

OBESITY

MANAGEMENT
STRATEGIES

Tool Kit

The following pages are the appendices from The Practical Guide: Identification, Evaluation, and Treatment of Overweight and Obesity in Adults by the NHLBI. This public domain publication is available in its entirety on the NHLBI's website located at:
<http://www.nhlbi.nih.gov/guidelines/obesity/practgde.htm>.

Appendix A. Body Mass Index Table

BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Height (inches)	Body Weight (pounds)																
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287

BMI	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
58	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Appendix B. Shopping—What To Look For

Foods Lower in Calories and Fat

Use this guide to help you shop for foods that are nutritious and lower in calories and fat to help you achieve your weight goal. Learning how to read a Nutrition Facts food label will help you save time in the store and fill your kitchen with low calorie foods.

Read labels as you shop. Pay attention to the serving size and the servings per container. All labels list total calories and fat in a serving size of the product. Compare the total calories in the product you choose with others like it; choose the

one that is lowest in calories and fat. Below is a label that identifies important information.

To achieve your weight goal, you may need to eat much less than this reference amount. For example, if you eat 1,600 calories per day, your total daily fat limit should be 53 grams (30 percent calories from fat) and 18 grams of saturated fat (10 percent calories from fat). If you eat 1,200 calories per day, your total daily fat limit should be 40 grams (30 percent calories from fat), and your total daily saturated fat limit would be 13 grams (10 percent calories from fat).

Product:

Check for:

- Serving size
- Number of servings

- Calories
- Total fat in grams
- Saturated fat in grams
- Cholesterol in milligrams
- Sodium in milligrams

Here, the label gives the amounts for the different nutrients in one serving. Use it to help you keep track of how many calories and how much fat, saturated fat, cholesterol, and sodium you are getting from different foods.

The “% Daily Value” shows you how much of the recommended amounts the food provides in one serving, if you eat **2,000** calories a day. For example, one serving of this food gives you 18 percent of your total fat recommendation.

Here you can see the recommended daily amount for each nutrient for two calorie levels. If you eat a 2,000 calorie diet, you should be eating less than 65 grams of fat and less than 20 grams of saturated fat. If you eat 2,500 calories a day, you should eat less than 80 grams of fat and 25 grams of saturated fat. *Your daily amounts may be higher or lower, depending on the calories you eat.*

Fat Matters, but Calories Count

A calorie is a calorie is a calorie whether it comes from fat or carbohydrate. Anything eaten in excess can lead to weight gain. You can lose weight by eating less calories and by increasing your physical activity. Reducing the amount of fat and saturated fat that you eat is one easy way to limit your overall calorie intake. However, eating fat free or reduced fat foods isn't always the answer to

weight loss. This is especially true when you eat more of the reduced fat food than you would of the regular item. For example, if you eat twice as many fat free cookies, you have actually increased your overall calorie intake.

The following list of foods and their reduced fat varieties will show you that just because a product is fat free, it doesn't mean that it is "calorie free." And, calories do count!

Fat Free or Reduced Fat		Regular	
	Calories		Calories
Reduced fat peanut butter, 2 T	187	Regular peanut butter, 2 T	191
<i>Cookies:</i> Reduced fat chocolate chip cookies, 3 cookies (30 g)	118	<i>Cookies:</i> Regular chocolate chip cookies, 3 cookies (30 g)	142
Fat free fig cookies, 2 cookies (30 g)	102	Regular fig cookies, 2 cookies (30 g)	111
<i>Ice cream:</i> Nonfat vanilla frozen yogurt (< 1% fat), ½ cup	100	<i>Ice cream:</i> Regular whole milk vanilla frozen yogurt (3–4% fat), ½ cup	104
Light vanilla ice cream (7% fat), ½ cup	111	Regular vanilla ice cream (11% fat), ½ cup	133
Fat free caramel topping, 2 T	103	Caramel topping, homemade with butter 2 T	103
Lowfat granola cereal, approx. ½ cup (55 g)	213	Regular granola cereal, approx. ½ cup (55 g)	257
Lowfat blueberry muffin, 1 small (2½ inch)	131	Regular blueberry muffin, 1 small (2½ inch)	138
Baked tortilla chips, 1 oz.	113	Regular tortilla chips, 1 oz.	143
Lowfat cereal bar, 1 bar (1.3 oz.)	130	Regular cereal bar, 1 bar (1.3 oz.)	140

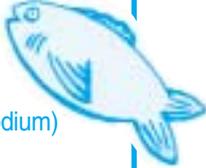
Nutrient data taken from Nutrient Data System for Research, Version v4.02/30, Nutrition Coordinating Center, University of Minnesota.

Appendix C. Low Calorie, Lower Fat Alternatives

These low calorie alternatives provide new ideas for old favorites. When making a food choice, remember to consider vitamins and minerals. Some foods provide most of their calories from sugar and fat but give you few, if any, vitamins and minerals.

This guide is not meant to be an exhaustive list. We stress reading labels to find out just how many calories are in the specific products you decide to buy.

Instead of...	Replace with...
<ul style="list-style-type: none"> • Evaporated whole milk • Whole milk • Ice cream • Whipping cream • Sour cream • Cream cheese • Cheese (cheddar, Swiss, jack) • American cheese • Regular (4%) cottage cheese • Whole milk mozzarella cheese • Whole milk ricotta cheese • Coffee cream (half and half) or nondairy creamer (liquid, powder) 	<ul style="list-style-type: none"> • Evaporated fat free (skim) or reduced fat (2%) milk • Lowfat (1%), reduced fat (2%), or fat free (skim) milk • Sorbet, sherbet, lowfat or fat free frozen yogurt, or ice milk (check label for calorie content) • Imitation whipped cream (made with fat free [skim] milk) or lowfat vanilla yogurt • Plain lowfat yogurt • Neufchatel or "light" cream cheese or fat free cream cheese • Reduced calorie cheese, low calorie processed cheeses, etc. • Fat free cheese • Fat free American cheese or other types of fat free cheeses • Lowfat (1%) or reduced fat (2%) cottage cheese • Part skim milk, low-moisture mozzarella cheese • Part skim milk ricotta cheese • Lowfat (1%) or reduced fat (2%) milk or nonfat dry milk powder <p style="text-align: center;">Dairy Products</p>
<ul style="list-style-type: none"> • Ramen noodles • Pasta with white sauce (alfredo) • Pasta with cheese sauce • Granola 	<ul style="list-style-type: none"> • Rice or noodles (spaghetti, macaroni, etc.) • Pasta with red sauce (marinara) • Pasta with vegetables (primavera) • Bran flakes, crispy rice, etc. • Cooked grits or oatmeal • Whole grains (e.g., couscous, barley, bulgur, etc.) • Reduced fat granola  <p style="text-align: center;">Cereals, Grains, and Pasta</p>
<ul style="list-style-type: none"> • Cold cuts or lunch meats (bologna, salami, liverwurst, etc.) • Hot dogs (regular) • Bacon or sausage • Regular ground beef • Chicken or turkey with skin, duck, or goose • Oil-packed tuna  <p style="text-align: center;">Meat, Fish, and Poultry</p>	<ul style="list-style-type: none"> • Lowfat cold cuts (95% to 97% fat free lunch meats, lowfat pressed meats) • Lower fat hot dogs • Canadian bacon or lean ham • Extra lean ground beef such as ground round or ground turkey (read labels) • Chicken or turkey without skin (white meat) • Water-packed tuna (rinse to reduce sodium content)

Instead of...		Replace with...
<ul style="list-style-type: none"> • Beef (chuck, rib, brisket) • Pork (spareribs, untrimmed loin) • Frozen breaded fish or fried fish (homemade or commercial) • Whole eggs • Frozen TV dinners (containing more than 13 grams of fat per serving) • Chorizo sausage 	Meat, Fish, and Poultry (continued)	<ul style="list-style-type: none"> • Beef (round, loin) (trimmed of external fat) (choose select grades) • Pork tenderloin or trimmed, lean smoked ham • Fish or shellfish, unbreaded (fresh, frozen, canned in water) • Egg whites or egg substitutes • Frozen TV dinners (containing less than 13 grams of fat per serving and lower in sodium) • Turkey sausage, drained well (read label) • Vegetarian sausage (made with tofu) 
<ul style="list-style-type: none"> • Croissants, brioches, etc. • Donuts, sweet rolls, muffins, scones, or pastries • Party crackers • Cake (pound, chocolate, yellow) • Cookies 	Baked Goods	<ul style="list-style-type: none"> • Hard french rolls or soft "brown 'n serve" rolls • English muffins, bagels, reduced fat or fat free muffins or scones • Lowfat crackers (choose lower in sodium) • Saltine or soda crackers (choose lower in sodium) • Cake (angel food, white, gingerbread) • Reduced fat or fat free cookies (graham crackers, ginger snaps, fig bars) (compare calorie level)
<ul style="list-style-type: none"> • Nuts • Ice cream, e.g., cones or bars • Custards or puddings (made with whole milk) 	Snacks and Sweets	<ul style="list-style-type: none"> • Popcorn (air-popped or light microwave), fruits, vegetables • Frozen yogurt, frozen fruit, or chocolate pudding bars • Puddings (made with skim milk) 
<ul style="list-style-type: none"> • Regular margarine or butter • Regular mayonnaise • Regular salad dressings • Butter or margarine on toast or bread • Oils, shortening, or lard 	Fats, Oils, and Salad Dressings	<ul style="list-style-type: none"> • Light-spread margarines, diet margarine, or whipped butter, tub or squeeze bottle • Light or diet mayonnaise or mustard • Reduced calorie or fat free salad dressings, lemon juice, or plain, herb-flavored, or wine vinegar • Jelly, jam, or honey on bread or toast • Nonstick cooking spray for stir-frying or sautéing • As a substitute for oil or butter, use applesauce or prune puree in baked goods
<ul style="list-style-type: none"> • Canned cream soups • Canned beans and franks • Gravy (homemade with fat and/or milk) • Fudge sauce • Avocado on sandwiches • Guacamole dip or refried beans with lard 	Miscellaneous	<ul style="list-style-type: none"> • Canned broth-based soups • Canned baked beans in tomato sauce • Gravy mixes made with water or homemade with the fat skimmed off and fat free milk included • Chocolate syrup • Cucumber slices or lettuce leaves • Salsa 

Appendix D. Sample Reduced Calorie Menus

Traditional American Cuisine—1,200 Calories				
You can use the exchange list in Appendix E to give yourself more choices.				
	Calories	Fat (grams)	% Fat	Exchange for:
Breakfast				
• Whole wheat bread, 1 medium slice	70	1.2	15	(1 bread/starch)
• Jelly, regular, 2 tsp	30	0	0	($\frac{1}{2}$ fruit)
• Cereal, shredded wheat, $\frac{1}{2}$ cup	104	1	4	(1 bread/starch)
• Milk, 1%, 1 cup	102	3	23	(1 milk)
• Orange juice, $\frac{3}{4}$ cup	78	0	0	($\frac{1}{2}$ fruit)
• Coffee, regular, 1 cup	5	0	0	(free)
Breakfast total	389	5.2	10	
Lunch				
• Roast beef sandwich:				
Whole wheat bread, 2 medium slices	139	2.4	15	(2 bread/starch)
Lean roast beef, unseasoned, 2 oz	60	1.5	23	(2 lean protein)
Lettuce, 1 leaf	1	0	0	
Tomato, 3 medium slices	10	0	0	(1 vegetable)
Mayonnaise, low calorie, 1 tsp	15	1.7	96	($\frac{1}{3}$ fat)
• Apple, 1 medium	80	0	0	(1 fruit)
• Water, 1 cup	0	0	0	(free)
Lunch total	305	5.6	16	
Dinner				
• Salmon, 2 ounces edible	103	5	44	(2 lean protein)
• Vegetable oil, $1\frac{1}{2}$ tsp	60	7	100	($1\frac{1}{2}$ fat)
• Baked potato, $\frac{3}{4}$ medium	100	0	0	(1 bread/starch)
• Margarine, 1 tsp	34	4	100	(1 fat)
• Green beans, seasoned, with margarine, $\frac{1}{2}$ cup	52	2	4	(1 vegetable) ($\frac{1}{2}$ fat)
• Carrots, seasoned	35	0	0	(1 vegetable)
• White dinner roll, 1 small	70	2	28	(1 bread/starch)
• Iced tea, unsweetened, 1 cup	0	0	0	(free)
• Water, 2 cups	0	0	0	(free)
Dinner total	454	20	39	
Snack				
• Popcorn, $2\frac{1}{2}$ cups	69	0	0	(1 bread/starch)
• Margarine, $\frac{3}{4}$ tsp	30	3	100	($\frac{3}{4}$ fat)
Total	1,247	34–36	24–26	

Calories 1,247
 Total carbohydrate, % kcals 58
 Total fat, % kcals 26
 *Sodium, mg 1,043

Saturated fat, % kcals 7
 Cholesterol, mg 96
 Protein, % kcals 19

Note: Calories have been rounded.

1,200: 100% RDA met for all nutrients except vitamin E 80%, vitamin B₂ 96%, vitamin B₆ 94%, calcium 68%, iron 63%, and zinc 73%.

* No salt added in recipe preparation or as seasoning. Consume at least 32 ounces of water.

Traditional American Cuisine—1,600 Calories
 You can use the exchange list in Appendix E to give yourself more choices.

	Calories	Fat (grams)	% Fat	Exchange for:
Breakfast				
• Whole wheat bread, 1 medium slice	70	1.2	15.4	(1 bread/starch)
• Jelly, regular, 2 tsp	30	0	0	(1/2 fruit)
• Cereal, shredded wheat, 1 cup	207	2	8	(2 bread/starch)
• Milk, 1%, 1 cup	102	3	23	(1 milk)
• Orange juice, 3/4 cup	78	0	0	(1 1/2 fruit)
• Coffee, regular, 1 cup	5	0	0	(free)
• Milk, 1%, 1 oz	10	0.3	27	(1/8 milk)
Breakfast total	502	6.5	10	
Lunch				
• Roast beef sandwich:				
Whole wheat bread, 2 medium slices	139	2.4	15	(2 bread/starch)
Lean roast beef, unseasoned, 2 oz	60	1.5	23	(2 lean protein)
American cheese, lowfat and low sodium, 1 slice, 3/4 oz	46	1.8	36	(1 lean protein)
Lettuce, 1 leaf	1	0	0	
Tomato, 3 medium slices	10	0	0	(1 vegetable)
Mayonnaise, low calorie, 2 tsp	30	3.3	99	(2/3 fat)
• Apple, 1 medium	80	0	0	(1 fruit)
• Water, 1 cup	0	0	0	(free)
Lunch total	366	9	22	
Dinner				
• Salmon, 3 ounces edible	155	7	40	(3 lean protein)
• Vegetable oil, 1 1/2 tsp	60	7	100	(1 1/2 fat)
• Baked potato, 3/4 medium	100	0	0	(1 bread/starch)
• Margarine, 1 tsp	34	4	100	(1 fat)
• Green beans, seasoned, with margarine, 1/2 cup	52	2	4	(1 vegetable) (1/2 fat)
• Carrots, seasoned, with margarine, 1/2 cup	52	2	4	(1 vegetable) (1/2 fat)
• White dinner roll, 1 medium	80	3	33	(1 bread/starch)
• Ice milk, 1/2 cup	92	3	28	(1 bread/starch) (1/2 fat)
• Iced tea, unsweetened, 1 cup	0	0	0	(free)
• Water, 2 cups	0	0	0	(free)
Dinner total	625	28	38	
Snack				
• Popcorn, 2 1/2 cups	69	0	0	(1 bread/starch)
• Margarine, 1/2 tsp	58	6.5	100	(1 1/2 fat)
Total	1,613	50	28	

Calories1,613
 Total carbohydrate, % kcals55
 Total fat, % kcals29
 *Sodium, mg1,341

Saturated fat, % kcals8
 Cholesterol, mg142
 Protein, % kcals19

Note: Calories have been rounded.
 1,600: 100% RDA met for all nutrients except vitamin E 99%,
 iron 73%, and zinc 91%.

* No salt added in recipe preparation or as seasoning. Consume at least 32 ounces of water.

Asian American Cuisine—Reduced Calorie

Breakfast

- Banana
- Whole wheat bread
- Margarine
- Orange juice
- Milk 1%, lowfat



1,600 Calories

- 1 small
- 2 slices
- 1 tsp
- 3/4 cup
- 3/4 cup

1,200 Calories

- 1 small
- 1 slice
- 1 tsp
- 3/4 cup
- 3/4 cup

Lunch

- Beef noodle soup, canned, low sodium
- Chinese noodle and beef salad:
 - Roast beef
 - Peanut oil
 - Soy sauce, low sodium
 - Carrots
 - Zucchini
 - Onion
 - Chinese noodles, soft type
- Apple
- Tea, unsweetened



- 1/2 cup
- 3 oz
- 1 1/2 tsp
- 1 tsp
- 1/2 cup
- 1/2 cup
- 1/4 cup
- 1/4 cup
- 1 medium
- 1 cup

- 1/2 cup
- 2 oz
- 1 tsp
- 1 tsp
- 1/2 cup
- 1/2 cup
- 1/4 cup
- 1/4 cup
- 1 medium
- 1 cup

Dinner

- Pork stir-fry with vegetables:
 - Pork cutlet
 - Peanut oil
 - Soy sauce, low sodium
 - Broccoli
 - Carrots
 - Mushrooms
- Steamed white rice
- Tea, unsweetened



- 2 oz
- 1 tsp
- 1 tsp
- 1/2 cup
- 1 cup
- 1/4 cup
- 1 cup
- 1 cup

- 2 oz
- 1 tsp
- 1 tsp
- 1/2 cup
- 1/2 cup
- 1/2 cup
- 1/2 cup
- 1 cup

Snack

- Almond cookies
- Milk 1%, lowfat



- 2 cookies
- 3/4 cup

-
- 3/4 cup

Calories1,609
 Total carbohydrate, % kcals56
 Total fat, % kcals27
 *Sodium, mg1,296
 Saturated fat, % kcals8
 Cholesterol, mg148
 Protein, % kcals20

Calories1,220
 Total carbohydrate, % kcals55
 Total fat, % kcals27
 *Sodium, mg1,043
 Saturated fat, % kcals8
 Cholesterol, mg117
 Protein, % kcals21

1,600: 100% RDA met for all nutrients except zinc 95%, iron 87%, and calcium 93%.

1,200: 100% RDA met for all nutrients except vitamin E 75%, calcium 84%, magnesium 98%, iron 66%, and zinc 77%.

* No salt added in recipe preparation or as seasoning. Consume at least 32 ounces of water.

Southern Cuisine—Reduced Calorie		
Breakfast	1,600 Calories	1,200 Calories
<ul style="list-style-type: none"> • Oatmeal, prepared with 1% milk, lowfat • Milk, 1%, lowfat • English muffin • Cream cheese, light, 18% fat • Orange juice • Coffee • Milk, 1%, lowfat 		<ul style="list-style-type: none"> 1/2 cup 1/2 cup 1 medium 1 T 3/4 cup 1 cup 1 oz
Lunch		
<ul style="list-style-type: none"> • Baked chicken, without skin • Vegetable oil • Salad: <ul style="list-style-type: none"> Lettuce Tomato Cucumber • Oil and vinegar dressing • White rice • Margarine, diet • Baking powder biscuit, prepared with vegetable oil • Margarine • Water 		<ul style="list-style-type: none"> 2 oz 1 tsp 1/2 cup 1/2 cup 1/2 cup 2 tsp 1/2 cup 1/2 tsp 1 small 1 tsp 1 cup
Dinner		
<ul style="list-style-type: none"> • Lean roast beef • Onion • Beef gravy, water-based • Turnip greens • Margarine, diet • Sweet potato, baked • Margarine, diet • Ground cinnamon • Brown sugar • Corn bread prepared with margarine, diet • Honeydew melon • Iced tea, sweetened with sugar 		<ul style="list-style-type: none"> 3 oz 1/4 cup 1 T 1/2 cup 1/2 tsp 1 small 1/2 tsp 1 tsp 1 tsp 1/2 medium slice 1/4 medium 1 cup
Snack		
<ul style="list-style-type: none"> • Saltine crackers, unsalted tops • Mozzarella cheese, part skim, low sodium 		<ul style="list-style-type: none"> 4 crackers 1 oz

1,600: 100% RDA met for all nutrients except vitamin E 97%, magnesium 98%, iron 78%, and zinc 90%.

1,200: 100% RDA met for all nutrients except vitamin E 82%, vitamin B₁ & B₂ 95%, vitamin B₃ 99%, vitamin B₆ 88%, magnesium 83%, iron 56%, and zinc 70%.

