



# 12

## Weight Loss Maintenance Table of Contents

<b>Introduction .....</b>	<b>1</b>
<b>General Information .....</b>	<b>1</b>
<b>Background .....</b>	<b>2</b>
Causes of Weight Re-gain.....	3
Importance of Active Relapse Prevention.....	3
<b>Overview of Maintenance .....</b>	<b>3</b>
<b>Weight Loss Maintenance Strategies .....</b>	<b>5</b>
Monitor Weight Daily.....	5
Establish Weight and Behavior “Alarms” .....	5
Engage in Physical Activity.....	6
Continue Contact.....	7
Get Support from Others .....	7
Plan for High-Risk Situations .....	7
Self-Monitor .....	8
Establish Environmental Cues .....	8
Set Specific, Written Daily Goals .....	9
Practice Reinforcement .....	9
Identify Alternatives to Food for Gratification .....	9
Practice Positive Thinking.....	10
<b>Strategies from the National Weight Control Registry (NWCR) .....</b>	<b>10</b>
<b>Maintaining Contact.....</b>	<b>11</b>
<b>Links.....</b>	<b>12</b>
<b>References.....</b>	<b>13</b>

# 3

## Screening for Overweight and Obesity

### Introduction

The [VA National Center for Health Promotion and Disease Prevention \(NCP\)](#), [Veterans Health Administration \(VHA\) Office of Patient Care Services](#) with input from the field, developed a [Weight Management Program for Veterans \(MOVE!®\)](#). The Program is based on the [NIH Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report \(1998\)](#)<sup>1</sup> and the United States Preventive Services Task Force (USPSTF) [Screening and Interventions for Obesity in Adults: Summary of the Evidence for the US Preventive Services Task Force \(2003\)](#)<sup>2</sup> and [Screening for Obesity in Adults \(2003\)](#)<sup>3</sup>.

The following resources provide guidance to VHA clinicians for implementation/maintenance of weight management programs:

- Handbook [1120.01 MOVE! Weight Management Program for Veterans \(MOVE!\)](#)<sup>4</sup>
- [Veterans Affairs \(VA\)/Department of Defense \(DoD\) Clinical Practice Guideline \(CPG\) for Screening and Management of Overweight and Obesity \(2006\)](#)<sup>5</sup>

The MOVE!® Reference Manual addresses the full spectrum of weight management care/practice. The Manual consists of topic-specific chapters, but each topic should be considered in relation to others.

### General Information

It is often quite simple to make an initial health behavior change, but very hard to maintain that change. Mark Twain captured this succinctly: “It is easy to quit smoking. I have done it hundreds of times.” With weight, many patients have a history of brief weight loss, followed by re-gain. MOVE!® is a weight management program designed to assist Veterans in making long-term lifestyle changes that maintain weight and fitness over a lifetime, not just over the short-term. Research has shown that certain strategies can facilitate weight maintenance. This chapter presents those concepts and methods to assist Veterans with maintaining weight loss.

## Background

Virtually all health behavior change programs have fairly high recidivism/relapse rates. This is well known for smoking cessation and substance abuse/dependence and is also true for weight management. Just a decade ago, the consensus was that 80 percent of patients who had lost weight through a weight loss program would re-gain that weight within a year.<sup>6</sup> With advancements in behavioral interventions, it is now estimated that 20 percent of overweight individuals are successful at long-term weight loss when it is defined as losing at least 10 percent of initial body weight and maintaining the loss for at least 1 year.<sup>7</sup> MOVE!<sup>®</sup> is not a weight loss program; it is a weight management program designed to assist Veterans in making long-term behavioral, nutritional, and physical activity changes.

Relapse rates for weight loss programs are higher than for smoking cessation and substance abuse/dependence. There are some clear reasons for this. First, successful long-term weight loss requires changing two behaviors: eating and physical activity. Second, it may be easier for people to “quit” something that is not a requirement. Research has shown that it is difficult for those who are addicted to cut back on smoking or drinking. Unfortunately, one cannot just stop eating, and therein lies a significant barrier to weight loss. We know that smoking and problematic drinking are complex problems involving social, behavioral, thinking/belief, and biological factors. One’s weight is likely an even more complex interaction of these and additional factors. Lastly, getting Veterans to begin a new healthy behavior (i.e., increasing physical activity) may be more difficult than assisting them with stopping a harmful behavior.

