Bilateral Pitting Oedema

[Under 5]

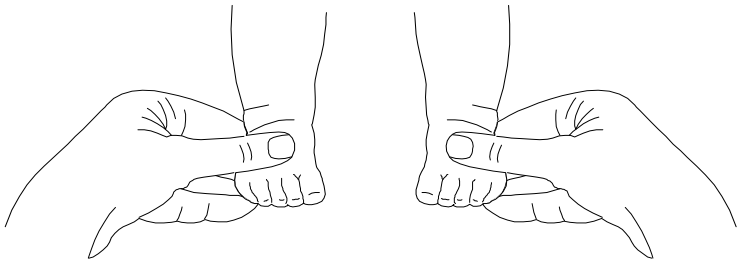
* *Bilateral pitting oedema always starts in both feet. Oedema in only one foot is not of nutritional origin.*

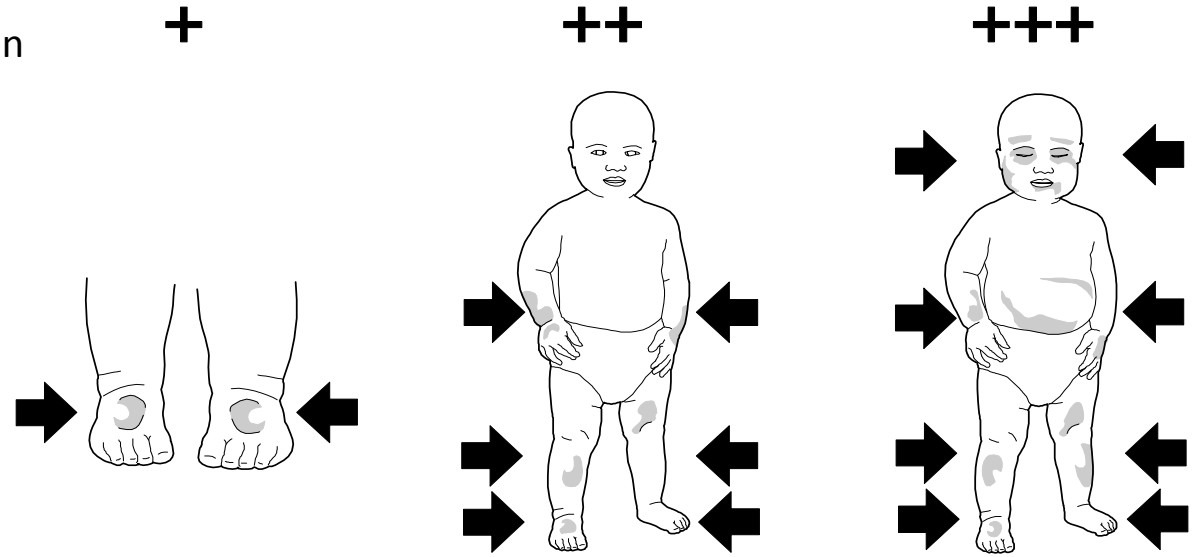
1 Hold the child's feet and press your thumbs on top of both feet. Count to 3 and then lift your thumbs. If no pit shows or if a pit only shows in one foot, the child does not have bilateral pitting oedema. If a pit shows in both feet, go to Step 2.

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.

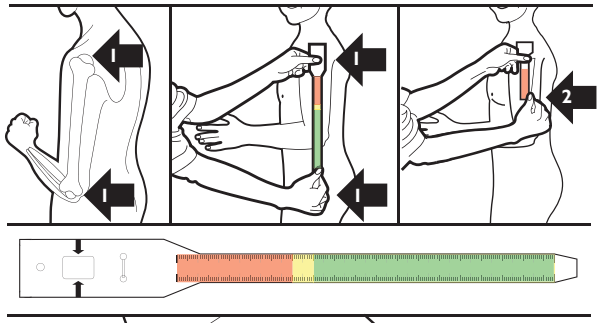




MUAC (without aid)

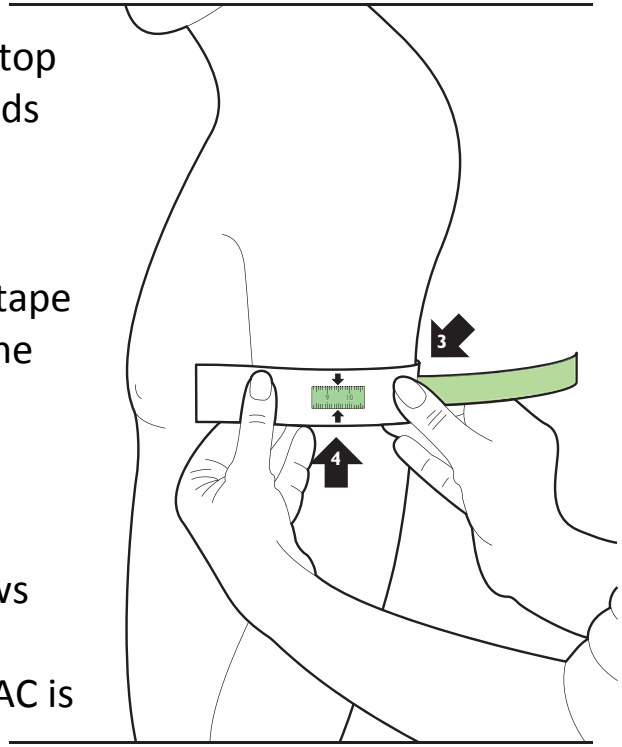
[6–59 months]

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.

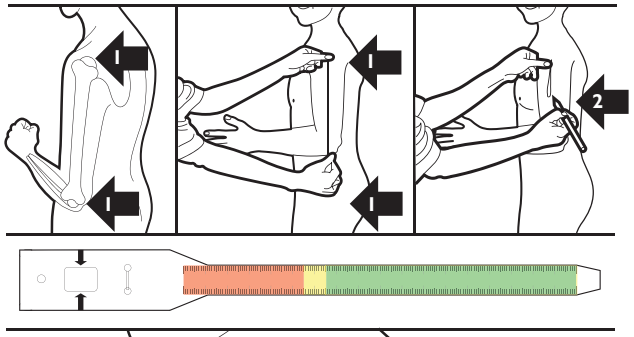


Read the measurement from the middle window, exactly where the arrows point inward. Depending on the tape used, the measurement will be in millimetres (mm), centimetres (cm), or in colour (red, yellow, green). MUAC is recorded with a precision of 1 mm (0.1 cm).

