

To determine the correct cuff size for the blood pressure measurement, use the following procedures:

Proper measurement requires that the participant's arm is bare to the shoulder. The participant will be wearing a gown or loose-fitting top provided by the clinic.

Request the participant to stand, bend the elbow, and put the forearm straight across the chest. The upper arm should be at a 90 degree angle to the lower arm.

Measure arm length from the bony prominence of the shoulder girdle (acromion) to the tip of the elbow using a tape measure.

Mark the midpoint on the dorsal (back) surface of the arm.

Ask the participant to relax his arm along the side of his body.

Draw the tape measure horizontally around the arm at the midpoint mark, but do not indent the skin.

Use the measurement to determine correct cuff size.

Do not use the markings on the blood pressure cuff for reference. Instead, use the following criteria for determining the appropriate cuff size for the participant:

Arm circumference (cm/in.)	Cuff's Bladder Size (cm)
16.0 – 22.5 cm (6.4-9.0 in)	small cuff (9.0 cm)
22.6 – 30.0 cm (9.1 – 12.0 in)	regular cuff (12.0 cm)
30.1- 37.5 cm (12.1 – 15.0 in)	large cuff (15.0 cm)
37.6 – 43.7 cm (15.1 – 17.5 in)	thigh cuff (17.5 cm)

Keep the above chart of arm circumference measurements and corresponding cuff sizes readily available for easy reference.

Background and Rationale

The ankle-arm index (AAI) is the ratio of the ankle to arm systolic blood pressure. It is reduced to less than 1.0 when there is obstruction to blood flow in legs. The AAI is a non-invasive measure of atherosclerotic obstruction in the legs and is a general marker of atherosclerotic burden. The degree of subclinical and clinical atherosclerosis is hypothesized to be related to the decline in lean mass and increase in abdominal adiposity with age. AAI is associated with atherosclerotic disease in other vascular beds and predicts subsequent mortality and cardiovascular mortality. The impact of subclinical cardiovascular disease on loss of bone and muscle mass and subsequent disability is not clear.