

02

Care planning to promote holistic wellbeing

Aim

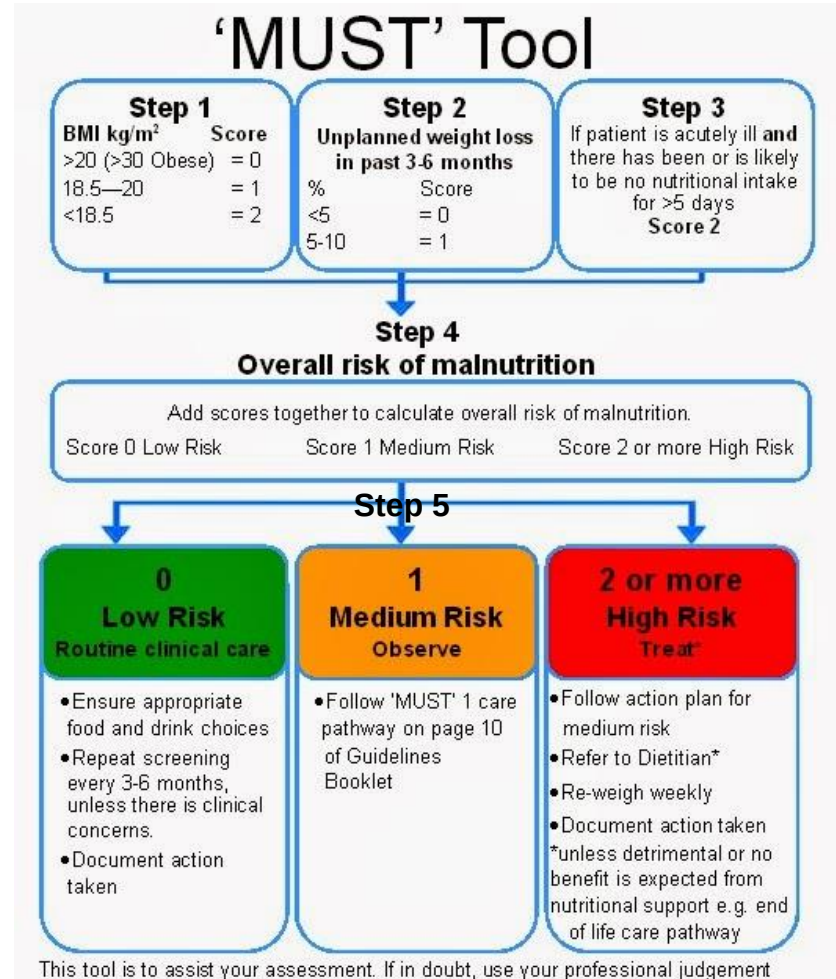
To explore holistic wellbeing in care plans.



