National STROKE Association™

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Stroke and High Blood Pressure

What is blood pressure?

Blood pressure is a measurement of the force your blood exerts on blood vessel walls as it travels through your body. Your blood pressure reading is expressed with two numbers – for example, 120/80. The first number, known as systolic blood pressure, is a measurement of the force your blood exerts on blood vessel walls as your heart pumps. The second number, known as diastolic blood pressure, is a measurement of the force your blood exerts on blood vessel walls when your heart is at rest between beats.

What is high blood pressure?

For people over age 18, optimal blood pressure is considered 120/80 or lower. Blood pressure, like your heart rate, will vary occasionally with exercise or stress. A blood pressure reading consistently higher than 120/80 is considered pre-hypertension. High blood pressure or Stage One hypertension is a measurement of 140/90 or higher. However, if you have had a previous heart attack, stroke, are diabetic, have kidney disease, high cholesterol or are overweight, speak with your physician about controlling and lowering your blood pressure more aggressively. Maintaining your blood pressure below 140/90 may reduce the risk of further complications.

Who has high blood pressure?

As many as 50 million Americans age six and older have high blood pressure. Of the one in every four adults with high blood pressure, 31.6 percent are not aware they have it.

How is high blood pressure related to stroke?

High blood pressure is the most common risk factor for stroke. Doctors have long called high blood pressure “the silent killer” because you can have high blood pressure and never have any symptoms. If left untreated, high blood pressure can lead to life-threatening medical problems

such as stroke, heart attack or kidney failure.

High blood pressure is one of the most common causes of stroke because it puts unnecessary stress on blood vessel walls, causing them to thicken and deteriorate, which can eventually lead to a stroke. It can also speed up several common forms of heart disease.

When blood vessel walls thicken with increased blood pressure, cholesterol or other fat-like substances may break off of artery walls and block a brain artery. In other instances, the increased stress can weaken blood vessel walls, leading to a vessel breakage and a brain hemorrhage.

What causes high blood pressure?

In most cases, it's impossible to pinpoint an exact cause of high blood pressure. There are, however, a number of factors that have been linked to high blood pressure including:

- A family history of high blood pressure
- Age – the incidence of high blood pressure rises in men after age 35 and in women after age 45
- Gender – Men are more likely to have high blood pressure than women
- Race – Approximately 33 percent of African-Americans have high blood pressure, compared to 25 percent of Caucasians

Other factors associated with hypertension include excess weight, excessive alcohol consumption, diabetes, lack of exercise and a high-salt diet.

How can high blood pressure be treated?

In most people, high blood pressure can be controlled through diet, exercise, medication, or a combination of all three.

A diet that is low in salt and rich in vegetables, fruits, and low-fat dairy products may help lower your blood pressure. Recent studies have also shown that increasing potassium intake, for example by eating fresh fruits and vegetables, may help lower blood pressure.

A program of regular exercise – appropriate to your age and fitness level, and approved by your health care provider – may not only aid in weight loss, but

also help to lower your blood pressure.

Finally, a wide range of medications is available to treat high blood pressure. You and your health care provider may have to try several different drugs before you find the one that works best for you. This is common, so try not to be discouraged if it happens. Once you find a drug that works, be sure to take it as directed, exactly as prescribed, even when you feel fine. Medicine can help control your high blood pressure as long as you keep taking it. If you have already had a stroke, lowering your blood pressure even if you do not have high blood pressure, reduces the risk of recurrent stroke.

Where can I get more information on high blood pressure?

Speak with your health care provider about valuable "customized" strategies and information about your hypertension and how to control it. The key to keeping your blood pressure within the normal range is your commitment to be an active participant with your health care provider in your own care.

The National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health can also provide information about high blood pressure and its treatment. Visit their Web site at http://www.nhlbi.nih.gov.

All publications are reviewed for scientific and medical accuracy by National Stroke Association's Publications Committee.