



# Bilateral Pitting Oedema

[Under 5]

\* *Bilateral pitting oedema always starts in both feet. Oedema in only one foot is not of nutritional origin.*

**1** Hold the child's feet and press your thumbs on top of both feet. Count to 3 and then lift your thumbs. If no pit shows or if a pit only shows in one foot, the child does not have bilateral pitting oedema. If a pit shows in both feet, go to Step 2.

**2** Continue the same test on the lower legs, hands, and lower arms. If no pitting appears in these areas, then the child is said to have mild (grade +) bilateral pitting oedema. (Mild bilateral pitting oedema only shows in the feet.) If pitting appears in these areas, go to Step 3.

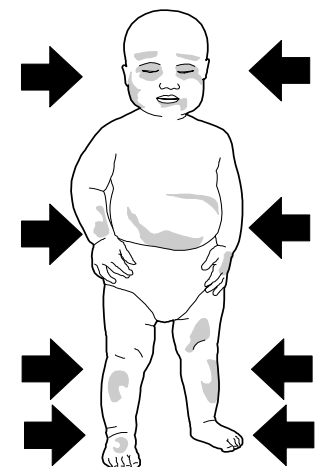
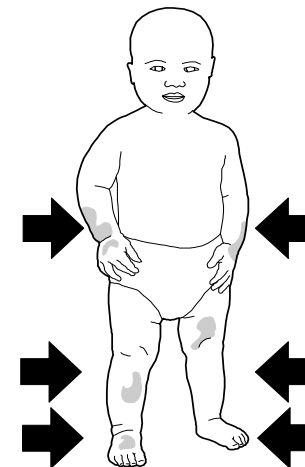
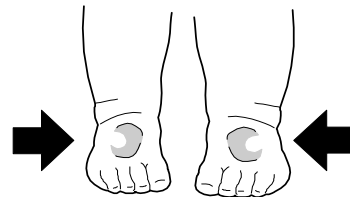
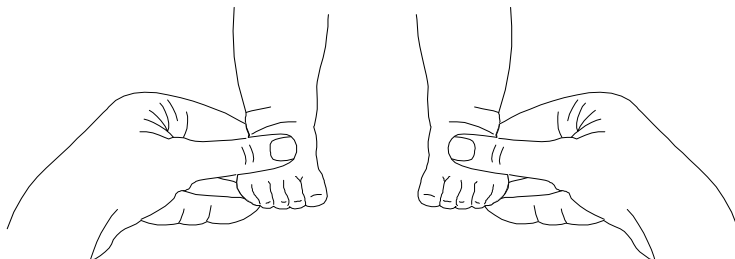
**3** Look for swelling in the face, especially around the eyes. If no swelling appears in the face, then the child is said to have moderate (grade ++ ) bilateral pitting oedema. If swelling appears in the face, the child is said to have severe (grade +++ ) bilateral pitting oedema.

**4** If child has oedema, have a second person repeat the test to confirm results.

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# MUAC (without aid)