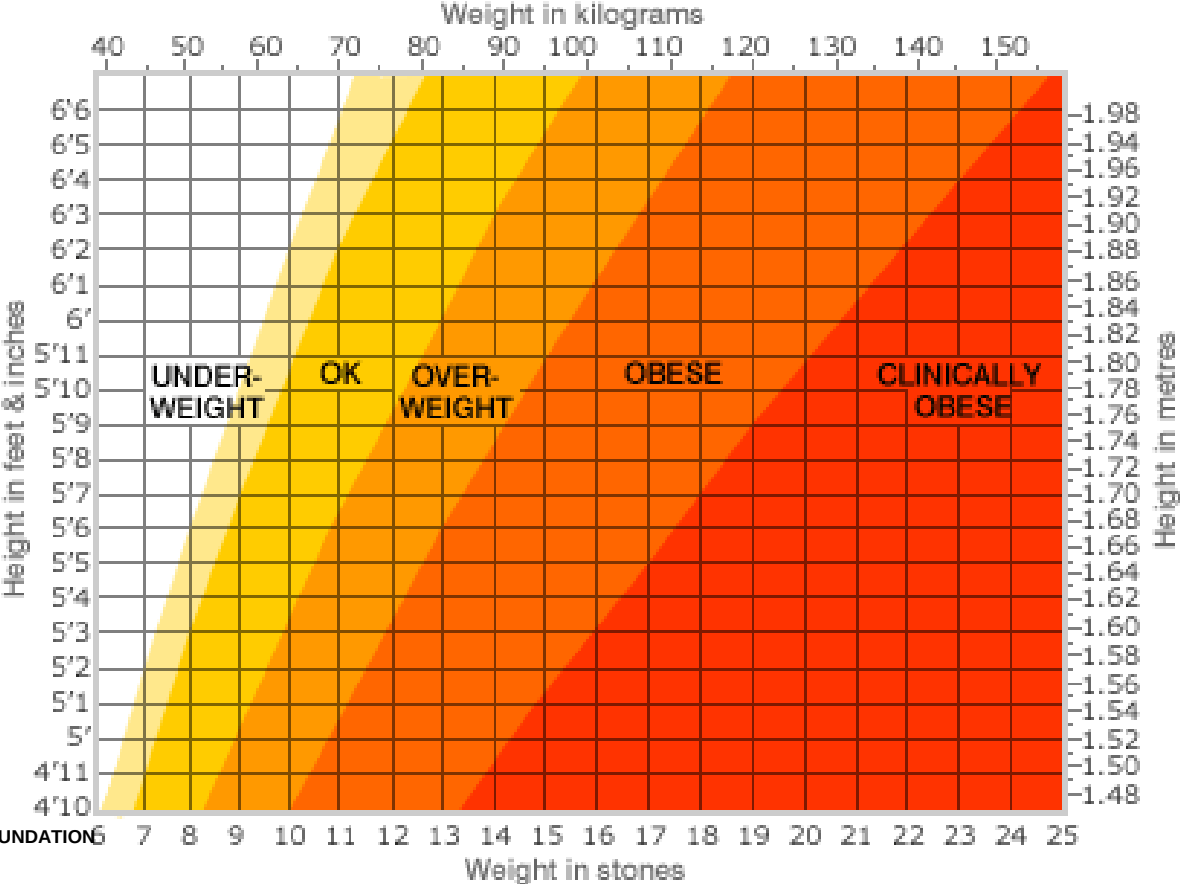
Everyone is different in terms of height, weight and body mass.

MUST

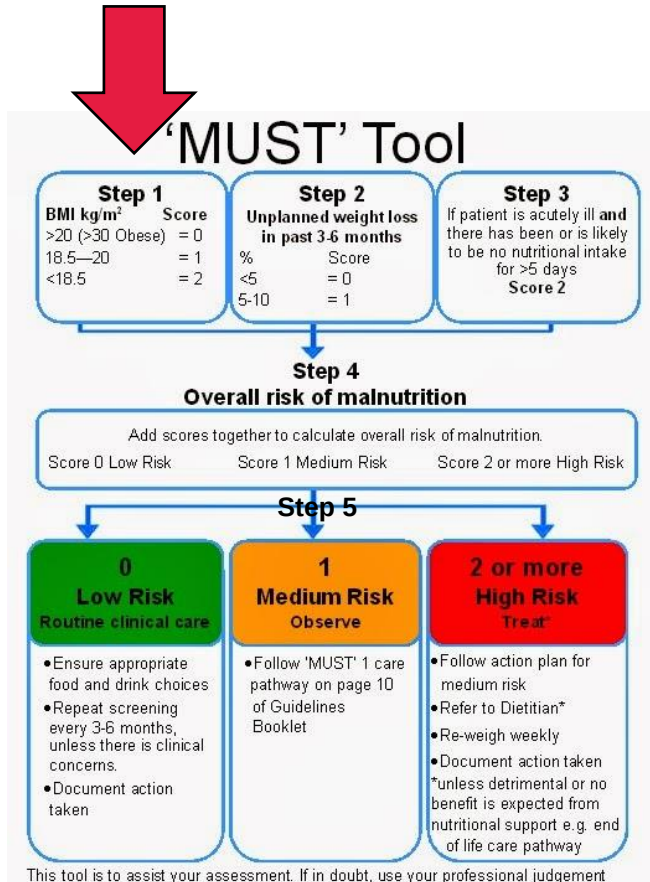
The malnutrition universal screening tool (MUST) uses a five-step screening process to identify adults who are malnourished, at risk of malnutrition (undernutrition) or obese. It also includes management guidelines that can be used to develop a care plan. It is used in hospitals and community and other care settings and can be used by all care workers.