To be successful in weight management, a patient needs to simultaneously manage their eating, thinking, behavior, and physical activity. These changes must occur in spite of an environment and a culture that promotes obesity.

The good news is that there are strategies that are effective for helping patients maintain new behaviors. Furthermore, there is a core of patients who lose weight and maintain it, and these patients have been studied carefully. It is also important to note that even those successful at losing weight and maintaining weight loss may re-gain up to 50 percent of their initial weight loss; thus, some weight re-gain should not be seen as failure.

A long term analysis of 1,012 MOVE!<sup>®</sup> Veterans showed that the majority of those who either lost weight or halted weight gain at 6 months tended to maintain their weight loss for at least 18 months after entering MOVE!<sup>®</sup>. In general, men’s weights were stable. For women, there was evidence for a gradual increase in those who achieved a 5 percent weight loss over time. Overall, these results support the perspective that MOVE!<sup>®</sup> helps Veterans build and maintain weight management skills.<sup>8</sup>

## Causes of Weight Re-gain

People who have lost weight usually re-gain that weight because they stop doing those things they did to lose weight in the first place. Once the big concentrated effort is finished and their weight goal has been achieved, people often stop recording their food intake, slowly revert to former eating habits, and start skipping opportunities for physical activity. This may be a “lapse” (partial relapse) initially, but often leads to a full-blown “relapse” if not recognized and addressed. Clinical researchers have found it helpful to study relapses and provide tools for preventing them.<sup>9</sup>

## Importance of Active Relapse Prevention

Specific and ongoing attention to relapse prevention is almost always necessary to prevent weight re-gain. Patients rarely engage in active relapse prevention efforts without prompting. Clinicians must actively work to help MOVE!<sup>®</sup> Veterans institute relapse prevention habits and maintain those habits. To be effective, relapse prevention efforts should be started and emphasized long before a patient’s goal weight is reached. A basic rule of thumb with relapse prevention is “forewarned is forearmed.” The clinician must assist patients in identifying future situations that place them at-risk for relapse and developing skills to master these anticipated challenges.

Everyone attempting a healthy behavior change has slips or lapses. Unfortunately, the lapses themselves pose an ever greater risk of relapse due to the negative thinking that can go with a slip. This is so common that clinicians have named this the *abstinence-violation effect*.<sup>10</sup> Those who slip tend to feel like failures. They feel guilty, and they begin to question their confidence for making the change. This extra baggage makes a full relapse even more likely. Patients need to be aware of what slips are and what to do to limit their impact to avoid the abstinence-violation effect.

In the event of a lapse or a slip, Veterans should be helped to put the relapse in a broad perspective (“it’s just a temporary dip in the trend line”). One should not make too much of a slip. Avoid giving permission for lapses, but remember that successful weight managers also have temporary lapses. Help Veterans avoid self-recrimination and other negative thoughts and emotional reactions and advise them not to give up because they briefly lapsed. Help them engage in realistic positive thinking and encourage them to immediately resume appropriate weight control habits. Lastly, turn the slip into a positive – figure out why the slip occurred and plan to manage a similar situation in a different way in the future.

## Overview of Maintenance

Veterans who participate in MOVE!<sup>®</sup> and achieve their goals require ongoing support. At a minimum, the primary care team should provide this ongoing support. Obesity is similar to other chronic diseases in that, even with good control, weight management

should continue to be monitored regularly. Veterans who sustain their weight loss are typically those who maintain an ongoing relationship with their health care team.

The arrows below (→) indicate recommended actions that staff should take when supporting maintenance:

→ Discuss follow-up treatment with Veterans.

- Negotiate with Veterans about their desired frequency of contact (every 3-6 months is suggested)
- Assess weight and address issues on every contact
- Document weight in the Computerized Patient Record System (CPRS) Vital Signs Section
- Encourage Veterans to call between scheduled appointments if they encounter difficulties

→ Discuss patient progress and set maintenance goals.

→ Review new medications and ask about weight gain concerns related to medication. Be certain that the patient has been informed about any new medications known to cause weight gain.