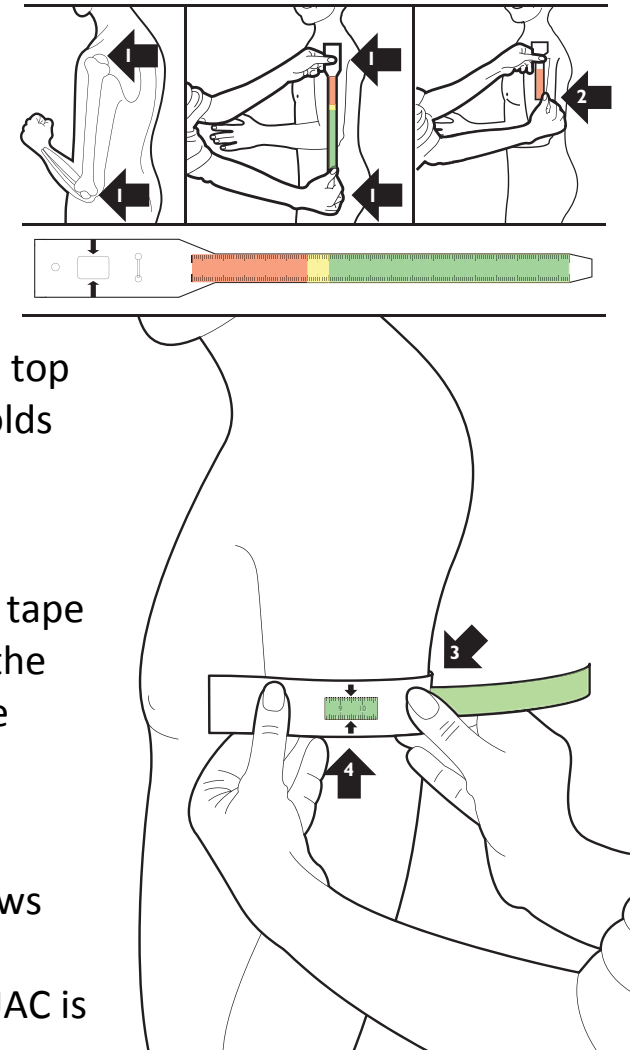
[6–59 months]

**1** MUAC is always taken on the left arm. Have the child bend his/her left arm at a 90° angle. Find the top of the shoulder and the tip of the elbow. Put the top edge of the MUAC tape on the top of the shoulder and place the right thumb on the tape where it meets the tip of the elbow (endpoint).

Find the middle of the upper arm by carefully folding the endpoint to the top edge of the tape and place the left thumb on the point where the tape folds (midpoint).

With the child's arm relaxed and falling alongside his/her body, wrap the tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.

Read the measurement from the middle window, exactly where the arrows point inward. Depending on the tape used, the measurement will be in millimetres (mm), centimetres (cm), or in colour (red, yellow, green). MUAC is recorded with a precision of 1 mm (0.1 cm).

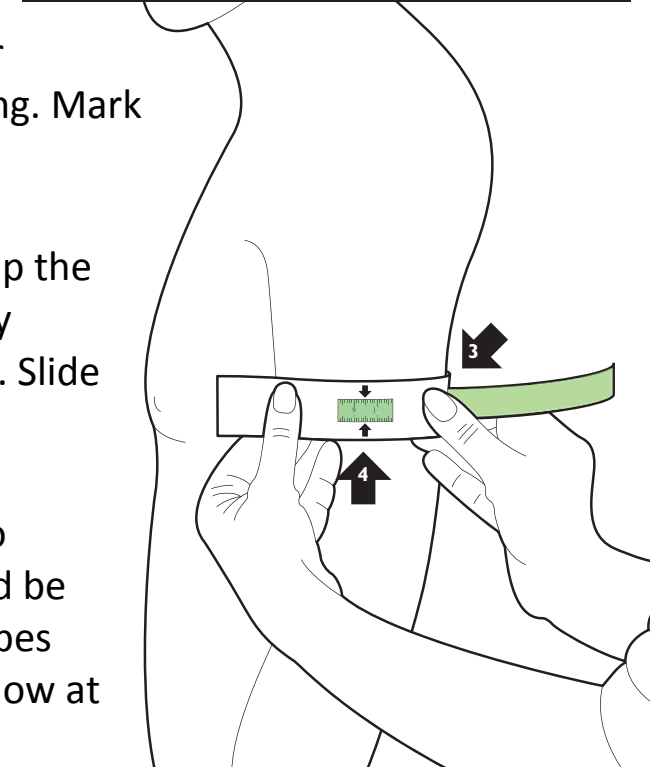
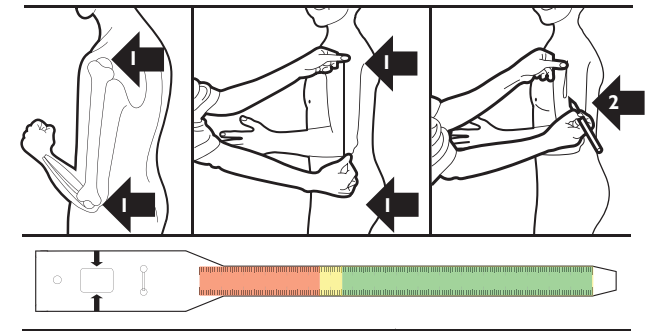




