

Education

High Blood Pressure (Essential Hypertension)

What is essential hypertension?

Blood pressure is the force of the blood on the artery walls as the heart pumps blood through the body. Hypertension is the term for blood pressure that is consistently higher than normal. Hypertension is called essential or primary when no cause for the high blood pressure can be found. (When the cause of hypertension is known, such as kidney disease and tumors, it is called secondary hypertension.) About 95% of all people with high blood pressure have essential hypertension.

Normal blood pressure ranges up to 120/80 ("120 over 80") but blood pressure can rise and fall with exercise, rest, or emotions. The pressures are measured in millimeters of mercury. The upper number (120) is the pressure when the heart pushes blood out to the rest of the body (systolic pressure). The bottom number (80) is the pressure when the heart rests between beats (diastolic pressure).

- Healthy blood pressure is less than 120/80.
- Pre-high blood pressure (prehypertension) is from 120/80 to 139/90.
- Stage I high blood pressure ranges from 140/90 to 159/99.
- Stage II high blood pressure is over 160/100.

If repeated checks of your blood pressure show that it is higher than 140/90, you have hypertension.

Why is high blood pressure a problem?

When your blood pressure is high, your heart has to work harder just to pump a normal amount of blood through your body. The higher pressure in your arteries may cause them to weaken and bleed, resulting in a stroke. Over time, blood vessels may become hardened. This often occurs as people age. High blood pressure speeds this process. Blood vessel damage is bad because hardened or narrowed arteries may be unable to supply the amount of blood the body's organs need. The higher artery pressure may lead to atherosclerosis, in which deposits of cholesterol, fatty substances, and blood cells clog up an artery. Atherosclerosis is the leading cause of heart attacks. It can also cause strokes.

The added workload on the heart causes thickening of the heart muscle. Over time, the thickening damages the heart muscle so that it can no longer pump normally. This can lead to a disease called heart failure. Your kidneys or eyes may also be damaged. The longer you have high blood pressure and the higher it is, the more likely it is you will develop problems.

How does it occur?

There are no clear causes of essential hypertension. However, many different factors can increase blood pressure, such as:

- being overweight
- smoking
- eating a diet high in salt
- drinking a lot of alcohol.

Other important factors include:

- Race. African Americans are more likely to develop high blood pressure.
- Gender. Males have a greater chance of developing high blood pressure than women until age 55. However, after the age of 75, women are more likely to develop high blood pressure than men.
- Heredity. If your parents had high blood pressure, you are more at risk.
- Age. The older you get, the more likely you are to develop high blood pressure.

Some medicines increase blood pressure. Stress and drinking caffeine can make blood pressure go up for a while, but the

long-term effects aren't yet clear.

What are the symptoms?

One of the sneaky things about high blood pressure is that you can have it for a long time without symptoms. That's why it is important for you have your blood pressure checked at least once a year.

If you do have symptoms, they may be:

- headaches
- getting tired easily
- dizziness
- nosebleeds
- chest pain
- shortness of breath.

Although it happens rarely, the first symptom may be a stroke.

How is it diagnosed?

Because it is such a common problem, blood pressure is checked at most health care visits. High blood pressure is usually discovered during one of these visits. If your blood pressure is high, you will be asked to return for follow-up checks. If your pressure stays high for 3 visits, you probably have hypertension.

Your health care provider will ask about your life situation, what you eat and drink, and if high blood pressure runs in your family. You may have urine and blood tests. Your provider may order a chest x-ray and an electrocardiogram (ECG). You may be asked to use a portable blood-pressure measuring device, which will take your pressure at different times during day and night. All of this testing is done to look for a possible cause of your high blood pressure.

How is it treated?

If your blood pressure is above normal (prehypertension), you may be able to bring it down to a normal level without medicine. Weight loss, changes in your diet, and exercise may be the only treatment you need. If you also have diabetes, you may need additional treatment.

If these lifestyle changes do not lower your blood pressure enough, your health care provider may prescribe medicine. Some of the types of medicines that can help are diuretics, beta blockers, ACE inhibitors, calcium channel blockers, and vasodilators. These medicines work in different ways. Many people need to take two or more medicines to bring their blood pressure down to a healthy level.

When you start taking medicine, it is important to:

- Take the medicine regularly, exactly as prescribed.
- Tell your health care provider about any side effects right away.
- Have regular follow-up visits with your health care provider.

It may not be possible to know at first which drug or mix of drugs will work best for you. It may take several weeks or months to find the best treatment for you.

How long will the effects last?

You may need treatment for high blood pressure for the rest of your life. However, proper treatment can control your blood pressure and help prevent or delay problems. If you already have some complications, lowering your blood pressure may make their effects less severe.

How can I take care of myself?

Your treatment will be much more effective if you follow these guidelines:

- Always follow your health care provider's instructions for taking medicines. Don't take less medicine or stop taking medicine without talking to your provider first. It can be dangerous to suddenly stop taking blood pressure medicine. Also, do not increase your dosage of any medicine without first talking with your provider.
- Check your blood pressure (or have it checked) as often as your health care provider advises. Keep a chart of the readings.
- Do not smoke.
- Follow the DASH diet. This diet is low in fat, cholesterol, red meat, and sweets. It emphasizes fruits, vegetables, and

- low-fat dairy foods. The DASH diet also includes whole-grain products, fish, poultry, and nuts.
- Use less salt. Check the levels of sodium listed on food labels. Avoid canned and prepared foods unless the label says no salt is added.
- Get regular exercise, according to your health care provider's advice. For example, you might walk, bike, or swim at least 30 minutes 3 to 5 times a week.
- Limit the amount of alcohol you drink. Moderate drinking means up to 1 drink a day for women and up to 2 drinks for men. A drink equals 12 ounces of regular beer, 5 ounces of wine, or 1 and 1/2 ounces of 80-proof distilled spirits such as whiskey or vodka.
- Limit the amount of caffeine you drink.
- Try to reduce the stress in your life or learn how to deal better with situations that make you feel anxious.
- Ask your health care provider or pharmacist for information about the drugs you are taking.
- Lose weight if you need to.
- Tell your health care provider about any side effects you have from your medicines.

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