



Army Weight Management Guide

U.S. Army Public Health Command



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PREFACE

Purpose: U.S. Army Public Health Command (USAPHC) Technical Guide (TG) 358 provides U.S. Army leaders, Soldiers, and their families with resources to assist them in improving their personal nutritional fitness and weight management. All references and internet links from non-U.S. Government sites, services, or products are provided for the reader's convenience. Resources and links in this publication are neither an endorsement nor a warranty of the services or products provided by such sites. The Department of Defense (DOD) does not exercise any responsibility over the content of the sites.

To the Service Member: The U.S. Army Public Health Command developed the Army Weight Management Guide (USAPHC TG 358) to provide Army service members and their families with a list of current nutrition and weight management resources.

To the Commander/Weight Control Officer: Ensure you and your Soldiers are aware of the available resources outlined in the guide as they apply to your installation. While you are not trained to prescribe diets or provide nutrition counseling, knowing how to align resources with your Soldiers' needs will assist them with the nutrition component of Army Regulation (AR) 600-9, The Army Weight Control Program.

Provide this guide to Soldiers in your unit who do not meet the Army body composition standards per AR 600-9. Active Duty Soldiers are required to read the guide and sign/return the completed the Soldier Action Plan (Appendix F) to you within 14 days.

Requirements: Distribution of the Army Weight Management Guide is mandatory for all participants enrolled in The Army Weight Control Program (AR 600-9).

Proponent

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CHAPTER 1. HEALTHY BODY WEIGHT

Being a Soldier means you must be ready for unpredictable challenges at any time. An important component of your military readiness is being physically able and healthy enough to perform your duties. This includes meeting the Army's weight and/or body composition standards. Achieving and maintaining these standards is a personal responsibility and is reflected in the Soldier's Creed, "...I always maintain my arms, my equipment and myself."

A healthy body weight is one measure of fitness and does not merely refer to the numbers on the scale. The composition of that weight (fat, muscle, and bone) is what helps determine whether you have the strength, stamina, and overall good health for optimal performance.

Excess body fat can hinder your performance and compromise readiness by limiting your ability to complete key tasks requiring maximal power, endurance, and/or speed. Extra body weight increases the risk of wear-and-tear injuries to your feet, knees, and hips; and extra fat around your middle adds to lower back strain. Being overweight can also affect other conditions that may shorten your military career or even your life.

Medical research shows that as excess body fat increases, so does the risk of disease such as high blood pressure, high blood cholesterol, heart disease, stroke, diabetes, arthritis, gout, joint pain, back pain, and some forms of cancer. Measurements for determining a healthy body weight are listed below:

1. **Body Composition:** Body composition can be assessed by various means; however, methods other than those described in AR 600-9 cannot replace the body fat measurements required for your semi-annual weigh-ins or your removal from the Army Weight Control Program.

While the Army has established "maximum allowable" body fat standards for Soldiers based on age and gender, the DOD's goals are 18 percent body fat for male Soldiers and 26 percent body fat for female Soldiers.

2. **Body Mass Index (BMI):** Calculating your BMI is a good way to judge if you are at a healthy weight. For most individuals, the higher the BMI, the higher the total body fat and the greater the risk of developing health problems. The BMI is calculated from a height-to-weight formula that does not consider whether the weight is from fat or muscle. Because of this, some people with athletic builds may have a high BMI but may not have excessive body fat.

Although the Army allowable weight ranges are based on a BMI of 27.5 for males and 25 for females, a healthy BMI range is between 18.5 and 25 for both males and females. Therefore, Soldiers should strive to achieve a weight within this range.

To calculate your BMI, use the Chart in Appendix B or the BMI Calculator located at: <http://www.nhlbi.nih.gov/guidelines/obesity/BMI/bmicalc.htm>.

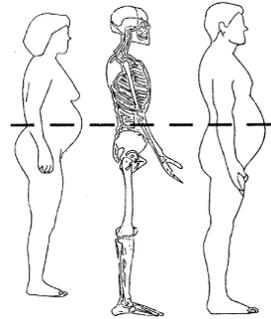
3. Waist Circumference: Your BMI combined with your waist circumference can provide a quick self-check on your risk for developing medical conditions or diseases associated with excessive weight.

Excess body fat concentrated in the stomach (around the waist area) is related to an increased risk for diabetes, high blood pressure, high cholesterol, and heart disease. Health risks increase when waist measurements are greater than 35 for females and 40 for males.

Use the following steps to measure your waist circumference.

(Note: This measurement is conducted differently than the waist circumference measurement for Army body fat taping.)

- While standing, place a tape measure around your middle, just above your hip bones, as shown at right.
- Read the measurement just after you breathe out (no sucking in your gut!).



Source: National Heart, Lung, and Blood Institute

CHAPTER 2. COMPONENTS OF A SOUND WEIGHT-LOSS PROGRAM

A successful weight-loss program uses reliable information and incorporates a balanced diet, regular physical activity, and behavior change.

Section I. A Balanced Diet

A balanced diet includes a variety of foods, regular meals/snacks, and provides enough calories to support a healthy weight and provide adequate energy to support your daily activities. Focus your intake on whole foods such as fresh fruits and vegetables, whole grains, and lean meats; and avoid or limit your intake of processed foods.