→ Establish clear “red flags” to indicate the need for additional intervention. These red flags, the level of concern, and recommended actions include:

- Gain of 1-2 pounds – minor concern – pay closer attention to daily intake.
- Gain of 3-4 pounds – moderate concern – problem solve to determine what behavior changes are contributing to weight gain (e.g., eating out more, eating desserts more often, skipping or decreasing physical activity) and how to get back to “normal.”
- Gain of more than 5 pounds – major concern –
  - Veteran should contact the MOVE!<sup>®</sup> or Primary Care team for further assistance.
  - Establish a plan to return to the goal weight through dietary and physical activity modifications.
  - Other strategies include encouraging Veteran to resume use of a pedometer and weight, food, and activity logs. It may also be helpful to refer the Veteran to VA (Recreation Therapy, Social Work Services, Health Promotion/Disease Prevention Program Manager) and community resources (local support groups, gyms, community centers, etc.).

→ Remember that weight management is difficult. Acknowledge and praise patients for their efforts and successes.

# **Weight Loss Maintenance Strategies**

There are many strategies that contribute to the success of those who are able to lose weight and keep it off. While a Veteran is actively working on weight loss, the importance of maintenance should be introduced. Once weight loss goals are met and the Veteran enters into a maintenance phase, the following strategies may be helpful.

## **Monitor Weight Daily**

Recent research has shown that daily weight monitoring is associated with better weight loss and prevention of weight re-gain.<sup>11, 12</sup> Daily weighing allows for rapid detection of small gains. Thus, corrective actions (e.g., reduction of intake, increasing activity, or both) can be taken immediately. If a Veteran notices that his/her weight is up a pound, cutting back on high-calorie foods for a day or two may be all that is required to return to the goal weight. With less frequent weighing, a trend of small, daily weight gains may go unnoticed. This may require a more sustained and intensive effort to lose the gained weight. Thus, daily monitoring and immediate corrective action may be more effective than less frequent monitoring.

## **Establish Weight and Behavior “Alarms”**

Having an “alarm” system will help Veterans stop an undesirable trend in their behavior or weight quickly. This alarm system will be most successful if it is coupled with frequent weighing (see Monitor Weight Daily above). A recent study, “STOP regain”<sup>9</sup>, showed that patients who were taught to weigh daily and develop a specific plan to return to weight loss behaviors when they detected small gains were more likely to avoid larger re-gains than those not taught this system (Table 12-1). Weight gain of 3-4 pounds was a “caution” and patients in this program were encouraged to use general dietary strategies to cut back on intake. Problem solving determined the causes of changes in daily routines which contributed to weight gain (increased eating out, decreased activity, increased snacking, etc). A 5-pound gain signaled time to re-instate a weight loss plan. The active weight loss involved a return to weight loss calorie goals and increasing physical activity. In addition, participants were encouraged to use meal plans, pre-portioned meals, or use strategies that were previously helpful for limiting calories.

In summary, it may be helpful to encourage Veterans to establish preplanned weight re-gain limits and plans for corrective actions. For example: “If I gain 5 pounds, I will begin active weight loss (daily food monitoring, reducing calorie intake and increasing physical activity). If I do not begin to lose the gained weight within 2 weeks, I will start attending MOVE!<sup>®</sup> group sessions again until I have my weight back under control.”

**Table 12-1. Stop Re-gain Maintenance Plan**

<b>Stop Re-gain Maintenance Plan</b>	
Weight Change	Corrective Action
1-2-lb gain	Paying attention to portion control
3-4-lb gain	Caution – Problem solve to determine changes in behavior contributing to weight gains (e.g., increased eating out, increased portions, increased snacking or desserts, decreased activity etc.) and modify them
5-lb gain	Stop – Weight loss is needed; return to weight loss calorie intake levels and increase physical activity

## **Engage in Physical Activity**

Physical activity is important for weight loss maintenance. Evidence suggests that patients who lose weight using diet and physical activity maintain greater weight loss after 1 year than those who lose weight with diet alone.<sup>13</sup> Repeatedly, studies of successful weight-maintainers show those who are successful with long-term maintenance tend to exercise consistently. (See Strategies from the NWCR later in this chapter).

Studies suggest that weight loss maintenance may be aided by two key behaviors: 1) daily weight monitoring (referenced above in Monitor Weight Daily and Establish Weight and Behavior “Alarms”) and 2) regular physical activity. While both diet and physical activity contribute to energy balance, consistent physical activity during maintenance allows patients to consume a slightly higher level of calories compared to those not exercising and maintain their weight.

