



# ANTHROPOMETRY TOOL

Anthropometry is the measurement of the size, weight and proportions of the human body, which is used to assess nutritional status. Common anthropometric measures are height, weight, and mid-upper arm circumference (MUAC). Some measurements are presented as indices, such as body mass index (BMI), and some are recorded as z-scores, such as weight-for-height z-score (WHZ), and body mass index (BMI)-for-age z-score. Incorrect anthropometric measurement leads to incorrect results and therefore inappropriate classification and management of malnourished clients. This tool helps choose the measurements/indices to use for different clients and interpret the results to classify nutritional status. Whenever possible, the same measurement or index should be used both to assess nutritional status on the first visit and to monitor recovery from malnutrition.

Group	Measurement or index to use	Severe acute malnutrition (SAM)*	Moderate acute malnutrition (MAM)	Normal	Overweight**	Obesity**
<b>Children</b> 0–59 months	Weight-for-height z-score (WHZ)	Below –3	–3 to below –2	–2 to below +2	+2 to below +3	+3 and above
6–59 months	Mid-upper arm circumference (MUAC)	Below 11.5 cm	11.5 cm to below 12.5 cm	12.5 cm to below 21.0 cm	21.0 cm and above	–
5–9 years		Below 13.5 cm	13.5 cm to below 14.5 cm	14.5 cm and above	–	–
10–14 years		Below 16.0 cm	16.0 cm to below 18.5 cm	18.5 cm and above	–	–
<b>Adolescents</b> 15–17 years and <b>adults</b>		Below 18.5 cm	18.5 cm to below 22.0 cm	22.0 cm and above	–	–
<b>Women who are pregnant</b> or up to 6 months <b>postpartum</b>		Below 19.0 cm	19.0 cm to below 23.0 cm	23.0 cm and above	–	–
<b>Adults</b> (not pregnant or postpartum)	Body mass index (BMI)	Below 16.0	16.0 to below 18.5	18.5 to below 25.0	25.0 to below 30.0	30.0 and above
<b>Children and adolescents</b> 5–17 years	BMI-for-age z-score	Below –3 ***	–3 to below –2****	–2 to below +1	+1 to below +2	+2 and above
<b>Management</b>		Inpatient if medical complications or fails appetite test; outpatient if no medical complications and passes appetite test		Nutrition counselling	Nutrition counselling	Nutrition counselling

\* Anyone with bilateral pitting oedema (once non-nutritional causes have been ruled out) should be classified as SAM with medical complications, regardless of anthropometric measurements.

\*\* WHO has not established MUAC cutoffs for overweight or obesity for clients 5 years and above.

\*\*\* ‘Severely underweight’ on the BMI wheel

\*\*\*\* ‘Moderately underweight’ on the BMI wheel

