



**Focus on
Undernutrition™**
Nutrition and Dietetic Service

'MUST' Alternative Measurements TAPE

Contains 20 disposable tapes

Based on the 'Main Nutrition Universal Screening Tool' ('MUST') developed by BAPEN
To order more tapes visit: www.focusonundernutrition.co.uk



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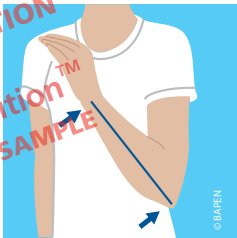
Ulna Height Conversion Table developed by BAPEN

Created February 2012 • Single use only

HEIGHT(m)	Men(≤65years)	1.94	1.93	1.91	1.89	1.87	1.85	1.84	1.82	1.80	1.78	1.76	1.75	1.73	1.71	1.69	1.67	1.66	1.64	1.62	1.60	1.58	1.57	1.55	1.53	1.51	1.49	1.48	1.46
HEIGHT(m)	Men(≥65years)	1.87	1.86	1.84	1.82	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67	1.65	1.63	1.62	1.60	1.59	1.57	1.56	1.54	1.52	1.51	1.49	1.48	1.46	1.45
	Ulna length(cm)	32.0	31.5	31.0	30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.5	25.0	24.5	24.0	23.5	23.0	22.5	22.0	21.5	21.0	20.5	20.0	19.5	19.0	18.5
HEIGHT(m)	Women(≤65years)	1.84	1.83	1.81	1.80	1.79	1.77	1.76	1.75	1.73	1.72	1.70	1.69	1.68	1.66	1.65	1.63	1.62	1.61	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47
HEIGHT(m)	Women(≥65years)	1.84	1.83	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.66	1.65	1.63	1.61	1.60	1.58	1.56	1.55	1.53	1.52	1.50	1.48	1.47	1.45	1.44	1.42	1.40

Estimating Height from Ulna Length

Using the measuring tape on the reverse, measure between the point of the elbow (olecranon process) and the midpoint of the prominent bone of the wrist (styloid process) (left side if possible). Find the matching ulna length (red figures) in the table to determine the subject's height.

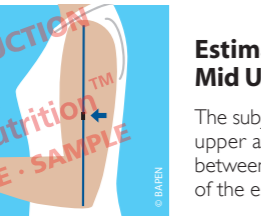


The alternative measurements from the 'Malnutrition Universal Screening Tool' ('MUST') are reproduced here with the kind permission of BAPEN (British Association for Parenteral and Enteral Nutrition) www.bapen.org.uk.
 *For further details on screening for undernutrition using 'MUST' refer to "The 'MUST' Explanatory Booklet", which can be downloaded from www.bapen.org.uk/must_notes.html



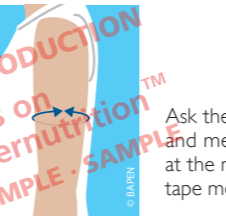
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Estimating Body Mass Index (BMI) Category from Mid Upper Arm Circumference (MUAC)

The subject's left arm should be bent at the elbow at a 90° angle, with the upper arm held parallel to the side of the body. Measure the distance between the bony protrusion on the shoulder (acromion) and the point of the elbow (olecranon process). Mark the mid-point.



Ask the subject to let arm hang loose and measure around the upper arm at the mid-point, making sure that the tape measure is snug but not tight.

Please note: the use of MUAC provides a general indication of BMI and is not designed to generate an actual score for use with 'MUST'. For further information on use of MUAC please refer to The 'MUST' Explanatory Booklet.*

- If MUAC is < 23.5 cm, then BMI is likely to be underweight or < 20 kg/m².
% change MUAC = $\frac{\text{Past MUAC} - \text{Present MUAC}}{\text{Past MUAC}} \times 100$
- If MUAC is > 32.0 cm, then BMI is likely to be obese or > 30 kg/m²



Focus on Undernutrition

Nutrition and Dietetic Service

www.focusonundernutrition.co.uk

County Durham
and Darlington



NHS Foundation Trust

