

# EAT PLANTS FEEL WHOLE

## Weekly Health Digest

June 21, 2026 | Magnesium & High Blood Pressure

**Article:** Magnesium Supplementation and Blood Pressure: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

**Authors:** Argeros Z., Xu X., Bhandari B., Harris K., Touyz R.M., Schutte A.E.

**Journal:** Hypertension (American Heart Association), 2025

**DOI:** <https://doi.org/10.1161/HYPERTENSIONAHA.125.25129>

**PubMed:** <https://pubmed.ncbi.nlm.nih.gov/41000008/>

### What Did Scientists Study?

Scientists looked at 38 studies done all over the world. They wanted to know: does taking a magnesium pill lower blood pressure?

### Why Does It Matter?

High blood pressure (hypertension) is very common. About 1 in 3 adults in the United States has it. High blood pressure can lead to heart attacks and strokes. It is sometimes called "the silent killer" because it has no warning signs.

Many people with high blood pressure do not get enough magnesium in their diet. Magnesium is a mineral found in nuts, seeds, beans, and leafy green vegetables. Scientists wondered if getting more magnesium could help lower blood pressure without drugs.

### What Did They Find?

The research team looked at data from 2,709 people across all 38 studies. This is called a meta-analysis. The people in the studies took magnesium pills every day for about 12 weeks. The average dose was 365 mg per day.

**For everyone overall:** Blood pressure dropped a small but real amount. The top number (systolic) dropped by about 2.8 points. The bottom number (diastolic) dropped by about 2.1 points. These units are called mm Hg.

**For people with high blood pressure already on blood pressure medicine:** The results were much stronger. The top number dropped by nearly 7.7 points. The bottom number dropped by about 3 points. This is a meaningful drop.

**For people with low magnesium levels in their blood (hypomagnesemia):** The top number dropped by about 6 points. The bottom number dropped by about 4.8 points. These people benefited the most.

**For people with normal blood pressure:** The drop was very small and not statistically significant. Magnesium did not seem to help this group much.

Scientists also looked at whether higher doses worked better. They did not find a clear pattern. More magnesium did not always mean more benefit.

## What Can You Do?

If you have high blood pressure and low magnesium levels, this research suggests that taking a magnesium supplement could help. Talk to your doctor before starting any new supplement.

Great plant-based sources of magnesium include:

- Pumpkin seeds — very high in magnesium
- Black beans and lentils — a good everyday source
- Almonds and cashews — easy to snack on
- Spinach and Swiss chard — cook them with garlic
- Brown rice and quinoa — great at any meal
- Dark chocolate (70%+ cacao) — a tasty bonus

The typical adult needs 310–420 mg of magnesium per day. Most Americans do not get enough from food alone. Ask your doctor if a blood test to check your magnesium level makes sense for you.

## Bottom Line

**If you have high blood pressure or low magnesium levels, getting more magnesium — from food or a supplement — may give your blood pressure a meaningful push in the right direction.**

---

## Definitions

**Magnesium:** A mineral your body needs to work properly. It helps your muscles relax, your nerves send signals, and your heart beat steadily. You get it from foods like nuts, seeds, and leafy greens.

**Blood Pressure:** The force of blood pushing against the walls of your arteries (blood vessels). It is measured with two numbers — a top number and a bottom number — written like 120/80. High blood pressure means your heart is working too hard.

**Meta-Analysis:** A type of study that combines the results from many other studies. By adding all the data together, scientists can see patterns that a single small study might miss.

**mg (milligram):** A unit of weight equal to one-thousandth of a gram. It is used to measure very small amounts of vitamins, minerals, and medicines.

**Systolic Blood Pressure:** The top number in a blood pressure reading (e.g., the "120" in 120/80). It measures pressure in your arteries when your heart beats. A normal systolic reading is below 120.

**Diastolic Blood Pressure:** The bottom number in a blood pressure reading (e.g., the "80" in 120/80). It measures pressure in your arteries when your heart rests between beats. A normal diastolic reading is below 80.

**mm Hg (millimeters of mercury):** The unit used to measure blood pressure. A drop of 5 mm Hg in blood pressure is considered clinically meaningful.

**Hypomagnesemia:** A condition where you have too little magnesium in your blood. It can cause muscle cramps, fatigue, and irregular heartbeat. Say it: hy-po-mag-nee-ZEE-mee-ah.

**Statistically Significant:** A result is statistically significant when scientists are confident it is real and not just due to chance. If a result is not statistically significant, it could have happened randomly.

**Randomized Controlled Trial (RCT):** A type of study where people are randomly put into two groups. One group gets the real treatment (like a magnesium pill). The other group gets a fake pill (placebo). This lets scientists fairly compare the two groups.

**Placebo:** A fake treatment — often a sugar pill — given to one group in a study. The people taking it do not know it is fake. This helps scientists see if the real treatment works better than nothing.

**Hypertension:** The medical word for high blood pressure. Blood pressure is considered high when it reads 130/80 mm Hg or above. Over time, hypertension damages the heart, kidneys, and blood vessels.

**Dose-Response:** The idea that a bigger dose of something gives a bigger effect. This study did not find a clear dose-response pattern with magnesium and blood pressure.