How to weigh and measure children: assessing the nutritional status of young children in UN (1986)

MUAC (with pen & string)

[6–59 months]

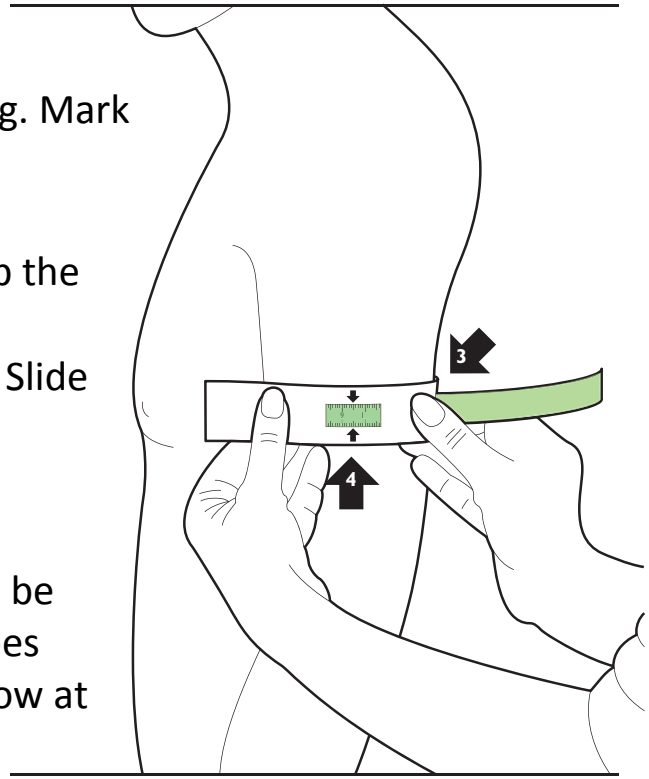


1 MUAC is always taken on the left arm. Have the child bend his/her arm at a 90-degree angle. Find the top of the shoulder and the tip of the elbow. Hold one end of a piece of string at the top of the shoulder and hold the string where it meets the tip of the elbow (endpoint).

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.



How to weigh and measure children: assessing the nutritional status of young children in UN (1986)

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.

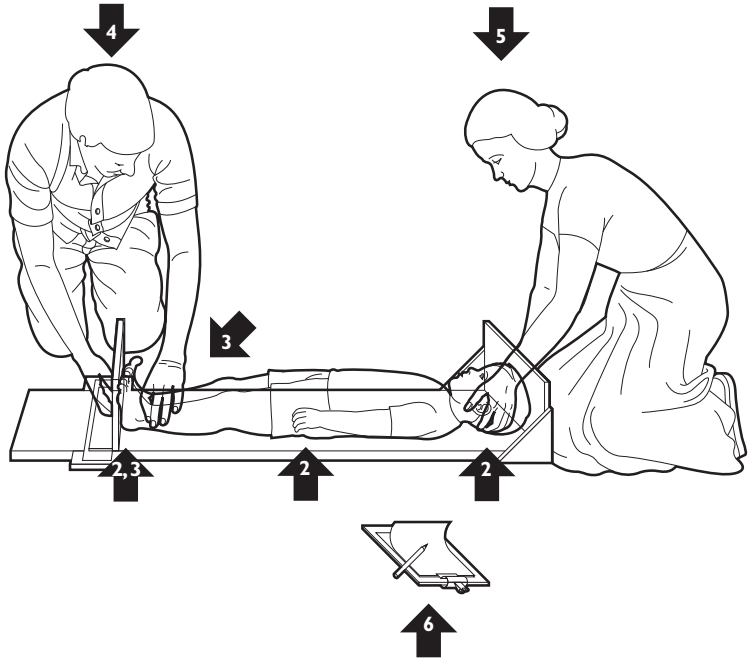
2 Place child on his/her back in middle of board, head facing straight up, arms at child's sides and feet at 90° angles to board.

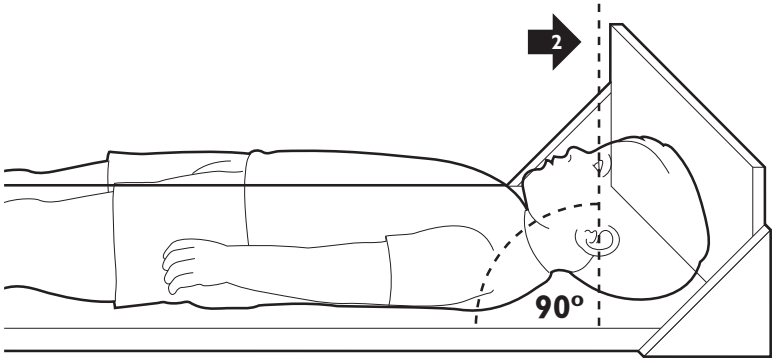
3 While holding child's ankles or knees, move sliding board up against bottom of child's feet.

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.





Source: How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children, UN 1986.

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.

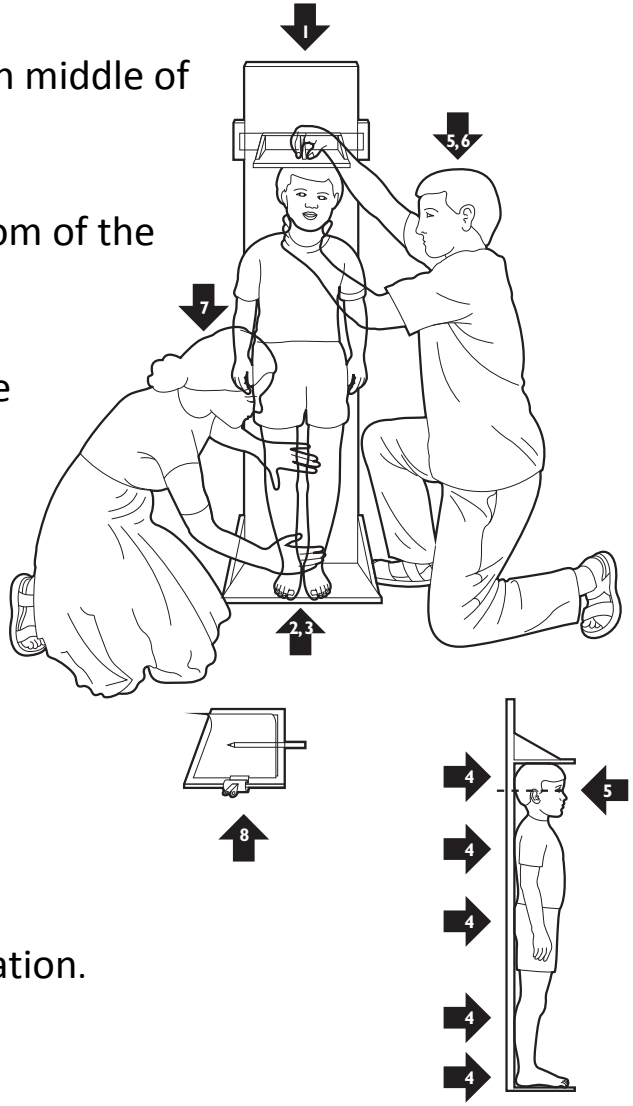
4 The child should stand straight, with heels, back of legs, buttocks, shoulders and head touching the back of the board.

