This Mineral Prevents Headaches, Heart Disease, More

But 80% of Us Don’t Get Enough

At least 80% of Americans are deficient in magnesium. It’s a serious problem because low magnesium has been linked to heart disease, stroke, hypertension and other chronic conditions, including headaches and depression.

Magnesium used to be plentiful in fruits, vegetables and grains, but decades of industrial-scale farming have stripped the soil of minerals. One study found that the nutrient content of crops has declined by as much as 40% since the 1950s. It is now almost impossible to get adequate amounts of magnesium from food.

What you need to know about magnesium now...

DANGEROUS DEFICIENCY

Magnesium is an essential component in many of your body’s metabolic processes and involved in about 350 enzyme systems.

What happens when you don’t get enough magnesium?

Alert: 9 Things Happy People Don’t Do

More heart disease. Studies have shown that people with low levels of magnesium are more likely to die from heart disease than those with normal levels. The heart requires large amounts of magnesium to generate the energy needed to function normally. Heart cells that are deprived of energy begin to deteriorate. This can lead to inflammation, a known risk factor for heart disease.

A study published in American Heart Journal found that the risk for sudden death from heart disease was higher in areas of the country with low levels of magnesium in the water. Researchers found that the people who died tended to have lower-than-expected amounts of magnesium in their heart cells.

Higher blood pressure. If you have hypertension, you might be taking a calcium-channel blocker, one of the medications that lowers blood pressure by relaxing blood vessels. Magnesium has a similar effect. It slows the passage of calcium into cells and can lower blood pressure by about 10 points. People with low levels of magnesium tend to have higher blood pressure than those who have higher levels.

Diabetes. Research has shown that about 90% of people with diabetes are deficient in magnesium. Magnesium deficiency has also been linked to diabetes symptoms and complications, including diabetic neuropathy (damage to the blood vessels in the nerves).
Headaches. The same blood vessel changes that increase the risk for hypertension also can lead to headaches. It’s estimated that a majority of tension headaches are partly due to low magnesium.

The same is true of migraines. If you don’t get enough magnesium, the blood vessels in the brain may expand and contract more than they should. This can lead to pain and other migraine symptoms. Personal story: I suffered terrible migraines for much of my life. I got relief only when I started taking extra magnesium.

Depression. Magnesium isn’t the only factor involved in mood disorders, but it’s more important than you might think. Low levels of magnesium cause a buildup of calcium and glutamate, which then overstimulate the N-methyl-D-aspartate (NMDA) brain receptor. Excessive stimulation of this receptor can lead to anxiety as well as depression.

WHO’S AT RISK?

If you have a lot of stress in your life or if you’re taking calcium supplements, assume that you need more magnesium.

Calcium is an important mineral for bone health. What people don’t realize—and doctors rarely mention—is that high doses of calcium prevent magnesium from being absorbed.

If you’re supplementing with calcium, you have to get more magnesium.

The ideal ratio of calcium-to-magnesium intake is 1:1. For example, most people who take a daily 500-milligram (mg) calcium supplement also should take an equal amount of magnesium. But if you take very high doses of calcium, limit magnesium to 1,000 mg—more can cause diarrhea (and cut back if 1,000 mg causes problems).

Important: Patients with kidney disease should never take a magnesium supplement without checking with their doctor.

Alert: 80% of Americans Don’t Get Enough of This Mineral

Stress is another leading risk factor. If you have a lot of stress in your life, your body overproduces cortisol and other stress hormones. These hormones deplete magnesium from the body. Low magnesium also can cause stress by sapping your energy.

SUPPLEMENT SAFELY

Because a majority of Americans don’t get enough magnesium from their diets, it makes sense to take a daily supplement, but always check with your doctor before taking any supplements.

If you decide to get your magnesium level checked, ask your doctor for a magnesium red blood cell (RBC-Mg) test. It measures the magnesium that is inside cells. It’s a more accurate measure of magnesium than the standard serum magnesium test. An optimal RBC-Mg level is more than 5.5 mg/dl.

The test isn’t essential. If you generally are healthy, you can’t go wrong with extra magnesium. The Institute of Medicine advises women 31 years old and older to get 320 mg of magnesium daily. For men, the recommended amount is 420 mg. These are conservative estimates based on your minimal needs. What I recommend...

Multiply your weight in pounds by 3 mg to determine the optimal dose. Example: A 140-pound woman would take 420 mg of magnesium. During times of stress, when your need for magnesium is higher, multiply your weight by five instead of three. Keep taking the higher dose until things calm down again. You will start to feel the benefits within a few days.

Alert: 5 Surprising Ways to Prevent Alzheimer’s

When you’re shopping for supplements, look for products that end with “ate” — magnesium glycinate, laurate, malate, etc. These forms are readily absorbed into the bloodstream and less likely to cause diarrhea.

Source: Dennis Goodman, MD, board-certified cardiologist, clinical associate professor of medicine at New York University School of Medicine and director of Integrative Medicine at New York Medical Associates, both in New York City. His research interests include the prevention, early detection and treatment of cardiovascular disease. He is author of Magnificent Magnesium: Your Essential Key to a Healthy Heart and More (SquareOne) DennisGoodmanMD.com