The Obesity Challenge

Weight Management for Adults and Older Adults

Your Premier Senior Nutrition Resource

Becky Dorner & Associates, Inc.
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The Obesity Challenge: Weight Management for Adults and Older Adults

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The Obesity Challenge: Weight Management for Adults and Older Adults

Acknowledgements

Author/Editor:

Becky Dorner, RDN, LD, FAND is widely-known as one of the nation's leading experts on nutrition, aging, and long-term care. She is an enthusiastic, innovative change leader who inspires people into action. Her career of over 30 years has been dedicated to advocating for excellence in nutrition care to optimize health for older adults. An experienced speaker and extensively published author, Becky is the Founder/President Nutrition Consulting Services, Inc., whose dedicated team of RDNs and NDTRs have served health care facilities since 1983; and Becky Dorner & Associates, Inc., which offers a broad library of resources and CEU programs.

Becky's mission to improve nutrition care for older adults has inspired her to present more than 550 programs for national, international and state professional meetings in 5 countries and 50 states; and to publish more than 270 manuals, CEU programs and practical articles for professional journals and newsletters. Her free email magazine keeps 35,000 health care professionals up to date on the latest news in the field.

An active leader since 1984, national leadership positions have included: Academy of Nutrition and Dietetics Board of Directors, Speaker-elect/Speaker/Past Speaker of the House of Delegates, Chair of the Council on Future Practice, Academy Research Committee, Evidence Analysis Library, Academy Delegate, Chair DHCC DPG, and Board of Directors National Pressure Ulcer Advisory Panel.

Honors include: Fellow of the Academy of Nutrition and Dietetics, Academy Award of Excellence in Business and Consultation, NE Outstanding Nutrition Entrepreneur, Academy Recognized Young Dietitian of the Year and DHCC Distinguished Member Award.

Contributing Editor:

Liz Friedrich, MPH, RD, CSG, LDN, FAND is a Registered Dietitian and president of Friedrich Nutrition Consulting in Salisbury, NC. The company provides a variety of nutrition consulting services with a focus on gerontological nutrition.

She has co-authored numerous articles in journals and magazines, including the Academy of Nutrition and Dietetics Position Paper titled *Individualized Nutrition Approaches for Older Adults in Health Care Communities* (2010) and *Enteral Nutrition for Older Adults in Nursing Facilities* (2011).

Liz is also the Associate Director of Nutrition411.com, a respected website for dietitians, and is an evidence analyst for the Academy of Nutrition and Dietetics' Evidence Analysis Library. In 2009 Liz became Board Certified as a Specialist in Gerontological Nutrition.

Liz has served as the Delegate for the Nutrition Entrepreneurs dietetic practice group to the Academy of Nutrition and Dietetics House of Delegates, and as a volunteer for the North Carolina Dietetic Association (NCDA) and the Nutrition Entrepreneurs Dietetic Practice Group (NE DPG) in many different board positions. She is the recipient of two North Carolina Dietetic Association awards, the Recognized Young Dietitian of the Year (1991) and the Member of the Year (2000).

The Obesity Challenge: Weight Management for Adults and Older Adults

Letter to Our Readers

Thank you for purchasing this guide to weight management for adults and older adults. I'd like to provide a little history on how this publication began. My consulting company, Nutrition Consulting Services, Inc. (dba Becky Dorner & Associates Consulting), had the privilege of working with the staff and residents at a northeast Ohio nursing facility a number of years ago. At the time, the facility had approximately 80 extremely obese residents with ages ranging from mid-twenties to mid-fifties, and older. The majority of the residents were in their forties and fifties. In our work with the residents and staff, our role was to develop a total interdisciplinary team program that would include screening and admission into the weight management program, all policies, procedures, protocols and forms to be used by staff, training for staff, and educational materials for residents in the weight management program. Although this book was originally developed for use with long term care facilities, it has evolved into a guide for health care professionals which can be used in any health care setting.

The book has been revised to reflect current information related to obesity in adults and older adults in the U.S. The information in this book could apply to any adult, particularly those who are 50 years of age or older. This encompasses a wide variety of people with various levels of obesity and various diseases and conditions. Note: Typically the term "older adult" refers to people who are 65 and older.

We hope that the information in this book will assist you in providing the best possible treatment for those in your care. Best of luck to you as you pursue your mission to assist others to live healthier lives. Please let us know if we can be of support in any way.

Sincerely,

Becky Dorner, RDN, LD, FAND
President, Becky Dorner & Associates, Inc. and Nutrition Consulting Services, Inc.

Learning Objectives for Self Study Continuing Professional Education Program

Upon completion of this program, participants will:

1. Understand and apply available evidence based research related to successful adult weight loss
2. Apply tools provided to implement successful Nutrition Care Process documentation for this population including nutrition assessment, nutrition diagnosis, nutrition interventions, monitoring and evaluation
3. Implement appropriate policies and procedures for an organized interdisciplinary weight management program
4. Utilize available resources to assist in providing information and education for the unique long term health care needs of this population
5. Apply practical tips for assisting people to implement positive healthy changes

Note: Refer to page 116 for more information on continuing professional education program.

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Table of Contents

Aging, Obesity, and Long Term Healthcare

The Weight Management Program

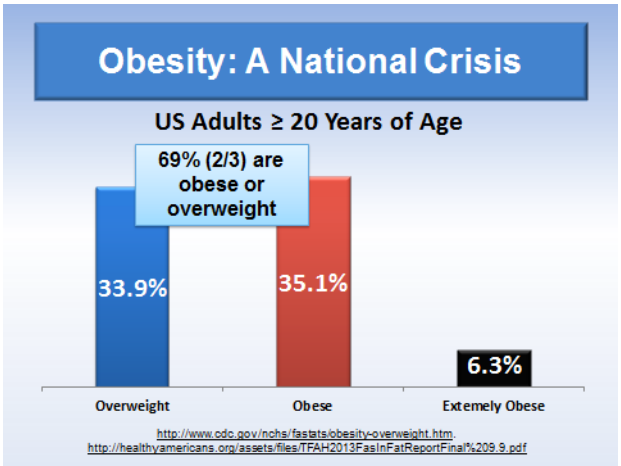
The Copy Ready Educational Materials are also included on the enclosed CD.

The Obesity Challenge: Weight Management for Older Adults and Older Adults

Aging, Obesity, and Long Term Healthcare

The Obesity Challenge: Weight Management for Adults and Older Adults

Aging, Obesity, and Long Term Healthcare



Introduction

In the past 30 years adult obesity rates have more than doubled (1), leading experts to declare that obesity is a national epidemic. Childhood obesity in the U.S. has risen to a staggering 18.4% (2) in 2011-2012. Although the rate of childhood obesity has increased dramatically since 1980, the rate has not changed significantly since 2003-2004 (3). Rates of adult Americans with a body mass index (BMI) of 40 or higher have grown in the past 30 years from 1.4 percent to 6.3 percent—a 350% increase (1).

Obesity is a chronic disease of excess body fat or adiposity which results from excessive accumulation of fat that exceeds the body's skeletal and physical standards. Currently, healthcare professionals define obesity by body mass index (BMI). BMI is a quick, inexpensive, and fairly reliable measure of body fatness. It is measured using height and weight and is calculated the same way for both adults and children (excluding pregnant women). The calculation is based on the following formulas (4).

Measurement Units	BMI Formula and Calculation
Pounds and Inches	Formula: Weight (lb.) / [Height (in)] ^{2} x 703 Calculate BMI by dividing weight in pounds (lbs) by height in inches (in) squared and multiplying by a conversion factor of 703. Example: Weight = 150 lbs, Height = 5'5" (65") Calculation: [150 ÷ (65)2] x 703 = 24.96
Kilograms and Meters (or Centimeters)	Formula: Weight (kg) / [Height (m)]^2 With the metric system, the formula for BMI is weight in kilograms divided by height in meters squared. Since height is commonly measured in centimeters, divide height in centimeters by 100 to obtain height in meters. Example: Weight = 68 kg, Height = 165 cm (1.65 m) Calculation: 68 ÷ (1.65)^2 = 24.98

Definitions: Overweight and Obese (5)

Body weight status can be categorized as underweight, healthy weight, overweight, or obese. The terms overweight and obese describe ranges of weight that are greater than what is considered healthy for a given height. Underweight describes a weight that is lower than what is considered healthy for a given height. Most of the studies that define the healthy range for BMI were done on younger adults (6). BMI thresholds for overweight and obese are overly restrictive for older people (6,7). In the elderly it may be better to have a BMI between 25 and 27, rather than under 25 (8). BMI categories are a guide. Refer to the chart Classification of Obesity by BMI on the next page.

Note: Because children and adolescents are growing, their BMI is plotted on growth charts for sex and age. The percentile indicates the relative position of the child's BMI among children of the same sex and age.

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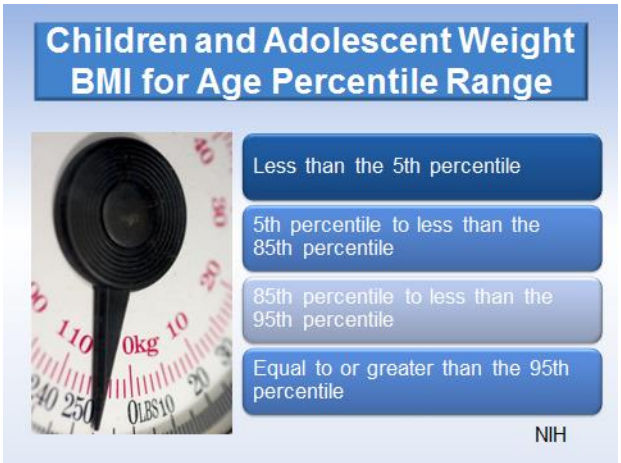
Classification of Obesity by BMI

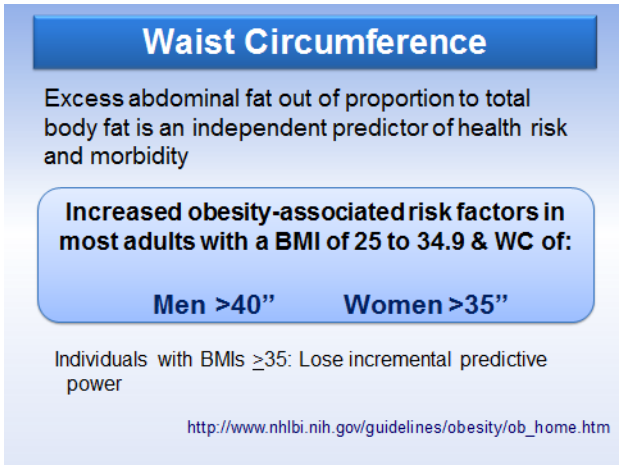


The National Institute of Health (NIH) further classifies obesity levels as outlined below (9,10).

Obesity Class	BMI (kg/m^2)
Obesity I	30.0 to 34.9
Obesity II	35.0 to 39.9
Extreme Obesity III	≥40

Waist Circumference

Excess abdominal fat out of proportion to total body fat is an independent predictor of health risk and morbidity. A large waist circumference in mid-life has been shown to increase the risk of diabetes, stroke, coronary heart disease and dementia. There is an increase in obesity-associated risk factors in most adults with a BMI of 25 to 34.9 and waist circumference of greater than 40 inches for men, and greater than 35 inches for women(4).



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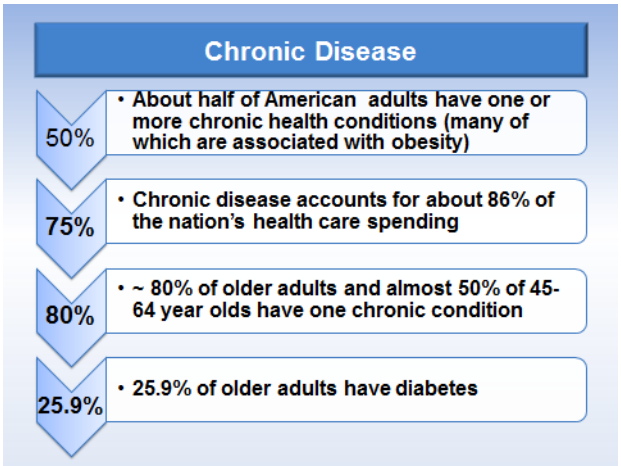
Health Effects of Obesity

About half of American adults have one or more chronic health conditions, and one in four have two or more. Many of these chronic health conditions are associated with overweight and obesity. Chronic disease accounts for about 86% of the nation's aggregate health care spending (11).



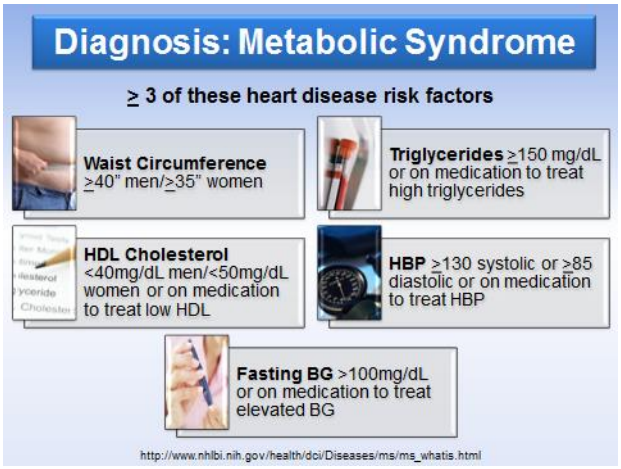
Obese individuals have a high risk for developing conditions that often reduce mobility and quality of life, including hypertension, dyslipidemia, certain cancers, diabetes, coronary artery disease, stroke, liver disease, gallbladder disease, infertility problems, and osteoarthritis (12).

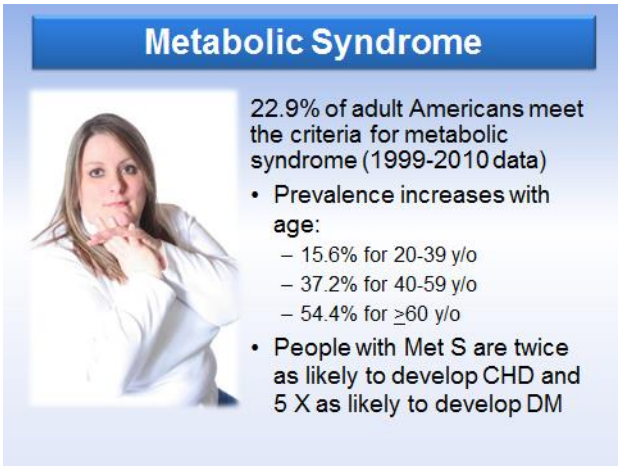
The doubling of obesity has been blamed for the rise in diabetes rates. In 2012 approximately 9.3% of U.S. adults had diabetes (13) and 33% of adults in the U.S. had prediabetes (14). Fifteen to 30% of those with prediabetes will develop diabetes within 5 years (14).

The increase in obesity rates in the older adult population has had a major impact on chronic disease rates. Currently, 80% of adults 65 years of age or older and 50% of people aged 45 to 64 have multiple chronic conditions (11). Approximately 25.9% of older adults have diabetes (15). Estimates of diabetes in nursing homes range from 8.8%-26.7% (16).

Metabolic syndrome refers to a group of risk factors which are associated with cardiovascular disease (CVD) and type 2 diabetes. Metabolic syndrome is diagnosed when an individual has three or more of these heart disease risk factors (17):

1. Waist Circumference: ≥40" (102 cm) for men/≥35" (88 cm) for women.
2. Triglycerides: ≥150 mg/dL (or undergoing treatment for high triglyceride levels).
3. HDL Cholesterol: <40mg/dL men/<50mg/dL women (or undergoing treatment for low HDL cholesterol level).
4. Blood Pressure: ≥130 systolic or ≥85 diastolic (or on medication to treat hypertension).
5. Fasting plasma glucose: ≥100mg/dL (or undergoing treatment for elevated blood glucose).





Between 1999-2010, approximately 22.9% of adults age 20 and older met the criteria for metabolic syndrome (18). Between 2003 and 2006, prevalence increased with age:

- 15.6% for 20 to 39 years,
- 37.2% for 40 to 59 years, and
- 54.4% for 60 years and older (19).

People with metabolic syndrome are twice as likely to develop coronary heart disease (CHD) and five times as likely to develop diabetes. The more risk factors, the greater the chance the person has of developing CHD, diabetes or stroke (20).

Weight Management Practice Guidelines for Adults

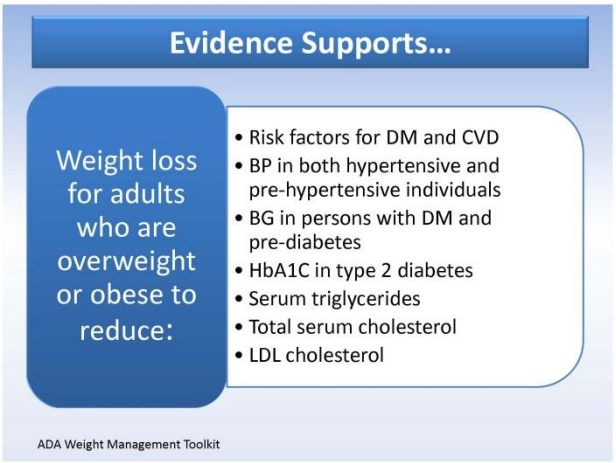
The American Society of Bariatric Physicians developed a Bariatric Practice Algorithm which can used as general guidance for bariatricians in the treatment of obese patients (21). The guidelines suggest that healthcare practitioners should conduct a total history (evaluation of weight history, dietary status and mental status), physical examination (height, weight, blood pressure, pulse and additional examinations appropriate to age and health status), and diagnostic studies (full laboratory workup with TSH-thyroid function, an electrocardiogram if cardiac disease is present or if there is any risk of coronary heart disease, optional tests such as body fat percentage and other tests at the physician's discretion) for their obese patients. The American Bariatric Society Guidelines can be accessed at http://www.asbp.org/obesityalgorithm.html.

In 2013**,** the American Heart Association (AHA), American College of Cardiology (ACC), and The Obesity Society (TOS) published evidence-based guidelines for the assessment of and treatment of obesity. These guidelines recommend matching treatment benefits with risk profiles, and outlines strategies for weight loss, and recommending lifestyle and counseling interventions (22). The AHA/ACC/TOS guidelines can be accessed at http://circ.ahajournals.org/content/early/2013/11/11/01.cir.0000437739.71477.ee. Much of this information is incorporated in the Academy of Nutrition and Dietetics Evidence Analysis Library Adult Weight Management project which are reviewed in this chapter (23)

All three sets of guidelines agree that obese individuals should be counseled on diet, exercise, lifestyle modification and other aspects of weight loss therapy including medications as appropriate. The risks versus benefits of various medications and other treatment modalities should be discussed. Periodic follow up and a maintenance program should be offered to assist with sustaining a successful long term weight loss.

Evidence supports weight loss for individuals who are overweight or obese to reduce:

- Risk factors for diabetes and cardiovascular disease
- Blood pressure in both hypertensive and pre-hypertensive individuals
- Blood glucose in persons with diabetes and pre-diabetes
- Hemoglobin A1C in persons with type 2 diabetes
- Serum triglycerides
- Total serum cholesterol
- LDL cholesterol



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Academy of Nutrition and Dietetics Evidence Analysis Library: Adult Weight Management (23)
In 2014 the Academy of Nutrition and Dietetics updated their Adult Weight Management Evidence Analysis Guidelines. The complete guidelines are available at www.andeal.org. Some of the key points of the Guidelines are outlined below.

Medical Nutrition Therapy

- Strong evidence indicates that for weight loss and weight maintenance, the registered dietitian nutritionist (RDN) should include the following components as part of a comprehensive weight management program: reduced calorie diet, increasing physical activity, and use of behavioral strategies.

- Adequate evidence indicates that intensive, multi-component behavioral interventions for overweight and obese adults can lead to weight loss as well as improved glucose tolerance and other physiologic risk factors for cardiovascular disease.

Duration and Frequency of MNT for Weight Maintenance

- Strong evidence indicates that for weight maintenance, the registered dietitian nutritionist (RDN) should schedule at least monthly medical nutrition therapy (MNT) encounters over a period of at least one year. High-frequency comprehensive weight maintenance interventions result in maintenance of weight loss.

Multiple Behavior Therapy Strategies

- Strong evidence indicates that for weight loss and weight maintenance, the registered dietitian nutritionist (RDN) should incorporate one or more of the following strategies for behavior therapy:

    - Self-monitoring: Strong evidence shows that for adults who need or desire to lose weight or for adults who are maintaining body weight following weight loss, self-monitoring of food intake improves nutrition-related outcomes related to weight loss and weight maintenance.
    - Motivational interviewing: Research demonstrated that motivational interviewing significantly enhanced adherence to program recommendations and improved targeted diet-related outcomes including glycemic control, percentage of energy intake from fat, fruit and vegetable intake and weight loss.
    - Structured meal plans and meal replacements and portion control: Research reports that the use of various types of meal replacements or structured meal plans was helpful in achieving health and food behavior change and strong evidence documents a positive relationship between portion size and body weight.
    - Goal-setting: Clients' active participation in selecting and setting goals led to the selection of a goal from the area that could use the most improvement and the goal that was most personally appropriate.
    - Problem-solving: Studies based on the use of problem-solving strategies resulted in improvements in key outcome measures, including maintenance of weight loss and in subjects with diabetes, was linked to improvements in fat consumption, self-efficacy and physical activity.

Realistic Weight Goal Setting

- Strong evidence indicates that the registered dietitian nutritionist (RDN) should collaborate with the individual regarding a realistic weight loss goal, such as one of the following:
    - Up to two pounds per week
    - Up to 10% of baseline body weight
    - A total of 3% to 5% of baseline body weight if cardiovascular risk factors (hypertension, hyperlipidemia and hyperglycemia) are present.

- Studies regarding the effectiveness of medical nutrition therapy (MNT) for under six months reported significant weight losses of approximately one to two pounds per week, and six to 12 months of MNT resulted in significant mean weight losses of up to 10% of body weight. While a sustained weight loss of 3% to 5% is likely to result in clinically meaningful reductions in triglycerides, blood glucose, HbA1c, and the risk of developing type 2 diabetes, greater amounts of weight loss will also reduce blood pressure, improve LDL-C and HDL-C, and reduce the need for medications.

- Adequate evidence indicates that intensive, multi-component behavioral interventions for overweight and obese adults can lead to weight loss as well as improved glucose tolerance and other physiologic risk factors for cardiovascular disease.

- During weight loss, the registered dietitian nutritionist (RDN) should prescribe an individualized diet, including patient preferences and health status, to achieve and maintain nutrient adequacy and reduce caloric intake, based on one of the following caloric reduction strategies:
    - 1,200 kcal to 1,500 kcal per day for women and 1,500 kcal to 1,800 kcal per day for men (kcal levels are usually adjusted for the individual's body weight)
    - Energy deficit of approximately 500 kcal per day or 750 kcal per day
    - One of the evidence-based diets that restricts certain food types (such as high-carbohydrate foods, low-fiber foods, or high-fat foods) in order to create an energy deficit by reduced food intake.

- Several studies report changes in nutrient adequacy with caloric restriction, however the extent of nutrient inadequacy and the nutrients affected are dependent on the composition of the diet followed, as well as on the nutritional needs of the individual. Limited research reports reductions in nutrient adequacy with weight loss through an energy restriction of at least 500 kcal per day or daily consumption below 1,200 kcal per day.

Use Mifflin-St. Jeor Equation to Estimate RMR

- Strong evidence indicates that if indirect calorimetry is not available, the registered dietitian nutritionist (RDN) should use the Mifflin-St. Jeor equation using actual weight to estimate resting metabolic rate (RMR) in overweight or obese adults. The majority of research reviewed supports the use of the Mifflin-St. Jeor equation (using actual body weight) to predict RMR in overweight or obese adults because it demonstrated good accuracy and correlation with indirect calorimetry.

Dietary Approaches for Caloric Reduction in Weight Maintenance

- Strong evidence indicates that for weight maintenance, the registered dietitian nutritionist (RDN) should advise overweight and obese adults that as long as the target reduction in calorie level is achieved, many different dietary approaches are effective. A moderate body of evidence provides no data to suggest that any one macronutrient is more effective than any other for avoiding weight re-gain in weight-reduced persons. Strong and consistent evidence shows that glycemic index and glycemic load are not associated with body weight and do not lead to better weight maintenance.

Portion Control and Meal Replacements/Structured Meal Plans

- Strong evidence indicates that for weight loss and weight maintenance, the registered dietitian nutritionist (RDN) should recommend portion control and meal replacements or structured meal plans as part of a comprehensive weight management program. Strong evidence documents a positive relationship between portion size and body weight and research reports that the use of various types of meal replacements or structured meal plans was helpful in achieving health and food behavior change.

Encourage Physical Activity for Weight Loss

- Professional consensus indicates that for weight loss, the registered dietitian nutritionist (RDN) should encourage physical activity as part of a comprehensive weight management program, individualized to gradually accumulate 150 to 420 minutes or more of physical activity per week, depending on intensity, unless medically contraindicated. Physical activity less than 150 minutes per week promotes minimal weight loss, physical activity more than 150 minutes per week results in modest weight loss of approximately 2kg to 3kg, and physical activity of more than 225 to 420 minutes per week results in 5kg to 7.5kg weight loss, and a dose–response exists.

Coordinate Care with Interdisciplinary Team

- Professional consensus indicates that for weight loss and weight maintenance, the registered dietitian nutritionist (RDN) should implement medical nutrition therapy (MNT) and coordinate care with an interdisciplinary team of health professionals (which may include specialized RDNs, nurses, nurse practitioners, pharmacists, physicians, physician assistants, physical therapists, psychologists, social workers, and so on), especially for patients with obesity-related co-morbid conditions. Coordination of

care may include collaboration on use of FDA approved weight-loss medications or appropriateness of bariatric surgery for people who have not achieved weight loss goals with less invasive weight loss methods.

Weight Management for Older Adults
Fair evidence indicates that for older adults (aged 65 years and older) who are overweight or obese, the registered dietitian nutritionist (RDN) should provide medical nutrition therapy (MNT) for weight loss and weight maintenance. Research has reported reduced risk of mortality, reduced development of type 2 diabetes and improved cardiovascular risk factors with intentional weight loss in older persons and weight gain produces increased risk for several health outcomes.