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.



Source: How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children, UN 1986.

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.

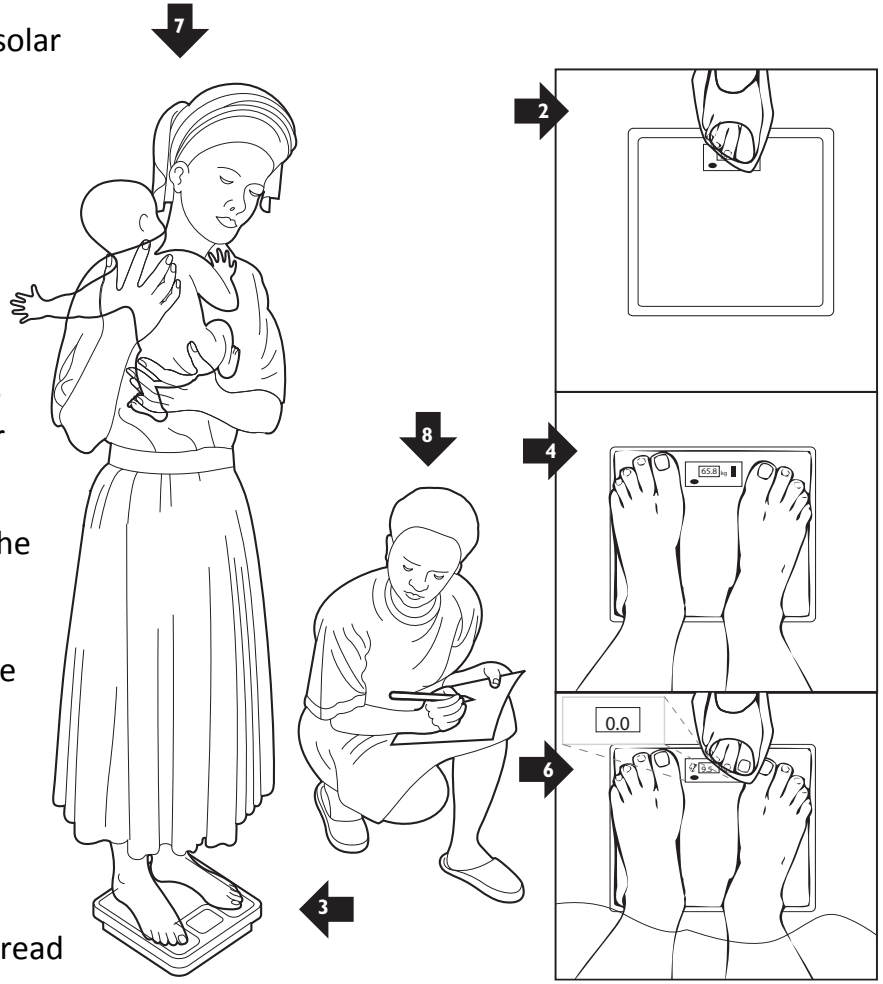
4 Ask the caregiver to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and remain still. The caregiver's clothing must not cover the display or solar panel.

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.

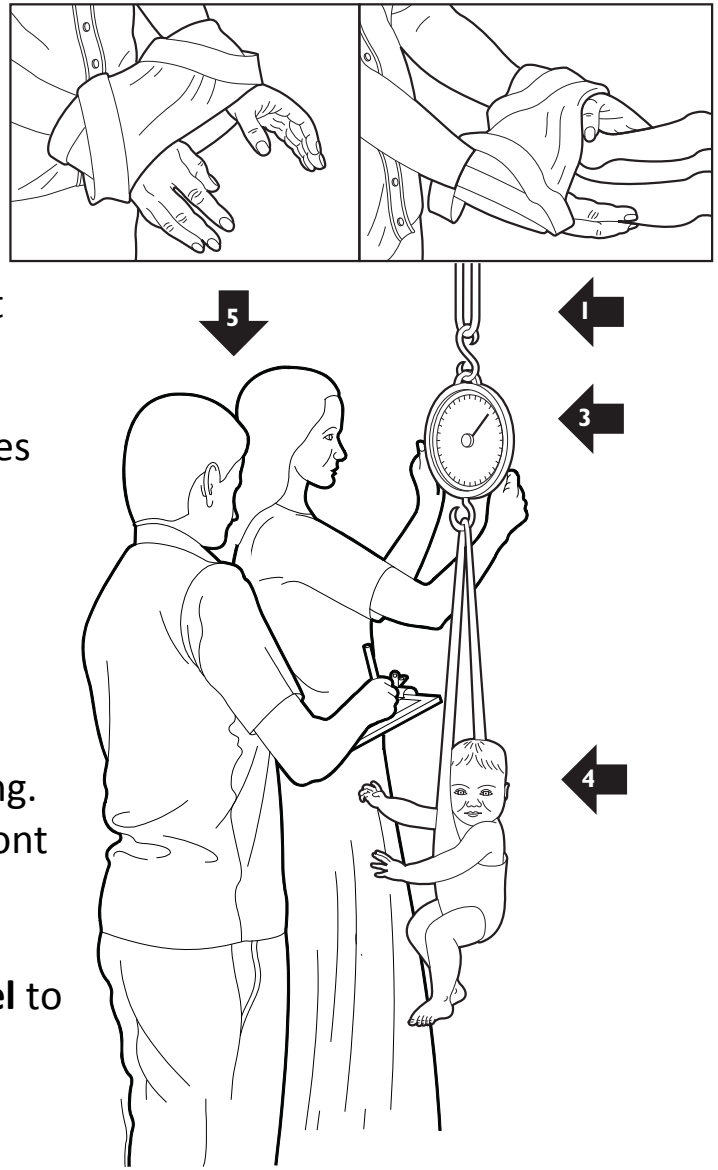
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

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.