# MUAC (with pen & string)

[6–59 months]

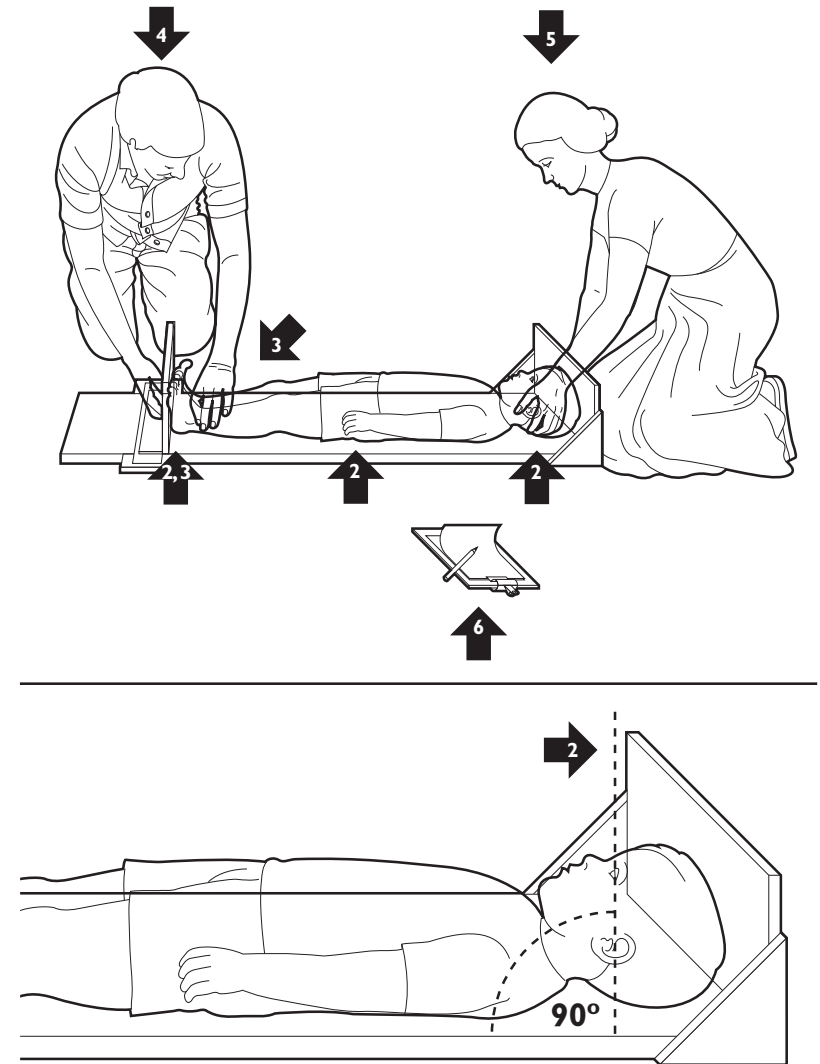
- 1** MUAC is always taken on the left arm. Have the child bend his/her arm at a 90-degree angle. Find the top of the shoulder and the tip of the elbow. Hold one end of a piece of string at the top of the shoulder and hold the string where it meets the tip of the elbow (endpoint).
- 2** Fold the endpoint up to the end of the string on top of the shoulder and place the left thumb on the point of the folded ends of the string. Mark the midpoint with a pen.
- 3** With the child's arm relaxed and falling alongside his/her body, wrap the MUAC tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.
- 4** Read the measurement from the middle window exactly where two arrows point inward. For numbered tapes, the measurement should be recorded with a precision of 1 millimetre (mm). For three-colour tapes (red, yellow, green), record the colour that shows through the window at the point the two arrows indicate.





