



Managing high blood pressure through diet

Question

Dear Alice,

I need nutritional information concerning hypertension. Foods to avoid. Foods to eat.

Answer

Dear Reader,

Hypertension is known as the "silent killer" and is one of the most common diseases of the cardiovascular system. It is defined as a condition of sustained elevated pressure in the arteries of 140/90 or higher. In this case, 140 is the systolic pressure. Simply put, systolic pressure represents the blood pressure against the arteries while the heart is contracting or beating. The number 90 is the diastolic pressure, meaning the blood pressure while the heart is relaxing or between beats. People who are genetically sensitive to sodium experience high blood pressure from an excesses in salt intake. People who are most likely to be salt sensitive include children of parents with hypertension, African Americans, and people over 50 years of age. Keep in mind that not everyone is salt sensitive. As hypertension in the body becomes prolonged, the risk for heart failure, vascular disease, kidney (renal) failure, and stroke increases.

Although there has been no cause identified for hypertension in 90 percent of people, dietary factors have been shown to influence blood pressure. People with hypertension can use the following food guidelines:

- **Avoid foods high in sodium.** Sodium causes vasoconstriction, the narrowing of blood vessels. Therefore, the amount of space blood has to travel through decreases. This decrease creates an increase in the resistance the blood has to overcome. This increased resistance makes it more difficult for the arteries to expand with each beat of the heart, causing the internal pressure to rise. High sodium foods include processed meats, salted snack foods, cheeses, and canned foods.
- **Eat foods high in potassium.** Good dietary sources of potassium include bananas, potatoes, avocados, tomato juice, grapefruit juice, and acorn squash. Potassium helps maintain intracellular osmotic pressure, which is the force required to stop the flow of water across a membrane.
- **Limit adding salt to foods, particularly in restaurants.** Most foods, especially at restaurants, are already high in sodium.
- **Eat calcium and magnesium rich foods to help reduce blood pressure.** Food sources rich in calcium include low-fat milk, green beans, sardines with bones, broccoli, spinach, and tofu. Good sources of magnesium-rich foods include any legumes and seeds, such as navy beans and sunflower seeds.
- **Lower saturated fat intake.** Saturated fat increases the level of low-density lipoproteins (LDL), which tend to stick to the sides of the arterial wall. This deposit of fat is known as atherosclerosis. Atherosclerosis begins with the accumulation of fatty streaks on the inner arterial walls. When this fatty buildup enlarges and becomes hardened with minerals, such as calcium, it forms plaque. Plaque stiffens the arteries and narrows the passages through them. Thus, blood pressure rises. This rise in blood pressure

is due to the arteries' lack of elasticity.

According to a Harvard research study, the Dietary Approaches to Stop Hypertension (DASH) diet could be another possible way to decrease blood pressure. The DASH trials began with 459 adults with systolic pressure of less than 160 and diastolic pressure between 80 and 95. The study randomly assigned people to one of three diets for eight weeks. The first diet was the Control Diet. This diet had levels of fat and cholesterol that matched the average American's diet. It had lower than average levels of potassium, magnesium, and calcium. The other two groups were divided into a "fruit and vegetable diet" and a "combination diet." The "fruit and vegetable" group matched the control group in fat, saturated fat, cholesterol, and protein. However, the difference was that this diet had more potassium and magnesium. The "fruit and vegetable diet" reduced systolic blood pressure 2.8 mmHg (millimeters of mercury) more than the control diet. It also reduced diastolic blood pressure 1.1 mm Hg more. The "combination diet" had less total fat, saturated fat, and cholesterol than the fruit and vegetable and control diets. The "combination diet", rich in fruits, vegetables, and low-fat dairy products, also had more potassium, magnesium, calcium, fiber, and protein. This "combination diet" reduced systolic blood pressure 5.5 mm Hg more than the control diet. It also reduced diastolic blood pressure 3.0 mm Hg more than the control diet.

To adapt the DASH Diet into your lifestyle, follow these guidelines:

- Make gradual changes in your eating patterns.
- Center your meal around carbohydrates, such as pastas, rice, beans, or vegetables.
- Increase consumption of fruits and vegetables.
- Treat meat as one part of the whole meal.
- Decrease use of fat.

For more info on the DASH Diet, the Mayo Clinic's got you covered. Finally, weight loss is recommended if you're overweight. Obesity can worsen hypertension. Extra adipose tissue means miles of extra capillaries through which the blood must be pumped. Weight loss can be accomplished through aerobic activity. Aerobic exercise will utilize fat stored in the body. This, along with weight training, will increase your muscle mass, which, in turn, will raise your metabolic rate. Therefore, you will expend more calories throughout the day.

Health topic

Nutrition & Physical Activity

Food Choices & Health

Source URL: <:///answered-questions/managing-high-blood-pressure-through-diet>

List of links present in page

- <:///answered-questions/managing-high-blood-pressure-through-diet>
- <http://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/dash-diet/art-20048456>
- <:///category/nutrition-physical-activity>
- <:///category/food-choices-health>
- <:///node/17554/printable/print>