

appendix C

Energy Expenditure in Household, Occupational, Recreational, and Sports Activities^{a,b}

HOW TO USE APPENDIX C

Refer to the column that comes closest to current body mass. Multiply the number in this column by the number of minutes spent in an activity. Suppose an individual weighing 62.3 kg (137 lb) spends 30 minutes playing a casual game of

billiards. To determine the energy cost of participation, multiply the caloric value per minute (2.6 kCal) by 30 to obtain the 30-minute gross expenditure of 78 kCal. If the same individual does aerobic dance for 45 minutes, the *gross* (value includes resting energy expenditure) energy expended would be calculated as 6.4 kCal \times 45 minutes, or 288 kCal.

^aAll values for energy expenditure are in kilocalories (kCal) per minute.

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Your Body Weight

Activity	kg lb	47 104	50 110	53 117	56 123	59 130	62 137	65 143	68 150
Archery nonhunting, recreational			2.9	3.2	3.4	3.6	3.8	4.0	4.2
Backpacking without load		5.7	6.1	6.4	6.8	7.1	7.5	7.9	8.2
Badminton leisure		4.6	4.9	5.1	5.4	5.7	6.0	6.3	6.6
Baking, general (F)		1.6	1.8	1.9	2.0	2.1	2.2	2.3	2.4
Baseball									
catcher			4.5	4.8	5.1	5.4	5.6	5.9	6.2
infielder			3.8	4.3	4.5	4.7	5.0	5.2	5.5
outfielder			3.7	4.1	4.3	4.5	4.8	5.0	5.2
pitcher			4.6	5.2	5.5	5.8	6.1	6.4	6.7
playing catch			2.1	2.3	2.5	2.6	2.7	2.8	3.0
Basketball game (pickup, playground)			6.6	7.4	7.8	8.3	8.7	9.1	9.5
Bench stepping									
30 step-cycles/min 8 in. bench			7.3	8.3	8.8	9.2	9.7	10.2	10.6
30 step-cycles/min 12 in. bench			8.7	9.9	10.4	11.0	11.6	12.1	12.7
Bowling		4.4	4.8	5.2	5.4	5.7	6.0	6.3	6.6
Calisthenics, warm-ups		3.4	3.7	4.0	4.2	4.4	4.7	4.9	5.1
Circuit resistance training									
Free weights		4.0	4.3	4.5	4.8	5.0	5.3	5.5	5.8
Hydraulic		6.2	6.6	7.0	7.4	7.8	8.2	8.6	9.0
Nautilus		4.3	4.6	4.9	5.2	5.5	5.8	6.0	6.3
Universal		5.3	5.8	6.2	6.5	6.9	7.2	7.5	7.9
Cooking (F)		2.1	2.3	2.4	2.5	2.7	2.8	2.9	3.1
Cooking (M)		2.3	2.4	2.5	2.7	2.8	3.0	3.1	3.3
Cycling									
leisure, 5.5 mph		3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4
leisure, 9.4 mph		4.8	5.0	5.3	5.6	5.9	6.2	6.5	6.8
racing, fast		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5
Dancing									
aerobic, easy		4.3	4.8	5.2	5.6	5.9	6.2	6.4	6.7
aerobic, medium		4.8	5.2	5.5	5.8	6.1	6.4	6.7	7.0
aerobic, intense		6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.2
ballroom		2.4	2.6	2.7	2.9	3.0	3.2	3.3	3.5
choreographed		5.0	5.2	5.5	5.8	6.1	6.4	6.7	7.0
“twist,” “lambada”		8.0	8.4	8.9	9.4	9.9	10.4	10.9	11.4
modern		3.4	3.6	3.8	4.0	4.3	4.5	4.7	4.9
Eating (sitting)		1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.6
Field hockey									
field game (competition structured)		6.5	6.7	7.1	7.5	7.9	8.3	8.7	9.1
practice		6.6	7.0	7.4	7.8	8.3	8.7	9.1	9.5
Fishing									
boat, sitting		5.6	6.1	6.5	6.9	7.2	7.6	8.0	8.3
riverbank, standing		2.1	2.2	2.3	2.5	2.6	2.7	2.8	3.0
stream, in waders		2.9	3.1	3.2	3.4	3.6	3.8	4.0	4.2
		5.0	5.3	5.6	5.9	6.2	6.5	6.8	7.1

Note: Symbols (M) and (F) denote experiments for males and females, respectively.