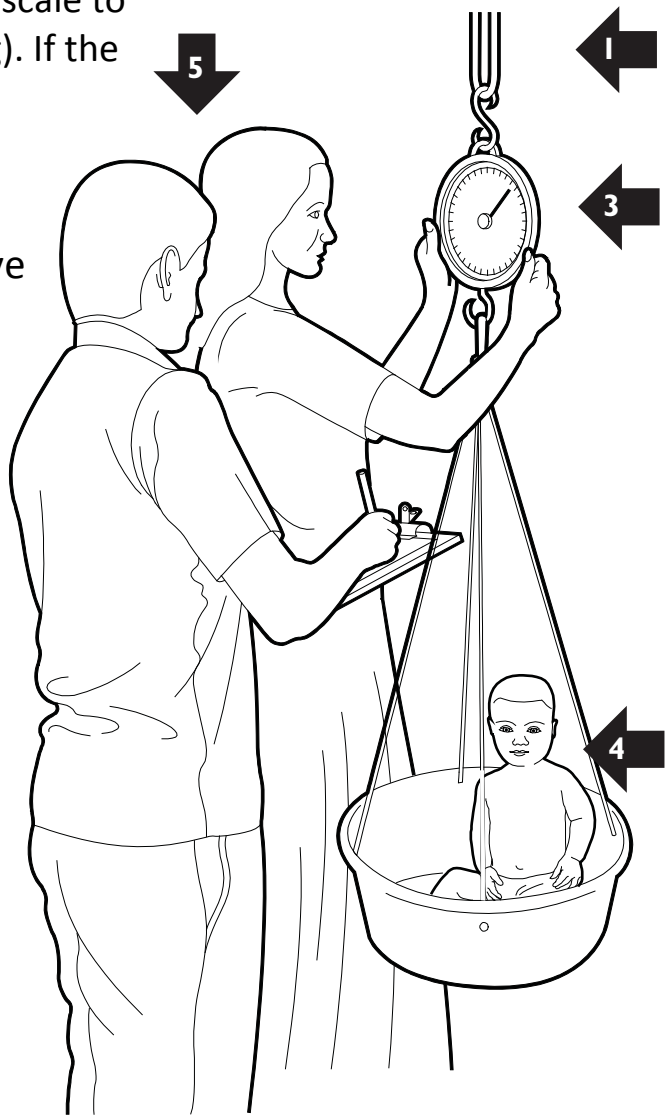


Source: How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children, UN 1986.

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.

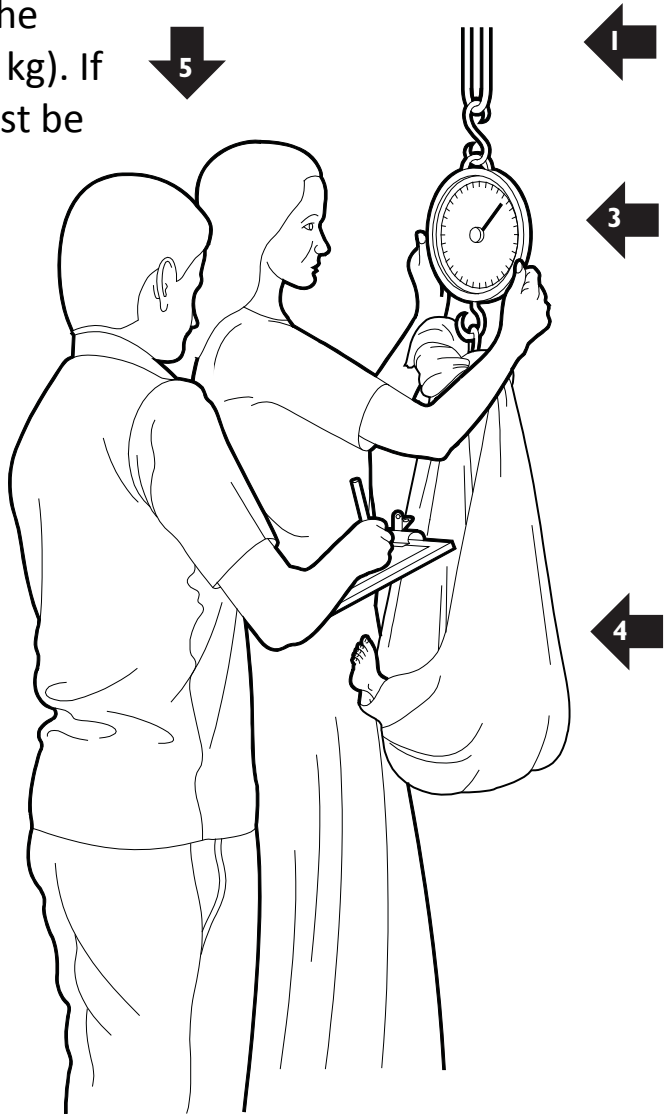
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

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).

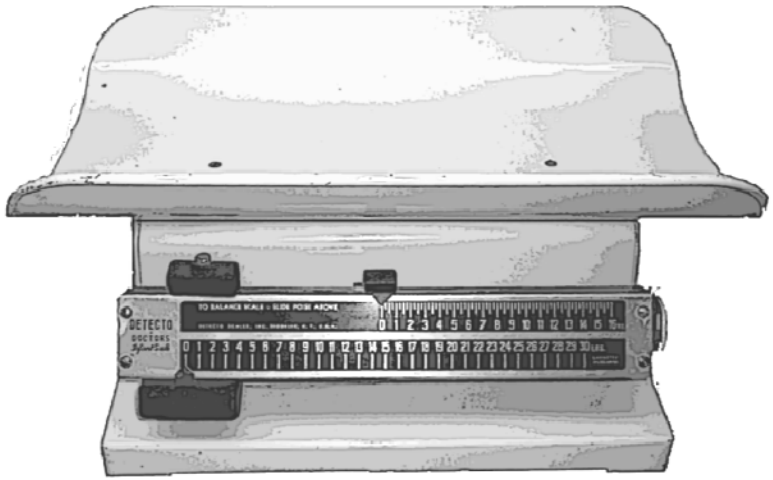
2. Have the caregiver remove the infant's clothes and put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale.

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).

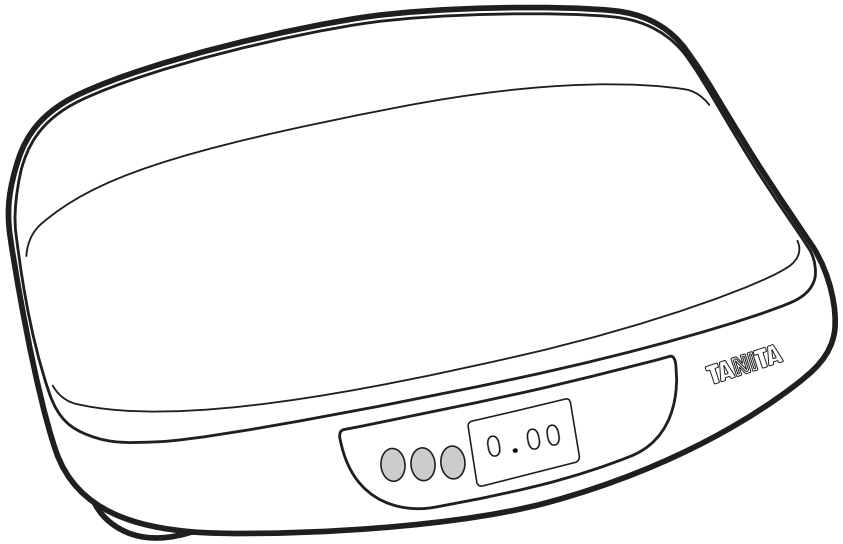
5. Lock the beam and remove the infant.

