

Staying Healthy With Hypertension

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This information is part of the "Staying Healthy" series of booklets prepared for its members by Blue Cross and Blue Shield of Texas, a Division of Health Care Service Corporation. Other topics include asthma, congestive heart failure and diabetes.

What is Hypertension?

Hypertension, also called high blood pressure, is a systolic blood pressure (top number) of 140 or higher and/or a diastolic blood pressure (bottom number) of 90 or higher, which remains high over time. Before identifying a person as hypertensive, blood pressure readings are usually measured on at least three occasions over a two-week period. You should be relaxed at each reading to get a true, unaffected number. It is a good idea to keep a record of your blood pressure reading. (See the chart on page 9.) Hypertension does not mean nervousness.

Classification of Blood Pressure for Adults Age 18 and Older*

Category	Systolic (mm Hg)		Diastolic (mm Hg)
Optimal [†]	<120	and	<80
Normal	<130	and	<85
High-normal	130-139	or	85-89
Hypertension [‡]			
Stage 1	140-159	or	90-99
Stage 2	160-179	or	100-109
Stage 3	≥180	or	≥110

* Not taking antihypertensive drugs and not acutely ill. When systolic and diastolic blood pressures fall into different categories, the higher category should be selected to classify the individual's blood pressure status. For example, 160/92 mm Hg should be classified as stage 2 hypertension, and 174/120 mm Hg should be classified as stage 3 hypertension. Isolated systolic hypertension is defined as SBP of 140 mm Hg or greater and DBP below 90 mm Hg and staged appropriately (e.g., 170/82 mm Hg is defined as stage 2 isolated systolic hypertension). In addition to classifying stages of hypertension on the basis of average blood pressure levels, clinicians should specify presence or absence of target organ disease and additional risk factors. This specificity is important for risk classification and treatment.

[†] Optimal blood pressure with respect to cardiovascular risk is below 120/80 mm Hg. However, unusually low readings should be evaluated for clinical significance.

[‡] Based on the average of two or more readings taken at each of two or more visits after an initial screening.

(The Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure is from the National Institutes of Health, National Heart, Lung, and Blood Institute National High Blood Pressure Education Program, NIH Publication No. 98-4080, November, 1997.)

What are the Symptoms of Hypertension?

Many times there are no symptoms until a major problem develops. If you do develop symptoms, these might include headaches, nose bleeds, racing or irregular heart beats, and dizziness.

What Causes Hypertension?

The cause of hypertension is not known in 90 percent of cases. When the cause is not known, it is called essential or primary hypertension. Known causes include kidney or thyroid disease. Many risk factors are linked with hypertension, including race, stress, obesity, smoking, heavy drinking, genetics, age, and inactivity.



Facts About Hypertension*

As many as 50 million Americans age six and older have hypertension.

Of those people:

- 35 percent don't know they have it
- 52 percent don't receive therapy
- Puerto Ricans, and African-, Cuban- and Mexican-Americans are more likely to suffer from hypertension than Anglo-Americans
- People with uncontrolled hypertension have an increased risk of having a stroke or heart attack or developing congestive heart failure
- From 1984 to 1994, the death rate from hypertension fell 3.9 percent

Risk Factors

Risk factors that may increase a person's chances of developing hypertension include:

- Heredity
- Sex (males have a greater likelihood)
- Age
- Race
- Water retention from increased sodium intake
- Obesity
- Use of oral contraceptives (birth control pills) and some other medications
- Inactive lifestyle
- Heavy alcohol consumption (heavy drinking)

People with hypertension have an increased risk of heart or kidney disease or having a stroke. Heart disease is the number-one killer in the United States, and stroke is the most common cause of death. One in four American adults has high blood pressure, or hypertension. Hypertension is especially dangerous because there are often no warning signs or symptoms.

* Source: American Heart Association

Lifestyle Changes

If you have mild hypertension, your physician might suggest that you lose weight, cut down on alcohol, get more exercise, or eat less salt. Even if you need to take medication, changing these daily habits may help your medication work better.