* No salt added in recipe preparation or as seasoning.
Consume at least 32 ounces of water.

Calories1,653
Total carbohydrate, % kcals53
Total fat, % kcals28
*Sodium, mg1,231
Saturated fat, % kcals8
Cholesterol, mg172
Protein, % kcals20

Calories1,225
Total carbohydrate, % kcals50
Total fat, % kcals31
*Sodium, mg867
Saturated fat, % kcals9
Cholesterol, mg142
Protein, % kcals21

Mexican American Cuisine—Reduced Calorie

Breakfast

- Cantaloupe
- Farina, prepared with 1% lowfat milk
- White bread
- Margarine
- Jelly
- Orange juice
- Milk, 1%, lowfat



1,600 Calories

- 1 cup
- 1/2 cup
- 1 slice
- 1 tsp
- 1 tsp
- 1 1/2 cup
- 1/2 cup

1,200 Calories

- 1/2 cup
- 1/2 cup
- 1 slice
- 1 tsp
- 1 tsp
- 3/4 cup
- 1/2 cup

Lunch

- Beef enchilada:
- Tortilla, corn
- Lean roast beef
- Vegetable oil
- Onion
- Tomato
- Lettuce
- Chili peppers
- Refried beans, prepared with vegetable oil
- Carrots
- Celery
- Milk, 1%, lowfat
- Water



- 2 tortillas
- 2 1/2 oz
- 2/3 tsp
- 1 T
- 4 T
- 1/2 cup
- 2 tsp
- 1/4 cup
- 5 sticks
- 6 sticks
- 1/2 cup
-

- 2 tortillas
- 2 oz
- 2/3 tsp
- 1 T
- 4 T
- 1/2 cup
- 2 tsp
- 1/4 cup
- 5 sticks
- 6 sticks
-
- 1 cup

Dinner

- Chicken taco:
- Tortilla, corn
- Chicken breast, without skin
- Vegetable oil
- Cheddar cheese, lowfat and low sodium
- Guacamole
- Salsa
- Corn, seasoned with
- Margarine
- Spanish rice without meat
- Banana
- Coffee
- Milk, 1%



- 1 tortilla
- 2 oz
- 2/3 tsp
- 1 oz
- 2 T
- 1 T
- 1/2 cup
- 1/2 tsp
- 1/2 cup
- 1 large
- 1 cup
- 1 oz

- 1 tortilla
- 1 oz
- 2/3 tsp
- 1/2 oz
- 1 T
- 1 T
- 1/2 cup
-
- 1/2 cup
- 1/2 large
- 1/2 cup
- 1 oz

1,600: 100% RDA met for all nutrients except vitamin E 97% and zinc 84%.

1,200: 100% RDA met for all nutrients except vitamin E 71%, vitamin B₁ & B₃ 91%, vitamin B₂ & iron 90%, and calcium 92%.

* No salt added in recipe preparation or as seasoning.
Consume at least 32 ounces of water.

Calories1,638
Total carbohydrate, % kcals . . .56
Total fat, % kcals27
*Sodium, mg1,616
Saturated fat, % kcals9
Cholesterol, mg143
Protein, % kcals20

Calories1,239
Total carbohydrate, % kcals . . .58
Total fat, % kcals26
*Sodium, mg1,364
Saturated fat, % kcals8
Cholesterol, mg91
Protein, % kcals19

Lacto-Ovo Vegetarian Cuisine—Reduced Calorie

Breakfast

- Orange
- Pancakes, made with 1% lowfat milk and eggs whites
- Pancake syrup
- Margarine, diet
- Milk, 1%, lowfat
- Coffee
- Milk, 1%, lowfat

1,600 Calories

- 1 medium
- 3 4" circles
- 2 T
- 1½ tsp
- 1 cup
- 1 cup
- 1 oz

1,200 Calories

- 1 medium
- 2 4" circles
- 1 T
- 1½ tsp
- ½ cup
- 1 cup
- 1 oz



Lunch

- Vegetable soup, canned, low sodium
- Bagel
- Processed american cheese, lowfat
- Spinach salad:
 - Spinach
 - Mushrooms
- Salad dressing, regular calorie
- Apple
- Iced tea, unsweetened

- 1 cup
- 1 medium
- ¾ oz

- ½ cup
- ½ medium
-



- 1 cup
- ½ cup
- 2 tsp
- 1 medium
- 1 cup

- 1 cup
- ½ cup
- 2 tsp
- 1 medium
- 1 cup

Dinner

- Omelette:
 - Egg whites
 - Green pepper
 - Onion
 - Mozzarella cheese, made from part skim milk, low sodium
 - Vegetable oil
- Brown rice, seasoned with Margarine, diet
- Carrots, seasoned with Margarine, diet
- Whole wheat bread
- Margarine, diet
- Fig bar cookie
- Tea
- Honey
- Milk, 1%, lowfat

- 4 large eggs
- 2 T
- 2 T
- 1 oz
- 1 T
- ½ cup
- ½ tsp
- ½ cup
- ½ tsp
- ½ tsp
- 1 slice
- 1 tsp
- 1 bar
- 1 cup
- 1 tsp
- ¾ cup

- 4 large eggs
- 2 T
- 2 T
- ½ oz
- ½ T
- ½ cup
- ½ tsp
- ½ cup
- ½ tsp
- ½ tsp
- 1 slice
- 1 tsp
- 1 bar
- 1 cup
- 1 tsp
- ¾ cup



1,600: 100% RDA met for all nutrients except vitamin E 92%, vitamin B₃ 97%, vitamin B₆ 67%, iron 73%, and zinc 68%.

1,200: 100% RDA met for all nutrients except vitamin E 75%, vitamin B₁ 92%, vitamin B₃ 69%, vitamin B₆ 59%, iron 54%, and zinc 46%.

* No salt added in recipe preparation or as seasoning.
Consume at least 32 ounces of water.

Calories1,650
Total carbohydrate, % kcals56
Total fat, % kcals27
*Sodium, mg1,829
Saturated fat, % kcals8
Cholesterol, mg82
Protein, % kcals19

Calories1,205
Total carbohydrate, % kcals60
Total fat, % kcals25
*Sodium, mg1,335
Saturated fat, % kcals7
Cholesterol, mg44
Protein, % kcals18

Appendix E. Food Exchange List

Within each group, these foods can be exchanged for each other. You can use this list to give yourself more choices.

Vegetables contain 25 calories and 5 grams of carbohydrate. One serving equals:

- 1/2 cup Cooked vegetables (carrots, broccoli, zucchini, cabbage, etc.) 
- 1 cup Raw vegetables or salad greens
- 1/2 cup Vegetable juice

If you're hungry, eat more fresh or steamed vegetables.

Fat Free and Very Low Fat Milk contains 90 calories and 12 grams of carbohydrate per serving. One serving equals:

- 8 oz Milk, fat free or 1% fat
- 3/4 cup Yogurt, plain nonfat or lowfat 
- 1 cup Yogurt, artificially sweetened

Very Lean Protein choices have 35 calories and 1 gram of fat per serving. One serving equals:

- 1 oz Turkey breast or chicken breast, skin removed 
- 1 oz Fish fillet (flounder, sole, scrod, cod, haddock, halibut)
- 1 oz Canned tuna in water
- 1 oz Shellfish (clams, lobster, scallop, shrimp)
- 3/4 cup Cottage cheese, nonfat or lowfat
- 2 each Egg whites
- 1/4 cup Egg substitute
- 1 oz Fat free cheese
- 1/2 cup Beans—cooked (black beans, kidney, chickpeas, or lentils): count as 1 starch/bread and 1 very lean protein

Fruits contain 15 grams of carbohydrates and 60 calories. One serving equals:

- 1 small Apple, banana, orange, nectarine
- 1 medium Fresh peach 
- 1 Kiwi
- 1/2 Grapefruit
- 1/2 Mango
- 1 cup Fresh berries (strawberries, raspberries, or blueberries)
- 1 cup Fresh melon cubes
- 1/8 Honeydew melon
- 4 oz Unsweetened juice
- 4 tsp Jelly or jam

Lean Protein choices have 55 calories and 2 to 3 grams of fat per serving. One serving equals:

- 1 oz Chicken—dark meat, skin removed
- 1 oz Turkey—dark meat, skin removed
- 1 oz Salmon, swordfish, herring, catfish, trout 
- 1 oz Lean beef (flank steak, London broil, tenderloin, roast beef)*
- 1 oz Veal, roast, or lean chop*
- 1 oz Lamb, roast, or lean chop*
- 1 oz Pork, tenderloin, or fresh ham*
- 1 oz Lowfat cheese (3 grams or less of fat per ounce)
- 1 oz Lowfat luncheon meats (with 3 grams or less of fat per ounce)
- 1/4 cup 4.5% cottage cheese
- 2 medium Sardines

* **Limit to 1 to 2 times per week.**

Food Exchange List **continued**

Medium Fat Proteins have 75 calories and 5 grams of fat per serving. One serving equals:

- 1 oz Beef (any prime cut), corned beef, ground beef **
- 1 oz Pork chop
- 1 each Whole egg (medium) **
- 1 oz Mozzarella cheese
- 1/4 cup Ricotta cheese
- 4 oz Tofu (note that this is a heart-healthy choice)



** Choose these very infrequently.

Starches contain 15 grams of carbohydrate and 80 calories per serving. One serving equals:

- 1 slice Bread (white, pumpernickel, whole wheat, rye)
- 2 slice Reduced calorie or “lite” bread
- 1/4 (1 oz) Bagel (varies)
- 1/2 English muffin
- 1/2 Hamburger bun
- 3/4 cup Cold cereal
- 1/3 cup Rice, brown or white—cooked
- 1/3 cup Barley or couscous—cooked
- 1/3 cup Legumes (dried beans, peas, or lentils)—cooked



- 1/2 cup Pasta—cooked
- 1/2 cup Bulgur—cooked
- 1/2 cup Corn, sweet potato, or green peas
- 3 oz Baked sweet or white potato
- 3/4 oz Pretzels
- 3 cups Popcorn, hot-air popped or microwave (80-percent light)

Fats contain 45 calories and 5 grams of fat per serving. One serving equals:

- 1 tsp Oil (vegetable, corn, canola, olive, etc.)
- 1 tsp Butter
- 1 tsp Stick margarine
- 1 tsp Mayonnaise
- 1 T Reduced fat margarine or mayonnaise
- 1 T Salad dressing
- 1 T Cream cheese
- 2 T Lite cream cheese
- 1/8 Avocado
- 8 large Black olives
- 10 large Stuffed green olives
- 1 slice Bacon



Source: Based on the American Dietetic Association Exchange List



Low Calorie, Lowfat Cooking/Serving Methods

Cooking low calorie, lowfat dishes may not take a long time, but best intentions can be lost with the addition of butter or other added fats at the table. It is important to learn how certain ingredients can add unwanted calories and fat to lowfat dishes—making them no longer lower in calories and lower in fat. The following list provides examples of lower fat cooking methods and tips on how to serve your lowfat dishes.

Lowfat Cooking Methods

These cooking methods tend to be lower in fat:

- Bake
- Broil
- Microwave
- Roast—for vegetables and/or chicken without skin
- Steam
- Lightly stir-fry or sauté in cooking spray, small amounts of vegetable oil, or reduced sodium broth
- Grill seafood, chicken, or vegetables



How To Save Calories and Fat

Look at the following examples for how to save calories and fat when preparing and serving foods. You might be surprised at how easy it is.



- Two tablespoons of butter on a baked potato adds an extra 200 calories and 22 grams of fat. However, $\frac{1}{4}$ cup salsa adds only 18 calories and no fat.

- Two tablespoons of regular clear Italian salad dressing adds an extra 136 calories and 14 grams of fat. Reduced fat Italian dressing adds only 30 calories and 2 grams of fat.

Try These Lowfat Flavorings—Added During Preparation or at the Table:

- Herbs—oregano, basil, cilantro, thyme, parsley, sage, or rosemary
- Spices—cinnamon, nutmeg, pepper, or paprika
- Reduced fat or fat free salad dressing
- Mustard
- Catsup
- Fat free mayonnaise
- Fat free or reduced fat sour cream
- Fat free or reduced fat yogurt
- Reduced sodium soy sauce
- Salsa
- Lemon or lime juice
- Vinegar
- Horseradish
- Fresh ginger
- Sprinkled buttered flavoring (not made with real butter)
- Red pepper flakes
- Sprinkle of parmesan cheese (stronger flavor than most cheese)
- Sodium free salt substitute
- Jelly or fruit preserves on toast or bagels



General Tips for Healthy Dining Out

Whether or not you're trying to lose weight, you can eat healthfully when dining out or bringing in food, if you know how. The following tips will help you move toward healthier eating as you limit your calories, as well as fat, saturated fat, cholesterol, and sodium, when eating out.

You Are the Customer

- Ask for what you want. Most restaurants will honor your requests.
- Ask questions. Don't be intimidated by the menu—your server will be able to tell you how foods are prepared or suggest substitutions on the menu.
- If you wish to reduce portion sizes, try ordering appetizers as your main meal.
- General tips: Limiting your calories and fat can be easy as long as you know what to order. Try asking these questions when you call ahead or before you order. Ask the restaurant, whether they would, on request, do the following:
 - Serve nonfat (skim) milk rather than whole milk or cream.
 - Reveal the type of cooking oil used.
 - Trim visible fat off poultry or meat.
 - Leave all butter, gravy, or sauces off a side dish or entree.
 - Serve salad dressing on the side.
 - Accommodate special requests if made in advance by telephone or in person.



Above all, don't get discouraged. There are usually several healthy choices to choose from at most restaurants.

Reading the Menu

- Choose lower calorie, lowfat cooking methods. Look for terms such as “steamed in its own juice” (au jus), “garden fresh,” “broiled,” “baked,” “roasted,” “poached,” “tomato juice,” “dry boiled” (in wine or lemon juice), or “lightly sautéed.”
- Be aware of foods high in calories, fat, and saturated fat. Watch out for terms such as “butter sauce,” “fried,” “crispy,” “creamed,” “in cream or cheese sauce,” “au gratin,” “au fromage,” “escaloped,” “parmesan,” “hollandaise,” “bearnaise,” “marinated (in oil),” “stewed,” “basted,” “sautéed,” “stir-fried,” “casserole,” “hash,” “prime,” “pot pie,” and “pastry crust.”

Specific Tips for Healthy Choices

Breakfast

- Fresh fruit or small glass of citrus juice
- Whole grain bread, bagel, or English muffin with jelly or honey
- Whole grain cereal with lowfat (1%) or nonfat milk
- Oatmeal with nonfat milk topped with fruit
- Omelet made with egg whites or egg substitute
- Multigrain pancakes without butter on top
- Nonfat yogurt (Try adding cereal or fresh fruit.)



Beverages

- Water with lemon
- Flavored sparkling water (noncaloric)
- Juice spritzer (half fruit juice and half sparkling water)
- Iced tea
- Tomato juice (reduced sodium)



Bread

Most bread and bread sticks are low in calories and low in fat. The calories add up when you add butter, margarine, or olive oil to the bread. Also, eating a lot of bread in addition to your meal will fill you up with extra unwanted calories and not leave enough room for fruits and vegetables.



Appetizers

- Steamed seafood
- Shrimp* cocktail (Limit cocktail sauce—it's high in sodium.)
- Melons or fresh fruit
- Bean soups
- Salad with reduced fat dressing (Or add lemon juice or vinegar.)



* **If you are on a cholesterol-lowering diet, eat shrimp and other shellfish in moderation.**

Entree

- Poultry, fish, shellfish, and vegetable dishes are healthy choices.
- Pasta with red sauce or with vegetables (primavera)
- Look for terms such as “baked,” “broiled,” “steamed,” “poached,” “lightly sauteed,” or “stir-fried.”
- Ask for sauces and dressings on the side.
- Limit the amount of butter, margarine, and salt you use at the table.



Salads/Salad Bars

- Fresh greens, lettuce, and spinach
- Fresh vegetables—tomato, mushroom, carrots, cucumber, peppers, onion, radishes, and broccoli



- Beans, chickpeas, and kidney beans
- Skip the nonvegetable choices: deli meats, bacon, egg, cheese, croutons.
- Choose lower calorie, reduced fat, or fat free dressing, lemon juice, or vinegar.

Side Dish

- Vegetables and starches (rice, potato, noodles) make good additions to meals and can also be combined for a lower calorie alternative to higher calorie entrees.
- Ask for side dishes without butter or margarine.
- Ask for mustard, salsa, or lowfat yogurt instead of sour cream or butter.



Dessert/Coffee

- Fresh fruit
- Nonfat frozen yogurt
- Sherbet or fruit sorbet (These are usually fat free, but check the calorie content.)
- Try sharing a dessert.
- Ask for lowfat milk for your coffee (instead of cream or half-and-half).



Appendix H. Guide to Physical Activity

An increase in physical activity is an important part of your weight management program. Most weight loss occurs because of decreased caloric intake. Sustained physical activity is most helpful in the prevention of weight regain. In addition, physical activity helps to reduce cardiovascular and diabetes risks beyond what weight reduction alone can do. Start exercising slowly, and gradually increase the intensity. Trying too hard at first can lead to injury.



Your exercise can be done all at one time or intermittently over the course of the day. Initial activities may be walking or swimming at a slow pace. You can start by walking slowly for 30 minutes 3 days a week. Then build to 45 minutes of more intense walking at least 5 days a week. With this regimen, you can burn 100 to 200 calories per day. All adults should set a long-term goal to accumulate at least 30 minutes or more of moderate-intensity physical activity on most, and preferably all, days of the week. This regimen can be adapted to other forms of physical activity, but walking is particularly attractive because of its safety and accessibility. Also, try to change everyday activities; for example, take the stairs instead of the elevator. Reducing sedentary time is a good strategy to increase activity by undertaking frequent, less

Examples of Moderate Amounts of Physical Activity*

Common Chores	Sporting Activities	
Washing and waxing a car for 45–60 minutes	Playing volleyball for 45–60 minutes	Less Vigorous, More Time [†]  More Vigorous, Less Time
Washing windows or floors for 45–60 minutes	Playing touch football for 45 minutes	
Gardening for 30–45 minutes	Walking 1¾ miles in 35 minutes (20 min/mile)	
Wheeling self in wheelchair for 30–40 minutes	Basketball (shooting baskets) for 30 minutes	
Pushing a stroller 1½ miles in 30 minutes	Bicycling 5 miles in 30 minutes	
Raking leaves for 30 minutes	Dancing fast (social) for 30 minutes	
Walking 2 miles in 30 minutes (15 min/mile)	Water aerobics for 30 minutes	
Shoveling snow for 15 minutes	Swimming laps for 20 minutes	
Stairwalking for 15 minutes	Basketball (playing a game) for 15–20 minutes	
	Jumping rope for 15 minutes	
	Running 1½ miles in 15 minutes (15 min/mile)	

* A moderate amount of physical activity is roughly equivalent to physical activity that uses approximately 150 calories of energy per day, or 1,000 calories per week.

[†] Some activities can be performed at various intensities; the suggested durations correspond to expected intensity of effort.

strenuous activities.⁷⁶ With time, you may be able to—and you may want to—engage in more strenuous activities. Competitive sports such as tennis and volleyball can provide an enjoyable form of exercise, but you must take care to avoid injury.

Overcoming Obstacles to Regular Activity

Many people who are completely inactive cite various reasons for their inactivity.

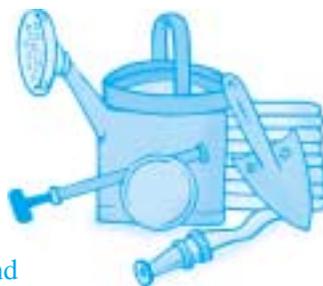
• I don't have the time to exercise.

Physical activity does take time, but only about 1 hour per week of vigorous activity can greatly benefit your heart, lungs, muscles, and weight. Consider the amount of time you spend watching television. Many forms of physical activity, such as riding an exercise bicycle or using hand weights, can be done while watching television.



• I don't like to exercise.

You have bad memories of doing situps or running in high school, sweating, puffing, and panting. Now we know that you can get plenty of gain without pain! Activities you already do, such as gardening and walking, can improve your health, so just do more of the activities you like.



• I don't have the energy to be more active.

Once you become a little more active, you should have more energy. As you progress, daily tasks will seem easier.

• It's hard to remember to exercise.

Leave your sneakers near the door to remind yourself to walk, bring a change of clothes to work and head straight for exercise on the way home, or put a note on your calendar at work to remind yourself to exercise. In addition, simply try to develop the habit of integrating more activity into your daily routine.