According to the *2010 Dietary Guidelines for Americans*, a healthy eating plan emphasizes or includes—

- More fruits, vegetables, whole grains, and fat-free or low-fat dairy products.
- Lean meats, poultry, fish, beans, eggs, and nuts.
- Less sodium (salt), saturated fats, *trans*-fats, cholesterol, added sugars, and refined grains.
- Calories balanced with physical activity for weight management.

To lose weight without affecting performance, avoid cutting more than 10–15 percent of the calories from the amount you normally consume. Eating 250 to 500 fewer calories per day will help you achieve a safe and effective weight loss of ½ to 1 pound per week.

The minimum number of daily calories for weight loss is 1,200 for females and 1,500 calories for males.

How much should you eat? The *2010 Dietary Guidelines for Americans* encourage you to enjoy your food but **eat less** and **avoid oversized portions**. To lose weight and keep it off, choose smaller portions and smaller amounts of liquid calories (beverages).

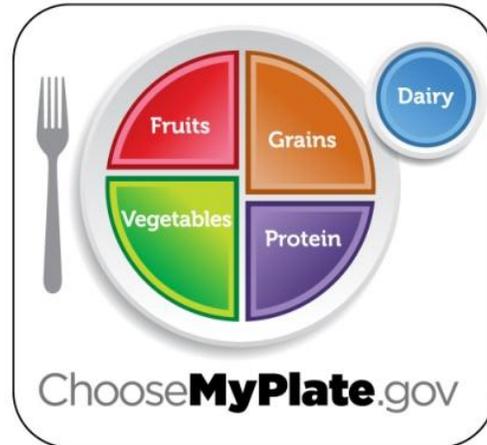
To size up servings and calories, check food packages for the serving size and number of servings to accurately document how much you are eating and drinking. Serving information on a food's nutrition facts label is listed by the manufacturer and may differ from the recommended serving size information provided on www.ChooseMyPlate.gov.

To learn how to understand and use the nutrition facts label, visit <http://www.fda.gov/food/resourcesforyou/consumers/nflpm/ucm274593.htm>.

Using the MyPlate Icon to Make Better Food Choices

1. Fill half your plate with fruits and vegetables.

- Eat 2½ to 3 cups of vegetables daily; choose dark green, red, purple, and orange vegetables.
- Eat 1½ to 2 cups of fruit daily; choose a variety of fresh, frozen, canned (in its own juice instead of heavy syrup), or dried fruit daily. Eat fresh fruit as a first choice.
- Limit fruit juice to one serving per day—the calories are comparable to soda—and always choose 100 percent juice. A serving of juice is 4-6 ounces.



Source: www.ChooseMyPlate.gov

2. Make half your grains whole-grain. Look for the word “whole” as the first ingredient. “Enriched” is never a whole grain.

- 6 to 8 ounces (oz.) of grains daily. Eat at least 3 oz. of whole-grain bread, cereal, rice, or pasta.
- 1 oz. is equivalent to 1 slice of bread, 1 cup of breakfast cereal, and ½ cup of rice, pasta, or cooked cereal.

3. Choose fat-free or 1-percent low-fat dairy products.

- Consume 2 to 3 cups daily (8 oz. milk, 8 oz. yogurt, 1.5 oz. cheese).
- If you do not or cannot consume milk, choose lactose-free products or other calcium sources including yogurt, tofu, soy milk, and dark leafy greens (i.e. spinach, kale, turnips, and collard greens).

4. Vary your protein foods with more fish (at least 2 servings per week), beans, peas, soy, nuts, and seeds.

- Consume 5 to 6½ ounces daily. Three ounces of meat (any type) is equivalent to a deck of cards.
- Choose low-fat or lean meats and poultry. Bake, broil, or grill.

5. Rethink your drink: eat your calories; don't drink them. At least 20 percent of our excess calories come from the beverages we drink: sugar-sweetened soft drinks, sports drinks, fruit drinks, sugary tea and coffee drinks.

- Drink more water; it quenches thirst and is naturally calorie-free.
- Choose no-calorie beverages. Unsweetened tea or coffee and artificially-sweetened beverages are okay in moderation, but limit your consumption as too much caffeine or artificial sweetener may not be healthy for you.
- Alcoholic beverages contain calories with little nutritional value. If you drink alcohol, do so in moderation: no more than one drink per day for females, two for males. A drink is one 12-ounce beer, one 5-ounce glass of wine, or one 1.5-ounce drink of distilled spirits.

Section II. Physical Activity and Weight Management

Physical activity, in combination with a modest calorie restriction, will increase weight loss as compared to diet alone. Increasing your activity level to expend an extra 250 to 500 calories per day contributes to a safe and effective weight loss of ½ to 1 pound per week. Aerobic activities (i.e., walking, jogging, bicycling, and swimming) help your body burn fat.

Greater amounts of physical activity may be necessary to achieve weight loss and prevent weight regain. The American College of Sports Medicine provides the following recommendations on physical activity:

- Weight-gain prevention and general health: 30 minutes of moderate-intensity physical activity on most, if not all, days of the week.
- Weight loss: 60 minutes of moderate- to vigorous-intensity physical activity on most days of the week along with a nutritious, modest calorie restriction. Greater amounts (i.e., more than 250 minutes weekly) of physical activity will result in significant weight loss.
- Weight maintenance after weight loss: To prevent regaining weight, engage in 60 to 90 minutes of moderate-intensity physical activity per day while not exceeding your calorie requirements.

