# When the Patient Asks

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## Q: What is hypertension?

Hypertension is the most common chronic condition in the United States and the number one reason for an office visit to a health care provider. The condition accounts for most medication prescriptions and is a major risk factor for heart disease and stroke. It is also a major risk factor for heart failure and chronic kidney disease. Throughout the world, hypertension is the number one attributable risk factor for death.[1]

Hypertension is both preventable and treatable in most patients; yet only approximately one-third of hypertensive patients in the United States have their BP controlled to levels that are proven to reduce the incidence of adverse cardiovascular events. Furthermore, less than 25% of patients with diabetes, which poses increased cardiovascular risks by itself, have their BP adequately controlled.[1]

### ›CLASSIFICATIONS AND STAGES

Both diagnosis and clinical management are aided by classifying hypertension. The optimal method combines severity (the height of the BP), underlying cause (primary or essential versus secondary), and patient age (pathophysiology is different in younger persons compared with older persons). *The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure* defines hypertension in adults (18 years and older) as a systolic BP (SBP) higher than 140 mm Hg and a diastolic BP (DBP) higher than 90 mm Hg.

Hypertension is determined by the average of two or more seated BP measurements taken at each of two or more patient visits. An elevated BP is then determined to indicate stage 1 (SBP 140-159 mm Hg, DBP 90-99 mm Hg) or stage 2 (SBP 160 mm Hg or higher, DBP 100 mm Hg or higher) hypertension. The intervening levels (SBP, 120-139 mm Hg; DBP, 80-89 mm Hg) are described as *prehypertension*. Persons with prehypertension have an intermediate level of risk and may progress to definite hypertension.[1]

A single or reversible cause cannot be detected in more than 95% of hypertension cases, and these cases are defined as *essential* or *primary hypertension*. A definable cause for the hypertension is found in approximately 5% of cases.[1] Hypertension that has a definable cause is referred to as *secondary hypertension*.

### ›PREVALENCE AND AWARENESS

The latest published analysis by the CDC is based on data obtained from 1999 to 2002. It reported an increase in the prevalence of hypertension of 3.6% and that 28.6% of studied participants had hypertension.[2] Extrapolated to the US population, this translates to 58.4 million Americans or approximately 1 in 4 persons. Another 25% of US adults are considered to be prehypertensive. The prevalence of hypertension increases with advancing age, and more than 50% of all Americans aged 60 years or older have hypertension.[2]

The proportion of hypertensive persons who are aware of their disease has not shown any significant change in the past 10 years. During the year 1999 to 2000, only 68.9% of patients were aware of their hypertensive condition.[3]

### ›TARGET LEVELS

Hypertension manifests differently in younger patients compared with older patients;[1] therefore, treatment thresholds are different. Initiating medication therapy in younger patients (younger than 60 years) with hypertension is clearly established. The benefits of drug treatment for older patients (older than 60 years) with an SBP lower than 160 mm Hg remain unproven. However, some evidence shows that mortality may be higher in patients aged 85 years and older with the lowest BP and that lowering DBP with medications may actually increase mortality.[4]

Controlled BP is defined as an SBP lower than 140 mm Hg and a DBP lower than 90 mm Hg. Target BP for patients with diabetes or chronic kidney disease is 130/80 mm Hg.[1]

The patient with uncomplicated hypertension is defined as a person without a compelling indication for a specific class of antihypertensive medication. The overriding goal of treating the patient with uncomplicated hypertension is to lower BP consistently to defined controlled levels. Achieving goal BP requires lifestyle modification and drug therapy. Most patients will need multiple drugs to achieve the recommended BP goals.[1] JAAPA

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**REFERENCES**

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**For a patient handout, please turn the page.**

# Patient Information

## Q: What is hypertension?

The heart works as a pump to supply the entire body with blood. The force of the blood moving through your arteries is called blood pressure (BP). It is recorded as two numbers. Systolic BP is the pressure in the blood vessel each time your heart pumps blood. This is the first number. Diastolic BP is the pressure in the blood vessel when the heart rests between beats. This is the second number. BP is measured with an inflatable cuff device on your arm.

