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Ask the DOCTOR

Natural Approaches to Lowering Blood Pressure

By Michael Ozner, MD

Q: "I'm a 48-year-old man in excellent health. I eat mostly fish and vegetables, run three times a week, and my total cholesterol is around 168—yet my blood pressure keeps rising. I don't know what else I can do in terms of lifestyle to manage this problem. Also, my 85-year-old mother is in good health, but she also has high blood pressure. Before I go on medication, I'm wondering if there is a nutritional approach for improving my blood pressure that I could try."

A: You are describing a situation that is not uncommon. In my practice, I see a lot of people who do the right things in terms of diet, exercise, and lifestyle, yet still have elevated blood pressure. There can be several reasons for this, but first, I want to explain what blood pressure is and why controlling it is so important.



Blood pressure is the force of blood against artery walls, and it is measured in two numbers: systolic and diastolic. Systolic pressure occurs as the heart beats, and diastolic pressure exists as the heart relaxes between beats. What is a normal reading? It used to be less than 140/90 millimeters of mercury (mm Hg), with 120/80 mm Hg being ideal. But recent changes in the guidelines now say that normal should be less than 120/80 mm Hg. The range between 120/80 mm Hg and 140/90 mm Hg is now called prehypertension. This guideline change means more people are now considered hypertensive or prehypertensive.

It is normal for your blood pressure to fluctuate during the day due to physical activities or stressful stimuli. It should return to normal as your body adjusts to the situation. But if it does not, it becomes a chronic condition called hypertension, and it is unfortunately common, affecting more than 50 million Americans. We used to think only diastolic pressure was important, but both numbers matter in all individuals. Elevated systolic pressure is a key indicator of your risk for stroke, especially in the elderly population. Left uncontrolled, it can also result in kidney disease, vascular disease, and increased risk of heart attack.

While there is a lifestyle component to hypertension, the most common cause is aging. As we age, blood vessels lose their elasticity, or the ability to expand and contract. When the heart contracts and relaxes, this reduced elasticity may lead to a rise in systolic pressure and a decrease of diastolic pressure.

Another common cause is hereditary predisposition, a neurohormonal component that is under genetic control. People with a strong family history of hypertension are at higher risk of developing it later in life compared to someone with no family history. This could be a factor in your case, since your elderly mother, while in good general health, also has high blood pressure. But family history or not, you might still be able to prevent hypertension with prudent lifestyle changes like proper nutrition, regular daily exercise, stress management, and smoking cessation. Several studies have demonstrated this, including a landmark study showing that reducing elevated blood pressure lowered the risk of cardiac events.

Hypertension caused by certain treatable conditions is called secondary hypertension. Reversible nutritional causes are surprisingly common. I always ask patients if they eat licorice, as it contains glycyrrhizin, a substance that may cause sodium retention and can lead to hypertension. Excessive salt, alcohol, and caffeine can also increase blood pressure, so it is prudent to decrease or eliminate their consumption.

Other secondary causes of hypertension can be reversible through surgery. These include constriction or coarctation of the aorta, adrenal gland tumor (pheochromocytoma), or a blocked renal artery. People who snore might have obstructive sleep apnea, a cause of hypertension that has several treatment options.

Looking at the possible causes of hypertension, you can see that someone who is leading the right lifestyle could still have a problem. This is why a complete evaluation by your personal physician is necessary. Diagnosing and eliminating any secondary causes can significantly reduce or eliminate hypertension.

Now, if you have no secondary causes, then you should follow appropriate lifestyle changes, even if you also need medications. I recommend a four-part program—including a well-documented nutritional approach—to all my patients. It consists of:

1. nutrition
2. exercise
3. stress management
4. smoking cessation.



NUTRITION

Many foods contain phytonutrients that help lower blood pressure, so it makes sense to follow a diet rich in such foods. As it happens, those foods are beneficial to weight control, which can also reduce blood pressure. I recommend a Mediterranean-type diet. In my book *The Miami Mediterranean Diet*, I highlight the importance of eating heart-healthy fresh fruits and vegetables, whole grains, olive oil, cold-water fish, red wine, nuts, and beans. What the Miami Mediterranean Diet does not contain is also important; it is low in saturated fat, has no trans fat, and is low in sodium. The book contains hundreds of delicious recipes and suggested meal plans that can decrease your risk of hypertension and cardiovascular disease.