Gaining Health Benefits From Physical Activity

It is much easier to control your weight when you are active, and being active helps to prevent osteoporosis (bone loss) and heart disease and helps in the treatment of diabetes. In addition, physical activity helps to increase your confidence and decrease your stress. It can also decrease sadness and improve depression.

Benefits of Regular Activity

- Your weight is much easier to control when you are active.
- Physical activity can be lots of fun.
- You can be with other people when you are active.
- You'll feel better when you're physically active.
- You'll look better when you're physically active.
- Physical activity is good for your heart.
- Physical activity is a great way to burn off steam and stress.
- Physical activity helps you beat the blues.
- You'll feel more confident when you are active.
- You'll have more energy.

Fitting Activity Into Your Schedule

• What time of day is best for you to exercise?

Try walking before going to work or school, or maybe you prefer evenings. Even a few minutes of walking counts. Try to build up to accumulating 30 minutes per day. You can walk whenever it is convenient for you, or you can take an aerobics class instead. Whatever works for you is fine. The important thing is that you try to be more active. There is no one right time of day to exercise.

Try to think about the little things you can do to add more activity to your daily life. For instance, take the stairs instead of the elevator at work, park farther away from the entrance to the mall, or walk instead of driving to work or to shopping. These little things add up and are easy to fit into your schedule.

Some people want to be alone when they exercise, whereas others prefer the company of a group or class. Again, whatever works for you is fine.

• What activities have you enjoyed in the past? Why did you stop? How can you start them again?

You may enjoy other activities that are better suited to your current lifestyle. The key is to find one or two you really like. Consider varying your activity to prevent boredom.



You can have fun and feel healthier by doing any of the following:

- Walk or ride a bike in your neighborhood.
- Join a walking club at a mall or at work.
- Play golf at a local club.
- Join a dance class.
- Work in your garden.
- Use local athletic facilities.
- Join a hiking or biking club.
- Join a softball team or other sports team with coworkers, friends, or family.
- Chase your kids in the park. If you don't have kids, take your neighbor's. The parents will appreciate the break, the neighbors will enjoy it, and you'll benefit from getting more activity.
- Walk your dog. If you don't have a dog, pretend you do.
- Take a walk during your lunch break.

Planning To Become More Active

• Begin slowly.

If you have not been active for years, do not start with a 3-mile walk! Pushing yourself too hard or too fast will make you sore and discouraged.

• Set realistic goals, and plan to succeed.

For example, set the goal of walking two times this week. Even if you walk for only 5 minutes each time, you will have met your goal. Next week, you might try to walk two times for 10 minutes each time. Being realistic helps you to feel good about yourself, and it helps you to keep up the good work. You may want to keep an activity log to track your progress.

- **Reward yourself for reaching your goals.**

Each time you meet an exercise goal, give yourself a treat to mark the occasion. Some ideas include the following: buy yourself new sports equipment, ask your spouse to take the kids for an hour, visit a friend, spend more time on your favorite hobby, buy yourself flowers or a plant, enjoy a long hot bath, or go to a movie or rent a video.

- **Be active the healthy way.**

Most healthy people can safely start a program of moderate activity. Talk to your doctor first if you have heart trouble or experience pain or pressure in your chest, neck, shoulder, or arm during or after exercise.



Drink plenty of fluids while you are active. If the weather is bad, have a backup plan. Do your activity indoors. Use the proper equipment, such as a bicycle helmet for safety, and wear comfortable shoes or sneakers for walking.



- **How hard should you exercise?**

For the beginner in a sedentary lifestyle, activity level can be very light. This would include increasing standing activities, doing special chores like room painting, pushing a wheelchair, doing yard work, ironing, cooking, and playing a musical instrument.

The next level would be light activity such as slow walking (24 minutes per mile), garage work, carpentry, house cleaning, child care, golf, sailing, and recreational table tennis.

The next level would be moderate activity such as walking at 15 minutes per mile, weeding and hoeing a garden, carrying a load, cycling, skiing, tennis, and dancing.



Two Sample Activity Programs

There are many ways to begin an activity program. Below are two examples—a walking program and a jogging program. These activities are easy ways for most people to get regular exercise because they do not require special facilities or equipment other than good, comfortable shoes.



If you find a particular week's pattern tiring, repeat it before going on to the next pattern. You do not have to complete the walking program in 12 weeks or the jogging program in 15 weeks.

A sample jogging program

If you are older than 40 and have not been active, you should not begin with a program as strenuous as jogging. Begin with the walking program instead. After completing the walking program, you can start with week 3 of the jogging program below.

If walking or jogging does not meet your needs, look for other exercise programs in pamphlets and books on aerobic exercise and sports medicine. Check out the programs and facilities of your local park and recreation department or community recreation centers. Many programs have adapted facilities for the disabled and for seniors.



A sample walking program

	Warmup	Exercising	Cool down	Total time
Week 1				
Session A	Walk 5 min.	Then walk briskly 5 min.	Then walk more slowly 5 min.	15 min.
Session B	Repeat above pattern			
Session C	Repeat above pattern			

Continue with at least three exercise sessions during each week of the program.

Week 2	Walk 5 min.	Walk briskly 7 min.	Walk 5 min.	17 min.
Week 3	Walk 5 min.	Walk briskly 9 min.	Walk 5 min.	19 min.
Week 4	Walk 5 min.	Walk briskly 11 min.	Walk 5 min.	21 min.
Week 5	Walk 5 min.	Walk briskly 13 min.	Walk 5 min.	23 min.
Week 6	Walk 5 min.	Walk briskly 15 min.	Walk 5 min.	25 min.
Week 7	Walk 5 min.	Walk briskly 18 min.	Walk 5 min.	28 min.
Week 8	Walk 5 min.	Walk briskly 20 min.	Walk 5 min.	30 min.
Week 9	Walk 5 min.	Walk briskly 23 min.	Walk 5 min.	33 min.
Week 10	Walk 5 min.	Walk briskly 26 min.	Walk 5 min.	36 min.
Week 11	Walk 5 min.	Walk briskly 28 min.	Walk 5 min.	38 min.
Week 12	Walk 5 min.	Walk briskly 30 min.	Walk 5 min.	40 min.

Week 13 on:

Gradually increase your brisk walking time to 30 to 60 minutes, three or four times a week. Remember that your goal is to get the benefits you are seeking and enjoy your activity.

Walking Tips

- Hold your head up, and keep your back straight.
- Bend your elbows as you swing your arms.
- Take long, easy strides.

For additional information about physical activity, request the NHLBI booklet *Exercise and Your Heart: A Guide to Physical Activity*.

A sample jogging program

If you are older than 40 and have not been active, you should not begin with a program as strenuous as jogging. Begin with the walking program instead. After completing the walking program, you can start with week 3 of the jogging program below.

	Warmup	Exercising	Cool down	Total time
Week 1				
Session A	Walk 5 min., then stretch and limber up	Then walk 10 min. Try not to stop.	Then walk more slowly 3 min. and stretch 2 min.	20 min.
Session B	Repeat above pattern			
Session C	Repeat above pattern			
<i>Continue with at least three exercise sessions during each week of the program.</i>				
Week 2	Walk 5 min., then stretch and limber up	Walk 5 min., jog 1 min., walk 5 min., jog 1 min.	Walk 3 min., stretch 2 min.	22 min.
Week 3	Walk 5 min., then stretch and limber up	Walk 5 min., jog 3 min., walk 5 min., jog 3 min.	Walk 3 min., stretch 2 min.	26 min.
Week 4	Walk 5 min., then stretch and limber up	Walk 4 min., jog 5 min., walk 4 min., jog 5 min.	Walk 3 min., stretch 2 min.	28 min.
Week 5	Walk 5 min., then stretch and limber up	Walk 4 min., jog 5 min., walk 4 min., jog 5 min.	Walk 3 min., stretch 2 min.	28 min.
Week 6	Walk 5 min., then stretch and limber up	Walk 4 min., jog 6 min., walk 4 min., jog 6 min.	Walk 3 min., stretch 2 min.	30 min.
Week 7	Walk 5 min., then stretch and limber up	Walk 4 min., jog 7 min., walk 4 min., jog 7 min.	Walk 3 min., stretch 2 min.	32 min.
Week 8	Walk 5 min., then stretch and limber up	Walk 4 min., jog 8 min., walk 4 min., jog 8 min.	Walk 3 min., stretch 2 min.	34 min.
Week 9	Walk 5 min., then stretch and limber up	Walk 4 min., jog 9 min., walk 4 min., jog 9 min.	Walk 3 min., stretch 2 min.	36 min.
Week 10	Walk 5 min., then stretch and limber up	Walk 4 min., jog 13 min.	Walk 3 min., stretch 2 min.	27 min.
Week 11	Walk 5 min., then stretch and limber up	Walk 4 min., jog 15 min.	Walk 3 min., stretch 2 min.	29 min.
Week 12	Walk 5 min., then stretch and limber up	Walk 4 min., jog 17 min.	Walk 3 min., stretch 2 min.	31 min.
Week 13	Walk 5 min., then stretch and limber up	Walk 2 min., jog slowly 2 min., jog 17 min.	Walk 3 min., stretch 2 min.	31 min.
Week 14	Walk 5 min., then stretch and limber up	Walk 1 min., jog slowly 3 min., jog 17 min.	Walk 3 min., stretch 2 min.	31 min.
Week 15	Walk 5 min., then stretch and limber up	Jog slowly 3 min., jog 17 min.	Walk 3 min., stretch 2 min.	30 min.

Week 16 on: Gradually increase your jogging time from 20 to 30 minutes (or more, up to 60 minutes), three or four times a week. Remember that your goal is to get the benefits you are seeking and enjoy your activity.

Why Weight Is Important

Being overweight or obese can have a negative effect on your overall health.

Overweight and obesity are risk factors for developing health problems such as high blood cholesterol, high blood pressure, diabetes, gall-bladder disease, gynecologic disorders, arthritis, some types of cancer, and even some lung problems.



People try to lose weight for a number of reasons. You may already have a health problem that you know about, such as high blood pressure, and want to lose weight to improve your health. Others may be losing weight in order to help prevent health problems. Still others simply want to lose weight to look thinner. For whatever reason, your health care provider may have given you information to help you lose weight.

In some ways, weight is different from other health problems since it is not something that is hidden, such as high blood cholesterol levels. Patients may have had experience with health care providers who are insensitive about their weight. They may have had encounters where they felt blamed rather than helped. Please be assured that when your health care provider discusses your weight, it's because it is an important aspect of your overall health care.



Your provider also understands that weight management is a long-term challenge influenced by behavioral, emotional, and physical factors.

How To Lose Weight and Maintain It

Set the Right Goals.

Setting the right goals is an important first step. Did you know that the amount of weight loss needed to improve health may be much less than you want to lose to look thinner? If your provider suggests an initial weight loss goal that seems too heavy for you, please understand that your health can be greatly improved by a loss of 5 percent to 10 percent of your starting weight. That doesn't mean you have to stop there, but it does mean that an initial goal of 5 to 10 percent of your starting weight is both realistic and valuable.

Most people who are trying to lose weight focus on one thing: weight loss. However, focusing on dietary and exercise changes that will lead to permanent weight loss is much more productive. People who are successful at managing their weight set only two to three goals at a time.

Effective goals are:

- specific
- realistic
- forgiving (less than perfect)



For example:

“**Exercise more**” is a fine goal, but it's not specific enough.

“**Walk 5 miles every day**” is specific and measurable, but is it achievable if you're just starting out?

“**Walk 30 minutes every day**” is more attainable, but what happens if you're held up at work one day and there's a thunderstorm during your walking time on another day?

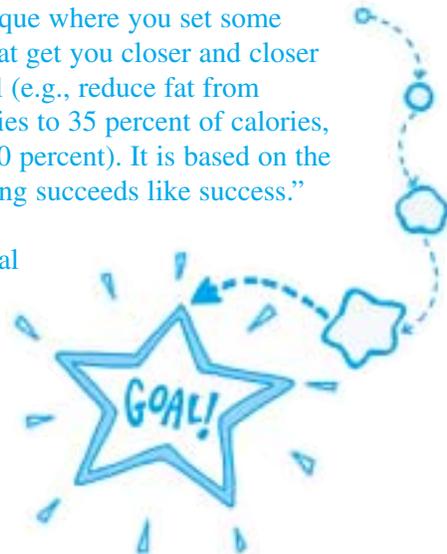
“**Walk 30 minutes, 5 days each week**” is specific, achievable, and forgiving. *A great goal!*

Nothing Succeeds Like Success.

Shaping is a technique where you set some short-term goals that get you closer and closer to the ultimate goal (e.g., reduce fat from 40 percent of calories to 35 percent of calories, and ultimately to 30 percent). It is based on the concept that “nothing succeeds like success.”

Shaping uses two important behavioral principles:

- Continuous goals that move you ahead in small steps to reach a distant point.
- Continuous rewards to keep you motivated to make changes.

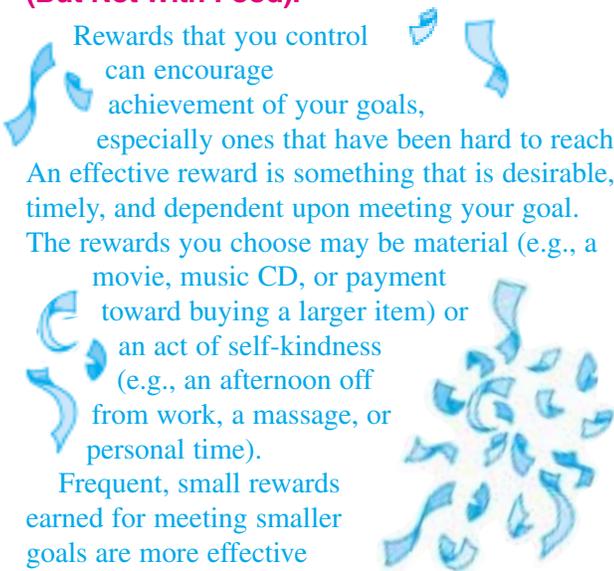


Reward Success (But Not With Food).

Rewards that you control can encourage achievement of your goals, especially ones that have been hard to reach. An effective reward is something that is desirable, timely, and dependent upon meeting your goal.

The rewards you choose may be material (e.g., a movie, music CD, or payment toward buying a larger item) or an act of self-kindness (e.g., an afternoon off from work, a massage, or personal time).

Frequent, small rewards earned for meeting smaller goals are more effective than bigger rewards, requiring a long, difficult effort.



Balance Your (Food) Checkbook.

Self-monitoring refers to observing and recording some aspect of your behavior, such as calorie intake, servings of fruits and vegetables eaten, and amount of physical activity, etc., or an outcome of these behaviors, such as weight. Self-monitoring of a behavior can be used at times when you're not sure of how you are doing and at times when you want the behavior to improve. Self-monitoring of a behavior usually moves you closer to the desired behavior. When you record your behavior, you produce real-time records for you and your health care provider to discuss. For example, keeping a record of your exercise can let you and your provider know quickly how you are doing. When your record shows that your exercise is increasing, you'll be encouraged to keep it up. Some



patients find that standard self-monitoring forms make it easier, while others like their own recording system. Use the form in Appendix K to help you keep track of your daily diet and activity levels.

Regular monitoring of your weight is key to keeping it off. Remember these four points if you are keeping a weight chart or graph:

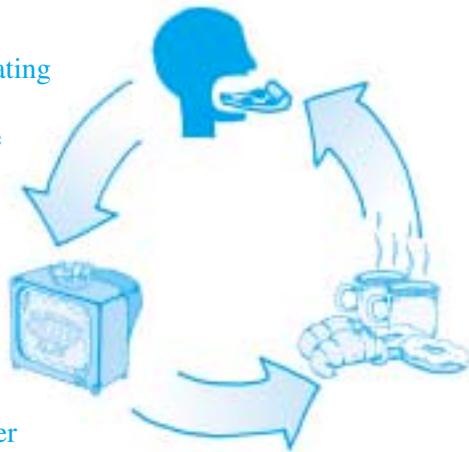
- One day's diet and exercise routine won't necessarily affect your weight the next day. Your weight will change quite a bit over the course of a few days because of fluctuations in water and body fat.
- Try to weigh yourself at a set time once or twice per week. This can be when you first wake up and before eating and drinking, after exercise, or right before dinner, etc.
- Whatever time you choose, just make sure it is always the same time and use the same scale to help you keep the most accurate records.
- It may also be helpful to create a graph of your weight as a visual reminder of how you're doing, rather than just listing numbers.



Avoid a Chain Reaction.

Stimulus (cue) control involves learning what social or environmental cues encourage undesired eating, and then changing those cues. For example, you may learn from your self-monitoring techniques or from sessions with your health care provider that you're more likely to overeat when watching TV, when treats are on display by the office coffee pot, or when around a certain friend. Ways to change the situation include:

- Separating the association of eating from the cue (Don't eat while watching television.)
- Avoiding or eliminating the cue (Leave the coffee room immediately after pouring coffee.)
- Changing the environment (Plan to meet this friend in a nonfood setting.)

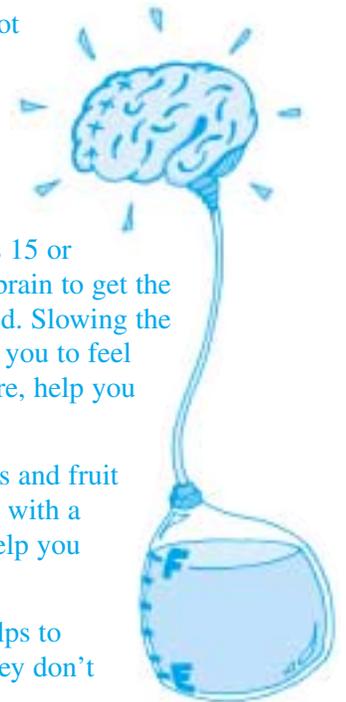


In general, visible and reachable food items often lead to unplanned eating.

Get the (Fullness) Message.

Changing the way you eat can help you to eat less and not feel deprived.

- Eating slowly will help you to feel satisfied when you've eaten the right amount of food for you. It takes 15 or more minutes for your brain to get the message you've been fed. Slowing the rate of eating can allow you to feel full sooner and, therefore, help you eat less.
- Eating lots of vegetables and fruit and also starting a meal with a broth-based soup can help you feel fuller.
- Using smaller plates helps to moderate portions so they don't appear too small.
- Drinking at least eight glasses of noncaloric beverages each day will help you to feel full, possibly eat less, and benefit you in other ways.
- Changing your eating schedule, or setting one, can be helpful, especially if you tend to skip or delay meals and overeat later.



Appendix J. **Weight and Goal Record**

PATIENT _____

DATE	WEIGHT	WEIGHT CHANGE THIS VISIT	TOTAL WEIGHT CHANGE	WAIST	BMI	PATIENT GOALS SET THIS VISIT
						DIET
						PHYSICAL ACTIVITY
						BEHAVIOR
						NOTES
						DIET
						PHYSICAL ACTIVITY
						BEHAVIOR
						NOTES
						DIET
						PHYSICAL ACTIVITY
						BEHAVIOR
						NOTES

Weight Management Chart

You can't drive a car if you can't see where you are going. You can't control your weight if you can't see where it's going. An important behavior change is to keep a visual record of your weight, along with your physical activity habits. Beginning now, weigh yourself every day and record each day's weight and minutes of physical activity using the graph on the next page, as shown in the example below. Weigh yourself at the same time under the same conditions every day. The bottom horizontal lines show the days of the month. The vertical lines on the left side will show a range of your weights, while the vertical lines on the right side will show the minutes of physical activity.



Chart Your Weight.

Write in your first weight on the third line from the top of the graph on the left side. List successive weights up and down from there, one pound per line. Each day go up the line above that day until you are on the same horizontal line as your weight that day, and mark the spot with a dot. Connect the dots with a solid line.

Chart Your Physical Activity.

