

## STANDARD BLOOD PRESSURE MEASUREMENT PROTOCOL

1. Seat the subject in a quiet, calm environment with legs uncrossed, both feet on the floor, back well-supported and a bared arm resting on a standard table or other support so the midpoint of the upper arm is at the level of the heart.
2. Estimate the circumference of the bare left upper arm at the midpoint between the shoulder and the elbow, by inspecting or tape measuring, and select an appropriate cuff. The bladder inside the cuff should encircle 80% of the arm.
  - For an arm circumference of 22-26 cm, use a small adult cuff (12x22 cm)
  - For arm circumference of 27-34 cm, use a regular adult cuff (16x30 cm)
  - For arm circumference of 35-44 cm, use a large adult cuff (16x36 cm)
  - For arm circumference of 45-52 cm, use an adult thigh cuff (16x42 cm)
3. Place the cuff so that the midline of the bladder is over the arterial pulsation, then wrap and secure the cuff snugly around the subject's bare upper arm.
4. The lower edge of the cuff should be 2.5 cm above the antecubital fossa where the head of the stethoscope is to be placed.
5. The subject should have rested for about 5 minutes before the first reading.
6. The subject should be instructed not to talk during the measurement procedure.
7. Palpate the radial pulse.
8. Inflate the cuff rapidly to 70 mm Hg and then by 10 mm increments while palpating the radial pulse. Note the reading at which the pulse disappears and subsequently reappears during deflation.
9. At pulse obliteration, the palpated systolic pressure is established.
10. Rapidly deflate the pressure system and elevate the arm to disengage it of blood.
11. Palpate the brachial artery on the inner side of the arm, just about the elbow and below the base of the cuff.
12. Place the stethoscope bell lightly but firmly over the palpated brachial artery
13. Inflate the bladder rapidly and steadily to a pressure 20-30 mm above the level previously determined by palpation, then allow the bladder to deflate at 2-3 mm/sec while listening for the appearance of the Korotkoff sounds.
14. Note the systolic blood pressure at the onset of Phase 1 Korotkoff sounds.
15. Continue to deflate the cuff at 2-3 mm each second.
16. Note diastolic 4<sup>th</sup> phase pressure at the onset of Phase 4 Korotkoff sounds (muffling).
17. Note diastolic 5<sup>th</sup> phase pressure at the onset of silence after muffling.

18. After the last Korotkoff sound is heard, the cuff should be deflated slowly for at least another 10 mm to ensure that no further sounds are audible, and then rapidly and completely deflate; the subject should then be allowed to rest for 30 seconds.
19. Record systolic and diastolic phase 5 BP.
20. Two readings of the above should be taken at intervals of at least 2 minute and recorded.
21. If there is a greater than or equal to 10 mm Hg difference (systolic) or greater than or equal to 5 mmHg difference (diastolic) between the first and second readings, additional (1-2) readings should be obtained.