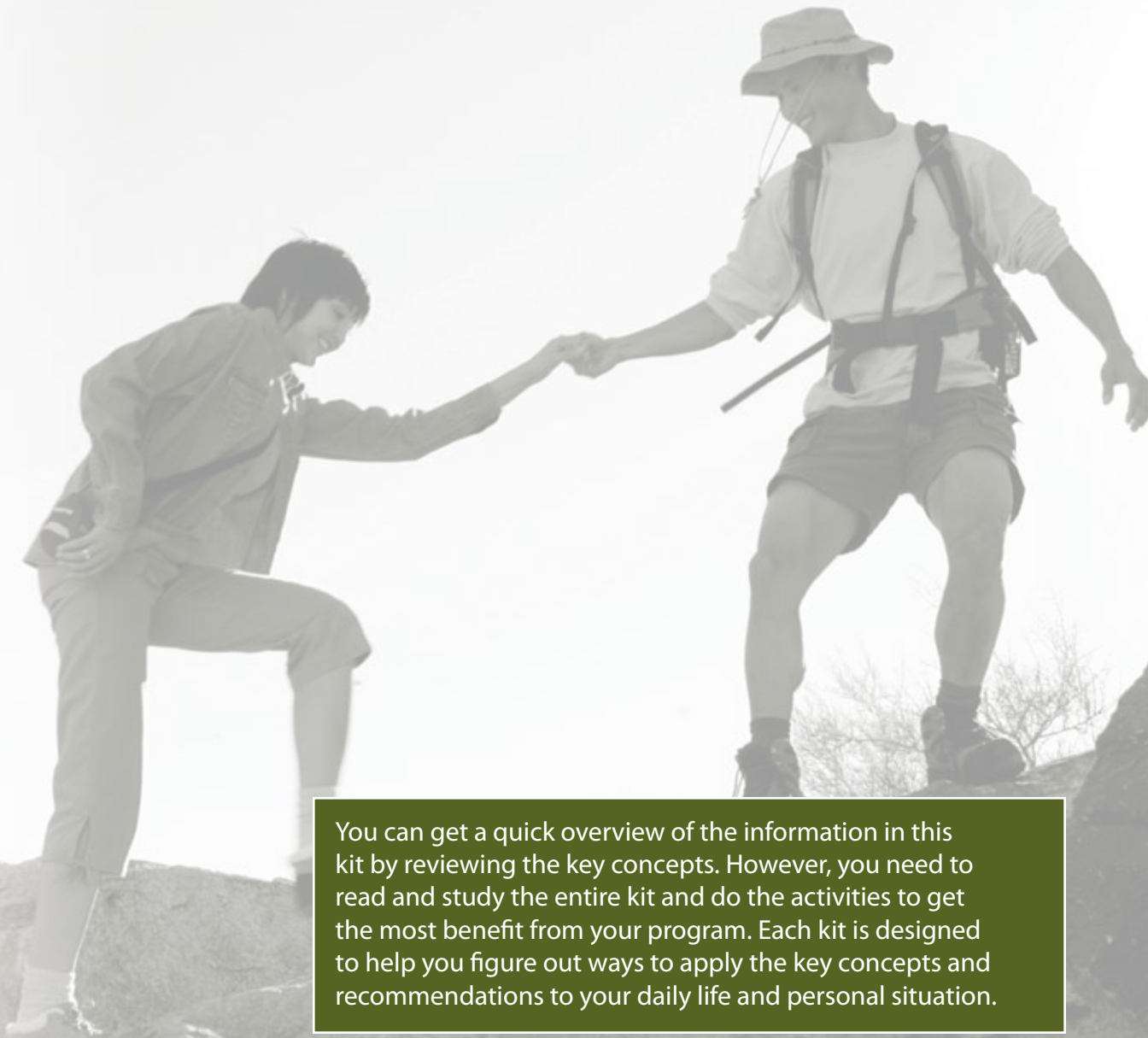


# Understanding Overweight



You can get a quick overview of the information in this kit by reviewing the key concepts. However, you need to read and study the entire kit and do the activities to get the most benefit from your program. Each kit is designed to help you figure out ways to apply the key concepts and recommendations to your daily life and personal situation.

