

Understanding Blood Pressure Readings

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Step 1: About High Blood Pressure

Understanding Blood Pressure Readings



What do the blood pressure numbers mean?

Blood pressure is typically recorded as two numbers, written as a ratio like this:

$\frac{117}{76}$ mm Hg

Read as "117 over 76 millimeters of mercury"

Systolic

The top number, which is also the higher of the two numbers, measures the pressure in the arteries when the heart beats (when the heart muscle contracts).

Diastolic

The bottom number, which is also the lower of the two numbers, measures the pressure in the arteries between heartbeats (when the heart muscle is resting between beats and refilling with blood).



For healthy living, know your numbers

What is the AHA recommendation for healthy blood pressure?

This chart reflects blood pressure categories defined by the American Heart Association.

Blood Pressure Category	Systolic mm Hg (upper #)		Diastolic mm Hg (lower #)
Normal	less than 120	and	less than 80
Prehypertension	120 - 139	or	80 - 89

High Blood Pressure (Hypertension) Stage 1	140 – 159	or	90 – 99
High Blood Pressure (Hypertension) Stage 2	160 or higher	or	100 or higher
<u>Hypertensive Crisis</u> (Emergency care needed)	Higher than 180	or	Higher than 110

* Your doctor should evaluate unusually low blood pressure readings.

How is high blood pressure diagnosed?

Your healthcare providers will want to get an accurate picture of your blood pressure and chart what happens over time. Your blood pressure rises with each heartbeat and falls when your heart relaxes between beats. While BP can change from minute to minute with changes in posture, exercise, stress or sleep, **it should normally be less than 120/80 mm Hg (less than 120 systolic AND less than 80 diastolic) for an adult age 20 or over.** About one in three (33.6%) U.S. adults has high blood pressure.

If your blood pressure reading is higher than normal, [your doctor may take several readings over time](#) and/or have you [monitor your blood pressure at home](#) before [diagnosing](#) you with high blood pressure.

A single high reading does not necessarily mean that you have high blood pressure. However, if readings stay at 140/90 mm Hg or above (systolic 140 or above OR diastolic 90 or above) over time, your doctor will likely want you to begin a [treatment program](#). Such a program almost always includes lifestyle changes and often prescription medication for those with readings of 140/90 or higher.

If, while monitoring your blood pressure, you get a systolic reading of 180 mm Hg or higher OR a diastolic reading of 110 mm HG or higher, wait a couple of minutes and take it again. If the reading is still at or above that level, you should seek immediate emergency medical treatment for a [hypertensive crisis](#).



Even if your blood pressure is normal, you should consider making lifestyle modifications to [prevent](#) the development of HBP and improve your heart health.

Which number is more important, top (systolic) or bottom (diastolic)?

Typically more attention is given to the top number (the systolic blood pressure) as a major risk factor for cardiovascular disease for people over 50 years old. In most people, systolic blood pressure rises steadily with age due to increasing stiffness of large arteries, long-term build-up of plaque, and increased incidence of cardiac and vascular disease.