

**Table 3: Anthropometric measures: equipment and protocols**

	<b>Adult</b>	<b>Infant</b>	<b>Acceptable variance</b>
<b>Head circ.</b>	Equipment: Seca tape measure 201 1717009.	Equipment: Retractable tape measures from Pfizer Nutrition.	<ol style="list-style-type: none"> <li>1. Measure to the nearest 0.1 cm.</li> <li>2. Repeat measures until two measurements are within 0.3 cm.</li> </ol>
	<ol style="list-style-type: none"> <li>1. Measurement: the maximum diameter from the bony ridge located above the eye sockets and placed posteriorly around the widest part of the head.</li> </ol>		
<b>Height/Length</b>	<p>Equipment: Marsden Height measurement Manufactured by Charder Electronic Company Ltd.</p> <ol style="list-style-type: none"> <li>1. Measure without shoes, and take down any hairstyle which may interfere with the headboard making contact with the vertex of the head.</li> <li>2. Subject stands on the base plate with weight distributed evenly on both feet, heels together and head positioned looking straight forwards. Arms hang freely at sides.</li> <li>3. Subject's body should not be in contact with the stadiometer upright so as not to deflect it from vertical.</li> <li>4. Subject stretches to fullest height.</li> <li>5. Bring the headboard down to make contact with the vertex of the subject's head.</li> </ol>	<p>Equipment: Baby length measure map Seca 210 1821009.</p> <ol style="list-style-type: none"> <li>1. The infant lies in a supine position on a recumbent measuring mat. The crown of the head must touch the stationary, vertical headboard.</li> <li>2. Align infant head so the line of vision is perpendicular to the plane of the measuring surface.</li> <li>3. The shoulders and buttocks must be flat against the measuring surface, with the shoulders and hips aligned at right angles to the long axis of the body.</li> <li>4. The legs must be extended at the hips and knees and lie flat against the surface and the arms rest against the sides of the trunk.</li> <li>5. Ensure that the legs remain flat on the surface and bring the movable board against the heels to measure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Record the measurement to the nearest 0.1cm.</li> <li>2. Repeat measures until two measurements are within 0.5cm.</li> </ol>
<b>Weight</b>	<p>Equipment: Tanita personal scales HD-316 (Manufactured by Wedderburn) or Salter Bathroom scales Model 9175.</p> <ol style="list-style-type: none"> <li>1. Ensure subject is wearing only light clothing.</li> <li>2. Place scales on a hard surface (not carpet).</li> <li>3. Activate the scales and 'zero'.</li> <li>4. Subject stands on the centre of the scales, with the body weight evenly distributed between both feet.</li> <li>5. Subject remains still until the scales have stabilised on a reading.</li> </ol>	<p>Equipment: Soehnle 8310 infant scales.</p> <ol style="list-style-type: none"> <li>1. Place scales on a firm surface (not carpet).</li> <li>2. Zero the scales and then weigh infants naked OR</li> <li>3. Place a clean nappy on the scales, zero the scales and remove the nappy, then weigh the infant while they are wearing a clean nappy of the same type that was used when the scales were zeroed.</li> </ol>	<p>Adults</p> <ol style="list-style-type: none"> <li>1. Record the weight to the nearest 0.1 kg.</li> <li>2. Repeat measures until two measurements are within 0.5 kg.</li> </ol> <p>Infants</p> <ol style="list-style-type: none"> <li>1. Record weight to two decimal places.</li> </ol>
<b>Waist measures</b>	<p>Equipment: Seca tape measure 201 1717009</p> <ol style="list-style-type: none"> <li>1. It is preferable to measure next to the skin, however the measure can be taken over clothing if it is light and fitting.</li> <li>2. Subject stands with feet close together, arms at the side and body weight evenly distributed.</li> <li>3. Subject relaxed and the measurement is taken at the end of a normal expiration.</li> <li>4. Measure the waist at a horizontal level 2.5 cm above the navel.</li> </ol>		<ol style="list-style-type: none"> <li>1. Record the measurement to the nearest 0.1 cm.</li> <li>2. Repeat measures until two measurements are within 1.0 cm.</li> </ol>