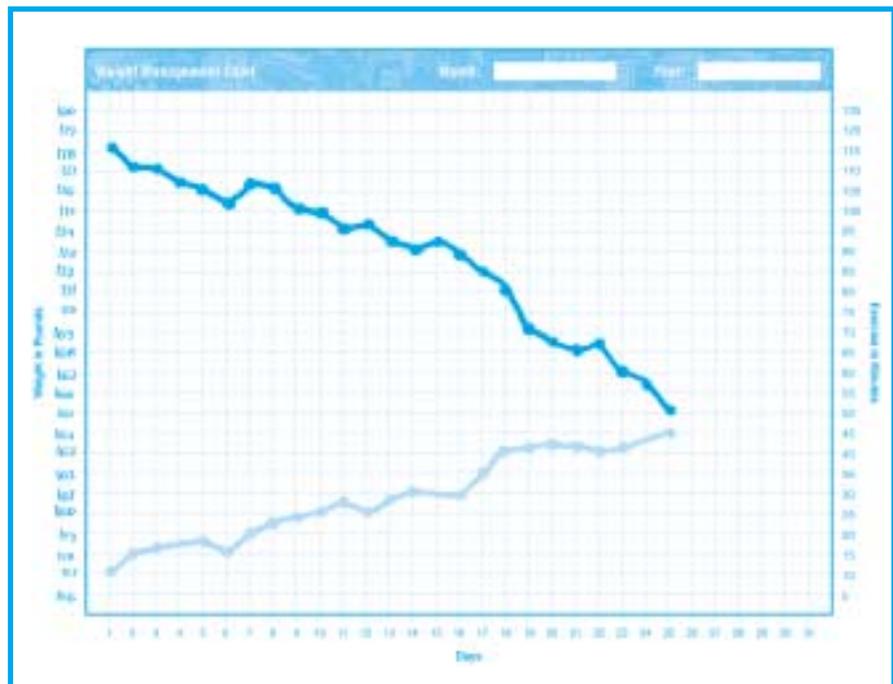
Do the same for physical activity. Write in 5 minutes of physical activity on the first line from the bottom of the graph on the right side. List additional

minutes of activity up from there using 5 minute intervals. Each day go up the line above that day until you are on the same horizontal line as your physical activity for that day, and mark the spot with a dot. Connect the dots with a solid line.

See Your Success.

The beginning of a weight loss program is when weight graphing is most fun—a good time to start the habit. Your graph will show ups and downs because of changes in fluid balance and differences in fluid intake from day to day. You will learn to understand these variations and use the overall trend to guide your weight control plan. Post the graph near your scale or on your refrigerator as a reminder of your progress.

Weigh yourself at the same time under the same conditions every day. The bottom horizontal lines show the days of the month. The vertical lines on the left side will show a range of your weights, while the vertical lines on the right side will show the minutes of physical activity.



Source: Adapted from the Weight Management Center, Medical University of South Carolina

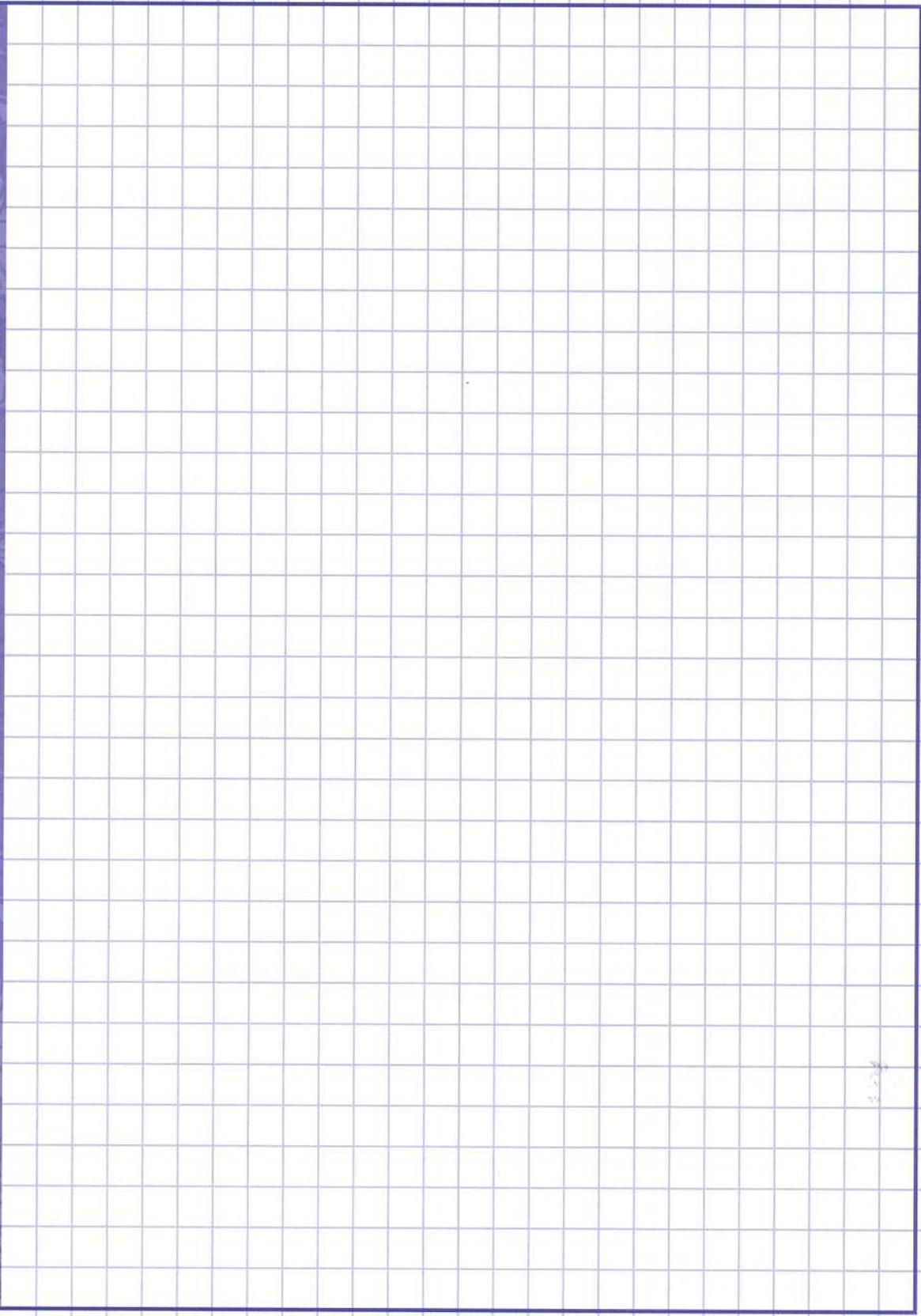
Weight Management Chart

Month:

Year:

Exercise in Minutes

- 125
- 120
- 115
- 110
- 105
- 100
- 95
- 90
- 85
- 80
- 75
- 70
- 65
- 60
- 55
- 50
- 45
- 40
- 35
- 30
- 25
- 20
- 15
- 10
- 5



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 31

Days

Weight in Pounds

Appendix K. **Weekly Food and Activity Diary**

Weekly Food and Activity Diary		Week of: <input type="text"/>						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast								
Lunch								
Dinner								
Activity								
Notes:								
<hr/>								
<hr/>								
<hr/>								

The *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: Evidence Report* was developed by the NHLBI Expert Panel and released in June 1998. In addition to the *Evidence Report* (NIH Publication # 4083), a number of professional and patient education resources based on the report are available from the NHLBI. These resources include the executive summary of the report (NIH Publication #55-892), evidence tables of data supporting the report, an electronic textbook, a slide kit, a BMI calculator including a Palm top application, a menu planner, highlights for patients, and this *Practical Guide to the Identification, Evaluation and Treatment of Overweight and Obesity in Adults*. These resources are available on the NHLBI's **Aim For a Healthy Weight Web page** at www.nhlbi.nih.gov or by contacting the address below:

In addition, the *Clinical Guidelines Evidence Report* was published in the September 1998 supplement of *Obesity Research* which can be obtained from the North American Association for the Study of Obesity (NAASO) at the following address:

National Heart, Lung, and Blood Institute

Health Information Center

P.O. Box 30105

Bethesda, MD 20824-0105

(301) 592-8573

(301) 592-8563 fax

www.nhlbi.nih.gov

Online publications on blood pressure, overweight, cholesterol, heart disease, sleep disorders and asthma

North American Association for the Study of Obesity

8630 Fenton Street, Suite 412

Silver Spring, MD 20910

(301) 563-6526

(301) 587-2365 fax

www.naaso.org

Other materials available from the NHLBI include:

1. *Second Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel II)*. NIH publication #3046. www.nhlbi.nih.gov.
2. *The Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure*. NIH publication #4080. www.nhlbi.nih.gov.
3. *Consensus Statement: Gastrointestinal Surgery for Severe Obesity*. www.odp.od.nih.gov/consensus

National Institute of Diabetes and Digestive and Kidney Diseases
National Institutes of Health
Building 31, Room 9A52
31 Center Drive
Bethesda, MD 20892-1818
(301) 496-5877
(301) 402-2125 fax
<http://www.niddk.nih.gov/index.htm>

The Weight-Control Information Network
National Institute of Diabetes and Digestive and Kidney Diseases
National Institutes of Health
1 Win Way
Bethesda, MD 20892-0001
(301) 570-2177
(301) 570-2186 fax
1-800-WIN-8098

National Diabetes Information Clearinghouse (NIDDK)
1 Information Way
Bethesda, MD 20892-3560
(301) 654-3327
(301) 907-8906 fax

American Society for Bariatric Surgery (ASBS)
140 Northwest 75th Drive,
Suite C
Gainesville, FL 32607
(352) 331-4900
(352) 331-4975 fax
<http://www.asbs.org/>

American Dietetic Association
216 West Jackson Boulevard
Chicago, IL 60606-6995
(312) 899-0040
1-800-877-1600 fax
<http://www.eatright.org>
Eat Right America Program
Find a dietitian, 1-800-366-1655

American College of Sports Medicine
P.O. Box 1440
Indianapolis, IN 46206-1440
(317) 637-9200
(317) 634-7817 fax
<http://www.acsm.org>

American Diabetes Association
1660 Duke Street
Alexandria, VA 22314
1-800-DIABETES
<http://www.diabetes.org>

American Society of Bariatric Physicians (ASBP)
5600 South Quebec Street,
Suite 109A
Englewood, CO 80111
(303) 770-2526, ext. 17
(membership information only)
(303) 779-4833
(303) 779-4834 fax
<http://www.asbp.org>

American Obesity Association
1250 24th Street, NW, Suite 300
Washington, DC 20037
202-776-7711
202-776-7712 fax
<http://www.obesity.org>

American Cancer Society
Atlanta, GA
1-800-ACS-2345
<http://www.cancer.org>

Office of Cancer Communications
National Cancer Institute
National Institutes of Health
Building 31, Room 10A-24
31 Center Drive, MSC 2580
Bethesda, MD 20892-2580
1-800-4-CANCER
(1-800-422-6237)
<http://www.nci.nih.gov>

National Eating Disorders Organization
6655 South Yale Avenue
Tulsa, OK 74136
(918) 481-4044
(918) 481-4076 fax
<http://www.laureate.com/aboutned.html>

Eating Disorders Awareness and Prevention, Inc.
603 Stewart Street, Suite 803
Seattle, WA 98101
(206) 382-3587
<http://members.aol.com/edapinc/home.html>

American Anorexia/Bulimia Association, Inc.
165 West 46th Street, #1108
New York, NY 10036
(212) 575-6200
<http://members.aol.com/amanbu/index.html>

National Association of Anorexia Nervosa and Associated Disorders
P.O. Box 7
Highland Park, IL 60035
(847) 831-3438
(847) 433-4632 fax
<http://www.anad.org>

American Heart Association
7272 Greenville Avenue
Dallas, TX 75231-4596
(214) 706-1220
(214) 706-1341 fax
1-800-AHA-USA1
(1-800-242-8721)
<http://www.americanheart.org>

National Mental Health Association
1201 Prince Street
Alexandria, Virginia 22314-2971
(703) 684-7722
(703) 684-5968 fax
1-800-969-NMHA
(Information Center)
<http://www.nmha.org>

Stroke Connection
1-800-553-6321
Hypertension Network, Inc.
<http://www.bloodpressure.com>

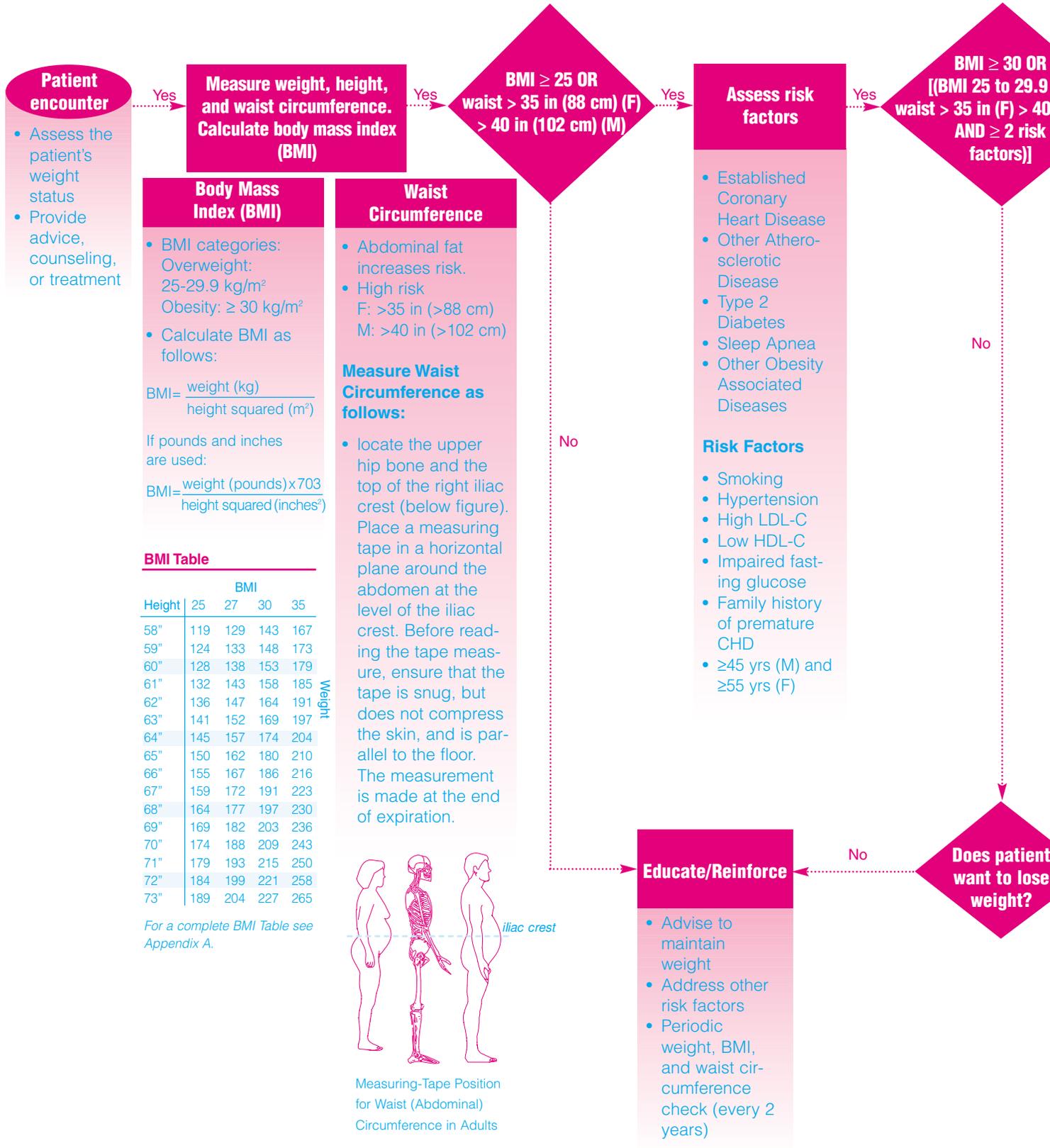
National Institute of Neurological
Disorders and Stroke
National Institutes of Health
P.O. Box 1350
Silver Spring, MD 20911
(800) 352-9424
<http://www.ninds.nih.gov>

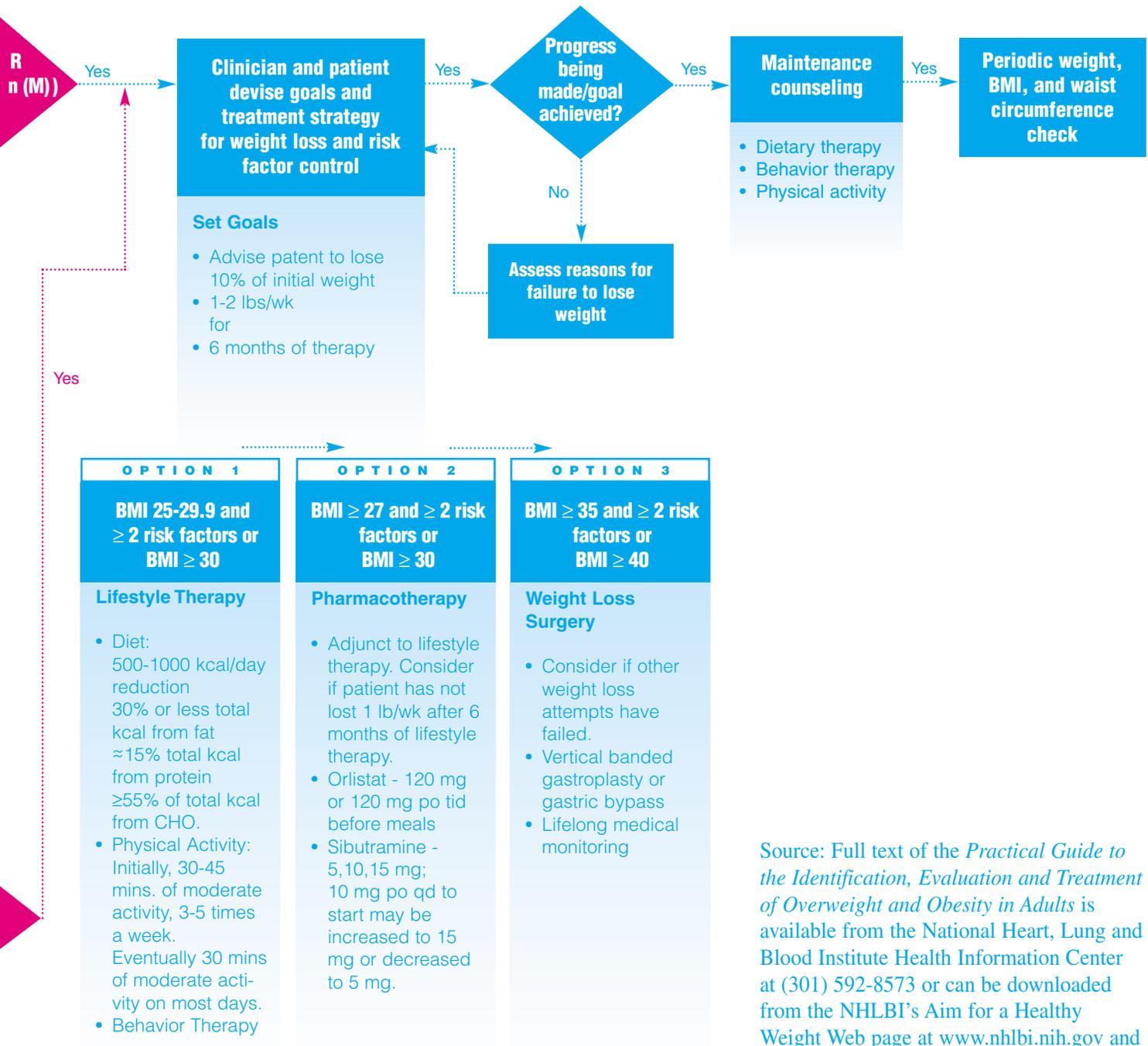
National Center on Sleep Disorders
Research
National Heart, Lung,
and Blood Institute
National Institutes of Health
Two Rockledge Centre,
Suite 10038
6701 Rockledge Drive,
MSC 7920
Bethesda, MD 20892-7920
(301) 435-0199
(301) 480-3451 fax
www.nhlbi.nih.gov and click
on NCSDR

American Academy of
Sleep Medicine
6301 Bandel Road, Suite 101
Rochester, MN 55901
(507) 287-6006
(507) 287-6008 fax
<http://www.aasmnet.org>

A Quick Reference Tool to ACT

Assessment (A) and Classification (C)





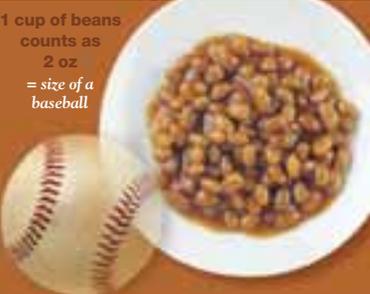
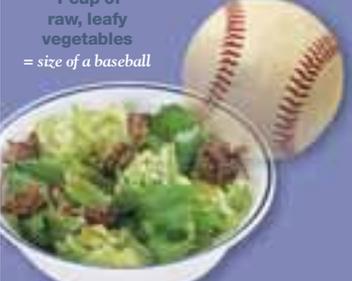
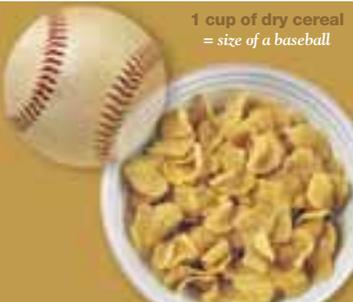
Source: Full text of the *Practical Guide to the Identification, Evaluation and Treatment of Overweight and Obesity in Adults* is available from the National Heart, Lung and Blood Institute Health Information Center at (301) 592-8573 or can be downloaded from the NHLBI's Aim for a Healthy Weight Web page at www.nhlbi.nih.gov and click on "Aim for a Healthy Weight." Also, available from NAASO at www.naaso.org

What size is your serving?

