Leicestershire Nutrition & Dietetic Services

Medical Devices Competency Statement

Calculating Body Mass Index (BMI) in Adults

SELF-ASSESSMENT

Surname:		Forename(s):	
Job title/Designation:		Line Manager:	
Department / Base:		Extension number:	

Self- Verification of competence is undertaken by assessment against the following statements:

- Responsibility for competency remains with the individual, so if you are in any doubt regarding your competence to perform this measurement, you should seek further training.
- To perform the measurement you must follow instructions below before considering yourself to be competent.
- If you are not competent, inform your Line Manager for further training and repeat self-verification by completing a new form.

To be able to undertake this self-assessment you must first be competent in measuring height and weight (see weight and height self-assessment competencies)

1. Obtain the patient's weight in kilograms (Kg), using approved scales. If it is not possible to weigh the patient a recalled or estimated weight should be used.

2. Measure the patient's height in metres (m). If it is not possible to obtain an accurate height a recall height should be used.

    An estimated height (via ulna length measurement please see BAPEN MUST Tool online for more information) should only be used if it is not possible to measure the patient or obtain a recall height accurately.

3. To calculate the BMI the following calculation should be used:

    $\dfrac{\text{Weight in Kg}}{(\text{Height in m})^2}$ = BMI in Kg/m^2

    For example, for a patient weighing 70kg with a height of 1.73m:

    Calculate height in m^2 : 1.73m x 1.73m = 2.99m^2
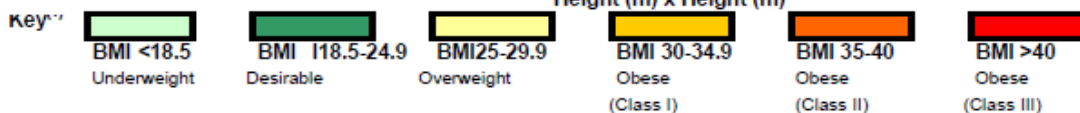
    70kg ÷ 2.99m^2 = 23.4 Kg/m^2

4. BMI can also be calculated using a BMI chart:

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BODY MASS INDEX READY RECKONER FOR ADULTS

Height (m)