## Key Concepts

- The chronic diseases associated with overweight are major killers.
- The prevention and treatment of overweight have been disappointing because how and why it develops is complex and incompletely understood.
- Environmental factors that promote eating high-fat/high-calorie food and avoiding physical activity have contributed to overweight.
- Genetic factors predict overweight. Perhaps as much as one-third of the influence is genetically controlled.
- BMI (body mass index) is the most widely accepted method for measuring body fatness. BMI describes relative weight for height.
- Waist circumference is an indicator of how much fat is stored in the abdomen. Cut-off points associated with increased risk for chronic disease have been defined.
- Decisions about weight loss and weight management should be made in view of overall health and should consider motivation and readiness to lose weight.
- For most overweight people, a realistic initial goal is to lose 10 percent of current weight. A reasonable timeline for a 10 percent reduction in body weight is typically three to six months.
- Once the goal of weight loss has been achieved, keeping the weight off becomes the challenge. Weight management requires a different set of skills than weight loss.
- All people who are overweight need help in modifying their meal plan and eating habits, increasing their physical activity and managing their stress.
- There are several additional options for aggressively treating obesity, including drugs and surgery.

## Getting There





## Understand Possible Causes of Overweight

The prevention and treatment of overweight have generally been disappointing, because the understanding of how and why it develops is complex and incomplete.

### Environmental Factors

It should not be surprising that people living in the U. S. and other industrialized countries become overweight. Changes in the American lifestyle over the decades have contributed to this tendency. Americans now eat more high-fat foods, high-calorie foods and foods with added sugars, and we have more sedentary work and leisure habits. There are numerous opportunities to choose less healthy foods and to use labor-saving conveniences to avoid physical activity.

Is overweight simply a disorder that results from a lifestyle that includes eating too much and/or exercising too little? There is no question that these factors are associated with gaining weight, but the classic energy balance equation does not fully explain overweight. See the kit “Balancing Energy” for more information about the complex issues surrounding “calories in” versus “calories out.”

What other environmental factors influence body weight? Studies have shown that the risk of gaining weight is greatest for people with low incomes, less education and heavy alcohol use. People who get married or stop smoking are also more likely to gain weight.

### Genetic Factors

Obesity is known to be a family trait. However, family members share not only genes, but also eating habits, cultural background and other aspects of lifestyle and environment. Scientific studies have helped separate the influence of genetic and environmental factors on overweight.

Studies on body composition found that adopted children had a body composition similar to that of their biological parents rather than their adoptive parents.

Studies of twins have also helped to separate the influence of genetic and environmental factors on body fat. Identical twins share the same genes, while fraternal twins share only half their genes. For twins reared in similar environments, fraternal twins had greater differences in body fat than identical twins. For fraternal and identical twins reared apart, differences in body fat were influenced more by genetic factors than by their non-shared environments.

Although it is not clear exactly how much genetic factors predict overweight, perhaps as much as one-third of the influence is genetically controlled. Some people are born with a predisposition to overweight, which is readily nourished by a high-fat, high-calorie, low-activity lifestyle. The most striking increase in the number of adult men and women in the U. S. who are overweight has occurred in the last two decades or so. It is unlikely our genes have changed significantly during that period of time. It is also disturbing that the increase in overweight in American adults has been accompanied by parallel trends in children and teenagers.

The challenge of losing weight and keeping it off long-term points to the importance of preventing overweight from occurring in the first place.

### New Developments

#### Resting Metabolic Rate (RMR) and Respiratory Quotient (RQ)

Scientific studies have shown that resting metabolic rate (RMR), the rate at which the body uses calories for sustaining life, is determined by genetics as well as many other factors. Typically, RMR accounts for 60 to 70 percent of the calories a person burns throughout the day. Until recently, it was difficult and expensive to get an accurate measurement of resting metabolic rate. New, relatively inexpensive equipment is now available to measure resting metabolic rate and respiratory quotient (RQ). The respiratory quotient is an index that tells whether the body tends to burn more carbohydrate or fat as fuel. Both of these measurements may be important in long-term weight management. See the kit “Balancing Energy” for more information about these two factors.

## Understanding Overweight



### The Ob Gene and Leptin

One of the most exciting developments in the genetics of obesity was the cloning of the ob gene in 1994. The ob (for “obesity”) gene controls the body’s production of leptin, a compound secreted by fatty tissue that helps regulate fat storage in the body. Leptin is believed to work on the central nervous system to decrease the amount of food eaten. It does this by suppressing another chemical that strongly stimulates eating (appetite). Also, high levels of leptin are associated with burning calories rather than storing calories as fat.