Include muscle-strengthening activities (strength training, resistance training, or muscular strength and endurance exercises) 2–3 times week to increase your lean muscle tissue. Lean (active) muscle tissue burns more calories (even at rest), so the more active lean tissue you have, the easier it will be for you to lose weight and keep it off. Target your larger muscle groups such as chest, back, abdominals, legs, and shoulders. To achieve the best results, incorporate a minimum of 8 exercises that work these major muscle groups.

Intensity is the level of effort necessary to perform an activity, that is, how the activity affects your heart rate and breathing. An activity is considered moderate-intensity if you can talk, but not sing, during the activity. During vigorous-intensity activity, you will not be able to say more than a few words without pausing for breath.

- Moderate-intensity activities: walking briskly (3 miles per hour (mph) or faster but not race walking), water aerobics, biking at a speed of less than 10 mph, tennis (doubles).
- Vigorous-intensity activities: race walking, jogging, running, swimming laps, tennis (singles), aerobic dancing, jumping rope, heavy gardening (continuous digging or hoeing), and hiking uphill or with a heavy backpack.
- High-intensity interval training: alternating low-moderate activity (2-3 minutes) with vigorous activity (1-2) minutes for a total of 20-30 minutes.

You can also determine your intensity level by monitoring your heart rate. First, calculate your maximum heart rate by subtracting your age from the number 220 (220-age). Moderate activity corresponds to a heart rate between 65-75 percent of your maximum heart rate. Vigorous activity corresponds to a heart rate greater than 85 percent of your maximum heart rate.

Points to keep in mind:

1. Get moving! Unit physical training (PT) may not be sufficient for weight loss. In addition, any benefit you gain from unit physical fitness may be offset if your job or lifestyle is sedentary (that is, you spend a lot of time sitting, working at the computer, watching TV, reading, or playing video games). A pedometer or accelerometer is a great way to determine how much you move. Aside from a structured exercise program, aim for 10,000 steps daily.
2. Add more exercise and gain weight? Increasing exercise may lead to a weight plateau or increased weight gain. This may be due to a change in body composition (increased muscle). Being aware of your exercise habits will help identify the reason for the gain so you can adjust your program quickly. Track the changes in your hip and waist circumference in addition to changes in weight.
3. Exercise can make you hungrier. Eat foods (non-starchy vegetables) that will fill you up without significantly increasing your caloric intake. Choose foods that are nutrient-dense (protein, fiber, healthy fat) instead of calorie-dense (high-fat, high-sugar items with few nutrients). Our bodies are not designed to starve; if you do not choose filling, low-calorie food, you will naturally compensate for the extra calories burned during exercise by eating more.
4. Exercising can give you a sense of entitlement. "I worked out, so I can have/I deserve _____." Activity helps you burn calories but only if you do not replace them all by eating! Track your food intake to ensure you are maintaining a calorie deficit to promote your goals.

The following examples are based on a 150-pound male.

- Jogging, 12 min/mile, for 30 minutes = 238 calories = 20-oz. soda or one glazed doughnut or one Snickers[®] bar (regular size). (Snickers is a registered trademark of Mars, Incorporated.)
- Elliptical, medium effort, 60 minutes = (408 calories) = Taco Bell[®] beef burrito supreme or KFC[™] spicy crispy chicken breast. (Taco Bell is a registered trademark of Taco Bell Corp., and KFC is a trademark of KFC Corporation.)
- Martial Arts, 45 minutes = 510 calories = Large order of French fries or a Dunkin' Donuts[®] chocolate muffin. (Dunkin' Donuts is a registered trademark of DD IP Holder LLC.)

5. Calories needed to meet minimum requirements. Make sure you do not consume less than the minimum recommended daily amount of calories to support your metabolism. Eating less than the minimum is not only difficult to sustain but will also ultimately slow your metabolism and weight loss. A very-low-calorie diet will cause you to regain weight rapidly when you resume eating higher-calorie meals. In addition, a very-low-calorie diet will keep you from feeling your best, either physically or mentally.

Section III. Behavior Change

To establish and maintain a healthier lifestyle, identify your barriers to successful weight loss and commit yourself to making permanent behavior changes. In addition to your eating habits and activity levels, address your stress levels and sleep patterns.

Barriers:

Most people are confronted with some sort of challenge when trying to lose weight or establish healthy habits. Success is dependent on identifying and learning to overcome these barriers. Barriers can be divided into three categories: physical, environmental, and emotional.

Physical: Fatigue and underlying medical issues are the most common physical barriers to weight loss. Sleep deprivation causes your cortisol levels to soar and in turn causes you to store body fat. Sleep needs vary among individuals; get the amount of sleep that is right for you. According to the National Sleep Foundation, you need 7–8 hours of sleep nightly.

- Develop good sleep habits. Maintain a regular sleep schedule by going to bed and waking up at the same time every day (even on your days off).
- Stop caffeine for at least 6 hours and avoid exercising within 3 hours of bedtime. Do not drink alcohol or go to bed hungry. Empty your bladder before you go to bed so the need to urinate will not interrupt your sleep. Turn off electronics at least 1 hour before your scheduled bedtime.

- In rare cases, an undiagnosed medical condition or prescribed medication may cause weight gain. See your primary healthcare provider for an evaluation if, despite consistent efforts, you experience unexplained weight gain or have difficulty losing weight.

Environmental: At times, your environment may not support your diet and exercise plan. Environmental barriers include the lack of access to healthy foods or exercise facilities, lack of social support, or lack of time due to social, family, or work commitments.

