

HYPERTENSION (HIGH BLOOD PRESSURE)

Dr. Shailesh Gandhi

You probably remember the routine from your last physical exam: A nurse wraps a cuff around your upper arm, pumps the cuff full of air, and then lets the air out slowly while listening through a stethoscope. Most likely, you don't remember feeling anything – except perhaps that odd sensation of the blood pounding in your arm! For most guys and girls, this is the only time they think about their blood pressure.

Understanding Blood Pressure

Every person needs blood pressure to live. Without it, blood wouldn't be able to circulate through the body to carry oxygen and fuel vital organs.

Blood pressure is the pressure your blood exerts against your blood vessel walls as your heart pumps. Blood pressure rises with each heartbeat and falls when the heart relaxes between beats, but there is always a certain amount of pressure in the arteries. That blood pressure comes from two physical forces. The heart creates one force as it pumps blood into the arteries and through the circulatory system. The other force comes from the arteries resisting the blood flow.

Blood pressure changes from minute to minute and is affected not only by activity and rest, but also by temperature, diet, emotional state, posture and medication.

Blood pressure is measured in millimeters of mercury (written as mm Hg). For example, normal blood pressure in adults should be less than 120/80 mm Hg. The higher, or top, number – in this example it's 120 – is called systolic pressure and represents the pressure at the peak of each heartbeat. The lower, or bottom, number (80 in this example) is called diastolic and represents the pressure when the heart is resting between beats. The systolic pressure is stated first and the diastolic pressure comes second. For example: 120/80 (120 over 80) means that the systolic pressure is 120 and the diastolic pressure is 80.

Blood pressure is measured using an instrument called a sphygmomanometer (pronounced: sfig-mow-mah-nah-meh-ter). A cuff is wrapped around a person's upper arm and pumped up to create pressure. When the cuff is inflated, it compresses (squeezes on) a large artery in the arm, stopping the blood flow for a moment. Blood pressure is measured as air is gradually let out of the cuff, which allows blood to begin to flow through the artery again when the blood pressure in the artery is greater than the pressure in the cuff.

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Listening with a stethoscope – the instrument used to hear things like the heart beating inside the body – over the artery allows a doctor or nurse to hear the first pulse as the blood flows through. This is the systolic pressure. The diastolic pressure is noted when the sounds disappear.

What is Hypertension?

Hypertension is the medical term for high blood pressure. Most people associate high blood pressure with getting older, so it may seem odd that teens can have the condition. Although high blood pressure is rare in young people (only about 1% to 3% of kids in the United States have hypertension), it's important to check for it. Even babies can have high blood pressure.

Almost 160 million Americans age 6 and older have high blood pressure. That means about 1 in 5 Americans has the condition. Because a third to a half of the people who have high blood pressure don't even know it, doctors are careful to check their patients for hypertension regularly.

Blood pressure of less than 120 over 80 is considered a normal reading for people 18 and over. A borderline high systolic pressure of 120 to 139 or a diastolic pressure of 80 to 89 needs to be closely monitored. A blood pressure reading equal to or greater than 140 over 90 is considered high in people over the age of 18.

Because of the way blood pressure readings are calculated for children and teens, readings that doctors consider high in teens can be lower than the blood pressure readings that are considered high in adults. In teens up to age 18, high blood pressure is defined as a blood pressure greater than the 95th percentile for their age, height, and gender (in other words, 95% of kids at the same age, height, and gender will have blood pressure below this number). Measurements between 90 to 95 of the expected range are considered high – normal or pre hypertension.

Teens with blood pressure readings that are greater than 90% of the expected range are three times more likely than those with average readings to develop high blood pressure as adults.

A doctor will average at least three blood pressure measurements taken at different times before determining that a teen has hypertension. Most teens will have their blood pressure checked during an annual physical exam. Doctors recommend that older teens with normal blood pressure get their blood pressure checked yearly.

If your blood pressure is near the top of the normal range or if you have a family history of high blood pressure, you're at a higher risk for developing hypertension. Your doctor can advise you as to how often you should have your blood pressure checked in this situation.

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