71 157	74 163	77 170	80 176	83 183	86 190	89 196	92 203	95 209	98 216
4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0
8.6	9.0	9.3	9.7	10.0	10.4	10.8	11.1	11.5	11.9
6.9	7.2	7.5	7.8	8.1	8.3	8.6	8.9	9.2	9.5
2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4
6.5	6.7	7.0	7.3	7.6	7.8	8.1	8.4	8.6	8.9
5.7	6.0	6.2	6.4	6.7	6.9	7.2	7.4	7.6	7.9
5.5	5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.3	7.5
7.0	7.3	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6
3.1	3.2	3.4	3.5	3.6	3.8	3.9	4.0	4.2	4.3
9.9	10.4	10.8	11.2	11.6	12.0	12.5	12.9	13.3	13.7
10.1	10.5	10.9	11.4	11.8	12.2	12.6	13.1	13.5	13.9
12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.6	16.1	16.6
6.9	7.2	7.5	7.7	8.1	8.4	8.6	8.9	9.2	9.5
5.3	5.5	5.8	6.0	6.2	6.5	6.7	6.9	7.1	7.3
6.1	6.3	6.6	6.8	7.1	7.4	7.6	7.9	8.1	8.4
9.4	9.7	10.2	10.5	10.9	11.4	11.7	12.1	12.5	12.9
6.6	6.8	7.1	7.4	7.7	8.0	8.2	8.5	8.8	9.1
8.3	8.6	8.9	9.3	9.6	10.0	10.3	10.7	11.0	11.4
3.2	3.3	3.5	3.6	3.7	3.9	4.0	4.1	4.3	4.4
3.4	3.6	3.7	3.8	4.0	4.1	4.3	4.4	4.6	4.7
4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3
7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.2	9.5	9.8
12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.1	16.6
6.9	7.2	7.5	7.8	8.1	8.4	8.8	9.1	9.4	9.7
7.3	7.6	7.9	8.2	8.5	8.9	9.2	9.5	9.8	10.1
9.6	10.0	10.4	10.8	11.2	11.6	12.0	12.4	12.8	13.2
3.6	3.8	3.9	4.1	4.2	4.4	4.5	4.7	4.8	5.0
7.3	7.6	7.9	8.2	8.5	8.9	9.2	9.5	9.8	10.1
11.9	12.4	12.9	13.4	13.9	14.4	15.0	15.5	16.0	16.5
5.1	5.3	5.6	5.8	6.0	6.2	6.4	6.7	6.9	7.1
1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.1	2.2	2.3
9.5	9.9	10.3	10.7	11.1	11.5	11.9	12.3	12.7	13.1
9.9	10.4	10.8	11.2	11.6	12.0	12.5	12.9	13.3	13.7
8.7	9.1	9.4	9.8	10.2	10.5	10.9	11.3	11.6	12.0
3.1	3.2	3.4	3.5	3.6	3.8	3.9	4.0	4.2	4.3
4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0
7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.7	10.0	10.3