Scientists have speculated that overweight in humans may be the result of producing no or too little leptin. They have also speculated that overweight may result from an insensitivity to leptin, similar to the way people with type 2 diabetes are insensitive to insulin. If these hypotheses are true, overweight people could become lean by taking medications that contain leptin, increase the body’s production of leptin or make the body more responsive to leptin. However, these hypotheses remain to be proven. Numerous clinical trials are underway to study the role of leptin and many other compounds in weight loss.



## Assess Weight Problems

Assessing an individual’s need to lose weight involves careful consideration of the following factors:

- Overall body fat (body mass index)
- Presence of fat in the abdominal region (waist circumference)
- Overall health status
- Motivation and readiness to lose weight

### Body Mass Index

There are several accurate methods for measuring body fat. However, because precisely assessing body fat is often expensive and not readily available, body mass index (BMI) is the most widely accepted method. BMI describes relative weight for height. The National Institutes of Health and other expert groups use the BMI classifications provided below.

Although overweight is specifically defined as a BMI of 25.0 to 29.9, we use the term “overweight” to refer to BMIs of 25.0 or higher (overweight and/or obesity).

REFERENCE



BMI Classifications	BMI
Underweight	Less than 18.5
Normal	18.5 to 24.9
Overweight	25.0 to 29.9
Class I Obesity	30.0 to 34.9
Class II Obesity	35.0 to 39.9
Class III Obesity (Extreme Obesity)	40.0 or greater

Your BMI was calculated and used to help set your short-term and long-term body weight goals. Be aware that if you are very muscular, these interpretations of BMI may not apply to you. Because muscle tissue is heavier than fat tissue, very muscular people may be falsely classified as overweight or even obese. Also, note that a BMI of 30.0 or more is used to define obesity for both men and women, even though at equal BMIs, women typically have more body fat than men.

ACTIVITY



### What is Your BMI?

To estimate your BMI using pounds and inches, use this formula:

$$[\text{weight (pounds)} / \text{height (inches)}^2] \times 703$$

For example, a person who weighs 164 pounds and is 68 inches (or 5’8”) tall has a BMI of approximately 25.

$$[164 / (68 \times 68)] = 164 / 4624 = .035 \times 703 = \mathbf{24.9}$$

What is your BMI? \_\_\_\_\_

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To use the charts, find your height in the column on the left. Move across to the weight nearest to your current weight. The number at the top of the column is the BMI for that height and weight. To find the normal weight range for your height, find the weights for a BMI of 18.5 and 25.0. For example, the normal weight range for a person who is 66 inches tall is 116 to 155 pounds.

### REFERENCE



Height (Inches)	Body Weight (Pounds)				
	BMI	18.5	25	30	35
58	89	119	143	167	191
59	92	124	149	173	198
60	95	127	153	179	204
61	98	132	159	185	211
62	101	136	163	191	218
63	104	141	169	197	225
64	108	146	176	204	232
65	111	150	180	210	240
66	116	156	187	216	247
67	118	159	191	223	255
68	122	165	198	230	262
69	125	169	203	236	270
70	129	175	210	243	278
71	133	179	214	250	286
72	136	185	221	258	294
73	140	189	226	265	302
74	144	195	234	272	311
75	148	199	239	279	319

Height (Meters)	Body Weight (Kilograms)				
	BMI	18.5	25	30	35
1.45	38.9	52.6	63.1	73.6	84.1
1.48	40.5	54.8	65.7	76.7	87.6
1.50	41.6	56.3	67.5	78.8	90.0
1.53	43.3	58.5	70.2	81.9	93.6
1.55	44.4	60.1	72.1	84.1	96.1
1.58	46.2	62.4	74.9	87.4	99.9
1.60	47.4	64.0	76.8	89.6	102.4
1.63	49.2	66.4	79.7	93.0	106.3
1.65	50.4	68.1	81.7	95.3	108.9
1.68	52.2	70.6	84.7	98.8	112.9
1.70	53.5	72.3	86.7	101.2	115.6
1.73	55.4	74.8	89.8	104.8	119.7
1.75	56.7	76.6	91.9	107.2	122.5
1.78	58.6	79.2	95.1	110.9	126.7
1.80	59.9	81.0	97.2	113.4	129.6
1.83	62.0	83.7	100.5	117.2	134.0
1.85	63.3	85.6	102.7	119.8	136.9
1.88	65.4	88.4	106.0	123.7	141.4

