



Is Magnesium the Missing Link to Optimal Health?

According to the NIH,¹ magnesium is a cofactor in more than 300 enzyme systems that are involved in almost all biochemical reactions in the body. These reactions include protein synthesis, muscle and nerve function, blood glucose control, blood pressure regulation and energy production. Clearly this mineral is important for optimum health! A typical adult body contains about 25 grams of magnesium with most of it in the bones and some in the muscles.

Serious magnesium deficiency could have dramatic effects on the human body. There are many drugs that are commonly taken/consumed that “use up” magnesium or cause it to be excreted. These include diuretics (water pills), proton pump inhibitors (used for acid reflux or GERD), ethyl alcohol (regular ole booze) and soft drinks! Even the healthiest of us consume an occasional glass of wine or soft drink. The least healthy of us are more than likely to be magnesium deficient; but even people who consider themselves healthy may not be getting enough magnesium or excreting more than is optimal. In general, Americans are not ingesting adequate magnesium,³ perhaps up to 48% are deficient.

If one is normally healthy, their kidneys will control the amount of magnesium excreted through urine and there-

fore magnesium deficiency can be controlled to a certain extent provided the individual is consuming enough magnesium. Signs and symptoms of deficiency include loss of appetite, nausea, vomiting, fatigue, weakness, tingling, muscle cramps, seizures, abnormal heart rate and even heart spasms.¹ Because kidneys control magnesium excretion, this also means that there is relatively little risk of consuming too much magnesium from food. It also means that if someone has developed magnesium toxicity there is a good chance their kidneys are not working properly and are excreting excessively.

Eating less magnesium than one needs for a long period of time can cause changes in the biochemical pathways that rely on adequate magnesium. High blood pressure, cardiovascular disease, type 2 diabetes, osteoporosis and migraine headaches possibly can all be related to inadequate magnesium over the years.

Food sources of magnesium are useful to include in a diet. As with any attempt to include specific foods, preference dictates whether or not they actually get included. Leafy greens, legumes, nuts, seeds, figs, dried apricots, dark chocolate and whole grains all are considered good sources.²

Supplements can offer an additional source, but the form of magnesium makes a difference. Magnesium oxide, citrate, maleate, threonate, chloride and bisglycinate all are available. Forms that are soluble in water will be better absorbed when taken. While magnesium aspartate, citrate, lactate and chloride are all absorbable, they also can cause gastro-intestinal distress in the form of diarrhea! In fact, Milk of Magnesia is made with magnesium and used as a laxative. In general, less expensive magnesium supplements are likely to be manufactured with poor quality magnesium or less than optimal forms. It is also important to know where your supplement is manufactured and the source of the magnesium in the supplement!

For energy workers, magnesium is an important electrolyte that plays a role in hydration and the conduction of electrical impulses. To recap the January issue, the column on water included a bit of information about electrolytes and their importance to hydration of the crystalline networks of collagen. To be able to move energy around, one must have structure and hydration. Adequate magnesium intake either from food or a supplement may help to optimize the movement of energy in a body.

As with most nutrition ideas that are read, the reader often applies the information to themselves rather than her



client. So, yes, you may increase your output of energy if you focus on magnesium. In the process, your total health may increase and risk of disease decrease. It is also important for you to encourage clients to stay hydrated and to eat plenty of magnesium rich foods. €



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