4 APPENDIX

Your Body Weight—*continued*

Activity	kg lb	47 104	50 110	53 117	56 123	59 130	62 137	65 143	68 150
Football									
competition (structured play)		7.4	7.9	8.3	8.8	9.3	9.8	10.2	10.7
touch, flag, general		6.6	7.0	7.4	7.8	8.3	8.7	9.1	9.5
Frisbee									
general		2.4	2.6	2.8	2.9	3.1	3.3	3.4	3.6
Ultimate Frisbee (competition)		5.1	5.4	5.8	6.1	6.4	6.7	7.1	7.4
Gardening									
digging		5.9	6.3	6.7	7.1	7.4	7.8	8.2	8.6
hedging		3.3	3.9	4.1	4.3	4.5	4.8	5.0	5.2
mowing		5.3	5.6	5.9	6.3	6.6	6.9	7.3	7.6
raking		2.5	2.7	2.9	3.0	3.2	3.3	3.5	3.7
Golf									
carrying clubs		4.5	4.8	5.1	5.4	5.7	6.0	6.3	6.5
driving range		2.4	2.6	2.8	2.9	3.1	3.3	3.4	3.6
general		3.7	3.9	4.2	4.4	4.6	4.9	5.1	5.4
pulling clubs in cart		4.1	4.4	4.6	4.9	5.2	5.4	5.7	6.0
using power cart		2.9	3.1	3.2	3.4	3.6	3.8	4.0	4.2
Gymnastics		3.0	3.3	3.5	3.7	3.9	4.1	4.3	4.5
Handball		6.9	7.2	7.7	8.1	8.5	9.0	9.4	9.8
Horseback riding									
galloping		6.4	6.9	7.3	7.7	8.1	8.5	8.9	9.3
trotting		5.2	5.5	5.8	6.2	6.5	6.8	7.2	7.5
walking		1.9	2.1	2.2	2.3	2.4	2.5	2.7	2.8
Housework									
mopping floors		2.8	3.1	3.3	3.5	3.7	3.8	4.0	4.2
dusting		3.0	3.3	3.4	3.6	3.8	4.0	4.2	4.4
laundry		3.1	3.4	3.5	3.7	3.9	4.1	4.3	4.5
washing windows		3.2	3.5	3.6	3.8	4.0	4.2	4.4	4.6
vacuuming		3.0	3.3	3.4	3.6	3.8	4.0	4.2	4.4
Ice hockey									
game (structured)		6.6	7.0	7.4	7.8	8.3	8.7	9.1	9.5
practice		6.2	6.6	7.0	7.4	7.7	8.1	8.5	8.9
Judo		8.3	8.8	9.3	9.8	10.3	10.9	11.4	11.9
Jumping rope									
70 per min		7.6	8.1	8.6	9.1	9.6	10.0	10.5	11.0
80 per min		7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2
125 per min		8.3	8.9	9.4	9.9	10.4	11.0	11.5	12.0
145 per min		9.3	9.9	10.4	11.0	11.6	12.2	12.8	13.4
Kendo		9.3	9.7	10.2	10.8	11.4	12.0	12.6	13.2
Knitting, sewing		1.1	1.1	1.2	1.2	1.3	1.4	1.4	1.5
Lacrosse		7.0	7.4	7.9	8.3	8.7	9.2	9.6	10.1
Lying at ease, resting		1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.5
Mountain climbing		7.4	7.9	8.4	8.9	9.4	9.9	10.3	10.8
Motorcycle riding		6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.3
Music playing									
piano (sitting)		1.9	2.0	2.1	2.2	2.4	2.5	2.6	2.7
trumpet (standing)		1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.1
violin (sitting)		2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.1
Paddleball		8.5	8.9	9.4	10.0	10.5	11.0	11.6	12.1
Paddle tennis		8.4	8.6	9.1	9.6	10.1	10.7	11.1	11.7

71 157	74 163	77 170	80 176	83 183	86 190	89 196	92 203	95 209	98 216
11.2	11.7	12.1	12.6	13.1	13.5	14.0	14.5	15.0	15.4
9.9	10.4	10.8	11.2	11.6	12.0	12.5	12.9	13.3	13.7
3.7	3.9	4.0	4.2	4.4	4.5	4.7	4.8	5.0	5.1
7.7	8.0	8.4	8.7	9.0	9.3	9.7	10.0	10.3	10.6
8.9	9.3	9.7	10.1	10.5	10.8	11.2	11.6	12.0	12.3
5.5	5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.3	7.5
8.0	8.3	8.6	9.0	9.3	9.6	10.0	10.3	10.6	11.0
3.8	4.0	4.2	4.3	4.5	4.6	4.8	5.0	5.1	5.3
6.8	7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.1	9.4
3.7	3.9	4.0	4.2	4.4	4.5	4.7	4.8	5.0	5.1
5.6	5.8	6.1	6.3	6.5	6.8	7.0	7.2	7.5	7.7
6.2	6.5	6.7	7.0	7.3	7.5	7.8	8.1	8.3	8.6
4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0
4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5
10.3	10.7	11.2	11.5	12.0	12.5	12.9	13.3	13.7	14.2
9.7	10.1	10.6	11.0	11.4	11.8	12.2	12.6	13.0	13.4
7.8	8.1	8.5	8.8	9.1	9.5	9.8	10.1	10.5	10.8
2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.8	3.9	4.0
4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2
4.6	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3
4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5
4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6
4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4
9.9	10.4	10.8	11.2	11.6	12.0	12.5	12.9	13.3	13.7
9.3	9.7	10.1	10.5	10.9	11.3	11.7	12.1	12.5	12.9
12.4	13.0	13.5	14.0	14.5	15.1	15.6	16.1	16.6	17.2
11.5	12.0	12.5	13.0	13.4	13.9	14.4	14.9	15.4	15.9
11.6	12.1	12.6	13.1	13.6	14.1	14.6	14.6	15.6	16.1
12.6	13.1	13.6	14.2	14.7	15.2	15.8	16.3	16.8	17.3
14.0	14.6	15.2	15.8	16.4	16.9	17.5	18.1	18.7	19.3
13.7	14.3	14.9	15.5	16.1	16.7	17.3	17.8	18.4	19.0
1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.1	2.2
10.4	10.7	11.0	11.2	11.5	11.8	12.1	12.4	12.7	13.0
1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.1	2.2
11.3	11.7	12.2	12.7	13.2	13.7	14.1	14.6	15.0	15.6
9.7	10.1	10.5	10.9	11.3	11.7	12.1	12.5	12.9	13.3
2.8	3.0	3.1	3.2	3.3	3.4	3.6	3.7	3.8	3.9
2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.9	3.0
3.2	3.3	3.5	3.6	3.7	3.9	4.0	4.1	4.3	4.4
12.6	13.2	13.7	14.2	14.8	15.3	15.8	16.4	16.9	17.4
12.2	12.7	13.2	13.7	14.2	14.2	15.2	15.8	16.3	16.8