Step one – body mass index (BMI)



Step one – calculating BMI



You can calculate your BMI by dividing your weight in kilograms by your height squared in metres

Step one – calculating BMI

$$\text{BMI} = \text{weight in kg} / \text{height in m}^2$$

Once you have calculated a BMI you can identify the score:

Over 20 (>30 obese) =0

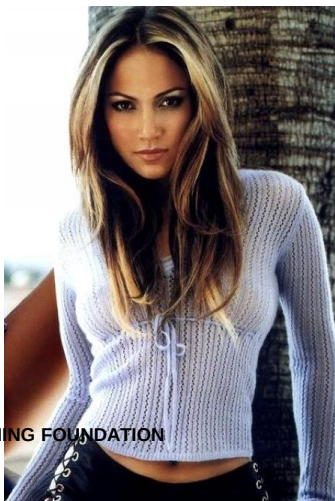
18.5 – 20 =1

Under 18.5 =2

Calculating the BMI of celebrities

$$\text{BMI} = \text{weight (kg)} / \text{height (m)}^2$$

Jennifer Lopez
is 1.75m tall and
weighs 68kg.



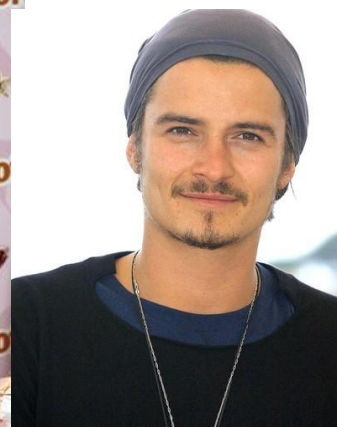
Will Smith is
1.95m tall and
weighs 100kg.



Paris Hilton is
1.70m tall and
weighs 50kg.



Orlando Bloom
is 1.80m tall and
weighs 69kg.



There are occasions when we cannot obtain measurements

The patient:

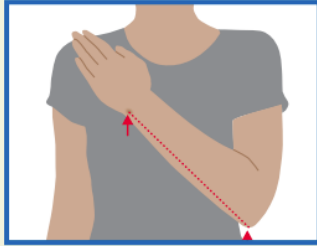
- may be too weak to stand or move
- may be bed bound and not able to be moved because of the potential risk to them or to staff
- may not be compliant and refuses all means of obtaining measurements

There are occasions when we cannot obtain measurements

If height cannot be measured:

- Use recently documented or self-reported height (if reliable and realistic).
- If the subject does not know or is unable to report their height, use one of the alternative
- measurements to estimate height (ulna, knee height or demispan).

Estimating height from ulna length



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).