While the exact amount of physical activity necessary to help individuals maintain weight loss is not known, the *2008 Physical Activity Guidelines for Americans* and the American College of Sports Medicine Position Statement, “*Appropriate Physical Activity Intervention Strategies for Weight Loss and Prevention of Weight Re-gain for Adults,*”<sup>14</sup> recommend 150-300 minutes of activity per week. A recent study using objective monitors of activity (accelerometers) determined that successful weight loss maintainers were performing about 40 minutes of moderate to vigorous activity per day confirming previous self-report studies.<sup>15</sup> Encouraging patients to perform 30-40 minutes of moderate to vigorous activity each day is advisable based on this evidence. Previous research has shown that for weight loss, accumulating 30 minutes of moderate activities

like walking, over three short (i.e., 10-minute) bouts throughout the day was equally beneficial to one long (30-minute) bout.

In summary, encourage Veterans to continue an active lifestyle (30-40 minutes of moderate to vigorous activity on most days), look for ways to limit sedentary time, and monitor weight daily to look for small increases that signal a need for closer dietary monitoring.

## **Continue Contact**

Ongoing contact between the Veteran and the MOVE!<sup>®</sup> or Patient-Aligned Care Team (PACT) staff is a key requirement for weight loss maintenance. This contact provides the Veteran with support, accountability, assistance with problem solving and goal setting, and encouragement. Contact may be by telephone or in person and should occur as often as needed, ideally every 3-6 months.

## **Get Support from Others**

Ongoing support from family and friends is also very helpful because it provides additional accountability, encouragement, and reinforcement. Encourage Veterans to have their supporters ask them about their progress and offer encouragement on a regular basis.

## **Plan for High-Risk Situations**

Being prepared to manage tempting situations can be very helpful. Veterans should be encouraged to make a written list of their overly tempting or “high-risk” situations.

Some high-risk situations may be influenced by mood, so be alert to emotional states, which can be both positive and negative.

Common high-risk situations related to mood include:

- Celebrations (positive mood),
- Boredom (neutral mood),
- Stress, sadness, or depressed mood (negative mood)

It may be helpful for patients to identify their typical responses for these different emotional states and develop plans to detect and manage eating in response to these feelings. High-risk situations can be very challenging, and it is important to have backup plans as first attempts may be unsuccessful.

For each situation a primary, “plan A,” and a secondary plan, “plan B,” should be developed. The following is an example of a high-risk situation and possible strategies.



**High-Risk Situation:** Going out to an “all you can eat” buffet style restaurant with friends.

**Plan A Strategies** (preparation) may include:

- Ask friends to help me avoid overeating.
- Don’t go hungry; eat a snack before going to dinner.
- Drink a lot of water before the meal.

**Plan B Strategies** (while in the situation) may include:

- Drink a lot of water with the meal.
- Start with a salad full of veggies and some fruit; put dressing on the side.
- Choose lower- calorie entrees.
- Eat slowly and enjoy the food and your friends.
- If choosing a dessert, healthy options may include fruit, angel food cake, frozen yogurt, and sugar-free jello.
- Don’t feel that you have to eat everything on your plate.

## Self-Monitor

Maintaining written [logs/journals](#) is a helpful tool for losing weight and maintaining weight loss. This can reinforce the connection between behavior and weight, and can be used to record:

- Food intake
- Physical activity
- Weight

Veterans who are doing well may not need to monitor constantly. Monitoring 1 week each month or twice each week (one weekday and one weekend day) may be adequate. If weight begins to increase, daily monitoring should resume.

## Establish Environmental Cues

A good deal of behavior is triggered by environmental cues, and these cues can be used to help with losing weight and keeping it off. Make cues prominent (brightly colored, loud, in key locations). Environmental cues may include:

- A sign on the refrigerator and/or the table (e.g., “Eat very s-l-o-w-l-y”; “enjoy your meal!”)
- A timer to control speed of eating
- Smaller plates
- Healthy snacks placed out on the kitchen counter or in the front of the refrigerator

- A weight chart on refrigerator or a prominent location (home and work)
- Food and physical activity logs placed in a pocket to keep them handy
- A list of positive changes you've made, posted prominently
- A list of reasons for maintaining weight
- Keeping walking shoes/sneakers available at all times (by the door at home, in the trunk, under the desk)
- A monthly subscription to a fitness magazine or light cooking magazine
- Setting your Internet home page to [MOVE!®](#) or a fitness-related site
- Posting a "before" and an "after" picture so that you can see progress

## **Set Specific, Written Daily Goals**

Achievable, realistic daily goals help to motivate the behaviors necessary for successful weight management. Veterans should be encouraged to write out specific goals for each day or week with a checkbox to track achievement. Examples might be: "I will walk a total of 40 minutes each day this week," or "I will eat a healthy breakfast, such as whole-grain cereal with fruit, every day this week."

