



In response to increasing demand from Practitioners, Biotics Research Corporation has developed the Weekly Practice Builder program to bring important, leading-edge information and literature to you, thereby helping facilitate the growth of your practice through improved patient outcomes. Biotics Research Corporation products are available exclusively through Healthcare Providers.

Questions? Comments? Biotics Research Corporation wants to hear from you!

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For the Health of Your Patients:

Magnesium (Mg) is a macromineral which plays an indispensable role in a wide variety of metabolic functions in the human body. In fact, it is difficult to find a metabolic process which does not require magnesium. Of the approx. 25 grams of Mg found in the human body, ~60-65% is located in bone, ~27% is intramuscular, and ~7% is found in other cell types and bodily fluids. Over 300 known & distinct different essential enzymatic reactions in the body require Mg. Energy production, including fat and carbohydrate metabolism as well ATP production is Mg dependent. RNA and DNA synthesis also require the presence of Mg. Structurally, Mg is crucial, as it is part of the bone's crystal lattice. It is also found in concentration on the cortical surface of bones where it is believed to be stored until it is needed during times of deficiency. As a constituent in cell membranes, Mg also plays a pivotal role in ion transport, regulating calcium and potassium across the cellular membrane, thus preventing the over excitation of nerves and thereby promoting the relaxation of muscle. The cardiovascular system, nervous system, muscles, kidneys, liver, brain, hormone-secreting glands, and gastrointestinal tract all rely on Mg for their metabolic function. Due to this pervasiveness, deficiency symptoms can widely vary. Decreased absorption of Mg has been associated with individuals having gastrointestinal dysfunction, renal impairment, alcoholism or glucose metabolism disorders. Diuretics, certain antibiotics, anticoagulants, corticosteroids, and oral contraceptives may all impact magnesium status. Biotics Research Corporation has formulated **Mg-Zyme™** with an ideal blend of three forms of magnesium recognised for their bioavailability and decreased risk of gastric distress. These forms include magnesium aspartate, magnesium gluconate, and magnesium glycinate, and make **Mg-Zyme™** an indispensable formula for the neuromusculoskeletal practitioner.



For the Health of Your Practice:

While calcium gets a lot of public attention, magnesium is the unsung hero of the mineral world. Studies routinely show that upwards of 60-70% of the population is magnesium deficient. However, opinion differs amongst practitioners on how to best calculate patient magnesium needs. The two preferred ways are by weight or by dosing to bowel tolerance.

By Weight – an estimated 5-10 mg/day per kilogram of body weight, or 2.5-4.5 mg/day per pound of bodyweight. I.e. 70 kilograms/150 lbs = 350-700 mg of Magnesium per day.

Dosing to Bowel Tolerance – is ideal when deficit is known or suspected. On an empty stomach, start the patient on 300 mg/day taken in divided doses. Increase dose by 100 mg every 2 or 3 days until a state of loose stools is achieved, then back off dosing by 100 mg per day. It is usually preferable to keep the 3 daily doses of magnesium of equal size, but always reserve the largest dose for late in the day. The benefit of dosing to bowel tolerance is that you can periodically challenge your dosing parameters, and get new working dosing as the patient improves.