weight (kg)	1.38	1.42	1.46	1.50	1.54	1.58	1.62	1.66	1.70	1.74	1.78	1.82	1.86	1.90	1.94	1.98	weight (st/lbs)
150	79	74	70	67	63	60	57	54	52	50	47	45	43	42	40	38	23st 8
148	78	73	69	66	62	59	56	54	51	49	47	45	43	41	39	38	23st 3
146	77	72	68	65	62	58	56	53	51	48	46	44	42	40	39	37	22st 13
144	76	71	68	64	61	58	55	52	50	48	45	43	42	40	38	37	22st 9
142	75	70	67	63	60	57	54	52	49	47	45	43	41	39	38	36	22st 4
140	74	69	66	62	59	56	53	51	48	46	44	42	40	39	37	36	22st
138	72	68	65	61	58	55	53	50	48	46	44	42	40	38	37	35	21st 10
136	71	67	64	60	57	54	52	49	47	45	43	41	39	38	36	35	21st 5
134	70	66	63	60	57	54	51	49	46	44	42	40	39	37	36	34	21st 1
132	69	65	62	59	56	53	50	48	46	44	42	40	38	37	35	34	20st 10
130	68	64	61	58	55	52	50	47	45	43	41	39	38	36	35	33	20st 6
128	67	63	60	57	54	51	49	46	44	42	40	39	37	35	34	33	20st 2
126	66	62	59	56	53	50	48	46	44	42	40	38	36	35	33	32	19st 12
124	65	61	58	55	52	50	47	45	43	41	39	37	36	34	33	32	19st 7
122	64	61	57	54	51	49	46	44	42	40	39	37	35	34	32	31	19st 3
120	63	60	56	53	51	48	46	44	42	40	38	36	35	33	32	31	18st 13
118	62	59	55	52	50	47	45	43	41	39	37	36	34	33	31	30	18st 8
116	61	58	54	52	49	46	44	42	40	38	37	35	34	32	31	30	18st 4
114	60	57	53	51	48	46	43	41	39	38	36	34	33	32	30	29	17st 13
112	59	56	53	50	47	45	43	41	39	37	35	34	32	31	30	29	17st 9
110	58	55	52	49	46	44	42	40	38	36	35	33	32	30	29	28	17st 5
108	57	54	51	48	46	43	41	39	37	36	34	33	31	30	29	28	17st
106	56	53	50	47	45	42	40	38	37	35	33	32	31	29	28	27	16st 10
104	55	52	49	46	44	42	40	38	36	34	33	31	30	29	28	27	16st 5
102	54	51	48	45	43	41	39	37	35	34	32	31	29	28	27	26	16st 1
100	53	50	47	44	42	40	38	36	35	33	32	30	29	28	27	26	15st 10
98	51	49	46	44	41	39	37	36	34	32	31	30	28	27	26	25	15st 6
96	50	48	45	43	40	38	37	35	33	32	30	29	28	27	26	24	15st 2
94	49	47	44	42	40	38	36	34	33	31	30	28	27	26	25	24	14st 11
92	48	46	43	41	39	37	35	33	32	30	29	28	27	25	24	23	14st 7
90	47	45	42	40	38	36	34	33	31	30	28	27	26	25	24	23	14st 2
88	46	44	41	39	37	35	34	32	30	29	28	27	25	24	23	22	13st 12
86	45	43	40	38	36	34	33	31	30	28	27	26	25	24	23	22	13st 8
84	44	42	39	37	35	34	32	30	29	28	27	25	24	23	22	21	13st 3
82	43	41	38	36	35	33	31	30	28	27	26	25	24	23	22	21	12st 13
80	42	40	38	36	34	32	30	29	28	26	25	24	23	22	21	20	12st 8
78	41	39	37	35	33	31	30	28	27	26	25	24	23	22	21	20	12st 4
76	40	38	36	34	32	30	29	28	26	25	24	23	22	21	20	19	12st
74	39	37	35	33	31	30	28	27	26	24	23	22	21	20	20	19	11st 9
72	38	36	34	32	30	29	27	26	25	24	23	22	21	20	19	18	11st 5
70	37	35	33	31	30	28	27	25	24	23	22	21	20	19	19	18	11st
68	36	34	32	30	29	27	26	25	24	22	21	21	20	19	18	17	10st 10
66	35	33	31	29	28	26	25	24	23	22	21	20	19	18	18	17	10st 6
64	34	32	30	28	27	26	24	23	22	21	20	19	18	18	17	16	10st 1
62	33	31	29	28	26	25	24	22	21	20	20	19	18	17	16	16	9st 11
60	32	30	28	27	25	24	23	22	21	20	19	18	17	17	16	15	9st 6
58	30	29	27	26	24	23	22	21	20	19	18	18	17	16	15	15	9st 2
56	29	28	26	25	24	22	21	20	19	18	18	17	16	16	15	14	8st 11
54	28	27	25	24	23	22	21	20	19	17	17	16	16	15	14	14	8st 7
52	27	26	24	23	22	21	20	19	18	17	16	16	15	14	14	13	8st 3
50	26	25	23	22	21	20	19	18	17	17	16	15	14	14	13	13	7st 12
48	25	24	23	21	20	19	18	17	17	16	15	14	14	13	13	12	7st 8
46	24	23	22	20	19	18	18	17	16	15	15	14	13	13	12	12	7st 3
44	23	22	21	20	19	18	17	16	15	15	14	13	13	12	12	11	6st 13
42	22	21	20	19	18	17	16	15	15	14	13	13	12	12	11	11	6st 9
40	21	20	19	18	17	16	15	15	14	13	13	12	12	11	10	10	6st 4
38	20	19	18	17	16	15	14	14	13	13	12	11	11	11	10	10	6st
36	19	18	17	16	15	14	14	13	12	12	11	11	10	10	9	9	5st 9
	4' 6½	4' 8	4' 9½	4' 11	5' ½"	5' 2	5' 4	5' 5½	5' 7	5' 8½	5' 10	5' 11½	6' 1	6' 3	6' 4½	6' 6	

Height (ft/in)

To Calculate BMI:

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$$

Key[1]

BMI <18.5	BMI 18.5-24.9	BMI 25-29.9	BMI 30-34.9	BMI 35-40	BMI >40
Underweight	Desirable	Overweight	Obese (Class I)	Obese (Class II)	Obese (Class III)

CLASSIFICATION OF OVERWEIGHT AND OBESITY IN CHILDREN

The Child Growth Foundation Body Mass Index Percentile chart [2] should be used to identify overweight and obese children:

Overweight: BMI >/= 91st centile

Obese: BMI >/= 98th centile

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5. To interpret the BMI the following table should be used:

Category	BMI	BMI Asian origin
Underweight	<18.5	<18.5
Healthy	18.5 - 24.9	18.5 - 22.9
Overweight	25 - 29.9	23 - 27.4
Obese Class 1	30 - 34.9	27.5 - 32.4
Obese Class 11	35 - 39.9	32.5 - 37.4
Obese Class 111	>40	>37.5

Statement

I am able to perform the measurement & have taken into account my personal assessment of my competence with the measurement, I declare that:

I am competent to perform the measurement without further training.

Signature: Date:

I require further training before I can perform this measurement in a competent manner.

Signature: Date:

Pass this form to your manager to add to your personal records