Compare the Pyramid Servings
with what you eat in a day.



Food Guide Pyramid – A Guide to Daily Choices

How Many Each Day?	What Counts as a Serving		
<p>2 to 3 Servings</p> <p>Milk Group</p>	<p>8 oz. glass of milk = size of a small milk carton</p> 	<p>1 1/2 oz. of natural cheese = size of two 9-volt batteries</p> 	<p>8 oz. cup of yogurt = size of a baseball</p> 
<p>2 to 3 Servings (total of 5 to 7 ounces)</p> <p>Meat & Beans Group</p>	<p>2-3 oz. of meat, poultry or fish = size of a deck of cards</p> 	<p>2 tablespoons of peanut butter counts as 1 oz = size of a roll of film</p> 	<p>1 cup of beans counts as 2 oz = size of a baseball</p> 
<p>3 to 5 Servings</p> <p>Vegetable Group</p>	<p>1 cup of raw, leafy vegetables = size of a baseball</p> 	<p>10 french fries = size of a deck of cards</p> 	<p>1/2 cup of peas or other vegetables = size of a small computer mouse</p> 
<p>2 to 4 Servings</p> <p>Fruit Group</p>	<p>3/4 cup of fruit juice = size of a 6 oz can</p> 	<p>1/2 cup of sliced fruit = size of a small computer mouse</p> 	<p>1 medium fruit = size of a baseball</p> 
<p>6 to 11 Servings</p> <p>Grains Group</p>	<p>1 slice of bread = size of a disk</p> 	<p>1 cup of dry cereal = size of a baseball</p> 	<p>1/2 cup of pasta = size of a small computer mouse</p> 

Website Links

- PPIP - Put Prevention Into Practice - <http://www.ahcpr.gov/clinic/ppipix.htm>
- CDC - Center for Disease Control - <http://www.cdc.gov/>
- NAASO - North American Association for the Study of Obesity - <http://www.naaso.org>
- NHLBI – National Heart, Lung, and Blood Institute – www.nhlbi.org
- AOA – American Obesity Organization – www.obesity.org

Developing a Chronic Care Model of Care (A Systems Approach)

- Put Prevention Into Practice
 - AHRQ
 - www.ahrq.gov
- Improving Chronic Illness Care
 - <http://improvingchroniccare.org>
 - Chronic care training manual
 - ICIC Improving your practice manual
 - Tools



Systems Review

- **Cardiovascular**

- Hypertension
- Congestive Heart Failure
- Cor Pulmonale
- Varicose Veins
- Pulmonary Embolism
- Coronary Artery Disease

- **Neurologic**

- Stroke
- Idiopathic intracranial hypertension
- Meralgia paresthetica

- **Psychological**

- Depression
- Body image disturbance
- Stigmatization

- **Respiratory**

- Dyspnea
- Obstructive Sleep Apnea
- Hypoventilation Syndrome
- Pickwickian Syndrome
- Asthma

- **Endocrine**

- Metabolic Syndrome
- Type 2 diabetes
- Dyslipidemia
- Polycystic ovarian syndrome (PCOS)/androgenicity
- Amenorrhea/infertility menstrual disorders

Systems Review

- **Musculoskeletal**

- Hyperuricemia and gout
- Immobility
- Osteoarthritis (knees/hips)
- Low back pain
- Carpal tunnel syndrome

- **Integument**

- Striae distensae (stretch marks)
- Stasis pigmentation of legs
- Cellulitis
- Acanthosis nigricans/skin tags
- Intertrigo, carbuncles

- **Gastrointestinal**

- GERD
- Non-alcoholic fatty liver disease (NAFLD)
- Cholelithiasis
- Hernias
- Colon cancer

- **Genitourinary**

- Urinary stress incontinence
- Obesity-related glomerulopathy
- Kidney stones
- Hypogonadism (M)
- Breast and uterine cancer
- Kidney cancer
- Pregnancy complications

The Metabolic Syndrome

Risk Factor	Defining Level
Abdominal Obesity Men Women	Waist Circumference > 102 cm (> 40 in) > 88 cm (> 35 in)
Triglycerides	≥ 150 mg/dL
HDL Cholesterol Men Women	< 40 mg/dL < 50 mg/dL
Blood Pressure	≥ 130 / ≥ 85 mm Hg
Fasting Glucose	≥ 110 mg/dL

The Office Environment

Physical Environment

- Accessibility and comfort are key
- Large doorways, hallways, restrooms
- Seating
 - Sturdy, armless chairs and high, wide, firm sofas
≥ 19” high
- Reading material and artwork
 - Neutral (non-food, thinness, glamour related)
- Promotional materials for office products, services should be professional without sales pressure

The Office Environment

Equipment

- Large adult thigh and blood pressure cuffs, large tape measure
- Large exam tables and gowns
- Scales that weigh up to 500 lbs or more
- Exam tables
 - Sturdy, wide and bolted to the floor to prevent tipping

The Office Environment

Materials

- Educational and behavioral brochures
- Pamphlets and handouts on BMI, obesity associated diseases, diet, exercise, medications, and surgery
- Journals to help record food intake, emotional, physical activity, snacks, etc.

Staff

- “The cornerstone of effective obesity treatment is grounded in skillful and empathetic physician-patient communication”
- The Therapeutic Bond
- Empathetic, compassionate, supportive, trustworthy, nonjudgmental, caring
- Optimistic – hope is an important medicine
- Healthy role models, helpful, kind

Types of Surgery

- Gastric Bypass

- They make a little pouch, they hook up the stomach to a loop of the duodenum and brought up. The duodenum is then hooked up into the jejunum. The jejunum is brought up. This loop of jejunum should not be too long. The stomach is intact and the secretions from the duodenum go into the (inaudible). There are variations in how bypassing is performed but this is the simple principle of a bypass.

- Gastroplasty

- There's vertical banded gastroplasty, which creates a band along the stomach and then leads to a little band. This procedure is not popular any more, most likely because it produces less weight loss than gastric bypass.

- Gastric Banding

- This is a technical device, in which a band is placed around the top of the stomach. The opening to the band is left external and the surgeon can tighten the band or loosen it depending on how the patient is doing.

Side Effects & Complications

1 in 200-300 patients in the US die from bariatric surgery

- Iron deficiency
- Vitamin B₁₂ deficiency
- Folic Acid deficiency
- Dehydration
- Vitamin A deficiency
- Electrolyte deficiency
- Protein deficiency
- Hyperparathyroidism
- Follow up of nutritional and metabolic problems after bariatric surgery K. Fujioka
Diabetes Care 28:481-484,2005
- Nausea
- Vomiting
- Abdominal pain
- Constipation
- Marginal ulceration
- Gallstones
- Bleeding ulcer
- Obstruction of the stomach outlet

Referral Options

- Nutritionist/Registered Dietitian
- Behavior therapist
- Psychiatrist/Psychologist
- Surgery
- Physical therapy
- CD rehab

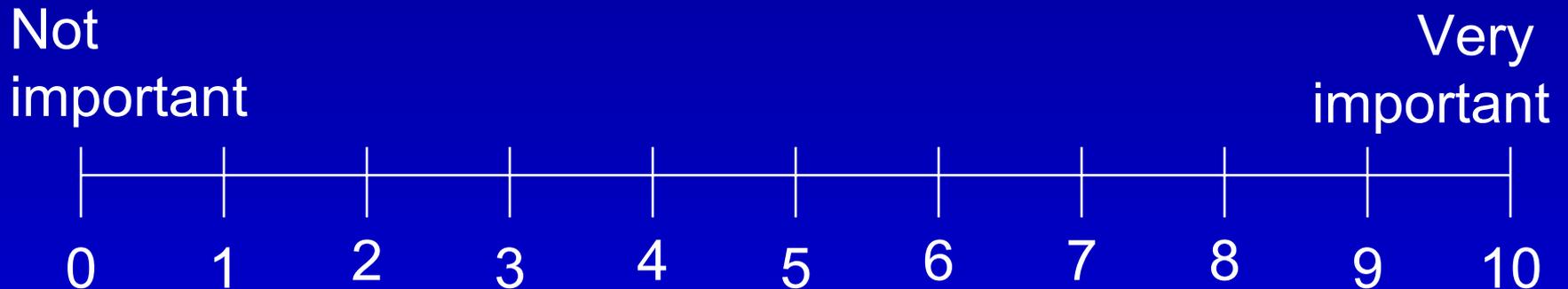
5 Steps to Behavior Change

1. Have patient identify specific goals
 - Activity (ie, one specific goal for exercise)
 - Intake (ie, one specific goal for diet)
2. Identify when, where, and how behaviors will be performed
3. Have patient keep record of behavior change (i.e., diet and activity diaries)
4. Follow-up progress at next treatment visit
5. Congratulate patient on successes; do not criticize shortcomings

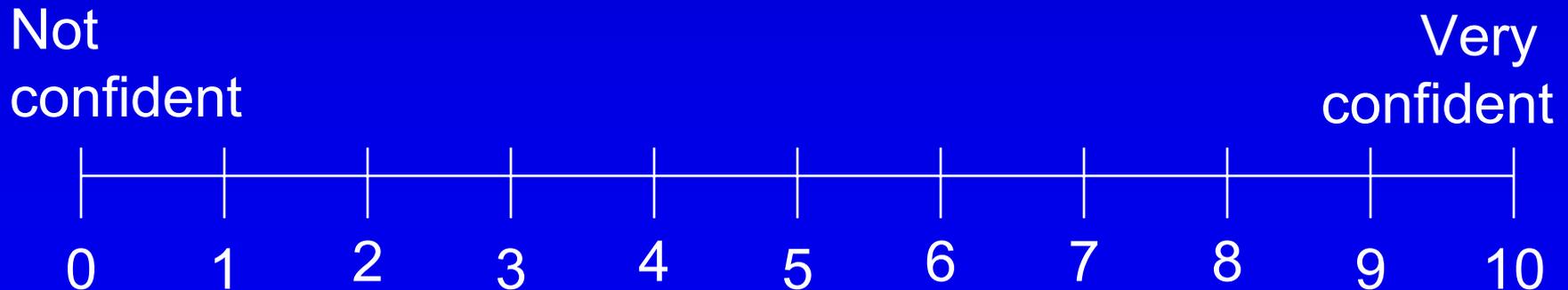
Broaching the Subject: Words to Use

- “Are you concerned about your weight?”
- “What is hard about managing your weight?”
- “How does being overweight affect you?”
- “What can’t you do now that you would like to do if you weighed less?”
- “What kind of help do you need to manage your weight?”

How important is it for you to get your weight under control?



How confident are you to that you can get your weight under control?



New Food Pyramid & Dietary Guidelines



Mix up your choices within each food group.



Focus on fruits. Eat a variety of fruits—whether fresh, frozen, canned, or dried—rather than fruit juice for most of your fruit choices. For a 2,000-calorie diet, you will need 2 cups of fruit each day (for example, 1 small banana, 1 large orange, and $\frac{1}{4}$ cup of dried apricots or peaches).



Vary your veggies. Eat more dark green veggies, such as broccoli, kale, and other dark leafy greens; orange veggies, such as carrots, sweetpotatoes, pumpkin, and winter squash; and beans and peas, such as pinto beans, kidney beans, black beans, garbanzo beans, split peas, and lentils.



Get your calcium-rich foods. Get 3 cups of low-fat or fat-free milk—or an equivalent amount of low-fat yogurt and/or low-fat cheese (1½ ounces of cheese equals 1 cup of milk)—every day. For kids aged 2 to 8, it's 2 cups of milk. If you don't or can't consume milk, choose lactose-free milk products and/or calcium-fortified foods and beverages.



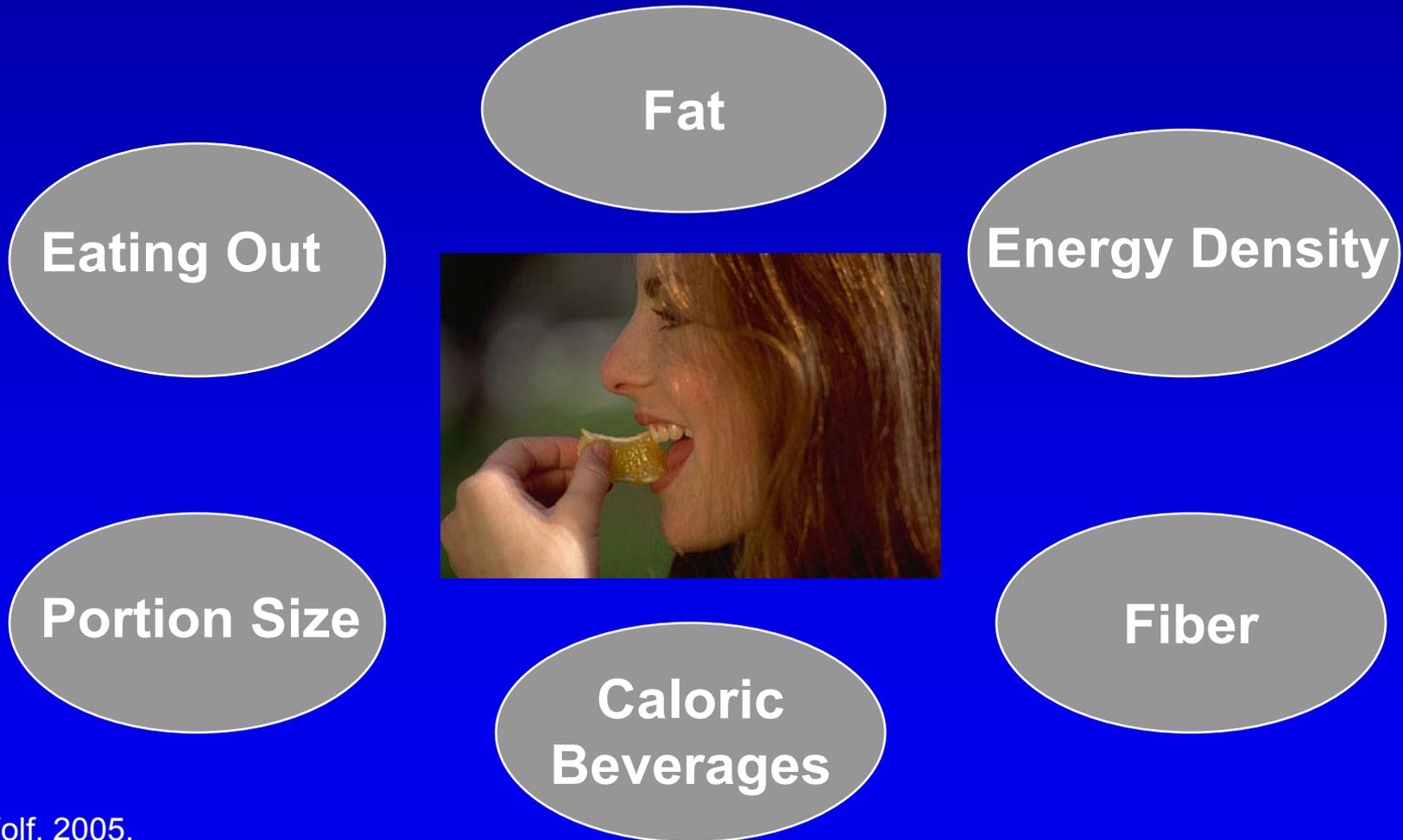
Make half your grains whole. Eat at least 3 ounces of whole-grain cereals, breads, crackers, rice, or pasta every day. One ounce is about 1 slice of bread, 1 cup of breakfast cereal, or $\frac{1}{2}$ cup of cooked rice or pasta. Look to see that grains such as wheat, rice, oats, or corn are referred to as “whole” in the list of ingredients.



Go lean with protein. Choose lean meats and poultry. Bake it, broil it, or grill it. And vary your protein choices—with more fish, beans, peas, nuts, and seeds.

Know the limits on fats, salt, and sugars. Read the Nutrition Facts label on foods. Look for foods low in saturated fats and *trans* fats. Choose and prepare foods and beverages with little salt (sodium) and/or added sugars (caloric sweeteners).

Dietary Factors to Address



16 oz

32 oz

44 oz

52 oz

64 oz



Pre-Visit Questionnaire

Name _____

Gender _____ Age _____

Height _____ Current Weight _____

Birth Date _____ Race _____ Marital Status _____

Number of Children and their age _____

Lifetime maximum weight _____ Perceived healthy weight _____

Age at which you first became over 50 lbs overweight _____

Number of times you have lost 20 lbs or more and when _____

Reason you want to lose weight _____

Reasons you think you are overweight _____

Number of overweight immediate family members _____

Number of blood relatives with diabetes and relation to you

Number of blood relatives with high blood pressure and relation to you

Number of blood relatives with heart disease and relation to you

Do you smoke and/or drink alcohol? _____ Frequency _____

Do you have anxiety or depression? _____

Please list past weight loss methods, weight loss, and approx. year:

CDC Table for Calculated Body Mass Index Values for Selected Heights and Weights for Ages 2 to 20 Years

Body Mass Index (BMI) is determined as follows:

English Formula:

$$\text{Weight in pounds} \div \text{Height in inches} \div \text{Height in inches} \times 703 = \text{BMI}$$

Metric Formula:

$$\text{Weight in kilograms} \div \text{Height in meters} \div \text{Height in meters} = \text{BMI}$$

The above BMI formulas have already been calculated and are presented in this table entitled *Calculated Body Mass Index Values for Selected Heights and Weights for Ages 2 to 20 Years*. To use the BMI table, first locate the child's height and weight in the height and weight ranges listed in the upper right corner of each page. The table of contents contains a list of height and weight ranges and may be used to locate the page numbers for specific BMI values. Please note that some height and weight measurements are found on more than one page, so be sure that *both* the height and weight measurements are within the range listed at the top of the page. Weight measurements are listed in increasing sequential order. Once the exact page has been located in the table, the point where height and weight intersect represents the BMI value. This value is then plotted on the BMI-for-age growth chart to determine whether the child is within a normal growth pattern, overweight, at risk of becoming overweight, or underweight.

In the table, English height measurements (inches) are shown in 1/2-inch increments for heights below 48 inches and 1-inch increments for heights between 48 and 78 inches. English weight measurements (pounds) are shown in 1/2-pound increments for weights under 60 pounds, 1-pound increments for weights between 60 and 110 pounds, and 2-pound increments for weights between 112 and 250 pounds. The corresponding metric values in centimeters and kilograms are included next to the English values in the table. Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

June 2000



DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention



Calculated Body Mass Index

29"-37" and 18 lbs.-26 lbs.