### Interpreting BMI

18.5 to 24.9 = normal weight

25 to 29.9 = overweight

30 or higher = obesity

### Waist Circumference

Waist circumference is an indicator of how much fat is stored in the abdomen. There is evidence that increases in abdominal fat (out of proportion to total body fat) are associated with an increased risk of cardiovascular disease, type 2 diabetes and high blood pressure. A high waist circumference can also be an indicator for increased risk even in people of normal weight.

Men and post-menopausal women tend to store fat in the abdominal regions of their bodies. Pre-menopausal women usually store fat in their hips, buttocks and thighs.

For men, a waist circumference of *greater than 40 inches* (102 cm) is associated with increased risk for chronic diseases. Women have increased risk for chronic diseases with a waist circumference of *greater than 35 inches* (88 cm).



ACTIVITY



**Your Waist Circumference**

What is your waist circumference? \_\_\_\_\_ inches (\_\_\_\_\_ cm)

ACTIVITY



**Overall Health Status**

It is important to consider your overall health when making decisions about weight loss and weight management. *Check any diseases and/or risk factors that you currently have.*

**Disease conditions**

Overweight people with any of these conditions are at very high risk for disease complications and death.

- Known coronary heart disease
- Other atherosclerotic diseases, such as carotid and peripheral arterial disease
- Type 2 diabetes
- Sleep apnea (breathing stops for brief periods many times during the night)

**Other obesity-associated diseases**

- Infertility and gynecological problems
- Osteoarthritis
- Gallstones and gall bladder disease
- Stress incontinence (leaking urine when coughing, laughing or sneezing)

**Cardiovascular risk factors**

Overweight people with three or more of the following risk factors are considered at high risk for disease, disability and death. In overweight people, control of cardiovascular risk factors deserves as much emphasis as weight loss. Reduction of risk factors will reduce the risk for cardiovascular disease whether or not efforts at weight loss are successful.

- Cigarette smoking
- High blood pressure (systolic blood pressure of 140 mmHg or higher and/or diastolic blood pressure of 90 mmHg or higher)
- Elevated LDL (“bad”) cholesterol (130 mg/dl or higher; 3.4 mmol/L or higher)
- Low HDL (“good”) cholesterol (below 40 mg/dl or 1 mmol/L)
- Fasting blood glucose of 100 mg/dl (5.6 mmol/L) or higher
- Family history of premature coronary heart disease
- Age (men 45 years or older; women 55 years or older)
- Physical inactivity
- Elevated triglycerides (150 mg/dl or higher; 1.7 mmol/L or higher)

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### Motivation and Readiness to Lose Weight

Overweight people give many reasons for wanting to lose weight. Younger women and men typically say they want to:

- Look better in their clothes
- Attract a boyfriend or girlfriend
- Participate in exercise and recreational activities
- Get pregnant (being overweight is a common reason for infertility in young women)

Older women and men typically say they want to:

- Avoid shortness of breath
- Have less pain in feet, knees, hips or back
- Sleep better
- Avoid taking drugs for high blood pressure or diabetes

Middle-aged men often give the fear of heart disease as a reason to attempt weight loss. Also, men who experience angina or have been refused a life insurance policy at normal rates are likely to be motivated to lose weight. Doctors often advise their overweight patients to lose weight in preparation for surgery.

If you are overweight and thinking about trying to lose weight, ask yourself these questions:

- What is your weight history? What was your weight at age 21? Have you had cycles of losing and regaining weight in the past?
- What weight loss strategies have you tried in the past? What has worked? What has not worked?
- Do you understand the causes of overweight?
- Do you understand the benefits of losing weight? Do you understand the dangers of remaining overweight?
- How will this attempt at weight loss differ from what you have tried in the past?
- Do you have the support of family, friends and co-workers for your weight loss efforts?
- What are your beliefs and attitudes about physical activity?
- Are you able and willing to be physically active?

