

Blood Pressure PROTOCOL

About Blood Pressure

The heart is a muscle that functions like a pump. When it contracts, or beats, it sends a surge of blood through the blood vessels and pressure increases. This is called *systolic* pressure. When the heart relaxes between beats, the blood pressure decreases. This is called the *diastolic* pressure. Blood pressure rises and falls throughout the day. When blood pressure stays elevated over time, it is called high blood pressure or hypertension.

The blood pressure measurement is written with the systolic number on top and the diastolic number on the bottom. For example, a reading of 126/76 mm Hg (millimeters of mercury) is expressed verbally as “126 over 76”.

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, National Heart Lung and Blood Institute (NHLBI) issued the following Blood Pressure Classification guidelines, in May 2003:

Categories for Blood Pressure Levels in Adults (age 18 years and older)*

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

Blood Pressure Protocol

continued

About Blood Pressure Measurement

Patient should:

- Refrain from smoking or ingesting caffeine for 30 minutes prior to measurement.
- Be seated quietly for at least 5 minutes in a chair (rather than on an exam table).
- Keep feet on the floor, and arm supported at heart level.

Clinician should:

- Always conduct the blood pressure measurement before blood draws.
- Use calibrated or mercury manometer.
- Take at least two measurements.
- Use the appropriate size cuff for the patient. The cuff bladder should encircle at least 80 percent of the upper arm. If participant is extra large, an extra large cuff should be used.

Procedure (using the Omron Regency Digital Automatic BP Monitor)

- Put the left arm through the cuff loop, making sure that the bottom edge of the cuff is approximately ½ inch above the elbow. Pull the end of the cuff so that the entire cuff is evenly tightened around the arm with room for 1 finger between cuff and arm. Press the sewn hook material firmly against the pile side of the cuff. The cuff tubing should be positioned along the middle of the inside of the arm.
- Relax the arm and turn the palm upward. Locate the brachial artery by pressing with two fingers about 1 inch above the bend of the elbow on the inside of the left arm. Determine where the pulse can be felt most strongly. Make sure the green area of the cuff covers the brachial artery.
- **Press the On/Off button.** Let the participant know that there may be a squeezing sensation as the cuff inflates. Be sure pressure valve is set to 200. Advise the participant to remain still, without talking, throughout the test.
- **Press the Start button** after the Ready to Measure Symbol (**a heart**) appears next to a zero on the digital panel. If skin becomes pinched, immediately deflate the cuff bladder and readjust the cuff. When the measurement is complete, the monitor alternately displays blood pressure and pulse on the digital panel and automatically deflates the cuff.

[For manual sphygmomanometers, systolic blood pressure is the point at which the first of two or more sounds is heard through a stethoscope. Diastolic blood pressure is the point before the disappearance of sounds.]