

Managing Weight and Body Composition

Chapter 6
Lesson 1



Body Image

- ✓ The way you see your body
 - Affected by media images & attitudes of friends & family
 - Could also be tied perception of weight
- ✓ To manage weight you must understand calories

Calories

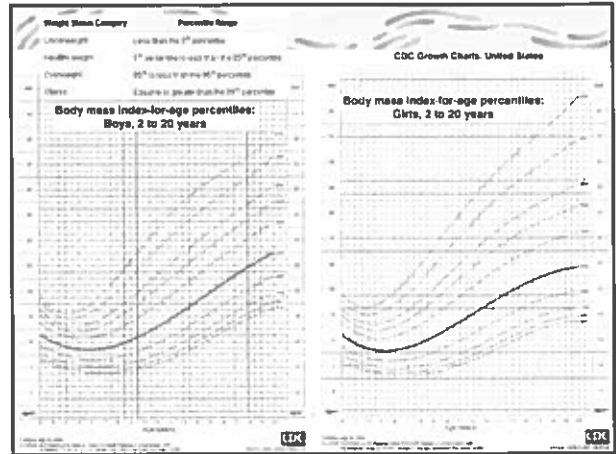
- ✓ A unit to measure energy – measure the energy in food and energy your body burns – are not nutrients
- ✓ Carbohydrates = 4 calories/gram
- Proteins = 4 calories/gram
- Fats = 9 calories/gram
- High-fat foods → sweet & gooey, crisp & greasy
- Low-fat foods → watery, crisp, but not greasy, & bulky (high in fiber)
- You use calories all day, even when you sleep**

How many calories should you consume?

- ✓ Depends on gender, age, height, body frame, growth rate, metabolic rate, & activity level
- ✓ Calories consumed must equal calories burned
- ✓ Consume fewer calories than you use = weight loss
- ✓ Consume more calories than you use = weight gain
- ✓ Each pound of body fat = 3,500 calories
- ✓ Healthy = lose 1lb/week = 500 calories less/day

Body Mass Index (BMI)

- Is a ratio that allows you to assess your body size in relation to your height and weight
- Weight in pounds x 703 / (height in inches)²
- There are charts to compare – but keep in mind there is no single size, shape, or growth pattern for everyone

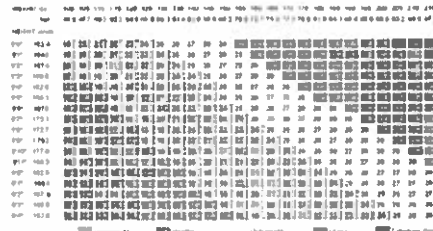


Interpreting Your BMI

- If your BMI is 19 to 24.9 you have a healthy weight.
- If your BMI is 25 to 29.9 you are considered to be overweight and may incur moderate health risks.
- If your BMI is 30+ you are considered to be obese. Obesity is linked to increased risk of cancer, heart disease and other health problems.

Weight in pounds	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250
5'0"	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5'1"	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
5'2"	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
5'3"	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
5'4"	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
5'5"	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
5'6"	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
5'7"	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
5'8"	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5'9"	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
5'10"	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
5'11"	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
6'0"	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
6'1"	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
6'2"	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
6'3"	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
6'4"	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
6'5"	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
6'6"	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Healthy Weight?



HEIGHT AND WEIGHT TABLES*

*Weights at ages 22-28 based on lowest available. We give no pounds allowance, so draw the border (holding weighing & lbs. for men and 2 lbs. for women, above with 7" scale).