We have long known that a Mediterranean diet supports cardiovascular health and can lower blood pressure, and science backs this theory. Fruits, vegetables, and nuts provide potassium, calcium, and magnesium for lowering blood pressure. Extra-virgin olive oil supports healthy blood pressure. Red wine in moderation (one five-ounce glass per day for women, and two for men) and red or purple grape juice may help relax arteries, which can lower blood pressure. Numerous studies have documented the blood pressure-regulating benefits of fresh garlic, abundant in a Mediterranean diet. And fish is rich in omega-3 fatty acids, which are beneficial for numerous disease states, including hypertension. I regularly recommend fish oil supplements for all my patients who are at increased risk of cardiovascular disease.

Furthermore, supplementation with certain minerals such as calcium, magnesium, and potassium might be worthwhile for some individuals. It is important, however, that you discuss this with your personal physician and first obtain appropriate lab tests; hypertension can be associated with kidney disease, which may alter blood levels of these minerals. For example, you would not want to supplement with potassium if your potassium levels are elevated, but if the levels are low, supplementation may be indicated.

You can add other foods to your diet that contribute to reducing blood pressure, such as green tea. It contains catechins that can inhibit the action of angiotensin-converting enzyme, which raises blood pressure. Pomegranate juice is another food that inhibits angiotensin-converting enzyme, and it has gained much attention recently. Even chocolate can be beneficial if you eat the right kind and limit the amount. Dark chocolate rich in cocoa flavanols aids healthy blood vessels, ultimately leading to reduced blood pressure. Switching to a Mediterranean diet can significantly lower blood pressure and help you maintain a healthy weight. Staying on the diet is easy since it is delicious, so eat slowly and enjoy your food. Because the Mediterranean diet is rich in fiber, you feel full and are less likely to overeat. On that subject, remember that even with healthy foods, calories are still calories. Portion control is crucial in order to obtain the desired benefits from the diet.

EXERCISE

We as a nation exercise far too little, which is unfortunate, since exercise lowers blood pressure in a couple of ways. One way is by supporting weight loss, particularly the reduction of abdominal fat. Fat in this area is associated with elevated levels of a protein called angiotensinogen, which can lead to hypertension. Exercise also strengthens the heart and makes the cardiovascular system more efficient by relaxing and dilating blood vessels. And if you use exercise rather than raiding the refrigerator as an outlet for stress, you can both eliminate emotional eating and maintain healthy weight control.

You say that you currently run three times a week, which is a good start. Daily exercise, however, is preferable. Expensive gyms and marathon running are not necessary—simply walking 30 minutes each day can lead to significant benefits. Add exercise to your daily activities by using stairs instead of elevators, walking further in the parking lot at work, and even walking in place in front of the TV. You could begin to incorporate moderate forms of exercise for at least one half hour daily on your non-running days. First be sure to check with your personal physician to make sure that exercising is safe for you.



STRESS MANAGEMENT

Stress releases catecholamines, which are chemicals that prepare the body for physical activity and can increase blood pressure. There is ample evidence that managing and reducing stress can significantly lower the risk of hypertension. We know this from the works of Dr. Herbert Benson of Harvard University, who popularized a stress-reduction technique in his book *The Relaxation Response*, and Dr. Robert S. Eliot, a cardiologist who said there are two rules for stress management: "Don't sweat the small stuff, and it's all small stuff."

There are many stress-reduction techniques, such as transcendental meditation, self-hypnosis, breathing techniques, Benson's relaxation response, yoga, prayer, and deep muscle relaxation. Find something that works for you and that you enjoy. Your exercise program may also reduce stress and make you better able to handle the stresses you do encounter. Whatever method you choose, stick with it, since stress management can significantly lower blood pressure.

SMOKING CESSATION

A word about smoking: quit. This is a no-brainer. Cigarette smoking increases the risk of developing heart disease for a variety of reasons. It causes arteries to constrict, and the carbon monoxide from cigarette smoke decreases the amount of oxygenated blood reaching the heart muscle. No amount of smoking is safe, and it is counterproductive to an otherwise healthy lifestyle. There are many methods to help you quit, including nicotine patches or gum, acupuncture, and hypnosis, to name a few.

CONCLUSION

It is possible to beat hypertension and improve your health with this comprehensive lifestyle and nutrition program. Furthermore, these methods will help you derive more pleasure in your life from exercise, eating delicious, healthy foods, and stress reduction. In fact, I frequently observe that people who adopt this type of lifestyle are both healthier and happier.

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