

Excerpt from the book *Transdermal Magnesium Therapy* by Mark Sircus

Any athlete looking to gain strength, increase athletic performance and muscle mass should consider greatly increasing their magnesium intake, as well as zinc...

The combination of heat and magnesium chloride increases circulation and waste removal, and this principle can be applied during breaks in competition as well as after the game in deeply relaxing baths...

Transdermal magnesium chloride mineral therapy enhances recovery from athletic activity or injuries...

A whole new world of sports medicine is going to explode onto the scene when athletes and coaches find out that magnesium chloride from natural sources is available for topical use. In this new and exciting breakthrough in sports medicine coaches can now treat injuries, prevent them, and increase athletic performance all at the same time.

Magnesium chloride, when applied directly to the skin, is transdermally absorbed. Transdermal magnesium chloride mineral therapy is ideal for athletes who need high levels of magnesium. Oral magnesium is much less effective than transdermal magnesium in the treatment of injuries and tired worn out muscles...

Maximal contraction of the quadriceps is positively correlated to serum magnesium status.

Dr Jeff Schutt insists that hamstring injuries can at least partially be avoided through nutritional support because contraction and relaxation is dependent on adequate cellular levels of magnesium. "A shortened hamstring is a result of lack of available magnesium," he says.

Liquid magnesium chloride can be rubbed into a sore Achilles tendon to decrease swelling. And soaking the feet in a magnesium chloride foot bath is the single best thing – apart from stretching – that you can do for yourself to protect from, or recover from, hamstring and other injuries. The only thing better is a full body bath or to have a massage therapist use it to rub it in as they work deeply on the muscles.

The heavy use of magnesium for athletic performance will be enough to make a difference between winning and losing on a regular basis.

Magnesium is the single most important mineral to sports nutrition. Adequate magnesium level will help your body against fatigue, heat exhaustion, blood sugar control, and metabolism. It also offers part of the secret why athletes die young – magnesium levels in tissue analysis are usually very low, and often mercury very high in athletes who have heart attacks. Congestive heart failure patients have recently been reported to have 22,000 times more mercury and 14,000 times more antimony in their hearts.

Zinc, chromium and selenium in addition to magnesium are excreted in the sweat or in the actual accelerated metabolism of strenuous exercise, and are difficult to replenish. When we sweat we lose more than just water. Other components of sweat include electrolytes, particularly sodium and magnesium. Loss of magnesium by sweating takes place at an accelerated pace when there is a failure in

sweat homeostasis, a situation which arises when exercise is made in conditions of damp atmosphere and high temperature.

Increased energy expenditure causes an increase in magnesium requirements. Selenium is important in that it neutralizes the toxic effects of mercury. This is especially important for athletes who have a mouth full of mercury containing dental amalgam. Beware the sports people who say that the amount of magnesium lost through sweat is negligible, making magnesium supplementation unnecessary.

Dr Sarah Mayhill says, "Heavy exercise also makes you lose magnesium in the urine and explains why long distance runners may suddenly drop dead with heart arrhythmias." Magnesium intake is most often marginal at best, and heavy exercise is a factor that is particularly likely to expose athletes to magnesium deficit through metabolic depletion linked to exercise.