Note: Not every older adult is a candidate for weight loss. Refer to the section on Long Term Healthcare and Safety Concerns in Older Adults on page 14.

Strategies for Weight Loss and Weight Maintenance

Behaviors Related to Body Weight

When individuals have been identified as candidates for planned weight loss, there are a number of strategies for weight loss and weight maintenance, as outlined by the various guidelines mentioned above. It is important to incorporate personal preferences and characteristics to customize obesity treatment programs. Consider the individual's lifestyle, living setting (if the individual is living in a healthcare facility, consider the staffing for the program), and how the obesity treatment program integrates into other aspects of daily life and/or care. Expect and allow for program modifications based on the individual's responses and preferences.

The healthiest way to lose weight and keep it off is through a balanced diet, exercise and behavior modification, and physical activity. To help maintain weight loss, strategies such as frequent self-weighing, consuming a low-calorie diet, and high levels of physical activity (>200 minutes per week) are associated with better weight maintenance over time (22). A combination of weight loss and exercise provides greater improvements in physical function than either intervention alone (24).

The behaviors that have the strongest correlation to controlling body weight include (25):

- **Focus on the total number of calories consumed.** Maintaining a healthy eating pattern at an appropriate calorie level is advisable for weight management. A diet that is nutrient dense with low caloric density may help to reduce calorie intake and improve body weight outcomes and overall health.
- **Monitor food intake.** Monitoring intake has been shown to help individuals become more aware of what and how much they eat and drink. The Nutrition Facts label found on food packaging provides calorie information for each serving of food or beverage and can assist consumers in monitoring their intake. Also, monitoring body weight and physical activity can help prevent weight gain and improve outcomes when actively losing weight or maintaining body weight following weight loss.
- **When eating out, choose smaller portions or lower-calorie options.** When possible, order a small-sized option, share a meal, or take home part of the meal. Review the calorie content of foods and beverages offered and choose lower-calorie options. Calorie information may be available on menus, in a pamphlet, on food wrappers, or online. Or, instead of eating out, cook and eat more meals at home.
- **Prepare, serve, and consume smaller portions of foods and beverages, especially those high in calories.** Individuals eat and drink more when provided larger portions. Serving and consuming smaller portions is associated with weight loss and weight maintenance over time.
- **Eat a nutrient-dense breakfast.** Not eating breakfast has been associated with excess body weight, especially among children and adolescents. Consuming breakfast also has been associated with weight loss and weight loss maintenance, as well as improved nutrient intake.
- **Limit screen time.** In children, adolescents, and adults, screen time, especially television viewing, is directly associated with increased overweight and obesity. The recommendation is to avoid eating while watching television, which can result in overeating.

Additional Diet-Related Strategies

Evidence shows that the critical issue for weight loss is not the proportion of macronutrients in the diet, but whether or not the eating pattern is reduced in calories, and whether or not the reduced calorie intake can be sustained over time (22,23) Because most weight loss occurs as a result of decreased caloric intake, the focus should be a reduction of total calories, carbohydrates, and fat (30% or less of total calories as fat; and decrease saturated fat to 5-6% of total calories for heart health) (22). As long as a reduction in calorie level is achieved, many different dietary approaches are effective. There is strong and consistent evidence that when calorie intake is controlled, macronutrient proportion, glycemic index, and glycemic load of the diet are not related to losing weight (23). The choice of a calorie-restricted diet can be individualized to the patient's preferences and health status (22).

Nutrient density is the ratio of nutrients to total energy, therefore nutrient dense foods are lower in calories and higher in important nutrients. Higher calorie foods and beverages should be replaced with nutrient dense foods and beverages that are relatively low in calories. General recommendations include:

- Increase vegetables, fruits and whole grains
- Monitor beverage intake. Beverages, including sugar-sweetened beverages, contribute up to 19% of the calories in the diet (25). Decrease intake of sugar sweetened beverages and consume nutrient dense beverages (low-fat milk, 100% fruit juice) in portions recommended by ChooseMyPlate.gov
- For adults: Monitor intake from alcoholic beverages

Portion sizes have increased dramatically over the past 20-30 years. Research has shown that when larger portion sizes are served people tend to consume more calories (26). Evidence supports a relationship between portion size and body weight (23). Meal replacements and structured meal plans can help control calories and portion sizes (23). This may be especially important when an individual has difficulty selecting appropriate foods or portions. Grocery stores, pharmacies and health food stores abound with meal replacements in the forms of liquid shakes, meal bars, and calorie controlled frozen and shelf stable dinners promoting effective weight loss or maintenance of weight loss.

Tips for choosing meal replacements:

- Meal replacements should fit into a healthy eating plan with adequate protein, carbohydrates, essential fatty acids, vitamins and minerals.
- Plan a minimum of 2 cups of fruits and 2/1/2 cups of vegetables daily. In addition to providing valuable nutrients, these help round out the meal, add color to the plate, and fill the stomach.
- Frozen foods should contain about 250 to 400 calories, 5-20 g fat,, and have a reasonable sodium level (preferably 400-600 mg sodium per meal) (27).
- If shakes are used as a meal replacement or snack, use one that has a minimum of 8 grams of protein and 25% of the US RDI for vitamins and minerals per serving. One or two shakes a day can be used as part of a well-balanced, healthy diet that includes adequate calories, fiber and fluids.
- Food bars may also be part of a healthy diet. Most bars do not contain enough calories or protein to be used as a meal replacement unless combined with other foods, but can be a healthy snack.

Recommended Dietary Patterns for Good Health

According to the 2015 Dietary Guidelines Scientific Report, a healthful diet can be achieved by following the DASH diet, Mediterranean-style diets, and the USDA Food Pattern. More information can be found in the 2015 Dietary Guidelines for Americans at http://health.gov/dietaryguidelines/2015.asp (25). All of these patterns can be effective for weight loss if their total calorie content of the diet is appropriate for weight loss. Sample eating patterns for several different calorie levels based on the USDA Food Pattern and the DASH Eating Plans are below (28).

USDA Healthy U.S.-Style Food Patterns: Recommended Daily Intake Amounts

Calorie level of Pattern	1,000	1,200	1,400	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Food Group	Daily Amount[b] of Food From Each Group (vegetable and protein foods subgroup amounts are per week)											
Fruits	**1 c**	**1 c**	**1½ c**	**1½ c**	**1½ c**	**2 c**	**2 c**	**2 c**	**2 c**	**2½ c**	**2½ c**	**2½ c**
Vegetables	**1 c**	**1½ c**	**1½ c**	**2 c**	**2½ c**	**2½ c**	**3 c**	**3 c**	**3½ c**	**3½ c**	**4 c**	**4 c**
Dark green veg (c/wk)	½	1	1	1½	1½	1½	2	2	2½	2½	2½	2½
Red/Orange veg (c/wk)	2½	3	3	4	5½	5½	6	6	7	7	7½	7½
Beans and peas (c/wk)	½	½	½	1	1½	1½	2	2	2½	2½	3	3
Starchy veg (c/wk)	2	3½	3½	4	5	5	6	6	7	7	8	8
Other veg (c/wk)	1½	2½	2½	3½	4	4	5	5	5½	5½	7	7
Grains	**3 oz eq**	**4 oz eq**	**5 oz eq**	**5 oz eq**	**6 oz eq**	**6 oz eq**	**7 oz eq**	**8 oz eq**	**9 oz eq**	**10 oz eq**	**10 oz eq**	**10 oz eq**
Whole grains	1½ oz eq	2 oz eq	2½ oz eq	3 oz eq	3 oz eq	3 oz eq	3½ oz eq	4 oz eq	4½ oz eq	5 oz eq	5 oz eq	5 oz eq
Other grains	1½ oz eq	2 oz eq	2½ oz eq	2 oz eq	3 oz eq	3 oz eq	3½ oz eq	4 oz eq	4½ oz eq	5 oz eq	5 oz eq	5 oz eq
Protein Foods	**2 oz eq**	**3 oz eq**	**4 oz eq**	**5 oz eq**	**5 oz eq**	**5½ oz eq**	**6 oz eq**	**6½ oz eq**	**6½ oz eq**	**7 oz eq**	**7 oz eq**	**7 oz eq**
Meat, poultry, eggs (oz eq/wk)	10	14	19	23	23	26	28	31	31	33	33	33
Seafood (oz eq/wk)	3	4	6	8	8	8	9	10	10	10	10	10
Nuts seeds, soy (oz eq/wk)	2	2	3	4	4	5	5	5	5	6	6	6
Dairy	**2 c**	**2½ c**	**2½ c**	**3 c**	**3 c**	**3 c**	**3 c**	**3 c**	**3 c**	**3 c**	**3 c**	**3 c**
Oils	**15 g**	**17 g**	**17 g**	**22 g**	**24 g**	**27 g**	**29 g**	**31 g**	**34 g**	**36 g**	**44 g**	**51g**
Limits for solid fats and added sugars												
Solid fats	10g	7g	7g	8g	11g	18g	18g	23g	25g	26g	31g	40g
Added Sugars	17g	12g	13g	14g	19g	30g	32g	39g	43g	45g	53g	69g

[a] Food intake patterns at 1000, 1200, and 1400 calories are designed to meet the nutritional needs of 2- to 8-year-old children. Patterns from 1600 to 3200 calories are designed to meet the nutritional needs of children 9 and older and adults. If a child 4 to 8 years of age needs more calories and, therefore, is following a pattern at 1600 calories or more, the recommended amount from the milk

group should be 2.5 cups per day. Children 9 and older and adults should not use the 1000, 1200, or 1400 calorie patterns.

[b] Food group amounts shown in cup (c) or ounce equivalents (oz eq). Oils, solid fats, and added sugars are shown in grams (g).

Quantity equivalents for each food group are:

- Grains, 1 ounce equivalent is: ½ cup cooked rice, pasta, or cooked cereal; 1 ounce dry pasta or rice; 1 slice bread; 1 cup RTE cereal flakes.
- Fruits and vegetables, 1 cup equivalent is: 1 cup raw or cooked fruit or vegetable, 1 cup fruit or vegetable juice, 2 cups leafy salad greens.
- Protein Foods, 1 ounce equivalent is: 1 ounce lean meat, poultry, or seafood; 1 egg; ¼ cup cooked beans or tofu; 1 Tbsp peanut butter; ½ ounce nuts/seeds.
- Dairy, 1 cup equivalent is: 1 cup milk or yogurt, 1½ ounces natural cheese such as Cheddar cheese or 2 ounces of processed cheese.

Source: Scientific Report of the Dietary Guidelines 2015, available at http://health.gov/dietaryguidelines/2015-scientific-report/15-appendix-e3/e3-1-a1.asp (25).

DASH Eating Plan—Number of Food Servings by Calorie Level

Food Group	1,200 Cal.	1,400 Cal.	1,600 Cal.	1,800 Cal.	2,000 Cal.	2,600 Cal.	3,100 Cal.
Grains[a]	4–5	5–6	6	6	6–8	10–11	12–13
Vegetables	3–4	3–4	3–4	4–5	4–5	5–6	6
Fruits	3–4	4	4	4–5	4–5	5–6	6
Fat-free or low-fat dairy products[b]	2–3	2–3	2–3	2–3	2–3	3	3–4
Lean meats, poultry, and fish	3 or less	3–4 or less	3–4 or less	6 or less	6 or less	6 or less	6–9
Nuts, seeds, and legumes	3 per week	3 per week	3–4 per week	4 per week	4–5 per week	1	1
Fats and oils[c]	1	1	2	2–3	2–3	3	4
Sweets and added sugars	3 or less per week	3 or less per week	3 or less per week	5 or less per week	5 or less per week	≤2	≤2
Maximum sodium limit[d]	2,300 mg/day	2,300 mg/day	2,300 mg/day	2,300 mg/day	2,300 mg/day	2,300 mg/day	2,300 mg/day

a Whole grains are recommended for most grain servings as a good source of fiber and nutrients.

b For lactose intolerance, try either lactase enzyme pills with dairy products or lactose-free or lactose-reduced milk.

c Fat content changes the serving amount for fats and oils. For example, 1 Tbsp regular salad dressing = one serving; 1 Tbsp low-fat dressing = one-half serving; 1 Tbsp fat-free dressing = zero servings.

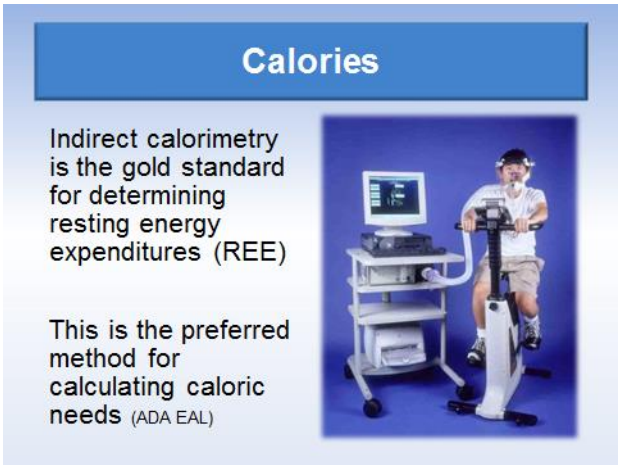
d The DASH eating plan has a sodium limit of either 2,300 mg or 1,500 mg per day.

Source: Following the DASH Eating Plan, available at http://www.nhlbi.nih.gov/health/health-topics/topics/dash/followdash (28).

Estimated Nutritional Needs for Obese Adults

Calculation of nutritional needs for obese individuals can be challenging. Currently there is limited evidence-based research to suggest one method of mathematical calculations for protein and fluids to meet the estimated needs for all obese individuals. The recommendations for nutritional needs predictive equations will continue to evolve as evidence-based research becomes available. In the meantime, practitioners need to use the limited information available, along with clinical judgment based on comprehensive nutrition assessment to determine estimated nutritional needs.

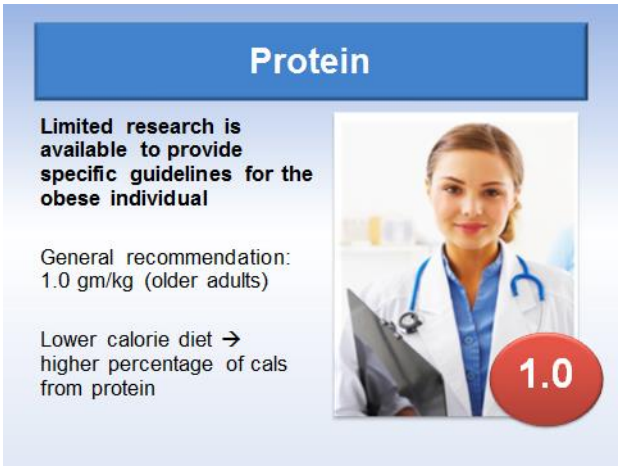
Calories: Indirect calorimetry (IC) or the measurement of an individual's oxygen consumption and carbon dioxide production over a given period of time is considered the gold standard for determining resting energy expenditures (REE). However, few practitioners utilize IC due to the lack of availability of this technology in practice settings (29).



Because IC is not widely available, practitioners often use mathematical equations to estimate caloric requirements. One study reviewed four predictive equations for their accuracy in determining REE in obese individuals with a conclusion that the Harris Benedict Equation should not be used, especially with adjusted body weight (30).

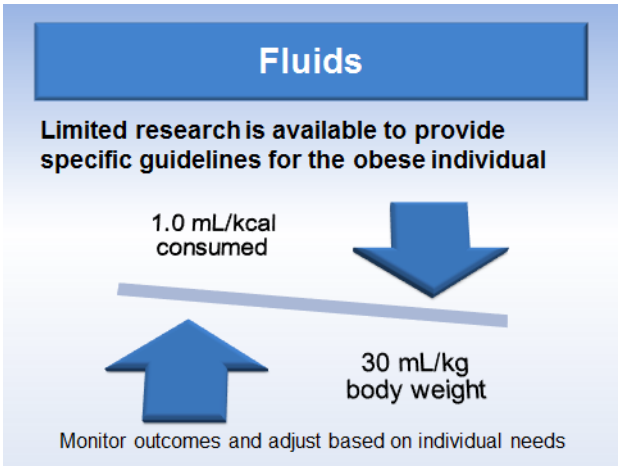
According to the Academy of Nutrition and Dietetics Evidence Analysis Library, the Mifflin-St. Jeor equation has been found to be the most reliable mathematical calculation of resting metabolic rate (RMR) in healthy adults; The majority of research reviewed supports the use of the Mifflin-St. Jeor equation (using actual body weight) to predict RMR in overweight or obese adults because it demonstrated good accuracy and correlation with indirect calorimetry (23) however, there is little research available to indicate accuracy of prediction for older adults (31). See pages 78-79 for more information.

Practitioners often question whether to use actual body weight or adjusted body weight in calculating RMR in obese individuals. The premise of adjusting body weight is due to the hypothesis that fat is less metabolically active than muscle. However there is no evidence to determine what percentage of body fat is metabolically inactive, and at best, the practitioner would be making a general estimate by using adjusted body weight calculations.



Protein: Limited research is available to provide specific guidelines for the obese individual. Protein needs may vary depending on a number of factors, including but not limited to total calories consumed (when a person is on a lower calorie diet, they should receive a higher percentage of calories from protein), renal status, presence of a pressure ulcer or wound, and/or presence of hepatic disease.

According to a recent preliminary study, 1.2 g/kg body weight or 1.9 g/kg fat free mass was determined to be optimal for obese older adults during weight loss (32). However, further research is needed and clinical judgment should be used.



Fluids: Limited research is available to provide specific guidelines for the obese individual. Fluid needs may vary depending on a number of factors, including but not limited to hydration status, renal status, presence of hepatic disease and/or presence of severe edema or ascites. A general recommendation for calculating fluid needs is 1 mL/calorie consumed or 30 mL/kg body weight. See page 81 for more information.

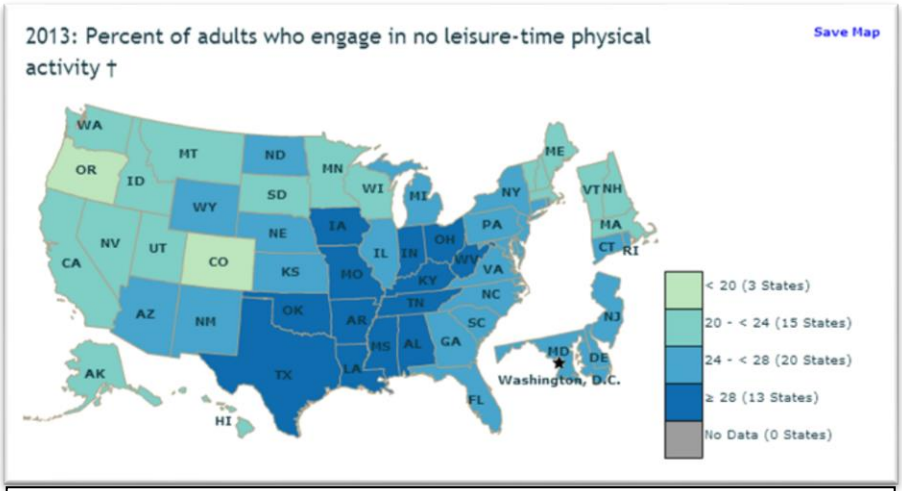
Recommendations

Until more research is available on estimating protein and fluid needs in the obese individual, each practitioner should:

1. Be aware of the current information available and choose the method they believe to be most accurate.
2. Be consistent in the choice of method as applied to each different population (i.e. apply the same formula for all people with a BMI >30, apply the same formula for all people of normal weight, apply the same formula for all people who are underweight, etc.).

Physical Activity Guidelines for Americans

For adults and older adults there is strong evidence that physical activity can lower risk of early mortality, heart disease, stroke, type 2 diabetes, hypertension, adverse blood lipid profile, metabolic syndrome and colon and breast cancers. There is also strong evidence that physical activity can help prevent weight gain, assist with weight loss when combined with diet, improve cardiorespiratory and muscular fitness, help prevent falls, reduce depression, and improve cognitive function in older adults (33).



Source: Nutrition, Physical Activity and Obesity: Data, Trends and Maps http://nccd.cdc.gov/NPAO_DTM/IndicatorSummary.aspx?category=71&indicator=36

Potential Benefits of Physical Activity Include
• Increases metabolism and burns calories to assist with weight loss and/or maintain desirable weight. (Expending 3,500 more calories than calories consumed will decrease weight by one pound) • Helps control appetite. • Helps tone muscles and may increase strength and independence. • Increases energy level. • Helps to improve self-image. • Increases feelings of relaxation (reduces stress and anxiety, reduces feelings of tension, may help counter depression). • May improve ability to fall asleep and sleep well (improves resistance to fatigue).

For additional information on physical activity, see the section on Nutritional Guidelines. For specific information on physical activity rates in your geographic area, visit Nutrition, Physical Activity and Obesity: Data, Trends and Maps at http://nccd.cdc.gov/NPAO_DTM/ (34).

Obesity in Older Adults

Inactivity along with excess calories are major factors in the development of obesity. As people age, an abundance of great tasting food choices, larger portion sizes and increased consumption of calorie dense foods can all contribute to the potential for weight gain. A decrease in physical activity with aging can also contribute to obesity. In 2010, about 11 percent of people age 65 and over reported participating in leisure-time aerobic and muscle-strengthening activities that met the 2008 Federal physical activity guidelines (35). Chronic illness, psychosocial factors and certain medications such as steroids and antidepressants may also contribute to weight gain in middle aged and older adults.

Obesity rates in older Americans have risen dramatically since 1988 as described in the chart to the right. Between 1999–2000 and 2009–2010, there has been no significant increasing trend in women, but among men there has been an increase in the prevalence of obesity (35). As with all adults, the number of overweight and obese patients admitted to long-term care facilities continues to rise. According to the long term care Minimum Data Set/Resident Assessment Instrument (MDS/RAI) data, the prevalence of obesity increased from 16.9% to 25 among newly-admitted nursing home patients (36). By one estimate, moderate to severe obesity (defined as BMI > 35) increased from 14.7% in 2000 to 23.9% in 2010 (37).

Obesity Rates in Older Adults

Age/Gender	Percentage of Obesity 2000-2010	Rate of Increase Since 1988-1994
65-74 All	44.2%	33%
65-74 Men	42.9%	78%
65-74 Women	45.4%	68%
>75 Men	27.3%	107%
>75 Women	30.2%	57%

Federal Interagency Forum on Aging-Related Statistics. Older Americans 2012: Key Indicators of Well-Being. Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office, June 2012. http://www.agingstats.gov/agingstatsdotnet/Main_Site/Data/2012_Documents/Docs/EntireChartbook.pdf. Accessed May 6, 2015.

Obesity and Disease Risk in Older Adults

Obesity is a risk factor for four of the ten leading causes of death in the United States: coronary heart disease, type II diabetes, stroke and several types of cancer. In addition, obese older adults report more limitations with activity levels which can further increase level of obesity, and contribute to osteoarthritis, metabolic abnormalities, and frailty (38). As previously noted, more than half of people 60 years and older meet the clinical definition of metabolic syndrome which further increases the chance for developing CVD and other health problems such as diabetes and stroke (19).

Sarcopenic obesity is defined as having sarcopenia (age-related loss of skeletal muscle mass) coupled with a body fat percentage greater than the gender-specific cutoff values that correspond to a BMI of 27 (27% body fat in men and 38% body fat in women). In community-dwelling older adults incidence is estimated as 2% in adults younger than age 70 years, and 10% in adults older than 80 years of age (38).

Older adults who gain significant amounts of weight (1 to 2% in one week, 5% in 1 month, 7.5% in 3 months, or 10% in 6 months), should be assessed for edema, fluid retention, heart failure (HF), renal problems, etc.. As part of the nutrition assessment process, clinicians should also assess changes in eating habits and activity levels.

Potential Advantages of Planned Weight Loss in Older Adults

Research has reported reduced risk of mortality, reduced development of type 2 diabetes and improved cardiovascular risk factors with intentional weight loss in older persons (23). Weight gain produces increased risk for several health outcomes (23). Intentional weight reduction in obese elderly people improves the cardiovascular risk profile, reduces chronic inflammation and is correlated with an improved quality of life (39). Weight loss can also result in improved physical functioning, which can improve quality of life. (40). Obesity can exacerbate age-related decline in physical function and cause frailty in older adults (24). It can impact weight-bearing joints and osteoarthritis in those over 65 years of age (41) and can contribute to urinary incontinence in older adults (41).

The Obesity Paradox

In recent years, questions have been raised about the health risks of obesity. The "obesity paradox" is a term that describes the fact that obesity appears to be protective from disease and death in some individuals. For example, older adults who are overweight are less likely to die over a ten-year period than those in the "normal" weight range (7). In acute and chronic heart failure, overweight and mild to moderate obesity is associated with improved survival (42). Obesity can appear protective among individuals with CVD (43), and normal weight adults have higher mortality risk than obese patients with type 2 diabetes (44). A growing body of evidence indicates that overweight and obese older adults are not at greater mortality risk than those who are normal weight (6,7).

In older adults, there may be other protective effects associated with being slightly overweight. Overweight seniors may be more likely to survive acute illnesses, handle stress better and recover more quickly from traumas as a result of excess nutritional reserves. Excess weight may cushion bones during falls, resulting in a lower rate of hip fracture (41). Conversely, excess weight can also contribute to an age-related decline in physical function and cause frailty in older adults (24).

Research will continue to explore the relationship between obesity and health, but it is clear that the health implications of obesity, particularly in older adults, are complicated.

Long Term Healthcare and Safety Concerns in Older Adults

Population trends of aging, obesity and its complications all increase the likelihood that more obese individuals will be admitted to health care communities for both short-term rehabilitation and long-term stays. In these settings, weight loss should be carefully planned, frequently monitored, and regularly documented with adjustments made to the care plan as needed to promote gradual weight loss and to maintain health. Weight management in older people with CVD should aim to improve and maintain physical function and quality of life rather than prevent medical problems associated with obesity in younger and middle- aged patients (39). In older adults who are sedentary, rate of weight loss may be much slower than in younger adults.

Planned weight loss should be initiated only with the knowledge and consent of the individual patient and medical provider.

