



# Back to Basics: Blood Pressure Screening

## Considerations for Accurate Measurement

### Preparation Steps

- Patient should be comfortably seated in a chair, with his/her back supported, in a partially raised position, or lying down
- Patient should be at rest for at least 5 minutes before beginning the measurement
- The upper arm should be free of all clothing; shirt sleeves should be removed, not rolled up, if at all constrictive
- The arm should be supported at the patient's heart level with elbow slightly flexed

### Cuff Appropriateness

- Width of the inflatable bladder should be 40% of circumference of arm (measured at midpoint between elbow and shoulder) or encircle 80% of the upper arm. Be sure to use a large cuff on large individuals. A narrow cuff wrapped around a big arm will give an abnormally high reading, and vice versa. Standard cuff size is; small 7" - 9", adult 9" - 13", large 13" - 17".
- Bladder should be centered over the artery
- Lower edge should be placed 2 to 5 cm (1 to 2 in) above antecubital space
- Cuff should be completely deflated when applied
- Cuff should be snugly and smoothly wrapped around the arm
- Tubing should rest at the medial (inner) aspect of the arm

### Examiner Techniques

- Position gauge so that it is viewed straight on
- Palpate brachial or radial artery and inflate the cuff 30 mm Hg above the point where the pulse is no longer palpated, then deflate the cuff slowly (this indicates level at which you will need to inflate cuff to assure an accurate reading)
- Apply stethoscope bell lightly to the brachial artery with no space between the skin and stethoscope, avoiding contact with the cuff or clothing
- Inflate the cuff to 30 mm Hg above point where the previously palpated pulse was not felt. Deflate cuff slowly (2 to 3 mm Hg per heartbeat)
- Note the onset of the first sound, followed by muffling, then disappearance of sound. The first sound is the systolic blood pressure and the disappearance of sound is the diastolic blood pressure
- Average two or more readings separated by 2 minutes of rest. If the first two readings differ by more than 5 mm Hg, additional readings should be taken and averaged
- Record both the systolic and the diastolic blood pressures

*Note variables that can alter a patient's blood pressure: eating, drinking or smoking within past 30 minutes, exercise, cold environment, pain or discomfort, exertion and bladder distention.*

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