- Control your environment by identifying those locations where you eat and/or drink excessive calories (use a food journal or log). Brainstorm ways to improve food choices.
- Plan ahead to ensure healthy food options are available; bring food from home when possible.
- When eating in the dining facility, look for items identified as “green” performance choices, avoid second helpings and desserts, choose more fruits and vegetables, and hydrate with water.
- Find creative ways to be active when the weather is poor or you cannot visit the gym.

Emotional: Emotional barriers may include stress, lack of motivation, lack of self-confidence in your ability to lose weight, or a negative history of or view toward physical activity/exercise.

- Enlist the help of a qualified professional such as a registered dietitian and/or a behavioral health specialist. (Many social workers and psychologists specialize in dealing with emotions related to weight and food.)
- Attend group/individual therapy, if needed, to handle emotional feelings and for added support.
- Practice daily stress reduction techniques such as meditation, journaling, and deep breathing. Learn to motivate yourself with positive self-talk.

Some ideas to help you become aware of barriers and control them include—

1. **Self Monitoring.** Keeping a daily food and activity log significantly increases your chance of success. Accountability and self-awareness are the key results from this tedious, but highly beneficial, activity. Studies have shown that individuals who keep track of their daily food intake are more successful at keeping weight off.
2. **Stimulus Control.** Different events may trigger eating unhealthy foods or portions.
3. **Cognitive Restructuring.** Replacing one untrue fact with a more beneficial one can greatly affect behaviors. If you visualize yourself losing weight or exercising on a daily basis,

you are more likely to succeed. If you think, “I blew my diet today by eating too many cookies; I might as well give up,” you most likely will. Instead, replace this thought with, “I had more cookies than I planned. Maybe I can go for an extra walk today or eat less at dinner.”

4. **Stress Management.** Some stress is normal and can assist in performance, but high stress levels are a strong predictor of weight regain. Stress produces the hormone cortisol, which promotes fat storage. Many people turn to high-calorie foods during times of high stress as a source of comfort. Stress-relieving options include regular exercise, adequate sleep, relaxation techniques, and professional counseling or therapy.

5. **Social Support.** Having a network of people (such as friends, family, and/or command members) to help positively support your new eating and exercise habits aids in weight-loss success. Encouragement and help have not only been shown to increase weight loss but also to help maintain/sustain it by enhancing feelings of control and confidence. Communicate your needs and be specific about how your support network can help you make your plan a success.

Identify your barriers to successful weight loss by completing the **Army MOVE!23 questionnaire** (located on the “My Medical” page on Army Knowledge Online (AKO)). After completing the questionnaire, you will receive immediate feedback via an individualized assessment. Remember to record your retrieval code upon completion of the questionnaire. (<http://usaphcapps.amedd.army.mil/move23/register.asp>)

CHAPTER 3. KEYS TO SUCCESSFUL WEIGHT MANAGEMENT

Section I. Strategies for Weight Management

There is no one program that works for everyone. An effective weight management plan is one that fits your lifestyle and is sustainable. Losing the weight is only half the battle; maintaining the loss is the other half. The following strategies (taken from the National Weight Control Registry) are consistently used by people who are successful in losing weight and maintaining their weight loss.

1. **Eat fewer calories.** Create a calorie deficit in your diet that supports long-term weight loss and is sustainable. Focus on consuming whole, non-processed foods, such as fresh, non-starchy vegetables, fresh fruits, lean meats (i.e., chicken, fish, and lean cuts of beef), and whole grains.
2. **Eat a consistent diet from day to day, and eat several times daily.** This strategy may encourage self-control, minimize unplanned food temptations, foster self-discipline, and increase your ability to stick to your eating routine. Consuming small amounts of food several times per day versus large infrequent meals will keep your caloric intake in check and reduce the risk of overeating later.
3. **Eat breakfast every day.** Breakfast is an important time to refuel the body during weight-loss efforts. The goal is to refuel within 30 to 60 minutes after PT with a balanced intake of carbohydrates, protein, and healthy fat. Studies show that a breakfast that includes a good source of protein (i.e., egg, cheese, Greek yogurt) helps you feel fuller longer and helps keep you from overeating later in the day.
4. **Move more and sit less.**
 - Successful weight losers/maintainers take about 11,000 to 12,000 steps daily (equivalent to 6 miles). Daily activity/movement in addition to an exercise regimen is equally important for burning calories, losing weight, and maintaining weight loss.
 - Successful weight losers/maintainers limit their television viewing or other sedentary activities, such as video gaming and internet surfing, to fewer than 10 hours per week.
5. **Employ a self-monitoring tactic.**
 - Track weight changes with weekly weigh-ins.
 - Monitor changes in your body size by putting on your full Army Service Uniform once a month. If it starts to feel snug from one month to the next, think about whether there has been a change in your diet or level of physical activity.
 - Maintain a daily food and activity log. Keep a log by using a Web site, mobile application, the old-fashioned way (pen and paper), or whichever method is easiest for you.

7. **Nip weight regain in the bud.** Set a 3-pound weight gain limit, and take corrective action as soon as you are over this limit. Be stricter with your eating and exercise plan.

8. **Get adequate sleep.** Get at least 7-8 hours of sleep each night (as often as possible). Adequate sleep can have a big impact on successful weight loss.

9. **Maintain a positive support system** that includes family, friends, and individuals in your unit. Commands that work together experience the greatest success. But at the same time, take responsibility for your need to exercise, and watch for barriers.