In a healthcare facility, it is often the registered dietitian nutritionist (RDN) that assures nutritional requirements are being met and provides education and counseling for individuals who want to lose weight. In nursing facilities, the RDN should calculate nutrition needs as part of the initial, quarterly, and yearly nutrition assessment. The RDN and/or nutrition and dietetic technician registered (NDTR) should assure that the appropriate calorie level is provided as weight loss occurs by recalculating needs for each significant weight change.

In some cases maintaining an older adult's usual body weight (UBW), is more appropriate than initiating weight loss in an attempt to achieve ideal body weight (IBW). For obese older adults, a number of questions must be answered before determining whether weight loss is appropriate: Will weight loss reduce risk factors for other complications? Will weight loss prolong life for the individual? What are the risks associated with obesity treatment? Will a diet that restricts calories reduce the individual's ability to consume adequate nutrients to maintain health (45)?

Clinicians should carefully weigh the risks versus benefits of obesity treatment in older adults. The safety of weight reduction must be the priority to avoid potential protein malnutrition, vitamin/mineral deficiencies, and other potential complications such as pressure ulcers, bone loss, weakness, falls, and other problems. For example, obese patients with pressure ulcers should have a care plan focused on wound healing rather than weight loss. Additional protein and/or calories may be needed to support healing so in this case, weight

maintenance may be an appropriate goal rather than weight loss. Those who are at risk for unintended weight loss because of medical or cognitive problems are not likely to be good candidates for planned weight loss. There is strong evidence that unintended weight loss leads to increased morbidity and mortality (46). However, moderate planned weight loss in obese older adults may have beneficial effects on comorbidities, functional performances, and quality of life, if regular physical activity is included (47).

Planned weight loss is NOT appropriate for:

- Frail elderly
- Those with serious medical conditions that threaten mortality
- Dementia patients
- Hospice patients
- Those who do not want to lose weight

The medical team should weigh the risks versus benefits of weight loss for each individual and also consider if the individual wants to lose weight or is motivated to make lifestyle changes that will promote weight loss.

In some cases the individual may refuse weight loss interventions. In a skilled nursing facility, refusal to attempt weight loss is a resident's right and should be respected. Counseling should be provided to outline the risks and benefits of refusing interventions.

If weight loss is initiated, it must be carefully planned and supervised by trained healthcare professionals to assure that it continues to be planned weight loss and not unintended weight loss which might indicate occult disease. Proper nutritional counseling and close monitoring of body weight and other nutritional parameters are essential. If possible, physical activity including weight bearing exercise and/or strength training should be included to help prevent loss of lean body mass and increase chances for successful weight loss (48).

Challenges to Weight Management in Older Adults

Older adults who want to lose weight, can find weight loss challenging for a number of reasons. Metabolism declines with aging, so older adults require fewer calories to meet their energy needs and even fewer to lose weight. As a result, calorie restriction to result in weight loss can be difficult to achieve.

The ability to taste and smell food may decrease due to aging or medications, making some foods taste different. Eating habits are well-established and food is readily available everywhere, so behavioral changes will be needed to achieve goals. Combining calorie reduction, increased physical activity, and behavioral strategies is one key to success (23).

Bariatric Surgery for Older Adults

The number of bariatric surgeries performed on older adults is increasing and now represents 10% of all bariatric surgeries done at academic centers (49). Treating obese older adults with bariatric surgery is controversial. Little is known about the long-term outcomes in older adults (50). Some recent studies indicate bariatric surgery could be safe and beneficial for some obese older adults. (49,51-53) Although there is no information available on selecting older patients that are candidates for bariatric surgery, the criteria are similar to younger patients (50). A multidisciplinary assessment should include a preoperative behavioral management program, psychological screening, and evaluation and management of comorbidities is necessary (50). A life expectancy of greater than 10 years would assure an idea risk/benefit ratio (50). For more information on bariatric surgery, see page 24.

Physical Activity for Older Adults

The *U.S. Department of Health and Human Services 2008 Physical Activity Guidelines for Americans* are based on the first thorough review of scientific research about physical activity and health. The guidelines provide information on the health benefits of physical activity with a review of the strength of the scientific evidence.

Getting Started

Older adults should always check with their physician prior to starting any exercise program. Exercise should be initiated slowly so that intensity can be built gradually. Key tips to share with older adults:

- Exercise can be done intermittently over the day.
- Walking 30 minutes each day, three days per week is a good way to start.
- Build to 45 minutes or more of intense walking 5 days per week (and burn an additional 100 to 200 calories per day).
- Build to at least 30 minutes of moderate-intensity physical activity most days of the week.
- Increase "every day" activities such as house work or lawn work, parking the car further away and walking, and generally reducing sedentary time.

Persons with poor mobility should attempt to include exercise in their routines within the limitations of their medical condition. Exercise can enhance balance and may help prevent falls in older adults (33).

Benefits of Physical Activity Include (33).

Strong Evidence for:

Lower risk of:

- Early death
- Heart disease
- Stroke
- Type 2 diabetes
- High blood pressure
- Adverse blood lipid profile
- Metabolic syndrome
- Colon and breast cancers
- Prevention of weight gain
- Weight loss when combined with diet
- Improved cardiorespiratory & muscular fitness
- Prevention of falls
- Reduced depression
- Better cognitive function (older adults)

Moderate to Strong Evidence for:

- Better functional health (older adults)
- Reduced abdominal obesity

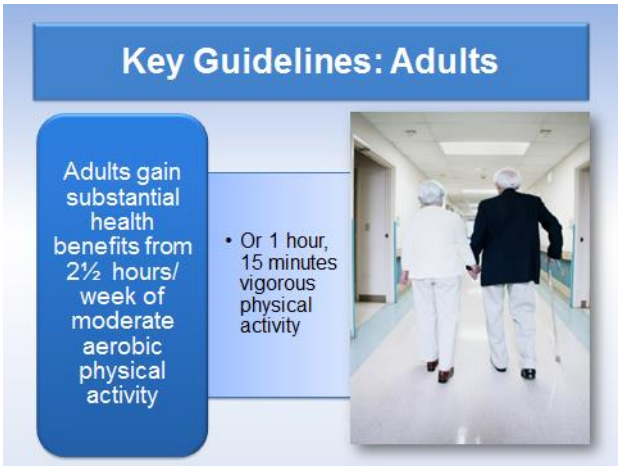
Moderate Evidence for:

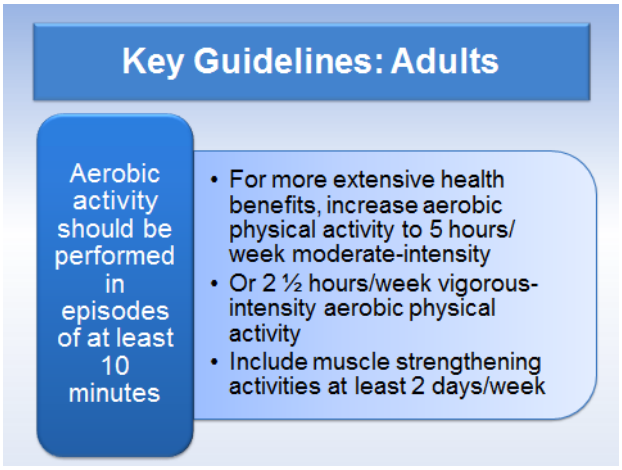
- Weight maintenance after weight loss
- Lower risk of hip fracture
- Increased bone density
- Improved sleep quality
- Lower risk of lung and endometrial cancers

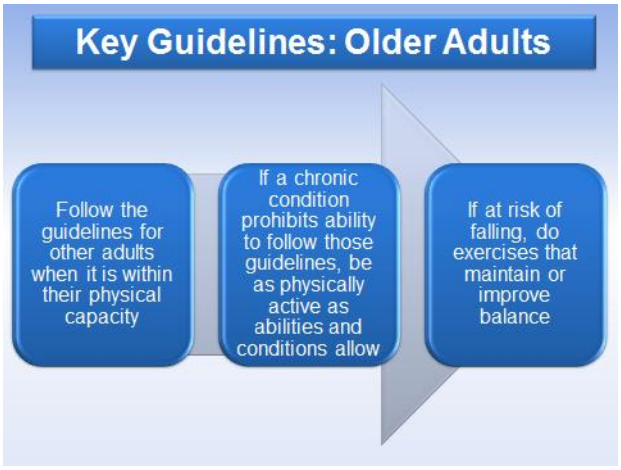
Getting Started

Older adults should always check with their physician prior to starting any exercise program. Exercise should be initiated slowly so that intensity can be built gradually. Key tips to share with older adults:

- Exercise can be done intermittently over the day.
- Walking 30 minutes each day, three days per week is a good way to start. Build to 45 minutes or more of intense walking 5 days per week (and burn an additional 100 to 200 calories per day).
- Build to at least 30 minutes of moderate-intensity physical activity most days of the week.
- Increase "every day" activities such as house work or lawn work, parking the car further away and walking, and generally reducing sedentary time.







Medications for the Treatment of Obesity

In 2011, approximately 2.74 million patients were estimated to be using obesity drugs in the US (54). Medications can be considered as an adjunct to comprehensive lifestyle interventions to help achieve targeted weight loss and health goals (22).

Medications for obesity are best suited for those who are severely obese (BMI > 40) or who have two or more significant medical comorbidities (55). Weight loss medications either suppress appetite, provide a feeling of fullness, slow gastric emptying, reduce the amount of fat that the body absorbs, or act on the part of the brain that controls hunger (56,57).

Most of these drugs have side effects, and the patient ***will still need to concentrate on creating new, healthy habits***. In patients who respond to medications, a weight loss of 2 to 20 kilograms can be expected during the first 6 months of treatment (58). According to one review of the literature, medications as an adjunct to lifestyle intervention lead to greater weight loss and an increased likelihood of maintaining 1 year weight loss (54).

Prescription drugs for weight loss should only be considered if all the lifestyle and diet changes have been tried and the individual still cannot lose weight. They may be helpful when compliance to lifestyle changes begins to waver or physical hunger becomes an issue (55). Patients should discuss the options with their doctor and consider all options carefully before deciding whether or not to use prescription medications for weight loss. Health history, medication history, and potential side effects, and cost all play a role in determining if a medication is appropriate for each individual.

Treatment with medications may be appropriate for people who are obese with increased medical risk due to their weight. Prescription weight-loss drugs are typically approved only for those with:

- A body mass index (BMI) of 30 and above.
- A BMI of 27 and above with an obesity-related condition, such as hypertension, type 2 diabetes, or dyslipidemia (abnormal amounts of fat in the blood).

Medications most often used for the treatment of obesity include appetite suppressants, anti-depressants, and/or a combination of these two types of medications. Other drugs drugs reduce the body's ability to absorb fat (lipase inhibitors). Although most side effects are mild (headache, nervousness, insomnia, constipation), serious complications have been reported, including increased blood pressure and increased heart rate. See the table on the next page for side effects.

Individuals respond differently to weight loss medications, and some experience more weight loss than others. Most people regain the weight after they stop taking the medications unless they have made lifestyle changes (59). Weight loss using medications approved for short-term use may reduce health risks such as hypertension, hypercholesterolemia, elevated triglycerides and insulin resistance (60).

Five medications, Orlistat, Naltrexone and bupropion, Phentermine and topiaramate (Qysmia), Lorcasarin (Belviq), and Lyraglutide (Saxenda), can be taken long-term for weight loss (57).

Prescription Medications for Weight Loss (Source: 21,61)

Generic Name	FDA-Approved for Weight Loss	Drug Type	Common Side Effects
Phentermine	Yes; short term (up to 12 weeks) for adults	Appetite suppressant, increases feeling of fullness	Increased blood pressure and heart rate, sleeplessness, nervousness
Diethylpropion	Yes; short term (up to 12 weeks) for adults	Appetite suppressant	Dizziness, headache, sleeplessness, nervousness
Phendimetrazine	Yes; short term (up to 12 weeks) for adults	Appetite suppressant	Sleeplessness, nervousness
Benzphetamine (Didrex)	Yes, short term (up to 12 weeks) for adults	Appetite suppressant, increases feeling of fullness	
Orlistat	Yes; long term (up to 1 year) for adults and children age 12 and older	Lipase inhibitor	Gastrointestinal issues (cramping, diarrhea, oily spotting), rare cases of severe liver injury have been reported
Naltrexone and bupropion (Contrave)	Yes, long term for adults	Appetite suppressant, increases feeling of fullness	Nausea, constipation, headache, vomiting, dizziness
Phentermine and topiaramate (Qysmia)	Yes, long term for adults	Appetite suppressant, increases feeling of fullness	Insomnia, dry mouth, dizziness, constipation, pins and needles feeling, changes in sense of taste or smell
Lorcaserin (Belviq)	Yes, long term for adults	Appetite suppressant, increases feeling of fullness	Headache, nausea, dry mouth, dizziness, fatigue, constipation
Liraglutide (Saxenda)	Yes, long-term for adults	Slows gastric emptying, increases feeling of fullness	Nausea, vomiting, pancreatitis
Bupropion	No	Depression treatment	Dry mouth, insomnia
Topiramate	No	Seizure treatment	Numbness of skin, change in taste
Zonisamide	No	Seizure treatment	Drowsiness, dry mouth, dizziness, headache, nausea
Metformin	No	Diabetes treatment	Weakness, dizziness, metallic taste, nausea

Other Medications

The following types of medications have been shown to promote short-term weight loss in clinical studies. They are not FDA-approved for the treatment of obesity. However because they promote weight loss, physicians may prescribe them off-label.

- **Drugs to treat depression.** Some antidepressant medications have been studied as appetite-suppressant medications. These medications are FDA-approved for treatment of depression, but their use in weight loss is an off-label use (21,54).
- **Drugs to treat seizures.** Medications used to treat seizures, including zonisamide, topiramate and zonisamide, have been shown to cause weight loss. These drugs are being studied to determine usefulness in treating obesity (21,54).
- **Drugs to treat diabetes.** The diabetes medication metformin may promote small amounts of weight loss in people with obesity and type 2 diabetes. Research has shown reduced hunger and food intake in people taking the drug (21,54). Two glucagon-like peptide-1 recepetor agonists are being tested for their effects on weight loss.
- **Drug combinations.** Little information is available about the safety or effectiveness of drug combinations that are not FDA-approved for weight loss. *Until more information on their safety or effectiveness is available, using combinations of medications for weight loss is not recommended, except as part of an approved research study.*

Drugs in Development. As Americans continue to search for the "magic bullet" for weight loss, medications will continue to be developed and tested as potential treatments for obesity. Liraglutide and exenatide (both glucagon-like peptide-1 recepetor agonists) are in late-phase clinical trials (54). A formulation of naltrexone and bupropion is also undergoing late-phase clinical trials (54).

Potential for Abuse or Dependence Currently, all prescription medications to treat obesity except orlistat are controlled substances, meaning physicians need to follow certain restrictions when prescribing them. Although abuse and dependence are not common with appetite-suppressant medications, physicians should be cautious when they prescribe these medications for patients with a history of alcohol or other drug abuse.

Lack of Efficacy
Weight loss medications may not work for everyone, and the effects may decrease over time (61). If prescription medications for weight loss do not appear to be having their intended effect, they should be discontinued (57).

Behavioral Changes While Using Prescription Medications
Weight-loss medications are not "magic bullets" or a one-shot fix for obesity. They should always be combined with a healthy eating plan and increased physical activity.

Over-the-Counter (OTC) Medications

Individuals should always talk to their physician before choosing to use any over-the-counter (OTC) pill or remedy for weight loss or suppressing appetite. **These drugs may have negative side effects or may interact with prescription medications to increase or decrease their effectiveness**.

In addition, many of these drugs lose their effectiveness over time. Individuals need to be sure to tell the physician if they are pregnant or nursing, currently have or have a history of any of the following: diabetes, hypertension, heart disease, hyperthyroidism, kidney disease, migraines, glaucoma, epilepsy, depression, mental illness, alcohol or drug abuse. Appetite suppressants may cause lightheadedness or drowsiness. These medications should be used only as directed and with the approval of a physician.

- **Alli** (half strength prescription Xenical), first approved by FDA in 1999, Xenical blocks about 25% of dietary fat absorption (62). Individuals on this drug should consume a low fat diet (<30% of calories from fat) to avoid side effects such as cramping, intestinal discomfort, gas, diarrhea, and leakage of oily stool. The drug should be taken within one hour of mealtime. Because it can decrease absorption of fat-soluble vitamins a daily multivitamin at bedtime is recommended (62).

- **OTC Appetite Suppressants** such as Dexatrim and Accutrim generally work by increasing serotonin or catecholamine, brain chemicals which make you feel like you are not hungry, or even make you feel full. These drugs contain phenylpropanolamine (PPA), which is known to significantly increase blood pressure and heart rate in some individuals so should not be used by those with heart disease or high blood pressure.

  These medications may only be effective for a few days, and then patients may need more to reduce appetite. Taking larger dosages can be harmful as these drugs are essentially stimulants.

Herbs and Supplements Used for Weight Loss (64-66)

Herbal supplements and remedies and over the counter (OTC) medications for weight loss are not recommended by most healthcare practitioners for effective, long term weight loss. However, the lay media and popular press often tout their benefits. OTC appetite suppressants and other herbal remedies may be addicting and can be harmful. Before taking any OTC medication or herbal substance, individuals should always talk to their physician, especially if they have a chronic medical condition, are planning to have surgery, are pregnant, considering pregnancy, nursing, or considering giving OTC or herbal products to a child.

Herbs can act the same way as drugs in the body. If not taken correctly, they can cause serious side effects or interfere with prescription medications. Herbs and supplements do not need to be proven to be safe and effective. They do not need to prove that they provide active ingredients, nor do they need FDA approval prior to marketing.

Individuals should take caution when purchasing supplements over the Internet. Marketing may be inaccurate or deceptive. Individuals should not take a higher dose of a supplement than what is listed on the label without the recommendation of a healthcare provider, and should stop taking the supplement and contact their physician if they experience any side effects.

Ineffective Over-the-Counter Weight Loss Drugs and Supplements (65,67-69)

A variety of OTC herbs, supplements, and medical foods are marketed as an effective way to lose weight, however, ***there is no scientific evidence that any of them work, and some may be harmful to health.*** The list presented may not be all-inclusive.

- Bitter orange has been promoted as a substitute for ephedra, however, it may have similar health effects such as those with ephedra. The long term effects are unknown, and this herbal supplement should be avoided.

- Ephedra (or ma huang) has a principal active ingredient, ephedrine, which powerfully stimulates the nervous system and heart. Ephedra has been used for weight loss, to increase energy, and enhance athletic performance. The FDA has found little evidence of ephedra's effectiveness, except for short-term weight loss. The increased risk of heart problems and stroke outweighs any benefits. Additional risks include psychiatric, gastrointestinal problems, hypertension, headache, kidney stones, tremors, and sleep problems. FDA banned the sale of dietary supplements containing ephedra in 2004. However, the ban does not apply to traditional Chinese herbal remedies or herbal teas. Serious side effects and health problems may occur when ephedra is combined with other dietary supplements, medicines or caffeine.

- **Hoodia** is derived from a South African plant, *Hoodia gordonii.* Historically, South Africans ate this plant to stave off hunger. However, there is no conclusive scientific evidence to support the claim that it acts as an appetite suppressant.

- **Chitosan** cannot be digested and may bind with fatty foods allowing some fat to pass through the gastrointestinal tract without being absorbed. It has not been shown to promote weight loss.

- **Chromium** has been promoted as a weight loss aid and fat burner; however there is no conclusive evidence that it has any benefit for weight loss.
- **Conjugted linoleic acid** (CLA) has claims that it reduces appetite and body fat and builds muscle. It may reduce body fat and increase muscle, but total body weight is not likely to drop. This product can cause diarrhea and other gastrointestinal side effects such as indigestion.
- **Glucomannan** is said to delay absorption of glucose in the intestines and thus contribute to weight loss. It creates a feeling of fullness by swelling on contact with liquids. It has been banned in several countries due to gastrointestinal obstruction. Diabetics should use caution in considering this compound.
- **Green coffee extract** is thought to lower body fat and help with weight loss. Early research suggests it may lead to modest weight loss. More research is needed to better determine the effects, but the Natural Medicines Comprehensive Database rates it as "possibly effective" for weight loss.
- **Green tea** has been studied to determine if it protects against or slows the growth of certain cancers, but results are mixed. Data is unreliable to determine if it has positive effects on weight loss, cholesterol lowering or protecting from skin damage. Green tea is generally safe for most adults in moderate amounts.
- **Guar gum** is a dietary fiber commonly used as a thickening agent in foods and medications. It creates a feeling of fullness by expanding 10 to 20 times its volume. Studies indicate it has no positive effect on weight loss. It may cause esophageal obstruction.
- **Herbal diuretics** used in weight loss products are commonly derived from caffeine and may interact with medications such as Lasix and Lanoxin. They do not promote weight loss because they do not provide a large water loss effect.
- **Raspberry ketones** are thought to Increase fat metabolism. Insufficient data exists to evaluate its effectiveness.

Caution: Individuals should always talk to their doctors about the herbs, pills, powders or supplements they plan to take ***before*** taking them. Drug-drug (including interactions with prescription medications) or food-drug interactions are common.
Reliable information on herbs and supplements is available online for consumers from:

- The National Center for Complementary and Integrative Medicine at https://nccih.nih.gov/health/atoz.htm
- MedlinePlus Medical Encyclopedia at http://www.nlm.nih.gov/medlineplus/druginfo/herb_All.html
- National Institutes of Health Office of Dietary Supplements at http://ods.od.nih.gov/

New FDA-Approved Device for Weight Loss (70,71)

In the past six months new non-surgical options to treat obesity have been approved by the Food and Drug Administration (FDA). In January, 2015 the FDA approved the **Maestro Rechargeable System**, the first weight loss treatment device that targets the nerve pathway between the brain and the stomach that controls feelings of hunger and fullness. The System is approved to treat patients aged 18 and older who have not been able to lose weight with a weight loss program, and who have a body mass index of 35 to 45 with at least one other obesity-related condition, such as type 2 diabetes.

The Maestro Rechargeable System consists of a rechargeable electrical pulse generator, wire leads and electrodes implanted surgically into the abdomen. It works by sending intermittent electrical pulses to the trunks in the abdominal vagus nerve, which is involved in regulating stomach emptying and signaling to the brain that the stomach feels empty or full. Although it is known that the electric stimulation blocks nerve activity between the brain and the stomach, the specific mechanisms for weight loss due to use of the device are unknown.

Serious adverse events reported in the clinical study included nausea, pain at the neuroregulator site, vomiting, as well as surgical complications. Other adverse events included pain, heartburn, problems swallowing, belching, mild nausea and chest pain. The Maestro Rechargeable System is manufactured by EnteroMedics (http://www.enteromedics.com/).

In July, 2015, the FDA approved the **ReShape Integrated Dual Balloon System (ReShape Dual Balloon**, a temporary, implanted balloon device to treat obesity. The device is limited to patients with a BMI of 30 to 40 kg/m2 and have one or more obesity-related conditions such as high blood pressure, high cholesterol, and diabetes. It is intended for patients who have failed previous attempts at weight loss through diet and exercise alone.

The ReShape Dual Balloon device is delivered into the stomach via the mouth through an outpatient endoscopic procedure. Once in place, the balloon device is inflated with a sterile solution, which takes up room in the stomach. The System (ReShape Dual Balloon) likely works by occupying space in the stomach, which may trigger feelings of fullness, or by other mechanisms that are not yet understood.

The device does not change or alter the stomach's natural anatomy. Patients are advised to follow a medically supervised diet and exercise plan to augment their weight loss efforts while using the ReShape Dual Balloon and to maintain their weight loss following its removal. It is meant to be temporary and should be removed six months after it is inserted.

Potential side effects for the procedure include headache, muscle pain, and nausea from the sedation and procedure; in rare cases, severe allergic reaction, heart attack, esophageal tear, infection, and breathing difficulties can occur.

Once the device is placed in the stomach, patients may experience vomiting, nausea, abdominal pain, gastric ulcers, and feelings of indigestion.

Surgical Treatment of Obesity (72-75)

Bariatric surgery may be an option for some individuals who are suffering from complications of extreme obesity. For long term success of bariatric surgery, an integrated program must be in place to provide guidance on diet, physical activity, behavioral, and social support both before and after the surgery.

Studies suggest that bariatric surgery may have a favorable impact on morbidity (coronary artery disease, diabetes, and cancer) and mortality outcomes in severely obese individuals (73). There are no guarantees for any method, including surgery, to produce and maintain weight loss. Success is possible only with maximum cooperation and lifetime commitment to behavioral change and medical follow-up. As with other treatments for obesity, the best results are achieved with healthy eating behaviors and regular physical activity. Successful patients can expect to lose more than 50% of their body weight within the first two years after surgery (73), and keep most of it off for up to 10 years (73) if they follow the appropriate diet and physical activity guidelines.

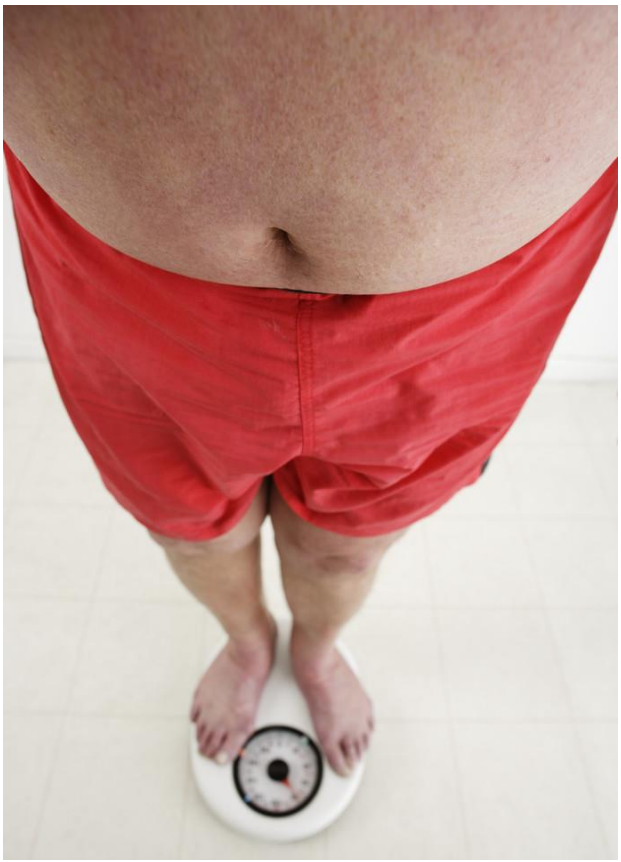
Candidates for surgery may include those with (73,74):

- A body mass index (BMI) of 40 or more A BMI between 35 and 39.9 coupled with a serious obesity-related health problem such as type 2 diabetes, high blood pressure, or severe sleep apnea.
- Failure of nonsurgical weight loss.
- Absence of medical contraindications.
- An understanding of the operation and the lifestyle changes needed after surgery, and the ability to participate in life-long treatment and follow up.

