

# Acti-Mag Plus

*" Present in all cells of the body, magnesium is needed for over 600 enzymatic reactions including energy metabolism and protein synthesis."*

According to the RDA, 57% of the American public does not get enough magnesium in their diet. The RDA for magnesium is 310 mg to 420 mg per day, depending on your age and sex. The average intake of magnesium in the USA is around 228 mg/day in women and 266 mg/day in men. Experts believe you need around 600 to 900 mg per day for optimal health.

Now just because someone eats foods rich in magnesium doesn't mean it will get absorbed. Refined carbohydrates, antacids, PPIs, coffee and calcium excess, all limit magnesium uptake. Once it gets absorbed and carried into tissue, insulin resistance, many prescription drugs and an acidic chemistry reduce magnesium pools even further.

The term "acidic chemistry" is really a state of "relative acidity". Normal blood pH is 7.345- 7.445. A reduction in pH to 7.25 is still alkaline but it is acidic relative to optimal levels. Very small changes in



pH create huge shifts in physiology. For example, drops in pH generate excessive free radicals. To compensate, minerals like magnesium are pulled from tissues and bone to stabilize this delicate balance.

And let's not forget that many of your patients are instructed by their doctors to take 1200 mg of calcium for bone health. Taking calcium without magnesium further depletes magnesium stores. I hope you are getting my point.

Most of the people who walk in your door need magnesi-

um. Magnesium is the second most abundant intracellular cation after potassium. Mg is needed for over 600 enzymatic reactions including energy metabolism and protein synthesis.

Since magnesium is needed for energy production it's no surprise that deficiencies have been associated with anxiety, asthma, depression, muscle cramps, diabetes, high blood pressure, heart disease, hormone problems, sleep issues, fatigue and irritability, migraines, kidney stones, osteoporosis and low levels of both vitamin D and K.

I still remember a pharmacist, Jim LaValle, saying at an IAACN meeting, "give someone 500 mg of magnesium and you will see their testosterone levels double". Of course, he was talking about someone who was low in magnesium but based on this conversation, who isn't low?

In this light, I was excited to hear about a powdered magnesium product that has been one of the biggest sellers for Biotics Europe for six years, Acti-Mag Plus. One of the properties of magnesium is that it attracts water and creates a water soluble shell. So when you take a bolus dose of magnesium it creates a loose stool. For constipated America, this is a blessing. But if you want to increase mineral storage it means taking a lot of capsules or a salty tasting powder that can cause diarrhea. A form of magnesium called magnesium glycerophosphate solves that problem.

20 volunteers were asked to take different forms of magnesium during a 28 day period. The dose was 400 mg of elemental magnesium. Take a look at this table. The first form was sulfate, 96% of the volunteers experienced diarrhea. The second was chloride, 78% experienced diarrhea. Oxide produced 47%, Hydroxide 45%, Carbonate 40%, and so forth. Look at the bottom of the chart. 7% of the placebo group experienced diarrhea even though there was no magnesium present. Now look at the glycerophosphate group. It had the same effect as the placebo.

Normally this is not a good thing but in this case it's a great thing. Less diarrhea means greater absorption. Another benefit of the glycerophosphate form is how safe it is. Magnesium when given in high amounts is one of the minerals that are used with caution with kidney disease. The glycerophosphate form is the exact form used by the Edinburgh Renal Unit.

I mentioned earlier that Magnesium is necessary for 600 enzymes many of which are needed in energy pathways. Knowing this Biotics added supportive nutrients to optimize and enhance energy production. Each scoop of Acti-Mag Plus provides 400 mg of elemental magnesium in the glycerophosphate form. In addition, B-Vitamins are added in their bio-available phosphorylated forms for the Krebs cycle and adrenal support. 200 mcg of Folate as MTHF is added to support methylation.

The formula was further enhanced by adding 425 mg of Organic beet Juice, 200 mg Bamboo shoot extract and 200 mg of Taurine. Each of these additions has multiple roles but each was selected to combat stress and promote relaxation. Magnesium, B6 and to a lesser extent Taurine, support the conversion of glutamate to GABA, the brain's primary inhibitory neurotransmitter.

I hope you are making the connection that even though this is an energy formula, it is an excellent natural anti-stress formula. It takes energy to relax muscles. Think about your patient base; know anyone who has muscle cramps, grinds their teeth at night, experiences constipation, has headaches, kidney stones, insomnia, brain fog, feels wound up, these are warning signs that cellular levels of magnesium are low. Vitamin D makes magnesium work better and conversely magnesium makes vitamin D work better.

But perhaps the thing that your patients will like the most is the taste. Acti-Mag Plus has a pleasant berry taste, kind of like dilute unsweetened cool-aid. Its taste and texture will support long term compliance. So for a systemic formula to optimize energy consider Acti-Mag Plus.

Thanks for reading this week's Tuesday Minute edition. I'll look forward to being with you again next Tuesday.