Section II. Riding Out the Plateaus

If you reach a plateau in your program, do not get discouraged; plateaus are inevitable. There are many possible reasons why they happen, and in most cases, you may need to change your plan briefly (two to four weeks). It takes fewer calories to maintain a lighter body. As you lose weight, you need to cut back a little on your calorie intake or increase exercise a little more to maintain the same rate of weight loss.

To get beyond a plateau, try the following:

1. Take your focus off weight change. Look at other measures of progress such as your percentage of body fat loss, decrease in waist circumference, how your clothes fit, a decrease in your blood pressure or cholesterol levels, or improved physical flexibility/dexterity and energy.

2. Change your exercise routine or the type of exercise you are doing. Add an extra session, or increase the intensity of your workout. Add or increase strength training exercise, or even take a break.

3. Review your food diary for any patterns (start tracking your food intake if you have not already done so). A daily log makes you aware of and accountable for what and how much you eat or drink. A food log can also help you identify eating triggers and monitor progress.

4. Slightly lower your calorie goal by 75 to 100 calories a day; however, don't go below a minimum of 1,200 per day (1,500 per day for males).

Section III. Weight Control is a Lifelong Process

Preventing excess weight gain or weight regain is the best approach to weight management. Be careful not to return to old habits with continued awareness and proactive behaviors.

1. There are certain predictable times when it is easy to gain weight (holidays, vacation/travel, or injury); learn to anticipate events that will interfere with your exercise schedule or make it easy for you to overeat. Prepare and plan ahead to offset those extra calories. For example, if an injury prevents you from participating in your usual exercise routine, try a different form of exercise. If exercise is impossible, reduce your calorie intake until your activity returns to normal.

2. Be alert when situations change or major life events occur. Recognize new-risk situations and immediately implement strategies to avoid them or deal with them.

3. Prepare for how you will handle slips or temporary setbacks. Look at the slip as an opportunity to learn how to better handle the trigger (person, place, or thing) that led to the slip. This will enable you to handle the trigger in the future and keep moving forward to reach your goal. For example, "The next time I eat more than planned, I will go for an extra walk or eat less at dinner."

4. Learn to deal with stress positively. Increased stress alone does not cause weight gain; how you deal with stress is the key. Avoid turning to comfort foods or overeating for temporary relief; those extra calories may cause weight gain. Choose positive ways to handle stress, such as breathing exercises or relaxation techniques.

CHAPTER 4. NUTRITION RESOURCES

Section I. Nutrition Counseling

Nutrition counseling is an ongoing process by which a health professional, ideally a registered dietitian, works with an individual to assess his or her usual dietary intake and identify areas where change is needed. The nutrition counselor provides information, educational materials, support, and follow-up to help the Soldier make and maintain the needed dietary changes.

Only intensive counseling has been found to be the most effective in achieving long-term weight control. Intensive counseling is defined as more than one person-to-person session per month for at least the first three months (i.e., a minimum of six sessions). One-to-one counseling can be provided for individuals unable or unwilling to attend group programs but who need more personal support than is found in self-guided approaches.

Counseling by a Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN):

A Registered Dietitian or Registered Dietitian Nutritionist is a food and nutrition expert who translates the science of nutrition into practical solutions for healthy living. Registered dietitians use their nutrition expertise to help individuals make unique, positive lifestyle changes. Many RDs are board certified as sports specialists in dietetics and/or hold a certificate of training in adult weight management.

How is an RD or RDN different from a nutritionist? Basically, all registered dietitians are nutritionists but not all nutritionists are registered dietitians. Registered dietitians are credentialed providers who must meet minimum education, examination, and continuing education requirements. There is no legal definition of a nutritionist; therefore, anyone may claim to be a nutritionist whether or not he or she has any such qualifications.

Counseling by Healthcare Professionals:

Per AR 600-9, weight control/nutrition counseling by a registered dietitian is a requirement for Active Duty Soldiers. However, in the event you are located in a remote location in which a registered dietitian is NOT available, weight control counseling may be provided by another healthcare professional such as a physician, physician assistant, nurse, or health educator who is knowledgeable about weight management and behavior change.

Section II. Military Treatment Facility (MTF) Weight-loss Programs

ARMY:

1. **Army MOVE! to a Healthier Weigh** is the Army's standardized weight management program available at most Army MTFs. Soldiers who do not meet the Army's body composition standards, who are at risk of failing the standard, or who are interested in self-improvement can benefit from this weight-loss program. The Army *MOVE!* approach to weight management includes self-help, individual counseling, and facilitated group support and focuses on behavior modification, physical activity, and diet. In addition, emphasis is placed on self-monitoring (food and activity logs) and maintenance of weight loss. Army *MOVE!* is a comprehensive program that requires intensive face-to-face contact during the first 3 months and monthly follow-up visits thereafter.

2. **Army Wellness Centers (AWC)** provide basic weight management assistance by offering metabolic and exercise testing, advanced body composition analysis, exercise prescription, and basic nutrition education on healthy eating and ways to boost metabolism. Participants receive an ideal calorie goal for safe, effective weight loss. In addition, AWCs offer a "Upping Your Metabolism" education class.

Please note that the AWC is not a substitute for the nutrition counseling required per AR 600-9. (An AWC may not be currently available at your local installation.)