# Height Using Length Board [Under 2 years **OR**, if age is not known, height less than 87 cm, **OR** 2 years or older or at least 87 cm tall but unable to stand]

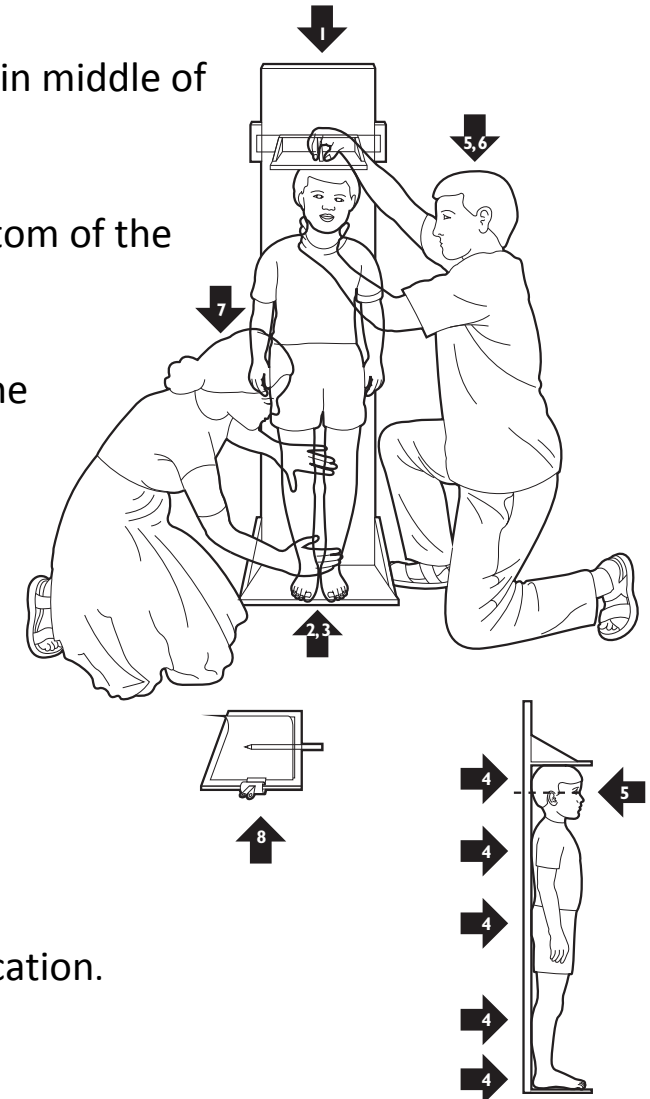
- 1 Place height board on the ground and remove child's shoes.
- 2 Place child on his/her back in middle of board, head facing straight up, arms at child's sides and feet at 90° angles to board.
- 3 While holding child's ankles or knees, move sliding board up against bottom of child's feet.
- 4 Take measurement to nearest 0.1 cm and read out loud.
- 5 The assistant, while holding the child's head in place, repeats the measurement for verification.
- 6 Measurer records height to nearest 0.1 cm. If child is 2 years or older or is 87 cm or greater while standing up, subtract 0.7 cm from measurement.





# Height Using Height Board [2 years or older **OR** height 87 cm or greater **AND** able to stand]

- 1 Remove child's shoes and place him/her on height board, standing upright in middle of board with arms at his/her sides.
- 2 Child's feet should be close together with heels and soles touching the bottom of the board (that is, not standing tiptoe).
- 3 The back of the child's ankles and knees should be firmly pressed toward the board.
- 4 The child should stand straight, with heels, back of legs, buttocks, shoulders and head touching the back of the board.
- 5 Measurer holds child's head straight. The child's line of vision should be parallel to the floor.
- 6 Measurer reads measurement out loud to nearest 0.1 cm.
- 7 Assistant, holding child's legs and feet, repeats the measurement for verification.
- 8 Measurer records height to nearest 0.1 cm.





