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BE WELL

## Magnesium Matters

By Debbie DeAngelo

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Of all the things we think about on a daily basis, chances are high that magnesium isn't one of them. Here's why it should be.

The fourth most abundant mineral in the body, magnesium is a vital part of our wellbeing. Approximately 99% of it is stored in the bones, muscles, and organs, with the remainder being present in the blood. That's why a blood test makes it difficult to detect magnesium deficiency. Since it's involved in over 300 enzymatic reactions, magnesium plays a remarkably diverse role in the body. For example, it affects muscle and nerve function, vitamin D metabolism, and inflammation. A diet rich in magnesium confers a host of health benefits but habitually low intake raises the risk of disease. Unfortunately, an estimated 60% of adults don't consume the recommended daily amount, which is 400 to 420 milligrams for men and 310 to 320 milligrams for women. Keep in mind that these guidelines are the minimum requirements needed for our body to function properly.

### **Benefits**

Here are a few of the innumerable ways that magnesium does a body good.

**Muscle contraction.** As anyone prone to a Charley Horse knows, magnesium plays a role in regulating muscle contractions. It helps the skeletal muscles to relax. Many products geared toward the prevention and treatment of muscle soreness and cramps, such as Epsom salts and Theraworx, contain some form of magnesium.

**Bone strength.** Calcium isn't the only player when it comes to maintaining bone density. Magnesium contributes to bone formation and affects levels of vitamin d and parathyroid hormone, both of which are involved in bone regulation. Studies show that women with osteoporosis exhibit lower blood levels of magnesium as compared to those who don't have the disorder.

Heart health. Magnesium is pivotal to heart functioning and exerts cardio-protection. It impacts blood vessel and heart muscle contractions. In doing so, magnesium is essential in preventing an irregular heartbeat, decreasing arterial stiffness, lowering blood pressure, and reducing risk of coronary artery disease as well as congestive heart failure.

Blood sugar management. Much research indicates that maintaining an adequate intake of magnesium reduces the risk of developing type II diabetes. It's believed to exert this effect by minimizing insulin resistance. A 2020 review of 41 studies published in the BMJ Open demonstrated that magnesium intake has a significantly inverse association with type II diabetes. It reduced the risk by 22%.

Migraine relief. Magnesium is a reasonable and beneficial part of a migraine prevention plan. It's believed to work by influencing brain signaling, blocking pain transmission, and affecting blood vessels in the brain. It seems to be most effective with menstrually related migraines and those accompanied by auras.

Inflammation control. Low dietary intake of magnesium contributes to inflammation, which is the foundation of all disease. A 2014 study examining the effects of magnesium depletion on inflammation in chronic disease found that getting less than 250 milligrams per day was associated with an increase in C-reactive protein, a blood marker for gauging inflammation.

### **Dietary Sources**

Now that we've established how important it is to consume enough magnesium, the next step is to be aware of the food sources providing it. Below is a list of foods, and the amount of magnesium they contain. Striving for at least 400 milligrams per day is a great starting point for adults. Using a supplement can help to bridge the dietary gap but since food is your best source, be sure to include it.

<b>Food</b>	<b>Milligrams (mg) per serving</b>
Pumpkin seeds, 1 ounce	
Chia seeds, 1 ounce	56
Almonds, 1 ounce	111
Spinach, boiled, 1/2 cup	80
Soymilk, plain, 1 cup	78
Black beans, cooked, 1/2 cup	61
Edamame, shelled, cooked, 1/2 cup	60
Potato, baked with skin, 3.5 ounces	50
Yogurt, plain, low fat, 8 ounces	43
Banana, medium	42
Salmon, Atlantic, cooked, 3 ounces	32
Avocado, cubed, 1/2 cup	26
	23

*Source: National Institutes of Health, Office of Dietary Supplements*

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## ABOUT THE AUTHOR

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