

## Magnesium Benefits Your Blood Pressure



Magnesium may reduce blood pressure in people with high blood pressure, according to new findings. The study adds to data from epidemiological studies that have reported more magnesium, potassium and calcium may reduce your risk of hypertension.

Researchers recruited 155 people to take part in a double-blinded, placebo-controlled, randomized trial. The subjects were randomly assigned to receive either daily supplements of magnesium oxide or a placebo for 12 weeks.

At the end of the study, no significant differences were at first observed. However, when the researchers looked specifically at hypertensives, significant decreases in both systolic and diastolic blood pressure were observed in the magnesium group.

### Sources:

- » [NutraIngredients.com May 19, 2009](#)
- » [Nutrition, Metabolism and Cardiovascular Diseases April 7, 2009](#)



### Dr. Mercola's Comments:

One out of three people have hypertension, or high blood pressure. This is a common and serious health concern, as uncontrolled hypertension can cause heart disease and increase your risk of having a stroke. It's especially dangerous

because it often has no warning signs or symptoms.

You are generally diagnosed with pre-hypertension if your [blood pressure](#) is between 120/80 and 140/80, and anything above 140/80 is generally diagnosed as hypertension.

The first number is your systolic pressure, which should typically be below 120. The second number is your diastolic pressure, which should typically be below 80. If either your systolic or diastolic number is higher than the typical 120/80, you may get a diagnosis of hypertension, or pre-hypertension.

Fortunately, over 85 percent of those who have hypertension can normalize their blood pressure through lifestyle modifications, and making sure you're getting enough magnesium would be a good start.

### **Why Magnesium is Important for Healthy Blood Pressure and Heart Function**

Interestingly one of the first papers I ever published, 23 years ago now, was on the use of calcium supplementation to control high blood pressure (Calcium Supplementation in the Treatment of Hypertension J Amer Osteo Assoc 85:104-107, 1985). So for nearly three decades I have known of the connection of important minerals like calcium and magnesium in the stabilization of blood pressure.

If you decide to supplement with magnesium it is important to understand that its complementary partner is calcium. So you should use both. Typically you would use twice as much elemental magnesium relative to the elemental calcium. That ratio works out quite well for most.

The above study found significant decreases in both systolic and diastolic blood pressure among people with hypertension after taking a magnesium supplement for just 12 weeks.

This lends further support to the immense role this mineral plays in your health. In fact, magnesium is the fourth most abundant mineral in your body and is responsible for the function of over 350 enzymes in your body, including the:

- Creation of ATP (adenosine triphosphate), the energy molecules of your body
- Action of your heart muscle
- Proper formation of bones and teeth
- Relaxation of blood vessels
- Promotion of proper bowel function
- Regulation of blood sugar levels

In your heart magnesium is particularly important, and doctors have been prescribing [magnesium for heart disease](#) since the 1930s.

A review of seven major clinical studies showed that IV magnesium reduced the odds of death by more than half in patients suffering from a heart attack.

One study, LIMIT-2, developed a protocol for giving magnesium as soon as possible after onset of the heart attack and before any other drugs. If those criteria were followed, [heart muscle damage was greatly reduced](#), and neither hypertension nor arrhythmia (abnormal heartbeat) developed.

Magnesium may offer these benefits because in your heart it helps:

- Dilate blood vessels
- Prevent spasm in your heart muscle and blood vessel walls
- Counteract the action of calcium, which increases spasm
- Dissolve blood clots
- Dramatically lessen the site of injury and prevent arrhythmia
- Act as an antioxidant against the free radicals forming at the site of injury

### **Signs You May Not be Getting Enough Magnesium**

It's been estimated that up to 80 percent of the population is deficient in this important mineral, according to Carolyn Dean, MD, ND, author of [The Miracle of Magnesium](#).

Further, there has been no lab test that will give an accurate reading of the magnesium status in your tissues. Only 1 percent of magnesium in your body is distributed in your blood, making a simple sample of magnesium from a blood test often highly inaccurate.

