



CIRCL-Chicago Blood Pressure Measurement Protocol*

Step 1: Properly prepare the patient

1. Have the patient relax, sitting in a chair (feet on floor, back supported) for >5 min.
2. The patient should avoid caffeine, exercise, and smoking for at least 30 min before measurement.
3. Ensure patient has emptied his/her bladder.
4. Neither the patient nor the observer should talk during the rest period or during the measurement.
5. Remove all clothing covering the location of cuff placement.
6. Measurements made while the patient is sitting or lying on an examining table do not fulfill these criteria.

Step 2: Use proper technique for BP measurements

1. Use a BP measurement device that has been validated ([Validate BP](#)) and ensure that the device is calibrated periodically.
2. Support the patient's arm (e.g., resting on a desk).
3. Position the middle of the cuff on the patient's upper arm at the level of the right atrium (the midpoint of the sternum).
4. Use the correct cuff size, such that the bladder encircles 80% of the arm, and note if a larger- or smaller-than-normal cuff size is used.

Arm Circumference	Usual Cuff Size
22–26 cm	Small adult
27–34 cm	Adult
35–44 cm	Large adult
45–52 cm	Adult thigh

5. Either the stethoscope diaphragm or bell may be used for auscultatory readings.

Step 3: Take the proper measurements needed for diagnosis and treatment of elevated BP/hypertension

1. At the first visit, record BP in both arms. Use the arm that gives the higher reading for subsequent readings.
2. Separate repeated measurements by 1–2 min.
3. For auscultatory determinations, use a palpated estimate of radial pulse obliteration pressure to estimate SBP. Inflate the cuff 20– 30 mm Hg above this level for an auscultatory determination of the BP level.
4. For auscultatory readings, deflate the cuff pressure 2 mm Hg per second, and listen for Korotkoff sounds.



Step 4: Properly document accurate BP readings

1. Record SBP and DBP. If using the auscultatory technique, record SBP and DBP as onset of the first Korotkoff sound and disappearance of all Korotkoff sounds, respectively, using the nearest even number.
2. Note the time of most recent BP medication taken before measurements.

Step 5: Average the readings

1. Use an average of ≥ 2 readings obtained on ≥ 2 occasions to estimate the individual's level of BP.

Step 6: Provide BP readings to patient

1. Provide patients the Systolic BP/Diastolic BP

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
Normal	Less than 120	and	Less than 80
Elevated	120-129	and	Less than 80
High Blood Pressure (Hypertension) Stage 1	130-139	or	80-89
High Blood Pressure (Hypertension) Stage 2	140 or Higher	or	90 or Higher
Hypertensive Crisis	Higher than 180	and/or	Higher than 120

*2017 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults