

Modern Mineral Marvel



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*I*t is the fourth most abundant mineral in the human body. *It* performs more than 300 functions. Recent studies show *it* may help prevent heart disease. *It* can help treat diabetes, fibromyalgia and PMS. *It* plays a role in regulating blood sugar, blood pressure, nerve function and muscle function. *It* helps to keep bones strong, the immune system healthy and your energy production stable.

Given its multitude of life supporting functions, you should know what *it* is. Unfortunately, you probably don't. But don't worry, most health professionals are just clueing in too.

It is magnesium and until recently it has been widely ignored by the medical community. That may soon change.

According to recent estimates, nearly 70% of the population does not consume enough magnesium in their daily diet. You can thank our highly processed food and sugary beverage laden consumption habits for that. Diets high in animal protein also contribute to the problem. Even the healthy habit of calcium supplementation can increase the body's need for magnesium. Increasing magnesium intake through diet and supplementation should be considered for nearly everyone. If you identify with any of the conditions listed in the first paragraph, you're a candidate. But you're not alone. Magnesium may also help people with rest-



less legs, fatigue, headaches, leg cramps and constipation. Do you see a pattern here? Magnesium's benefits are extensive.

Still not convinced? Chronic stress, intense physical activity, excess alcohol consumption and certain medications can also contribute to magnesium depletion.

The medications that deplete magnesium are some of the most widely prescribed. These medications include diuretics, birth control pills, insulin and corticosteroids. Taking antacids reduces the body's ability to absorb magnesium.

Bring on the magnesium

How do you combat these seemingly endless magnesium maladies? A good place to start is your food choices. Green vegetables, nuts, seeds, legumes and unprocessed grains are all high in magnesium. Substitute unrefined sea salt in place of common table salt. Not only does it contain magnesium, but the unrefined version also contains numerous minerals and trace elements; none of which are found in common table salt.

Unfortunately, due to a decreasing amount of magnesium in farmland soil, a good diet may not be enough to boost your magnesium intake. The healthy foods that provide magnesium simply contain less than they used to. Magnesium supplementation is the next step.

Citrate, glycinate, malate, oxide and taurate are all forms of magnesium that are commonly used for supplementation. Which is right for you depends on your symptoms.

Magnesium malate should be taken by those suffering from sore muscles and fibromyalgia. Magnesium taurate is most beneficial for patients with cardiovascular

related issues. Magnesium glycinate is indicated for anxiety and sleep disturbances. Magnesium citrate works for constipation. Magnesium oxide is the most common among cheaper brands, but not recommended because of its poor absorption.

Dosing of magnesium will vary depending upon condition and symptoms. The daily dose of magnesium for most conditions is between 200 and 400 mg twice a day. To find the right dose for you, consult a knowledgeable health care professional.

Know your magnesium

One of the biggest challenges for supplement consumers is finding a good quality source. Poor quality supplement production is an all-to-common problem.

Your best option is to choose a manufacturer that follows good manufacturing practices (GMP). These products are guaranteed to contain what the label says. As one manufacturer puts it, "GMP is the ultimate quality marker. If it's on the label, it's in the bottle—guaranteed."

How do you know what manufacturers to trust? Many Compounding pharmacies as well as physicians carry supplement lines from manufacturers that follow GMP or are GMP certified. Don't hesitate to ask for a recommendation.

In the end, **it** is worth it.

Prevention & Treatment with Magnesium

Osteoporosis and Magnesium

Osteoporosis is characterized by the thinning of bone tissue and the loss of bone density. One out of every two women over the age of 50 will have an osteoporosis related fracture in her lifetime. It is common knowledge that calcium and vitamin d are needed for bone health. Unfortunately, many people are unaware of the importance of magnesium to support bone health. Magnesium is required for calcium to be dissolved, absorbed and metabolized properly. Without adequate levels of magnesium, calcium is more likely to end up being deposited in the kidneys and arteries, leading to kidney stones and atherosclerosis. Magnesium is necessary for the conversion of vitamin d into its active form that the body needs to absorb calcium. Magnesium also activates an enzyme, alkaline phosphatase, that is necessary to form new bone.

Bone health treatment plan:

- Magnesium citrate, glycinate or taurate - 200-300 mg twice a day
- Calcium - MCHC or citrate - 300-500 mg twice a day
- Boron - 2 mg once a day
- Zinc - 15-30 mg once a day
- Vitamin D - 1,000-2,000 IU once a day
- Copper - 1-2 mg once a day
- Vitamin A - 5,000-10,000 IU once a day

Premenstrual Syndrome (PMS) and Magnesium

Numerous published studies validate the role of magnesium in reducing the symptoms associated with PMS. These symptoms include anxiety, headaches, fluid retention, breast tenderness, sugar cravings, low blood sugar, dizziness and cramping. Depression can also be associated with PMS. Many are familiar with the brain chemical serotonin and its association with a positive effect on mood. In order for your body to release and bind serotonin in the brain, adequate levels of magnesium must be present.

PMS treatment plan

Nutrition:

- Eliminate refined sugar and processed foods.
- Reduce(eliminate?) caffeine and alcohol
- Reduce salt intake
- Eat 5 to 6 small meals or snack per day to maintain proper blood sugar levels. Each meal or snack should contain a good source of protein.

Supplements:

- Magnesium Glycinate - 300-400 mg twice a day.
- Calcium Citrate or Calcium MCHC - 250 mg twice a day
- Vitamin B6 - 50 mg twice a day.
- Vitamin B complex - 50 mg daily.
- Evening Primrose Oil - 500 mg three times a day.

Heart disease and Magnesium

Heart disease is the number one killer of American men and women. Someone in the United States dies of cardiovascular disease every 33 seconds! Magnesium has multiple effects on the cardiovascular system. Magnesium prevents muscle spasms of the heart blood vessels, which can lead to chest pain known as angina or heart attack. It is estimated that between 40 and 60 percent of people who suffer sudden heart attack may have no history of arterial blockage or irregular heartbeat. Magnesium also prevents muscle spasms of the peripheral blood vessels, which can lead to high blood pressure. Magnesium helps prevent calcium buildup in the arteries which reduces risk of clogged arteries.

Treatment plan: Consult your physician about the benefits of Magnesium