

High Blood Pressure

What is High Blood Pressure?

High blood pressure or hypertension means that the pressure of blood pumping inside the arteries is high enough that it may, over time, damage a person's health. People with high blood pressure are much more likely to suffer from heart attacks, stroke, and kidney disease than those with normal blood pressure. "Hypertension" does not mean that a person is overly tense. Relaxed people may have hypertension. Although some people with high blood pressure or hypertension may experience dizziness, fatigue, headaches or a flushed face, usually there are no symptoms.

A blood pressure reading records two numbers, such as 120/60. The systolic or top number measures the pressure in the artery at the time the heartbeat is squeezing blood out into the arteries. The diastolic or bottom number, measures the arterial pressure in between beats of the heart. High blood pressure means that the systolic or the diastolic blood pressure reading is consistently high.

Terminology

Hypertension that is caused by kidney disease, heart problems, or other illness is secondary hypertension. However, more than 90% of people with high blood pressure have primary or essential hypertension, which means that the exact cause is unknown.

Conservative Management

Recommended treatment for hypertension depends on the elevation of a person's blood pressure. Because of the potentially serious consequences of untreated high blood pressure, blood pressure medication is generally the treatment of choice for persons with Stage 2 or higher blood pressure. However, lifestyle changes, as those listed are recommended for the prevention of high blood pressure, the treatment of high normal and Stage 1 hypertension, and in conjunction with medications for Stage 2 and higher hypertension.

Classification

Hypertension has been class into several stages:

| | Systolic (mm Hg) | Diastolic mm(Hg) |
|----------------|---------------------|---------------------|
| Normal | <130 | <85 |
| High Normal | 130-139 | 85-89 |
| Hypertension | >=140 | >=90 |
| Stage 1 (mild) | 140-159 | 90-99 |
| Stage 2 (mod) | 160-179 | 100-109 |

Stage 3 (severe) 180-209

110-119

Stage 4 (extreme) >=210

>=120

Exercise

Many studies have shown that physical exercise tends to lower blood pressure in hypertensive individuals. It appears that the changes in blood pressure found with exercise are independent of weight loss and that the positive benefits disappear when a person quits exercising, so it is important to exercise consistently. The blood pressure lowering effect of exercise is seen when the training occurs for at least a half an hour, three times per week. Aerobic exercises, including walking, swimming, and cycling are recommended. Always consult a health care provider before beginning an exercise program.

Weight

Obesity has been associated with elevated blood pressure, perhaps as a result of increased demand placed on the circulatory system. A positive correlation between weight and blood pressure has been found, including individuals with weight that is considered normal. It is clear that weight loss lowers blood pressure. Low calorie diets with limited saturated fat and increased fiber have been shown to reduce blood pressure. A health care professional should be consulted for an effective weight loss program that is both effective and safe.

Alcoholic Beverages

Alcohol consumption causes an increase in both blood pressure and heart rate. It is uncertain at what point alcohol consumption begins to affect blood pressure but there is some indication that it may take as little as an average of one drink per day. It is known that those drinking an average of three or more alcoholic beverages each day are four times more likely to suffer from hypertension than non-drinkers. People who are concerned about their blood pressure should not drink more than two alcoholic beverages per day.

Salt

It has been well documented that reducing dietary sodium leads to decreases in blood pressure. Changes may be most dramatic in patients who are older or who have higher blood pressure to begin with. Some people who are hypertensive may be salt-sensitive, meaning that salt restriction is more effective at lowering their blood pressure, while others are salt-resistant and experience little effect from this type of management. The National Dairy Council recommends that

all adults restrict their daily sodium intake to less than 2400 mg per day.

Mineral Supplements and Fish Oils

In addition to the recommended lifestyle modifications listed above, there is some preliminary evidence that mineral supplementation and fish oil may also help lower blood pressure.

Potassium

A potassium rich diet may lower blood pressure. The effect appears to be greatest in persons with higher blood pressure to begin with and when potassium is incorporated into the diet for longer periods of time. A daily diet that includes generous amounts of fruits, vegetables, milk, meats, and cereals, should supply the 3500 mg of potassium recommended for adults, making supplementation unnecessary.

Calcium

A number of studies have indicated that persons who consume fewer dairy products or less calcium tend to have higher blood pressure. It is suggested that persons with high blood pressure ensure that their calcium intake is at least 800 to 1000 mg per day.

Magnesium

Although the effect of magnesium on blood pressure are not as well established as those for other mineral supplements, there may be a blood pressure lowering effect. It may, therefore, be useful for those with hypertension to maintain daily magnesium levels of 300-400 mg.

Omega-3 Fatty Acids

Several studies have found that consuming fish or large amount of fish oils that contain Omega-3 fatty acids lowers blood pressure in some people. It is thought that eating fish two or three times per week, or consuming 1 gram of fish oil per day, is helpful in maintaining lower blood pressure.

Other Alternative Treatments

Other alternative treatments that hold some promise for people with high blood pressure are currently being researched. They include spinal manipulation acupuncture, and relaxation therapy.

Lifestyle Changes and Blood Pressure

Hypertension is a significant health problem in the United States. Based upon the National Health and Nutrition Examination Survey (NHANES III), as many as one in four adults in this country may be affected. Approaches to treating high blood pressure have changed considerably over the past several years and now include modifications of diet and exercise patterns for both prevention and early

intervention of the disease. Environment and personality can make it difficult to successfully implement some of the changes recommended, but the benefits of lower blood pressure and an overall healthier lifestyle make the changes well worth the effort.