

MAGNESIUM

Known as the calming mineral because it helps relax muscles and nerves, magnesium is essential for your good health. It's a cofactor in over 300 enzymatic reactions in your body and plays a role in many functions including:

- building & strengthening bones and teeth
- improving blood circulation
- metabolism of carbohydrates, proteins and fats
- protection against inflammation and cardiovascular disease
- reducing PMS symptoms
- relaxing muscles and nerves
- helping you fall and stay asleep
- improving elimination and reducing constipation

Magnesium deficiency is quite rampant in our culture due to the standard American diet coupled with the shortage of minerals in our soil. It's estimated that 60% of the U.S. population is at risk for magnesium deficiency.

Extreme deficiencies are most common in alcoholics, diabetics, and people with poor dietary intake or digestive problems that inhibit absorption. Consuming diuretics (certain medications, caffeine, and alcohol), antibiotics, or oral contraceptives may also lower blood magnesium. Stress is also known to deplete magnesium. Additionally, magnesium deficiency is common in those with fibromyalgia and other pain syndromes.

DEFICIENCY SIGNS

Symptoms can vary widely but can include nerve and muscle cramps and weakness, heart arrhythmias, increased heart rate, weakening of the bones, imbalanced blood sugar, diabetes, headaches, elevated blood pressure, depression, anxiety, panic attacks, lack of appetite, chronic fatigue, fibromyalgia, hyperactivity/ADD, irritable bowel syndrome (IBS), insomnia, PMS, restless leg syndrome, eye-twitching, vertigo, and chocolate cravings.



CONTRAINDICATIONS

Toxicity from food sources is unlikely. However, excess magnesium supplementation can result in diarrhea. The upper limit is 350 to 500/mg per day. It should also be avoided if you have major heart or kidney issues. (Higher doses of magnesium and usage with these conditions should be done only with careful oversight and appropriate clinical care.)*

FOOD SOURCES

- all dark leafy greens, especially Swiss chard and spinach
- nuts & seeds, especially pumpkin seeds
- beans & lentils
- quinoa & brown rice
- fish, especially mackerel, pollock and tuna
- avocados
- bananas
- dried fruit, especially figs and dates
- dark chocolate
- nettles

SUPPLEMENTING WITH MAGNESIUM

Magnesium supplements are best taken before bedtime or between meals when little or no fat is present in the gut to help improve absorption. There are many different options for magnesium supplements:

- The best absorbed, most bioavailable and chelated forms of magnesium are taurate, citrate, aspartate, orotate, fumarate, glycinate, malate and threonate.
- Magnesium glycinate provides the highest level of absorption and bioavailability. It is best for those trying to correct a deficiency and often preferred by practitioners.
- Magnesium oxide is a non-chelated type of magnesium, is poorly absorbed and has stool-softening properties.



OTHER SOURCES OF MAGNESIUM

Taking an Epsom salt bath allows you to absorb magnesium through your skin. It's helpful for soothing sore muscles and promotes relaxation before bedtime. Add 2 cups of Epsom salts (magnesium sulfate) per tub. A few drops of your essential oils are also a nice addition!

Magnesium oil is a topical transdermal form of magnesium chloride. Apply it directly to your skin for any inflamed or twitchy areas before bedtime.

Epsom salts and magnesium oil can also help detox your skin and body from chlorine if you swim in a chlorinated pool.

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**Claims that magnesium supplements contain high levels of arsenic have been unfounded as the arsenic likely comes from both the soil and water. Most water supplies as well as the food we consume contain higher levels of arsenic than we can absorb from our supplementation. However, if high levels of arsenic have been detected for a patient, and determined problematic, magnesium supplementation should be taken with caution.*