

Blood Pressure

Information Sheet



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. 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. The systolic pressure or the top number is the pressure when the heart contracts. The diastolic pressure or the bottom number represents the pressure when the heart relaxes. 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 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.

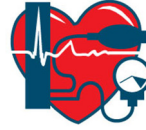
There are two levels of high blood pressure: Stage 1 and Stage 2 (see the chart below).

Categories for Blood Pressure Levels in Adults* (In mmHg, millimeters of mercury)

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

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.

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So how do you **reduce** high blood pressure?

There are lots of ways!

- ✓ Exercise regularly
- ✓ Maintain a healthy weight
- ✓ Avoid excess alcohol
- ✓ Lower stress levels
- ✓ Eat a healthy diet
- ✓ Limit your sodium intake
- ✓ Avoid smoking
- ✓ Get support

Here is a chart showing the change in blood pressure after an intervention had been in place:

Effects of change in blood pressure in adults with Hypertension	Action	Change in blood pressure (mmHg SBP/DBP)
Decreased Na ⁺ intake	Reduce by 1800mg	-5.8/2.5
Weight loss	Lose 4.5kg	-7.2/5.9
Decrease alcohol	By 2.7 drinks/day	-4.6/2.3
Exercise	3x/week (30-60min)	-10.3/7.5
Dash Diet	Follow the diet	-11.4/5.5
Flax	1/4 cup	-15/7

Gray, J. (2000). *Therapeutic choices*. [Ottawa]: Canadian Pharmacists Association.