Height		Weight																	
		Kg	8.2	8.4	8.6	8.8	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.7	10.9	11.1	11.3	11.6	11.8
Cm In		Lb	18	18.5	19	19.5	20	20.5	21	21.5	22	22.5	23	23.5	24	24.5	25	25.5	26
73.7	29		15.0	15.5	15.9	16.3	16.7	17.1	17.6	18.0	18.4	18.8	19.2	19.6	20.1	20.5	20.9	21.3	21.7
74.9	29.5		14.5	14.9	15.3	15.8	16.2	16.6	17.0	17.4	17.8	18.2	18.6	19.0	19.4	19.8	20.2	20.6	21.0
76.2	30		14.1	14.5	14.8	15.2	15.6	16.0	16.4	16.8	17.2	17.6	18.0	18.4	18.7	19.1	19.5	19.9	20.3
77.5	30.5		13.6	14.0	14.4	14.7	15.1	15.5	15.9	16.2	16.6	17.0	17.4	17.8	18.1	18.5	18.9	19.3	19.7
78.7	31		13.2	13.5	13.9	14.3	14.6	15.0	15.4	15.7	16.1	16.5	16.8	17.2	17.6	17.9	18.3	18.7	19.0
80.0	31.5			13.1	13.5	13.8	14.2	14.5	14.9	15.2	15.6	15.9	16.3	16.7	17.0	17.4	17.7	18.1	18.4
81.3	32				13.0	13.4	13.7	14.1	14.4	14.8	15.1	15.4	15.8	16.1	16.5	16.8	17.2	17.5	17.9
82.6	32.5					13.3	13.6	14.0	14.3	14.6	15.0	15.3	15.6	16.0	16.3	16.6	17.0	17.3	
83.8	33						13.2	13.6	13.9	14.2	14.5	14.8	15.2	15.5	15.8	16.1	16.5	16.8	
85.1	33.5							13.2	13.5	13.8	14.1	14.4	14.7	15.0	15.3	15.7	16.0	16.3	
86.4	34								13.1	13.4	13.7	14.0	14.3	14.6	14.9	15.2	15.5	15.8	
87.6	34.5									13.3	13.6	13.9	14.2	14.5	14.8	15.1	15.4		
88.9	35										13.2	13.5	13.8	14.1	14.3	14.6	14.9		
90.2	35.5											13.1	13.4	13.7	13.9	14.2	14.5		
91.4	36												13.0	13.3	13.6	13.8	14.1		
92.7	36.5														13.2	13.5	13.7		
94.0	37																13.1	13.4	

Calculated Body Mass Index

29"–43" and 26.5 lbs.–34.5 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

Height		Weight																	
		Kg	12.0	12.2	12.5	12.7	12.9	13.2	13.4	13.6	13.8	14.1	14.3	14.5	14.7	15.0	15.2	15.4	15.6
		Lb	26.5	27	27.5	28	28.5	29	29.5	30	30.5	31	31.5	32	32.5	33	33.5	34	34.5
Cm	In																		
73.7	29	22.2	22.6	23.0	23.4	23.8	24.2	24.7	25.1	25.5	25.9	26.3	26.8	27.2	27.6	28.0	28.4	28.8	
74.9	29.5	21.4	21.8	22.2	22.6	23.0	23.4	23.8	24.2	24.6	25.0	25.4	25.9	26.3	26.7	27.1	27.5	27.9	
76.2	30	20.7	21.1	21.5	21.9	22.3	22.7	23.0	23.4	23.8	24.2	24.6	25.0	25.4	25.8	26.2	26.6	27.0	
77.5	30.5	20.0	20.4	20.8	21.2	21.5	21.9	22.3	22.7	23.1	23.4	23.8	24.2	24.6	24.9	25.3	25.7	26.1	
78.7	31	19.4	19.8	20.1	20.5	20.9	21.2	21.6	21.9	22.3	22.7	23.0	23.4	23.8	24.1	24.5	24.9	25.2	
80.0	31.5	18.8	19.1	19.5	19.8	20.2	20.5	20.9	21.3	21.6	22.0	22.3	22.7	23.0	23.4	23.7	24.1	24.4	
81.3	32	18.2	18.5	18.9	19.2	19.6	19.9	20.3	20.6	20.9	21.3	21.6	22.0	22.3	22.7	23.0	23.3	23.7	
82.6	32.5	17.6	18.0	18.3	18.6	19.0	19.3	19.6	20.0	20.3	20.6	21.0	21.3	21.6	22.0	22.3	22.6	23.0	
83.8	33	17.1	17.4	17.8	18.1	18.4	18.7	19.0	19.4	19.7	20.0	20.3	20.7	21.0	21.3	21.6	22.0	22.3	
85.1	33.5	16.6	16.9	17.2	17.5	17.9	18.2	18.5	18.8	19.1	19.4	19.7	20.0	20.4	20.7	21.0	21.3	21.6	
86.4	34	16.1	16.4	16.7	17.0	17.3	17.6	17.9	18.2	18.5	18.9	19.2	19.5	19.8	20.1	20.4	20.7	21.0	
87.6	34.5	15.7	15.9	16.2	16.5	16.8	17.1	17.4	17.7	18.0	18.3	18.6	18.9	19.2	19.5	19.8	20.1	20.4	
88.9	35	15.2	15.5	15.8	16.1	16.4	16.6	16.9	17.2	17.5	17.8	18.1	18.4	18.7	18.9	19.2	19.5	19.8	
90.2	35.5	14.8	15.1	15.3	15.6	15.9	16.2	16.5	16.7	17.0	17.3	17.6	17.9	18.1	18.4	18.7	19.0	19.2	
91.4	36	14.4	14.6	14.9	15.2	15.5	15.7	16.0	16.3	16.5	16.8	17.1	17.4	17.6	17.9	18.2	18.4	18.7	
92.7	36.5	14.0	14.2	14.5	14.8	15.0	15.3	15.6	15.8	16.1	16.4	16.6	16.9	17.2	17.4	17.7	17.9	18.2	
94.0	37	13.6	13.9	14.1	14.4	14.6	14.9	15.2	15.4	15.7	15.9	16.2	16.4	16.7	16.9	17.2	17.5	17.7	
95.3	37.5	13.2	13.5	13.7	14.0	14.2	14.5	14.7	15.0	15.2	15.5	15.7	16.0	16.2	16.5	16.7	17.0	17.2	
96.5	38		13.1	13.4	13.6	13.9	14.1	14.4	14.6	14.9	15.1	15.3	15.6	15.8	16.1	16.3	16.6	16.8	
97.8	38.5			13.0	13.3	13.5	13.8	14.0	14.2	14.5	14.7	14.9	15.2	15.4	15.7	15.9	16.1	16.4	
99.1	39				13.2	13.4	13.6	13.9	14.1	14.3	14.6	14.8	15.0	15.3	15.5	15.7	15.9		
100.3	39.5					13.1	13.3	13.5	13.7	14.0	14.2	14.4	14.6	14.9	15.1	15.3	15.5		
101.6	40							13.2	13.4	13.6	13.8	14.1	14.3	14.5	14.7	14.9	15.2		
102.9	40.5								13.1	13.3	13.5	13.7	13.9	14.1	14.4	14.6	14.8		
104.1	41									13.2	13.4	13.6	13.8	14.0	14.2	14.4			
105.4	41.5										13.1	13.3	13.5	13.7	13.9	14.1			
106.7	42												13.2	13.4	13.6	13.8			
108.0	42.5														13.0	13.2	13.4		
109.2	43																	13.1	

Calculated Body Mass Index

29"–43" and 35 lbs.–43 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Cm In		Kg	15.9	16.1	16.3	16.6	16.8	17.0	17.2	17.5	17.7	17.9	18.1	18.4	18.6	18.8	19.1	19.3	19.5
		Lb	35	35.5	36	36.5	37	37.5	38	38.5	39	39.5	40	40.5	41	41.5	42	42.5	43
73.7	29		29.3	29.7	30.1	30.5	30.9	31.3	31.8	32.2	32.6	33.0	33.4	33.9	34.3	34.7			
74.9	29.5		28.3	28.7	29.1	29.5	29.9	30.3	30.7	31.1	31.5	31.9	32.3	32.7	33.1	33.5	33.9	34.3	34.7
76.2	30		27.3	27.7	28.1	28.5	28.9	29.3	29.7	30.1	30.5	30.9	31.2	31.6	32.0	32.4	32.8	33.2	33.6
77.5	30.5		26.5	26.8	27.2	27.6	28.0	28.3	28.7	29.1	29.5	29.9	30.2	30.6	31.0	31.4	31.7	32.1	32.5
78.7	31		25.6	26.0	26.3	26.7	27.1	27.4	27.8	28.2	28.5	28.9	29.3	29.6	30.0	30.4	30.7	31.1	31.5
80.0	31.5		24.8	25.2	25.5	25.9	26.2	26.6	26.9	27.3	27.6	28.0	28.3	28.7	29.1	29.4	29.8	30.1	30.5
81.3	32		24.0	24.4	24.7	25.1	25.4	25.7	26.1	26.4	26.8	27.1	27.5	27.8	28.2	28.5	28.8	29.2	29.5
82.6	32.5		23.3	23.6	24.0	24.3	24.6	25.0	25.3	25.6	26.0	26.3	26.6	27.0	27.3	27.6	28.0	28.3	28.6
83.8	33		22.6	22.9	23.2	23.6	23.9	24.2	24.5	24.9	25.2	25.5	25.8	26.1	26.5	26.8	27.1	27.4	27.8
85.1	33.5		21.9	22.2	22.6	22.9	23.2	23.5	23.8	24.1	24.4	24.7	25.1	25.4	25.7	26.0	26.3	26.6	26.9
86.4	34		21.3	21.6	21.9	22.2	22.5	22.8	23.1	23.4	23.7	24.0	24.3	24.6	24.9	25.2	25.5	25.8	26.2
87.6	34.5		20.7	21.0	21.3	21.6	21.9	22.2	22.4	22.7	23.0	23.3	23.6	23.9	24.2	24.5	24.8	25.1	25.4
88.9	35		20.1	20.4	20.7	20.9	21.2	21.5	21.8	22.1	22.4	22.7	23.0	23.2	23.5	23.8	24.1	24.4	24.7
90.2	35.5		19.5	19.8	20.1	20.4	20.6	20.9	21.2	21.5	21.8	22.0	22.3	22.6	22.9	23.2	23.4	23.7	24.0
91.4	36		19.0	19.3	19.5	19.8	20.1	20.3	20.6	20.9	21.2	21.4	21.7	22.0	22.2	22.5	22.8	23.1	23.3
92.7	36.5		18.5	18.7	19.0	19.3	19.5	19.8	20.1	20.3	20.6	20.8	21.1	21.4	21.6	21.9	22.2	22.4	22.7
94.0	37		18.0	18.2	18.5	18.7	19.0	19.3	19.5	19.8	20.0	20.3	20.5	20.8	21.1	21.3	21.6	21.8	22.1
95.3	37.5		17.5	17.7	18.0	18.2	18.5	18.7	19.0	19.2	19.5	19.7	20.0	20.2	20.5	20.7	21.0	21.2	21.5
96.5	38		17.0	17.3	17.5	17.8	18.0	18.3	18.5	18.7	19.0	19.2	19.5	19.7	20.0	20.2	20.4	20.7	20.9
97.8	38.5		16.6	16.8	17.1	17.3	17.6	17.8	18.0	18.3	18.5	18.7	19.0	19.2	19.4	19.7	19.9	20.2	20.4
99.1	39		16.2	16.4	16.6	16.9	17.1	17.3	17.6	17.8	18.0	18.3	18.5	18.7	19.0	19.2	19.4	19.6	19.9
100.3	39.5		15.8	16.0	16.2	16.4	16.7	16.9	17.1	17.3	17.6	17.8	18.0	18.2	18.5	18.7	18.9	19.2	19.4
101.6	40		15.4	15.6	15.8	16.0	16.3	16.5	16.7	16.9	17.1	17.4	17.6	17.8	18.0	18.2	18.5	18.7	18.9
102.9	40.5		15.0	15.2	15.4	15.6	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.4	17.6	17.8	18.0	18.2	18.4
104.1	41		14.6	14.8	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.4	17.6	17.8	18.0
105.4	41.5		14.3	14.5	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1	17.3	17.6
106.7	42		13.9	14.1	14.3	14.5	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.5	16.7	16.9	17.1
108.0	42.5		13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.3	16.5	16.7
109.2	43		13.3	13.5	13.7	13.9	14.1	14.3	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.4

Calculated Body Mass Index

43.5"–48" and 35 lbs.–43 lbs.

Weight

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

Kg	15.9	16.1	16.3	16.6	16.8	17.0	17.2	17.5	17.7	17.9	18.1	18.4	18.6	18.8	19.1	19.3	19.5
Lb	35	35.5	36	36.5	37	37.5	38	38.5	39	39.5	40	40.5	41	41.5	42	42.5	43

Height																		
Cm	In																	
110.5	43.5	13.0	13.2	13.4	13.6	13.7	13.9	14.1	14.3	14.5	14.7	14.9	15.0	15.2	15.4	15.6	15.8	16.0
111.8	44			13.1	13.3	13.4	13.6	13.8	14.0	14.2	14.3	14.5	14.7	14.9	15.1	15.3	15.4	15.6
113.0	44.5					13.1	13.3	13.5	13.7	13.8	14.0	14.2	14.4	14.6	14.7	14.9	15.1	15.3
114.3	45						13.0	13.2	13.4	13.5	13.7	13.9	14.1	14.2	14.4	14.6	14.8	14.9
115.6	45.5							13.1	13.2	13.4	13.6	13.8	13.9	14.1	14.3	14.4	14.6	
116.8	46									13.1	13.3	13.5	13.6	13.8	14.0	14.1	14.3	
118.1	46.5										13.0	13.2	13.3	13.5	13.7	13.8	14.0	
119.4	47												13.0	13.2	13.4	13.5	13.7	
120.7	47.5															13.1	13.2	13.4
121.9	48																	13.1

Calculated Body Mass Index

30"-44" and 43.5 lbs.-51.5 lbs.

Height		Weight																		
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																		
Cm In		Kg	19.7	20.0	20.2	20.4	20.6	20.9	21.1	21.3	21.5	21.8	22.0	22.2	22.5	22.7	22.9	23.1	23.4	
		Lb	43.5	44	44.5	45	45.5	46	46.5	47	47.5	48	48.5	49	49.5	50	50.5	51	51.5	
76.2	30		34.0	34.4	34.8															
77.5	30.5		32.9	33.3	33.6	34.0	34.4	34.8												
78.7	31		31.8	32.2	32.6	32.9	33.3	33.7	34.0	34.4	34.8									
80.0	31.5		30.8	31.2	31.5	31.9	32.2	32.6	32.9	33.3	33.7	34.0	34.4	34.7						
81.3	32		29.9	30.2	30.6	30.9	31.2	31.6	31.9	32.3	32.6	33.0	33.3	33.6	34.0	34.3	34.7			
82.6	32.5		29.0	29.3	29.6	30.0	30.3	30.6	31.0	31.3	31.6	32.0	32.3	32.6	32.9	33.3	33.6	33.9	34.3	
83.8	33		28.1	28.4	28.7	29.1	29.4	29.7	30.0	30.3	30.7	31.0	31.3	31.6	32.0	32.3	32.6	32.9	33.2	
85.1	33.5		27.3	27.6	27.9	28.2	28.5	28.8	29.1	29.4	29.8	30.1	30.4	30.7	31.0	31.3	31.6	32.0	32.3	
86.4	34		26.5	26.8	27.1	27.4	27.7	28.0	28.3	28.6	28.9	29.2	29.5	29.8	30.1	30.4	30.7	31.0	31.3	
87.6	34.5		25.7	26.0	26.3	26.6	26.9	27.2	27.5	27.8	28.1	28.4	28.6	28.9	29.2	29.5	29.8	30.1	30.4	
88.9	35		25.0	25.3	25.5	25.8	26.1	26.4	26.7	27.0	27.3	27.5	27.8	28.1	28.4	28.7	29.0	29.3	29.6	
90.2	35.5		24.3	24.5	24.8	25.1	25.4	25.7	25.9	26.2	26.5	26.8	27.1	27.3	27.6	27.9	28.2	28.5	28.7	
91.4	36		23.6	23.9	24.1	24.4	24.7	25.0	25.2	25.5	25.8	26.0	26.3	26.6	26.9	27.1	27.4	27.7	27.9	
92.7	36.5		23.0	23.2	23.5	23.7	24.0	24.3	24.5	24.8	25.1	25.3	25.6	25.9	26.1	26.4	26.7	26.9	27.2	
94.0	37		22.3	22.6	22.9	23.1	23.4	23.6	23.9	24.1	24.4	24.7	24.9	25.2	25.4	25.7	25.9	26.2	26.4	
95.3	37.5		21.7	22.0	22.2	22.5	22.7	23.0	23.2	23.5	23.7	24.0	24.2	24.5	24.7	25.0	25.2	25.5	25.7	
96.5	38		21.2	21.4	21.7	21.9	22.2	22.4	22.6	22.9	23.1	23.4	23.6	23.9	24.1	24.3	24.6	24.8	25.1	
97.8	38.5		20.6	20.9	21.1	21.3	21.6	21.8	22.1	22.3	22.5	22.8	23.0	23.2	23.5	23.7	24.0	24.2	24.4	
99.1	39		20.1	20.3	20.6	20.8	21.0	21.3	21.5	21.7	22.0	22.2	22.4	22.6	22.9	23.1	23.3	23.6	23.8	
100.3	39.5		19.6	19.8	20.1	20.3	20.5	20.7	21.0	21.2	21.4	21.6	21.9	22.1	22.3	22.5	22.8	23.0	23.2	
101.6	40		19.1	19.3	19.6	19.8	20.0	20.2	20.4	20.7	20.9	21.1	21.3	21.5	21.8	22.0	22.2	22.4	22.6	
102.9	40.5		18.6	18.9	19.1	19.3	19.5	19.7	19.9	20.1	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.9	22.1	
104.1	41		18.2	18.4	18.6	18.8	19.0	19.2	19.4	19.7	19.9	20.1	20.3	20.5	20.7	20.9	21.1	21.3	21.5	
105.4	41.5		17.8	18.0	18.2	18.4	18.6	18.8	19.0	19.2	19.4	19.6	19.8	20.0	20.2	20.4	20.6	20.8	21.0	
106.7	42		17.3	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.3	19.5	19.7	19.9	20.1	20.3	20.5	
108.0	42.5		16.9	17.1	17.3	17.5	17.7	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.3	19.5	19.7	19.9	20.0	
109.2	43		16.5	16.7	16.9	17.1	17.3	17.5	17.7	17.9	18.1	18.3	18.4	18.6	18.8	19.0	19.2	19.4	19.6	
110.5	43.5		16.2	16.3	16.5	16.7	16.9	17.1	17.3	17.5	17.6	17.8	18.0	18.2	18.4	18.6	18.8	18.9	19.1	
111.8	44		15.8	16.0	16.2	16.3	16.5	16.7	16.9	17.1	17.2	17.4	17.6	17.8	18.0	18.2	18.3	18.5	18.7	

Calculated Body Mass Index

44.5"–51" and 43.5 lbs.–51.5 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Cm In		Kg	19.7	20.0	20.2	20.4	20.6	20.9	21.1	21.3	21.5	21.8	22.0	22.2	22.5	22.7	22.9	23.1	23.4
		Lb	43.5	44	44.5	45	45.5	46	46.5	47	47.5	48	48.5	49	49.5	50	50.5	51	51.5
113.0	44.5		15.4	15.6	15.8	16.0	16.2	16.3	16.5	16.7	16.9	17.0	17.2	17.4	17.6	17.8	17.9	18.1	18.3
114.3	45		15.1	15.3	15.5	15.6	15.8	16.0	16.1	16.3	16.5	16.7	16.8	17.0	17.2	17.4	17.5	17.7	17.9
115.6	45.5		14.8	14.9	15.1	15.3	15.5	15.6	15.8	16.0	16.1	16.3	16.5	16.6	16.8	17.0	17.2	17.3	17.5
116.8	46		14.5	14.6	14.8	15.0	15.1	15.3	15.5	15.6	15.8	15.9	16.1	16.3	16.4	16.6	16.8	16.9	17.1
118.1	46.5		14.1	14.3	14.5	14.6	14.8	15.0	15.1	15.3	15.4	15.6	15.8	15.9	16.1	16.3	16.4	16.6	16.7
119.4	47		13.8	14.0	14.2	14.3	14.5	14.6	14.8	15.0	15.1	15.3	15.4	15.6	15.8	15.9	16.1	16.2	16.4
120.7	47.5		13.6	13.7	13.9	14.0	14.2	14.3	14.5	14.6	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	16.0
121.9	48		13.3	13.4	13.6	13.7	13.9	14.0	14.2	14.3	14.5	14.6	14.8	15.0	15.1	15.3	15.4	15.6	15.7
124.5	49				13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.3	14.5	14.6	14.8	14.9	15.1
127.0	50								13.1	13.2	13.4	13.5	13.6	13.8	13.9	14.1	14.2	14.3	14.5
129.5	51												13.1	13.2	13.4	13.5	13.7	13.8	13.9
132.1	52															13.0	13.1	13.3	13.4