Your Body Weight—*continued*

Activity	kg lb	47 104	50 110	53 117	56 123	59 130	62 137	65 143	68 150
Racquetball		8.4	8.9	9.4	10.0	10.5	11.0	11.6	12.1
Roller skating									
inside, rink		5.4	5.7	6.0	6.4	6.7	7.1	7.4	7.7
outside, pavement		5.8	6.2	6.6	7.0	7.3	7.7	8.1	8.4
Rope jumping									
110 rpm		6.7	7.1	7.5	7.9	8.4	8.8	9.2	9.7
120 rpm		6.4	6.8	7.3	7.7	8.1	8.5	8.9	9.3
130 rpm		6.0	6.4	6.8	7.1	7.5	7.7	8.3	8.7
Rowing									
machine, moderate		5.7	6.0	6.3	6.7	7.0	7.4	7.7	8.1
machine, race pace		8.6	8.9	9.4	10.0	10.5	11.0	11.6	12.1
skull, leisure		4.7	5.0	5.3	5.5	5.9	6.2	6.4	6.8
skull, race pace		8.7	8.9	9.4	10.0	10.5	11.0	11.6	12.1
Running, cross-country		7.8	8.2	8.6	9.1	9.6	10.1	10.6	11.1
Running, on flat surface									
11 min, 30 s per mile		6.3	6.8	7.2	7.6	8.0	8.4	8.8	9.2
9 min per mile		9.1	9.7	10.2	10.8	11.4	12.0	12.5	13.1
Running, on flat surface,									
8 min per mile		9.8	10.8	11.3	11.9	12.5	13.1	13.6	14.2
7 min per mile		10.7	12.2	12.7	13.3	13.9	14.5	15.0	15.6
6 min per mile		11.8	13.9	14.4	15.0	15.6	16.2	16.7	17.3
5 min, 30 s per mile		13.6	14.5	15.3	16.2	17.1	17.9	18.8	19.7
Running—marathon									
5 h. 02 min (11:30 min/mi; 140 m/min)		5.5	5.8	6.2	6.5	6.9	7.2	7.6	7.9
4 h. 42 min (10:45 min/mi; 150 m/min)		5.9	6.3	6.7	7.1	7.5	7.9	8.2	8.6
4 h. 24 min (10:05 min/mi; 160 m/min)		6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.3
4 h. 10 min (9:32 min/mi; 170 m/min)		7.0	7.4	7.8	8.2	8.7	9.1	9.6	10.0
3 h. 55 min (9:00 min/mi; 180 m/min)		7.4	7.9	8.3	8.8	9.3	9.8	10.2	10.7
3 h. 43 min (8:30 min/mi; 190 m/min)		7.9	8.4	8.9	9.4	9.9	10.4	10.9	11.4
3 h. 31 min (8:05 min/mi; 200 m/min)		8.4	8.9	9.4	10.0	10.5	11.0	11.6	12.1
3 h. 21 min (7:40 min/mi; 210 m/min)		8.8	9.4	10.0	10.5	11.1	11.7	12.2	12.8
3 h. 12 min (7:20 min/mi; 220 m/min)		9.3	9.9	10.5	11.1	11.7	12.3	12.9	13.5
3 h. 04 min (7:00 min/mi; 230 m/min)		9.8	10.4	11.0	11.7	12.3	12.9	13.5	14.2
Sailing, leisure		2.1	2.2	2.3	2.5	2.6	2.7	2.9	3.0
Scuba diving		10.9	11.2	11.5	11.8	12.1	12.4	12.7	13.0
Sitting quietly		1.0	1.1	1.1	1.2	1.2	1.3	1.4	1.4
Skateboarding		4.1	4.4	4.6	4.9	5.2	5.4	5.7	6.0
Skiing, hard snow									
level, moderate speed		5.6	6.0	6.3	6.7	7.0	7.4	7.7	8.1
level, walking speed		6.7	7.2	7.6	8.0	8.4	8.9	9.3	9.7
uphill, “fast” speed		12.9	13.7	14.5	15.3	16.2	17.0	17.8	18.6
Skiing, soft snow									
leisure (F)		4.6	4.9	5.2	5.5	5.8	6.1	6.4	6.7
leisure (M)		5.2	5.6	5.9	6.2	6.5	6.9	7.2	7.5
Skindiving									
considerable motion		13.0	13.8	14.6	15.5	16.3	17.1	17.9	18.8
moderate motion		9.7	10.3	10.9	11.5	12.2	12.8	13.4	14.0
Snorkeling		4.3	4.6	4.9	5.2	5.5	5.8	6.0	6.3
Snowshoeing, soft snow									
hiking, open fields, trails		6.6	7.0	7.4	7.8	8.3	8.7	9.1	9.5