# Tips for Weighing a Child or Infant

- ✓ Never weigh a child without explaining the procedure to the caregiver.
- ✓ Children should be weighed and completely naked only in the presence of the caregiver. Have the caregiver remove the child's clothes.
- ✓ Put a soft cloth or the child's wrapping on the scale to protect the child from the hard and potentially cold surface.
- ✓ Read the child's weight when the child is not moving. The child should remain still for the weighing.
- ✓ Scales must be cleaned and re-zeroed after each weighing.
- ✓ Infants under 6 months are weighed using an infant scale with of a 10-gram precision



# Weight Using a Solar Electronic Scale

[6–59 months]

\* 'Tared weighing' means that the scale can be reset to zero ('tared') with the person just weighed still on it. Stress that the caregiver must stay on the scale until his/her child has been weighed in her arms.

1 Be sure that the scale is placed on a flat, hard, even surface. Since the scale is solar powered, there must be enough light to operate the scale.

2 To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.

3 Check to see that the caregiver has removed his/her shoes. You or someone else should hold the naked child wrapped in a blanket.

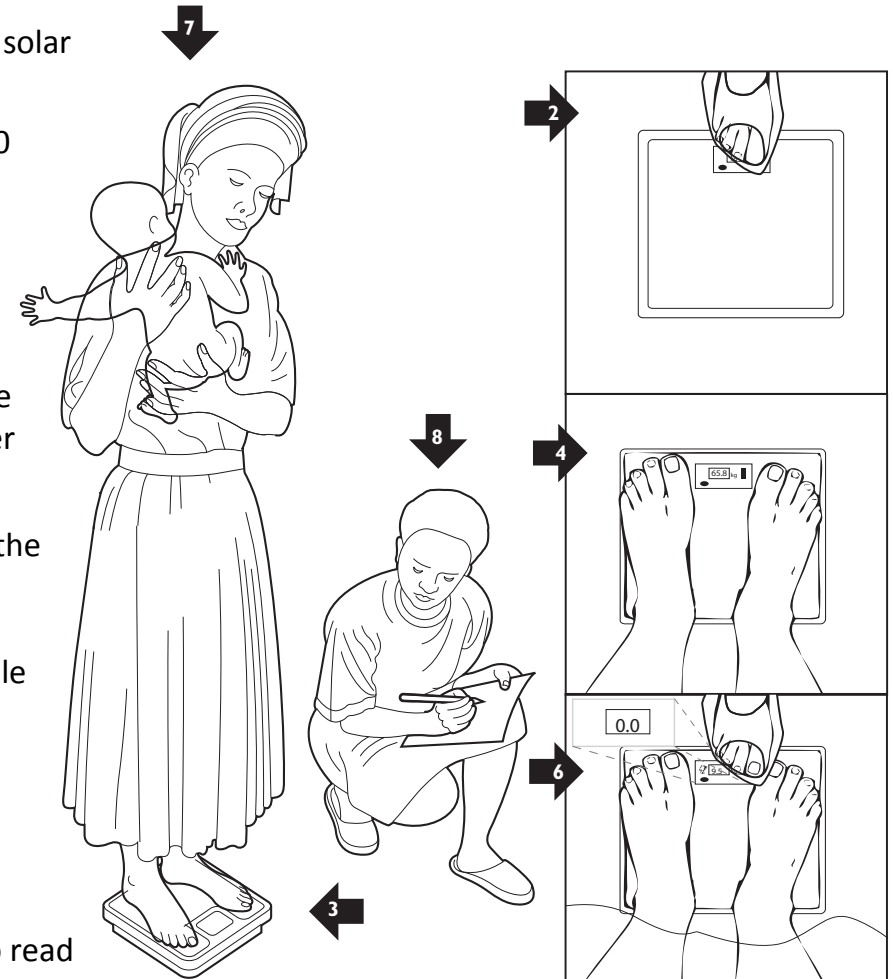
4 Ask the caregiver to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and remain still. The caregiver's clothing must not cover the display or solar panel.

5 Remind him/her to stay on the scale even after his/her weight appears, until the child has been weighed in his/her arms.