### ›WHEN IS AN ELEVATED BP HYPERTENSION?

Hypertension in adults exists when the systolic BP is more than 139 millimeters of mercury (mm Hg). You may also have hypertension if the diastolic BP is more than 89 mm Hg. Hypertension is determined by measuring your BP two or more times at each of two or more office visits with your doctor or PA and averaging the measured levels.

### ›WHAT ARE THE TYPES OF HYPERTENSION?

The most common type of hypertension occurs when you have no symptoms and your health care provider cannot find a cause. This is called *essential hypertension*. Essential hypertension occurs most often in people who are 20 years and older.

Another type of hypertension is called *secondary hypertension*. This type of hypertension is caused by a disease or problem with your thyroid gland, adrenal glands, kidneys, or heart. Other causes of secondary hypertension are use and/or abuse of drugs, exposure to certain chemicals, excessive alcohol use, and too much salt in your diet. Some prescription medicines, herbal medicines, and cold or cough medicines can make your BP higher.

### ›WHY IS TREATING MY HYPERTENSION IMPORTANT?

You are more likely to have a heart attack, stroke, heart failure, or kidney disease if you have hypertension. Hypertension occurs in three stages. You have **prehypertension** if your systolic BP is 120 to 139 mm Hg, your diastolic BP is 80 to 89 mm Hg, or both. You have **stage I hypertension** if your systolic BP is 140 to 159 mm Hg, your diastolic BP is 90 to 99 mm Hg, or both. You have **stage II hypertension** if your systolic BP is 160 mm Hg or more, your diastolic BP is 100 mm Hg or more, or both.

### ›HOW DO I KNOW IF I HAVE HYPERTENSION?

You may not have any signs or symptoms indicating that your BP is too high. However, you may experience some symptoms related to your hypertension. You should contact your health provider if you have blurring of vision; loss of vision; chest pain; dizziness; fainting; any headache, whether mild or very bad; sudden body weakness; or trouble breathing.

### ›WHAT DOES MY HEALTH CARE PROVIDER NEED TO KNOW?

If you have hypertension, it is important to tell your health care provider everything you can about your health and health history. You need to tell your health care provider if you have any other diseases or medical conditions. You need to tell your health care provider if any of your family members have heart disease, kidney disease, or diabetes. You need to be certain to tell your health care provider all the medicines that you take, even herbs, supplements, and OTC medicines. Make sure you tell your caregiver if you smoke, drink alcoholic beverages, or use any street drugs. Talk to your health care provider about your diet, work conditions, activities, and about things that cause stress in your life.

### ›WHAT CAN I DO ABOUT MY HYPERTENSION?

Some lifestyle changes may help lower your BP and prevent or delay the onset of hypertension and the need for medicines. You should avoid or limit alcoholic beverages. You should change your diet by decreasing the amount of salt you eat. Limit the amount of packaged foods you eat because they have a lot of salt. A healthy diet rich in fruits, vegetables, and low-fat dairy products is the best for you. Learn about the fat content in foods, and reduce the amount of saturated and total fat in your diet. You should exercise for 30 minutes a day as often as you can. You should try to reduce your stress. Learn new ways to relax, such as deep breathing, meditation, and listening to music. Learn to control your anger and find healthy ways of releasing your emotions. If you smoke, you should try to quit. People who smoke are more likely to have a heart attack, lung disease, and cancer because smoking damages the heart, lungs, and blood. You should make sure you take all your medicines exactly as prescribed. BP medicines should be taken every day even though you may feel well and healthy.

The goal of BP treatment and lifestyle changes is to lower your BP to a normal level. You will need to have your BP checked frequently to make sure that it is in the normal range. Your health care provider may ask you to check your BP between check-ups or to keep a BP diary. JAAPA