Not everyone who needs to lose weight is ready to make the commitment to try. Because weight loss requires significant concentration and effort, people experiencing stress due to job changes, financial problems or major family illnesses should consider waiting until their circumstances improve. People who are not ready to attempt weight loss should strive to avoid further weight gain.



### ACTIVITY

#### My Reasons to Lose Weight

What are your reasons for wanting to lose weight?

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Are you ready to try to lose weight?

Yes No

### Special Needs

Many overweight people who enroll in a weight loss program suffer from severe stress, depression or other psychological problems. Increased emotional stress frequently leads to anxiety, depression, mood swings and binge eating.

Overweight individuals with marked depression, anxiety or eating disorders may require psychotherapy before attempting weight loss. Counseling may help them reduce their focus on weight loss and food, improve their self-esteem and body image and establish a more constructive focus in life.

Fear of gaining weight is a major barrier to smoking cessation, especially for overweight people. Nevertheless, overweight people who smoke should try to quit. The majority of people who quit smoking do gain weight, but the average is only 4.5 to seven pounds. This amount of weight gain is far less likely to produce health problems than continuing to smoke. For practical reasons, it may be better to avoid trying to quit smoking and lose weight at the same time.



**A Realistic Weight Loss Goal**

For most overweight people, a realistic initial goal is to lose 10 percent of current weight. Focusing on thinness may lead overweight people to try to achieve a weight that is unrealistic or even impossible to maintain, given genetic and physiological factors. One study showed that overweight women expected to lose 32 percent of their current weight. Although the women in the study lost more weight than ever before and achieved better health, they remained dissatisfied with their weight.

The choice of a sensible target weight and rate of weight loss depends on many factors, including age, family history, desired weight and present health status. Consider, for example, two women both needing to lose approximately 20 percent of their current weight to achieve a BMI below 25. One is in her 60s with osteoarthritis of the knees. The other is in her 20s and generally healthy and fit, but she has a family history of diabetes. The older woman will benefit significantly from losing only 10 percent of her current weight. Losing more is desirable but may be difficult, considering her arthritis. For the younger woman, the goal of losing 10 to 20 percent of her current weight is very achievable and definitely worth the effort while she is young to prevent diabetes later in life.

Small weight losses often have significant positive effects on health. You should only attempt to lose more weight after first losing 10 percent of current weight and maintaining tolerable and stable eating and exercise habits. For people unable to achieve significant weight loss, prevention of further weight gain is an important goal.

**Rate of Weight Loss**

A reasonable timeline for a 10 percent reduction in body weight is typically three to six months. Progressing more slowly may be discouraging.

To achieve a 10 percent weight loss in three to six months:

**REFERENCE**



**Achieve Negative Energy Balance**

If your BMI is:	Negative Energy Balance	For a weekly weight loss of:
Up to 35	500 calories (2,090 kilojoules)	1 pound (0.5 kg)
Over 35	500–1,000 calories (about 2,090 to 4,180 kilojoules per day)	1–2 pounds (about 0.5 to one kg a week)

Weight loss is usually more rapid in the first two to three weeks, since you’re losing both fat and water. As you lose weight, you will need fewer calories to maintain your body weight. After six months, the rate of weight loss usually declines, and your weight will likely plateau. To continue to lose weight, you will need to make further adjustments in your meal and exercise plans. For example, you may need a larger calorie deficit to achieve the same rate of weight loss. As the rate of weight loss slows down, individuals often become discouraged and quit following their weight loss plans. Experience has shown that they will regain the weight unless they adopt a weight management plan they can continue for a lifetime.

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### Weight Management

Once you achieve your weight loss goal, keeping the weight off becomes the challenge. Studies show it is difficult to maintain weight loss over a long period of time. In fact, the majority of people who lose weight regain it within three to five years.

Overweight, like other chronic conditions, requires long-term care. Losing weight is exciting and socially rewarding. Maintaining weight loss requires just as much, if not more, effort but brings less gratification. Weight management requires a different set of skills than weight loss.

### Weight Cycling

Weight cycling is the repeated loss and regain of body weight. When weight cycling is the result of dieting, it is often called “yo-yo” dieting. A weight cycle can range from small weight losses and gains (five to 10 pounds) to large changes in weight (50 or more pounds per cycle). At this time, no conclusive studies have shown that weight cycling is harmful to the health of an obese person. Although further research is needed, overweight people should not let the fear of regaining weight stop them from trying to achieve a realistic weight goal.