Surgery to produce weight loss is serious. Any patient considering bariatric surgery should understand what it involves. The most likely candidates for bariatric surgery are:

1. Unlikely to lose weight or keep weight off long-term with nonsurgical measures.
2. Well informed about the surgical procedure and the effects of treatment.
3. Determined to lose weight and improve their health.
4. Aware of how life may change after the operation (adjustment to the side effects of the operation, including the need to chew food well and inability to eat large meals).
5. Aware of the potential for serious complications, dietary restrictions, and occasional failures.
6. Committed to lifelong medical follow-up and vitamin/mineral supplementation.

How Surgery Promotes Weight Loss



Normally, as food moves through the digestive tract, digestive juices and enzymes digest and absorb calories and nutrients. The stomach can hold about 3 pints of food at one time. When the stomach contents move to the duodenum, the first segment of the small intestine, bile and pancreatic juice speed up digestion. Most of the iron and calcium in foods is absorbed in the duodenum.

The jejunum and ileum, the remaining two segments of the nearly 20 feet of small intestine, complete the absorption of almost all calories and nutrients. The food particles that cannot be digested in the small intestine are stored in the large intestine until they are eliminated.

Bariatric surgery alters the digestive process through one of three types of gastrointestinal surgeries: restrictive, malabsorptive, and combined restrictive/malabsorptive (73,75). Most weight loss surgeries also cause hormonal changes.

1. Restrictive operations limit food intake by creating a narrow passage from the upper part of the stomach into the larger lower part, reducing the amount of food the stomach can hold and slowing the passage of food through the stomach. These procedures don't interfere with the normal process of digestion.
2. Malabsorptive operations do not limit food intake, but instead prevent food from being absorbed from the gastrointestinal tract.
3. Combined operations use stomach restriction and a partial bypass of the small intestine.

Surgical Options (72,73,75)

Four types of operations are commonly offered in the U.S.: adjustable gastric band (AGB), Roux-en-Y gastric bypass (RYGB), vertical sleeve gastrectomy (VSG) and biliopancreatic diversion with a duodenal switch (BPD-DS). Each has its own benefits and risks. To select the option that is best for the individual, the physician will consider the operation's benefits and risks along with many other factors, including BMI, eating behaviors, obesity-related health conditions, and previous surgeries. See Figure 1 on the next page for a graphic depiction of each procedure.

1. **Adjustable Gastric Band (AGB)**
   AGB works primarily by decreasing food intake. Food intake is limited by placing a small bracelet-like band around the top of the stomach to produce a small pouch about the size of a thumb above the band. The outlet size is controlled by a circular balloon inside the band that can be inflated or deflated with saline solution to meet the needs of the patient.

2. **Roux-en-Y Gastric Bypass (RYGB)**
   RYGB works by restricting food intake *and* by decreasing the absorption of food. Food intake is limited by a small pouch that is similar in size to the adjustable gastric band. In addition, absorption of food in the digestive tract is reduced by excluding most of the stomach, duodenum, and upper intestine from contact with food by routing food directly from the pouch into the small intestine. The rerouting of the food produces changes in gut hormones that promote satiety, suppress hunger, and affects the primary mechanisms by which obesity induces type 2 diabetes (75).

3. **Laparoscopic Sleeve Gastrectomy**
   The sleeve gastrectomy is performed by removing approximately 80 percent of the stomach. The remaining stomach is a tubular pouch that resembles a banana (75).

A sleeve gastrectomy operation restricts food intake and does not lead to decreased absorption of food. However, most of the stomach is removed, which may decrease production of a hormone called ghrelin. A decreased amount of ghrelin may reduce hunger more than other purely restrictive types of operations such as gastric band.

4. **Biliopancreatic Diversion with a Duodenal Switch (BPD-DS)**
   BPD-DS also referred to as a "duodenal switch," is a complex bariatric operation that principally includes 1) removing a large portion of the stomach to promote smaller meal sizes, 2) re-routing of food away from much of the small intestine to partially prevent absorption of food, and 3) re-routing of bile and other digestive juices, impairing digestion. It also affects the gut hormones to impact satiety, hunger, and blood sugar control (75).

   - By removing a large portion of the stomach, a more tubular "gastric sleeve", also known as a vertical sleeve gastrectomy (VSG) is created. The smaller stomach sleeve remains connected to a very short segment of the duodenum, which is then directly connected to a lower part of the small intestine. This operation leaves a small portion of the duodenum available for food and the absorption of some vitamins and minerals.

While very effective, this surgery has more risks, including malnutrition and vitamin deficiencies, and more complications than other gastric surgeries (74,75).

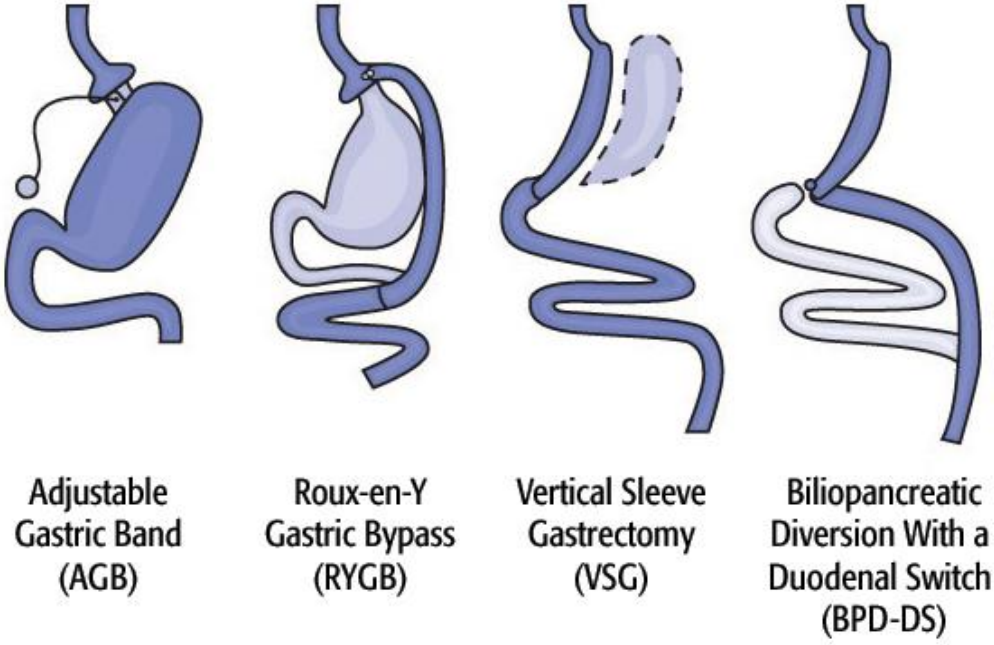


Figure 1: Diagram of Surgical Options. Image credit: Walter Pories, M.D. FACS.

Source for image: Bariatric Surgery for Severe Obesity. US Department of Health and Human Services, National Institutes of Health. NIH Publication No. 08–4006. March 2009. Updated June, 2011. http://win.niddk.nih.gov/publications/gastric.htm (72).

Expected Weight Loss

Patients undergoing bariatric surgical procedures can expect to lose significant amounts of excess weight. Based on the type of surgery, expected weight loss is as follows:

- **Adjustable Gastric Banding**
  Loss of 40% of excess body weight 2 years post-surgery, 28% of excess body weight 10 years post-surgery (73).

- **Roux-en-Y Gastric Bypass**
  Loss of 64% of excess body weight 2 years post-surgery and 50% of excess body weight 10 years post-surgery (73).
- **Sleeve Gastroplasty**
  Loss of 60% of body weight 2 years post-surgery. No data is available for 10 years post-surgery (73).
- **Biliopancreatic Diversion with Duodenal Switch**
  Loss of 60-70% of excess weight at 5 year follow-up (75).

Potential Complications (72,74,75)

Early complications of bariatric surgery can include bleeding, infection, and leaks from the site where the intestines are sewn together. Blood clots in the legs can progress to the heart and lungs and cause pulmonary embolisms. Malnutrition may occur after surgery, especially in patients who do not take prescribed vitamins and minerals. In some cases, if the malnutrition is not addressed promptly, diseases such as pellagra, beri beri, and kwashiorkor may occur along with permanent damage to the nervous system.

Other late complications include strictures (narrowing of the sites where the intestine is joined) and hernias. Two kinds of hernias may occur after a patient has bariatric surgery. An incisional hernia is a weakness that sticks out from the abdominal wall's fascia (connective tissue) and may cause a blockage in the bowel. An internal hernia occurs when the small bowel is displaced into pockets in the lining of the abdomen. These pockets are created when the intestines are sewn together. Internal hernias are considered more dangerous than incisional ones and need prompt attention to avoid serious complications.

Some patients who undergo bariatric surgery have unsuccessful outcomes or regain much of the weight that they lost. Behaviors such as frequent snacking on high-calorie foods or lack of exercise can contribute to inadequate weight loss. Permanent changes in diet and exercise habits are necessary to achieve success. Surgical complications such as a stretched pouch or separated stitches, may also contribute to inadequate weight loss. Some patients may also require emotional support to help them through the postoperative changes in body image and personal relationships.

Potential Benefits

Surgeries for weight loss are considered bariatric and metabolic surgeries because in addition to weight loss, they influence metabolic processes and morbidity and mortality outcomes (74). Bariatric surgery has been shown to result in remission of diabetes, hypertension, hyperlipidemia, sleep apnea, and GERD in many patients (73,74). In addition, surgeries have been shown to reduce mortality from coronary heart disease, diabetes, and cancer (73). Health affects vary depending on the type of surgery.

Open and Laparoscopic Bariatric Surgery

Bariatric surgery may be performed through "open" approaches, in which the surgeon makes abdominal incisions in the traditional manner, or by laparoscopy. With the laparoscopic approach, sophisticated instruments are inserted through 1/2-inch incisions and guided by a small camera that sends images to a television monitor.

Most bariatric surgery today is performed laparoscopically because it requires a smaller cut, creates less tissue damage, leads to earlier discharges from the hospital, and has fewer complications, especially postoperative hernias. However, not all patients are suitable for laparoscopy. Patients who are extremely obese, who have had previous abdominal surgery or have complicating medical problems may require the open approach.

Medical Costs

Bariatric procedures, on average, cost from $10,000 to $30,000. Medical insurance coverage varies by state and insurance provider. Bariatric surgery may be covered by Medicare if it is medically appropriate and meets certain conditions (76).

Diet Progression After Bariatric Surgery

After bariatric surgery, careful diet progression is extremely important. The goal of progression is to (73):

- Avoid adverse effects, such as nausea, vomiting, or dumping syndrome.
- Maximize weight loss and nutrient absorption.
- Maintain hydration.
- Initiate and continue behaviors that are needed for long-term weight maintenance.

Diet progression will vary depending on the type of surgery and patient's tolerance. A wide variety of diet protocols exist (73) so individuals should follow the protocols provided by their bariatric surgery center.

There is no evidence to support specific protocols of post-weight loss surgery diet stages, so facilities may develop their own protocols or use those from another facility (77). However, in general there are several phases to the postoperative diet as are outlined in the table on the next page. (Review the table ***Suggested Diet Progression After Gastric Bypass Surgery*** for details.)

Additional Guidelines (73,74)

- Throughout all phases of the diet, foods should be taken in small amounts, eaten slowly, and chewed thoroughly. A meal should be eaten over a period of 30 minutes and patients should be instructed to stop eating when feeling full.
- Fluids should be avoided 30 minutes before or after meals and be consumed continually between meals. It should take 30 to 60 minutes to drink one cup of fluid. Patients should be instructed to sip on fluids throughout the day, with a goal of 48 to 64 ounces of fluids total per day.
- Liquids or solids that are high in sugar should be avoided, including carbonated beverages, high-calorie nutritional supplements, and milkshakes.
- Alcohol and high-fat foods (including fried foods) should be completely avoided.
- New foods should be introduced gradually to assess tolerance. If a food is not tolerated, try it again in a week or two. If it is still not tolerated, patients should avoid the problematic food. Foods that may be difficult to tolerate include: meat, raw vegetables, rice, pasta, bread, milk, carbonated beverages, and foods that are dry, sticky or stringy, because they may have difficulty passing through the opening in the stomach and cause blockages.
- Patients should focus on high protein foods before consuming fats and carbohydrates. Lean meats, poultry and fish are all good choices. Beans may be added as tolerated. Most people will need to gradually build up to appropriate number of grams of protein each day. If meat and/or dairy are not tolerated, a high protein, low calorie protein supplement will be needed
- Vitamin and/or mineral supplements should be taken daily as prescribed by physician and/or registered dietitian nutritionist (RDN).

Suggested Diet Progression After Gastric Bypass Surgery

Phase of Diet	Typical Time of Progression Following Surgery	Volume of Food Recommended	Foods Allowed	Additional Tips
Phase 1: Clear Liquid	1-2 days	48-64 ounces total per day	Water, broth, bouillon, sugar free gelatin, herbal teas, clear protein drinks, sugar-free sports drinks, sugar free, decaffeinated tea or coffee, and popsicles.	Avoid juice, carbonated beverages drinks that contain sugar. Take small sips, 1 to 1.5 ounces every 15 minutes.
Phase 2: Liquid Protein	2-14 days	500 to 800 calories and 60-80 grams protein per day. 48-64 ounces fluid per day.	Any allowed clear liquids, low-sugar, low-fat protein drinks, skim milk, low-sugar soy milk. blended and strained soups like lentil, bean, or split pea, sugar-free, fat-free yogurt or Greek yogurt with no chunks, thinned with milk.	Six small meals per day of 8 ounces protein drink or 2-4 ounces of blended, strained soups. Sip drinks slowly, starting with around 1-2 ounces per hour.
Phase 3: Blended/ Pureed Diet	15-29 days	No more than ¼ cup food at a time. Protein, calories, and fluids as prescribed by the RDN.	All allowed food in phases 1 and 2. Include a variety of foods such as soft scrambled eggs, canned chicken or tuna, mashed with a fork; mashed dried beans and peas, mashed or blended vegetables, canned fruit, blended, low-fat yogurt or cottage cheese.	Patients may be able to consume only a couple of tablespoons at a time.
Phase 4: Soft foods	30-44 days	½ to ¾ cup food Protein, calories, and fluids as prescribed by the RDN.	All foods allowed in phases 1, 2, and 3. Chopped moist meats, poultry, fish, or vegetarian meat alternates; low-fat soft cheeses, cooked vegetables without skin, seeds, or strings, canned fruit.	Food should be chopped to the size of a pea. Avoid fibrous foods, seeds, and peels. Avoid gummy starches such as pasta and untoasted bread.
Healthy Solid Food Diet (Low sugar, low-fat, high protein)	Maintain for a lifetime when cleared by medical providers	Follow guidelines for portions as recommended by the RDN. Protein, calories, and fluids as prescribed by the RDN.	Avoid high-sugar foods and high-fat foods. Aim for a balanced diet, adding fresh fruits and vegetables, whole grain bread, cereals, and rice as tolerated.	Eat 3-6 times per day.

Sources: 73,74,77

Returning to a More Normal Diet

After 2-4 months, patients may be able to return to a more normal diet made up of healthy solid foods (See table titled *Suggested Diet Progression After Gastric Bypass Surgery*). Diet will depend on what the individual can tolerate while still losing weight, and/or maintaining weight loss.

Long Term Nutritional Concerns

Long term nutritional concerns include protein deficiency and vitamin/mineral deficiencies, especially iron, folate, vitamin B12, thiamin and calcium (73). A daily multivitamin with minerals which provides 100% of RDAs is not enough to meet nutrient needs after bariatric surgery. Additional supplementation is necessary to prevent deficiencies. Suggestions may include:

- Multivitamin with iron twice a day (liquid or chewable).
- Calcium twice a day (liquid or chewable).
- If needed, based on individual assessment, vitamin B12 daily or by monthly injection (79).

Complications and Risks

Post-operative concerns include nausea, vomiting, diarrhea, dehydration, blockage at the opening of the stomach pouch, constipation and dumping syndrome which usually occurs following intake of high-sugar foods (80). Symptoms of dumping syndrome include nausea, vomiting, dizziness, sweating and diarrhea. Dumping syndrome may occur if the patient eats or drinks foods or fluids which are high in sugars or fats. These foods tend to travel through the stomach quickly into the intestine causing sudden nausea, cramps, diarrhea, lightheadedness and flushing.

A blocked opening to the stomach pouch may occur even if the patient does everything correctly. The patient should contact their physician right away if they experience nausea, vomiting and abdominal pain for more than two days.

Other postsurgical complications may include dehydration, nausea, vomiting and constipation. Patients can avoid dehydration by sipping 48 to 64 ounces of water or other non-caloric fluids throughout the day. No fluids should be consumed with meals. Nausea and vomiting can be avoided by eating small amounts, slowly and chewing food adequately. The individual can avoid constipation by consuming adequate fiber, fluid and participating in adequate physical activity.

Weight gain or failure to lose weight may be a concern for patients who do not carefully follow diet and physically activity recommendations. The RDN should assess the number of calories being consumed each day, review food/fluid intake records, and make recommendations for diet changes to the individual.

The Obesity Challenge: Weight Management for Adults and Older Adults

The Weight Management Program

Implementing a Structured Weight Management Program in a Long Term Care Setting

The following sample guidelines, policies, procedures and forms were originally developed for use in long term care facilities. This information should be used to serve as a guideline for setting up and implementing a structured weight management program and can be altered to meet the needs of individual health care facilities.

When implementing a structured weight management program, a registered dietitian nutritionist (RDN) is a critical part of the interdisciplinary team. If a RDN is not employed full-time by a facility, he/she should be available as needed to plan and implement the program and can delegate tasks within scope of practice to other health care professionals such as the nutrition and dietetic technician registered (NDTR). Daily group physical activity and regular access to counseling and support for behavioral changes should be available to participants to increase their chances of success.

Healthcare facilities should check state licensure regulations for detailed information related to specialty care units, and other state regulations that may identify specific changes needed to implement these sample guidelines. It is important to remember that residents in long term care facilities do have the right to refuse treatment, including diet prescriptions, even if they are in a structured weight management program and have signed a contract.

Careful attention must be paid to diet orders. In long term care facilities, regulations related to physician ordered therapeutic diet orders must be followed, and must meet the state and federal nursing home regulations.

Centers for Medicare and Medicaid Services and/or Joint Commission regulations must be followed when implementing a structured weight management program.

Guidelines on Accepting Candidates for the Weight Management Program

Policy:
All potential candidates will be screened to determine appropriateness for admission into the structured weight management program.

Procedures:
1. The Interdisciplinary Team (IDT) will screen potential candidates for appropriateness of admission into the weight management program.

2. Pre-admission screening will include obtaining information on height and weight. Height and weight is used to determine BMI. If the BMI level is >30 the individual is considered a potential candidate for the structured weight management program.

3. Potential candidates for the structured weight management program will be referred to the IDT and will be contacted in person or by phone to provide information about the structured weight management program using the Sample ***Pre-admission Information and Weight Management Program Review for Healthcare Settings.***

   Note for healthcare facilities: If this is a new admission, staff will use the sample ***Pre-admission Information and Program Review for Long Term Care Facilities Form*** to review all pertinent pre-admission information with the individual candidate. The sample ***Pre-admission Information and Program Review for Long Term Care Facilities Form*** provides all of the information an individual needs to understand about admission into the facility, as well as information on the structured Weight Management Program. If not appropriate for the structured weight management program, the person may still participate in some aspects of Weight Management Program as a resident of the facility.

4. Interested candidates will undergo a screening process which will determine whether the person is appropriate to enroll in the structured weight management program.

Sample Pre-admission Information and Weight Management Program Review for Healthcare Settings

(Healthcare Facility/Organization Name, Address, Phone Number)

The Weight Management Program

- The Weight Management Program at _____ is a structured program. The purpose of the Weight Management Program is to provide the necessary care and services to empower individuals with obesity and medical complications related to weight to realize improvements in the quality of their life. This program provides physical assistance, rehabilitation, motivation, support and hope. The end result may be a return to independent living and the ability to be an active person with a healthy lifestyle.

- A minimum of 6 months participation is recommended for success in the program.

- Physical activity and therapy, if needed, are the number one priority with a goal of improved strength and mobility. An individual evaluation and treatment plan is established for each person. Services include: Physical Therapy, Occupational Therapy and Restorative Services. Participation in the skilled therapy program or restorative program should be 5 days per week or as coverage allows by payor source. Progress takes hard work and dedication. Participation at less than 5 days each week will minimize progress. Physical activity at the maximum level of physical ability should occur daily. Participation in group physical activity is expected.

- Group meetings are held ___ days a week, at _____(time). The groups provide an education format for diversified topics of interest including dealing with moods, emotions, exercise, diet, food planning and exploring new and different food choices. All discussions will help develop habits/skills to build a healthy lifestyle. The groups also offer a monthly recognition of successes with weight loss awards. Informational handouts are provided weekly to each participant, including the schedule of classes, motivational messages, the menu for the week, and an educational handout and/or social media contacts that will be followed in a group or individual counseling session each week. Attendance at group meetings or individual counseling sessions is expected _____ times per week.

- The doctor and registered dietitian nutritionist (RDN) work together to plan an appropriate diet for each individual. The eating plan will be a healthy, balanced diet with an appropriate calorie content for each individual. Consultation and education through groups with the RDN or designee will provide support and information on a regular basis. A plan will be developed with target weight loss established per week and/or month. It is the expectation that participants in the structured weight management program will consistently attempt to adhere to the diet prescription. Adherence to the diet prescription will help assure successful weight loss.

- Each individual should have goals and expectations that are realistic and can be actively pursued. The goals may include a level of physical independence to be achieved, a weight to be obtained, a time frame that may be utilized to maximize improvement, or a level of learning that will enable continued progress and/or maintenance following discharge. A Care Plan will be established to monitor goals and progress.

- Individuals will receive physical assistance with hands on care needs – activities of daily living (ADLs) as needed, such as grooming, bathing, toileting/and personal hygiene, dressing, transferring, and ambulating. Need for physical assistance with ADLs is a requirement of admission.

- Social media interactions and other forms of technology (podcasts, documentaries, etc.) may be used, as appropriate, as forms of motivation, communication, and education but a computer or smart phone is not required to participate.

- Weight will be measured and documented every 1 to 4 weeks as determined by the individual. Waist circumference will be measured and documented every 4 weeks.

-

Sample Pre-admission Information and Weight Management Program Review for Healthcare Settings (Continued) (Healthcare Facility/Organization Name, Address, Phone Number)

- Mental Health Services are available with counseling, psychological and psychiatric consultation for those with issues such as depression, low self-esteem, compulsive disorders, anxiety disorders, etc.

I have reviewed and discussed this information with my healthcare professional to my satisfaction.

_____ _____
Signature Date

_____ _____
Signature of Healthcare Setting Representative Date

Note: Your healthcare setting and/or insurance provider will also need to provide information on payment.

The Obesity Challenge: Weight Management for Adults and Older Adults

Guidelines for Admissions into the Structured Weight Management Program

Policy:

Healthcare professionals will utilize screening tools to determine which individuals will be admitted to participate in the structured weight management program. Individuals who do not qualify for admission into the structured weight management program (including those who are unable or unwilling to attend group meetings) may be permitted to participate in some components of the weight management program.

Procedures:

1. Inclusion into the structured Weight Management Program will be based on an interdisciplinary team (IDT) screening that determines:
    a. Whether the individual has a weight issue that prohibits them from normal activity.
    b. Whether the individual voices a desire to make improvements in strength, mobility and weight.

2. Individuals that will NOT be accepted into the program include the following::
    a. Prader Willie Syndrome
    b. *****Renal dialysis patients.
    c. *****Ventilator dependent individuals.
    d. Bed bound individuals who are unable to participate in a structured physical therapy exercise and/or mobility program (these individuals will be provided with standard facility care).
    e. Those who lack willingness to participate in the structured program.
    f. Individuals on enteral feedings.
    g. Individuals on total parenteral (TPN) or peripheral parenteral nutrition (PPN).
    h. Individuals that are NPO (nothing by mouth).
    i. Individuals that are pregnant or lactating.

3. Screening for participation will include a structured screen by the following disciplines:
    a. Registered dietitian nutritionist or nutrition and dietetic technician registered (RDN/NDTR)
    b. Physical therapy (PT), occupational therapy (OT) rehabilitation
    c. Social services (to include Mental Health Status Screening)
    d. Nursing

4. The IDT will meet to review the results of the screening process and determine an individual's appropriateness for admission into the structured weight management program.

*****Exceptions may be made to include these individuals if the screening indicates ability to participate in the structured weight management program will not be impeded by the severity of the person's physical condition. Exceptions must be approved by the physician.

Note: See ***Screening Tool for Admission into the Weight Management Program***

5. Individuals who are not qualified for admission to the structured weight management program may be able to participate in some aspects of the program if desired.

6. Upon individual request, or physician or interdisciplinary team (IDT) referral, an individual who is not in the structured weight management program may participate in any of the following aspects of the program:
    a. Access to the weekly newsletter and handouts from the group meetings.
    b. Permission to follow a diet to help improve health and promote weight loss as recommended by the registered dietitian nutritionist (RDN) with approval and order from physician.
    c. Individual counseling and/or services from any IDT member. This may require approval from physician, Medicare/Medicaid, private insurance, or private payor source.
    d. Physical therapy services for additional activity recommendations (e.g. exercises that may be done in bed). This may require approval from physician, Medicare/Medicaid, private insurance, or private pay or source.

e. Weight tracking weekly or monthly.
f. Group physical activity programs
g. Participation in social media events
h. Waist circumference measurements monthly.