71 157	74 163	77 170	80 176	83 183	86 190	89 196	92 203	95 209	98 216
12.6	13.2	13.7	14.2	14.8	15.3	15.8	16.4	16.9	17.4
8.1	8.4	8.8	9.1	9.4	9.8	10.1	10.5	10.8	11.1
8.8	9.2	9.6	9.9	10.3	10.7	11.1	11.4	11.8	12.2
10.1	10.5	10.5	11.3	11.8	12.2	12.6	13.1	13.5	13.9
9.8	10.1	10.6	10.9	11.4	11.8	12.2	12.6	13.0	13.4
9.1	9.4	9.8	10.2	10.6	11.0	11.3	11.7	12.1	12.5
8.5	8.9	9.3	9.7	10.1	10.6	11.1	11.6	12.1	12.6
12.6	13.2	13.7	14.2	14.8	15.3	15.8	16.4	16.9	17.4
7.2	7.6	8.0	8.4	8.8	9.2	9.6	10.0	10.4	10.8
12.6	13.2	13.7	14.2	14.8	15.3	15.8	16.4	16.9	17.4
11.6	12.1	12.6	13.0	13.5	14.0	14.5	15.0	15.5	16.0
9.6	10.0	10.5	10.9	11.3	11.7	12.1	12.5	12.9	13.3
13.7	14.3	14.9	15.4	16.0	16.6	17.2	17.8	18.3	18.9
14.8	15.4	16.0	16.5	17.1	17.7	18.3	18.9	19.4	20.0
16.2	16.8	17.4	17.9	18.5	19.1	19.7	20.3	20.8	21.4
17.9	18.5	19.1	19.6	20.2	20.8	21.4	22.0	22.5	23.1
20.5	21.4	22.3	23.1	24.0	24.9	25.7	26.6	27.5	28.3
8.3	8.6	9.0	9.3	9.7	10.0	10.4	10.7	11.1	11.4
9.0	9.4	9.8	10.1	10.5	10.9	11.3	11.7	12.1	12.4
9.7	10.1	10.6	11.0	11.4	11.8	12.2	12.6	13.0	13.4
10.5	10.9	11.3	11.8	12.2	12.7	13.1	13.5	14.0	14.4
11.2	11.6	12.1	12.6	13.1	13.5	14.0	14.5	14.9	15.4
11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4
12.6	13.2	13.7	14.2	14.8	15.3	15.8	16.4	16.9	17.4
13.3	13.9	14.5	15.0	15.6	16.2	16.7	17.3	17.9	18.4
14.1	14.7	15.3	15.9	16.5	17.1	17.6	18.2	18.8	19.4
14.8	15.4	16.0	16.7	17.3	17.9	18.5	19.2	19.8	20.4
3.1	3.3	3.4	3.5	3.7	3.8	3.9	4.1	4.2	4.3
13.3	13.6	13.9	14.2	14.5	14.8	15.1	15.4	15.7	16.0
1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.1
6.2	6.5	6.7	7.0	7.3	7.5	7.8	8.1	8.3	8.6
8.4	8.8	9.2	9.5	9.9	10.2	10.6	10.9	11.3	11.7
10.2	10.6	11.0	11.4	11.9	12.3	12.7	13.2	13.6	14.0
19.5	20.3	21.1	21.9	22.7	23.6	24.4	25.2	26.0	26.9
7.0	7.3	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6
7.9	8.2	8.5	8.9	9.2	9.5	9.9	10.2	10.5	10.9
19.6	20.4	21.3	22.1	22.9	23.7	24.6	25.4	26.2	27.0
14.6	15.2	15.9	16.5	17.1	17.7	18.3	19.0	19.6	20.2
6.6	6.8	7.1	7.4	7.7	8.0	8.2	8.5	8.8	9.1
9.9	10.4	10.8	11.2	11.6	12.0	12.5	12.9	13.3	13.7