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.



Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5

Inpatient Care

ADMISSION CRITERIA

CHILDREN 6–59 MONTHS

☐ Bilateral pitting oedema +++

OR

☐ Any grade of bilateral pitting oedema with severe wasting (MUAC < 115 mm or WFH < -3 z-score)

OR

☐ SAM with any of the following medical complications:

- Anorexia, poor appetite
- Intractable vomiting
- Convulsions
- Lethargy, not alert
- Unconsciousness
- Hypoglycaemia
- High fever
- Hypothermia
- Severe dehydration
- Persistent diarrhoea
- Lower respiratory tract infection
- Severe anaemia
- Eye signs of vitamin A deficiency
- Skin lesion

OR

☐ Referred from Outpatient Care according to action protocol

INFANTS < 6 MONTHS

(Includes infants with SAM ≥ 6 months and < 4 kg)

☐ *Bilateral pitting oedema*

OR

☐ *Visible wasting*

REFERRAL/DISCHARGE CRITERIA

CHILDREN 6–59 MONTHS

☐ Referred to Outpatient Care:

- Appetite returned (passed appetite test)
- Medical complication resolving
- Severe bilateral pitting oedema decreasing
- Child clinically well and alert

(additional criterion for referral for cases of oedema with wasting: bilateral pitting oedema resolved)

☐ Discharged cured (special cases):

- 15 percent weight gain maintained for 2 consecutive weeks (of admission weight or weight free of oedema) (for cases of wasting and of oedema with wasting)
- Oedema-free for 2 consecutive weeks
- Child clinically well and alert

INFANTS < 6 MONTHS

☐ Discharged cured (for breastfed infants):

- Successful re-lactation and appropriate weight gain maintained (minimum 20 g per day on breastfeeding alone for 5 days) and infant clinically well and alert
- Oedema-free for 2 consecutive weeks

(See other guidance for non-breastfed infants who are on replacement feeding.)

Outpatient Care

ADMISSION CRITERIA

CHILDREN 6–59 MONTHS

☐ Bilateral pitting oedema + or ++

OR

☐ Severe wasting (MUAC < 115 mm or WFH < -3 z-score)

AND

- Appetite test passed
- No medical complication
- Child clinically well and alert

REFERRAL/DISCHARGE CRITERIA

CHILDREN 6–59 MONTHS

☐ Discharged cured:

- 15 percent weight gain maintained for 2 weeks (of admission weight or weight free of oedema)
- Oedema-free for 2 consecutive weeks
- Child clinically well and alert

Children are referred to receive supplementary feeding if available.

Weight-for-Length Look-Up Table
Children 6–23 Months

[WHO 2006 Child Growth Standards]

If a child is under 2 years old, or if a child is less than 87 cm tall and his/her age is not known, measure length while the child is lying down (recumbent). Use the weight-for-length look-up table.

Boys' weight (kg)				Length	Girls' weight (kg)			
−3 SD	−2 SD	−1 SD	Median	(cm)	Median	−1 SD	−2 SD	−3 SD
1.9	2.0	2.2	2.4	45	2.5	2.3	2.1	1.9
2.0	2.2	2.4	2.6	46	2.6	2.4	2.2	2.0
2.1	2.3	2.5	2.8	47	2.8	2.6	2.4	2.2
2.3	2.5	2.7	2.9	48	3.0	2.7	2.5	2.3
2.4	2.6	2.9	3.1	49	3.2	2.9	2.6	2.4
2.6	2.8	3.0	3.3	50	3.4	3.1	2.8	2.6
2.7	3.0	3.2	3.5	51	3.6	3.3	3.0	2.8
2.9	3.2	3.5	3.8	52	3.8	3.5	3.2	2.9
3.1	3.4	3.7	4.0	53	4.0	3.7	3.4	3.1
3.3	3.6	3.9	4.3	54	4.3	3.9	3.6	3.3
3.6	3.8	4.2	4.5	55	4.5	4.2	3.8	3.5
3.8	4.1	4.4	4.8	56	4.8	4.4	4.0	3.7
4.0	4.3	4.7	5.1	57	5.1	4.6	4.3	3.9
4.3	4.6	5.0	5.4	58	5.4	4.9	4.5	4.1
4.5	4.8	5.3	5.7	59	5.6	5.1	4.7	4.3
4.7	5.1	5.5	6.0	60	5.9	5.4	4.9	4.5
4.9	5.3	5.8	6.3	61	6.1	5.6	5.1	4.7
5.1	5.6	6.0	6.5	62	6.4	5.8	5.3	4.9
5.3	5.8	6.2	6.8	63	6.6	6.0	5.5	5.1
5.5	6.0	6.5	7.0	64	6.9	6.3	5.7	5.3
5.7	6.2	6.7	7.3	65	7.1	6.5	5.9	5.5
5.9	6.4	6.9	7.5	66	7.3	6.7	6.1	5.6
6.1	6.6	7.1	7.7	67	7.5	6.9	6.3	5.8
6.3	6.8	7.3	8.0	68	7.7	7.1	6.5	6.0
6.5	7.0	7.6	8.2	69	8.0	7.3	6.7	6.1
6.6	7.2	7.8	8.4	70	8.2	7.5	6.9	6.3
6.8	7.4	8.0	8.6	71	8.4	7.7	7.0	6.5
7.0	7.6	8.2	8.9	72	8.6	7.8	7.2	6.6
7.2	7.7	8.4	9.1	73	8.8	8.0	7.4	6.8
7.3	7.9	8.6	9.3	74	9.0	8.2	7.5	6.9
7.5	8.1	8.8	9.5	75	9.1	8.4	7.7	7.1
7.6	8.3	8.9	9.7	76	9.3	8.5	7.8	7.2
7.8	8.4	9.1	9.9	77	9.5	8.7	8.0	7.4
7.9	8.6	9.3	10.1	78	9.7	8.9	8.2	7.5
8.1	8.7	9.5	10.3	79	9.9	9.1	8.3	7.7
8.2	8.9	9.6	10.4	80	10.1	9.2	8.5	7.8
8.4	9.1	9.8	10.6	81	10.3	9.4	8.7	8.0
8.5	9.2	10.0	10.8	82	10.5	9.6	8.8	8.1
8.7	9.4	10.2	11.0	83	10.7	9.8	9.0	8.3
8.9	9.6	10.4	11.3	84	11.0	10.1	9.2	8.5
9.1	9.8	10.6	11.5	85	11.2	10.3	9.4	8.7
9.3	10.0	10.8	11.7	86	11.5	10.5	9.7	8.9
9.5	10.2	11.1	12.0	87	11.7	10.7	9.9	9.1
9.7	10.5	11.3	12.2	88	12.0	11.0	10.1	9.3
9.9	10.7	11.5	12.5	89	12.2	11.2	10.3	9.5
10.1	10.9	11.8	12.7	90	12.5	11.4	10.5	9.7
10.3	11.1	12.0	13.0	91	12.7	11.7	10.7	9.9
10.5	11.3	12.2	13.2	92	13.0	11.9	10.9	10.1
10.7	11.5	12.4	13.4	93	13.2	12.1	11.1	10.2
10.8	11.7	12.6	13.7	94	13.5	12.3	11.3	10.4
11.0	11.9	12.8	13.9	95	13.7	12.6	11.5	10.6
11.2	12.1	13.1	14.1	96	14.0	12.8	11.7	10.8
11.4	12.3	13.3	14.4	97	14.2	13.0	12.0	11.0
11.6	12.5	13.5	14.6	98	14.5	13.3	12.2	11.2
11.8	12.7	13.7	14.9	99	14.8	13.5	12.4	11.4
12.0	12.9	14.0	15.2	100	15.0	13.7	12.6	11.6