That's why most doctors who rely on blood tests for magnesium and not magnesium deficiency signs and symptoms and realization that up to 80 percent of the population is deficient, will miss an important diagnosis.

With that in mind, some early signs of magnesium deficiency to keep an eye out for include:

- Loss of appetite
- Nausea and vomiting
- Fatigue and weakness

An ongoing magnesium deficiency can lead to:

- Numbness and tingling
- Muscle contractions and cramps
- Seizures
- Personality changes
- Abnormal heart rhythms
- Coronary spasms

If you suspect you are low in magnesium, the best way to consume this mineral is through organically bound magnesium, which is found in organic green, leafy vegetables. Other excellent foods high in magnesium are:

- Avocados
- Almonds
- Some beans and [peas](#)

### **The Most Common Cause of High Blood Pressure**

Magnesium deficiency may contribute to high blood pressure, but the most common underlying cause is typically related to your body producing too much insulin. As your insulin levels rise, it causes your blood pressure to increase.

Research published in 1998 in the journal *Diabetes* reported that nearly two-thirds of the test subjects who were insulin resistant also had high blood pressure.

This crucial connection between insulin resistance and hypertension is yet another example of how wide-ranging the debilitating effects of high insulin, leptin and blood glucose levels really are.

I highly recommend you get a fasting insulin level test done by your doctor, especially if you're struggling with high blood pressure. The level you want to strive for is about 2 or 3. If it's 5, or over 10, you have a problem and you definitely need to lower your insulin levels to lower your risk of high blood pressure and other cardiovascular problems.

Fortunately, there are a few very simple techniques that will lower your insulin levels. And if your hypertension is the direct result of an out-of-control blood sugar level, then normalizing your blood sugar levels will also bring your blood pressure readings into the healthy range.

### **Four Tips to Lower Your Blood Pressure Naturally**

I detailed these four smart strategies to lower your blood pressure naturally in a recent video on the topic. You can either [watch the video now](#) or read through the tips below:

**1. Exercise:** A regular, [effective exercise program](#) consisting of aerobics, sprint-burst type exercises, and core and strength training, can go a long way toward reducing your insulin levels and your blood pressure.

**2. Eat for your nutritional type and avoid foods that raise insulin levels:** Foods that will raise your insulin, such as sugar-type foods and grains, should be avoided if you have high blood pressure. This includes even whole, organic grains, as they rapidly break down to sugars.

Foods to avoid include:

- Breads
- Pasta
- Rice
- Cereal
- Potatoes

While cutting out these insulin-boosting foods, focus your diet on the healthy foods that correspond to your [nutritional type](#).

One food in particular that can also be helpful for reducing your blood pressure is crushed, raw garlic. Many people swear by it, and it's something you can easily add to your diet.

**3. Use stress management techniques.** Even mild [stress can raise your blood pressure](#). Prayer, meditation or the [Meridian Tapping Technique \(MTT\)](#) are all useful techniques for managing your emotions.

**4. Optimize your vitamin D levels.** It has recently become clear that [normalizing your vitamin D levels](#) can have a powerful effect on normalizing your blood pressure.

You'll notice that none of the above tips includes a blood pressure drug. Well, this is to your advantage considering beta-blockers -- a class of drugs frequently prescribed to manage high blood pressure -- have been found to [cause type 2 diabetes](#) by decreasing your insulin sensitivity. This is actually promoting the very problem you're trying to solve.

That said, although I hardly ever recommend the use of drugs it's VITAL that you do go on a medication to lower your blood pressure if your blood pressure is very high! Otherwise you are putting yourself at serious risk of a stroke, and the brain damage that occurs during a stroke tends to be permanent and irreversible.

Once you begin to address the underlying causes of your high blood pressure with the tips above and your levels begin to go down, then you can slowly wean off the medication under the guidance of a natural health care practitioner.

## Related Links:

- » [Five Smart Strategies to Lower Your Blood Pressure Naturally](#)
- » [Common Peas Can Help Your Blood Pressure?](#)
- » [The Miracle of Magnesium](#)