Calculated Body Mass Index

32.5"–46.5" and 52 lbs.–60 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Cm In		Kg	23.6	23.8	24.0	24.3	24.5	24.7	24.9	25.2	25.4	25.6	25.9	26.1	26.3	26.5	26.8	27.0	27.2
		Lb	52	52.5	53	53.5	54	54.5	55	55.5	56	56.5	57	57.5	58	58.5	59	59.5	60
82.6	32.5		34.6	34.9															
83.8	33		33.6	33.9	34.2	34.5	34.9												
85.1	33.5		32.6	32.9	33.2	33.5	33.8	34.1	34.5	34.8									
86.4	34		31.6	31.9	32.2	32.5	32.8	33.1	33.5	33.8	34.1	34.4	34.7	35.0					
87.6	34.5		30.7	31.0	31.3	31.6	31.9	32.2	32.5	32.8	33.1	33.4	33.7	34.0	34.3	34.6	34.9		
88.9	35		29.8	30.1	30.4	30.7	31.0	31.3	31.6	31.9	32.1	32.4	32.7	33.0	33.3	33.6	33.9	34.1	34.4
90.2	35.5		29.0	29.3	29.6	29.8	30.1	30.4	30.7	31.0	31.2	31.5	31.8	32.1	32.4	32.6	32.9	33.2	33.5
91.4	36		28.2	28.5	28.8	29.0	29.3	29.6	29.8	30.1	30.4	30.7	30.9	31.2	31.5	31.7	32.0	32.3	32.5
92.7	36.5		27.4	27.7	28.0	28.2	28.5	28.8	29.0	29.3	29.6	29.8	30.1	30.3	30.6	30.9	31.1	31.4	31.7
94.0	37		26.7	27.0	27.2	27.5	27.7	28.0	28.2	28.5	28.8	29.0	29.3	29.5	29.8	30.0	30.3	30.6	30.8
95.3	37.5		26.0	26.2	26.5	26.7	27.0	27.2	27.5	27.7	28.0	28.2	28.5	28.7	29.0	29.2	29.5	29.7	30.0
96.5	38		25.3	25.6	25.8	26.0	26.3	26.5	26.8	27.0	27.3	27.5	27.8	28.0	28.2	28.5	28.7	29.0	29.2
97.8	38.5		24.7	24.9	25.1	25.4	25.6	25.9	26.1	26.3	26.6	26.8	27.0	27.3	27.5	27.7	28.0	28.2	28.5
99.1	39		24.0	24.3	24.5	24.7	25.0	25.2	25.4	25.7	25.9	26.1	26.3	26.6	26.8	27.0	27.3	27.5	27.7
100.3	39.5		23.4	23.7	23.9	24.1	24.3	24.6	24.8	25.0	25.2	25.5	25.7	25.9	26.1	26.4	26.6	26.8	27.0
101.6	40		22.8	23.1	23.3	23.5	23.7	23.9	24.2	24.4	24.6	24.8	25.0	25.3	25.5	25.7	25.9	26.1	26.4
102.9	40.5		22.3	22.5	22.7	22.9	23.1	23.4	23.6	23.8	24.0	24.2	24.4	24.6	24.9	25.1	25.3	25.5	25.7
104.1	41		21.7	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4	23.6	23.8	24.0	24.3	24.5	24.7	24.9	25.1
105.4	41.5		21.2	21.4	21.6	21.8	22.0	22.2	22.5	22.7	22.9	23.1	23.3	23.5	23.7	23.9	24.1	24.3	24.5
106.7	42		20.7	20.9	21.1	21.3	21.5	21.7	21.9	22.1	22.3	22.5	22.7	22.9	23.1	23.3	23.5	23.7	23.9
108.0	42.5		20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8	22.0	22.2	22.4	22.6	22.8	23.0	23.2	23.4
109.2	43		19.8	20.0	20.2	20.3	20.5	20.7	20.9	21.1	21.3	21.5	21.7	21.9	22.1	22.2	22.4	22.6	22.8
110.5	43.5		19.3	19.5	19.7	19.9	20.1	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.7	21.9	22.1	22.3
111.8	44		18.9	19.1	19.2	19.4	19.6	19.8	20.0	20.2	20.3	20.5	20.7	20.9	21.1	21.2	21.4	21.6	21.8
113.0	44.5		18.5	18.6	18.8	19.0	19.2	19.3	19.5	19.7	19.9	20.1	20.2	20.4	20.6	20.8	20.9	21.1	21.3
114.3	45		18.1	18.2	18.4	18.6	18.7	18.9	19.1	19.3	19.4	19.6	19.8	20.0	20.1	20.3	20.5	20.7	20.8
115.6	45.5		17.7	17.8	18.0	18.2	18.3	18.5	18.7	18.8	19.0	19.2	19.4	19.5	19.7	19.9	20.0	20.2	20.4
116.8	46		17.3	17.4	17.6	17.8	17.9	18.1	18.3	18.4	18.6	18.8	18.9	19.1	19.3	19.4	19.6	19.8	19.9
118.1	46.5		16.9	17.1	17.2	17.4	17.6	17.7	17.9	18.0	18.2	18.4	18.5	18.7	18.9	19.0	19.2	19.3	19.5

Calculated Body Mass Index

47"-56" and 52 lbs.-60 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Cm In		Kg	23.6	23.8	24.0	24.3	24.5	24.7	24.9	25.2	25.4	25.6	25.9	26.1	26.3	26.5	26.8	27.0	27.2
		Lb	52	52.5	53	53.5	54	54.5	55	55.5	56	56.5	57	57.5	58	58.5	59	59.5	60
119.4	47		16.6	16.7	16.9	17.0	17.2	17.3	17.5	17.7	17.8	18.0	18.1	18.3	18.5	18.6	18.8	18.9	19.1
120.7	47.5		16.2	16.4	16.5	16.7	16.8	17.0	17.1	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	18.5	18.7
121.9	48		15.9	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	17.5	17.7	17.9	18.0	18.2	18.3
124.5	49		15.2	15.4	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6
127.0	50		14.6	14.8	14.9	15.0	15.2	15.3	15.5	15.6	15.7	15.9	16.0	16.2	16.3	16.5	16.6	16.7	16.9
129.5	51		14.1	14.2	14.3	14.5	14.6	14.7	14.9	15.0	15.1	15.3	15.4	15.5	15.7	15.8	15.9	16.1	16.2
132.1	52		13.5	13.7	13.8	13.9	14.0	14.2	14.3	14.4	14.6	14.7	14.8	15.0	15.1	15.2	15.3	15.5	15.6
134.6	53		13.0	13.1	13.3	13.4	13.5	13.6	13.8	13.9	14.0	14.1	14.3	14.4	14.5	14.6	14.8	14.9	15.0
137.2	54						13.0	13.1	13.3	13.4	13.5	13.6	13.7	13.9	14.0	14.1	14.2	14.3	14.5
139.7	55										13.0	13.1	13.2	13.4	13.5	13.6	13.7	13.8	13.9
142.2	56													13.0	13.1	13.2	13.3	13.5	

Calculated Body Mass Index

35.5"–51" and 61 lbs.–77 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

		Weight																	
		Kg	27.7	28.1	28.6	29.0	29.5	29.9	30.4	30.8	31.3	31.8	32.2	32.7	33.1	33.6	34.0	34.5	34.9
Height		Lb	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77
Cm	In																		
90.2	35.5	34.0	34.6																
91.4	36	33.1	33.6	34.2	34.7														
92.7	36.5	32.2	32.7	33.2	33.8	34.3	34.8												
94.0	37	31.3	31.8	32.4	32.9	33.4	33.9	34.4	34.9										
95.3	37.5	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0								
96.5	38	29.7	30.2	30.7	31.2	31.6	32.1	32.6	33.1	33.6	34.1	34.6							
97.8	38.5	28.9	29.4	29.9	30.4	30.8	31.3	31.8	32.3	32.7	33.2	33.7	34.2	34.6					
99.1	39	28.2	28.7	29.1	29.6	30.0	30.5	31.0	31.4	31.9	32.4	32.8	33.3	33.7	34.2	34.7			
100.3	39.5	27.5	27.9	28.4	28.8	29.3	29.7	30.2	30.6	31.1	31.5	32.0	32.4	32.9	33.3	33.8	34.2	34.7	
101.6	40	26.8	27.2	27.7	28.1	28.6	29.0	29.4	29.9	30.3	30.8	31.2	31.6	32.1	32.5	33.0	33.4	33.8	
102.9	40.5	26.1	26.6	27.0	27.4	27.9	28.3	28.7	29.1	29.6	30.0	30.4	30.9	31.3	31.7	32.1	32.6	33.0	
104.1	41	25.5	25.9	26.3	26.8	27.2	27.6	28.0	28.4	28.9	29.3	29.7	30.1	30.5	31.0	31.4	31.8	32.2	
105.4	41.5	24.9	25.3	25.7	26.1	26.5	26.9	27.4	27.8	28.2	28.6	29.0	29.4	29.8	30.2	30.6	31.0	31.4	
106.7	42	24.3	24.7	25.1	25.5	25.9	26.3	26.7	27.1	27.5	27.9	28.3	28.7	29.1	29.5	29.9	30.3	30.7	
108.0	42.5	23.7	24.1	24.5	24.9	25.3	25.7	26.1	26.5	26.9	27.2	27.6	28.0	28.4	28.8	29.2	29.6	30.0	
109.2	43	23.2	23.6	24.0	24.3	24.7	25.1	25.5	25.9	26.2	26.6	27.0	27.4	27.8	28.1	28.5	28.9	29.3	
110.5	43.5	22.7	23.0	23.4	23.8	24.2	24.5	24.9	25.3	25.6	26.0	26.4	26.8	27.1	27.5	27.9	28.2	28.6	
111.8	44	22.2	22.5	22.9	23.2	23.6	24.0	24.3	24.7	25.1	25.4	25.8	26.1	26.5	26.9	27.2	27.6	28.0	
113.0	44.5	21.7	22.0	22.4	22.7	23.1	23.4	23.8	24.1	24.5	24.9	25.2	25.6	25.9	26.3	26.6	27.0	27.3	
114.3	45	21.2	21.5	21.9	22.2	22.6	22.9	23.3	23.6	24.0	24.3	24.7	25.0	25.3	25.7	26.0	26.4	26.7	
115.6	45.5	20.7	21.1	21.4	21.7	22.1	22.4	22.8	23.1	23.4	23.8	24.1	24.5	24.8	25.1	25.5	25.8	26.1	
116.8	46	20.3	20.6	20.9	21.3	21.6	21.9	22.3	22.6	22.9	23.3	23.6	23.9	24.3	24.6	24.9	25.3	25.6	
118.1	46.5	19.8	20.2	20.5	20.8	21.1	21.5	21.8	22.1	22.4	22.8	23.1	23.4	23.7	24.1	24.4	24.7	25.0	
119.4	47	19.4	19.7	20.1	20.4	20.7	21.0	21.3	21.6	22.0	22.3	22.6	22.9	23.2	23.6	23.9	24.2	24.5	
120.7	47.5	19.0	19.3	19.6	19.9	20.3	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.7	23.1	23.4	23.7	24.0	
121.9	48	18.6	18.9	19.2	19.5	19.8	20.1	20.4	20.8	21.1	21.4	21.7	22.0	22.3	22.6	22.9	23.2	23.5	
124.5	49	17.9	18.2	18.4	18.7	19.0	19.3	19.6	19.9	20.2	20.5	20.8	21.1	21.4	21.7	22.0	22.3	22.5	
127.0	50	17.2	17.4	17.7	18.0	18.3	18.6	18.8	19.1	19.4	19.7	20.0	20.2	20.5	20.8	21.1	21.4	21.7	
129.5	51	16.5	16.8	17.0	17.3	17.6	17.8	18.1	18.4	18.7	18.9	19.2	19.5	19.7	20.0	20.3	20.5	20.8	

Calculated Body Mass Index

52"-64" and 61 lbs.-77 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Kg		27.7	28.1	28.6	29.0	29.5	29.9	30.4	30.8	31.3	31.8	32.2	32.7	33.1	33.6	34.0	34.5	34.9	
Lb		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	
Cm	In																		
132.1	52	15.9	16.1	16.4	16.6	16.9	17.2	17.4	17.7	17.9	18.2	18.5	18.7	19.0	19.2	19.5	19.8	20.0	
134.6	53	15.3	15.5	15.8	16.0	16.3	16.5	16.8	17.0	17.3	17.5	17.8	18.0	18.3	18.5	18.8	19.0	19.3	
137.2	54	14.7	14.9	15.2	15.4	15.7	15.9	16.2	16.4	16.6	16.9	17.1	17.4	17.6	17.8	18.1	18.3	18.6	
139.7	55	14.2	14.4	14.6	14.9	15.1	15.3	15.6	15.8	16.0	16.3	16.5	16.7	17.0	17.2	17.4	17.7	17.9	
142.2	56	13.7	13.9	14.1	14.3	14.6	14.8	15.0	15.2	15.5	15.7	15.9	16.1	16.4	16.6	16.8	17.0	17.3	
144.8	57	13.2	13.4	13.6	13.8	14.1	14.3	14.5	14.7	14.9	15.1	15.4	15.6	15.8	16.0	16.2	16.4	16.7	
147.3	58			13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.3	15.5	15.7	15.9	16.1	
149.9	59					13.1	13.3	13.5	13.7	13.9	14.1	14.3	14.5	14.7	14.9	15.1	15.3	15.6	
152.4	60							13.1	13.3	13.5	13.7	13.9	14.1	14.3	14.5	14.6	14.8	15.0	
154.9	61									13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.5	
157.5	62											13.2	13.4	13.5	13.7	13.9	14.1		
160.0	63														13.1	13.3	13.5	13.6	
162.6	64																13.0	13.2	

Calculated Body Mass Index

40.5"–60" and 78 lbs.–94 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

Height		Weight																	
		Kg	35.4	35.8	36.3	36.7	37.2	37.6	38.1	38.6	39.0	39.5	39.9	40.4	40.8	41.3	41.7	42.2	42.6
		Lb	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94
Cm	In																		
101.6	40	34.3	34.7																
102.9	40.5	33.4	33.9	34.3	34.7														
104.1	41	32.6	33.0	33.5	33.9	34.3	34.7												
105.4	41.5	31.8	32.2	32.7	33.1	33.5	33.9	34.3	34.7										
106.7	42	31.1	31.5	31.9	32.3	32.7	33.1	33.5	33.9	34.3	34.7								
108.0	42.5	30.4	30.8	31.1	31.5	31.9	32.3	32.7	33.1	33.5	33.9	34.3	34.6						
109.2	43	29.7	30.0	30.4	30.8	31.2	31.6	31.9	32.3	32.7	33.1	33.5	33.8	34.2	34.6	35.0			
110.5	43.5	29.0	29.4	29.7	30.1	30.5	30.8	31.2	31.6	32.0	32.3	32.7	33.1	33.4	33.8	34.2	34.6	34.9	
111.8	44	28.3	28.7	29.1	29.4	29.8	30.1	30.5	30.9	31.2	31.6	32.0	32.3	32.7	33.0	33.4	33.8	34.1	
113.0	44.5	27.7	28.0	28.4	28.8	29.1	29.5	29.8	30.2	30.5	30.9	31.2	31.6	32.0	32.3	32.7	33.0	33.4	
114.3	45	27.1	27.4	27.8	28.1	28.5	28.8	29.2	29.5	29.9	30.2	30.6	30.9	31.2	31.6	31.9	32.3	32.6	
115.6	45.5	26.5	26.8	27.2	27.5	27.8	28.2	28.5	28.9	29.2	29.5	29.9	30.2	30.6	30.9	31.2	31.6	31.9	
116.8	46	25.9	26.2	26.6	26.9	27.2	27.6	27.9	28.2	28.6	28.9	29.2	29.6	29.9	30.2	30.6	30.9	31.2	
118.1	46.5	25.4	25.7	26.0	26.3	26.7	27.0	27.3	27.6	28.0	28.3	28.6	28.9	29.3	29.6	29.9	30.2	30.6	
119.4	47	24.8	25.1	25.5	25.8	26.1	26.4	26.7	27.1	27.4	27.7	28.0	28.3	28.6	29.0	29.3	29.6	29.9	
120.7	47.5	24.3	24.6	24.9	25.2	25.6	25.9	26.2	26.5	26.8	27.1	27.4	27.7	28.0	28.4	28.7	29.0	29.3	
121.9	48	23.8	24.1	24.4	24.7	25.0	25.3	25.6	25.9	26.2	26.5	26.9	27.2	27.5	27.8	28.1	28.4	28.7	
124.5	49	22.8	23.1	23.4	23.7	24.0	24.3	24.6	24.9	25.2	25.5	25.8	26.1	26.4	26.6	26.9	27.2	27.5	
127.0	50	21.9	22.2	22.5	22.8	23.1	23.3	23.6	23.9	24.2	24.5	24.7	25.0	25.3	25.6	25.9	26.2	26.4	
129.5	51	21.1	21.4	21.6	21.9	22.2	22.4	22.7	23.0	23.2	23.5	23.8	24.1	24.3	24.6	24.9	25.1	25.4	
132.1	52	20.3	20.5	20.8	21.1	21.3	21.6	21.8	22.1	22.4	22.6	22.9	23.1	23.4	23.7	23.9	24.2	24.4	
134.6	53	19.5	19.8	20.0	20.3	20.5	20.8	21.0	21.3	21.5	21.8	22.0	22.3	22.5	22.8	23.0	23.3	23.5	
137.2	54	18.8	19.0	19.3	19.5	19.8	20.0	20.3	20.5	20.7	21.0	21.2	21.5	21.7	21.9	22.2	22.4	22.7	
139.7	55	18.1	18.4	18.6	18.8	19.1	19.3	19.5	19.8	20.0	20.2	20.5	20.7	20.9	21.2	21.4	21.6	21.8	
142.2	56	17.5	17.7	17.9	18.2	18.4	18.6	18.8	19.1	19.3	19.5	19.7	20.0	20.2	20.4	20.6	20.8	21.1	
144.8	57	16.9	17.1	17.3	17.5	17.7	18.0	18.2	18.4	18.6	18.8	19.0	19.3	19.5	19.7	19.9	20.1	20.3	
147.3	58	16.3	16.5	16.7	16.9	17.1	17.3	17.6	17.8	18.0	18.2	18.4	18.6	18.8	19.0	19.2	19.4	19.6	
149.9	59	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8	18.0	18.2	18.4	18.6	18.8	19.0	
152.4	60	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8	18.0	18.2	18.4	

Calculated Body Mass Index

61"-71" and 78 lbs.-94 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Cm In		Kg	35.4	35.8	36.3	36.7	37.2	37.6	38.1	38.6	39.0	39.5	39.9	40.4	40.8	41.3	41.7	42.2	42.6
		Lb	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94
154.9	61		14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8
157.5	62		14.3	14.4	14.6	14.8	15.0	15.2	15.4	15.5	15.7	15.9	16.1	16.3	16.5	16.6	16.8	17.0	17.2
160.0	63		13.8	14.0	14.2	14.3	14.5	14.7	14.9	15.1	15.2	15.4	15.6	15.8	15.9	16.1	16.3	16.5	16.7
162.6	64		13.4	13.6	13.7	13.9	14.1	14.2	14.4	14.6	14.8	14.9	15.1	15.3	15.4	15.6	15.8	16.0	16.1
165.1	65			13.1	13.3	13.5	13.6	13.8	14.0	14.1	14.3	14.5	14.6	14.8	15.0	15.1	15.3	15.5	15.6
167.6	66				13.1	13.2	13.4	13.6	13.7	13.9	14.0	14.2	14.4	14.5	14.7	14.8	15.0	15.2	
170.2	67					13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.3	14.4	14.6	14.7			
172.7	68							13.1	13.2	13.4	13.5	13.7	13.8	14.0	14.1	14.3			
175.3	69											13.1	13.3	13.4	13.6	13.7	13.9		
177.8	70														13.1	13.2	13.3	13.5	
180.3	71																		13.1

