

HOW DO MAGNETIC FIELDS HELP SPORTS PERFORMANCE?



BASIC ACTIONS OF PULSED MAGNETIC FIELDS

1. *REDUCING MUSCLE TENSION*
2. *IMPROVING CIRCULATION*
3. *STIMULATING THE IMMUNE SYSTEM*
4. *IMPROVING CELL FUNCTION*
5. *HELPING THE BODY DETOXYFY*
6. *IMPROVING NUTRIENT UPTAKE*
7. *BALANCING ACCUPUNCTURE MERIDIANS*
8. *IMPROVING SLEEP*
9. *REDUCING STRESS*
10. *BALANCING THE ENDOCRINE SYSTEM*
11. *REDUCING INFLAMMATION*
12. *REGENERATING TISSUES*

Athletes—whether Olympic standard, professional, or simply amateur enthusiasts, are tough on their bodies. At the very least, athletes need to have their muscles working in an optimal condition in order to maximize performance, and perhaps more importantly, to guard against injury.

It has been found that muscles work harder, longer, and recover more quickly when treated with magnetic field therapy. For the competitive athlete, this means more effective training, and shorter rest periods between trainings. For the casual exerciser, this means less soreness the day after activity. For everyone, it means creating a healthier environment within the body (the correct biological terrain) – an environment less likely to succumb to injury.

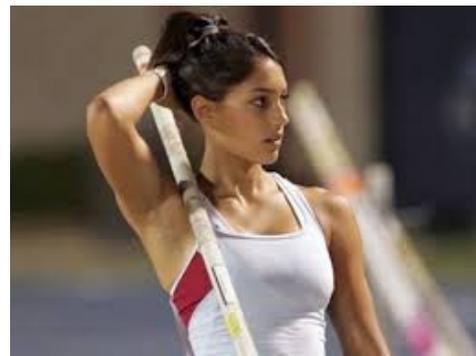
Using a magnetic therapy system before physical activity has many real benefits for the athlete. PEMFs stimulate a process called myosin phosphorylation, which is the process of energy production in the muscle.

Phosphorylation produces ATP, which is essential for cellular energy. ATP depletion, which happens with strenuous activity, causes muscles to weaken and potentially spasm. Rest naturally restores ATP, assuming the body is healthy enough to replenish it. PEMFs restore ATP by stimulating the myosin phosphorylation process. In fact, through an increased motion of ions and electrolytes, magnetic fields can help cells increase their energy by up to 500%.

Exercise and muscle exertion also causes an increase in the heat stress or heat shock proteins, which prevent cell breakdown and wear and tear, as well as help speed recovery from injury. Active muscles are stressed muscles, and the more stressed a muscle is, the more heat shock protein it will produce. If you induce heat shock proteins in the muscle *before* strenuous activity, you reduce the subsequent tissue damage, helping to speed recovery. PEMF therapy is a gentle way to stimulate the production of such proteins.

Magnetic fields also increase the uptake of oxygen into the muscle. Research shows at least a 1% increase in local tissue oxygen uptake after PEMF treatment—enough to significantly enhance muscle performance and endurance. Magnetic therapies also increase circulation, further helping tissues get the nutrition and oxygen they need, while expelling the waste they produce.

Using a magnetic therapy system after strenuous activity can both greatly diminish soreness and reduce painful muscle spasms and cramping. The body has a somewhat limited repertoire of reacting to damage, injury, or illness.



Training and workouts, even informal athletic activity like friendly games, often cause muscle soreness from the build up of lactic acid and breakdown

of tissues.

All injuries produce swelling in the tissues, as does exercise itself. Swelling delays the ability of the tissues to be nourished with oxygen and nutrients. This is why you see athletes frequently being treated with ice packs. Ice packs reduce superficial swelling, but swelling or bruising deep in a muscle will not respond as well to ice. Conversely, PEMFs penetrate tissues deeply without risk to the superficial tissues. The PEMFs reduce swelling and speed removal of the blood in a bruise, leading to faster recovery and return to activity, competition or training.

CONCLUSION:

It can be seen that all athletes, competitive or otherwise, should be using daily PEMF treatments for preventative reasons and for overall health maintenance. In addition, the treatment of any injuries with PEMF's accelerates even subtle healing, allowing the athlete to be healthier, stronger and perform better.