

HIGH BLOOD PRESSURE OVERVIEW

Hypertension is the medical term for high blood pressure. Blood pressure refers to the pressure that blood applies to the inner walls of the arteries. Arteries carry blood from the heart to other organs and parts of the body. Hypertension (high blood pressure) is a common condition that can lead to serious complications if untreated. Making dietary changes and losing weight are effective treatments for reducing blood pressure.

Other lifestyle changes that can help to reduce blood pressure include stopping smoking, reducing stress, reducing alcohol consumption, and exercising regularly. These changes are effective when used alone, but often have the greatest benefit when used together.

WHAT IS BLOOD PRESSURE?

An individual's blood pressure is defined by two measurements:

- Systolic pressure is the pressure in the arteries produced when the heart contracts (at the time of a heart beat)
- Diastolic pressure refers the pressure in the arteries during relaxation of the heart between heart beats.

Blood pressure is reported as the systolic pressure over diastolic pressure (eg, 120/70 or 120 over 70).

Untreated high blood pressure increases the strain on the heart and arteries, eventually causing organ damage. High blood pressure increases the risk of heart failure, heart attack (myocardial infarction), and stroke.

HIGH BLOOD PRESSURE DEFINITION

Normal blood pressure — Less than 120 over less than 80

Prehypertension — 121 to 139 over 81 to 89

People with prehypertension are at increased risk of developing hypertension and cardiovascular complications.

Hypertension

Stage 1: 140 to 159 over 90 to 99

Stage 2: greater than 160 over greater than 100

Most adults with hypertension have essential or primary hypertension, which means that the cause of the high blood pressure is not known. A small subset of adults has secondary hypertension, which means that there is an underlying and potentially correctable cause.

HIGH BLOOD PRESSURE RISK FACTORS

Hypertension is a common health problem. In the United States, approximately 32 percent of African-Americans and 23 percent of white people and Mexican-Americans have hypertension.

Hypertension is more common as people grow older. As an example, among people over age 60, hypertension occurs in 65 percent of African-American men, 80 percent of African-American women, 55 percent of white men, and 65 percent of white women.

Unfortunately, many people's blood pressure is not well controlled. According to a national survey, hypertension was in good control in only 25 percent of African-Americans and whites and 14 percent of Mexican-Americans.

HIGH BLOOD PRESSURE SYMPTOMS

High blood pressure does not usually cause any symptoms.

HIGH BLOOD PRESSURE DIAGNOSIS

Many people are anxious when seeing a doctor or nurse. As a result, you are not diagnosed with hypertension unless your blood pressure is persistently high at two office visits at least one week apart.

The only exceptions to this are if the blood pressure is very high or if you have damage from high blood pressure, such as heart, eye, or kidney injury. Before a decision is made to begin treatment, you may be asked to measure your blood pressure at home or work.

HIGH BLOOD PRESSURE TREATMENT

Untreated hypertension can lead to a variety of complications, including heart disease and stroke. The risk of these complications increases as your blood pressure rises above 110/75, which is still in the healthy range. Treating high blood pressure can reduce your risk of heart attack, stroke, and death.

LIFESTYLE CHANGES:

DIETARY CHANGES

Making changes in what you eat can help to control high blood pressure.

Reduce sodium — The main source of sodium in the diet is the salt contained in packaged and processed foods and in foods from restaurants. Reducing the amount of sodium you consume can lower blood pressure if you have high or borderline high blood pressure.

The body requires a small amount of sodium in the diet. However, most people consume more sodium than they need. A low sodium diet contains fewer than 2 grams (2,000 milligrams) of sodium each day.

A detailed discussion of low sodium diets is available separately.

Reduce alcohol — Drinking an excessive amount of alcohol increases your risk of developing high blood pressure. People who have more than two drinks per day have an increased risk of high blood pressure compared to nondrinkers; the risk is greatest when you drink more than five drinks per day.

On the other hand, drinking one (for women) or two (for men) alcoholic beverages per day appears to benefit the heart in people greater than 40 years old. This protective effect applies to people with preexisting high blood pressure.

Eat more fruits and vegetables — Eating a vegetarian diet may reduce high blood pressure and protect against developing high blood pressure. A strict vegetarian diet may not be necessary; eating more fruits and vegetables and low-fat dairy products may also lower blood pressure.

Eat more fiber — Eating an increased amount of fiber may decrease blood pressure. The recommended amount of dietary fiber is 20 to 35 grams of fiber per day. Many breakfast cereals are excellent sources of dietary fiber. More information about increasing fiber is available separately.

Eat more fish — Eating more fish may help to lower blood pressure, especially when combined with weight loss [1].

Caffeine — Caffeine may cause a small rise in blood pressure, although this effect is usually temporary. Drinking a

moderate amount of caffeine (less than 2 cups of coffee per day) does not increase the risk of high blood pressure in most people .

EXERCISE

Regular aerobic exercise (walking, running) for 20 to 30 minutes most days of the week can lower your blood pressure, although the effect is not as pronounced among older adults. To maintain this benefit, you must continue to exercise; stopping exercise will allow your blood pressure to become high again.

WEIGHT LOSS AND BLOOD PRESSURE

Being overweight or obese increases your risk of having high blood pressure, diabetes, and cardiovascular disease. The definition of overweight and obese are based upon a calculation called body mass index (BMI). You are said to be overweight if your BMI is greater than 25, while a person with a BMI of 30 or greater is said to be obese. People who are overweight or obese can benefit from losing weight.

To lose weight you must eat less and exercise more.

Medicine — A medicine to lower blood pressure may be recommended if your blood pressure is consistently at or above 140/90. Treatment with medicine is recommended at a lower blood pressure for people with diabetes, atherosclerosis (fatty deposits lining the arteries, as in coronary heart disease, stroke, or peripheral artery disease) or chronic kidney disease.

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

The following organizations also provide reliable health information.

- National Library of Medicine

(www.nlm.nih.gov/medlineplus/healthtopics.html)

- National Heart, Lung & Blood Institute (NHLBI)

(www.nhlbi.nih.gov)

- American Heart Association

(www.americanheart.org)

- The Hormone Foundation