Calculated Body Mass Index

44"-68" and 95 lbs.-112 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

		Weight																	
		Kg	43.1	43.5	44.0	44.5	44.9	45.4	45.8	46.3	46.7	47.2	47.6	48.1	48.5	49.0	49.4	49.9	50.8
Height		Lb	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	112
Cm	In																		
111.8	44	34.5	34.9																
113.0	44.5	33.7	34.1	34.4	34.8														
114.3	45	33.0	33.3	33.7	34.0	34.4	34.7												
115.6	45.5	32.3	32.6	32.9	33.3	33.6	34.0	34.3	34.6	35.0									
116.8	46	31.6	31.9	32.2	32.6	32.9	33.2	33.6	33.9	34.2	34.6	34.9							
118.1	46.5	30.9	31.2	31.5	31.9	32.2	32.5	32.8	33.2	33.5	33.8	34.1	34.5	34.8					
119.4	47	30.2	30.6	30.9	31.2	31.5	31.8	32.1	32.5	32.8	33.1	33.4	33.7	34.1	34.4	34.7			
120.7	47.5	29.6	29.9	30.2	30.5	30.8	31.2	31.5	31.8	32.1	32.4	32.7	33.0	33.3	33.7	34.0	34.3	34.9	
121.9	48	29.0	29.3	29.6	29.9	30.2	30.5	30.8	31.1	31.4	31.7	32.0	32.3	32.7	33.0	33.3	33.6	34.2	
124.5	49	27.8	28.1	28.4	28.7	29.0	29.3	29.6	29.9	30.2	30.5	30.7	31.0	31.3	31.6	31.9	32.2	32.8	
127.0	50	26.7	27.0	27.3	27.6	27.8	28.1	28.4	28.7	29.0	29.2	29.5	29.8	30.1	30.4	30.7	30.9	31.5	
129.5	51	25.7	25.9	26.2	26.5	26.8	27.0	27.3	27.6	27.8	28.1	28.4	28.7	28.9	29.2	29.5	29.7	30.3	
132.1	52	24.7	25.0	25.2	25.5	25.7	26.0	26.3	26.5	26.8	27.0	27.3	27.6	27.8	28.1	28.3	28.6	29.1	
134.6	53	23.8	24.0	24.3	24.5	24.8	25.0	25.3	25.5	25.8	26.0	26.3	26.5	26.8	27.0	27.3	27.5	28.0	
137.2	54	22.9	23.1	23.4	23.6	23.9	24.1	24.4	24.6	24.8	25.1	25.3	25.6	25.8	26.0	26.3	26.5	27.0	
139.7	55	22.1	22.3	22.5	22.8	23.0	23.2	23.5	23.7	23.9	24.2	24.4	24.6	24.9	25.1	25.3	25.6	26.0	
142.2	56	21.3	21.5	21.7	22.0	22.2	22.4	22.6	22.9	23.1	23.3	23.5	23.8	24.0	24.2	24.4	24.7	25.1	
144.8	57	20.6	20.8	21.0	21.2	21.4	21.6	21.9	22.1	22.3	22.5	22.7	22.9	23.2	23.4	23.6	23.8	24.2	
147.3	58	19.9	20.1	20.3	20.5	20.7	20.9	21.1	21.3	21.5	21.7	21.9	22.2	22.4	22.6	22.8	23.0	23.4	
149.9	59	19.2	19.4	19.6	19.8	20.0	20.2	20.4	20.6	20.8	21.0	21.2	21.4	21.6	21.8	22.0	22.2	22.6	
152.4	60	18.6	18.7	18.9	19.1	19.3	19.5	19.7	19.9	20.1	20.3	20.5	20.7	20.9	21.1	21.3	21.5	21.9	
154.9	61	17.9	18.1	18.3	18.5	18.7	18.9	19.1	19.3	19.5	19.7	19.8	20.0	20.2	20.4	20.6	20.8	21.2	
157.5	62	17.4	17.6	17.7	17.9	18.1	18.3	18.5	18.7	18.8	19.0	19.2	19.4	19.6	19.8	19.9	20.1	20.5	
160.0	63	16.8	17.0	17.2	17.4	17.5	17.7	17.9	18.1	18.2	18.4	18.6	18.8	19.0	19.1	19.3	19.5	19.8	
162.6	64	16.3	16.5	16.6	16.8	17.0	17.2	17.3	17.5	17.7	17.9	18.0	18.2	18.4	18.5	18.7	18.9	19.2	
165.1	65	15.8	16.0	16.1	16.3	16.5	16.6	16.8	17.0	17.1	17.3	17.5	17.6	17.8	18.0	18.1	18.3	18.6	
167.6	66	15.3	15.5	15.7	15.8	16.0	16.1	16.3	16.5	16.6	16.8	16.9	17.1	17.3	17.4	17.6	17.8	18.1	
170.2	67	14.9	15.0	15.2	15.3	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.8	16.9	17.1	17.2	17.5	
172.7	68	14.4	14.6	14.7	14.9	15.1	15.2	15.4	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	17.0	

Calculated Body Mass Index

69"–77" and 95 lbs.–112 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

Height		Weight																	
		Kg	43.1	43.5	44.0	44.5	44.9	45.4	45.8	46.3	46.7	47.2	47.6	48.1	48.5	49.0	49.4	49.9	50.8
Cm In		Lb	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	112
175.3	69		14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	15.5	15.7	15.8	15.9	16.1	16.2	16.5
177.8	70		13.6	13.8	13.9	14.1	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	15.5	15.6	15.8	16.1
180.3	71		13.2	13.4	13.5	13.7	13.8	13.9	14.1	14.2	14.4	14.5	14.6	14.8	14.9	15.1	15.2	15.3	15.6
182.9	72			13.0	13.2	13.3	13.4	13.6	13.7	13.8	14.0	14.1	14.2	14.4	14.5	14.6	14.8	14.9	15.2
185.4	73						13.1	13.2	13.3	13.5	13.6	13.7	13.9	14.0	14.1	14.2	14.4	14.5	14.8
188.0	74								13.1	13.2	13.4	13.5	13.6	13.7	13.9	14.0	14.1	14.4	
190.5	75											13.1	13.2	13.4	13.5	13.6	13.7	14.0	
193.0	76													13.0	13.1	13.3	13.4	13.6	
195.6	77																	13.0	13.3

Calculated Body Mass Index

48"-76" and 114 lbs.-146 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Cm In		Kg	51.7	52.6	53.5	54.4	55.3	56.2	57.2	58.1	59.0	59.9	60.8	61.7	62.6	63.5	64.4	65.3	66.2
		Lb	114	116	118	120	122	124	126	128	130	132	134	136	138	140	142	144	146
121.9	48		34.8																
124.5	49		33.4	34.0	34.6														
127.0	50		32.1	32.6	33.2	33.7	34.3	34.9											
129.5	51		30.8	31.4	31.9	32.4	33.0	33.5	34.1	34.6									
132.1	52		29.6	30.2	30.7	31.2	31.7	32.2	32.8	33.3	33.8	34.3	34.8						
134.6	53		28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5				
137.2	54		27.5	28.0	28.5	28.9	29.4	29.9	30.4	30.9	31.3	31.8	32.3	32.8	33.3	33.8	34.2	34.7	
139.7	55		26.5	27.0	27.4	27.9	28.4	28.8	29.3	29.7	30.2	30.7	31.1	31.6	32.1	32.5	33.0	33.5	33.9
142.2	56		25.6	26.0	26.5	26.9	27.4	27.8	28.2	28.7	29.1	29.6	30.0	30.5	30.9	31.4	31.8	32.3	32.7
144.8	57		24.7	25.1	25.5	26.0	26.4	26.8	27.3	27.7	28.1	28.6	29.0	29.4	29.9	30.3	30.7	31.2	31.6
147.3	58		23.8	24.2	24.7	25.1	25.5	25.9	26.3	26.8	27.2	27.6	28.0	28.4	28.8	29.3	29.7	30.1	30.5
149.9	59		23.0	23.4	23.8	24.2	24.6	25.0	25.4	25.9	26.3	26.7	27.1	27.5	27.9	28.3	28.7	29.1	29.5
152.4	60		22.3	22.7	23.0	23.4	23.8	24.2	24.6	25.0	25.4	25.8	26.2	26.6	27.0	27.3	27.7	28.1	28.5
154.9	61		21.5	21.9	22.3	22.7	23.1	23.4	23.8	24.2	24.6	24.9	25.3	25.7	26.1	26.5	26.8	27.2	27.6
157.5	62		20.9	21.2	21.6	21.9	22.3	22.7	23.0	23.4	23.8	24.1	24.5	24.9	25.2	25.6	26.0	26.3	26.7
160.0	63		20.2	20.5	20.9	21.3	21.6	22.0	22.3	22.7	23.0	23.4	23.7	24.1	24.4	24.8	25.2	25.5	25.9
162.6	64		19.6	19.9	20.3	20.6	20.9	21.3	21.6	22.0	22.3	22.7	23.0	23.3	23.7	24.0	24.4	24.7	25.1
165.1	65		19.0	19.3	19.6	20.0	20.3	20.6	21.0	21.3	21.6	22.0	22.3	22.6	23.0	23.3	23.6	24.0	24.3
167.6	66		18.4	18.7	19.0	19.4	19.7	20.0	20.3	20.7	21.0	21.3	21.6	22.0	22.3	22.6	22.9	23.2	23.6
170.2	67		17.9	18.2	18.5	18.8	19.1	19.4	19.7	20.0	20.4	20.7	21.0	21.3	21.6	21.9	22.2	22.6	22.9
172.7	68		17.3	17.6	17.9	18.2	18.5	18.9	19.2	19.5	19.8	20.1	20.4	20.7	21.0	21.3	21.6	21.9	22.2
175.3	69		16.8	17.1	17.4	17.7	18.0	18.3	18.6	18.9	19.2	19.5	19.8	20.1	20.4	20.7	21.0	21.3	21.6
177.8	70		16.4	16.6	16.9	17.2	17.5	17.8	18.1	18.4	18.7	18.9	19.2	19.5	19.8	20.1	20.4	20.7	20.9
180.3	71		15.9	16.2	16.5	16.7	17.0	17.3	17.6	17.9	18.1	18.4	18.7	19.0	19.2	19.5	19.8	20.1	20.4
182.9	72		15.5	15.7	16.0	16.3	16.5	16.8	17.1	17.4	17.6	17.9	18.2	18.4	18.7	19.0	19.3	19.5	19.8
185.4	73		15.0	15.3	15.6	15.8	16.1	16.4	16.6	16.9	17.2	17.4	17.7	17.9	18.2	18.5	18.7	19.0	19.3
188.0	74		14.6	14.9	15.2	15.4	15.7	15.9	16.2	16.4	16.7	16.9	17.2	17.5	17.7	18.0	18.2	18.5	18.7
190.5	75		14.2	14.5	14.7	15.0	15.2	15.5	15.7	16.0	16.2	16.5	16.7	17.0	17.2	17.5	17.7	18.0	18.2
193.0	76		13.9	14.1	14.4	14.6	14.9	15.1	15.3	15.6	15.8	16.1	16.3	16.6	16.8	17.0	17.3	17.5	17.8

Calculated Body Mass Index

77"-78" and 114 lbs.-146 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

Height		Weight																	
		Kg	51.7	52.6	53.5	54.4	55.3	56.2	57.2	58.1	59.0	59.9	60.8	61.7	62.6	63.5	64.4	65.3	66.2
Cm	In	Lb	114	116	118	120	122	124	126	128	130	132	134	136	138	140	142	144	146
195.6	77		13.5	13.8	14.0	14.2	14.5	14.7	14.9	15.2	15.4	15.7	15.9	16.1	16.4	16.6	16.8	17.1	17.3
198.1	78		13.2	13.4	13.6	13.9	14.1	14.3	14.6	14.8	15.0	15.3	15.5	15.7	15.9	16.2	16.4	16.6	16.9

Calculated Body Mass Index

55"-78" and 148 lbs.-180 lbs.

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

		Weight																	
		Kg	67.1	68.0	68.9	69.9	70.8	71.7	72.6	73.5	74.4	75.3	76.2	77.1	78.0	78.9	79.8	80.7	81.6
Height		Lb	148	150	152	154	156	158	160	162	164	166	168	170	172	174	176	178	180
Cm	In																		
139.7	55	34.4	34.9																
142.2	56	33.2	33.6	34.1	34.5	35.0													
144.8	57	32.0	32.5	32.9	33.3	33.8	34.2	34.6											
147.3	58	30.9	31.3	31.8	32.2	32.6	33.0	33.4	33.9	34.3	34.7								
149.9	59	29.9	30.3	30.7	31.1	31.5	31.9	32.3	32.7	33.1	33.5	33.9	34.3	34.7					
152.4	60	28.9	29.3	29.7	30.1	30.5	30.9	31.2	31.6	32.0	32.4	32.8	33.2	33.6	34.0	34.4	34.8		
154.9	61	28.0	28.3	28.7	29.1	29.5	29.9	30.2	30.6	31.0	31.4	31.7	32.1	32.5	32.9	33.3	33.6	34.0	
157.5	62	27.1	27.4	27.8	28.2	28.5	28.9	29.3	29.6	30.0	30.4	30.7	31.1	31.5	31.8	32.2	32.6	32.9	
160.0	63	26.2	26.6	26.9	27.3	27.6	28.0	28.3	28.7	29.1	29.4	29.8	30.1	30.5	30.8	31.2	31.5	31.9	
162.6	64	25.4	25.7	26.1	26.4	26.8	27.1	27.5	27.8	28.2	28.5	28.8	29.2	29.5	29.9	30.2	30.6	30.9	
165.1	65	24.6	25.0	25.3	25.6	26.0	26.3	26.6	27.0	27.3	27.6	28.0	28.3	28.6	29.0	29.3	29.6	30.0	
167.6	66	23.9	24.2	24.5	24.9	25.2	25.5	25.8	26.1	26.5	26.8	27.1	27.4	27.8	28.1	28.4	28.7	29.1	
170.2	67	23.2	23.5	23.8	24.1	24.4	24.7	25.1	25.4	25.7	26.0	26.3	26.6	26.9	27.3	27.6	27.9	28.2	
172.7	68	22.5	22.8	23.1	23.4	23.7	24.0	24.3	24.6	24.9	25.2	25.5	25.8	26.2	26.5	26.8	27.1	27.4	
175.3	69	21.9	22.2	22.4	22.7	23.0	23.3	23.6	23.9	24.2	24.5	24.8	25.1	25.4	25.7	26.0	26.3	26.6	
177.8	70	21.2	21.5	21.8	22.1	22.4	22.7	23.0	23.2	23.5	23.8	24.1	24.4	24.7	25.0	25.3	25.5	25.8	
180.3	71	20.6	20.9	21.2	21.5	21.8	22.0	22.3	22.6	22.9	23.2	23.4	23.7	24.0	24.3	24.5	24.8	25.1	
182.9	72	20.1	20.3	20.6	20.9	21.2	21.4	21.7	22.0	22.2	22.5	22.8	23.1	23.3	23.6	23.9	24.1	24.4	
185.4	73	19.5	19.8	20.1	20.3	20.6	20.8	21.1	21.4	21.6	21.9	22.2	22.4	22.7	23.0	23.2	23.5	23.7	
188.0	74	19.0	19.3	19.5	19.8	20.0	20.3	20.5	20.8	21.1	21.3	21.6	21.8	22.1	22.3	22.6	22.9	23.1	
190.5	75	18.5	18.7	19.0	19.2	19.5	19.7	20.0	20.2	20.5	20.7	21.0	21.2	21.5	21.7	22.0	22.2	22.5	
193.0	76	18.0	18.3	18.5	18.7	19.0	19.2	19.5	19.7	20.0	20.2	20.4	20.7	20.9	21.2	21.4	21.7	21.9	
195.6	77	17.6	17.8	18.0	18.3	18.5	18.7	19.0	19.2	19.4	19.7	19.9	20.2	20.4	20.6	20.9	21.1	21.3	
198.1	78	17.1	17.3	17.6	17.8	18.0	18.3	18.5	18.7	19.0	19.2	19.4	19.6	19.9	20.1	20.3	20.6	20.8	

Calculated Body Mass Index

61"-78" and 182 lbs.-214 lbs.

Height		Weight																	
		Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.																	
Kg		82.6	83.5	84.4	85.3	86.2	87.1	88.0	88.9	89.8	90.7	91.6	92.5	93.4	94.3	95.3	96.2	97.1	
Lb		182	184	186	188	190	192	194	196	198	200	202	204	206	208	210	212	214	
Cm	In																		
154.9	61	34.4	34.8																
157.5	62	33.3	33.7	34.0	34.4	34.8													
160.0	63	32.2	32.6	32.9	33.3	33.7	34.0	34.4	34.7										
162.6	64	31.2	31.6	31.9	32.3	32.6	33.0	33.3	33.6	34.0	34.3	34.7							
165.1	65	30.3	30.6	31.0	31.3	31.6	32.0	32.3	32.6	32.9	33.3	33.6	33.9	34.3	34.6	34.9			
167.6	66	29.4	29.7	30.0	30.3	30.7	31.0	31.3	31.6	32.0	32.3	32.6	32.9	33.2	33.6	33.9	34.2	34.5	
170.2	67	28.5	28.8	29.1	29.4	29.8	30.1	30.4	30.7	31.0	31.3	31.6	32.0	32.3	32.6	32.9	33.2	33.5	
172.7	68	27.7	28.0	28.3	28.6	28.9	29.2	29.5	29.8	30.1	30.4	30.7	31.0	31.3	31.6	31.9	32.2	32.5	
175.3	69	26.9	27.2	27.5	27.8	28.1	28.4	28.6	28.9	29.2	29.5	29.8	30.1	30.4	30.7	31.0	31.3	31.6	
177.8	70	26.1	26.4	26.7	27.0	27.3	27.5	27.8	28.1	28.4	28.7	29.0	29.3	29.6	29.8	30.1	30.4	30.7	
180.3	71	25.4	25.7	25.9	26.2	26.5	26.8	27.1	27.3	27.6	27.9	28.2	28.5	28.7	29.0	29.3	29.6	29.8	
182.9	72	24.7	25.0	25.2	25.5	25.8	26.0	26.3	26.6	26.9	27.1	27.4	27.7	27.9	28.2	28.5	28.8	29.0	
185.4	73	24.0	24.3	24.5	24.8	25.1	25.3	25.6	25.9	26.1	26.4	26.7	26.9	27.2	27.4	27.7	28.0	28.2	
188.0	74	23.4	23.6	23.9	24.1	24.4	24.7	24.9	25.2	25.4	25.7	25.9	26.2	26.4	26.7	27.0	27.2	27.5	
190.5	75	22.7	23.0	23.2	23.5	23.7	24.0	24.2	24.5	24.7	25.0	25.2	25.5	25.7	26.0	26.2	26.5	26.7	
193.0	76	22.2	22.4	22.6	22.9	23.1	23.4	23.6	23.9	24.1	24.3	24.6	24.8	25.1	25.3	25.6	25.8	26.0	
195.6	77	21.6	21.8	22.1	22.3	22.5	22.8	23.0	23.2	23.5	23.7	24.0	24.2	24.4	24.7	24.9	25.1	25.4	
198.1	78	21.0	21.3	21.5	21.7	22.0	22.2	22.4	22.6	22.9	23.1	23.3	23.6	23.8	24.0	24.3	24.5	24.7	

Calculated Body Mass Index

66"–78" and 216 lbs.–250 lbs.

Weight

Whenever a child's specific height or weight measurement is not listed, round to the closest number in the table.

Height		Weight																		
		Kg	98.0	98.9	99.8	100.7	101.6	102.5	103.4	104.3	105.2	106.1	107.0	108.0	108.9	109.8	110.7	111.6	112.5	113.4
		Lb	216	218	220	222	224	226	228	230	232	234	236	238	240	242	244	246	248	250
Cm	In																			
167.6	66	34.9																		
170.2	67	33.8	34.1	34.5	34.8															
172.7	68	32.8	33.1	33.5	33.8	34.1	34.4	34.7	35.0											
175.3	69	31.9	32.2	32.5	32.8	33.1	33.4	33.7	34.0	34.3	34.6	34.9								
177.8	70	31.0	31.3	31.6	31.9	32.1	32.4	32.7	33.0	33.3	33.6	33.9	34.1	34.4	34.7					
180.3	71	30.1	30.4	30.7	31.0	31.2	31.5	31.8	32.1	32.4	32.6	32.9	33.2	33.5	33.8	34.0	34.3	34.6	34.9	
182.9	72	29.3	29.6	29.8	30.1	30.4	30.7	30.9	31.2	31.5	31.7	32.0	32.3	32.5	32.8	33.1	33.4	33.6	33.9	
185.4	73	28.5	28.8	29.0	29.3	29.6	29.8	30.1	30.3	30.6	30.9	31.1	31.4	31.7	31.9	32.2	32.5	32.7	33.0	
188.0	74	27.7	28.0	28.2	28.5	28.8	29.0	29.3	29.5	29.8	30.0	30.3	30.6	30.8	31.1	31.3	31.6	31.8	32.1	
190.5	75	27.0	27.2	27.5	27.7	28.0	28.2	28.5	28.7	29.0	29.2	29.5	29.7	30.0	30.2	30.5	30.7	31.0	31.2	
193.0	76	26.3	26.5	26.8	27.0	27.3	27.5	27.8	28.0	28.2	28.5	28.7	29.0	29.2	29.5	29.7	29.9	30.2	30.4	
195.6	77	25.6	25.9	26.1	26.3	26.6	26.8	27.0	27.3	27.5	27.7	28.0	28.2	28.5	28.7	28.9	29.2	29.4	29.6	
198.1	78	25.0	25.2	25.4	25.7	25.9	26.1	26.3	26.6	26.8	27.0	27.3	27.5	27.7	28.0	28.2	28.4	28.7	28.9	