6 With the caregiver still on the scale and his/her weight displayed, tare the scale by covering the solar panel for a second. The scale is tared when it displays a figure of an adult and a child and the number 0.0.

7 Gently hand the naked child to the caregiver and ask him/her to remain still.

8 The child's weight will appear on the display. Record the weight. Be careful to read the numbers in the correct order (as though you were viewing while standing on the scale rather than upside-down).



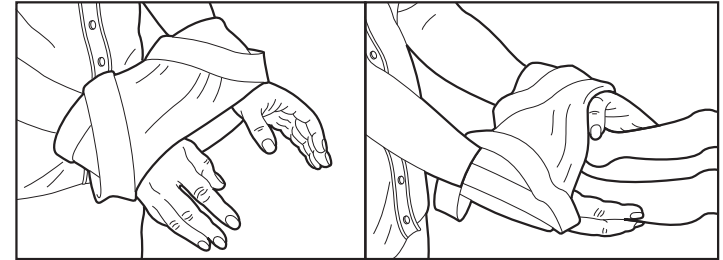
Adapted from "How to use the UNISCALE" UNICEF, 2000 and "Weighing a Child Using a Taring Scale" WHO, 2006.



# Weight Using Hanging Scale (Pants)

[6–59 months]

- \* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measurement does not match that of the known weight to within 10 grams, the springs must be changed or the scale should be replaced.



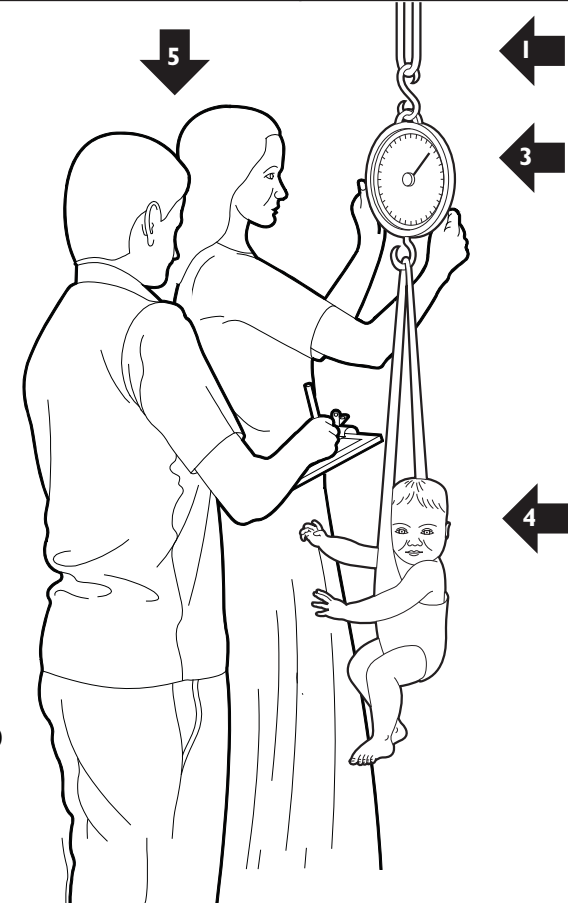
- 1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

- 2 Before weighing the child, have the caregiver take all the child's clothes off.

- 3 Make sure the scale arrow is at 0 ('zero the scale') with the weighing pants hooked on the scale.

- 4 Place child in weighing pants and let child hang freely, touching nothing. Make sure the child is safely in the weighing pants, with one arm in front and one arm behind the straps to help maintain balance.

- 5 When arrow is steady, measurer reads child's weight in kg at **eye level** to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





