

## MINUTE FOR HEALTH - HYPERTENSION

Blood pressure is the force at which your heart pumps blood through the blood vessels in your body. A normal blood pressure varies with age and underlying medical conditions, and ranges between 90/60 and 150/90. Low blood pressures (hypotension) in the short-term may cause insufficient delivery of oxygen to the organs, and high blood pressures (hypertension) in the long-term may cause damage to important organs such as the heart, brain, kidneys and eyes. Hypotension is often symptomatic with weakness, lightheadedness and dizziness, and the condition can be identified and managed promptly. However, hypertension is often asymptomatic until the elevated blood pressures have been very high for a long time and permanent damage to vital organs occurs.

Primary hypertension, also referred to as “essential hypertension”, is the most common form of hypertension and has no known cause or cure. Secondary hypertension is caused by certain underlying medical diseases, such as chronic kidney disease, hyperthyroidism and obstructive sleep apnea, and with correction of the underlying medical condition, secondary hypertension can be cured. Hypertension affects approximately 30% of all adults over the age of 20 years in the US, and contributes to the development of other serious medical conditions, such as heart disease and stroke. There are several factors that raise the risk of developing primary hypertension: Age greater than 50 years; male gender; black race; obesity; diabetes mellitus; sedentary lifestyle; tobacco use; and a family history of hypertension. Some risk factors, such as family history of hypertension, cannot be modified, but for those who are able to reverse the influence of other risk factors, such as sedentary lifestyle, the risk over a lifetime for developing primary hypertension is lowered.

Hypertension is usually diagnosed in the doctor’s office, when blood pressure is measured at each visit. It is necessary to obtain a series of at least 3 measurements of blood pressure at weekly intervals, in a relaxed state, at least half of which are above normal blood pressure values for age, in order to make the diagnosis of hypertension. Once the diagnosis of primary hypertension is made, it is there for life. Hypertension may then be treated and controlled, but it is never cured. Initial treatment should focus on strategies to reduce the impact of underlying factors which may increase the risk of hypertension: Weight loss (obesity); regular exercise (sedentary lifestyle); and smoking cessation (tobacco use). Treatment with medication, such as angiotensin receptor blockers (ARB), angiotensin-converting enzyme (ACE) inhibitors, calcium channel blockers, beta blockers and diuretics, may also be necessary to achieve optimal control of blood pressures.

All patients over the age of 18 should begin a regimen of periodic blood pressure monitoring, both at home and at the doctor’s office during annual wellness examinations. In many cases, the diagnosis of hypertension is delayed because patients fail to recognize the importance of early identification of elevated blood pressures, patients fail to recognize the importance of visiting their doctor routinely, or patients inappropriately attribute a single measurement of elevated blood pressure to an upsetting event within hours of measurement and fail to follow-up with additional measurements to confirm stability of blood pressure in the normal range. For this reason, over a lifetime, hypertension has been given the rather ominous alias of “silent killer”. Prevent hypertension from sneaking up behind you. Measure your blood pressures at home periodically, and bring those blood pressures to your physician for review.

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