### TIPS

#### Weight Management Skills to Keep Weight Off

- Exercising regularly (at least 30 to 60 minutes of physical activity most days of the week) – Exercise may not be as effective as eating fewer calories for short-term weight loss in overweight individuals, but exercise is absolutely critical to keeping weight off long-term.
- Monitoring weight frequently (daily or at least once a week)
- Eating foods low in fat, refined carbohydrates and added sugar
- Recording foods eaten
- Using social support to maintain eating and exercise habits
- Developing effective problem solving skills
- Viewing eating and exercise plans as permanent lifestyle habits rather than temporary measures
- Remaining in a behavior modification program – The longer people remain in a program, the longer they maintain their weight loss, even for periods up to 10 years. That’s why Nationwide Better Health doesn’t end after 12 weeks or even one year. It is a lifestyle management program for a lifetime!

## 3

## Consider Treatments for Overweight

Anyone who is overweight should try to achieve and maintain a healthier weight. The goal for someone with a BMI of 25.0 to 29.9 is changing eating and exercise habits to prevent weight gain and produce moderate weight loss. People with a BMI of 30.0 or higher should focus on producing substantial weight loss over a prolonged period of time.

### Advantages of Weight Management

Weight management in overweight people has many advantages, including:

- Reduces risk for diabetes and cardiovascular disease
- Reduces blood pressure in people with high blood pressure
- Reduces triglycerides
- Increases HDL (“good”) cholesterol
- Reduces total and LDL (“bad”) cholesterol
- Reduces blood glucose and hemoglobin A1c in people with type 2 diabetes

Are any of these advantages important to you?

### Behavior Modification

All people who are overweight, regardless of any other medical treatment selected, need help in three key areas:

- Modifying their meal plan and eating habits
- Increasing their physical activity
- Managing their stress

As a behavior modification and lifestyle management program, Nationwide Better Health addresses all three of these critical areas in an integrated approach. It is an ideal program for many people interested in losing weight and keeping it off long-term. While our program is not solely about weight loss (we focus on weight management to promote health and prevent disease), many participants have been extremely successful in losing significant amounts of weight. Many doctors recommend our program for their overweight patients before or in conjunction with a more aggressive treatment plan. Evidence shows that weight loss and weight management programs that

provide a greater frequency of contacts between the individual and the program, such as our approach, are more likely to result in keeping weight off long-term.

### Low-Calorie Diets

An individualized meal plan should be an integral part of a weight loss plan. Along with an individualized exercise plan, the meal plan should help create a deficit of 500 to 1,000 calories per day (2,090 to 4,180 kilojoules per day) to produce one to two pounds (0.5 to one kg) of weight loss per week. Daily meal plans containing 1,000 to 1,200 calories (4,180 to 5,016 kilojoules) for women and 1,200 to 1,500 calories (5,016 to 6,270 kilojoules) for men are typically recommended. The meal plan should be low in total fat, saturated fat and trans fat. However, reducing dietary fat will not produce weight loss unless total calories are also reduced. Eating a variety of foods from the five food groups is key.

Very-low-calorie diets are commercially prepared formulas of 800 calories (3,344 kilojoules) or fewer per day that replace all usual food and that may result in significant short-term weight loss. Very-low-calorie diets are not the same as over-the-counter meal replacers, which are meant as substitutes for one or two meals a day.

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“While our program is not solely about weight loss... many participants have been extremely successful in losing significant amounts of weight.”

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A very-low-calorie diet may allow a severely to moderately overweight individual to lose about three to five pounds (1.5 to 2.5 kg) per week, for an average total weight loss of 44 pounds (20 kg) over 12 weeks. Very-low-calorie diets may be appropriate for people with BMIs over 30.0 who are highly motivated but have not been successful with a more conservative method. People with BMIs of 27.0 to 30.0 who have medical conditions (diabetes, high cholesterol, high blood pressure) that might respond to rapid weight loss may also be candidates for very-low-calorie diets. Very-low-calorie diets are not recommended for pregnant women or women who are breastfeeding, and they are not appropriate for children or adolescents, except in specialized treatment programs.