## **Practice Reinforcement**

Reinforcement helps maintain behavior, so Veterans should be encouraged to set and maintain rewards for meeting personal goals. Some Veterans may need guidance in the practice of reinforcement. An example might be putting a gold star on their food record, physical activity log, or weight record. Here are some additional examples of reinforcement:

- "If, and only if, I walk an average of 7,000 steps per day this week, I will watch my favorite TV show on Friday night."
- "If I accurately record all my food intake this week, I can skip writing it down on Sunday."
- "If I take a 30-minute walk this morning, I can go out to lunch with my friends at noon."

## **Identify Alternatives to Food for Gratification**

Food is a readily available source of enjoyment. Cutting back on calories can leave Veterans feeling that some of the joy of life is missing. To succeed in weight management, Veterans will need to find pleasurable alternatives to food. Alternatives might include hobbies, social activities, gardening, bicycling, tennis or other sports, reading, camping, travel, volunteer activities, and so on. Help the Veteran make plans to add joy to daily activities.

## Practice Positive Thinking

Thoughts drive feelings and actions. Negative thinking can challenge weight management success. Veterans can be trained in a simple method to become more aware of thoughts. Next, they can learn how to identify negative, unhelpful thoughts, and replace them with positive ones. Writing negative thoughts along with the replacement thoughts helps build these skills. For example:

**Replace Negative Thought** – “I feel SO deprived - I can’t eat everything I want until I’m full ....”

**With Positive Replacement Thought** – “I don’t want to eat until I’m stuffed any more - I feel MUCH better when I eat just enough to be reasonably satisfied...The food isn’t going anywhere, if I’m hungry later I can always eat then.” Or “I want to make sure to stay healthy for my grandchildren”. Or “I want to get my diabetes under control.”

It may also be helpful to build cues for positive thinking into one’s environment, such as “positive affirmation” notes, making and posting a list of what is going well in life, etc.

## Strategies from the National Weight Control Registry (NWCR)

The NWCR tracks individuals who have successfully lost at least 30 pounds and maintained that loss for at least 1 year. Members of the registry have volunteered to share their experiences. Most participants are middle-aged, white women, so conclusions drawn may not be entirely applicable to the mostly male Veteran population.

When asked about their present success, most reported that they had greater social or health reasons for losing weight and that they were more committed to making behavior changes. Characteristics that weight-maintainers in the NWCR have in common include:

- Nearly 90 percent use a combination of diet and exercise to maintain weight loss; 9 percent use diet only and 1 percent use exercise only.
- Most common dietary changes include lowering calorie and fat intake, limiting portion sizes, and eating a variety of low-calorie foods.
- Most eat breakfast daily.
- Most engage in a high level of physical activity, averaging about 60-90 minutes per day.
- Most report self-monitoring of weight; at least 75 percent weigh themselves weekly.
- Most participants had unsuccessfully attempted weight loss in the past.

- Walking is the most common type of physical activity reported by maintainers, but was often combined with other forms of planned exercise like aerobics classes, biking, and swimming.
- The average number of steps per day when walking was 11,000 -12,000.

In the registry, people who re-gained weight were less likely to engage in regular physical activity, limit fat intake, and maintain diet consistency over weekends and holidays. One specific study on this group showed that successful maintainers did not take “breaks” on weekends or holidays, but instead maintained their consistent low-calorie diet. In contrast, maintaining a low caloric intake on weekdays and not on the weekends was associated with re-gain.<sup>7</sup>

## **Maintaining Contact**

Veterans who maintain their weight typically have an ongoing relationship with their health care team. As a team member, you can help Veterans maintain their weight by:

- Following Veterans on a regular basis
- Inquiring about how they are doing on every contact
- Helping Veterans manage slips or relapses
- Treating obesity as a chronic disease
- Welcoming Veterans who are encountering difficulties back to active care
- Acknowledging and praising Veterans for their efforts and successes

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**This chapter was reviewed and edited by the following VA clinical staff:**