Even though hypertension can have serious complications if not controlled, there are many things you can do to improve your health. It is extremely important to follow your physician's treatment plan.

Regardless of your race, age, sex or heredity, you can reduce your chances of developing high blood pressure. Lifestyle changes to improve your chances are:

- When planning meals, choose foods that are low in calories, fat and sodium (salt)
- If you smoke, stop smoking completely
- If you do not exercise regularly, be more physically active
- Whenever possible, make food and drink choices that will reduce your salt intake
- If you drink alcoholic beverages, drink in moderation
- Lose weight if you are overweight. (As your body weight increases, your blood pressure rises.)



Diet and Exercise

Many physicians suggest that Americans as a whole need to decrease their sodium (salt) intake in food. The American Heart Association recommends that healthy American adults reduce their sodium intake to no more than 2400 milligrams (mg) per day. This is about 1 $\frac{1}{4}$ teaspoons of salt.

$\frac{1}{4}$ teaspoon of salt	=	500 mg sodium
$\frac{1}{2}$ teaspoon of salt	=	1000 mg sodium
$\frac{3}{4}$ teaspoon of salt	=	1500 mg sodium
1 teaspoon of salt	=	2000 mg sodium

There are many sources of sodium in everyday foods. It is important to look at the labels on packaged and canned foods to determine how much sodium the foods contain.

How Can I Reduce the Salt and Fat in My Diet?

- Select frozen, canned, or fresh food items with no added salt
- Choose unsalted nuts or seeds, dried beans, peas or lentils
- Select unsalted, fat-free broths and soups
- Use skim milk or low-fat milk, low-fat cheeses and low-fat yogurt
- When eating out, request that your dishes be prepared without salt
- Use spices and herbs to season your foods

Medications

High blood pressure (hypertension) increases the risk of heart disease, heart attack and stroke. High blood pressure cannot be cured, but only kept under control with treatment. Even when a person makes lifestyle changes, loses weight, or decreases the sodium in their diet, it may not be enough to control their blood pressure. In these instances, medications are often used to help patients keep their blood pressure under control. Medication usually has to be taken for a lifetime.

All blood pressure medications have potential side effects. If you start experiencing any dizziness, headache, swelling or other symptoms, contact your physician. Never just stop taking your medications. Doing so could cause your blood pressure to rise to a dangerous level.

Common medications used to control hypertension:

- **ACE inhibitors**

Common trade names: Captopril, Lotensin, Capoten, Zestril, Altace, Vasotec, Accupril, Cozaar

These medications interfere with the body's production of a chemical that causes the arteries to constrict (narrow).

Advantage: Side effects tend to be minimal.

Disadvantage: Users may develop an occasional cough.

- **Beta-blockers**

Common trade names: Tenormin, Cartrol, Lopressor, Corgard, Levatol, Visken, Inderal, Sectral, Kerlone, Zebeta, Inderal, Toprol-XL

These medications reduce the work of the heart by reducing the heart rate and increasing the heart's output of blood.

Advantage: Many are relatively inexpensive and effective.

Disadvantages: These medications aren't usually recommended if you have congestive heart failure or asthma. Medication should not be discontinued suddenly, especially if you have coronary artery disease, because it may increase your heart rate or raise your blood pressure.



- **Calcium channel blockers (also called calcium antagonists)**

Common trade names: Verapamil, Cardizem, Isoptin, Calan, Procardia, Adalat, Norvasc, Plendil, DynaCirc

These drugs reduce the constriction (narrowing) of blood vessels and let blood flow through the vessels more easily. These medications do not affect calcium levels in the blood.

Advantages: May also be used for patients who need an anti-anginal and anti-hypertensive medicine. No adverse effect on lipids or glucose tolerance.

Disadvantages: Expensive. May cause swollen legs, a drop in blood pressure when changing position (e.g., from sitting to standing), flushing, headache and constipation.