Many people on very-low-calorie diets for four to 16 weeks report side effects including fatigue, constipation, nausea and diarrhea. Dangers of these diets include an increased risk of gout, gallstones and certain cardiac complications. Because of the potential side effects and health risks, people following very-low-calorie diets should do so only under medical supervision.

See the kit “Evaluating Diets” for more information about low-calorie diets.

### Physical Activity

Physical activity is an integral part of weight loss, but it will generally not improve weight loss much over six months compared to a low-calorie diet alone. Most weight loss occurs because of eating fewer calories. Regular physical activity is most helpful in keeping weight off once it is lost. Being physically active has the added benefit of improving fitness and reducing the risk of developing cardiovascular disease and type 2 diabetes.

Studies suggest exercise can help offset the decline in resting metabolic rate that typically occurs with weight loss, because it helps preserve muscle. See the kit “Balancing Energy” For more information on the role of RMR and physical activity in weight loss and weight management.



### TIPS

#### Increasing Physical Activity

- Initially, sedentary individuals should try to build up gradually to 30 to 45 minutes of moderate intensity exercise on three to five days per week. Walking is an excellent activity, because it is safe and convenient to do.
- Over time, physical activity should increase to at least 30 to 60 minutes every day (or nearly every day) of the week. A goal of burning about 2,000 calories per week (about 8,360 kilojoules per week) is recommended. See the kit “Using the Exercise Points System” for more information.
- You don’t have to exercise at a high intensity to benefit your health. The major advantages of lower intensity exercise for weight management are:
  - You may enjoy it more and be more likely to do it.
  - You are less likely to get injured.
  - You actually burn a higher proportion of fat for energy during lower intensity exercise.
- Look for opportunities to add lifestyle physical activity, such as taking the stairs or doing household chores, to your daily routine. See the kit “Adding Physical Activity to Your Lifestyle” for ways to reduce sedentary time by engaging in frequent, less strenuous activities.

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### More Aggressive Treatments

There are several options for aggressively treating obesity. Be sure to carefully consider any decision after thoroughly weighing the benefits and risks of the treatment. Individuals using more aggressive treatments must be under the care of doctors and other health care specialists.

### Drugs for Treatment of Obesity

The decision to use medications for weight loss and weight maintenance should be based on several important factors.

- **How much weight does the person need to lose?** Weight loss medications are not appropriate for people needing to lose small amounts of weight for cosmetic purposes. Medications can be useful in combination with diet, exercise and behavior modification for people with BMIs of 30.0 or higher.
- **What other risk factors for obesity-related diseases are present?** Weight loss medications also may be recommended for people with BMIs as low as 27.0 who have one or more of the following risk factors or obesity-related diseases:
  - High blood pressure
  - High cholesterol or high triglycerides
  - Coronary heart disease
  - Type 2 diabetes
  - Sleep apnea
- **Has the person been unsuccessful in previous attempts to lose weight?** Weight loss medications are most appropriate for people who have been unsuccessful in previous attempts to lose weight. Weight loss drugs should be considered only if the person has not lost an average of at least one pound (0.5 kg) per week after following a structured program of diet, exercise and behavior modification for at least six months.
- **Does the person have a history of eating disorders?** Weight loss medications should not be prescribed for people with eating disorders, such as anorexia nervosa, bulimia nervosa or binge eating disorder. People with eating disorders should consult a mental health professional.

Long-term weight management through drug treatment might be appropriate for some people under these circumstances:

- To prevent weight gain during periods of high risk, for example during winter months when participation in regular physical activity may be difficult
- To lose weight after regaining small amounts of weight (three to five pounds), rather than regaining all the weight that was lost
- To eliminate the need for medications for other weight-related complications, such as high blood pressure, diabetes and high cholesterol and high triglycerides

Drugs for the treatment of obesity are typically designed to work in one of three major ways: to increase energy expenditure, to reduce hunger and make it easier to eat less or to block the absorption of fat in the gut. Drugs are approved by the Federal Drug Administration (FDA) for both short-term use (less than three months) and for “weight loss and the maintenance of weight loss.”

Currently, only two medications are approved in the U. S. for long-term weight management:

- Meridia (sibutramine hydrochloride) works by reducing hunger.
- Xenical (orlistat) helps block fat absorption in the gut.

An over-the-counter formulation of orlistat, called Alli, is now available in the U. S. without a prescription.

