

# **High Blood Pressure (Essential Hypertension)**

## **What is essential hypertension?**

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 pressures average 120/80 ("120 over 80") but can rise and fall with exercise or rest. The pressures are measured in millimeters of mercury, with the upper number (120) being the pressure at the end of the heartbeat (systolic pressure). The lower number (80) is the pressure at the beginning of the heartbeat (diastolic pressure). 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. 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 condition called congestive heart failure. You may also have damage to your kidneys and eyes. 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:

- stress
- being overweight
- smoking
- a diet high in salt
- heavy use of alcohol.

Heredity, gender, age, and race are also important factors.

## **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's important for you have your blood pressure checked at least once a year.

When symptoms occur, they can range from headaches and getting tired easily to dizziness, nosebleeds, chest pain, and 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 it stays high for three visits, you probably have hypertension.

Your provider will ask about your family, your life situation, and what you eat and drink. You may have urine and blood tests. Your provider may order a chest x-ray and an electrocardiogram. 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 mildly or even moderately high, 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. Your health care provider may recommend that you:

- Reduce the amount of salt (sodium) in your diet. It may be helpful to talk with a dietitian about low-sodium diets.
- Exercise regularly. For example, walk or swim at least 3 times a week. Talk to your health care provider about the kinds and amounts of physical activity that are best for you.
- Lose weight if you are overweight.
- Drink less alcohol, coffee, and tea and soft drinks containing caffeine.
- If you smoke, quit.
- Try to reduce stress through stress management techniques, relaxation exercises, or counseling.

If these lifestyle changes do not lower your blood pressure enough, your health care provider may prescribe a medicine that will reduce your blood pressure. There are many types of drugs for reducing blood pressure. For example, diuretics (sometimes called water pills) are one type. They help your body get rid of extra water and sodium.

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 prevent or delay complications. 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.
- Don't smoke.
- 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. If you are a man, drink no more than two 1-ounce drinks of hard liquor or two beers or two 6-ounce glasses of wine a day. Women should have no more than 1 ounce of liquor or one beer or one glass of wine a day.
- 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.

# **High Blood Pressure: Weight Control**

## **How is high blood pressure affected by weight?**

One of the most important causes of high blood pressure is overweight. Excess weight puts stress on the heart and lungs, forcing them to work harder. Water retention (usually from eating too much salt) also raises blood pressure.

## **How is high blood pressure treated with weight control?**

If you are overweight, change your eating habits so that you lose 1 to 2 pounds a week until you reach your ideal weight. Your diet needs to be low in fat, cholesterol, and salt. Limit the amount of alcohol you drink.

A regular, moderate exercise program helps to control your weight. Exercise has many benefits besides weight loss. It increases your metabolism and burns up calories, thereby causing weight loss, reducing stress, and promoting good health. Exercise also lowers your cholesterol and blood sugar levels. Ask your health care provider for recommendations for an exercise program that is right for you.

## **How long will the effects last?**

If you are overweight and have high blood pressure, you will need to control your blood pressure throughout your life. This will require lifelong blood pressure monitoring and treatment.

Community agencies and commercial programs are available to help you lose weight. Other support services and treatments that have been helpful to many people include:

- motivation and behavior modification courses
- group therapy
- nutrition counseling.

## **How can I take care of myself?**

Follow the treatment plan prescribed by your health care provider. In addition:

- Stop smoking.
- Eat healthy, well-balanced meals that reduce your calorie intake enough for you to lose 1 to 2 pounds a week to reach and maintain normal weight.
- Reduce the salt, fat, cholesterol, and caffeine in your diet.
- Learn to use deep breathing and relaxation techniques to reduce stress.
- Exercise regularly, according to your health care provider's instructions.
- See your provider regularly to have your blood pressure checked. Consider buying a home blood-pressure monitor.

## What can I do to help prevent high blood pressure?

To help prevent high blood pressure, you can:

- Maintain your ideal weight.
- Exercise regularly.
- Stop smoking, for general good health.
- Limit the amount of alcohol you drink.
- Limit the amount of caffeine in your diet.
- Try to reduce stress in your life.

## What about medicine?

Many different types of medicines can be used to treat high blood pressure (see the box on the next page). These are called antihypertensive medicines.

The goal of treatment is to reduce your blood pressure to normal levels with medicine that's easy to take and has few, if any, side effects. This goal can almost always be met.

If your blood pressure can only be controlled with medicine, you'll need to take the medicine for the rest of your life. Don't stop taking the medicine without talking with your family doctor. If you do, you raise your risk of having a stroke or heart attack.

## What are the possible side effects of medicine?

Different drugs have different side effects for different people. Side effects of antihypertensive drugs can include feeling dizzy when you stand up after lying down or sitting, lowered levels of potassium in your blood, problems sleeping, drowsiness, dry mouth, headaches, bloating, constipation and depression. In men, some antihypertensive drugs can cause problems with having an erection.

Talk to your family doctor about any changes you notice. If one medicine doesn't work for you or causes side effects, you have other options. Let your doctor help you find the right medicine for you.

## Types of antihypertensive drugs

- **Diuretics**—These drugs help your body get rid of extra sodium and fluid so that your blood vessels don't have to hold so much fluid.
- **Beta blockers**—These drugs block the effects of adrenaline.
- **Alpha blockers**—These drugs help your blood vessels stay open.
- **ACE inhibitors**—These drugs prevent your blood vessels from constricting by blocking your body from making angiotensin II. Angiotensin II is a chemical that constricts blood vessels.

- **Calcium channel blockers**—These drugs help prevent your blood vessels from constricting by blocking calcium from entering your cells.
- **Combinations**—These drugs combine ACE inhibitor or Diuretics, or calcium channel blocker or Beta blockers.