

**On Nutrition: by Helayne Waldman, Ed.D., N.E.**

# Magnesium is Magnificent

## **This Valentine's Day, Give Something Special to your Heart**

The Romans called it "magnesia alba."

More than three millennia later, an Englishman by the name of, Nehemia Grew published an article that described the unique salts found in the waters of Epsom, UK, which soon after became known as Epsom salts, the common name for magnesium sulfate heptahydrate.

We now know that the Romans, the British, and every person on earth, in fact, cannot live without the mineral magnesium in some form or other.. It's involved in more than 300 essential metabolic reactions, according to the Linus Pauling Institute, and according to William Davis, M.D., is closely tied to heart health, diabetes, and even the process of aging itself.

"The older you are, the more likely magnesium depletion is to develop, with substantial deficiency common by the age of 50," says Davis, in a recent issue of *Life Extension Magazine*.

Because it gets involved in the business of every system of the body, magnesium profoundly affects a broad range of conditions. For example, according to Dr. Davis:

- Magnesium helps the heart maintain a normal rhythm. In fact, magnesium use is now considered mainstream in hospital care following bypass surgery to help avoid a common arrhythmia known as atrial fibrillation.



- Magnesium reduces blood pressure by producing an artery relaxing effect, similar to the pharmaceutical drugs known as calcium channel antagonists.
- Magnesium helps improve insulin sensitivity, a critical role indeed, if one is to avoid the ravages of diabetes, including heart disease.
- Magnesium may improve exercise performance, apparently, by its ability to reduce blood lactate levels, decrease oxygen requirements and increase muscle strength.
- Magnesium is an equal partner with calcium, Vitamin D, Vitamin K and other trace minerals in the maintenance of bone density and the prevention of osteoporosis.

### **Finding magnesium in food**

The superstar sea veggie kelp is possibly the richest food source of magnesium on the planet with a whopping 760 mgs. of the mineral per 3.5 oz. serving (the recommended dietary allowance is approximately 350 mgs. per day for adults). Other wonderful sources of this multitasking mineral are bran, nuts, seeds, whole grains and green leafy vegetables, especially spinach and chard.

Unfortunately, modern methods of food processing have all but left the magnesium on the factory floor, making the great majority of American adults, even those under 50, magnesium deficient. One way to make up for this loss is, of course, to move toward a whole food, nutrient dense diet comprised of complex carbohydrates, fresh, organic fruits and vegetables, and wholesome sources of animal and vegetable protein. An additional way to optimize your intake is to choose water that is rich in magnesium. A sparkling mineral water like Gerolsteiner comes to mind.

### **And then there are supplements.**

Magnesium supplements come in a variety of forms, and each one varies in its bioavailability, or its ability to be absorbed by the body.

The two basic forms are known as chelated or non-chelated.

"Chelated" indicates that a mineral is connected to another molecule, most often to a building block of protein called an amino acid. Chelated forms of magnesium are widely considered to be more useful and more therapeutic due to their greater bioavailability.

You'll find the chelates with names like magnesium glycinate, magnesium aspartate, and magnesium taurate. But you'll need to get these types at a health food store or through a nutritionist or other health care provider.

The non-chelated forms of magnesium include magnesium oxide, magnesium sulfate, and magnesium carbonate and are widely available on drug store shelves, as they are cheaper to manufacture. While these forms –

particularly the oxide and sulfate -- will help hasten a recalcitrant bowel, there is concern among professionals that it won't stay in the body long enough to do much good.

As always, it's best to consult with a trusted professional who can help you address your own unique

biochemical needs. In the meantime, give yourself a heartfelt gift this Valentine's Day – a dinner of delicious, healthful, magnesium-rich goodies.

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