Candidates for these medications should discuss the benefits and risks with their doctors. If you take one of these medications, be sure to read the patient information insert.

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### Surgical Treatments for Weight Loss

Bariatric (weight loss) surgery may be an option for people with a BMI of 40.0 or more (100 percent or more overweight), or for people with a BMI of 35.0 or more, significant obesity-related health complications or disease and a history of failure with other weight loss methods. Surgery as a treatment for obesity is performed by doctors specializing in bariatric medicine. The aim of surgery is to modify the gastrointestinal tract to reduce the amount of food eaten and/or the amount of nutrients absorbed. Two major types of procedures are described in the reference box below:

#### REFERENCE



#### Surgery for Weight Loss

Types of Surgery	Definition
Gastric restriction	Also known as stapling or banding, this limits the amount of food the stomach can hold by closing part of it off. Gastric restriction is preferred by most proponents of bariatric surgery because it is less likely to affect absorption of nutrients.
Gastric bypass	This procedure creates a small stomach pouch to restrict the amount of food eaten and bypass varying lengths of the small intestines to reduce the amount of nutrients absorbed.

These surgical procedures typically produce weight losses of 25 to 35 percent of current weight. Weight loss is usually well maintained and is associated with major improvements in health-related complications of overweight. Most people experience substantial improvements in control of blood glucose and blood pressure, sleep apnea and mobility.

Like all treatments for obesity, surgery requires long-term follow-up. Patients need help to adjust to the surgery and adopt healthy eating and activity habits. Surgery is not an alternative to eating healthy. After surgery, most people can eat a variety of foods, but they must eat smaller quantities and may need to take vitamin supplements. After the surgery and initial weight loss, preventing weight gain is a challenge. Because complications are potentially very serious, candidates for bariatric surgery should be fully aware of the benefits and risks before undergoing these types of procedures.



# 4

## Before Your Next Session

In the time between your sessions with your health coach, do the following:

- Be sure to read and complete this educational kit.
- Use this kit to record your work.
- Have this kit with you for your next session.

### REVIEW



#### Check Yourself

Complete the statements to be sure you understand the key concepts in this kit.

1. The increased risk of death associated with overweight is mainly due to \_\_\_\_\_.
2. The understanding of how and why people become overweight is \_\_\_\_\_.
3. Perhaps as much as one-\_\_\_\_\_ of the risk for obesity is genetically controlled.
4. \_\_\_\_\_ is the most widely accepted method of measuring body fatness.
5. \_\_\_\_\_ fat is associated with an increased risk of cardiovascular disease, type 2 diabetes and high blood pressure.
6. Overweight individuals with \_\_\_\_\_ or more cardiovascular disease risk factors are at high risk for disease, disability and death.
7. For most overweight people, a realistic short-term goal is to lose \_\_ percent of current weight.
8. A reasonable time line for a 10 percent reduction in body weight is three to \_\_\_ months.
9. In the first two to three weeks, weight loss is usually more rapid, since the material being lost is not only fat but also \_\_\_\_\_.
10. The majority of people who lose weight \_\_\_\_\_ it within three to five years.
11. A deficit of \_\_\_ to \_\_\_\_\_ calories per day is appropriate as part of an integrated weight loss plan.
12. Dangers of very-low calorie diets include an increased risk of gout, gallstones and \_\_\_\_\_ complications.
13. Regular \_\_\_\_\_ is most helpful in keeping weight off once it is lost.
14. Weight loss medications are not appropriate for persons who need to lose \_\_\_\_\_ amounts of weight for cosmetic purposes.
15. Xenical (orlistat) is a weight loss drug that works by helping to prevent absorption of \_\_\_ from food in the gut.
16. The aim of surgery as a treatment for obesity is to modify the gastrointestinal tract to reduce the amount of food \_\_\_\_\_ and/or the amount of nutrients absorbed.
17. Surgery is not an alternative to \_\_\_\_\_.

Answers: 1) heart disease; 2) complex; 3) third; 4) BMI; 5) Abdominal; 6) three; 7) 10; 8) six; 9) water; 10) regain; 11) 500, 1,000; 12) cardiac; 13) physical activity; 14) small; 15) fat; 16) eaten; 17) healthy eating

Write any questions for your health coach here.