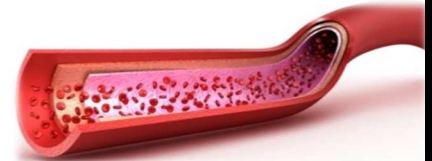


AN INTRODUCTION TO HIGH BLOOD PRESSURE

What Is Blood Pressure?

Blood pressure is the force of blood pushing against the walls of the arteries that carry blood from the heart to other parts of the body. Blood pressure normally rises and falls throughout the day, but, if it stays high for a long time, it can damage the heart and cause health problems. High blood pressure is also called hypertension.



What Are The Risk Factors For High Blood Pressure?

The following risk factors increase one's risk of having high blood pressure:

- **Advancing age.** Blood vessels lose flexibility with age which can contribute to increasing pressure throughout the system.
- **Race.** High blood pressure is particularly common among African Americans, often developing at an earlier age than it does in Whites. Serious complications, such as stroke, heart attack and kidney failure also are more common in African Americans.
- **Family history.** High blood pressure tends to run in families.
- **Being overweight or obese.**
- **Not being physically active.**
- **Poor diet,** especially one that includes too much salt.
- **Smoking, second-hand smoke, using other tobacco products.**
- **Drinking too much alcohol.**
- **Certain chronic condition,** such as kidney disease, diabetes and sleep apnea.

What Are The Signs Or Symptoms Of High Blood Pressure?

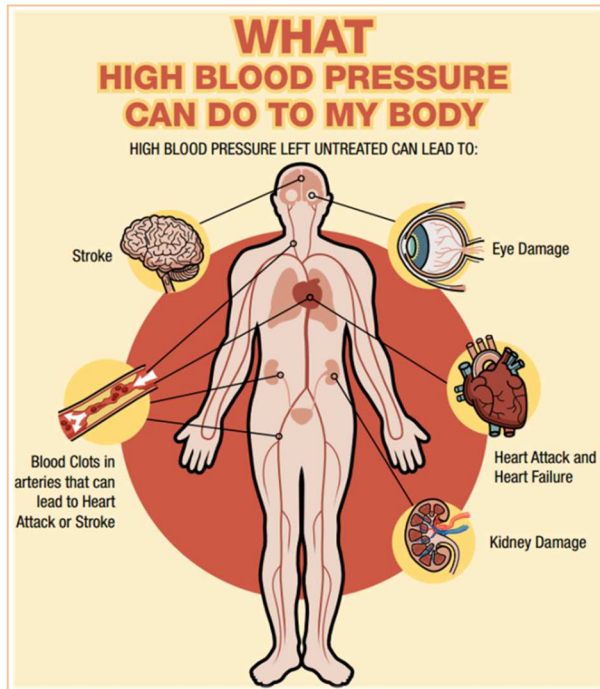
Hypertension is frequently referred to as the “silent killer” because it often has no warning signs or symptoms, and many people do not know they have it. Rarely, high blood pressure can cause symptoms such as headache or vomiting. Even though it typically has no symptoms, high blood pressure can have fatal consequences if not treated. Having high blood pressure increases the risk for heart disease and stroke, which are leading causes of death in the United States. There is only one way to know whether you have high blood pressure—have a doctor or other health professional measure it. Blood pressure is measured in “millimeters of mercury” (mmHg).

What Are the Effects of High Blood Pressure?

Uncontrolled high blood pressure can injure or kill you. It can seriously hurt important organs like the heart and brain.

Uncontrolled high blood pressure can lead to:

- **Damage to the heart and coronary arteries.** High blood pressure can harden the arteries, which decreases the flow of blood and oxygen to the heart and lead to heart disease. In addition, decreased blood flow to the heart can cause chest pain (angina), heart failure and heart attack.



- **Stroke.** High blood pressure can burst or block arteries that supply blood and oxygen to the brain, causing a stroke. Brain cells die during a stroke because they do not get enough oxygen. Stroke can cause serious disabilities in speech, movement and other basic activities, and a stroke can kill you.
- **Kidney damage.** Adults with high blood pressure have a high risk of developing chronic kidney disease. High blood pressure is the second leading cause of kidney failure, and approximately one in five adults with high blood pressure has chronic kidney disease.
- **Vision loss, erectile dysfunction and peripheral artery disease,** especially the extremities (narrowing of the arteries in the legs).

How Is High Blood Pressure Diagnosed?

A simple, quick and painless blood pressure test that can be performed at a health care provider's office, hospital, clinic, or health fair is used to diagnose high blood pressure. Health care professionals usually use a device called a sphygmomanometer, which includes a stethoscope, upper arm/bicep cuff, dial, pump and valve. The bicep/upper arm cuff monitor provides the most accurate reading among various types of monitors.



During the test, a rubber cuff is placed around the upper arm before being manually or electronically inflated. Once inflated, the cuff compresses a larger artery in the bicep, momentarily stopping blood flow. Next, air in the cuff is slowly released while the health care professional measuring the blood pressure listens with a stethoscope or monitors an electronic readout. When the blood starts to pulse through the artery, it registers sounds that continue until pressure in the artery exceeds the pressure in the cuff. The health care provider watches the monitor's gauge before recording the systolic and the diastolic blood pressure readings. This test should be done several times and repeated on different occasions to make sure the results are consistent before a diagnosis of high blood pressure is made.



What Do the Blood Pressure Numbers Mean?

Blood pressure is measured using two numbers. The first number, called systolic blood pressure, measures the pressure in blood vessels when the heart beats. The second number, called diastolic blood pressure, measures the pressure in blood vessels when the heart rests between beats.

If the measurement reads 120 systolic and 80 diastolic, you would say "120 over 80" or write "120/80 mmHg." A systolic blood pressure reading greater than or equal to 140 mm Hg and/or a diastolic blood pressure reading greater than or equal to 90 mm Hg over repeated measurements is considered as high blood pressure. If the patient has diabetes or chronic kidney disease, a blood pressure of 130/80 mmHg or higher is considered high blood pressure. This chart reflects blood pressure categories defined by The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7).



Blood Pressure Classification

JNC 7 Definition

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