

## What is Blood Pressure?

Blood is carried from the heart to all parts of your body in vessels called arteries. Blood pressure is the force of the blood pushing against the walls of the arteries. Each time the heart beats (about 60-70 times a minute at rest), it pumps out blood into the arteries. Your blood pressure is at its highest when the heart beats, pumping the blood. This is called systolic pressure. When the heart is at rest, between beats, your blood pressure falls. This is the diastolic pressure.

Blood pressure is always given as these two numbers, the systolic and diastolic pressures. Both are important. Usually they are written one above or before the other, such as 120/80 mmHg. The top number is the systolic and the bottom the diastolic. When the two measurements are written down, the systolic pressure is the first or top number, and the diastolic pressure is the second or bottom number (for example, 120/80). If your blood pressure is 120/80, you say that it is "120 over 80."

Blood pressure changes during the day. It is lowest as you sleep and rises when you get up. It also can rise when you are excited, nervous, or active.

Still, for most of your waking hours, your blood pressure stays pretty much the same when you are sitting or standing still. That level should be lower than 120/80. When the level stays high, 140/90 or higher, you have high blood pressure. With high blood pressure, the heart works harder, your arteries take a beating, and your chances of a stroke, heart attack, and kidney problems are greater.

### What Causes It?

In many people with high blood pressure, a single specific cause is not known. This is called essential or primary high blood pressure. Research is continuing to find causes.

In some people, high blood pressure is the result of another medical problem or medication. When the cause is known, this is called secondary high blood pressure.

### What is High Blood Pressure?

A blood pressure of 140/90 or higher is considered high blood pressure. Both numbers are important. If one or both numbers are usually high, you have high blood pressure. If you are being treated for high blood pressure, you still have high blood pressure even if you have repeated readings in the normal range.

There are two levels of high blood pressure: Stage 1 and Stage 2 (see the chart below).

### Categories for Blood Pressure Levels in Adults\*

(In mmHg, millimeters of mercury)

<b>Category</b>	<b>Systolic (Top number)</b>	<b>Diastolic (Bottom number)</b>
Normal	Less than 120	Less than 80
Prehypertension	120-139	80-89
<b>High Blood Pressure</b>	<b>Systolic</b>	<b>Diastolic</b>
Stage 1	140-159	90-99
Stage 2	160 or higher	100 or higher

\* For adults 18 and older who:

- Are not on medicine for high blood pressure
- Are not having a short-term serious illness
- Do not have other conditions such as diabetes and kidney disease

Note: When systolic and diastolic blood pressures fall into different categories, the higher category should be used to classify blood pressure level. For example, 160/80 would be stage 2 high blood pressure.

There is an exception to the above definition of high blood pressure. A blood pressure of 130/80 or higher is considered high blood pressure in persons with diabetes and chronic kidney disease.

**Source:** National Heart Lung and Blood Institute: <http://www.nhlbi.nih.gov/>