7. All services will be documented following regular procedures.

Note: There may be a fee for these services. Individuals must be informed in advance of any such fees.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Screening Tool for Admission into the Weight Management Program

Name_____**Date**_____

Measurements Date:_____ Height:_____ Weight:_____ BMI:_____

Waist Circumference: _____inches (***Men*** >40 inches, ***Women*** >35 inches have greater risk of diabetes, dyslipidemia, HTN, cardio-vascular disease)

Obesity Classification:

	BMI and Obesity Class		Disease Risk Waist Circumference <40"M/35"F	Disease Risk Waist Circumference >40"M/35"F
	18.5-24.9 Normal weight			
	25-29.9 Overweight		Increased Risk	High Risk
	30-34.9 Obesity (Class 1)		High Risk	Very High Risk
	35-39.9 Obesity (Class 2)		Very High Risk	Very High Risk
	>40 Extreme Obesity (Class 3)		Extremely High Risk	Extremely High Risk

Disease Risk Assessment

High Absolute Risk:

- ☐ Established coronary heart disease (History of MI, angina, coronary artery surgery or procedures:_____) or presence of other atherosclerotic diseases (peripheral arterial disease, abdominal aortic aneurysm, symptomatic carotid artery disease)
- ☐ Type 2 diabetes
- ☐ Sleep apnea

Increased Risk:

- ☐ Gynecological abnormalities (amenorrhea, menorrhagia)
- ☐ Osteoarthritis
- ☐ Gallstones and their complications
- ☐ Stress incontinence:

  _____
- ☐ C-V Disease risk factors: __Smoker __Obese __Diabetes __Hypertension __Hyperlipidemia __Physical Inactivity
- ☐ Hypertension—systolic ≥140 or diastolic ≥90
- ☐ Cigarette smoking
- ☐ High LDL cholesterol ≥160mg/dL
- ☐ Low HDL <40mg/dL
- ☐ Impaired fasting glucose (110 to 126mg/dL)
- ☐ Family history of premature CHD (MI or sudden death; male ≥45 or female ≥55)

Other Pertinent Diagnoses:

- ☐ Bariatric surgery pre-op
- ☐ Bariatric surgery post-op
- ☐ Morbidly obese who need to lose weight for health improvement
- ☐ Compromised respiratory status
- ☐ Other:

- ☐ **Physical therapy screen (attached)**

- ☐ **Mental health screen (attached)** Psychiatric diagnosis

≥3 of these = High Absolute Risk

Sample Screening Tool for Admission into the Weight Management Program

Participation Readiness

Do you want to lose weight? Yes / No **Are you ready to lose weight?** Yes / No

Do you think you are ready to begin a weight management program? Yes/No

Why or why not?

Do you understand the risks and benefits of losing weight? Yes /No

- **Risks:** Financial commitment to the program, Time commitment, lifelong changes in eating habits and level of physical activity.
- **Benefits:** Weight loss may help reduce risk of chronic disease, and for those who already have the disease, weight loss may help to control those diseases that tend to be worsened by obesity.
  - Blood Pressure: Weight loss is recommended to lower elevated blood pressure in overweight and obese persons with high blood pressure.
  - Serum/Plasma Lipids: Weight loss is recommended to lower elevated levels of total cholesterol, LDL-cholesterol, and triglycerides, and to raise low levels of HDL-cholesterol in overweight and obese persons with dyslipidemia.
  - Blood Glucose: Weight loss is recommended to lower elevated blood glucose levels in overweight and obese persons with type 2 diabetes.

- **Benefits**: Weight loss may help improve quality of life by
  - Increasing ability to ambulate independently
  - Increasing ability to perform routine activities of daily living
  - Decreasing pressure on joints, resulting in decreased pain (if applicable)
  - Providing a sense of achievement and accomplishment

What are your reasons for wanting to lose weight?
Comments (list reasons for wanting to lose weight):

History of Weight Loss

Please note your history of weight loss attempts, what was attempted, amount of weight lost, amount of weight regained (include dates if possible):

Sample Screening Tool for Admission into the Weight Management Program

Support

Support of family, friends, co-workers (helpful or not helpful)—describe characteristics of relationships:

Helpful:	Not helpful:

Attitude and Obstacles

What is your attitude about making a lifelong commitment to behavior change?

What obstacles may interfere with your ability to implement the suggestions for change (financial constraints, time limitations, ability to adapt to change)?

Review the *Weight Management Service Contract.*

Are you willing to accept the conditions for participation as outlined in the contract?

Yes / No

Sample Screening Tool for Admission into the Weight Management Program

IDT Team Meeting to Determine Admission to the Structured Weight Management Program: Admit to Program? Yes / No

Reasons:

- ☐ Meets ***Guidelines for Admission into Structured Weight Management Program***
- ☐ Participant is willing to follow guidelines and sign contract
- ☐ Other:

- ☐ Did *NOT* meet criteria in ***Guidelines for Admission into Structured Weight Management Program***

- ☐ Participant *NOT* willing to follow guidelines and sign contract
- ☐ Other:

Target Goals:

- ☐ 10% loss of body weight over 6 months at a rate of 1-2 pounds per week Weight maintenance achieved through combined changes in diet, physical activity and behavior
- ☐ PT 5 times a week or as permitted by payor source
- ☐ Attend classes or counseling sessions _____ times a week
- ☐ Participate in physical activity sessions or physical therapy ____times a week
- ☐ Other:

Signature_____ Date_____

Sample Weight Management Service Contract

(Healthcare Organization Name, Address, Phone Number)

Weight Management Service Contract for _____

I understand that the structured Weight Management Program will provide me with education and support to make improvements in my health, strength, and tolerance for physical activity, to think and make appropriate choices with my eating plan, to better cope with daily stresses, and to establish goals that I wish to accomplish. I understand that there are expectations of compliance with the program that will allow me to have success. I understand that I have a right to make lifestyle choices, but that inappropriate choices can be considered a barrier to success in the program. I understand that repeated poor choices and/or lack of participation could potentially result in my discharge from the structured Weight Management Program.

To work toward these goals I WILL:

1. Maintain daily participation in my therapeutic program for Physical Activity as determined by the Rehabilitation Department. This participation will be detailed and periodically adjusted as my abilities change. My therapeutic program will include any combination of: Physical Therapy, Occupational Therapy, Restorative Services, group exercise, daily physical activity outside of my room and increased independence with Activities of Daily Living as determined by the Interdisciplinary Care Team (IDT).

2. I will participate in group meetings a minimum of 5 times a week, with active participation. Meetings are offered two times a day and last approximately 30 minutes each. In the event that I am physically unable to attend due to documented illness, I will engage in reading and understanding other educational materials each week and social media contacts, and food and activity tracking methods provided by the registered dietitian nutritionist (RDN).

3. I will seek to engage those individuals that are supportive and who will not undermine my program. I will engage in diversional activity daily, also building skills that will support me in the future. I will inform my family and visitors of any limitations in items that they bring to me.

4. I will maintain the diet ordered by my physician. If I have questions about the quality, safety, adequacy, or effectiveness of my eating pattern, I will discuss them with the RDN, who is the nutrition expert in the facility. I understand that it is my right to eat whatever I choose, but that eating and drinking foods that are not on my eating plan will decrease my success with weight loss. I understand that I am building skills and habits that will assist me to maintain healthy eating for the rest of my life. I will keep my food and activity log each week as instructed.

5. I will have my weight taken and recorded every 1 to 4 weeks, with a goal of consistent weight loss on average, of approximately 1 to 2 pounds per week. I will have my waist circumference measured and recorded once per month.

6. I will participate in team meetings to review my Weight Management Services Goals, when scheduled. I will actively participate with establishing the goals that I am working toward.

   For Healthcare Facilities: My Weight Management Services Plan of Care will outline my care plan and goals (including physical therapy, nutrition, attendance at meetings, etc.). I understand that I am the key to my success and responsible for my actions within the program.

7. I will participate with mental health services that are appropriate, as determined through evaluation by professionals involved with the program. Services may include: psychiatric, psychological, and pastoral counseling.

8. I will participate in a plan for my future, with successful graduation from the program as my goal.

Signature_____**Date**_____

Witness _____

Allowing Participants to Stay in the Structured Weight Management Program

Policy:

Participants on the structured weight management program must follow the guidelines for active participation and compliance to remain on the program.

Procedures:

1. The interdisciplinary team (IDT) will monitor participants to assure that they meet the guidelines for compliance in order to remain on the structured weight management program.

2. The following are the general guidelines for a participant to remain on the structured Weight Management Program.
    a. Attendance at classes:
        i. Participants must attend a minimum of 5 meetings per week (with the exception of documented illness) or absence for medical appointments.
        ii. A list of classes to be offered will be published in the weekly newsletter provided to each participant (for healthcare facilities: posted in conspicuous places throughout the facility, and announced over the intercom system 15 minutes and 10 minutes prior to the beginning of the class).
        iii. Classes will be published through social media and emails to participants
        iv. Any participant unable to attend the group meetings will be provided informational materials.

    b. Participation in individual counseling sessions as recommended by facility interdisciplinary team (IDT): social services (SS), registered dietitian nutritionist (RDN), nutrition and dietetic technician, registered (NDTR), physical therapist (PT), occupational therapist (OT) psychologist, psychiatrist, etc. Counseling should include lifestyle intervention and behavior management.

    c. Nutrition Programs:
        i. Attend nutrition classes weekly.
        ii. Participate in individual nutrition counseling sessions as recommended by IDT.
        iii. Follow diet as ordered. Note: Some difficulty adhering to dietary changes is expected. Also see ***Guidelines on Poor Adherence to the Structured Weight Management Program***
        iv. Record food intake and participation in physical activity as instructed by RDN
        v. RDN and IDT will evaluate progress towards goals and ability to adhere to diet as prescribed to determine continuation in the program. Weight loss goals of 1 to 2 pounds per week are expected.
        vi. When applicable, participate in social media (Facebook, Twitter, etc) aspects of the nutrition program and/or track food intake and physical activity using electronic trackers, smart phone apps, or computer programs.

    d. Physical activity, restorative and/or therapy programs:
        i. Active participation in physical activity programs, restorative therapy, or skilled therapy (OT, PT, SLP) 5 times a week (or as appropriate) as ordered by medical staff; with consistent progress.
        ii. Goals will be adjusted as needed by professional staff based on progress towards goals.
        iii. Daily independent activity and/or group physical activity: Records will need to show daily activity targeted and completed.

    e. Nursing:
        i. Obtain and document weights t every 1 to 4 weeks.
        ii. Obtain and document waist circumference every month.

3. If a participant stops making reasonable and timely progress on their goals, the IDT will determine if the individual needs to be discharged from the program.

4. Poor participation and/or difficulty adhering to plan of care will be tracked and documented for the IDT's use.
5. IDT meetings will determine individual's ability to continue to participate in with all aspects of program.
6. An IDT meeting will be held to determine whether a participant needs to be discharged from the structured Weight Management Program.

Refer to Guidelines on *How to Address Guidelines on Adhering to Nutrition Guidelines in the Weight Management Program*

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Meeting Attendance Form

Meeting Attendance for (Participant Name) _____

Date	AM	PM	Class Topic	Comments

The Obesity Challenge: Weight Management for Adults and Older Adults

Guidelines for Following the Structured Nutrition Program

Policy:

Participants on the structured Weight Management Program will follow the diet ordered by the physician. Access to vending machines and outside sources of food will be limited and monitored to help assure success.

Procedures:

The registered dietitian nutritionist (RDN) and/or nutrition and dietetic technician, registered (NDTR) will complete a nutrition assessment on each individual participating in the weight management program. This assessment will include calculations for nutritional needs (calories, protein, fluids).

1. The RDN/NDTR will recommend a nutrition care plan for each participant based on clinical needs and weight loss goals, with input from the individual participant. A physician's order is required for the diet. Food likes and dislikes will be kept on file in the food service and/or nutrition department.

2. The participant will be provided with the diet as ordered by the physician.

3. For the first 2 weeks of the structured Weight Management Program, a non-select diet is recommended. The menu for the diet/eating plan is followed as written with the exception of substituting foods of equal nutritional value for any food dislikes, intolerances, allergies, cultural or religious preferences.

4. After the first 2 weeks on the structured Weight Management Program, the participant is taught how to select from a limited menu of choices which fit into the diet/eating plan ordered.

5. Some difficulty adhering to the diet/eating is plan expected because changing habits can be difficult. The RDN and interdisciplinary team (IDT) will evaluate an individual's progress towards goals to determine continuation in the program, balancing the individual's right to make choices with their commitment to the nutrition care plan.

6. The interdisciplinary team (IDT) will communicate with the RDN and/or NDTR if participants on the structured weight management program choose food and snacks that are not recommended as part of their plan of care.

For Healthcare Facilities
Guidelines for Vending Machine Purchases

1. Participants on the structured weight management program can purchase some foods from the vending machines as long as they fit into the diet/eating plan ordered.

2. The IDT will determine when a participant is ready for the privilege of purchasing food from the vending machines.

3. Participants will be educated on making healthy choices from the vending machines.

4. Participants will be assisted in making choices from the vending machines for the first few times, and also requested.

5. Vending machine foods will include a limited number of choices and all will be considered healthy food alternatives (Each vending food choice will be less than 150 calories per serving, low to moderate fat, and no trans-fats). Beverage offerings will be primarily calorie free choices (i.e. sugar free beverages or water).

6. Vending machines will be located only in the _____ (area). Participants will be encouraged to walk a distance to get a snack from the vending machines.

Participants abusing vending machine privileges will be reevaluated by the IDT to determine progress towards goals and ability to remain in the program.

Guidelines for Take Out/Delivered Food

1. The IDT will determine when a participant in the weight management program is ready for the privilege of ordering take out/delivered food.

2. Participants will be educated on healthy choices for take out/delivered food. This may include a menu from a local restaurant which is marked to indicate which items will fit into their eating plan.

3. Participants will be assisted in making menu choices for the first few times, and also as requested.

4. Participants abusing take out/delivered food privileges will be re-evaluated by the IDT to determine progress towards goals and ability to remain in the program.

Guidelines for Friends and Families Bringing Foods to Participants

1. The IDT will determine when a weight management program participant is ready for the privilege of having others bringing food to them.

2. Participants will be educated on healthy choices for foods that may be brought into the facility.

3. Participants will be assisted in sharing this information with families and others if needed.

4. Participants abusing this privilege will be re-evaluated by the IDT to determine progress towards goals and ability to remain in the program.

Note: Facility food safety guidelines will be followed**.**

Guidelines on How to Address Poor Adherence to the Structured Weight Management Program

Policy:

Participants on the structured weight management program must follow their individualized care plan to remain on the program. Although the interdisciplinary team (IDT) must respect an individual's right to make choices, participation in this program requires maintenance of healthy lifestyle choices. The IDT must address issues with adherence to care plan as they identify/observe inappropriate behaviors or poor participation.

Procedures:

1. Review medical records, reports, etc. to assess difficulty adhering to the nutrition care plan, such as requesting extra food, excessive snacking, or eating food that is not provided by diet order. Discuss the individual's behavior with the IDT.

2. When the IDT identifies problem behaviors, the appropriate professional (nursing staff, registered dietitian nutritionist, social services, physical therapist or other appropriately trained staff) will talk to the participant about the choices they are making and how can improve the decisions they make regarding food choices.

3. The IDT will discuss the potential results and negative consequences of the inappropriate behavior with the participant.

4. Document the problem identified on the ***Education Tracking Form***.

5. Issues with the individual's ability to adhere to the care plan will be discussed weekly by the IDT to determine individual counseling and educational needs. The appropriate professional will provide follow up with the participant and document appropriately.

6. If adherence to the care plan continues to be a problem, the IDT will determine the need for discharge from the structured Weight Management Program.

Note for Healthcare Facilities: If it is determined that a participant needs to be discharged from the structured weight management program ***and the facility***, the facility will need to give a 30 day notice of discharge and provide support service suggestions.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Education Tracking Form: Difficulty Adhering to Plan of Care

Name_____

Date	Problem Identified	Education Provided	Materials Provided	Referral to (PT, RD, SS)	Participant Understanding (G/F/P)	Signature & Date

IDT Review (From _____ to _____ dates)

Attendance at Weekly Meetings (min. 5 times/week):	**Diet Acceptance:**
Physical Activity/PT Participation:	**Other:**

Refer to IDT Team Notes and Care Plan for details.

Signatures/Dates of IDT Members

The Obesity Challenge: Weight Management for Adults and Older Adults

Guidelines for Interdisciplinary Team Involvement for the Structured Weight Management Program

Policy:
The structured weight management program is an interdisciplinary program that includes healthcare professionals trained to address the special needs of the weight management program participants.

The roles of each team member are defined below.

1. **Medical Director**
    a. Medical management of the individual participants.
    b. Approves the overall structured weight management program.
    c. Directs care for each l participant with orders appropriate to each person's clinical needs.
    d. Completes all clinical assessments, progress updates, and other documentation as required.
    e. Performs individual physician services as needed for participants.
    f. Addresses issues with adherence to care plan as needed.

2. **Social Services (if applicable)**
    a. Performs individual counseling and referral as needed for participants.
    b. Addresses issues with adherence to care plan as needed.

3. **Corporate Dietitian/Director of Nutrition Services and/or Registered Dietitian Nutritionist (RDN)**
    a. Approves nutritional aspects of the structured weight management program.
    b. Acts as a resource for facility staff.
    c. Serves as director of the structured weight management program.
    d. Coordinates leaders and topics for all classes.
    e. Coordinates weekly informational newsletter, and/or educational materials, and social media contacts.

4. **Registered Dietitian Nutritionist (RDN)**
    a. Coordinates and/or completes all nutrition screening, clinical assessments, care plans, progress updates, MDS and other documentation as required.
    b. Implements all aspects of nutritional care for the participants.
    c. Conducts nutrition classes weekly or as assigned.
    d. Coordinates social media and any technology interactions.
    e. Performs nutrition and lifestyle management counseling as needed for each participant.
    f. Addresses issues with adherence to care plan as needed.
    g. Plans and/or supervises written menus.
    h. Serves as nutrition expert and contact person for all questions or concerns about safety, efficacy, and effectiveness of the eating pattern used in the program.

5. **Nutrition and Dietetic Technician Registered (NDTR) /CDM if employed by facility**
    a. Performs duties as assigned by registered dietitian nutritionist

6. **Director of Rehabilitation/Therapy**
    a. Directs and/or implements all aspects of rehabilitative therapy care and physical activity programs for the participants.
    b. Supervises all rehabilitation staff involved in the structured weight management program.

7. **Physical Therapist (PT)**
    a. Implements all aspects of physical therapy care for the participants.
    b. Completes all screening, clinical assessments, care plans, progress updates, MDS, and other documentation as required.
    c. Performs individual services as needed for participants.
    d. May be responsible for determining each individual participant's physical activity plan.
    e. Addresses issues with adherence to care plan as needed.

8. **Physical Therapy Assistant (PTA) and Restorative Therapy**
    a. Performs duties as assigned by Director of Rehabilitation/Therapy and/or physical therapist.

b. May be responsible for implementing and monitoring physical activity plans for individuals on the program.
c. May be responsible for taking and documenting weights and waist circumference measurements and walk-to-dine or other restorative programs.

9. Occupational Therapist (OT) as applicable
a. Implements all aspects of occupational therapy care for the participants.
b. Completes all screening, clinical assessments, care plans, progress updates, MDS and other documentation as required.
c. Performs individual services as needed for participants.
d. Addresses issues with adherence to POC as needed.

10. Occupational Therapist Assistant (OTA) as applicable
a. Performs duties as assigned by occupational therapist and/or Director of Therapies.

11. Nursing Staff
a. Implements all aspects of nursing care for the participants.
b. Completes all screening, clinical assessments, care plans, progress updates, MDS and other documentation as required.
c. Performs individual counseling as needed for participants in the structured Weight Management Program.
d. Addresses issues with adherence to care plan as needed.

12. Food Service Director (FSD) as applicable
a. Oversees food service to assure that all diets are provided as ordered.
b. Performs duties as assigned by registered dietitian nutritionist.

13. Activity Director as applicable
a. Implements all aspects of recreational activity for the participants.
b. Completes all screening, clinical assessments, care plans, progress updates, MDS and other documentation as required.
c. Performs individual services as needed for participants.
d. Oversees and/or conducts group activity classes for participants.
e. Addresses issues with adherence to care plan as needed.

14. Activity Staff as applicable
a. Performs duties as assigned by Activity Director.
b. Addresses issues with adherence to care plan as needed.

15. Administrator as applicable
a. Oversees the administration of the business aspects of the program.

Nutrition Counseling Program (Group and Individual) for the Structured Weight Management Program

Policy:

Participants in the structured weight management program will be required to attend group classes. Participants will receive individualized nutrition counseling as needed, and as determined by the registered dietitian nutritionist (RDN) or as referred by the interdisciplinary team (IDT).

Group Meetings

1. Classes will be offered on specific topics as determined by the Director of the program. Attendance is mandatory 5 times per week for weekly nutrition nuggets and lifestyle lessons classes or individual counseling.
2. The RDN conducts at least one nutrition class each week, plus individual counseling sessions as needed. Social media may be used between classes to motivate and educate participants. Technology such as live-streaming and downloading and/or viewing audio and/or video may be used, as practical and applicable. The RDN may assign participants to view nutrition videos, documentaries, and/or podcasts between group activities. Smart phone apps and/or computer programs that track food intake and exercise can be used to help participants measure their progress.
3. The director of the program or designee conducts a lifestyle lessons class or individual counseling sessions a minimum of 3 times a week.
4. Rehabilitation/ and/or restorative therapy staff conduct a physical activity class once a week and/or participants go to Physical Therapy ____ times a week.
5. Activity staff conduct group exercises daily, including sit-er-cise, low-intensity exercise videos, walking classes, and/or video games that incorporate physical activity such as Wii-Fit or recreational video games such as bowling.
6. Additional classes or individual counseling sessions may include (but are not limited to):
    a. Relaxation
    b. Recipe class to discuss special diet recipes, convert recipes to lower calories/fat/sodium; taste new and different foods once a week (fresh vegetables, fruits, salads, etc.).
    c. Hobbies/interests/trivia conducted by the activities director, staff or designee.
    d. Healthy living classes.
    e. Stress management classes.

Individual Nutrition Counseling

1. Individual nutrition counseling will be provided on an as needed basis. This may include, but is not limited to:
    a. Upon request.
    b. Upon referral from nursing, physician or other IDT member.
    c. If weight loss has slowed or stopped (weight loss goal is1 to 2 pounds per week).
    d. If the individual is having difficulty making appropriate food choices, or choosing from the select menu.
    e. If the person needs individualized, one-on-one education.
    f. A new medical condition that warrants the need for individualized nutrition counseling.

2. The RDN will determine the number of individual counseling sessions needed based on outcomes and progress toward goals.

Additional Individual Counseling Services

1. Other disciplines will be available to provide individual counseling sessions as needed.
2. This may include PT, OT, psychologist, psychiatrist, social services and additional services

How to Obtain Accurate Heights

Accurate Heights (81)
All individuals should have height measured upon admission and yearly thereafter. To obtain an accurate height, the following methods may be used:

Standing Height

- To obtain an accurate height, measure the individual without shoes, standing as erect as possible.
- If using the measuring bar on the scale, it should be placed flat on the head.
- Read the measurement on the bar and record immediately.

If using a yardstick
- Have the individual stand against a wall, as erect as possible.
- Place the yardstick parallel to the floor, on top of the individual's head.
- Mark the wall at the top of the individual's head, using the yardstick as a guide.
- Measure from the floor to the mark (where the top of the individual's head was).
- Read the measurement and record immediately.

How to Obtain a Reclining Height

- If unable to stand, lay the individual as flat as possible on their back with body and legs extended as straight as possible. Mark the bed at the top of the head and at the heel. Move the individual, and using a tape measure, measure between the marks for the estimated height.

Alternate method (arm span measurement)
- Arm span measurement is approximately the same as height.
- The individual should lie flat, with one arm extended in a 90 degree angle to the torso.
- With arm and hand extended straight out, use a tape measure to measure from the middle of the sternum to the tip of the middle finger.
- Double this number for an approximate height in inches.
- Document this as an approximate height.

Unable to Obtain Accurate Height Measurements

For those who are unable or unwilling to be measured, an estimate of height should be made.

- Ask the family what the individual's normal height was.
- Document that the family provided the height and the reason it was not possible to obtain an accurate height on the individual.

How to Obtain Accurate Weights

How to Obtain Accurate Weights (81)

- Balance the scale back to 0 before and after weighing each time.
- Do NOT move scales from place to place.
- Record weight immediately after weighing each individual.
- Weigh each individual at the same time each month, and record the weight using the documentation system provided by the facility.
- Individuals should be weighed at approximately the same time of day each time.
- Individuals should be weighed in light clothing, without shoes, prior to breakfast, after voiding, and without extra weight (such as a full or partially full catheter bag, canes, leg braces, etc). Prosthetic devices (including braces) should be removed prior to weighing or weigh the prosthetic device by itself and subtract its weight from the individual's total weight.
- Nursing must document any casts, or appliances such as splints, etc.
- Scales should be calibrated on a regular schedule every 3 months.

Standing Scale Weights

- Position the individual standing with feet in the center of the scale (must be able to stand without assistance).
- When the scale is balanced and has stopped its movement, record the weight.
- If an individual is unable to stand still and balance on the scale independently, a wheelchair, chair scale or bed scale should be used.
- Balance the scale back to 0 before and after weighing each time.

Chair Scale Weights

- Position the individual in the center of the chair, with their back resting on the back of chair.
- When the scale is balanced and has stopped its movement, record the weight.
- Balance the scale back to 0 before and after weighing each time.

Wheel Chair Scale Weights

- Be sure the chair is free of extra weight (i.e. side bags, catheter bags, cushions, etc.
- Roll the wheel chair onto the wheel chair scale platform. Center the wheel chair on the scale.
- Weigh the wheel chair and record the total weight of the wheel chair and the individual.
- Remove the individual from the wheel chair. Weigh the wheel chair by itself.
- Carefully subtract the weight of the wheel chair and record the individual's actual weight.
- Balance the scale back to 0 before and after weighing each time.

Bed Scale Weights and Lift Scale Weights

1. Follow manufacturer's directions for proper operation of bed scales and lift scales.
2. For lift scales, use the lift scale sling to lift the individual for weighing.
3. The individual should be positioned comfortably in the scale sling.
4. Raise the sling slowly until it is fully suspended and still.
5. Read and record weight immediately.
6. Lower the person back onto the bed slowly and gently.
7. Balance the scale back to 0 before and after weighing each time.