MEN				WOMEN			
Age	Height	Weight	Age	Height	Weight	Age	Height
22	5'0"	125	22	4'8"	105	22	5'0"
23	5'1"	130	23	4'9"	110	23	5'1"
24	5'2"	135	24	4'10"	115	24	5'2"
25	5'3"	140	25	4'11"	120	25	5'3"
26	5'4"	145	26	5'0"	125	26	5'4"
27	5'5"	150	27	5'1"	130	27	5'5"
28	5'6"	155	28	5'2"	135	28	5'6"
29	5'7"	160	29	5'3"	140	29	5'7"
30	5'8"	165	30	5'4"	145	30	5'8"
31	5'9"	170	31	5'5"	150	31	5'9"
32	5'10"	175	32	5'6"	155	32	5'10"
33	5'11"	180	33	5'7"	160	33	5'11"
34	6'0"	185	34	5'8"	165	34	6'0"
35	6'1"	190	35	5'9"	170	35	6'1"
36	6'2"	195	36	5'10"	175	36	6'2"
37	6'3"	200	37	5'11"	180	37	6'3"
38	6'4"	205	38	6'0"	185	38	6'4"
39	6'5"	210	39	6'1"	190	39	6'5"
40	6'6"	215	40	6'2"	195	40	6'6"
41	6'7"	220	41	6'3"	200	41	6'7"
42	6'8"	225	42	6'4"	205	42	6'8"
43	6'9"	230	43	6'5"	210	43	6'9"
44	6'10"	235	44	6'6"	215	44	6'10"
45	6'11"	240	45	6'7"	220	45	6'11"
46	7'0"	245	46	6'8"	225	46	7'0"
47	7'1"	250	47	6'9"	230	47	7'1"
48	7'2"	255	48	6'10"	235	48	7'2"
49	7'3"	260	49	6'11"	240	49	7'3"
50	7'4"	265	50	7'0"	245	50	7'4"
51	7'5"	270	51	7'1"	250	51	7'5"
52	7'6"	275	52	7'2"	255	52	7'6"
53	7'7"	280	53	7'3"	260	53	7'7"
54	7'8"	285	54	7'4"	265	54	7'8"
55	7'9"	290	55	7'5"	270	55	7'9"
56	7'10"	295	56	7'6"	275	56	7'10"
57	7'11"	300	57	7'7"	280	57	7'11"
58	8'0"	305	58	7'8"	285	58	8'0"
59	8'1"	310	59	7'9"	290	59	8'1"
60	8'2"	315	60	7'10"	295	60	8'2"
61	8'3"	320	61	7'11"	300	61	8'3"
62	8'4"	325	62	8'0"	305	62	8'4"
63	8'5"	330	63	8'1"	310	63	8'5"
64	8'6"	335	64	8'2"	315	64	8'6"
65	8'7"	340	65	8'3"	320	65	8'7"
66	8'8"	345	66	8'4"	325	66	8'8"
67	8'9"	350	67	8'5"	330	67	8'9"
68	8'10"	355	68	8'6"	335	68	8'10"
69	8'11"	360	69	8'7"	340	69	8'11"
70	9'0"	365	70	8'8"	345	70	9'0"
71	9'1"	370	71	8'9"	350	71	9'1"
72	9'2"	375	72	8'10"	355	72	9'2"
73	9'3"	380	73	8'11"	360	73	9'3"
74	9'4"	385	74	9'0"	365	74	9'4"
75	9'5"	390	75	9'1"	370	75	9'5"
76	9'6"	395	76	9'2"	375	76	9'6"
77	9'7"	400	77	9'3"	380	77	9'7"
78	9'8"	405	78	9'4"	385	78	9'8"
79	9'9"	410	79	9'5"	390	79	9'9"
80	9'10"	415	80	9'6"	395	80	9'10"
81	9'11"	420	81	9'7"	400	81	9'11"
82	10'0"	425	82	9'8"	405	82	10'0"
83	10'1"	430	83	9'9"	410	83	10'1"
84	10'2"	435	84	9'10"	415	84	10'2"
85	10'3"	440	85	9'11"	420	85	10'3"
86	10'4"	445	86	10'0"	425	86	10'4"
87	10'5"	450	87	10'1"	430	87	10'5"
88	10'6"	455	88	10'2"	435	88	10'6"
89	10'7"	460	89	10'3"	440	89	10'7"
90	10'8"	465	90	10'4"	445	90	10'8"
91	10'9"	470	91	10'5"	450	91	10'9"
92	10'10"	475	92	10'6"	455	92	10'10"
93	10'11"	480	93	10'7"	460	93	10'11"
94	11'0"	485	94	10'8"	465	94	11'0"
95	11'1"	490	95	10'9"	470	95	11'1"
96	11'2"	495	96	10'10"	475	96	11'2"
97	11'3"	500	97	10'11"	480	97	11'3"
98	11'4"	505	98	11'0"	485	98	11'4"
99	11'5"	510	99	11'1"	490	99	11'5"
100	11'6"	515	100	11'2"	495	100	11'6"

Why Controlling Body Fat Is Important?

