

PLANK 1

Direct Care Staff Trained in Accurate BP Measurement

All team members involved in direct patient care should be trained in taking blood pressures according to a standard process. An annual evaluation/certification should involve both the ability to follow the process and the accuracy of blood pressure measurements. The entire on-site team should, through training, be aware of the importance of hypertension management and target blood pressures.

Retraining and evaluation on blood pressure measurement technique should be required at least annually, including assessment of blood pressure measurement competency through:

- Knowledge of proper technique and different types of observer bias
- Process to properly maintain and calibrate equipment
- Interpretation of measurements including an understanding of the variability of blood pressure depending on time of day, exercise, and timing of medications
- Demonstration of accurate technique of patient positioning, selection of cuff size, obtaining a valid blood pressure measurement, recording it accurately, and reporting abnormal results

Tips for Obtaining Accurate Blood Pressure Measurement

1. Ask if the patient avoided caffeinated beverages and smoking for at least 30 minutes before the examination.
2. Have the patient sit calmly for five minutes with back supported and feet flat on the floor.
3. Patient's arm should be bare. Cuff may be applied over a smoothly rolled-up sleeve, provided there is no tourniquet effect.
4. Support the patient's arm on a firm surface at heart level, slightly flexed at elbow.
5. Both the healthcare team member and the patient should refrain from talking while BP is measured.
6. Use appropriate cuff size. The inflatable part should be long enough to encircle at least 80% of arm and wide enough to encircle 40% of arm at midpoint. When in doubt, select the larger size.

RECOMMENDED CUFF SIZES	
Arm Circumference	Adult Cuff Size
22 to 26 cm	Small adult (12X22 cm)
27 to 34 cm	Adult (16X30 cm)
35 to 44 cm	Large adult (16X36 cm)
45 to 52 cm	Adult thigh (16X42 cm)

7. Wrap the cuff snugly around bare upper arm. The lower edge should be centered two finger widths above the bend of the elbow, and the midline of the bladder should be over the brachial artery pulsation.
8. The aneroid dial or mercury column should be clearly visible and facing you.
9. Using light pressure, position stethoscope over brachial artery and not touching the cuff.
10. "Round numbers" are not acceptable : measure and record to the nearest 2 mm Hg.



Supporting Literature and Resources

1. Blood Pressure Measurement Toolkit: <http://dhs.wisconsin.gov/health/cardiovascular>
Comprehensive tool kit with detailed implementation tools for improving blood pressure procedure, including staff educational materials, checklists, training tools, equipment review, and evidence-based references.
2. Blood Pressure Simulators: www.anatomywarehouse.com
Online store to purchase anatomical models, patient education charts, and blood pressure simulators.

Suggested AMGA Case Study

Cleveland Clinic: The Hypertension Improvement Project

www.amga.org/Research/Research/Hypertension/Compendiums/cleveland.pdf

