

HIGH BLOOD PRESSURE AND WHAT CAN BE DONE

AHA Recommendation

High blood pressure, or hypertension (hi"per-TEN'shun), is defined in an adult as a systolic pressure of 140 mm Hg or higher and/or a diastolic pressure of 90 mm Hg or higher. Blood pressure is measured in millimeters of mercury (mm Hg).

Blood pressure (mm Hg)*	Optimal	Normal	High normal	Hypertension
Systolic (top number)	< 120	< 130	130-139	140 or higher
Diastolic (bottom number)	< 80	< 85	85-89	90 or higher

*mm Hg = millimeters of mercury, < = less than

High blood pressure directly increases the risk of coronary heart disease (which leads to heart attack) and stroke, especially along with other risk factors. High blood pressure can occur in children or adults. It's particularly prevalent in African Americans, middle-aged and elderly people, obese people and heavy drinkers. People with diabetes mellitus (di"ah-BE'teez or di"ah-BE'tis meh-LI'tis) gout or kidney disease have hypertension more often. High blood pressure usually has no symptoms. It's truly a "silent killer." But a simple, quick, painless test can detect it.

How does medicine help control high blood pressure?

Medicines called **antihypertensives** lower high blood pressure. Some, called **diuretics** or "water pills," rid the body of excess fluids and salt (sodium). Others, called **beta blockers**, reduce the heart rate and the heart's output of blood.

Vasodilators are another useful group of drugs. These can cause the muscle in blood vessel walls to relax, allowing the vessel to dilate (widen). They're especially effective in the arterioles, the very small arteries that connect larger arteries to the tiny capillaries.

Other drugs for high blood pressure are the **angiotensin converting enzyme (ACE) inhibitors**, **angiotensin II receptor blockers** and the **calcium antagonists** (calcium channel blockers). The ACE inhibitors interfere with the body's production of angiotensin II, a chemical that causes the arteries to constrict. The angiotensin II receptor blockers block the effects of angiotensin II. The calcium antagonists can decrease the heart's pumping strength and relax blood vessels.

In most cases these drugs lower blood pressure. Quite often, however, people respond very differently to them. That's why most patients must go through a trial period to find out which medications work best with the fewest side effects.

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People with high blood pressure should do three things:

- Follow their healthcare provider's instructions.
- Stay on their medication.
- Make lifestyle changes.

What about diet and lifestyle changes?

These changes help control high blood pressure. Before drugs are prescribed, these are often recommended for people with mildly elevated blood pressure.

The American Heart Association Nutrition Committee says that to maximize the beneficial effects of a healthy diet on blood pressure,

- Don't eat a lot of sodium (salt).
- Eat plenty of fruits and vegetables, and fat-free and low-fat dairy products.

Such diets are rich in potassium, calcium, magnesium and protein, and low in total fat, saturated fat and cholesterol.

Some people with mild high blood pressure can lower their blood pressure by reducing sodium (salt) in their diet. This means avoiding salty foods and cutting down on salt in cooking and at the table.

Drinking too much alcohol (more than one ounce of pure alcohol, or two drinks per day) raises blood pressure in some people and should be restricted. Alcoholic drinks are high in non-nutritious calories, so if you're trying to lose weight, don't drink alcohol.

Many people who have high blood pressure are also overweight. If you're overweight or have gained weight over time, you'll be advised to cut down on calories and increase physical activity to lose weight. Your doctor can prescribe a diet that's right for you. Follow it closely, including any recommendations about reducing how much alcohol you drink. When people lose weight, their blood pressure often drops, too.

Physical inactivity is a risk factor for heart disease. An inactive lifestyle also tends to contribute to obesity, a risk factor for both high blood pressure and heart disease. Regular physical activity helps control weight and lower blood pressure. Don't be afraid to be active — you should exercise daily. You'll help lower your risk of heart attack and stroke. And regular physical activity can also help you lose weight or maintain a healthy weight.

For some people, weight loss, sodium (salt) reduction and other lifestyle changes won't lower high blood pressure as much as needed. If that's true for you, you'll probably need medication. People with high blood pressure should also quit smoking because smoking greatly increases the risk of heart disease.