Body Composition

- Is the ratio between body fat to lean body tissue
- Measuring body composition is a better way to determine a healthy weight
- Use calipers & skin folds to determine the percent of body fat
- Males (15 & ^) – chest, abdomen, & thigh → desired 11 to 18%
- Females (15 & ^) – triceps, thigh, top of the hip → desired 16 to 23%

Recommended Body Fat Levels for men and women:

Flattest appearance	Body Fat	Healthy range	Overweight	Obese
20-30yrs	Below 8%	8 - 10%	10 - 25%	over 25%
31-40yrs	Below 9%	9 - 10%	10 - 25%	over 25%
41-50yrs	Below 11%	11 - 22%	22 - 27%	over 27%
51-60yrs	Below 11%	11 - 22%	22 - 27%	over 27%
61-70yrs	Below 12%	11 - 23%	24 - 30%	over 30%
71-80yrs	Below 12%	11 - 23%	24 - 30%	over 30%
Example: age range	Body Fat	Healthy range	Overweight	Obese
20-30yrs	Below 21%	21 - 28%	29 - 30%	over 30%
31-40yrs	Below 21%	21 - 28%	29 - 30%	over 30%
41-50yrs	Below 23%	23 - 31%	32 - 40%	over 40%
51-60yrs	Below 23%	23 - 31%	32 - 40%	over 40%
61-70yrs	Below 24%	24 - 30%	30 - 42%	over 42%
71-80yrs	Below 24%	24 - 30%	30 - 42%	over 42%

Weight-Related Health Risks

- ✓ Too heavy or too thin = health problems
- ✓ **Overweight** – is a condition in which a person is heavier than the standard weight range for his/her height – can be fat or muscle
- ✓ **Obesity** - excess body fat, or adipose tissue

Obesity: A Hazard to Health

- ✓ Strains the body frame & increase work load of the heart and the lungs
- ✓ Increase possibility of hypertension, diabetes, cardiovascular disease, cancers & osteoarthritis
- ✓ Excess body fat during adolescence affects self-esteem & social health
- ✓ Two main reasons why people gain weight: sedentary life-style & poor food habits
- ✓ Set point theory = biological set point for weight & body fat → metabolic rate decreases when caloric intake goes down

Underweight: A Health Risk

- ✓ **Underweight** – condition in which a person is less than the standard weight range for his/her height
 - No body fat as an energy reserve
 - Less protective nutrients the body stores → unable to fight infection
- ✓ **Undernutrition** - not consuming enough essential nutrients or calories for normal body functions
 - Greater chance for iron-deficiency anemia & osteoporosis

Healthful Ways To Manage Weight

- ✓ Target your appropriate weight
- ✓ Set smart goals – 1/2 to 1 pound/week
- ✓ Personalize your plan – consider food preferences & lifestyle
- ✓ Put your goal & plan in writing
- ✓ Stick to your plan
- ✓ Evaluate your progress - avoid weighing daily
 - Think positively - if you slip, try again
 - Recognize that plateaus are normal

Healthy Weight Loss Strategies

- ✓ Eat at least 1,700 to 1,800 calories daily to meet your energy needs
 - Need at least 1,400 calories/day
- ✓ Include favorites in moderation
 - Eat smaller portions & less frequently
- ✓ Eat nutrient-dense foods
 - those foods high in nutrients relative to their caloric content
 - Whole-grains, vegetables, & fruit
- ✓ Drink plenty of water

Healthy Weight-Gain Strategies

- ✓ Increase caloric intake
 - like complex carbohydrates (bread, pastas, potatoes)
 - Limit high fat & sugar foods
- ✓ Eat often & eat 2nd helpings
- ✓ Eat nutritious snacks
- ✓ Build muscle
 - Resistance-training → increase weight by increasing muscle mass

Physical Activity & Weight Management

- ✓ Aerobic exercise → burns calories & burns fat
- ✓ Resistance training → increase muscle mass
 - More lean muscle tissue increases the number of calories burned, even at rest
- ✓ Benefits of regular physical activity
 - Relieve stress to prevent over- or undereating
 - Promotes normal appetite response
 - Increases self-esteem
- ✓ Maintain weight → eat right & regular physical activity

