Section 1 – Participant vital signs and anthropometrics

1. Participant height (inches)  ____  ____  ____  (88.8 = not assessed)

2. Participant weight (lbs.)  ____  ____  ____  (888 = not assessed)

Instructions for measuring waist and hip circumference in adults

**Waist circumference** should be measured at the midpoint between the lower margin of the last palpable rib and the top of the iliac crest, using a stretch resistant tape. **Hip circumference** should be measured around the widest portion of the buttocks, with the tape parallel to the floor.

For both measurements: Participant should stand with feet close together, arms at the side and body weight evenly distributed, and should wear little clothing. The participant should be relaxed, and the measurements should be taken at the end of a normal expiration. Each measurement should be taken twice and entered here. If the difference between the two measurements exceeds 0.5 inches, the two measurements should be repeated.


3. Enter two waist circumference measurements (inches):
   - Measurement 1  ____  ____  ____  (888 = not assessed)
   - Measurement 2  ____  ____  ____  (888 = not assessed)

4. Enter two hip circumference measurements (inches):
   - Measurement 1  ____  ____  ____  (888 = not assessed)
   - Measurement 2  ____  ____  ____  (888 = not assessed)

**Source:** NHLBI Obesity Education Initiative, nhlbi.nih.gov
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5. Enter two readings spaced at least one minute apart for each arm. See detailed instructions below.

5a. Participant blood pressure - Left arm:
- Reading 1: __ __ __ / __ __ __ (888/888 = not assessed)
- Reading 2: __ __ __ / __ __ __ (888/888 = not assessed)

5b. Participant blood pressure - Right arm:
- Reading 1: __ __ __ / __ __ __ (888/888 = not assessed)
- Reading 2: __ __ __ / __ __ __ (888/888 = not assessed)

6. Participant resting heart rate (pulse): __ __ __ (888 = not assessed)

Steps for proper blood pressure measurement

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

STEP 2 - Use proper technique for BP measurements
- Use a BP measurement device that has been validated and ensure that the device is calibrated periodically.
- Support the participant’s arm (e.g., have it resting on a desk).
- Position the middle of the cuff on the participant’s upper arm at the level of the right atrium (midpoint of the sternum).
- 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.
- Either the stethoscope diaphragm or bell may be used for auscultatory readings.

STEP 3 - Take proper measurements
- Take two BP readings in both arms.
- Separate the second set of measurements from the first by one minute.
- 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.
- For auscultatory readings, deflate the cuff pressure 2 mm Hg per second, and listen for Korotkoff sounds.

STEP 4 - Properly document accurate BP readings
- 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.
- Record the two readings of SBP and DBP in the left arm, and the two readings of SBP and DBP in the right arm.

STEP 5 - Give BP readings and interpretation to the participants
- It is recommended to provide participants with the SBP/DBP readings both orally, and in writing.