**Patricia Rosenberger, Ph.D., HCS, West Haven, CT  
Niloofer Afari, Ph.D., VAMC, San Diego, CA**

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## Links

VA National Center for Health Promotion and Disease Prevention  
<http://www.prevention.va.gov/>

Veterans Health Administration Office of Patient Care Services  
<http://www.patientcare.va.gov/>

Weight Management Program for Veterans (MOVE!®)  
<http://www.move.va.gov/>

NIH Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report (1998)  
[http://www.nhlbi.nih.gov/guidelines/obesity/ob\\_gdlns.htm](http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.htm)

Screening and Interventions for Obesity in Adults: Summary of the Evidence for the US Preventive Services Task Force (2003)  
<http://www.annals.org/content/139/11/933.full.pdf+html>

Screening for Obesity in Adults (2003)  
<http://www.annals.org/content/139/11/930.full>

Handbook 1120.01 MOVE! Weight Management Program for Veterans (MOVE!)  
[http://www1.va.gov/vhapublications/ViewPublication.asp?pub\\_ID=2403](http://www1.va.gov/vhapublications/ViewPublication.asp?pub_ID=2403)

Joint Veterans Affairs/Department of Defense Clinical Practice Guideline for Screening and Management of Overweight and Obesity (2006)  
[http://www.healthquality.va.gov/obesity/obe06\\_final1.pdf](http://www.healthquality.va.gov/obesity/obe06_final1.pdf)

Logs/journals  
[http://www.move.va.gov/download/NewHandouts/Standard/S08\\_FoodAndPhysicalActivityLog.pdf](http://www.move.va.gov/download/NewHandouts/Standard/S08_FoodAndPhysicalActivityLog.pdf)

MOVE!®  
<http://www.move.va.gov/>

# 3

## References

1. Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults-The Evidence Report. National Institutes of Health. *Obes Res.* Sep 1998;6 Suppl 2:51S-209S.
2. McTigue KM, Harris R, Hemphill B, et al. Screening and interventions for obesity in adults: summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* Dec 2 2003;139(11):933-949.
3. Screening for obesity in adults: recommendations and rationale. *Ann Intern Med.* Dec 2 2003;139(11):930-932.
4. Managing Overweight and/or Obesity for Veterans Everywhere (MOVE!) Program. 2006;  
[http://www.move.va.gov/download/Resources/1101.1HK3\\_27\\_06.pdf](http://www.move.va.gov/download/Resources/1101.1HK3_27_06.pdf). Accessed March 2006.
5. VA/DoD Clinical Practice Guideline for Screening and Management of Overweight and Obesity: VHA; 2006.
6. Perri M, Corsica, JA, ed *Improving the Maintenance of Weight Lost in Behavioral Treatment of Obesity*. New York 2002. Wadden T, Stunkard, AJ, ed. Handbook of Obesity Treatment.
7. Wing RR, Phelan S. Long-term weight loss maintenance. *Am J Clin Nutr.* Jul 2005;82(1 Suppl):222S-225S.
8. FY 2007 MOVE! Evaluation - Full Report: NCP MOVE Program; 2007.
9. Wing RR, Tate DF, Gorin AA, Raynor HA, Fava JL. A self-regulation program for maintenance of weight loss. *N Engl J Med.* Oct 12 2006;355(15):1563-1571.
10. Larimer ME, Palmer RS, Marlatt GA. Relapse prevention. An overview of Marlatt's cognitive-behavioral model. *Alcohol Res Health.* 1999;23(2):151-160.
11. Linde JA, Jeffery RW, French SA, Pronk NP, Boyle RG. Self-weighing in weight gain prevention and weight loss trials. *Ann Behav Med.* Dec 2005;30(3):210-216.
12. Wing RR, Tate DF, Gorin AA, Raynor HA, Fava JL, Machan J. STOP regain: are there negative effects of daily weighing? *J Consult Clin Psychol.* Aug 2007;75(4):652-656.
13. Curioni CC, Lourenco PM. Long-term weight loss after diet and exercise: a systematic review. *Int J Obes (Lond).* Oct 2005;29(10):1168-1174.
14. The 2008 Physical Activity Guidelines for Americans.  
<http://www.health.gov/paguidelines>.
15. Catenacci VA, Grunwald GK, Ingebrigtsen JP, et al. Physical activity patterns using accelerometry in the National Weight Control Registry. *Obesity (Silver Spring).* Jun 2011;19(6):1163-1170.