Your Body Weight—*continued*

Activity	kg lb	47 104	50 110	53 117	56 123	59 130	62 137	65 143	68 150
Snowshoeing, continued									
jogging, moving fast with lightweight snowshoes		11.9	12.7	13.4	14.2	15.0	15.7	16.5	17.3
Snowmobiling			3.1	3.2	3.4	3.6	3.8	4.0	4.2
Soccer									
Casual, general		5.7	6.1	6.5	6.9	7.2	7.6	8.0	8.3
Competition		8.3	8.8	9.3	9.8	10.3	10.9	11.4	11.9
Softball									
fast or slow pitch, general		4.1	4.4	4.6	4.9	5.2	5.4	5.7	6.0
infield/outfield		4.7	5.0	5.3	5.6	5.9	6.2	6.5	6.8
officiating		3.3	3.5	3.7	3.9	4.1	4.3	4.6	4.8
pitching		5.0	5.3	5.6	5.9	6.2	6.5	6.8	7.1
Surfing		3.9	4.1	4.3	4.5	4.8	5.0	5.3	5.5
Swimming, fitness swims									
back stroke		7.9	8.5	9.0	9.5	10.0	10.5	11.0	11.5
breast stroke		7.6	8.1	8.6	9.1	9.6	10.0	10.5	11.0
butterfly			8.6	9.1	9.6	10.1	10.7	11.1	11.7
crawl, fast		7.3	7.8	8.3	8.7	9.2	9.7	10.1	10.6
crawl, slow		6.0	6.4	6.8	7.2	7.6	7.9	8.3	8.7
side stroke		5.7	6.1	6.5	6.8	7.2	7.6	7.9	8.3
treading, fast		8.0	8.5	9.0	9.5	10.0	10.5	11.1	11.6
treading, normal		2.9	3.1	3.3	3.5	3.7	3.8	4.0	4.2
Table tennis (ping pong)		3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6
Tennis									
competition		6.9	7.3	7.8	8.2	8.7	9.1	9.5	9.9
recreational		5.1	5.5	5.8	6.1	6.4	6.8	7.1	7.4
Typing									
computer		1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.8
Volleyball									
beach, competition		7.2	7.7	8.2	8.6	9.1	9.5	10.0	10.5
beach, recreational		5.7	6.1	6.5	6.9	7.2	7.6	8.0	8.3
general, recreational (6- to 9-member team)		2.4	2.6	2.8	2.9	3.1	3.3	3.4	3.6
Walking, leisure outdoors									
asphalt road		3.8	4.0	4.2	4.5	4.7	5.0	5.2	5.4
fields and hillsides		3.9	4.1	4.3	4.6	4.8	5.1	5.3	5.6
grass track		3.8	4.1	4.3	4.5	4.8	5.0	5.3	5.5
plowed field		3.6	3.9	4.1	4.3	4.5	4.8	5.0	5.2
Walking, treadmill level									
2.0 mph		2.4	2.6	2.8	3.0	3.1	3.3	3.4	3.6
2.5 mph		3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4
3.0 mph		3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0
3.5 mph		4.0	4.3	4.6	4.8	5.1	5.3	5.6	6.1
4.0 mph		4.6	4.9	5.2	5.4	5.7	6.0	6.3	6.6
Water polo, recreational		7.0	7.4	7.7	8.1	8.5	8.9	9.3	9.7
Water polo, competition		9.4	9.9	10.4	11.0	11.5	12.0	12.5	13.1
Water-skiing		5.6	6.0	6.4	6.7	7.1	7.5	7.8	8.2
Wind surfing		3.3	3.5	3.7	3.9	4.1	4.3	4.6	4.8
Writing (sitting)		1.4	1.5	1.5	1.6	1.7	1.8	1.9	2.0
Yoga		2.9	3.1	3.3	3.5	3.7	3.8	4.0	4.2

