High Blood Pressure

Blood pressure is the measure of how hard your blood is pushing against the inside of your arteries. A certain amount of pressure is needed to carry blood through the body. High blood pressure, or hypertension, is the phenomenon when that pressure is too great.
Blood pressure is measured and described with two numbers:

- The first (and usually bigger) number is the pressure that occurs when your heart contracts (or squeezes) and pushes the blood out to the body. This is called the systolic blood pressure.
- The second (and usually lower) number is the pressure that occurs when your heart relaxes (or opens) and fills with blood. This is called the diastolic blood pressure.

Blood pressure is always recorded as the systolic number over the diastolic number, and is measured in millimetres of mercury (mmHg).

Generally, someone will be considered as having high blood pressure if several measurements of blood pressure at the doctor's office show readings of 140 systolic over 90 diastolic (140/90) or higher.
Hypertension is one of the main risk factors for heart disease, stroke, and kidney failure. It has been estimated that 20% of Canadians have high blood pressure; and many are not aware of the problem. Of those who are, less than one-third receive adequate treatment to control their blood pressure.
The cause of the majority of hypertension cases is unknown. This condition is called primary (or essential) hypertension. When there is an underlying problem such as kidney disease or hormonal disorders that can cause hypertension, it is called secondary hypertension. When it is possible to correct the underlying cause, high blood pressure usually improves and may even return to normal.

Factors that can contribute to hypertension include:

- age (blood pressure usually increases with age)
- diet
- excessive alcohol consumption
- lack of exercise
- obesity
- sleep apnea
- stress

Most people with hypertension have no symptoms; it is a ‘silent’ disease. Sometimes hypertension can cause headaches, vision problems, dizziness, or shortness of breath.

A patient will be diagnosed as having high blood pressure when their blood pressure is above the normal range for up to 5 readings (taken at different visits). Sometimes a diagnosis is made after a fewer number of readings, depending on how high above normal the blood pressure is and if the person has other medical conditions. Blood pressure tends to be at its highest during exercise, physical work, or stress, and lowest during sleep. Everyone can have a temporary increase in blood pressure at one time or another, which is why it's important to take multiple readings.

If blood pressure is high, a physician will also want to know if there are any other risk factors such as high cholesterol, diabetes, inactivity, obesity, smoking, or a family history of heart disease. The more risk factors someone has, the higher the chance of getting heart disease or a stroke.

The management of hypertension includes lifestyle changes and the use of medications. Proper treatment of high blood pressure can add years to a person's life. Controlling blood pressure with medications can decrease the risk of stroke and heart disease.

People who have other risk factors, especially those who have diabetes or have already suffered heart damage, may be started on medications even if their blood pressure is below "official" hypertensive levels.

In most cases, the goal of treatment is to bring down the systolic pressure to less than 140 mmHg and the diastolic pressure to less than 90 mm Hg. For people with diabetes, target blood pressure goals are lower (less than 130/80 mm Hg).

Some healthy lifestyle tips to prevent hypertension and heart disease are:

- limiting alcohol intake to no more than 2 drinks per day to a maximum of 10 drinks per week
- cutting down on salt consumption
- eating more fruits, vegetables, whole grains and fibre
- getting regular physical activity (at least 30 minutes per day 4 to 7 times per week)
- maintaining a healthy weight
- quitting smoking

It is important for people to know their blood pressure and to keep it controlled. Evidence suggests that even a small increase in blood pressure can cause a significant change in life expectancy.