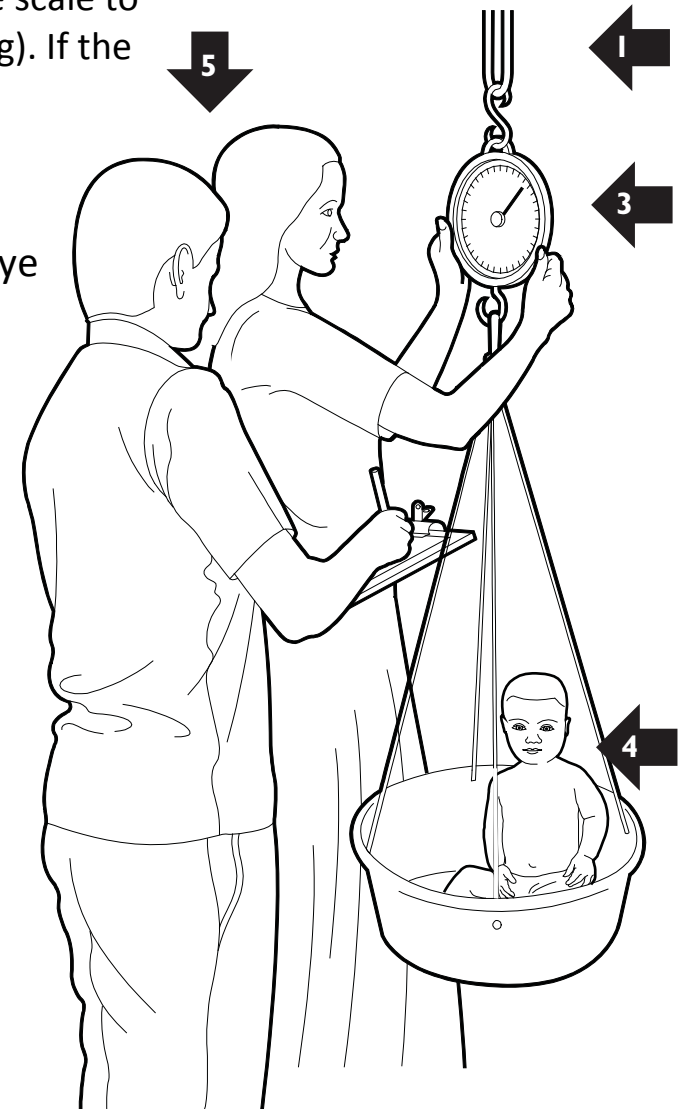


# Weight Using Hanging Scale (Bucket)

[6–24 months]

- \* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams, the springs must be changed or the scale should be replaced.

- 1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer. Put a soft cloth or the child's wrapping in the bucket.
- 2 Before weighing the child, have the caregiver take all the child's clothes off.
- 3 Make sure the scale arrow is at 0 ('zero the scale') with the bucket hooked on the scale.
- 4 Place child in weighing bucket.
- 5 When arrow is steady, measurer reads child's weight in kg at **eye level**. The assistant repeats it for verification and records it to nearest 100 g (for example, 5.2 kg).



