



Data Collection Worksheet

Please Note: The Data Collection Worksheet (DCW) is a tool to aid integration of a PhenX protocol into a study. The PhenX DCW is not designed to be a data collection instrument. Investigators will need to decide the best way to collect data for the PhenX protocol in their study. Variables captured in the DCW, along with variable names and unique PhenX variable identifiers, are included in the PhenX Data Dictionary (DD) files.

Abdominal (Waist) Circumference

Exam staff will collect the waist circumference on participants aged 2 years and older. Follow the procedures below to obtain this measure:

1. Position the SP. Instruct the SP to gather the shirt gown above the waist and clip it on the front so it will not interfere with the measurements. Instruct the participant to cross his or her arms and place his or her hands on opposite shoulders. Demonstrate the desired position of the arms. It may help to tell SPs to think of giving themselves a hug.

Feel the SP's right and left iliac crest and, if necessary, lower the waistband of the pants and underclothing to expose the iliac crest. Again, always tell the SP what you are going to do before you do it.

2. Mark the Measurement Site. Stand on the participant's right side. Palpate the hip area to locate the right ilium of the pelvis. With the cosmetic pencil draw a horizontal line just above the uppermost lateral border of the right ilium. Cross this mark at the midaxillary line, which extends from the armpit down the side of the torso.

Note: If it is difficult to find the iliac crest, such as on SPs with larger waists, then begin inferior to the midaxillary line (toward the SP's front) and palpate the ilium upward to the midaxillary line until you find the uppermost part of the bone. Exhibit 1 shows the measurement site correctly marked for the waist circumference.

3. Take the Measurement. Extend the measuring tape around the waist. Position the tape in a horizontal plane at the level of the measurement mark (Exhibit 2). Use the wall mirror to ensure the horizontal alignment of the tape. While the examiner remains on the SP's right side, the recorder will come around to the SP's left side to check the placement of the tape. Check that the tape sits parallel to the floor and lies snug but does not compress the skin. Always position the zero end of the tape below the section containing the measurement value. Take the measurement to the nearest 0.1 cm at the end of the SP's normal expiration.

4. Record the Result. Call the result to the recorder, who will enter this number on the ISIS screen. Remove the tape measure and erase the cosmetic pencil mark from the SP's skin with a few drops of baby oil on a piece of gauze.

Exhibit 1. Waist circumference mark

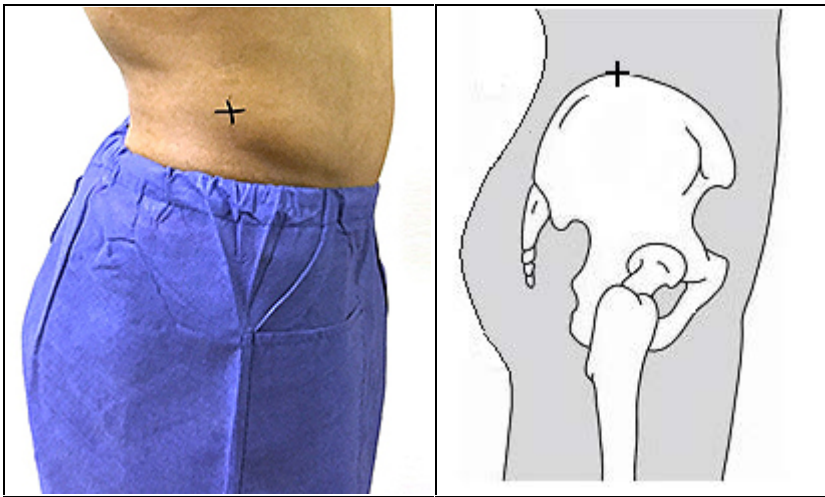
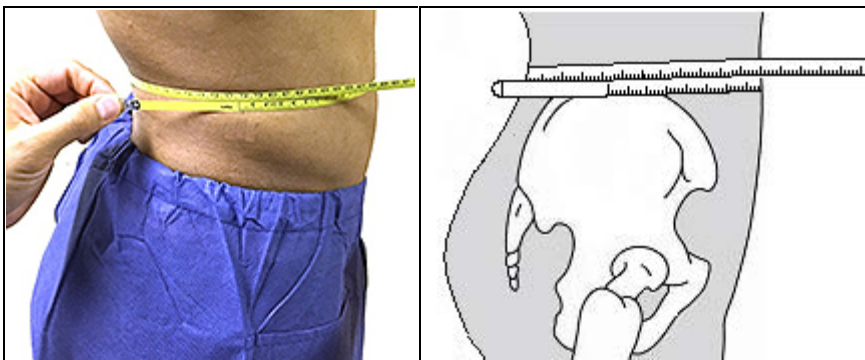
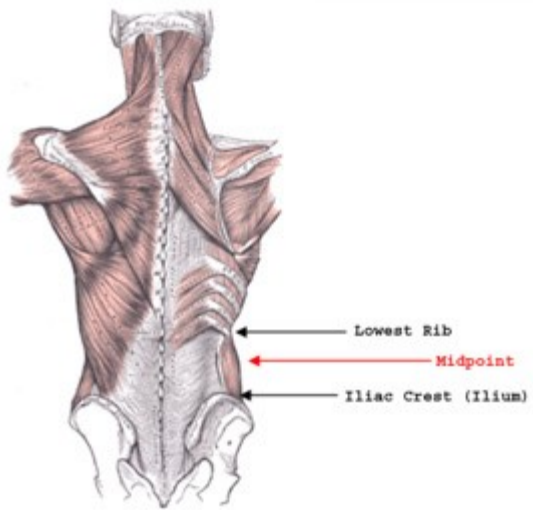


Exhibit 2. Measuring tape position for waist circumference



Note: Graphic from the "For Good Measure" Study. Personal Communication, M. Forman. Exhibit 3 displays the anatomical features that are referenced by the various PhenX waist circumference measurement protocols (see [Waist Circumference - Waist Circumference NCF5](#) and [Waist Circumference - Framingham Heart Study](#)).

Exhibit 3. Location of Measurement Landmarks between the Lowest Rib and Iliac Crest (Ilium).



Protocol source: <https://www.phenxtoolkit.org/protocols/view/21604>