HEIGHT (m)	Men (<65 years)	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
	Men (>65 years)	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
	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
HEIGHT (m)	Women (<65 years)	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
	Women (>65 years)	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
HEIGHT (m)	Men (<65 years)	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
	Men (>65 years)	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)	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 (<65 years)	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
	Women (>65 years)	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

Source from NHS Wales

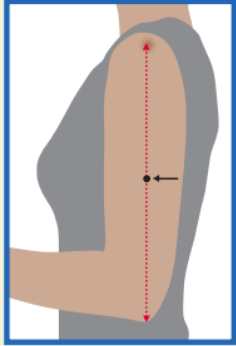
<https://www.wales.nhs.uk/documents/MUST%20Nutritional%20Screen.pdf>

There are occasions when we cannot obtain measurements

If height & weight cannot be obtained:

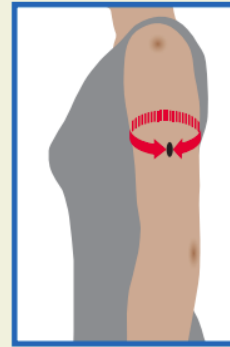
- Use mid upper arm circumference (MUAC) measurement to estimate BMI category.

Estimating BMI category from mid upper arm circumference (MUAC)



The subject's left arm should be bent at the elbow at a 90 degree 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.



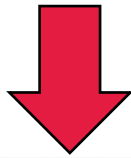
If MUAC is < 23.5 cm, BMI is likely to be < 20 kg/m².

If MUAC is > 32.0 cm, BMI is likely to be > 30 kg/m².

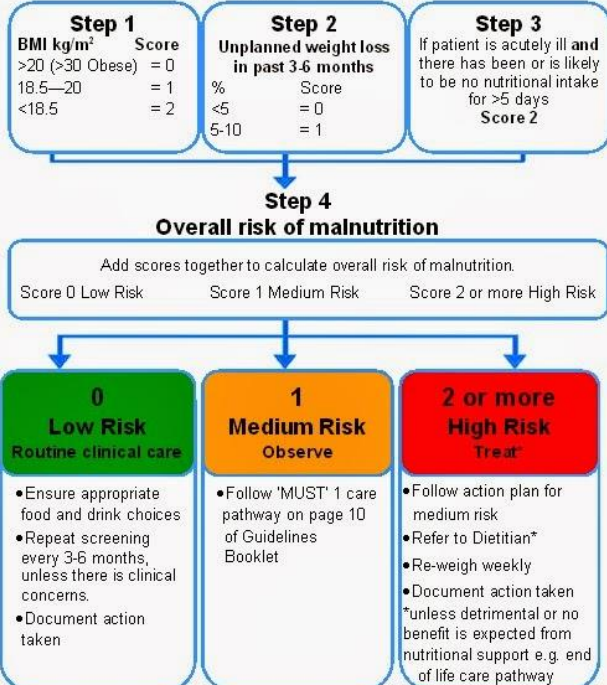
The use of MUAC provides a general indication of BMI and is not designed to generate an actual score for use with 'MUST'. For further information on use of MUAC please refer to *The 'MUST' Explanatory Booklet*.

Source from NHS Wales

<https://www.wales.nhs.uk/documents/MUST%20Nutritional%20Screen.pdf>



'MUST' Tool



This tool is to assist your assessment. If in doubt, use your professional judgement

