

# Reading Blood Pressure



## Measurement of Arterial Blood Flow Force

Blood pressure is the term used to describe the force of blood as it is pumped through the arteries with each heartbeat. A blood pressure reading consists of two numbers, with the pressure measured in millimeters of mercury (mm Hg). A normal blood pressure reading is lower than 120/80 mm Hg, or “120 over 80.” The systolic pressure (top number) is the pressure of the blood in the arteries when the heart beats (pumps blood). The diastolic pressure (bottom number) is the pressure of the blood in the arteries when the heart is resting (between heartbeats).

Blood Pressure Category	Blood Pressure Reading (mm Hg)	
	Systolic (top number)	Diastolic (bottom number)
Normal	<120	<80
Prehypertension	120-139	80-89
Stage 1 hypertension	140-159	90-99
Stage 2 hypertension	≥160	≥100

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## Readings Detect Abnormal Blood Pressure in the Absence of Symptoms

Blood pressure readings can be taken manually or with an automatic monitoring device. A cuff attached to a gauge is placed above the elbow of one arm and inflated with a hand pump (or if a monitor is used, the cuff inflates automatically). The inflated cuff stops the flow of blood through the artery in the arm so that a pulse can be clearly heard. The cuff is then slowly deflated, and a stethoscope (not needed with an automatic device) is used to listen to the blood flowing through the artery. When the thumping of blood is heard, the systolic pressure is noted on the gauge. When the thumping stops, the diastolic pressure is noted.



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*A variety of devices are available for measuring blood pressure. Two numbers, systolic (top number) and diastolic (bottom number), denote a patient's blood pressure.*

### Importance of Blood Pressure Readings

Blood pressure readings can reveal abnormal pressure in a person without symptoms, as well as help monitor blood pressure control during treatment. There are four categories of blood pressure measurements: normal, prehypertension, stage 1 hypertension, and stage 2 hypertension. Low blood pressure is usually not serious, but high blood pressure (hypertension) negatively affects one's overall health. High blood pressure puts a strain on the heart, arteries, and kidneys. If left untreated, it can eventually result in heart attack, stroke, coronary artery disease, heart failure, or kidney damage.

An estimated one in three adults in the United States has high blood pressure. Many people with high blood pressure are unaware of it because they have no symptoms. It is important to have a blood pressure reading done at least every 2 years after age 18. Most people have their blood pressure checked during an annual physical or at a community health fair or clinic. If one reading is high, pressure measurement should be repeated several times before a diagnosis of hypertension is made. Anxiety, caffeine, cigarettes, and some medications can raise blood pressure temporarily. Some people have higher readings in a doctor's office because of nervousness; others have higher readings at home. A person who repeatedly has high blood pressure readings should be monitored frequently, both in the doctor's office and at home, and hypertension treatment should be initiated if the pressure remains high during more than two office visits.

### Methods of Lowering Blood Pressure

Blood pressure can be lowered through lifestyle changes and/or medications. Weight loss, regular exercise, a low-salt diet, and stress relief are all proven ways to lower blood pressure. If changes in lifestyle are not effective, there are medications (antihypertensives) that can safely lower blood pressure.

People with normal blood pressure should maintain or adopt a healthy lifestyle to avoid developing high blood pressure in the future. Individuals with prehypertension should start with lifestyle changes to reach their blood pressure goal. People with stage 1 hypertension should make the appropriate lifestyle changes to reach their blood pressure goal within 6 months, but they may need a prescribed medication if lifestyle changes are not effective. Stage 2 hypertension is usually controlled by adopting a healthy lifestyle and using one or more antihypertensive medications. Anyone with high blood pressure should take the prescribed medication exactly as directed.

If you have questions about blood pressure readings, blood pressure control, drugs that cause high blood pressure, or prescription antihypertensive drugs, your pharmacist can help.