Obtaining Measurements for Unweighable Individuals

1. For individuals who are unable or unwilling to be weighed, measurements can be taken and tracked for changes.
2. Measure the abdomen, mid-arm, thigh and calf at least monthly, or more often if needed.
3. Measure abdominal girth at the widest point. Measure upper arm, calf and thigh at the midpoint.
4. Tape measure should be taut, but not tight. Measurement variations of >1/4" difference from the previous measurement should be remeasured for accuracy.
5. The registered dietitian nutritionist /nutrition and dietetic technician registered (RDN/NDTR) should review these measurements monthly and assess the need for changes in medical nutrition therapy.

***Note:** Follow the manufacturer's instructions for proper use of equipment. Refer to facility policies regarding transfers.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Height, Weight and Waist Circumference Chart

Participant: _____ Admission Height: _____ Admission Weight: _____ Admission Waist Circ:_____

Usual Body Weight/Range: _____ Target Weight Goal (Range): _____

Year: _____

Weekly Weights:

Date	BMI	Waist Circ	Week 1	Week 2	Week 3	Week 4	Week 5
January							
February							
March							
April							
May							
June							

How/Where to Measure Waist Circumference:
Measure at the smallest area of the waist (Individual should be standing)

Weight Graph

Date	Jan	Feb	Mar	Apr	May	June

Waist Circumference Graph

Date	Jan	Feb	Mar	Apr	May	June

Note: If an individual must be measured when sitting, encourage the individual to sit up as straight as possible and measure waist at smallest point.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Height, Weight and Waist Circumference Chart

Participant: _____ Admission Height: _____ Admission Weight: _____ Admission Waist Circ:_____

Usual Body Weight/Range: _____ Target Weight Goal (Range): _____

Year: _____

Weekly Weights:

Date	BMI	Waist Circ	Week 1	Week 2	Week 3	Week 4	Week 5
July							
August							
September							
October							
November							
December							

How/Where to Measure Waist Circumference: Measure at the smallest area of the waist (Individual should be standing)

Weight Graph

Date	Jul	Aug	Sep	Oct	Nov	Dec

Waist Circumference Graph

Date	Jul	Aug	Sep	Oct	Nov	Dec

Note: If an individual must be measured when sitting, encourage the individual to sit up as straight as possible and measure waist at smallest point.

Body Mass Index

Individuals should be assessed for indicators of nutrition status and decline using body mass index (BMI) as one of many factors. BMI is a measure of body fat based on height and weight. It applies to both men and women.

The BMI is often utilized as an indicator of weight status and health. It is based on a weight for height measurement. BMI is only one of many factors that are used to indicate disease risk. A healthful range for BMI is 18.5 to 24.9. BMI thresholds for overweight and obese are overly restrictive for older people (6,7). In people over 60 years of age, a BMI of 25 to 27 is within the healthful range (8). See page 14 for more information. Lower BMI is associated with declining functional status, increased mortality, and risk for poor nutritional status (82) in older adults. The reliability of the use of BMI in older adults has been questioned because of concerns related to changes in height and body composition in this population (82).

It is important to provide appropriate nutritional interventions for individuals with low or unplanned declining BMI or BMI over 30 (as appropriate and desired).

Classification of Overweight and Obesity by BMI		
	Obesity Class	**BMI (kg/m)**
Underweight		<18.5
Normal		18.5 to 24.9
Overweight		25.0 to 29.9
Obesity	**I**	30.0 to 34.9
Obesity	**II**	35.0 to 39.9
Extreme Obesity	**III**	≥40

(Reference: 83)

BMI is determined utilizing the following formula:

BMI = weight (lbs)/height (inches squared) X 703

OR

BMI = weight (kg)/height (meters squared)

(Meters squared=Current weight in kilograms divided by the square of the height in meters)

(Reference: 83)

The charts on the following pages make it easy to calculate BMI without using the formula.

Body Mass Index (BMI) Table

To use the table, find the appropriate height in the left-hand column labeled Height. Move across to a given weight. The number at the tip of the column is the BMI at that height and weight. Pounds have been rounded off.

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

Source: National Heart, Lung, and Blood Institute. http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.htm. (83)

Note: A BMI calculator can be accessed at http://www.cdc.gov/healthyweight/assessing/bmi/index.html.

Body Mass Index (BMI) Table

To use the table, find the appropriate height in the left-hand column labeled Height. Move across to a given weight. The number at the tip of the column is the BMI at that height and weight. Pounds have been rounded off.

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

Source: National Heart, Lung, and Blood Institute. http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.htm. (83)

Note: A BMI calculator can be accessed at http://www.cdc.gov/healthyweight/assessing/bmi/index.html.

Eating Pattern and Menus for the Structured Weight Management Program

Policy:

Participants on the structured Weight Management Program will follow an eating pattern as determined by nutrition assessment, consultation with participant, and physician order. The registered dietitian nutritionist (RDN) serves as the nutrition expert for each participant. Questions about the quality, safety, efficacy, and effectiveness of the eating pattern should be referred to the facility RDN or nutrition and dietetic technician registered (NDTR).

Procedure:

1. Each participant admitted into the program, will be assessed by the RDN to determine nutritional needs and recommend an eating plan.

2. The eating plans offered are based on a healthy eating pattern, and adjusted to allow for flexibility in calories and other nutrients and allow for individual choice. Eating patterns may be adjusted for carbohydrate-controlled diets and other therapeutic alterations based on individual needs.

3. Calorie needs should be estimated using indirect calorimetry (if available) or the Mifflin St. Jeor equation. Calories should be reduced and/or physical activity increased to result in a calorie deficit of 500-750 calories per day (23).

4. A physician's order for the diet/eating pattern is required to be filed in the medical record. Food and beverage likes and dislikes should be kept on file in the dietary department.

   There are many evidence-based options available for weight loss. Successful weight loss depends on using an eating pattern that an individual is comfortable with and that provides a calorie deficit to support weight loss.

   #### Method 1: Energy deficit of 500 to 750 calories per day using a combination of reduced intake and increased physical activity.

   A 24 hour recall of foods consumed or a 3-5 day food intake study can provide an estimate of initial calorie intake. Individual habits and preferences will help determine changes that will add up to a reduction in calories and an increase in physical activity. This allows the individual to continue on a familiar eating pattern, while making changes they can live with. Minimum calories per day should be 1200 to 1500 for women and 1500 to 1800 for men (23).

   #### Method 2: Structured Meal Plans/Portion Control/Meal Replacements

   Some individuals require a very structured eating pattern for success. For these individuals, the registered dietitian nutritionist (RDN) should recommend portion control and meal replacements or structured meal plans as part of a comprehensive weight management program. Strong evidence documents a positive relationship between portion size and body weight and research reports that the use of various types of meal replacements or structured meal plans was helpful in achieving health and food behavior change (23). Meal replacements may help with portion control and help remove temptation.

   #### Method 3: Therapeutic Diet Based on Individual Health Needs

   Some individuals will need a diet that can accommodate other health needs such as hypertension, hyperlipidemia, diabetes or other medical conditions. For these participants, the diet must incorporate these therapeutic alterations as well as a reduction in overall calories to promote safe, effective weight loss.

   #### Method 4: Very Low Calorie Diets

   Very low calorie diets (VLCD) may be used in limited circumstances and must be medically supervised (22). These diets are a drastic reduction in normal caloric consumption and may be as low as 800 calories daily. Individuals on VLCD must be closely supervised by the RDN, physician and IDT to avoid

potentially dangerous complications such as dizziness and electrolyte imbalances, In some individuals, these diets may be appropriate (severe medical conditions for which rapid weight loss may have positive effects.

Note: Refer to facility diet/nutrition care manual for diet guidelines. A sample Eating Plan can be found in the Educational Materials section of this publication and on pages 9-10 (USDA Eating Patterns and DASH).

Guidelines on Addressing the Individual's Rights Related to Food and Activity When Participating in the Structured Weight Management Program

Policy:

Individuals who are admitted into the structured weight management program agree to abide by the guidelines of the program. This includes adherence to structured physical activity programs and eating patterns ordered by the physician.

Procedure:

1. Prior to admission, potential participants for the structured Weight Management Program will receive (both verbally and in writing), the ***Pre-admission Information and Program Review***, which outlines all aspects of services provided at the facility, financial responsibilities, general services and basic information on the program.

2. Potential participants will be screened to determine whether they are appropriate for admission into the program. (See ***Screening Tool for Admission into the Weight Management Program***).

3. If an individual is accepted for admission into the structured weight management program, they will be asked to sign the ***Weight Management Service Contract*** to acknowledge that they will fully participate in the program. This includes following a physician-ordered diet, having weights taken and recorded, attending classes a minimum of 5 times a week, following a structured physical activity program, etc.

   Note for healthcare facilities: Signature on the contract indicates that the resident understands that adherence to the plan of care is expected and that exhibiting his/her right to make choices outside the guidelines of the program could result in discharge from the program.

4. Participants will be encouraged to make diet and lifestyle choices that fit into the structured weight management program. Repeated behavior that results in lack of progress towards weight and health goals will be addressed by the IDT.

5. Staff will follow:
   - ***Guidelines on the Rules for Allowing Participants to Stay in the Structured Weight Management Program.***
   - ***Guidelines on Poor Adherence for the Weight Management Program.***
   - ***Guidelines on How to Address Poor Adherence to the Structured Weight Management Program.***
   - ***Guidelines for Interdisciplinary Team Involvement.***
   - ***Other Related Policies and Procedures*** (all found earlier in this section).

Guidelines for Discharge Planning for Weight Management Participants

Policy:
The individual will be discharged from the structured weight management program when goals are met or when the individual or staff determine that the program is no longer effective or necessary.

Procedure:
1. The interdisciplinary team (IDT) will establish the discharge plan for all individuals in the program..

2. Discharge planning will be initiated upon admission to the program.

3. The IDT will meet to review and discuss the discharge plan.

4. The IDT will complete the ***Interdisciplinary Discharge Planning Assessment for the Weight Management Program*** form and begin planning for any needed arrangements, referrals, or services prior to the final discharge date. Referrals and services may include (but are not limited to):
   -Weight Watchers
   -Overeater's Anonymous
   -Home health agency and Meals on Wheels if over 65 years of age and home bound

5. The participant will take an active role in the discharge plan. The IDT will discuss with the participant the potential for discharge and the plan to work toward the discharge goal.

6. All arrangements and confirmation of the plan will be documented by the IDT members.

7. The Weight Management Program Director will implement the discharge plan as directed by the physician.

For Healthcare Facilities:
Sample Interdisciplinary Discharge Planning Assessment
for the Structured Weight Management Program

Individual _____ **Admission Date** _____

Admitted From _____

Current Medical Needs _____

_____

_____

_____

Expected length of stay for Weight Management care

Less than 3 months____ 3-6 months____ Long term_____

Rationale _____

_____

_____

Prior living arrangement (include where, with whom, and if the arrangement is still available)_____

_____

_____

What are the individual's discharge goals and plans? _____

_____

_____

_____

_____

Are services, transportation, or additional equipment needed prior to discharge?

_____

_____

_____

_____

_____

Is a referral needed? _____

_____

Reason for discharge from the structured Weight Management Program

_____

_____

_____

_____

_____

What is the estimated rehabilitation potential?

Improvement____ Maintenance____ Prevent Deterioration____ None (explain)

_____

_____

Any special concerns or needs prior to discharge? _____

_____

_____

_____

Individual's understanding of discharge _____

_____

_____

IDT Discharge Summary _____

_____

_____

_____

_____

_____

Discharge date _____

Signature **Date**

The Obesity Challenge: Weight Management for Adults and Older Adults

The Structured Weight Management Program Staff Inservice

Objectives:
Participants will understand the goals of the structured weight management program:

1. To promote safe and successful weight loss.
2. To educate individuals on healthy eating choices and behaviors.
3. To support and promote lifestyle changes to achieve successful weight loss.
4. To provide the tools and resources to maintain healthy eating habits and lifestyle changes for optimal health status and weight management.

Audience:
Interdisciplinary Staff

Time Required:
30-60 Minutes

Handouts:
The structured weight management program, inservice handouts, an abbreviated version of Policies and Procedures (handouts follow this inservice outline).

Outline:

I. Obesity versus Overweight

A. Prevalence and identification of overweight and obesity
B. Statistics
C. Assessment of obesity

II. The Structured Weight Management Program

A. Participation requirements
B. Screening, acceptance, contract for participation, and rules of participation

III. Policies and Procedures

A. Review of Policies and Procedures
- Guidelines for acceptance
- Alternate arrangements for individuals not qualified for structured Weight Management Program
- Compliance to the program
- Adherence to plan of care Addressing poor adherence
- Team involvement
- Counseling program
- Individual's rights (Resident's Rights or Patient's Bill of Rights)
- Discharge plans

Note for Healthcare Facilities: Also cover vending, take-out and delivery, and food brought in by loved ones

IV. The Eating Plan

A. Brief review of the eating plan

V. Nursing's Role

A. Standards of care
B. Implementation of nursing care for the structured weight management program
C. Documentation
D. Adherence and education
- Adherence/Education Tracking Form

The Structured Weight Management Program Inservice Handouts

Guidelines on Accepting Participants for the Structured Weight Management Program

- All potential participants will receive pre-admission information to determine appropriateness for admission to the program.
- Once the participant voices interest in the program, screening will determine whether to admit the participant. If individuals are not appropriate for the structured weight management program, they may still be able to receive long term weight management care. This will be determined by the IDT as appropriate.
- Individuals that will NOT be accepted into the program: Prader Willie Syndrome, *****renal dialysis patients, *****ventilator dependant individuals; bed bound individuals who are unable to participate in a structured physical therapy (PT), exercise and/or mobility program; those who lack willingness to participate in the structured program. (*Exceptions may be made to include these individuals if approved by the physician.)
- Accepted participants are required to sign a contract stating that they are willing to maintain full participation in the program (physical activity or therapy, structured diet, attend classes, participate in group activity and other supportive services as needed/recommended, have weight taken/recorded, participate in care planning and discharge planning).

Alternate Arrangements for Participants Not Qualified to Participate in the Structured Weight Management Program

Individuals who do not qualify for admission into the structured weight management program (including those who are unable to leave their bed or room to attend group meetings) will be permitted to participate in some components of the weight management program:

- Access to the weekly newsletter and handouts from the group meetings.
- Permission to follow a low calorie diet as approved by the physician.
- Individual counseling from any IDT member (may require physician approval, Medicare/Medicaid, private insurance, or private pay).
- PT for additional activity recommendations. This may require approval from physician, Medicare/Medicaid, private insurance, or private pay.
- Weight tracking weekly/monthly; waist circumference measurements monthly.

Participation in the Structured Weight Management Program

Participants on the structured weight management program must follow guidelines to remain on the program. Staff will monitor to assure that participants meet the guidelines.

- General guidelines for a participant to remain on the structured Weight Management Program:
    - Attend a minimum of 5 meetings/week (with the exception of documented illness).
    - Offered classes will be published in the weekly newsletter, posted, and announced 15 minutes and 10 minutes prior to class (as applicable).
    - Attend nutrition classes weekly; participate in individual nutrition counseling sessions.
    - Participate in social media/technology-driven aspects of the program.
    - Adhere to eating pattern/diet as ordered.
      Note: Some difficulty adhering to diet is expected. Registered dietitian nutritionist (RDN) and/or interdisciplinary team (IDT) will evaluate progress towards goals to determine continuation in the program. Weight loss of 1 to 2 pounds per week is expected.
    - Therapies: Active participation with therapies as ordered with consistent progress.
    - Daily independent or group physical activity.
- If a participant stops making reasonable and timely progress on their goals, the IDT will determine if they need to be discontinued from the program.
- Participation will be tracked and documented for the IDT's to determine continuance on program.
- If a participant requests to be discharged from the program, the IDT will complete a discharge summary.

Guidelines for Adhering to the Structured Weight Management Program

Participants in the structured Weight Management Program will follow the physician-ordered diet.

- RDN/NDTR will calculate nutritional needs and recommend a diet/eating plan for each individual with input from the individual. The physician will order the diet/eating plan deemed most appropriate.
- The participant will be provided with the diet/eating plan as ordered.
  Note to Healthcare Facilities: The kitchen will follow the menu for the eating plan with the exception of substituting foods of equal nutritional value for any food dislikes, intolerances, allergies, or cultural/religious preferences.
- The participant will be taught how to select from a limited menu of choices which fit into the diet/eating plan ordered.
- Some difficulty adhering to the diet/eating plan is expected. The RDN and/or IDT will evaluate compliance to diet versus progress towards goals to determine continuation in program.

Guidelines for Vending Machine Purchases

- Participants will be allowed to purchase some foods from the vending machines as long as they fit into the diet/eating plan ordered. The IDT will determine when a participant needs this information.
- Participants will be educated on healthy choices. Vending machine foods chosen will be healthy food alternatives (<150 calories per serving, low to moderate fat, no trans-fats). Beverage offerings will be primarily calorie free.

Notes for Healthcare Facilities:

- Participants will be assisted to choose from the vending machines for the first few times, and also as requested. Vending machines will be located only in the _____ (area). Individuals will be encouraged to walk a distance in order to get a snack from the vending machines.
- Participants abusing the vending machine privileges will be reevaluated by the IDT to determine progress towards goals and ability to remain in the program.

Guidelines for Restaurant Dining, Take Out/Delivered Food

- The IDT will determine when a participant is ready for this privilege.
- Participants will be educated on healthy choices.

Note to Healthcare Facilities: Participants will be assisted to choose their orders for the first few times, and as requested.

- Participants abusing the take out/delivered food privileges will be reevaluated by the IDT to determine progress towards goals and ability to remain in the program.

Guidelines for Families and Others Bringing Foods to Participants (for Home Bound or Healthcare Facility Participants)

- The IDT will determine when a participant is ready for this privilege.
- Participants will be educated on healthy choices for foods that may be brought to the participant; and assisted in sharing this information with families and others if needed.
- Participants abusing this privilege will be will be reevaluated by the IDT to determine progress towards goals and ability to remain in the program.

Adherence to the Structured Weight Management Program

Participants in the structured Weight Management Program must follow the guidelines as outlined to remain on the program. Healthcare professionals must immediately address inappropriate behaviors or food choices:

- Talk to the participant about the choices they are making and how can they make better choices next time. Discuss potential results and negative consequences of the inappropriate behavior.
- Document difficulty adhering on the **Adherence/*Education Tracking Form***.
- Issues adhering to the plan of care will be discussed by the IDT to determine individual needs and provide counseling/education and document appropriately. If appropriate choicescontinue to be a problem, the IDT will determine need for discharge from the structured Weight Management Program.

Guidelines for Interdisciplinary Team Involvement for the Structured Weight Management Program

The structured Weight Management Program is an interdisciplinary program including health care professionals trained to address the special needs of obese individuals. The interdisciplinary team (IDT) completes all clinical assessments, progress updates, MDS, and other documentation as needed.

- Medical Director – Role is primarily medical management of the individual participants.
- Administrator – Oversees the administration of the business aspects of the program.
- Registered Dietitian Nutritionist – directs the structured program. Implements all aspects of nutritional care for participants. Coordinates leaders and topics for all classes, provides weekly nutrition classes and coordinates information letter/handouts and social media interactions. Addresses issues with adherence to care plan as needed. The eating pattern recommended for this program follows the Dietary Guidelines for Americans 2015 and is not a "fad" diet or diet that restricts any food groups, but rather one that provides a variety of foods to meet macro and micronutrient needs. Counseling regarding appropriate diet and/or nutrition guidelines for weight loss is initiated by the RDN and/or NDTR.
- Nursing – Implements all aspects of nursing care for the participants.
- Therapies (PT, OT) – Implements all aspects of rehabilitative therapy care and physical activity programs for participants. May include PT, OT and restorative therapy.
- Social Services – Provides individual counseling and addresses issues with adherence to POC as needed.

For Healthcare Facilities:

- Food Service Director – Oversees food service to assure diets/eating plans are provided as ordered.
- Activities – Implements all aspects of recreational and physical activity for the participants.

Group Nutrition Classes and Individual Counseling for the Structured Weight Management Program

Participants will be required to attend group nutrition education and activity classes. Participants will receive individualized nutrition counseling as needed, and as determined by the registered dietitian nutritionist (RDN) or as referred by the interdisciplinary team (IDT).

- Group meetings – Classes are offered ___ times a day on specific topics, attendance is mandatory __ times a week. The weekly RDN nutrition class is mandatory. A designee conducts a life style lessons class. Therapy conducts a physical activity class once a week. Activities conduct group activity classes daily. Additional classes may include (but are not limited to): relaxation, recipes, hobbies, trivia, healthy living, and stress management.
- Social media and other forms of technology may be used to communicate with and motivate participants and track physical activity and food intake. However, access to a computer or smart phone is not required.
- Individual counseling is provided on an as needed basis. This may include, but not limited to: a participant request, an IDT referral, if weight loss has slowed or stopped, if the participant has difficulty making appropriate food choices, or a new medical condition that requires nutrition counseling.

For Healthcare Facilities: Guidelines on How to Address the Resident's Rights Issue Related to Food and Activity

Participants who are admitted into the structured weight management program agree to abide by the guidelines of the program. This includes adherence to physical activity programs and eating plans (physician ordered diets).

- As a resident of a nursing facility (NF) or skilled nursing facility (SNF), residents have a bill of rights that is to be followed. As a participant of the structured weight management program, however, residents must abide by the guidelines of the program if they wish to continue on the program. Residents can choose to drop out of the program at any time.
- Participants will be allowed choices that fit into the structured Weight Management Program. This will not include behavior that impedes progress towards weight and health goals.

Guidelines for Discharge Planning for Weight Management Participants

The individual needs of the structured Weight management Program participant will be met for successful discharge from the program.

- The IDT will complete the ***Interdisciplinary Discharge Planning Assessment for the Weight Management Program*** form and begin planning for any needed arrangements, referrals, or services prior to the final discharge date.

Weight Management Program: Nursing Inservice and Therapy Inservice

Note:
Participants of this inservice should have already attended ***The Structured Weight Management Program Staff Inservice.***

Objectives:
Participants will understand their role in the structured weight management program:
1. To promote safe and successful weight loss.
2. To support and promote lifestyle changes to achieve successful weight loss.
3. To provide the tools and resources to maintain healthy eating habits and lifestyle changes for optimal health status and weight management throughout.

Audience:
Nursing Staff, Therapies/Restorative Staff

Time Required:
20-30 minutes

Handouts (found in this book):
- ***Guidelines on How to Address poor Adherence to the Structured Weight Management Program***
- ***Adherence/Education Tracking Form***
- ***Taking Accurate Heights and Weights***
- ***Height, Weight and Waist Circumference Chart***

Note:
This may be broken into two separate inservices (one for nursing staff and one for therapies/restorative staff).

Outline:
I. Nursing Staff's Role in the Structured Weight Management Program
- A. Standards of Care
  - i. Implements all aspects of nursing care for the participants.
  - ii. Completes all screening, clinical assessments, care plans, progress updates, minimum data set (MDS); and other documentation as needed.
  - iii. Performs individual counseling as needed for participants.
  - iv. Addresses issues with adherence to the POC as needed.
  - v. Refers questions about quality, safety, efficacy, or effectiveness of the individual's eating pattern to the RDN and/or NDTR.
- B. Implementation of nursing care for the structured weight management program
- C. Adherence and Education
  - i. Adherence/Education Tracking Form will be implemented for all program participants

II. Therapy/Restorative Staff's Role in the Structured Weight Management Program
- A. Taking accurate heights and weights
  - i. Explain and review policy and procedure (found on pages 54-55, copy and provide as handouts).
  - ii. Demonstrate.
  - iii. Return demonstration.
- B. Taking accurate waist circumference measurements
  - i. Explain and review policy and procedure (found on page 56, copy and provide as handouts).
  - ii. Demonstrate.
  - iii. Return demonstration.
- C. Complete other restorative services as ordered
- D. Documentation responsibilities

For Healthcare Facilities
Weight Management Program: Food and Nutrition Services Inservice

Objectives:
Participants will understand Food and Nutrition Services Staff's role in the structured weight management program:

1. To support safe and successful weight loss through provision of the diet as ordered.
2. Importance of providing attractive, palatable and nourishing meals and snacks.
3. Importance of following food preferences.
4. Importance of reporting issues with adherence.

Audience:
Food and Nutrition Services Staff

Time Required:
20-30 minutes

Handouts (found in this publication):
- ***Guidelines on How to Address poor Adherence to the Structured Weight Management Program***
- ***Adherence/Education Tracking Form***

Outline:
I. Food and Nutrition Services Staff's Role

A. Following the planned menu
B. Preparing attractive, nourishing meals
C. Following the menu spreadsheets for portion sizes
D. Providing food preferences
E. Providing between-meal snacks
F. Resident's rights versus issues with adherence to the structured weight management program
G. Communicating requests for snacks, additional portions, and foods not on diet plan to RDN/NDTR

Bariatric Equipment Resources and Information

In healthcare settings, specialized bariatric equipment and room layouts may be necessary for extremely obese individuals. Doorways need to be double entry (approximately 58 inches wide) in order to move bariatric equipment in and out of room. For healthcare facilities, experts suggest a five foot area around the bed to enable caregiver movement and maneuvering of special equipment. In older facilities, rooms may not allow for more than one bariatric resident per room (or one bariatric resident/patient and one other resident/patient per room). Equipment may include bariatric beds, ceiling lifts or special portable bedside lifts, heavy duty mechanical lifts for transfers, bariatric scales, wheelchairs, walkers, commodes, etc. (85).

Sources for Bariatric Equipment

The market for bariatric equipment is growing rapidly. A wide variety of companies provides sales and support for bariatric equipment. The list below is not all inclusive.

Itin Scale Company: http://www.itinscale.com/bariatric_scales.htm
Itin offers a variety of standing and roll-on wheelchair scales, some for up to 1000 pounds.

Size Wise Rentals, LLC: http://www.sizewise.net/About-Sizewise.aspx
Size Wise offers just about everything needed in the way of bariatric equipment: wheel chairs, lifts, transfer equipment, commode chairs, walkers, shower chairs, recliners, beds, specialized pressure mattresses, etc. The website offers some excellent newsletters and other helpful information.