NAVY:

ShipShape is the Navy's weight management program specifically designed for Sailors who do not meet or are in jeopardy of not meeting body composition standards. This is an 8-week program that meets in a group setting weekly for one hour. Topics include basic nutrition, stress management, physical activity, and behavior modification to promote lifestyle changes that support healthy eating and activity.

ShipShape is available at all Navy MTFs, including branch clinics. For more information, visit <http://www.med.navy.mil/sites/nmcphc/health-promotion/healthy-eating/Pages/shipshape.aspx>.

AIR FORCE:

Better Body. Better Life is the Air Force's standardized weight management program, designed to help individuals seeking to lose weight and maintain weight loss. The course is targeted to the airmen who fail their fitness test due to their abdominal circumference. *Better Body. Better Life* consists of five facilitated modules that include classroom discussion and activities on nutrition, physical activity (workout included), and behavioral issues. The program is designed to help participants identify personal goals, and help make and sustain behavioral changes that help them lose weight and maintain their weight loss.

Section III. Online Weight-loss Programs

1. **Military One Source.** Military One Source's **Health and Wellness Coaching** program can help you develop weight and health goals. This no-cost program is available to Active Duty, Reserve, and National Guard military personnel (regardless of activation status) and their immediate family members. The program offers a personal homepage with a tracker, interactive tools, and the option of working with a personal health coach either by telephone or online. The Health and Wellness Coaching program is ideal for Service members who exceed or are at risk of exceeding body composition standards but do not have access to an RD for nutrition counseling. (www.MilitaryOneSource.mil)

2. **Health Net** offers a self-paced online **Healthy Weighs** program designed to help you make gradual lifestyle changes that lead to long-term weight maintenance and overall good health. (<https://www.hnfs.com/content/hnfs/home/tn/bene/wellness/hwlanding.html>)

Section IV. Commercial Weight-loss Programs or Products

1. **Commercial Programs.** When considering the use of a commercial or professional program to meet your weight-loss goals, be aware of the potential for high costs, fraudulent claims, and pressure to buy special foods or pills. Many programs offer a quick, short-term fix that may be ineffective and/or harmful to your health. Few participants of such programs succeed in keeping their weight off.

Responsible and safe weight-loss programs encourage healthy behaviors (that you can stick with every day) and are based on regular physical activity and a healthy eating plan that is balanced and easy to follow. In addition, a commercial weight-loss program should offer health coaching support, either one-on-one or in a group setting. Safe and effective programs should include -

- Eating plans that moderately reduce calories but do not forbid specific foods or food groups.
- Tips to increase moderate-intensity physical activity.
- Tips on healthy habits that also keep your cultural needs in mind.
- Slow and steady weight loss of no more than ½ to 2 pounds per week.
- A plan to keep the weight off after you lose it.

Before investing in a commercial program, gather and compare information from all weight-loss programs you are considering. Talk to a dietitian or your healthcare provider to help you evaluate the programs and determine which program is appropriate for you. Visit the Weight-control Information Network (WIN) for a list of questions to consider when evaluating a weight-loss program.

2. **Weight-loss Products.** The diet industry would like you to believe that its products will miraculously solve your weight problems. Keep in mind that even if you take a weight-loss pill, you still have to eat fewer calories than your body uses in order to lose weight.

If you are considering the use of weight-loss pills, be sure to talk with your primary healthcare provider or RD. Many weight-loss pills contain multiple ingredients (herbs, botanicals, vitamins, minerals, caffeine, or laxatives) that may negatively interact with prescription drugs, herbals, or other dietary supplements that you may be taking.

Section V. Online Resources

Weight Loss:

1. **(Army) Losing Weight** (AKO–password-protected): This online training is part of the Comprehensive Soldier Fitness Program and is an interactive self-development module available after completion of the Global Assessment Tool (GAT).

(<https://www.sft.army.mil/Default.aspx>)

2. **Weight Management Self-help Guides:** These service-specific guides are designed to help you achieve and maintain a performance body weight (body composition).

- Army: *Power Performance–The Nutrition Connection: Module 7: Your Weigh*
(http://phc.amedd.army.mil/PHC%20Resource%20Library/PM_MOD7.pdf)
- Navy: *Nutrition and Weight Control Self-Study Guide*
(http://www.navyfitness.org/uploads/docs/navy_nutrition.pdf?nc=1716624249)
- Coast Guard: *Weight Management Self-help Guide*
(http://www.uscg.mil/hr/cg111/docs/pdf/weight_mgmt_guideP6200.3.pdf)

3. **National Heart, Lung, and Blood Institute: Aim for a Healthy Weight** provides information on assessing your weight and health risk, healthy weight tools, and information on selecting a weight-loss program.

(http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/wtl_prog.htm)

4. **Make Your Calories Count: Use the Nutrition Facts Label for Healthy Weight Management** is an interactive training module that will help you plan a healthful diet while managing calorie intake.

(<http://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm275438.htm>)

5. **Choosing a Safe and Successful Weight-Loss Program** is a document available for download from the Weight-control Information Network (WIN).

