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Treating Hypertension Naturally

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High blood pressure, or hypertension, is often referred to as “the silent killer” because you may not know that you have it until it is too late. In fact, nearly one-third of people who have high blood pressure don’t know it. If your blood pressure is extremely high, however, certain obvious symptoms may manifest themselves:

- Severe headache
- Fatigue or confusion
- Vision problems
- Chest pain
- Difficulty breathing
- Irregular heartbeat
- Blood in the urine
- Pounding in your chest, neck, or ears



In these situations, you should see a doctor immediately since you could be having a hypertensive crisis that could lead to a heart attack or stroke.¹

Blood Pressure Ranges

Blood pressure readings are usually given as two numbers: systolic (the top number) and diastolic (the bottom number). An example is 120 over 80 (written as 120/80 mmHg). One or both of these numbers can be too high. Depending upon the measurement, your blood pressure may be classified as normal, high (hypertension) or pre-hypertension. Blood pressure may also be low, but that is not the topic of this article. In any case here are the ranges for classifying your blood pressure:

- Normal blood pressure—Lower than 120/80 mmHg most of the time.
- High blood pressure (hypertension)—140/90 mmHg or above most of the time.
- Pre-hypertension—120/80 or higher, but below 140/90

Treating High Blood Pressure

The treatment of high blood pressure should start with eating a heart-healthy diet and getting regular exercise (at least 30 minutes of aerobic exercise a day). If you smoke, you need to find a program to help you quit, and if you drink alcohol you should limit it to one drink a day for women, two a day for men. You should also limit the amount of sodium (salt) you eat (less than 1,500 mg per day), and try to avoid things that cause you stress. Staying at a healthy body weight can also make a big difference.

When these measures are insufficient or unsuccessful, physicians may also opt to prescribe medications to lower blood pressure. These may include diuretics (which reduce water weight), beta-blockers (which make the heart beat at a slower rate and with less force), angiotensin-converting enzyme or ACE inhibitors (which relax blood vessels), or calcium channel blockers (which also relax blood vessels). Unfortunately, these medications are associated with a range of side effects.

Another option for individuals with mild to moderate hypertension is to consider the use of certain nutraceuticals shown in human clinical research to be effective for lowering blood pressure. While there are many effective nutraceuticals from which to choose, for the sake of brevity this article will address only two: grape seed extract (water extract standardized for polyphenolic compounds) and magnesium.

Grape Seed Extract

Grape seed extracts that are produced via an ethanol (alcohol) extraction process and standardized for their oligomeric proanthocyanidin (OPC) content are nothing new, and research supports their use for a broad range of functions including antioxidant, vasodilating, anti-lipoperoxidant activity, and antiplatelet properties.^{2,3,4} It should be noted, however, that while common grape seed extracts have had some value in treating hypertension under certain conditions in animal studies, this has not always been the case in human studies.⁷

This is distinctly different from a grape seed extract (GSE) produced via a water extraction process and standardized for its polyphenol content, rather than its OPC content. Human clinical research has demonstrated that it is effective for the treatment of mild-to-moderate hypertension. In a 4-week, randomized, placebo-controlled study,⁸ a water-extracted GSE or placebo was given to men and women with metabolic syndrome. Two doses were tested, 150 mg/day and 300 mg/day. The results were that both systolic and diastolic blood pressures were significantly lowered after treatment with both doses of the water-extracted GSE as compared with placebo ($P < 0.05$). In fact, systolic BP was lowered 11 points. However, only the 300 mg dose also effective a statistically significant reduction in the oxidation of LDL-cholesterol ($P < 0.05$). This is important since oxidized LDL can cause damage to the artery that contributes to atherosclerosis.

In another 8-week, randomized, placebo-controlled study,⁹ 300 mg/day of a water-extracted GSE was given to men and women with prehypertension. The results were that both the systolic and diastolic blood pressure were significantly lower ($P = 0.003$ and $P < 0.05$, respectively) after treatment with the water-extracted GSE as compared with placebo. In addition, it appears that the mechanism of action for the water-extracted GSE is that it supports the release of nitric oxide, a natural compound produced in the body which promotes circulation.¹⁰

Magnesium

Magnesium is required for the active transport of ions like potassium and calcium across cell membranes. Through its role in ion transport systems, magnesium affects the conduction of nerve impulses, muscle contraction, and normal heart rhythm,¹¹ so it is no real surprise that research shows that supplementation with this mineral is helpful in lowering blood pressure. In fact, magnesium has been used both orally and intravenously for this purpose. There are two key facts that are important to note, however, when it comes to supplementation with magnesium: dosage and delivery form.

Clinical research on magnesium shows that taking 600–1000 mg of magnesium daily can modestly reduce diastolic blood pressure in patients with mild to moderate hyperten-



sion.^{12,13,14,15} Significantly lower doses do not seem to have this effect.^{16,17,18,19} However, a human clinical study²⁰ has demonstrated that when 480 mg/day of magnesium is provided orally as magnesium oxide to hypertensive patients for eight weeks, there was a significant lowering of blood pressure ($P<0.05$). The fact that magnesium oxide was used is important since other studies do not show the same benefit when other forms of magnesium were used orally. While other forms may work when administered intravenously, the assumption cannot be made that the same form will work orally.

Conclusion

Supplementation with 300 mg/day of water-extracted GSE and 480 mg/day of magnesium as magnesium oxide may help lower blood pressure levels in individuals with mild-to-moderate hypertension. However, supplementation is only one spoke on the wheel of hypertension treatment, with the other spokes including diet, exercise and stress control. When each of these is incorporated into a comprehensive program, the results will likely be significantly better. ■

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