RecoverCare: www.recovercare.com
RecoverCare carries a variety of bariatric equipment, therapeutic support surfaces, and durable medical equipment including bariatric accessories like walkers and shower chairs.

Total Home Medical: http://www.totalhomemedical.com/bariatric-medical-equipment.html
Total Home Medical provides a variety of bariatric medical equipment including beds, chairs, and commodes.

Vancare, Inc.: www.vancare.com
Vancare carries special bariatric lifts and lift scales for weights up to 450, 600 or 1000 pounds depending on the model chosen.

2008 Physical Activity Guidelines for Americans

At-A-Glance: A Fact Sheet for Professionals

The Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals is designed for busy professionals as a quick desk-side reference to the *2008 Physical Activity Guidelines for Americans* published by the U.S. Department of Health and Human Services.

These Guidelines are needed because of the importance of physical activity to the health of Americans, whose current inactivity puts them at unnecessary risk. The latest information shows that inactivity among American children, adolescents, and adults remains relatively high, and little progress has been made in increasing levels of physical activity among Americans.

Key Guidelines

Substantial health benefits are gained by doing physical activity according to the Guidelines presented below for different groups.

Children and Adolescents (aged 6–17)

- Children and adolescents should do 1 hour (60 minutes) or more of physical activity every day.
- Most of the 1 hour or more a day should be either moderate- or vigorous-intensity aerobic physical activity.
- As part of their daily physical activity, children and adolescents should do vigorous-intensity activity on at least 3 days per week. They also should do muscle-strengthening and bone-strengthening activity on at least 3 days per week.

Adults With Disabilities

Follow the adult guidelines. If this is not possible, these persons should be as physically active as their abilities allow. They should avoid inactivity.

Children and Adolescents With Disabilities

Work with the child's health care provider to identify the types and amounts of physical activity appropriate for them. When possible, these children should meet the guidelines for children and adolescents—or as much activity as their condition allows. Children and adolescents should avoid being inactive.

Pregnant and Postpartum Women

Healthy women who are not already doing vigorous-intensity physical activity should get at least 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity a week. Preferably, this activity should be spread throughout the week. Women who regularly engage in vigorous-intensity aerobic activity or high amounts of activity can continue their activity provided that their condition remains unchanged and they talk to their health care provider about their activity level throughout their pregnancy.

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www.health.gov/paguidelines

For all individuals, some activity is better than none.

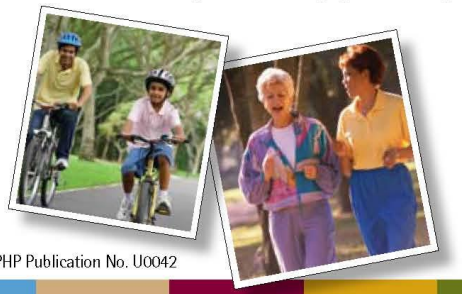
Adults (aged 18–64)

- Adults should do 2 hours and 30 minutes a week of moderate-intensity, or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Aerobic activity should be performed in episodes of at least 10 minutes, preferably spread throughout the week.
- Additional health benefits are provided by increasing to 5 hours (300 minutes) a week of moderate-intensity aerobic physical activity, or 2 hours and 30 minutes a week of vigorous-intensity physical activity, or an equivalent combination of both.
- Adults should also do muscle-strengthening activities that involve all major muscle groups performed on 2 or more days per week.

Older Adults (aged 65 and older)

- Older adults should follow the adult guidelines. If this is not possible due to limiting chronic conditions, older adults should be as physically active as their abilities allow. They should avoid inactivity. Older adults should do exercises that maintain or improve balance if they are at risk of falling.

For all individuals, some activity is better than none. Physical activity is safe for almost everyone, and the health benefits of physical activity far outweigh the risks. People without diagnosed chronic conditions (such as diabetes, heart disease, or osteoarthritis) and who do not have symptoms (e.g., chest pain or pressure, dizziness, or joint pain) do not need to consult with a health care provider about physical activity.



ODPHP Publication No. U0042

Health Benefits of Physical Activity—A Review of the Strength of the Scientific Evidence

Adults and Older Adults

Strong Evidence

Lower risk of:
- Early death
- Heart disease
- Stroke
- Type 2 diabetes
- High blood pressure
- Adverse blood lipid profile
- Metabolic syndrome
- Colon and breast cancers

Prevention of weight gain

Weight loss when combined with diet

Improved cardiorespiratory and muscular fitness

Prevention of falls

Reduced depression

Better cognitive function (older adults)

Moderate to Strong Evidence

Better functional health (older adults)

Reduced abdominal obesity

Moderate Evidence

Weight maintenance after weight loss

Lower risk of hip fracture

Increased bone density

Improved sleep quality

Lower risk of lung and endometrial cancers

Children and Adolescents

Strong Evidence

Improved cardiorespiratory endurance and muscular fitness

Favorable body composition

Improved bone health

Improved cardiovascular and metabolic health biomarkers

Moderate Evidence

Reduced symptoms of anxiety and depression

October 2008

Source: The Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals. US Department of Health and Human Services. http://www.health.gov/paguidelines/factsheetprof.aspx. Updated June 4, 2015. Accessed June 4, 2015 (33).

The Obesity Challenge: Weight Management for Adults and Older Adults

Nutritional Guidelines

The Obesity Challenge: Weight Management for Adults and Older Adults

Nutrient Needs Calculations

To assure that individuals' nutritional needs are being met, the registered dietitian nutritionist (RDN) and/or nutrition and dietetic technician, registered (NDTR) calculates nutrient needs as part of the nutrition assessment. Nutrient needs should be recalculated if there are any significant changes in status.

Significant changes in status include, but are not limited to:

- Significant change in weight (planned or unplanned).
- Development (or healing) of a pressure ulcer, sepsis or other serious infection.
- Diagnosis of malnutrition or undernutrition (at any weight level, including obesity).
- Fracture
- Development of diabetes, cardiovascular disease, hypertension or other serious chronic illness.
- Other decline in health status.

Each practitioner should:

- Be aware of the current information available and choose the formula they believe to be most accurate.
- Be consistent in choice and application of formula for the population it is used on.
- Follow a standardized protocol for caloric needs calculation (81).

Kilocalories

In healthy adults, energy needs decline with aging and also correspond with a decrease in physical activity level. Research indicates a decrease in basal energy expenditure of 2 to 5% per decade in people between 20 and 96 years of age who are in a healthy weight range (73).

Most experts agree that the most accurate method of predicting caloric needs is the use of indirect calorimetry (29). However, equipment used to measure calories via indirect calorimetry is not often readily available in most healthcare facilities. In these cases, kilocalories (kcalories) must be estimated using a standardized mathematical formula.

There is some controversy over which mathematical equation provides the most accurate caloric calculations in the adult population. This is especially true for older adults, including those who are obese. Historically, nutrition professionals used the Harris Benedict equation as the standard formula for calculating kcalorie needs. However, research indicates that this equation is not the most accurate predictor of energy needs for older adults. The Mifflin St. Jeor equation is considered the most consistent formula for use with obese and non-obese people (23,73).

Note: The Mifflin St. Jeor equation has been found to be the most reliable indicator of resting energy expenditure (REE) prediction in healthy adults; however, there is little research available to indicate accuracy of prediction for certain populations such as older adults (85).

The Academy of Nutrition and Dietetics' Evidence Analysis Library breaks the estimation of kcalorie needs into three types of patients (23,86):

1. Obese (BMI $\geq$30)
    a. Indirect calorimetry (IC) if available and able to measure.
    b. For acutely and critically ill obese patients with no renal or hepatic issues, the hypocaloric regimen of 22 kcal/kg ideal body weight may be most appropriate.
    c. For critically ill mechanically ventilated, obese patients, consider use of the Ireton-Jones equation.

2. Acutely ill: Energy needs should be based on resting metabolic rate (RMR):
    a. Indirect calorimetry (IC) if available and able to measure (IC may not be possible for patients with chest tubes, supplemental oxygen, hyperventilation, etc.).

b. If unable to measure IC, use the Mifflin St. Jeor equation (using actual weight for overweight and obese individuals).
c. For spontaneously breathing patients with clinical states (such as diabetes, trauma, pancreatitis, burns) use the Ireton-Jones equation.

3. Critically ill
    a. Indirect calorimetry (IC) if available and able to measure for RMR.
    b. Respiratory quotient (RQ): If <0.7 or >1.0, the test should be repeated (low RQ may indicate hypoventilation or prolonged fasting; high RQ in absence of overfeeding may indicate hyperventilation or inaccurate collection of gas)
    c. For nonobese, critically ill patients consider the following predictive equations:
        i. Penn State, 2003a
        ii. Swinamer equation
        iii. Ireton-Jones equation

Note: For information on these equations, refer to references listed above.

Mifflin-St. Jeor Equation (23,86)
The Mifflin-St. Jeor Equation using actual body weight has been used as a standard method for calculating Resting Energy Expenditure (REE).

Males	Females
REE = 10 x weight (Kg) + 6.25 x height (cm) – 5 x age (years) +5	REE = 10 x weight (Kg) + 6.25 x height (cm) – 5 x age (years) – 161
Example	**Example**
wt 70 kg, ht 178 cm, 45 years old REE = 700 + 1112 – 225 + 5 REE = 1592	Wt 55 kg, ht 163 cm, 45 years REE = 550 + 1019 – 225 – 161 REE = 1183

(Source: 86)

To determine Total Energy Expenditure (TEE), multiply REE by activity factor (see the following pages for *Activity Factor Chart*).

The charts on the following pages can make it quick and simple to do the above calculations. To use the charts:

1. Obtain weight, height and age of subject.
2. Look up the corresponding calorie numbers for weight, add the corresponding caloric number for height, subtract the corresponding number for age. Next, for males, add 5 and for females, subtract 161 for the estimated REE (Kcal/day).
3. To determine TEE, multiply REE by activity factor.

Estimating Kilocalorie Needs Based on Activity and Injury Factor Requirements (73)

Total Kilocalorie Requirements = REE or BEE x Activity Factor		
Activity Factor	Sedentary (Confined to chair or bed, out of bed with little activity)	1.0-1.39
	Low active (typical daily activities))	1.4-1.59
	Active- typical daily activities with at least 60 minutes of activity per day	1.6 to 1.89
	Very active-Active plus 60 minutes of vigorous activity or 120 minutes of moderate activity per day	1.9 to 2.5

Alternate Methods of Calculating Energy Needs (31,86,87)

Alternate methods of calculating energy needs in adults include the following:

- 30 to 35 calories/kg body weight for people with pressure ulcers
- 25-35 calorie/kg body weight for normal weight adults with untended weight loss (women)
- 30 to 40 calories/kg body weight for normal weight adults with unintended weight loss (men)
- 27 to 28 calories/kg body weight for underweight older adults
- 28 calorie/kg body weight for people with paraplegia
- 22 calories/kg body weight for obese, critically ill
- 18 to 22 calories/kg body weight for healthy older adult women
- 20 to 24 calories/kg body weight for healthy older adult men

General Guidelines for Estimating Protein Needs

Protein Needs

Protein needs may vary depending on a number of factors, including but not limited to:

- Renal status
- Hepatic function
- Presence of metabolic stress (i.e. pressure ulcer or wound, infection, etc.)
- Undernutrition or protein-energy malnutrition (PEM)
- Presence of hepatic (liver) disease

A comprehensive nutrition assessment is needed to determine the appropriate level of protein. There is no clear evidence to indicate whether actual body weight (as opposed to ideal body weight or adjusted body weight) provides the most accurate assessment of protein needs in overweight or obese individuals.

Diseases and Conditions	Protein Needs
Adults • Maintenance • Older Adults	 0.8 to 1.0 gm/kg/day 1.0 gm/kg/day
Cancer • Cancer • Cancer cachexia	 1.0 to 1.5 gm/kg/day 1.5 to 2.5 gm/kg/day
Critical illness including burns, sepsis, traumatic brain injury	1.5 to 2.0 gm/kg/day
GI Issues • Inflammatory bowel disease • Short bowel syndrome	 1.0 to 1.5 gm/kg/day 1.5 to 2.0 gm/kg/day
Hepatic disease • Hepatitis • Cirrhosis	 1.0 to 1.5 gm/kg/day 1.0 to 1.2 gm/kg/day
Obesity, *with hypocaloric feeding*: • BMI >27, normal function of kidneys, liver • Class I or II obesity with trauma (ICU) • Class III obesity with trauma (ICU)	 1.5 to 2.0 gm/kg IBW/day 1.9 gm/kg IBW/day 2.5 gm/kg IBW/day
Pressure Ulcers (including prevention for high risk of pressure ulcers)	1.25 to 1.5* gm/kg/day *Increase fluids and monitor renal function
Pulmonary Disease	1.2 to 1.5 gm/kg/day
Renal Disease • Predialysis • Hemodialysis • Peritoneal dialysis • Continuous renal replacement therapy (CRRT)	 0.6 to 0.8 gm/kg/day 1.2 to 1.3 g/kg, up to 1.5-1.8 gm/kg/day >1.5 to 2.5 gm/kg IBW/day >1.5 to 2.5 gm/kg IBW/day
Stroke	1.0 to 1.25 gm/kg/day

(References: 31,81,86,87)

General Guidelines for Estimating Fluid Needs (31,81,85,86,88)

There is no clear evidence to indicate whether actual body weight (as opposed to ideal body weight or adjusted body weight) provides the most accurate assessment of fluid needs status in overweight or obese individuals.

General Guidelines for Estimating Fluid Needs (31,86)	
1. 1500 mL for the first 20 kg +20 mL/kg for each kg >20 kg 2. 1 mL per kcalorie consumed 3. Urine output + 500 mL/day	4. 1000 mL fluid for the first 10 kg actual body weight +50 mL fluid per kg for the next 10 kg actual body weight • For persons <50 years old: +20 mL fluid per kg for each additional kg • For persons >50 years old: +15 mL fluid per kg for each additional kg .

Alternate Methods of Calculating Fluid Needs (mL/day) (85)	
1. 1000 mL/kg for the first 10 kg body weight +50 mL/kg for the second 10 kg body weight +15 mL/kg for remaining kg body weight	2. 30 mL per kg actual weight May be more for dehydration, or less for renal, or congestive heart failure problems

Factors That May Increase Fluid Needs (31,81,85, 86,88)		
• Burns • Certain medications such as diuretics • Circulating air bed for wound healing treatment • Dehydration • Diarrhea • Draining fistula	• Draining wound • Emesis • Fever (fluid needs increased by 12.5% for every 1º F increase in body temperature) • Gastric and/or renal losses, extraordinary (fluid needs based on average 24 hour output) • Hot and/or dry environment	• Hyperventilation (fluid needs may increase by 10 to 60%) • Hyperthyroidism (fluid needs may increase by 25 to 50%) • Moderate or profuse perspiration (needs may increase 10 to 25%) • Polyuria • Pressure ulcer, Stage II, III, or IV

Factors that May Require Decreased Fluid Intake (31,81,85,86,88)
• HF (Heart Failure, sometimes referred to as congestive heart failure) • Edema • Hepatic failure with ascites • Renal failure (severe) • SIADH (Syndrome of Inappropriate Antidiuretic Hormone)

Signs of Over-hydration (89,90)
• Decrease in sodium, potassium, albumin, BUN, creatinine • Edema • Increase in blood pressure • Decrease in pulse rate

The Obesity Challenge: Weight Management for Adults and Older Adults

Height/Weight Tables for Determining Healthy/Ideal Body Weight Range

Adult Ideal Weight Ranges 51 + Years

Females: Height	Weight Range	Mean Weight
4'8"	81-99	90
4'9"	83.5-102	92.5
4'10"	85-105	95
4'11"	87.5-107	97.5
5'0"	90-110	100
5'1"	94-116	105
5'2"	99-121	110
5'3"	104-127	115
5'4"	108-132	120
5'5"	112-138	125
5'6"	117-143	130
5'7"	121-149	135
5'8"	126-154	140
5'9"	130-160	145
5'10"	135-165	150

Males: Height	Weight Range	Mean Weight
5'0"	95-117	106
5'1"	100-123	112
5'2"	106-130	118
5'3"	111-136	124
5'4"	117-143	130
5'5"	122-150	136
5'6"	127-156	142
5'7"	133-163	148
5'8"	139-169	154
5'9"	144-176	160
5'10"	149-183	166
5'11"	154-189	172
6'0"	160-196	178
6'1"	166-202	184
6'2"	171-209	190

This chart is based on the following formulas.

Female:
100 pounds for the first five feet of height plus five pounds for each inch over five feet of height; minus 2½ pounds for every inch under five feet of height; plus or minus 10% to give the range.

Male:
106 pounds for the first five feet of height plus six pounds for each inch over five feet of height; minus 2½ pounds for every inch under five feet of height; plus or minus 10% to give the range.

(References: 81,91)

Note: For older adults, usual body weight is generally used as a guideline for a weight baseline rather than IBW.

Adjusting Weights for Amputees

To determine adjusted ideal body weight for individuals with amputations, the percentage of body weight indicated by the chart below is subtracted from the ideal body weight range.

Average Weight Percentage of Body Segments	
Foot	1.5%
Lower Arm and Hand	2.3%
Entire Arm and Hand	5.0%
Lower Leg and Foot	5.9%
Entire Leg	6.0%

1. Using the Height/Weight tables, determine the individual's normal ideal body weight (IBW) for height.
2. Locate the percentage weight of the amputated limb and calculate the number of estimated pounds.
3. Subtract the estimated weight of the limb to determine an estimated/adjusted IBW.

Example:

Male with below knee amputation (BKA), height 5'7"

Ideal Body Weight (mean range): 145 pounds (#)

145# x .059 (5.9% for BKA) = 8.55#

Adjusted Ideal Body Weight = 145# - 8.55# = 136.45#

(Reference: 73)

Estimating Ideal Body Weight for Paraplegics and Quadriplegics

Determine normal ideal body weight (IBW) using the charts on the previous page.

- For paraplegics, subtract 5 to 10% from normal IBW.
- For quadriplegics, subtract 10 to 15% from normal IBW (31).

Evaluating Weight Status

Percentage Changes from Usual Weight (91)
Determining the percentage of usual weight may be a helpful tool to determine extreme changes in weight status.

Equation:

$$\% \text{ usual weight} = \frac{\text{Actual Weight}}{\text{Usual Weight}} \times 100$$

Tracking Significant Weight Change/Gain

Weights should be tracked for all individuals for a period of up to 12 months for the purpose of assessing weight changes.

1. A copy of monthly weights should be forwarded to the registered dietitian nutritionist (RDN) or nutrition and diet technician, registered (NDTR) each month to review and calculate significant change over 1 (5%), 3 (7.5%), and 6 (10%) months. A copy of all significant weight losses and gains should be given to the care plan team for appropriate review and documentation.

Time Interval	Significant Change	Severe Change
1 Week	1 to 2%	Greater than 1 to 2%
1 Month	5%	Greater than 5%
3 Months	7.5%	Greater than 7.5%
6 Months	10%	Greater than 10%

2. The RDN/NDTR reviews and documents all significant weight changes, with appropriate referrals to the interdisciplinary team (IDT) members. The RD reviews all significant weight losses/gains and referrals and takes actions as necessary (including follow up documentation and counseling as needed).

3. The physician and family (or significant other) are notified of any individual with an **unplanned** significant weight change of 5% in 1 month, 7.5% in 3 months, or 10% in 6 months.

4. All individuals with significant weight variances will be re-weighed prior to reporting this to the physician and interdisciplinary team (IDT).

5. The facility is responsible for obtaining correct weights on a regular basis, and for keeping accurate records. This includes having adequate weight scales, bed scales, lift scales, and/or wheel chair scales as needed to accommodate the weight of the obese individual.

6. Patients with planned weight loss may choose to be weighed weekly to monitor their progress. The staff should assist participants in tracking weight loss and intervene to address concerns as they are identified.

(References: 93,94)

The Obesity Challenge: Weight Management for Adults and Older Adults

Resource: The Nutrition Care Process (NCP)

The Nutrition Care Process is a systematic approach to providing high-quality nutrition care. It was published by the Academy of Nutrition and Dietetics (Academy) as part of the Nutrition Care Model. Use of the NCP does not mean that all patients/clients get the same care; the process provides a framework for the RDN to individualize care, taking into account the patient/client's needs and values and using the best evidence available to make decisions (96).

In order to clearly document the impact on patient care, the Academy created a standardized language that captures the specifics of what the dietetics profession does. Using standardized language (known as nutrition care process terminology, or NCPT) gives the ability to explore and understand the links between nutrition problems, interventions used and associated outcomes (97). The NCP provides the framework for demonstrating how nutrition care improves outcomes by use of a consistent, systematic structure and method, common language, and an evidence-based approach (98).

MNT and the NCP
Food and nutrition professionals may question the difference between medical nutrition therapy (MNT) and the Nutrition Care Process. MNT is an evidence-based application of the Nutrition Care Process that typically results in the prevention, delay or management of diseases and/or conditions (99). The NCP allows the Registered Dietitian Nutritionist to use critical thinking skills, make decisions to address nutrition problems, and provide high quality nutrition care (98).

The NCP consists of four distinct, interrelated steps:

1. **Nutrition Assessment:** The RDN collects and documents information such as food or nutrition-related history; biochemical data, medical tests and procedures; anthropometric measurements, nutrition-focused physical findings and client history.
    a. Facility-approved forms or electronic formats should be used and filed in the medical record (98)
2. **Nutrition Diagnosis:** Data collected during the nutrition assessment guides the RDN in selection of the appropriate nutrition diagnosis (i.e., naming the specific nutrition related problem)
    a. The nutrition diagnosis is different than a medical diagnosis; it is the identification of a nutrition problem that can be resolved with nutrition interventions (98).
    b. Nutrition diagnosis is summarized as a PES statement (problem, etiology, signs/symptoms)
    c. Nutrition diagnosis may be related to 3 domains
        i. Intake (excessive or inadequate intake compared to requirements)
        ii. Clinical-medical or physical conditions that are outside of normal
        iii. Behavioral/environmental (knowledge, attitudes, beliefs, physical environment, access to food, food safety)
3. **Nutrition Intervention:** The RDN selects the nutrition intervention that will be directed to the root cause (or etiology) of the nutrition problem and aimed at alleviating the signs and symptoms of the diagnosis. There are 4 categories of nutrition interventions:
        i. Food and/or nutrient delivery
        ii. Nutrition education
        iii. Nutrition counseling
        iv. Coordination of nutrition care
4. **Nutrition Monitoring/Evaluation:** The final step of the process is monitoring and evaluation, which the RDN uses to determine if the individual has achieved, or is making progress toward, the planned goals.

a. Monitoring tools include changes in skin, labs, functional ability, weight, food and fluid intake, acceptance of thickened liquids, etc. (98)

The Academy NCP was designed to determine the problems, etiology, signs and symptoms that impact nutrition and hydration status. It does not take the place of any RDN's judgment when determining MNT.

The Nutrition Care Process can be implemented in any setting, including acute care, assisted living, group homes, long-term care, rehab, hospice, and others (98). The RDN is responsible for the NCP.

Note: Support staff work under the supervision of the registered dietitian nutritionist (RDN). Support staff include nutrition and dietetic technicians registered (NDTR), nutrition associates (four year degree in nutrition/dietetics), certified dietary managers (CDM), food service managers, etc. The RDN may delegate certain tasks based on the scope of practice and competency level of each member of the nutrition team.

More information on implementing the Nutrition Care Process is available at http://www.eatrightpro.org/resources/practice/nutrition-care-process/ncp-101. Tutorials are available to Academy members at http://www.andeal.org/ncp/.

Information on Standards of Practice and Standards of Professional Performance can be found at http://www.eatrightpro.org/resources/practice/patient-care/scope-of-practice.

Resource: Sample PES Statements (97,99)

Excessive Intake of Energy

- Excessive (intake of energy) energy intake *related to* increased appetite secondary to antipsychotic meds *as evidenced by* a documented intake that exceeds calculated needs and a weight gain of 10% in the past 90 days.
- Excessive (intake of energy) energy intake *related to* decreased ability to taste foods and loss of appetite awareness *as evidenced by* reports of lack of satiety and a weight gain of 5% in the past 7 days.

Overweight/Obesity

- Overweight *related to* decreased energy needs secondary to conditions associated with quadriplegia *as evidenced by* a weight of >130% of DBW.
- Obesity *related to* lifelong history of excessive intake *as evidenced by* reports from family members.

Altered Nutrition Related Lab Values

- Altered nutrition related lab values *related to* diagnosis of diabetes mellitus *as evidenced by* elevated blood glucose levels.

Increased Nutrient Needs

- Increased need for calcium and vitamin D *related to* decreased intake of foods high in calcium and inability to sit up *as evidenced by* below normal lab results for calcium and vitamin D.

Disordered Eating Pattern

- Disordered eating pattern *related to* individual's obsessive desire to the thin and refusals to eat *as evidenced by* documented intake of only 1 meal out of 3.

Altered GI Function

- Altered GI Function *related to* gastric bypass surgery *as evidenced by* the individual's inability to eat more than 1 cup of food and reports of vomiting with excessive intake.

Alteration in Nutrition

- (Alteration in nutrition related lab) Altered nutrition related laboratory values *related to* conditions associated with CKD and excessive intake of protein, potassium and phosphorus *as evidenced by* elevated lab values for Creatinine, potassium and phosphorus.

Unintentional Weight Loss

- Unintended weight loss *related to* inadequate oral intake and recent hospitalization as evidenced by significant weight loss 5% x 30 days.
- Unintentional weight loss *related to* prolonged hospitalization *as evidenced by* a weight loss of 12% in the past 90 days.

Introduction

The materials in this chapter are taken from *MNT Made Easy: For Health Care Facilities* (99). The following Medical Nutrition Therapy (MNT) Forms and Resources are included in this publication:

- Medical Nutrition Therapy Abbreviations
- Medical Nutrition Therapy Assessment Form (for use in health care facilities)
- Medical Nutrition Therapy Notes (for use in health care facilities)
- Worksheet for MDS 3.0 Section K Swallowing/Nutritional Status (for use in nursing facilities)
- Medical Nutrition Therapy Re-Assessment Form (for use in health care facilities)
- MNT Re-Assessment Worksheet for MDS 3.0 Section K Swallowing/Nutritional Status (for use in nursing facilities)
- Medical Nutrition Therapy Care Plan (for use in nursing facilities)

The Academy of Nutrition and Dietetics (Academy) recommended standardized language for the Nutrition Care Process (NCP) is included in the following forms. The MNT Assessment form is used for comprehensive individual assessment on individuals who are newly admitted or re-admitted, and also for annual assessments.

