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Essential Guide to Hypertension: Accurate Blood Pressure Readings

Tips to Help Ensure Accurate Blood Pressure Readings

One of the most overlooked causes of inaccurate blood pressure readings is the size of the cuff. Using a cuff that does not fit the person's arm can result in inaccurate readings. The cuff should be wide enough to reach from just below the armpit to the inside of the elbow. The cuff should completely encircle your arm with several inches to spare. When purchasing a home blood pressure kit, be sure it includes a cuff that will fit your arm. The table below will help you select the best size cuff for you from among the standard sizes available.

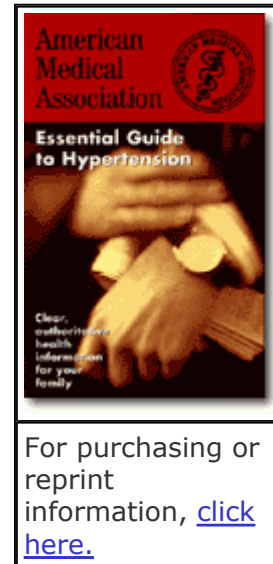
STANDARD CUFF SIZES	
Distance From Shoulder to Elbow	Cuff Size
Less than 13 inches	5 by 9 inches (small)
13 to 16 inches	6 by 13 inches (medium)
More than 16 inches	7 by 14 inches (large)

You may want to consider the clothes you wear when you have your blood pressure checked. A short-sleeved shirt or sleeves that can easily be pushed up are best. A sleeve that must be rolled up until it tightens around your arm may affect your blood pressure reading.

Diagnosing and Monitoring Blood Pressure

Usually, it does not matter whether you are standing, sitting, or lying down when your blood pressure is measured. Older adults, people with diabetes, or people who are taking certain drugs (such as antihypertensive drugs and drugs used to treat Parkinson's disease) may have lower blood pressure when standing up. This is called postural hypotension. Often, doctors measure blood pressure in various body positions to determine whether this is a factor. However, blood pressure is usually measured with the person sitting quietly.

Blood pressure may be higher in the morning than in the afternoon or evening. Talking can elevate blood pressure, as can stress just before the measurement is taken. If you rush in late for an appointment, chances are



your blood pressure will be slightly elevated if it is measured right away.

Smoking and drinking beverages that contain caffeine (coffee, tea and colas) can affect blood pressure for two or more hours. Eating a lot of salt does not alter blood pressure in the short term, such as for an office visit, but may affect it over time. Older people may experience a drop in blood pressure right after eating.

Blood pressure taken at home may be slightly lower than that taken in the doctor's office. When checking your blood pressure at home, it is a good idea to take two or three readings, particularly when you first start monitoring your own blood pressure. Your doctor may ask you to check your blood pressure at different times of the day, such as morning and evening, to assess the effects of any medications you are taking. Frequent readings are recommended when you are first diagnosed, when you begin or make any changes in your treatment – especially drug treatment – and when you are undergoing treatment for another health problem. Under normal circumstances, when your pressure is well controlled, you will need to check it only every other week or once a month.

Electronic blood pressure monitors in supermarkets, drug stores and other public places are convenient, but they are not a good substitute for checking your blood pressure with a sphygmomanometer. Because these machines are sensitive to any motion in the hand or arm, they are unlikely to measure blood pressure with a high degree of accuracy. However, these machines are useful in making the public aware of the importance of blood pressure monitoring. If you consistently get high blood pressure readings from these machines, you should have your doctor check your blood pressure for you.

In some older adults, accurately measuring blood pressure with any device can be difficult because of the hardening of the arteries (arteriosclerosis) that occurs with age. This can produce pseudohypertension, in which the blood pressure within the arteries cannot be measured accurately with standard blood pressure monitors. In anyone in whom the beating sounds in the artery are faint (making an accurate reading difficult), raising the arm straight upward (level with the shoulder) and taking the blood pressure may help.

Excerpted from: *Essential Guide to Hypertension*, American Medical Association, 1998.

This article was reviewed by Alfred Bove, M.D., Ph.D., Department of Cardiology, Temple University Hospital and School of Medicine, Philadelphia, in December 2000.

If you would like information about purchasing the *Essential Guide to Hypertension*, click [here](#).

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