Weight-for-Height Look-Up Table
Children 24–59 Months

[WHO 2006 Child Growth Standards]

If a child is 2 years old or older, or if a child is at least 87 cm tall and his/her age is not known, measure standing height. If a child 2 years old or older or at least 87 cm tall is unable to stand, measure length while the child is lying down (recumbent) and subtract 0.7 cm from the length to arrive at a comparable height. Use the weight-for-height look-up table.

Boys' weight (kg)				Height	Girls' weight (kg)			
−3 SD	−2 SD	−1 SD	Median	(cm)	Median	−1 SD	−2 SD	−3 SD
5.9	6.3	6.9	7.4	65	7.2	6.6	6.1	5.6
6.1	6.5	7.1	7.7	66	7.5	6.8	6.3	5.8
6.2	6.7	7.3	7.9	67	7.7	7.0	6.4	5.9
6.4	6.9	7.5	8.1	68	7.9	7.2	6.6	6.1
6.6	7.1	7.7	8.4	69	8.1	7.4	6.8	6.3
6.8	7.3	7.9	8.6	70	8.3	7.6	7.0	6.4
6.9	7.5	8.1	8.8	71	8.5	7.8	7.1	6.6
7.1	7.7	8.3	9.0	72	8.7	8.0	7.3	6.7
7.3	7.9	8.5	9.2	73	8.9	8.1	7.5	6.9
7.4	8.0	8.7	9.4	74	9.1	8.3	7.6	7.0
7.6	8.2	8.9	9.6	75	9.3	8.5	7.8	7.2
7.7	8.4	9.1	9.8	76	9.5	8.7	8.0	7.3
7.9	8.5	9.2	10.0	77	9.6	8.8	8.1	7.5
8.0	8.7	9.4	10.2	78	9.8	9.0	8.3	7.6
8.2	8.8	9.6	10.4	79	10.0	9.2	8.4	7.8
8.3	9.0	9.7	10.6	80	10.2	9.4	8.6	7.9
8.5	9.2	9.9	10.8	81	10.4	9.6	8.8	8.1
8.7	9.3	10.1	11.0	82	10.7	9.8	9.0	8.3
8.8	9.5	10.3	11.2	83	10.9	10.0	9.2	8.5
9.0	9.7	10.5	11.4	84	11.1	10.2	9.4	8.6
9.2	10.0	10.8	11.7	85	11.4	10.4	9.6	8.8
9.4	10.2	11.0	11.9	86	11.6	10.7	9.8	9.0
9.6	10.4	11.2	12.2	87	11.9	10.9	10.0	9.2
9.8	10.6	11.5	12.4	88	12.1	11.1	10.2	9.4
10.0	10.8	11.7	12.6	89	12.4	11.4	10.4	9.6
10.2	11.0	11.9	12.9	90	12.6	11.6	10.6	9.8
10.4	11.2	12.1	13.1	91	12.9	11.8	10.9	10.0
10.6	11.4	12.3	13.4	92	13.1	12.0	11.1	10.2
10.8	11.6	12.6	13.6	93	13.4	12.3	11.3	10.4
11.0	11.8	12.8	13.8	94	13.6	12.5	11.5	10.6
11.1	12.0	13.0	14.1	95	13.9	12.7	11.7	10.8
11.3	12.2	13.2	14.3	96	14.1	12.9	11.9	10.9
11.5	12.4	13.4	14.6	97	14.4	13.2	12.1	11.1
11.7	12.6	13.7	14.8	98	14.7	13.4	12.3	11.3
11.9	12.9	13.9	15.1	99	14.9	13.7	12.5	11.5
12.1	13.1	14.2	15.4	100	15.2	13.9	12.8	11.7
12.3	13.3	14.4	15.6	101	15.5	14.2	13.0	12.0
12.5	13.6	14.7	15.9	102	15.8	14.5	13.3	12.2
12.8	13.8	14.9	16.2	103	16.1	14.7	13.5	12.4
13.0	14.0	15.2	16.5	104	16.4	15.0	13.8	12.6
13.2	14.3	15.5	16.8	105	16.8	15.3	14.0	12.9
13.4	14.5	15.8	17.2	106	17.1	15.6	14.3	13.1
13.7	14.8	16.1	17.5	107	17.5	15.9	14.6	13.4
13.9	15.1	16.4	17.8	108	17.8	16.3	14.9	13.7
14.1	15.3	16.7	18.2	109	18.2	16.6	15.2	13.9
14.4	15.6	17.0	18.5	110	18.6	17.0	15.5	14.2
14.6	15.9	17.3	18.9	111	19.0	17.3	15.8	14.5
14.9	16.2	17.6	19.2	112	19.4	17.7	16.2	14.8
15.2	16.5	18.0	19.6	113	19.8	18.0	16.5	15.1
15.4	16.8	18.3	20.0	114	20.2	18.4	16.8	15.4
15.7	17.1	18.6	20.4	115	20.7	18.8	17.2	15.7
16.0	17.4	19.0	20.8	116	21.1	19.2	17.5	16.0
16.2	17.7	19.3	21.2	117	21.5	19.6	17.8	16.3
16.5	18.0	19.7	21.6	118	22.0	19.9	18.2	16.6
16.8	18.3	20.0	22.0	119	22.4	20.3	18.5	16.9
17.1	18.6	20.4	22.4	120	22.8	20.7	18.9	17.3

