**Magnesium Supplements May Help to Lower Blood Pressure**

By [Sara G. Miller](https://www.livescience.com/author/sara-g-miller) July 11, 2016 [Health](https://www.livescience.com/health)



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Getting enough magnesium may help keep blood pressure under control, a new meta-analysis of previous research finds.

People in studies who took magnesium supplements had [lower blood pressure](https://www.livescience.com/42219-blood-pressure.html) after three months compared with people who did not take magnesium supplements, according to the analysis, published today (July 11) in the journal Hypertension.

"With its relative safety and low cost, [magnesium supplements](https://www.livescience.com/42972-magnesium-supplements-facts.html) could be considered as an option for lowering blood pressure in high-risk persons or hypertension patients," lead author Dr. Yiqing Song, an associate professor of epidemiology at Indiana University, said in a statement. [[Heart Disease: Types, Prevention & Treatment](https://www.livescience.com/34733-heart-disease-high-cholesterol-heart-surgery.html)]

In their meta-analysis, the researchers looked at 34 studies totaling more than 2,000 patients. All of the studies were randomized, double-blind, placebo-controlled trials, meaning that some of the people in each study were given a placebo instead of magnesium, and neither the participants nor the researchers knew who received the placebo or the magnesium. The studies ranged in length from three weeks to six months, and participants took between 240 and 960 milligrams of magnesium each day during their studies.

The researchers found that taking 368 mg of [magnesium](https://www.livescience.com/28862-magnesium.html) supplements daily for three months reduced people's **systolic blood pressure by an average of 2 millimeters** of mercury (mm Hg), and reduced their **diastolic blood pressure by an average of 1.8 mm** Hg. (Systolic blood pressure is the top number in a blood pressure reading; diastolic blood pressure is the bottom number.)

After further analyzing the data, the researchers concluded that taking 300 mg of magnesium supplements daily for one month could result in lower blood pressure and higher levels of magnesium in the blood.

"Our findings support a causal anti-hypertensive effect of [magnesium] supplementation in adults," the researchers wrote. In other words, magnesium helps to prevent [high blood pressure](https://www.livescience.com/54775-potatoes-high-blood-pressure.html).

Indeed, the mechanisms for how magnesium lowers blood pressure "have been confirmed by laboratory studies," the researchers wrote. The mineral helps to prevent blood vessels from constricting, which can increase blood pressure and has been shown to improve blood flow, for example.

The researchers pointed out that magnesium may only have an effect if a person doesn't normally get enough of the mineral in his or her diet.

"Consistent with previous studies, our evidence suggests that the anti-hypertensive effect of magnesium might be only effective among people with magnesium deficiency or insufficiency," Song said. "Such suggestive evidence indicates that maintenance of optimal magnesium status in the human body may help prevent or treat hypertension." [[Beyond Vegetables and Exercise: 5 Surprising Ways to Be Heart Healthy](https://www.livescience.com/35470-five-surprising-ways-to-lower-risk-of-heart-disease-and-stroke-110210.html)]

The researchers noted that many of the studies included in the meta-analysis included only a small number of participants or had high drop-out rates (meaning the participants didn't finish the study). However, in studies that the researchers deemed higher-quality or had lower drop-out rates, they found that people reported the greatest reductions in blood pressure.

And although the participants in the studies took magnesium supplements, it is possible to get enough magnesium from foods alone, Penny Kris-Etherton, an American Heart Association spokeswoman and a professor of nutrition at the University of Pennsylvania, said in a statement. Kris-Etherton was not involved in the study.

"This study underscores the importance of consuming a healthy diet that provides the recommended amount of magnesium as a strategy for helping to control blood pressure," Kris-Etherton said.

Magnesium can be found in foods such as whole grains, beans, nuts and [green leafy vegetables](https://www.livescience.com/51324-spinach-nutrition.html). Side effects from taking too much magnesium are not common, because the body excretes any excess in the urine. But people who take too much magnesium from supplements can have diarrhea, nausea and abdominal cramping.

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