APEN
a patient eating and drinking assessment

KILOGRAMS

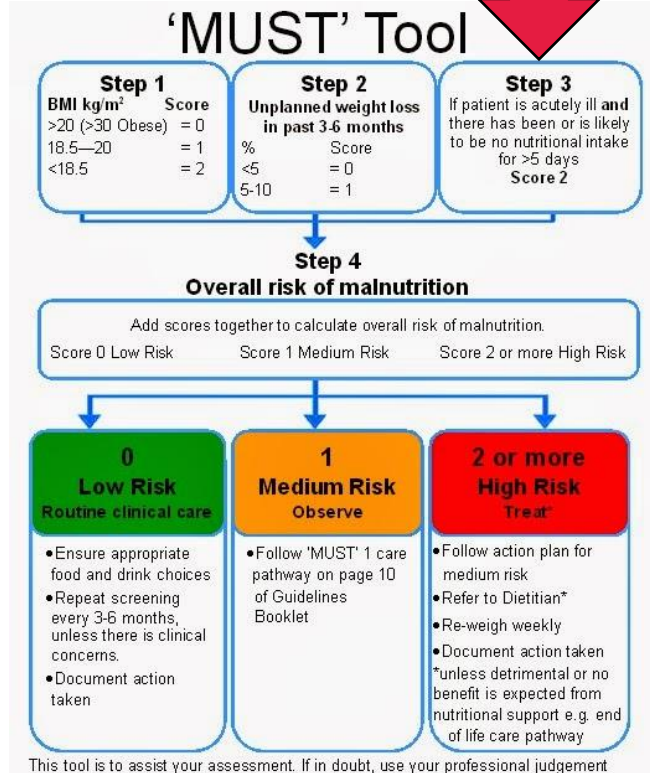
	Score 0 WL loss < 5%	Score 1 WL loss 5 - 10%	Score 2 WL loss > 10%
Weight loss in last 3 to 6 months			
kg	Less than (kg)	Between (kg)	More than (kg)
30	1.5	1.6 - 3.3	3.3
31	1.6	1.6 - 3.4	3.4
32	1.7	1.7 - 3.6	3.6
33	1.7	1.7 - 3.7	3.7
34	1.8	1.8 - 3.8	3.8
35	1.8	1.8 - 3.9	3.9
36	1.9	1.9 - 4.0	4.0
37	1.9	1.9 - 4.1	4.1
38	2.0	2.0 - 4.2	4.2
39	2.1	2.1 - 4.3	4.3
40	2.1	2.1 - 4.4	4.4
41	2.2	2.2 - 4.6	4.6
42	2.2	2.2 - 4.7	4.7
43	2.3	2.3 - 4.8	4.8
44	2.3	2.3 - 4.9	4.9
45	2.4	2.4 - 5.0	5.0
46	2.4	2.4 - 5.1	5.1
47	2.5	2.5 - 5.2	5.2
48	2.5	2.5 - 5.3	5.3
49	2.6	2.6 - 5.4	5.4
50	2.6	2.6 - 5.6	5.6
51	2.7	2.7 - 5.7	5.7
52	2.7	2.7 - 5.8	5.8
53	2.8	2.8 - 5.9	5.9
54	2.8	2.8 - 6.0	6.0
55	2.9	2.9 - 6.1	6.1
56	2.9	2.9 - 6.2	6.2
57	3.0	3.0 - 6.3	6.3
58	3.1	3.1 - 6.4	6.4
59	3.1	3.1 - 6.6	6.6
60	3.2	3.2 - 6.7	6.7
61	3.2	3.2 - 6.8	6.8
62	3.3	3.3 - 6.9	6.9
63	3.3	3.3 - 7.0	7.0
64	3.4	3.4 - 7.1	7.1

KILOGRAMS

	Score 0 WL loss < 5%	Score 1 WL loss 5 - 10%	Score 2 WL loss > 10%
Weight loss in last 3 to 6 months			
kg	Less than (kg)	Between (kg)	More than (kg)
65	3.4	3.4 - 7.2	7.2
66	3.5	3.5 - 7.3	7.3
67	3.5	3.5 - 7.4	7.4
68	3.6	3.6 - 7.6	7.6
69	3.6	3.6 - 7.7	7.7
70	3.7	3.7 - 7.8	7.8
71	3.7	3.7 - 7.9	7.9
72	3.8	3.8 - 8.0	8.0
73	3.8	3.8 - 8.1	8.1
74	3.9	3.9 - 8.2	8.2
75	3.9	3.9 - 8.3	8.3
76	4.0	4.0 - 8.4	8.4
77	4.1	4.1 - 8.6	8.6
78	4.1	4.1 - 8.6	8.7
79	4.2	4.2 - 8.7	8.8
80	4.2	4.2 - 8.9	8.9
81	4.3	4.3 - 9.0	9.0
82	4.3	4.3 - 9.1	9.1
83	4.4	4.4 - 9.2	9.2
84	4.4	4.4 - 9.3	9.3
85	4.5	4.5 - 9.4	9.4
86	4.5	4.5 - 9.6	9.6
87	4.6	4.6 - 9.7	9.7
88	4.6	4.6 - 9.8	9.8
89	4.7	4.7 - 9.9	9.9
90	4.7	4.7 - 10.0	10.0
91	4.8	4.8 - 10.1	10.1
92	4.8	4.8 - 10.2	10.2
93	4.9	4.9 - 10.3	10.3
94	4.9	4.9 - 10.4	10.4
95	5.0	5.0 - 10.6	10.6
96	5.1	5.1 - 10.7	10.7
97	5.1	5.1 - 10.8	10.8
98	5.2	5.2 - 10.9	10.9
99	5.2	5.2 - 11.0	11.0