Action Protocols for Children 6–59 Months with SAM in Outpatient Care

Reason	Referral to Inpatient Care	Home Visit
GENERAL CONDITION	Deteriorating	Child is absent or defaulting Child is not gaining weight or losing weight on follow-up visit Child returned from Inpatient Care or refused referral to Inpatient Care
BILATERAL PITTING OEDEMA	Severe (grade +++)	
	Any severity of bilateral pitting oedema (+ ++ +++) with severe wasting	
	Increase in bilateral pitting oedema	
	Bilateral pitting oedema not reducing by week 3	
ANOREXIA*	Poor appetite or unable to eat – failed appetite test with RUTF	
VOMITING*	Intractable vomiting	
CONVULSIONS*	Convulsions since the last visit, based on mother's/caregiver's recall/report	
LETHARGY, NOT ALERT*	Child is difficult to awaken	
UNCONSCIOUSNESS*	Child does not respond to painful stimuli	
HYPOGLYCAEMIA	A clinical sign in a child with SAM is eyelid retraction: Child sleeps with eyes slightly open. Low level of blood glucose (< 3 mmol/L)	
DEHYDRATION	Severe dehydration is assumed if there is recent history of profuse watery diarrhoea and if the eyes have recently become sunken (recent = within 24 hours); ask mother/caregiver to confirm these conditions	
HIGH FEVER	Axillary temperature ≥ 38.5° C, rectal temperature ≥ 39.0° C, taking into consideration the ambient temperature	
HYPOTHERMIA	Axillary temperature < 35.0° C, rectal temperature < 35.5° C, taking into consideration the ambient temperature	
RESPIRATION RATE	≥ 60 breaths/minute for children under 2 months	
	≥ 50 breaths/minute for children 2–12 months	
	≥ 40 breaths/minute for children 1–5 years	
	Any chest in-drawing	
ANAEMIA	Palmer pallor or unusual paleness of skin	
SKIN LESION	Broken skin, fissures, flaking of skin	
SUPERFICIAL INFECTION	Any infection requiring intramuscular antibiotic treatment	
WEIGHT CHANGES	Below admission weight on week 3	
	Weight loss for 2 consecutive visits	
	Static weight for 3 consecutive visits	
NO RESPONSE TO TREATMENT	Static weight or weight loss, or no reduction of oedema	
REQUEST	Mother/caregiver requests treatment of child in Inpatient Care for social reasons (decided by supervisor)	

* IMNCI danger sign

Routine Medicine Protocols and Vaccines for Children 6–59 Months with SAM in Outpatient Care

Name of Medication	When to Give	Age/Weight	Prescription	Dose
AMOXICILLIN	On admission if **no** medical complication	6–59 months	Amoxicillin 45–90 mg/kg/day	15–30 mg/kg, 3 times per day, for 5 days, orally
ALBENDAZOLE or MEBENDAZOLE	After 1 week, for presumptive treatment	≥ 12 months	1–2 years: Albendazole 200 mg Mebendazole 300 mg > 2 years: Albendazole 400 mg Mebendazole 600 mg	Albendazole: 1–2 years: 200 mg single dose > 2 years: 400 mg single dose Mebendazole: 1–2 years: 300 mg single dose > 2 years: 600 mg single dose
VITAMIN A	On week 4 or discharge (and oedema free) **if no eye signs** of vitamin A deficiency	6–59 months	6–11 months: 100,000 IU ≥ 12 months: 200,000 IU	Delayed single dose

Folic Acid and Iron:

- The child on a RUTF diet receives neither folic acid nor iron, as the daily dose of RUTF contains sufficient iron (10 mg/100 g or 500 kcal) and folic acid (210 µg/100 g or 500 kcal).

Zinc:

- Zinc is not given in case of diarrhoea, as the daily dose of RUTF contains sufficient zinc (daily dose provides 30–45 mg of elemental zinc).

Antimalarial Drugs:

- Refer to the national guidelines for first-, second- and third-line treatment and for when to give or not give presumptive malaria treatment.

Vaccination:

- Give measles vaccine if child > 9 months and has not yet received the measles vaccine.
- Update all vaccines.

Other Medicine Protocols for Children 6–59 Months with SAM in Outpatient Care*

Name of Medication	When to Give	Prescription and Dose	Special Instructions
CHLORAMPHENICOL	For SAM without medical complications (second-line antibiotic)	Capsules 250 mg: < 10 kg: 125 mg, ≥ 10 kg: 250 mg 3 times per day, for 7 days, orally	Use as second-line antibiotic to treat confirmed minor infections after first-line antibiotic, in the absence of fever.
AMOXICILLIN-CLAVULANIC ACID	For SAM without medical complications (second-line antibiotic)	45–90 mg/kg/day: 15–30 mg/kg, 3 times per day, for 7 days, orally	Use as second-line antibiotic to treat confirmed minor infections after first-line antibiotic, in the absence of fever.
TETRACYCLINE EYE OINTMENT *or* CHLORAMPHENICOL EYE DROPS	For treatment of eye infection	1 drop, 2 times per day 1 drop, 4 times per day	Wash hands before and after use; wash eyes before application; continue for 2 days after disappearance of signs of infection.
NYSTATIN	For treatment of candidiasis	100,000 units (1 ml) 4 times per day after food, for 7 days	Use dropper and show caregiver how to use it.
PARACETAMOL	For treatment of fever over 38.5° C	10 mg/kg	All children with high fever have to be referred to Inpatient Care.
BENZYL BENZOATE	For treatment of scabies	Apply over whole body; repeat without bathing on following day; wash off 24 hours later	Avoid eye contact; do not use on broken or secondary infected skin.
WHITFIELDS	For treatment of ringworm, taenia or fungal infections of the skin	Apply 2 times per day	Continue treatment until condition has completely resolved.
GENTIAN VIOLET	For treatment of minor abrasions or fungal infections of the skin	Apply on lesion	Can be repeated; continue until condition has resolved.

*Not listed: medicine protocols for treating other infections and infestations, such as tuberculosis, HIV, giardiasis; refer to the national treatment protocols.

RUTF Appetite Test for Children 6–59 Months with SAM in Outpatient Care

The appetite is tested upon admission and at each follow-up visit to the health facility in Outpatient Care.

- Explain to the mother/caregiver:
  - What is ready-to-use therapeutic food (RUTF)
  - The purpose of the test and the procedure

- Advise the mother/caregiver to:
  - Wash her hands before giving the RUTF
  - Sit with her child in her lap and gently offer the RUTF
  - Encourage the child to eat the RUTF without force feeding
  - Offer plenty of clean water, to drink from a cup, when her child is eating the RUTF

- Observe the child eating the RUTF in 30 minutes and decide if the child passes or fails the test.