71 157	74 163	77 170	80 176	83 183	86 190	89 196	92 203	95 209	98 216
18.0	18.8	19.5	20.3	21.1	21.8	22.6	23.3	24.1	24.9
4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0
8.7	9.1	9.4	9.8	10.2	10.5	10.9	11.3	11.6	12.0
12.4	13.0	13.5	14.0	14.5	15.1	15.6	16.1	16.6	17.2
6.2	6.5	6.7	7.0	7.3	7.5	7.8	8.1	8.3	8.6
7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.2	9.5	9.8
5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.7	6.9
7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.7	10.0	10.3
5.7	6.0	6.3	6.5	6.8	7.0	7.2	7.4	7.6	7.9
12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.1	16.6
11.5	12.0	12.5	13.0	13.4	13.9	14.4	14.9	15.4	15.9
12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.8	16.3	16.8
11.1	11.5	12.0	12.5	12.9	13.4	13.9	14.4	14.8	15.3
9.1	9.5	9.9	10.2	10.6	11.0	11.4	11.8	12.2	12.5
8.7	9.0	9.4	9.8	10.1	10.5	10.9	11.2	11.6	12.0
12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.2	16.7
4.4	4.6	4.8	5.0	5.1	5.3	5.5	5.7	5.9	6.1
4.8	5.0	5.2	5.4	5.6	5.8	6.1	6.3	6.5	6.7
10.2	10.6	11.1	11.5	11.9	12.4	12.8	13.2	13.7	14.1
7.7	8.1	8.4	8.7	9.0	9.4	9.7	10.0	10.4	10.7
1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.5	2.6	2.6
10.9	11.4	11.9	12.3	12.8	13.2	13.7	14.2	14.6	15.1
8.7	9.1	9.4	9.8	10.2	10.5	10.9	11.3	11.6	12.0
3.7	3.9	4.0	4.2	4.4	4.5	4.7	4.8	5.0	5.1
5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.4	7.6	7.8
5.8	6.1	6.3	6.6	6.8	7.1	7.3	7.5	7.8	8.0
5.8	6.0	6.2	6.5	6.7	7.0	7.2	7.5	7.7	7.9
5.5	5.7	5.9	6.2	6.4	6.6	6.9	7.1	7.3	7.5
3.7	3.9	4.1	4.2	4.4	4.5	4.7	4.9	5.0	5.2
4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3
5.3	5.5	5.7	5.9	6.2	6.5	6.7	6.9	7.1	7.3
6.1	6.4	6.6	6.9	7.1	7.4	7.7	7.9	8.2	8.4
6.9	7.2	7.5	7.8	8.1	8.4	8.7	8.9	9.2	9.5
10.1	10.5	10.9	11.3	11.7	12.1	12.5	12.9	13.3	13.7
13.6	14.1	14.7	15.2	15.7	16.3	16.8	17.3	17.9	18.4
8.7	9.1	9.4	9.8	10.1	10.5	10.9	11.2	11.6	12.0
5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.7	6.9
2.1	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.8
4.4	4.6	4.8	5.0	5.1	5.3	5.5	5.7	5.9	6.1