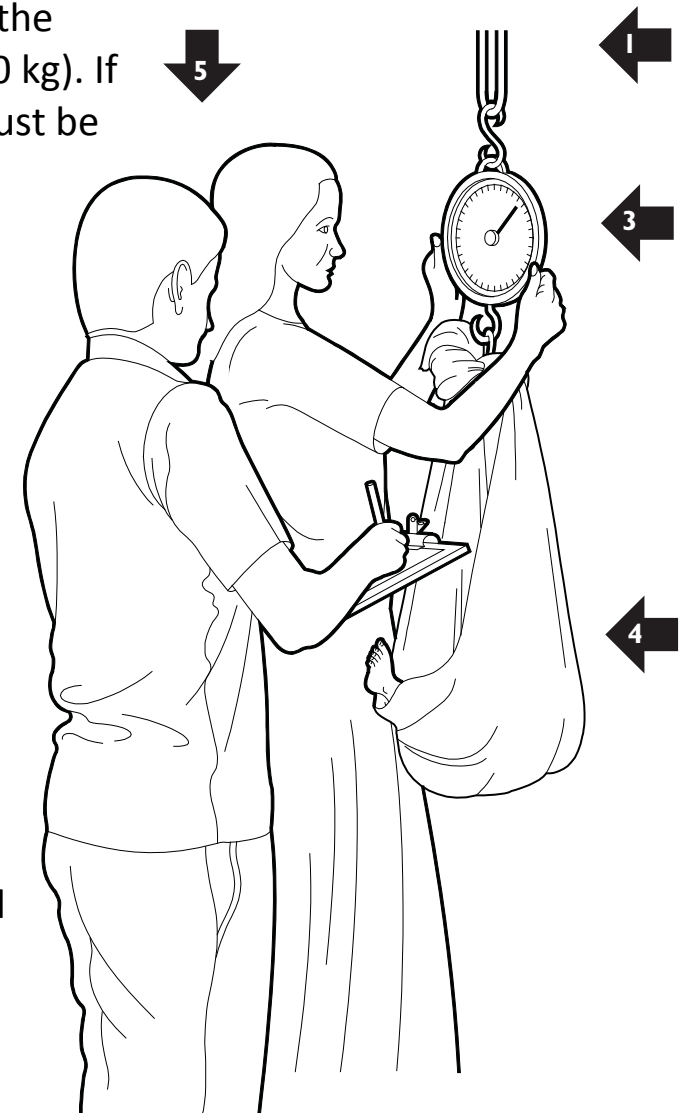


# Weight Using Hanging Scale (Cloth)

[6–59 months]

- \* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (e.g., 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams the springs must be changed or the scale should be replaced.

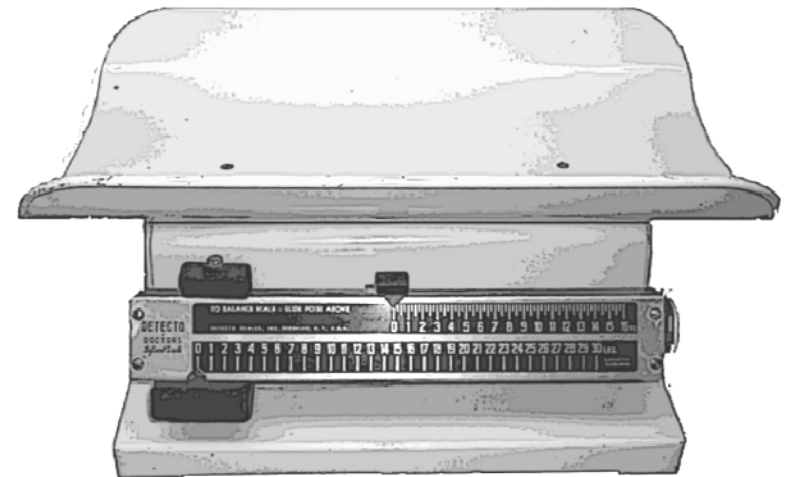
- 1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.
- 2 Before weighing the child, have the caregiver take all his/her clothes off.
- 3 Make sure the weighing scale arrow is at 0 (zero the scale) each time with the hammock or cloth that will be used hooked on the scale.
- 4 Place child in hammock or cloth, hook it on the scale, and let child hang freely, touching nothing. Make sure the child is safely in the hammock or cloth.
- 5 When arrow is steady, measurer reads child's weight in kg at eye level and to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





# Weight Using an Infant Beam Scale [Infants under 6 Months]

- 1 Unlock the beam, put a soft cloth or the infant's wrapping on the scale, and zero the scale (i.e., make sure that the end of the beam is not touching either the top or the bottom of the hole it fits through).
- 2 Have the caregiver remove the infant's clothes and put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale.
- 3 Move the weights along the beam until the end of the beam is not touching either the top or the bottom of the hole it fits through.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 2 kg 220 g).
- 5 Lock the beam and remove the infant.
- 6 Clean and re-zero the scale.





# Weight Using an Infant Bench Scale [Infants under 6 Months]

- 1 Have the caregiver remove the infant's clothes and hold the child.
- 2 Put a soft cloth or the infant's wrapping on the scale and turn it on. Wait until the scale shows zeros.
- 3 Within 60 seconds of the scale showing zeros, have the caregiver put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale. The scale will display the infant's weight.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 3 kg 470 g).
- 5 Turn off the scale and remove the infant.
- 6 Clean the scale.

