

SPORTS NUTRITION

IMPROVED ATHLETIC PERFORMANCE

The following data sheet has been tabulated from books, research papers, articles and Internet postings. For more detailed information, contact us or research the pertinent material from the source list provided below.

- Important information for serious athletes or their trainers and coaches: appropriate magnesium supplementation benefits the athletic performance and recovery process.
- Magnesium is required for optimal performance.
- Many doctors believe that magnesium is the single most important mineral to sports nutrition. Not only does it help optimize the performance, but also it speeds up recovery from fatigue and injuries.
- Athletes experience considerable magnesium loss during heavy physical activity. Magnesium, as well as other minerals is excreted in the sweat or as part of the process of metabolic acceleration. The rate of magnesium loss increases in hot and/or high humidity weather.
- According to Dr. Sarah Mayhill, during heavy exercise, magnesium is lost in the urine. She also states that irregular heart beats experienced by long distance runners is caused by magnesium loss.
- Dr. Jeff Schutt believes that injuries to hamstring muscles can be partially avoided through magnesium supplementation and stated that a shortened hamstring is a result of lack of available magnesium.
- Optimal muscle contraction and relaxation is the foundation of an athlete's performance. Proper magnesium levels are required for muscles to relax fully following a contraction.
- Magnesium requirements are substantially increased by the raised metabolism during sports.
- Inadequate magnesium levels manifest itself through neuromuscular hyper arousal, which causes muscle spasms and cramps. The possibility of muscular tension, torn muscle fibers and muscle strain increases considerably.

- An Athlete's daily magnesium requirement is approximately 5 mg per kilogram of body weight.
- The quantities of magnesium supplied with food are generally insufficient to restore the magnesium balance. Therefore, it is very important that athletes compensate during the recovery phase for the magnesium losses incurred, so that magnesium deficiency can be avoided prior to the start of additional physical activity.
- Magnesium should be administered regularly during the recovery phase after any sporting activity in order to sustain physical performance levels in the long term.
- With magnesium supplementation taken orally, performances might be affected due to the laxative side effects of this method. The transdermal application does not have this side effect, as the skin acts as the body's agent to regulate the amount of magnesium required and absorbed.
- Magnesium Chloride, when applied directly to the skin is transdermally absorbed. Transdermal magnesium chloride mineral therapy is ideally suited for athletes performing strenuous exercises needing high levels of magnesium. Oral magnesium is much less effective than transdermal magnesium in the treatment of injuries and tired worn out muscles.
- Liquid magnesium chloride, having one of the highest levels of Mg₂C₁ can simply be sprayed and rubbed into any muscle and muscle area, like the Achilles tendon with quick results. Dr. Mark Sircus states "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 rub magnesium chloride in as they work deeply into the muscle."
- Magnesium chloride is the most important mineral in sports nutrition. Adequate magnesium levels will help the body against fatigue, heat exhaustion, blood sugar control and metabolism.
- There is no one that cannot benefit greatly from increased daily magnesium intake. For the serious and professional athlete it can mean the difference between winning and losing and in some extreme cases, living and dying.

Sourced reference material:

Books

- *The Magnesium Miracle* by Carolyn Dean, M.D., N.D.
- *Transdermal Magnesium Therapy* by Mark Sircus, Ac., O.M.D.
- *The Magnesium Factor* by Mildred S. Seelig, M.D., MPH and Andrea Rosanoff, Ph.D

Articles

- *Magnesium Chloride for Health & Rejuvenation by Barbara Bourke & Walter Last*
- *What's all the buzz about Magnesium Oil by Chris Jennings*
- *History of Magnesium Chloride by Raul Vergini M.D.*

Many websites and web postings

Medical data (in these data sheets) is for informational purpose only.

One should always consult a medical physician or specialist MD prior to using any nutrient or food supplement while on medication.

**ZECHMAG Magnesium Chloride flake and oil is available from:
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