Pass Appetite Test	Fail Appetite Test
The child eats at least one-third of a packet of RUTF (92 g) or 3 teaspoons from a pot within 30 minutes.	The child does NOT eat one-third of a packet of RUTF (92 g) or 3 teaspoons from a pot within 30 minutes.

Note: If necessary, arrange a quiet corner where the child and mother/caregiver can take their time to get accustomed to eating the RUTF. Usually the child eats the RUTF in 30 minutes. A child who fails the appetite test should be admitted to Inpatient Care.

Use of RUTF in Children 6–59 Months with SAM in Outpatient Care

Amounts of 92 g Packets of RUTF Containing 500 kcal to Give to a Child per Week or Day Based on a Dosage of 200 kcal/kg/day

Child's Weight (kg)	*Packets per Week*	*Packets per Day*
4.0 – 4.9	14	2
5.0 – 6.9	18	2.5
7.0 – 8.4	21	3
8.5 – 9.4	25	3.5
9.5 – 10.4	28	4
10.5 – 11.9	32	4.5
≥ 12.0	35	5

RUTF Key Messages in Outpatient Care

The following RUTF key messages should be given to the mother when RUTF is introduced in Outpatient Care and repeated during follow-up visits:

1. Do not share RUTF. RUTF is a food and medicine for very thin and swollen children only.
2. Give small, regular meals of RUTF and encourage the child to eat often (5–6 meals per day). Your child should have ___ packets per day. Thin and swollen children often don't like to eat.
3. Continue to breastfeed regularly (if applicable). Offer breast milk first before every RUTF feed.
4. Do not give other food. RUTF is the only food apart from breast milk that thin and swollen children need to recover during their time in Outpatient Care. Other foods, such as homemade foods (use local name or porridge), will be introduced when the child is recovering well.
5. Offer the child plenty of clean water to drink while he/she is eating RUTF. Children will need more water than normal.
6. Wash the child's hands and face with soap before feeding if possible.
7. Keep food clean and covered.
8. Keep the child covered and warm. Thin and swollen children get cold quickly.
9. Do not stop feeding when a child has diarrhoea. Continue to feed RUTF and (if applicable) breast milk.
10. Return to the health facility whenever the child's condition deteriorates or if the child is not eating sufficiently.

Advise the mother to start giving nutritious homemade complementary foods when the child is recovering well.

Guidance Table to Identify Target Weight for Discharge from Management of Severe Acute Malnutrition for Children 6–59 Months

Weight on admission* (kg)	Target weight: 15% weight gain	Weight on admission* (kg)	Target weight: 15% weight gain
4.1	4.7	8.1	9.3
4.2	4.8	8.2	9.4
4.3	4.9	8.3	9.5
4.4	5.1	8.4	9.7
4.5	5.2	8.5	9.8
4.6	5.3	8.6	9.9
4.7	5.4	8.7	10.0
4.8	5.5	8.8	10.1
4.9	5.6	8.9	10.2
5.0	5.8	9.0	10.4
5.1	5.9	9.1	10.5
5.2	6.0	9.2	10.6
5.3	6.1	9.3	10.7
5.4	6.2	9.4	10.8
5.5	6.3	9.5	10.9
5.6	6.4	9.6	11.0
5.7	6.6	9.7	11.2
5.8	6.7	9.8	11.3
5.9	6.8	9.9	11.4
6.0	6.9	10.0	11.5
6.1	7.0	10.1	11.6
6.2	7.1	10.2	11.7
6.3	7.2	10.3	11.8
6.4	7.4	10.4	12.0
6.5	7.5	10.5	12.1
6.6	7.6	10.6	12.2
6.7	7.7	10.7	12.3
6.8	7.8	10.8	12.4
6.9	7.9	10.9	12.5
7.0	8.0	11.0	12.7
7.1	8.2	11.1	12.8
7.2	8.3	11.2	12.9
7.3	8.4	11.3	13.0
7.4	8.5	11.4	13.1
7.5	8.6	11.5	13.2
7.6	8.7	11.6	13.3
7.7	8.9	11.7	13.5
7.8	9.0	11.8	13.6
7.9	9.1	11.9	13.7
8.0	9.2	12.0	13.8

*weight free of oedema

Entry and Exit Categories for Monitoring the Management of Severe Acute Malnutrition in Children 6–59 Months

Inpatient Care	Outpatient Care
ENTRY CATEGORIES	
New admission: New case of child 6–59 months who meets the admission criteria – including *relapse* after cure (within 2 months)	***New admission:*** New case of child 6–59 months who meets the admission criteria – including *relapse* after cure (within 2 months)
Other age group new admissions: New case of infant, child, adolescent, adult (< 6 months or ≥ 5 years) who is admitted for treatment of SAM in Inpatient Care	***Other new admissions:*** New case who does not meet preset admission criteria but needs treatment of SAM in Outpatient Care (special case, based on decision of supervisor)
Referral from Outpatient Care: Condition of child deteriorated in Outpatient Care (according to action protocol) and child needs Inpatient Care	***Referral from Inpatient Care:*** Child 6–59 months referred from Inpatient Care after stabilisation and continues treatment in Outpatient Care
Or	Or
***Returned* after defaulting** (within 2 months) (or *Moved* from other Inpatient Care site)*	***Returned* after defaulting** (within 2 months) (or *Moved* from other Outpatient Care site)*
EXIT CATEGORIES	
Referred to Outpatient Care: Child's condition has stabilised; child's appetite has returned; the medical complication is resolving; and child is referred to Outpatient Care to continue treatment	***Referred to Inpatient Care:*** Child's condition has deteriorated or child is not responding to treatment (per the action protocol), and child is referred to Inpatient Care
Discharged cured: Child 6–59 months who remained in Inpatient Care until full recovery and meets discharge criteria, i.e., special cases that were not referred to Outpatient Care earlier	***Discharged cured:*** Child 6–59 months who meets discharge criteria
Discharged died: Child 6–59 months who dies while in Inpatient Care	***Discharged died:*** Child 6–59 months who dies while in Outpatient Care
Discharged defaulted: Child 6–59 months who is absent for 2 days	***Discharged defaulted:*** Child 6–59 months who is absent for 2 consecutive weeks
Discharged non-recovered: Child 6–59 months who remained in Inpatient Care and does not reach discharge criteria after 2 months in treatment	***Discharged non-recovered:*** Child 6–59 months who does not reach discharge criteria after 4 months in treatment

* Movement between sites is likely in mobile populations or during emergencies.