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Patient information: High blood pressure in adults (Beyond the Basics)

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Disclosures

All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

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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.

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 primary hypertension (formerly called "essential" 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 — Treatment of hypertension usually begins with lifestyle changes. Making these lifestyle changes involves little or no risk. Recommended changes often include:

- Reduce the amount of salt in your diet
- Lose weight if you are overweight or obese
- Avoid drinking too much alcohol
- Stop smoking
- Exercise at least 30 minutes per day most days of the week

These changes are discussed in detail in a separate article. (See "[Patient information: High blood pressure, diet, and weight \(Beyond the Basics\)](#)".)

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 some people with diabetes, atherosclerosis (fatty deposits lining the arteries, as in coronary heart disease, stroke, or peripheral artery disease), or chronic kidney disease. (See "[Patient information: Diabetes mellitus type 1: Overview \(Beyond the Basics\)](#)" and "[Patient information: Diabetes mellitus type 2: Overview \(Beyond the Basics\)](#)" and "[Patient information: Chronic kidney disease \(Beyond the Basics\)](#)".)

High blood pressure medicines are discussed in a separate article. (See "[Patient information: High blood pressure treatment in adults \(Beyond the Basics\)](#)".)

WHERE TO GET MORE INFORMATION — Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.