

Can magnesium supplements improve health?

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Credit: Vanessa Loring from Pexels

Magnesium is a mineral that occurs naturally in many foods, such as nuts and seeds, beans and other legumes, whole grains, and leafy greens. We need adequate amounts of magnesium for healthy muscle, nerve, and

cardiovascular system function. Most people get enough of it in their everyday diet. In the U.S., a deficiency is more likely to be caused by an underlying health problem, such as a gastrointestinal disease.

You may have heard that [magnesium supplements](#) can offer a wide variety of benefits, from improving [bone health](#) to even helping you sleep. But like many vitamins and supplements, some uses of magnesium are strongly supported by [scientific evidence](#), while others are not.

Evidence linking magnesium to improvements in health relies on [epidemiologic studies](#) that survey many health indicators for large amounts of people over time. There are far fewer of what researchers call "intervention trials," which test magnesium as a solution for specific health problems.

The available epidemiologic research shows that there are sometimes correlations between magnesium and certain health outcomes, but it can be difficult to prove that magnesium itself is responsible for those [health outcomes](#) without many more intervention trials.

Let's start with the bone health claim. Magnesium is important for bone formation, and [some studies](#) have found that both men and women with higher magnesium intake had healthier bones. Plus, there is [some evidence](#) that increasing magnesium intake can increase bone density in postmenopausal and elderly women (who are at the highest risk of developing osteoporosis, a bone-weakening disease).

Next, you may have seen magnesium promoted as a sleep aid in drinks, supplements, and even TikTok trends. We know that magnesium has a role to play in neurotransmitter release and muscle relaxation, so there may be some truth to the idea that magnesium can be a sleep aid. But the science surrounding magnesium and sleep is still uncertain.

If you're struggling to sleep, try trusted sleep hygiene methods, such as maintaining a consistent bedtime and reducing screen time and caffeine, before turning to magnesium supplements. If you want to try magnesium as a sleep aid, stay as close as you can to about 300 milligrams per day, which is a little less than the recommended daily intake for adults.

There is also limited evidence that magnesium can improve cardiovascular health. Studies have found that magnesium supplements can result in [small decreases](#) in [blood pressure](#), while adding foods high in magnesium via the DASH diet lowers blood pressure even more.

But that may be due to the broad benefits of eating more food such as fruits, vegetables, legumes and whole grains rather than the benefits of magnesium itself. [Multiple observational studies](#) also indicate that higher magnesium intake can reduce the risk of heart disease and stroke.

The risk of taking magnesium supplements is low. Side effects mainly include diarrhea, and there are no known [long-term effects](#) of taking magnesium supplements. However, very large doses (around 5,000 milligrams per day) can be fatal. If you're thinking of giving your child magnesium supplements, discuss it with their pediatrician first.

Supplements are not medications, so dosages aren't regulated by the Food and Drug Administration. If you want to start taking magnesium supplements, look for brands with a label from United States Pharmacopeial Convention (USP), a trusted third-party organization that certifies supplements.

Provided by Tufts University

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