(<http://win.niddk.nih.gov/publications/choosing.htm>)

Nutrition and Healthy Eating:

1. The **Human Performance Resource Center (HPRC)** provides health and nutrition information for Warfighters and their families. (<http://hprc-online.org/nutrition>)
2. **MyPlate** (<http://www.choosemyplate.gov/>) has replaced the legacy Food Guide Pyramid and provides sound advice on what and how much to eat per meal.
3. The **2010 Dietary Guidelines for Americans** (www.health.gov/DietaryGuidelines) focus on improving your diet and preventing obesity.
4. The **Academy of Nutrition and Dietetics** is your source for scientifically-based health and nutrition information. (<http://www.eatright.org>)
5. **Eat Healthy Your Way** (<http://www.eathealthyyourway.net/>) is a quarterly publication in which you can find information on diet and nutrition as well as easy recipes. Find it at your commissary or access it online.
6. The **Healthy Dining Finder** offers a menu nutrition and food guide to help you make healthy food choices while eating out. (<http://www.healthydiningfinder.com/home>)

Dietary Supplements:

1. **Operation Supplement Safety (OPSS)** provides information sheets, videos, and answers to frequently-asked questions about supplements. (<http://hprc-online.org/dietary-supplements/opss>)
2. The **Natural Medicines Comprehensive Database** enables you to look up individual ingredients and dietary supplements. This database includes information on the safety, benefits, side effects, and drug interactions of dietary supplements. (<http://hprc-online.org/performance-optimization/dietary-supplements/natural-medicines-comprehensive-database>)

Physical Activity:

1. **2008 Physical Activity Guidelines for Americans** provides science-based guidance to help Americans improve their health through appropriate physical activity. (<http://www.health.gov/paguidelines/guidelines/default.aspx>)
2. The **Weight-control Information Network** provides information on physical activity and weight control. (<http://win.niddk.nih.gov/publications/physical.htm#Websites>)
3. The **American College of Sports Medicine** offers a variety of health and fitness brochures and fact sheets. (<http://www.acsm.org/access-public-information/brochures-fact-sheets/brochures>)

APPENDIX A**REFERENCES**

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APPENDIX B
BODY MASS INDEX (BMI) CHART

BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Height	Weight in Pounds																
4'10"	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
4'11"	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
5'	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
5'1"	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
5'2"	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
5'3"	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
5'4"	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
5'5"	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
5'6"	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
5'7"	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
5'8"	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
5'9"	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
5'10"	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
5'11"	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
6'	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
6'1"	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
6'2"	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
6'3"	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
	Healthy Weight						Overweight						Obese				

Source: US Department of Health and Human Services, National Institutes of Health, National Health, Lung, and Blood Institute. The Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults: Evidence Report. September 1998 [NIH pub. No. 98-4083].

APPENDIX C

SELF-MONITORING TECHNIQUES AND TOOLS

Self-monitoring is the observation and recording of eating and exercise patterns, followed by feedback. The goal is to increase self-awareness of target behaviors and outcomes. Self-monitoring can also help track success and serve as an early warning system if problems arise. Examples of self-monitoring:

1. **Food Log.** Use a food log to document everything you eat or drink. Include nutrition information such as the type and amount of food/beverage consumed and its caloric content. The food log enables you to track and balance the number of calories you consume with the amount of calories you expend.
2. **Food Diary.** A food diary is different from a food log because the diary includes more detailed information, such as stress level, mood, feelings surrounding eating, activity level, location, and other environmental or emotional triggers for eating. The more detail you include, the better the feedback. Food diaries are very useful in discovering the behavioral or psychological aspects of eating.
3. **Exercise Log.** Keep an exercise log to record the number of minutes you engaged in exercise, the type of exercise you engaged in, and your level of exertion during exercise.
4. **Regular Weighing.** Weighing yourself weekly is an important and simple self-monitoring behavior that helps you monitor weight changes and remind you of your eating and physical habits. Take it a step further and track your monthly waist circumference measurements or use a set of “marker” clothes (i.e., your Army Dress Uniform) to help monitor changes.
5. **Electronic Food and Activity Logs.** Numerous applications (apps), online food and activity logs, and computer software programs are dedicated to nutrition, fitness, and weight loss. These are quick and convenient ways to keep track of foods consumed or exercise/activity performed. Many of these sites are free and offer exercise and menu ideas, support, motivational tips, and discussion forums.

Below are just a few of the free electronic logs that are available. For a detailed dietitian review of top-rated free apps for weight management, visit <http://www.eatright.org/appreviews/>.

- **SuperTracker** (Web site) (<http://www.choosemyplate.gov/supertracker-tools/supertracker.html>)
- **MyFitnessPal** (Web site and a mobile app) (<http://www.myfitnesspal.com>)
- **SparkPeople**[®] (Web site) (<http://www.sparkpeople.com>)
- **Lose it!** (mobile app) (<http://www.loseit.com>)

6. **Self-monitoring Equipment.** Devices such as those listed below can increase your awareness and help you increase the amount of physical activity you engage in daily.

- **Pedometer:** An inexpensive, small, battery-powered, clip-on device that counts the number of steps you take.
- **Accelerometer (activity monitor):** These devices (i.e., Fitbit[®], Nike[™], and Bio Trainer[™]) are a step above pedometers as they measure the frequency (how often), duration (how long), and intensity (how hard) of movement. However, they are priced a bit higher than the average pedometer. (BioTrainer is a trademark of BiotrainerUSA, Fitbit is a registered trademark of Fitbit, Inc., and Nike is a trademark of Nike, Inc.)

APPENDIX D

SAMPLE SELF-DIRECTED NUTRITION PLAN GOALS

The habit of setting goals is the main predictor of weight-loss success. When you write down your plans, they have a way of becoming a reality. By setting personal goals that support your “big picture” goals, you will have the right tools to succeed more easily. Before you do anything else, write down your goals. Writing them down will keep them clear in your mind.