Step two – weight loss

Step three – acute illness



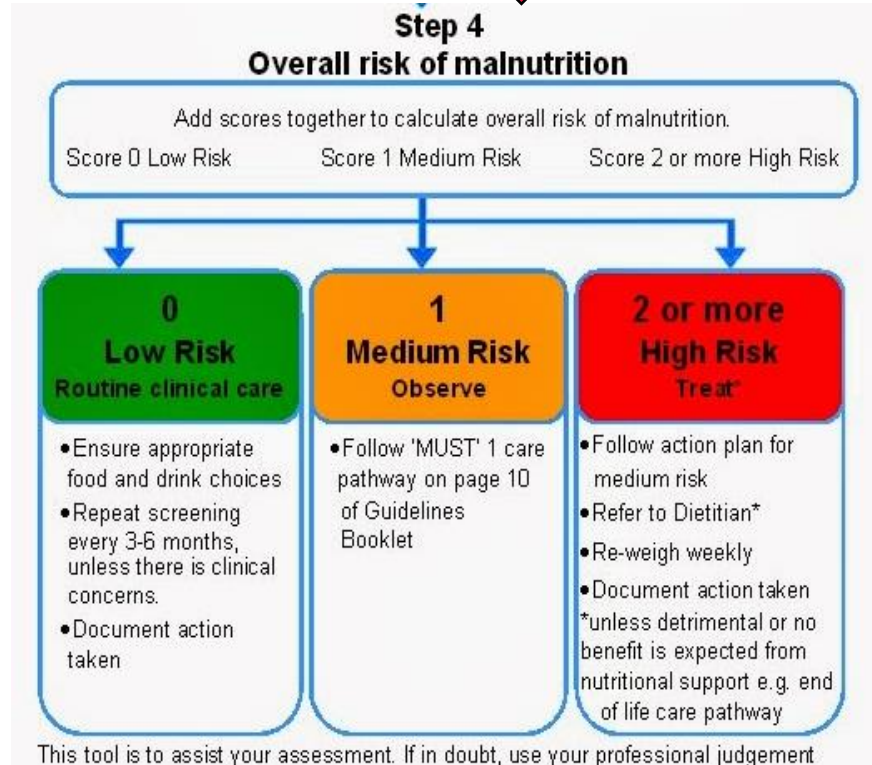
Has the patient / service user been unwell?

Have they had their expected nutritional intake?

If they have not had their expected nutritional intake for five days score two.

Step four – what is the overall risk of malnutrition?

- Add the scores from steps one, two and three together.
- This gives the total score for the MUST.
- The score indicates an overall low, medium or high risk.



Summary of five MUST steps

- Step one: Measure height and weight to calculate a BMI score using the chart provided.
- Step two: Note the percentage of unplanned weight loss and score it using tables provided.
- Step three: Establish acute disease effect and score.
- Step four: Add scores from steps one, two and three together to obtain the overall risk of malnutrition.
- Step five: Use management guidelines and local policy to develop a care plan.

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