



High Blood Pressure (Hypertension)

What Is It?

Blood pressure has two components:

- **Systolic pressure**, the higher number, represents the pressure the heart generates to pump blood to the rest of the body.
- **Diastolic pressure**, the lower number, refers to the pressure in the blood vessels between heartbeats.

Usually, systolic pressure increases as we age. However, after age 60, diastolic pressure usually begins to decline because the body's blood vessels stiffen.

Blood pressure is measured in millimeters of mercury (mmHg). Normal blood pressure is defined as a systolic pressure of less than 120 and a diastolic pressure of less than 80. People with a systolic blood pressure between 120 and 139 or a diastolic blood pressure between 80 and 89 are said to have prehypertension. High blood pressure, or hypertension, is divided into two stages:

- Stage 1 hypertension -- Systolic blood pressure between 140 and 159 and/or diastolic blood pressure between 90 and 99
- Stage 2 hypertension -- Systolic blood pressure greater than 160 and/or diastolic blood pressure greater than 100.

High blood pressure can cause damage to many organs, including the brain, eyes, heart and kidneys, as well as to arteries throughout the body. If you have high blood pressure that has not been diagnosed, or that is not being treated adequately, you are at greater risk of having a heart attack, stroke and kidney failure.

Symptoms

In general, high blood pressure does not directly cause symptoms. When blood pressure is very high, it can cause symptoms such as headaches, dizziness, fatigue and ringing in the ears. However, it often causes no symptoms.

Diagnosis

Because the diagnosis of high blood pressure depends on blood pressure readings, it's essential that blood pressure be measured carefully. Avoid strenuous exercise, smoking, eating, and drinking caffeinated beverages (coffee, tea, colas) for at least one hour before you have your blood pressure taken. You should be seated for at least five minutes before the reading is taken, and you should not talk while your blood pressure is being measured. Two readings should be recorded and averaged. If your blood pressure is high, your doctor should examine your eyes, heart and nervous system (to look for brain damage). If your

examination does not show evidence of long-standing hypertension, your doctor will have you return to the office at least two more times to have your blood pressure checked before diagnosing you with hypertension. A single high reading can happen to anyone.

Once you are diagnosed with hypertension, other tests will be done to see if the high blood pressure has caused organ damage. These tests can include blood tests to check kidney function, and an electrocardiogram (EKG) to look for thickening of the heart muscle, reduced blood flow to your heart or irregular heart rhythms.

Prehypertension, readings above 120/80 but less than 140/90 on three separate occasions, is not a disease. It means you are at higher than average risk of developing hypertension.

Prevention

To prevent high blood pressure:

- Get regular aerobic exercise.
- Limit your intake of salt and alcoholic beverages.
- Eat a diet rich in fruits and vegetables and low in saturated fats.
- Avoid smoking.
- Maintain a desirable body weight.

It is important to try to modify all the risk factors for coronary artery disease that are under your control. In addition to the above actions, you should:

- Quit smoking.
- Reduce your high LDL cholesterol (the "bad" cholesterol).

There is the real possibility that you can cure your high blood pressure just with lifestyle changes, and won't require blood pressure medicines.

Treatment

Doctors and people with high blood pressure usually prefer to control it with lifestyle changes, but sometimes medication is needed to provide adequate control. Antihypertensive medications include diuretics, beta-blockers, ACE inhibitors, angiotensin receptor blockers, calcium channel blockers and alpha-blockers. Doctors tend to be more aggressive in using medications in people with diabetes, kidney disease or heart problems, because these people are at extra risk of developing problems from high blood pressure.

When To Call a Professional

Adults should have their blood pressure measured at least every few years. If your blood pressure is higher than 120/80 mmHg, schedule regular appointments with your doctor to have your blood pressure monitored and to get advice about modifying your lifestyle to prevent problems in the future.

Prognosis

The prognosis of high blood pressure depends on how long you've had it, how severe it is, and if you have other conditions, such as diabetes, that increase the risk of disease of the heart, brain, eyes and kidneys. When high blood pressure is treated adequately, the prognosis is much better. Remember, high blood pressure can lead to a poor prognosis

even if you do not have symptoms, and that both lifestyle changes and medicines can control your blood pressure and greatly improve your prognosis.