sauce and if it's a tomato based organic soup, you'll hit potassium and sodium too and have all bases covered!

### **Lisa's Bio**

Lisa Dorfman, MS, RD, CSSD, LMHC, known globally as The Running Nutritionist ® is a Licensed & Board Certified Sports Dietitian/Nutritionist, Licensed Professional Counselor, Certified USA T&F & USA Triathlon Coach, former professional triathlete & the 2008 US Olympic/Paralympic Sailing Teams Nutritionist. Lisa is personal nutritionist to hundreds of youth, teen, collegiate & professional athletes in the NFL, MLB, USTA, US Boxing & more than 20 individual & team sports.

The author of eight books, including her upcoming book *Legally Lean* (2014) & Performance Nutrition for Football Athletes ([www.myfootballnutrition.com](http://www.myfootballnutrition.com)) her hands-on practical advice has been featured on 20/20, Dateline, Good Morning America, ESPN, CNN, MSNBC, E, Lifetime, local & international news & hundreds of publications including *USA Today*, *Newsweek*, *Wall Street Journal*, *New York Times*, *Men's Fitness*, *Men's Health*, *Runners World*, *Muscle & Fitness*, *Training & Conditioning*, *Glamour*, & *Shape Magazines*.....

Since 1983, Lisa has nutritionally coached & educated thousands of student athletes, coaches & parents on strategies for achieving optimal health in the classroom, in sport & in life. As former Director of the University of Miami Graduate Program in Nutrition for Health & Human Performance/Professor -Department of Kinesiology & Sports Sciences & Hurricanes Athletic Teams Sports Nutritionist (2003-2013)

Lisa's dedication, passion & enthusiasm regarding fitness fuel for health, sport & life is evident by the respect & appreciation of colleagues, coaches, athletes, students & parents worldwide. Follow Lisa on [www.Twitter@foodfitness](https://twitter.com/foodfitness) or at her websites: [www.FoodFitness.com](http://www.FoodFitness.com), [www.LegallyLean.com](http://www.LegallyLean.com), or [www.antistressdiet.com](http://www.antistressdiet.com).