- **Diuretics**

Common trade names: Hydrochlorothiazide, Microzide, Hygroton, Lozol, Zaroxolyn, Lasix, Edecrin, Aldactone, Midamore, Bumex, Lozol

These drugs rid the body of excess water and salt, and are sometimes called “water pills.” A major effect is that after taking it, many patients have frequent urination. Diuretics decrease the volume of blood the heart has to pump.

Advantage: Inexpensive

Disadvantages: Possible decrease in potassium levels, fatigue, increased plasma lipid levels and/or gout symptoms.

- **Combination medications**

Common trade names: Maxzide, Corzide, Inderide, Capozide, Zestoretic, Hyzaar, Lotrel, Lexxel, Dyazide, Aldactazide, Moduretic, Diupres, Minizide, Hydropres

There are many anti-hypertensive medications that use a combination of more than one medication. An example may include a beta blocker and a diuretic (Tenoretic).

The medications listed above are some combination medications that are used in the treatment of hypertension.



Self-Monitoring

Regularly self-monitoring your blood pressure is an effective way to determine if your medication is suitable. A self-management program includes:

- Tracking your blood pressure
- Knowing the names, dosages and side effects of the medications you are taking
- Knowing possible symptoms of elevated blood pressure (even though most people don't develop symptoms)
- Discussing your expected treatment plans and follow-up plans with your physician

Equipment

There are two types of blood pressure devices commonly used in the home. The first is a manual cuff; readings are taken from a large dial with numbers as a needle goes up and down, depending on the air in the blood pressure cuff. The second device, an electronic cuff, is similar but employs an electronic display. Be sure to ask your doctor which device would best suit you, and follow the instructions to get an accurate reading. Any devices that fit on your finger are inaccurate and should not be used.

Procedure for Manual Blood Pressure Reading

To measure your blood pressure, a cuff is placed around your upper arm and inflated. The person measuring your blood pressure will listen with a stethoscope for the sound of blood in the artery while releasing air from the cuff. The first sound heard is the systolic pressure, followed by the sound of the diastolic pressure. Your blood pressure is then written as a ratio of the pressure number of the first sound to the number of the second. For example, if the first sound was heard when the dial was on 124, and the last sound was heard when the dial was at 76, you would write your blood pressure as 124/76. You would say, "My blood pressure was 124 over 76."

Questions to Ask Your Physician

- What is the treatment plan for my condition?
- What things can I do besides taking medication to improve my condition?
- At what blood pressure reading should I notify you (if self-monitoring)?
- When will I need to return to see you?
- Are there any activities I will not be able to do?
- How serious is my condition?
- How often and when should I take my medication?
- Should I take my medicine on an empty stomach or with food?
- Are there certain foods or drinks that I should not take with this medicine?
- What are the drug interactions and precautions for my medication?
- Does my medication interact with over-the-counter medicines?
- How long should I take this medicine? How often?
- What should I do if I forget to take my medicine?
- What should I do if I run out of medication?
- Are there any other special instructions?

Call Your Physician if:

- You experience side effects from medication
- You develop headaches or dizziness
- Your vision becomes blurred
- You develop chest pains
- You have trouble breathing



Specific Questions for Your Physician Visit:

1. Your Question:

Answer:

2. Your Question:

Answer:

3. Your Question:

Answer:

4. Your Question:

Answer:

NOTES:

List of Resources for Hypertension

American Heart Association

7272 Greenville Avenue
Dallas, TX 75231
(214) 373-6300
www.americanheart.org

National Institute on Aging

Information Center
P.O. Box 8057
Gaithersburg, MD 20898-8057
1-800-222-2225, 1-800-222-4225 (TTY)
www.aoa.dhhs.gov/aoa

National Heart Lung and Blood Institute

Information Center
P.O. Box 30105
Bethesda, MD 20824-0105
(301) 251-1222
www.nih.gov/health/consumer/conicd.htm

Web Sites

Healthfinder

www.healthfinder.gov

Official U.S. Government Medicare Information Site

www.medicare.gov

Centers for Disease Control and Prevention

www.cdc.gov

U.S. Department of Health and Human Services

www.os.dhhs.gov

American Medical Association

www.ama-assn.org

Mayo Clinic

www.mayo.edu