Set small 3-week goals, and focus on making one or two small but significant changes. Picture the effect of achieving the goal: how your life will be different, and what you will be able to do differently. Think of the strategy you will use, and identify people who are willing to support you.

Make your health goals **SMART**:

Specific: The goal must specifically state what you want to accomplish, and it must be easily understood.

Measurable: To evaluate your progress and know if you were successful, your goals must be measurable. They can be objective (amount of weight lost or amount of exercise) or subjective (how you feel and look), or both.

Attainable: Your goals should be realistic goals that you know you can obtain. Make your goals “do-able”!

Relevant: Your goals should reflect **your** interests, **your** needs, and **your** abilities.

Time-based: Goals must have a specific endpoint for completion. A timeline gives you a clear target date to work toward and helps you stay focused and on track.

When setting **SMART** goals to facilitate lifestyle change, set dietary and physical activity goals along with your weight-loss/body fat-loss goals to be most successful.

Examples of SMART Activity Goals:

“This week I will walk for 15 minutes after lunch on Monday and Thursday.”

“I will work out at the gym for 40 minutes before I come home from work on Monday, Wednesday, and Friday this week.”

Examples of SMART Dietary Goals:

“Instead of potato chips as my regular afternoon snack, I will switch to fresh fruit.”

“I will decrease my intake of sugary beverages by limiting my soda to no more than one 12-oz. can per day.”

1. What are my long-term goals (>3 months)?

2. What are my short-term goals (<3 Months)?

3. What could get in my way? (List any obstacles you can think of.)

4. What actions will I take to meet my goal? Short-term actions will help you reach your first milestone. These are your daily and weekly nutrition and fitness goals.

5. What resources will I need?

6. What support do I need?

APPENDIX E

WHY INDIVIDUALS FAIL TO MEET THEIR WEIGHT-LOSS/MAINTENANCE GOALS

Losing and keeping weight off requires a lifestyle change. “Diets” do not promote long-term weight loss. In fact, diets that promote rapid weight loss can decrease metabolism, which can lead to regaining of weight lost. It is important to break the weight cycle before overall health is negatively affected. Some common ineffective weight-loss methods are discussed below:

1. The **Low-fat/Fat-free Label Reader** does not watch calories and eats anything as long as it is low-fat or fat-free.

Result: Calorie intake will most likely exceed calorie needs since these foods tend to be high in simple carbohydrates or sugar. These sugars are burned off in 1–2 hours, leaving you wanting more food.

Recommendation: Include some fat as part of a healthy diet. Some fat helps you feel full and decreases overall calorie intake. Focus on moderate portions of healthy fats from plant sources (nuts, seeds, oils).

2. The **Non-exercise Dieter** watches both calories and fat but does not perform regular exercise.

Result: Metabolism will lower with a decrease in calorie intake. Weight will “plateau” after initial weight loss due to the body’s adaptive process.

Recommendation: Decrease calorie intake in conjunction with an exercise program for the most effective weight-loss strategy. Safe fat loss is 1–2 pounds per week for the average person. Claims that you can lose 5 or more “pounds” in a week are misleading. When someone does lose that much weight that quickly, the loss is mainly from fluid, not fat.

3. The **High-activity/Low-calorie Dieter** greatly increases activity and reduces calorie intake at the same time. This is a common practice of Soldiers preparing for an upcoming Army Physical Fitness Test (APFT) and semiannual weigh-in.

Result: Individual is eating too few calories. This does not support the metabolic needs of the body, and weight loss stops.

Recommendation: Adjust exercise and/or calorie intake to meet your energy needs. If activity level is adequate, calories need to be increased gradually until weight loss resumes. Keep a food log/activity log to determine if calories are within a deficit of 250–500 of estimated needs.

4. The **Carbo-phobic Dieter** believes all carbohydrates cause weight gain and avoids foods containing carbohydrates.

Result: Rapid fluid loss due to depletion of glycogen (glucose) stores. Energy is compromised as a result of low muscle glycogen that supplies energy for exercise. Lack of alertness and poor attention occur.

Recommendation: Include healthy carbohydrate choices to provide optimal fuel for your body, especially during exercise. Focus on unprocessed carbohydrates (whole wheat bread, brown rice, oatmeal, beans, and fruit) to provide optimal fuel for the body.

5. The **Fad-diet Follower** follows the latest craze in weight loss (i.e., very-low-calorie diets, elimination of food groups, or high intake of dietary supplements).

Result: Short-term weight loss (weight cycling) occurs, and weight is regained to the point of the starting weight or higher when the diet is discontinued.

Recommendation: Use sound resources. Be skeptical of fad diets that come and go. Fad diets tend to be easy to follow at first, but they do not maintain results in the long run.

GLOSSARY
ACRONYMS AND ABBREVIATIONS

ACSM	American College of Sports Medicine
AKO	Army Knowledge Online
AR	Army Regulation
AWC	Army Wellness Center
BMI	Body Mass Index
DOD	Department of Defense
HPRC	Human Performance Resource Center
MTF	medical treatment facility
OPSS	Operation Supplement Safety
pdf	portable document format
PT	physical training
RD	registered dietitian
RDN	registered dietitian nutritionist
TG	technical guide
USAPHC	U.S. Army Public Health Command
USARIEM	U.S. Army Research Institute of Environmental Medicine
WIN	Weight-control Information Network

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