The MNT forms in this publication take into consideration the way a professional would collect data from the medical record. The information for the first sections would generally be found in the first sections of the medical record from the face sheets, admission papers, and physician's orders. Nursing assessments upon admission include height and weight data, skin status, feeding ability and other pertinent information. Laboratory values often have a tabbed section in the medical record. It is helpful to review any history that is available from other health care facilities, or other health care professionals. Medications are found on the physician's order sheets. Nursing notes may pinpoint any communication, physical, sensory changes or limitations.

Conditions, diagnosis, and risk factors for altered nutrition and hydration are found in the medical record, and by interviewing the individual, staff, and/or the individual's family members. The risk factors for consideration listed on the forms are not intended to be all-inclusive. They can be helpful in directing the RDN to identify which individuals are in need of MNT and MNT care planning. These factors may also help determine nutrient needs estimation.

MNT assessment is one piece of the comprehensive assessment. In nursing facilities and skilled nursing facilities, the MNT assessment, Care Assessment Areas (CAA), the Minimum Data Set 3.0 (MDS 3.0), the Care Plan, and nutritional recommendations are the main components of the comprehensive nutrition assessment. All areas related to the MDS 3.0 are denoted with a star symbol (*) in the instructions.

The following instructional guide will assist you in understanding the content of the forms and provide a general guide for individual nutrition assessment.

Each section of the MNT Assessment form appears in the instructions with a brief explanation of how to complete it.

Please refer to the abbreviation key page as needed while following the instructions. You may also need to reference Academy eNCPT manual http://www.andeal.org/ncp/ (available by subscription at http://www.eatrightstore.org/, and your diet manual or other nutrition references in order to complete the MNT Assessment and Re-assessment.

Resource: Medical Nutrition Therapy Abbreviations

Academy = Academy of Nutrition and Dietetics
ADL = Activities of Daily Living
ADJ = Adjusted
AEB* = As Evidenced by
Alb = Albumin
ATB = Antibiotic
BMI = Body Mass Index
BS = Blood Sugar
BUN = Blood Urea Nitrogen
BW = Body Weight
C = Nutritional Counseling
CAA = Care Area Assessment
Ca++ = Calcium
CBW = Current Body Weight
CCHO = Consistent Carbohydrate
CDM = Certified Dietary Manager
CHF = Congestive Heart Failure
CHOL = Cholesterol
Cr = Creatinine
C/O = Complaint of
COPD = Chronic Obstructive Pulmonary Disease
CVA = Cerebral Vascular Accident
D/C = Discharge
DM = Diabetes Mellitus
DBW = Desirable Body Weight
Disc = Disciplinary
DOB = Date of Birth
DR = Dining Room
DX = Diagnosis
E = Education
EOT = End of Therapy
FF = Free Fluids
G = Gram
GI = Gastro Intestinal
GLU = Glucose
Hct = Hemacrit
HbA1C = Hemoglobin A1C
HGB = Hemoglobin
H/H = Hemoglobin / Hematocrit
HIV = Human Immunodeficiency Virus
Ht = Height
HTN = Hypertension
IBW = Ideal Body Weight
IDT – Interdisciplinary Team
IV = Intravenous
J = J tube or Jejunostomy tube
K+ = Potassium
Kcal = Kilocalorie
Kg = Kilogram
Mech Soft = Mechanical Soft
Meds = Medications
MDS = Minimum Data Set
mL = Milliliters
Mo = Month
MVI = Multi-Vitamin
Na = Sodium
NB* = Behavior Environmental (Knowledge & Beliefs)
NC* = Functional
NCP* = Nutrition Care Process
ND* = Food and/or Nutrient Delivery
NDTR = Nutrition & Dietetics Technicians Registered
NG = Nasogastric
NI* = Intake
N/V = Nausea/Vomiting
OMRA = Other Medicare Assessment Review
OT = Occupational Therapist
PEG = G Tube or Percutaneous Gastrostomy Tube
PES = Problems/Etiology/ Signs & Symptoms
PO = By Mouth
POC = Plan of Care
PPN = Peripheral Parenteral Nutrition
Pre-alb = Pre-albumin
PVD = Peripheral Vascular Disease
PT = Physical Therapist
Q = Every
RC = Coordination of Nutrition Care
RDI = Recommended Daily Intakes
RDN = Registered Dietitian Nutritionist
Reg = Regular
RM = Room
SOB = Shortness of Breath
TF = Tube Feed
TG = Triglycerides
TPN = Total Parenteral Nutrition
S/S = Signs/Symptoms
UBW Usual Body Weight
URI = Upper Respiratory Infection
UTI = Urinary Tract Infection
WBC = White Blood Cell
WNL = Within Normal Limits
Wt = Weight
1 x a day = Once a day
2 x a day = Twice a day
3 x a day = Three Times a Day
4 x a day = Four Times a Day
↑ = Increased or Improved
↓ = Decreased or Poor
= Pounds
> = Greater Than
≥ = Greater Than or Equal to
< = Less Than
≤ = Less Than or Equal to

*__Note:__ Refer to the Academy NCPT manual for standardized language.

Resource: Medical Nutrition Therapy Assessment Instructions for Sample Form

Section I: Assessment Type and Individual Data

Name, Room/ID number, Physician, Gender, DOB, Age:
Fill in data and/or circle for the individual's name, room number and/or identification number, physician, gender (male or female), date of birth (DOB), and age.

Assessment Type:
Circle the type of assessment you are doing: Initial, quarterly, yearly, or significant change.

Section II: Nutrition Assessment (Problems/Etiology/Signs and Symptoms)

Note: A * indicates information that is also on the MDS 3.0.

***Height:**
Fill in the height in inches. (This information is needed for the MDS).

***Weight (pounds/kg):**
Fill in current weight. (This information is needed for the MDS).

UBW:
Review the medical record for usual body weight (UBW). If the information is not available in the medical record, ask the individual (or family member) what their usual adult body weight is. Fill it in here.

DBW:
Fill in Desirable body weight range as appropriate.

Adj. BW (Amputation):
If the individual has an amputation note the details here (right AKA, Left BKA, etc.). Adjust the desirable body weight (BW) for amputation as appropriate. Refer to your diet manual or other reference to determine how to calculate for amputation.

BMI:
Calculate the body mass index (BMI), (BMI = (Weight in Pounds / (Height in inches x Height in inches) x 703). BMI is one indication of nutrition status used in assessment. Indicate BMI status: <18.5 as underweight, 18.5–24.9 normal, 25-29.9 as overweight, $\underline{\geq}$30 as obese, and $\underline{\geq}$40 as extremely obese. A healthy BMI for adults is considered between >18.5 and 24.9. Individuals are considered unhealthy it they have a BMI of <18.5 or >24.9. **Please note:** The Academy's Nutrition Care Process Terminology defines underweight in persons more than 65 years of age as a BMI of <22. This BMI value is one indicator of malnutrition when forming a nutrition diagnosis for the older adult population.

Waist Circumference
Determine the waist circumference. If the waist circumference is >40" for a male or >35" for a female, this is a disease risk indicator for multiple health care concerns (obesity, diabetes, hepatic disease, ascites, renal disease, COPD, CHF). Note: There is not a space for this on the form, however, you can write it in under the Weight Changes Comments or in your summary notes.

***Weight Changes:**
Fill in the recent weight history using the weight in pounds. Include the date for each weight and then circle the "up" or "down" arrows if significant changes in weight have occurred. (This information is needed for the MDS). Circle "yes/no" for planned weight change programs, and note any necessary comments under Rationale.

***Diet Order:**
Fill in the blank to indicate the diet ordered by the physician.

Food Allergies/Intolerances:
Write in any food allergies or food intolerances that the individual has.
Location of Meals:
Circle if the individual eats in their room or in the dining room.

Restorative Dining Y / N:
Note whether or not the individual is in a restorative dining program by marking Yes or No. Provide detailed information as needed.

Adaptive Eating Device:
If the individual receives adaptive equipment at the meal such as a plate guard, built-up utensils, sip cup, scoop plate, etc., indicate them here. If the individual is in a restorative dining program, mark yes.

Oral Nutritional Supplements / Snacks:
Write in the type of oral nutrition supplement or snack and how much will be given. Provide the nutritional value as appropriate.

Fluid Restriction:
Indicate whether or not the individual is on a fluid restriction by noting Yes or No. If Yes, note the number of mLs of fluid per 24 hour period that is allowed.

Food/Fluid Intake
Note food/fluid intake here and whether overall intake is adequate to meet estimated needs. Make any necessary comments here.

***Alternate Feeding Orders:**
If the individual receives any nutrition or hydration in any way other than oral intake, note it here. (This information is needed for the MDS). Circle the type of feeding/fluid offered (PPN, TPN, IV or tube feeding), and fill in exactly what the physician has ordered. Write the order as given by the physician for the type and amount of formula. (The calculations are needed to answer questions on the MDS.) Fill in the values for calories, protein, percent RDI that the formula provides. Fill in the amount of mL for fluid flushes as written in the physician orders, and calculate the total mL fluid in the tube feeding plus the mL in the flushes for the total mL of fluids in a 24 hour period. (Refer to your diet/nutrition care manual, enteral feeding or TPN manufacturer information or other references for information on how to complete these calculations if needed). Circle if the tube feeding is appropriate and tolerated, and whether or not changes are needed. Discuss any detail in the summary section of the form.

Advance Directives: Note pertinent information on advance directives (i.e. nutrition/hydration wishes).

Communication and Physical Limitations:
Note any communication problems by circling choices or adding notes as needed. Note pertinent physical limitations (such as upper limb immobility or vision problems that would make self-feeding difficult).

Medication Interactions / Data:
Note any medication groups that have the potential for food-medication interactions (antibiotics, cardiac medications, diuretics, laxatives, psychotropics). List any newly ordered medications, or other medications which may have an adverse effect on eating or nutritional status.

Labs:
Fill in the date and lab values from the most recent labs available for each lab listed. Refer to the abbreviation page for detailed explanation of abbreviated terms. Discuss the significance of abnormal laboratory values in the summary.

Other Pertinent Data:
Note any other pertinent tests here (i.e. barium swallow, other pertinent labs or test results)

Alteration in Nutrition and/or Hydration Status as Evidenced by:
This section helps you organize your thoughts for the nutrition diagnosis, nutrition prescription, nutrition intervention and care planning. Circle any disease or condition that pertains to the individual. Please write in history of bariatric surgery as appropriate. You may also want to note causes of obesity and/or history of diet management.

Notes: Dehydration/Risk may include diagnosis of dehydration, fever, diuretic, vomiting, diarrhea, dysphagia, enteral feeding, dependence on others for fluids, etc. Neurological/Muscular disease may include Parkinson's, Huntington's Chorea, Multiple Sclerosis, Muscular Dystrophy, etc. The Pressure Ulcer risk score is pulled from the Braden or Norton Scale and if risk is high it should be marked accordingly.

Data Gathered By:
If the data has been gathered by someone other than the RDN, they should sign and date here. The RDN completes the rest of the form. Follow the regulations and guidelines for role delineation based on your state dietetic licensure law and/or standards of professional practice from the Academy.

Section III: Summary

Nutrition Needs Estimation
Calculate the individual's estimated nutritional needs for calories, protein and fluids using the formulas provided in this publication. The weight of the individual in kilograms is used here. Current body weight is most often used for kcal, protein, and fluid needs. Use the Mifflin St. Jeor Equation as the preferred method for estimating REE. Alternative estimates include: 25 for normal weight to estimate calorie needs, a factor of 30 or 35 for those who need to gain weight and/or have pressure ulcers, wounds or other conditions that may require additional energy.

For Protein factors, use 0.8 for healthy adults, 1.0 for older adults, and 1.25 or 1.5 for older adults with pressure ulcers or protein malnutrition.

For fluid needs, choose either 1 mL per kcal consumed; or 1500 mL for the first 20 kg of current body weight plus 15 mL for remaining kg/CBW for <50 years of age or 20 for over 50 years of age; or a factor of 25, 30 or 35 based on individual needs.

Circle or note which equation or factor you used for your calculations for Kcalories, protein and fluid needs. Refer to your diet and/or nutrition care manual for more detailed information on how to calculate nutritional needs and use clinical judgement when estimating needs

Summary
This area is for your summary statement.

Nutrition Diagnosis (PES Statement), Nutrition Prescription or Intervention, Nutrition Education, Nutrition Monitoring and Evaluation:
The Summary section includes the Nutrition Diagnosis Statement, which is also referred to as a PES Statement (Problems, Etiology, Signs and Symptoms), Nutrition Prescription or Intervention, Nutrition Education, and Nutrition Monitoring and Evaluation.

The **Nutrition Diagnosis** is based on the components of the assessment. Diagnostic terminology can be found in the Academy of Nutrition and Dietetics. Nutrition Terminology Reference Manual (eNCPT): Dietetics Language for Nutrition Care, available at http://ncpt.webauthor.com.

Include the **Nutrition Prescription** (for example, “diet to provide 1800-2200 calories and 80-100 grams of protein daily”), as well as any referrals needed to other disciplines (Speech-Language Pathologist, Social Services, Nurse Practitioner, etc.) and all MNT that will be implemented to improve or maintain nutritional status.

For nursing facilities: Indicate whether you are proceeding to the care plan and care assessment areas (CAAs) with a yes or no.

Indicate what you will **Monitor and Evaluate** (weight, labs, TF, etc.).

You can use the Medical Nutrition Therapy Notes page if you need additional room to write.

Sign and date the assessment form.

The assessment is now completed.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Form: Medical Nutrition Therapy Assessment

Name_____ **Room/ID#/Residence**_____ **Physician**_____ **Gender M / F DOB** _____ **Age** ___

Assessment Type: Initial / Quarterly / Yearly / Significant Change:

Ht (inches) Actual / Estimated
Wt (#) (Date)

UBW (#) **DBW** (#)
Adj. BW (#)(Amputation)
↑ ↓ **WNL**

BMI _____

□	**<18.5**	**Underweight**
□	18.5-24.9	Normal Weight
□	25-29.9	Overweight
□	≥30	Obese
□	≥40	Extremely Obese

Weight Changes (Date)
Wt_____# ( ) ↑↓ 5% in 1 mo
Wt_____# ( ) ↑↓ 7.5% in 3 mo
Wt _____# ( ) ↑↓ 10% in 6 mo
Wt _____# ( ) ↑↓ 2-3% in 1 wk/↑↓ 20% in 12 mo)
Planned change? Y / N Comments:

Diet Order:
Food allergies / Intolerances:
Meals: Room / Dining Room / Independent / Tray set up / Supervision / Limited Assist / Total Dependence / **Restorative Dining** Y / N
Adaptive Eating Equipment:

Medical Food Supplement / Snacks
Fluid Restriction? Y / N
Food/Fluid Intake: **Meets estimated needs:** Y / N

Alternate Feeding Orders None / PPN/ TPN/ IV / Tube feeding (including flush orders) **Advanced Directives:**
_____mL Formula = _____ Kcals ____ g protein, ____% RDI (_____mL FF + _____ mL flush) = _____ Total mL Fluids
Appropriate Y / N **Tolerated** Y / N **Changes Needed** Y / N **Comments:**

Communication Alert / Confused / Unable to communicate **Physical Limitations:**

Medication Interactions (any that affect eating, GI status or nutritional status)
Antibiotics Cardiac Meds Diuretics Laxatives Nutrition Herbs/Supplements: Psychotropics New Meds / Other:

Labs (Date _____)
H/H _____ HbA1c _____ Glu _____ Na _____ K+ _____
Ca++ _____ Alb _____ Pre-alb _____ BUN _____ Cr _____

Other Pertinent Data (Date_____)

Alteration in Nutrition and/or Hydration Status as Evidenced by (Check/Circle all that apply)

- □ Abnormal Labs (Refer to data above)
- □ Altered Taste
- □ Alternate Feeding: TF / IV / TPN
- □ Altered Hydration: Dehydration / Edema / Overhydration / Fluid restriction
- □ Anemia
- □ Cancer / Chemo / Radiation
- □ Cardiovascular: CVD / CVA / TIA / CHF / HTN / PVD
- □ Dysphagia/ Chewing/Swallowing Problem
- □ Communication Difficulty:
- □ Cultural/Religious Food Issues
- □ Dementia/Cognitive Decline /Depression
- □ Diabetes
- □ Failure to Thrive
- □ ↑ ↓ Food / Fluid Intake
- □ Fracture:
- □ GI Issues:
- □ Hepatic (Liver) Disease
- □ Infection / Fever / Sepsis /URI/ UTI
- □ Kidney Disease / Dialysis
- □ Malnutrition / Undernutrition
- □ Mobility Issues:
- □ Neurological / Muscular Disease:
- □ Obesity
- □ Pain Affecting Eating
- □ Pressure Ulcer Risk Score_____
- □ Pressure Ulcers/Wounds / Wound VAC:
- □ Pulmonary Condition / COPD
- □ Self Feeding Difficulty
- □ Significant Weight Change: Loss / Gain
- □ Surgery (Recent):
- □ Terminal Status
- □ **Other:**

Data Gathered by: _____(Signature/Credentials) **Date:** _____

Nutritional Needs Estimation (Based on CBW)

Total Kcal Needs:	**Protein Needs** (g)**:**	**Fluid Needs** (mL)**:**
Mifflin St Jeor OR Kg Wt X 25 / 30 / 35 +500 cal to gain/ -500 cal to lose Based on CBW	Kg Wt X 0.8 / 1.0 / 1.25 /1.5 Based on CBW	Kg Wt X 25mL/ 30mL/ 35 mL / 1 mL/kcal Based on: CBW

Summary

Nutrition Diagnosis Statement (PES)	**Nutrition Prescription or Intervention**

Proceed to Plan of Care and/or CAAs: Yes / No

Nutrition Education, Monitoring (Weights/Labs/Skin/Diet/TF Tolerance), and Evaluation

Signature: _____ **Date:** _____

Sample Form: Nutrition Care Process (Page 2 MNT Assessment/Re-Assessment)

Name: _____ **Room/ID #:** _____ **Date:** _____

Nutrition Diagnosis (Problem):

□ Overweight (C)
□ Inadequate Oral Food/Beverage Intake (I)
□ Underweight (C)
□ Involuntary Weight Loss (C)
□ Increased Nutrient Needs (I)
□ Inadequate Protein Energy Intake
□ Excessive Intake - Oral- Enteral/Parenteral (I)
□ Inappropriate Infusion of EN/TPN (I)
□ Swallowing / Chewing Difficulty
□ Disordered Eating Pattern
□ Impaired Nutrient Utilization (C)
□ Food Safety

Etiology (Related to):

□ Food intake:
□ Changes in taste, appetite, preferences
□ Intake of meals or supplements
□ Inappropriate Intake of:
Medications: _____
Laxatives: _____
Other: _____
□ Inadequate Physical Activity
□ Depression/Eating Disorder
□ Impaired Cognition
□ Conditions Leading to Excessive Fluid Weight Gain /Loss
□ Decreased Nutrient Needs
□ Intolerance of Enteral/Parental Nutrition

Signs/Symptoms:

□ Intake Less/Excess than Estimated Needs of: _____
□ Weight Loss/Gain of: _____
□ Pressure Ulcer/Wound:
Describe: _____
□ Presence Of Edema/Extent: _____
□ Altered Lab(s): _____
□ Chewing / Swallowing Difficulties – Food / Fluids
□ Nausea/ Vomiting/ Constipation / Diarrhea
□ GI Pain During/After Eating
□ Diet Noncompliance
□ Not Ready to Accept Change/Poor Understanding of Health Condition/Dietary Needs

Nutrition Prescription:

Interventions:

□ Food/Diet:

□ Physical Activity:
□ Recommend Vitamin/Mineral Supplement: MVI / Fe / Calcium:
□ Other:
□

Education:

□ Initial / Brief Nutrition Education with Individual / Family:
□ Provided Comprehensive Nutrition Education with Individual / Family.
□ Diet Information Left with Individual / Family:
□ Accepts / Rejects Instruction:

Coordination of Care:

□ Note/ Recommendation Left for Physician
□ Refer to or Note Left for: PT / OT / Psych / Social Services / Pharmacist / Renal Dietitian / Nurse Practitioner / Wound Nurse / Care Plan Team / Other

Monitor (How Responding to Interventions):

□Tolerating Diet
□Tolerating Assistance
□Accepting Meals / Snacks
□ Stable / Improved Weight / Skin / Labs

Evaluation (Expected outcomes met? If Not, Reassess and Revise):

□ Accepts and Follows Interventions and Recommendations
□ Declined to Follow Interventions and Recommendations
□ Poor Readiness to Change / Learn

Signature: _____ Date:_____

Form created by Suzanne Cryst, RDN, CSG, LD. Adapted and used with permission.

Resource: MDS 3.0, Care Area Assessment (CAA) and Care Plan

For nursing facilities:
The next step is filling out the MDS 3.0 and CAA statements and generating or reviewing the plan of care. Generally, the RDN or nutrition and dietetics technicians registered (NDTR) would fill in Section K of the MDS 3.0.

CAA statements are written to describe the risks you have found and whether or not you will be proceeding to care plan for specific problems areas.

Each skilled nursing facility has an MDS Coordinator that is an expert on the assessment process and can provide guidance to the RDN. Refer to the MDS 3.0 manual and/or the MDS Coordinator for detailed information on how to complete the MDS 3.0 and CAAs. RDN's should use available tools provided by CMS and practice using the current standard of nutrition care during the assessment process and care plan development. This package includes an MDS 3.0 Section K worksheet in case you need to provide the information for the MDS nurse to input into the computer for the MDS 3.0.

See separate instructions later in this publication for filling in the care plan forms.

Sample Worksheet for MDS 3.0 Section K Swallowing/Nutritional Status

Name _____ **Room** _____

Assessment Type
Initial / 5 day / 14 day / 30 day / 60 day / 90 day/Q____ Annual_____ / EOT _____ / Significant Change_____ / Discharge_____

K0100. Swallowing Disorder
Signs and symptoms of possible swallowing disorder
_____ A. Loss of liquids/solids from mouth when eating or drinking
_____ B. Holding food in mouth/cheeks or residual food in mouth after meals
_____ C. Coughing or choking during meals or when swallowing medications
_____ D. Complaints of difficulty or pain with swallowing
_____ Z. None of the above

K0200. Height and Weight- While measuring, if the number is X.1-X.4 round down; X.5 or greater round up
_____ A. **Height** (in inches) Record most recent height measure since the most recent admission/entry or reentry
_____ B. **Weigh**t (in pounds) Base weight on most recent measure in last 30 days

K0300. Weight Loss
_____ **Loss of 5% or more in the last 30 days or loss of 10% in last 6 months**
0. No or unknown
1. Yes, on physician prescribed weight-loss regimen
2. Yes, not on physician prescribed weight-loss regimen

K0310. Weight gain
_____ **Gain of 5% or more in last 30 days; or 10% or more in the last 6 months**
0. No
1. Yes, on a physician prescribed weight-gain regimen
2. Yes, not on a physician prescribed weight-gain regimen

K0510. Nutrition Approaches
Check all of the following nutrition approaches that were performed during the last 7 days

1. While Not a Resident
Performed **while not a resident** of this facility and within the last 7 days. Only check column 1 if resident entered (admission or reentry) IN THE LAST 7 DAYS. If resident last entered 7 or more days ago, leave column 1 blank.

2. While a Resident
Performed **while a resident** of this facility and within the last 7 days

	1. While NOT a Resident	2. While a Resident
	↓Check all that apply↓	
A. Parenteral/IV Feeding	☐	☐
B. Feeding tube – nasogastric or abdominal (PEG)	☐	☐
C. Mechanically altered diet – require change in texture of food or liquids (e.g., pureed food, thickened liquids)	☐	☐
D. Therapeutic diet (e.g., low salt, diabetic. Low cholesterol)	☐	☐
Z. None of the above	☐	☐

K0710. Percent Intake by Artificial Route – Complete K0710 only if Column 1 and/or column 2 are checked for K0510A and/or K0510B

1. While NOT a Resident
Performed while **not** a resident of this facility and within the last 7 days. Only enter a code in column 1 if resident entered (admission or reentry) **in the last 7 days.** If resident last entered 7 or more days ago, leave column 1 blank.

2. While a Resident
Performed while a resident of this facility and within the last 7 days

3. During Entire 7 Days
Performed during the entire last 7 days

	1. While NOT a Resident	2. While a Resident	3. During Entire 7 Days
	↓ Enter Codes ↓		
A. Proportion of total calories the resident received through parenteral or tube feeding **1. 25% or less** **2. 26-50%** **3. 51% or more**	☐	☐	☐
B. Average fluid intake per day by IV or tube feeding **1. 500 cc/day or less** **2. 501 cc/day or more**	☐	☐	☐

CAA Comments and Updates:
_____

Signature: _____ **Date:** _____

Resource: Medical Nutrition Therapy Care Plan

For health care systems that use care plans:
The Medical Nutrition Therapy (MNT) plan of care is developed using the initial MNT assessment. It was not intended to address all of the nutritional problems the individual may have. It can be used as a starting point in the care planning process to help address major nutritional concerns.

Many facilities have their own care plan forms or computerized programs that are used for the permanent individual care plan. This form can become part of the medical record, or it can be used for a temporary length of time until the facility care plan team implements the permanent care plan into their own care plan system.

To fill in the care plan forms, simply check the problem that is pertinent to the individual, fill in the blank areas under the goals/objectives column, and write in the appropriate responses as needed in the approach column. These forms incorporate the Academy Nutrition Care Process (NCP) Terminology.

Discontinue the temporary plan of care when the facility's team implements the permanent interdisciplinary plan of care.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Form: Medical Nutrition Therapy Care Plan

Resident:_____ Room/ID#_____

Date	**Problems/Etiology/Signs/ Symptoms**	**Goals** (and Dates)	**Nutrition Interventions**
	□ At risk altered nutrition/ hydration status r/t:	□ Improve BMI to_____ □ Improved lab values □ Gradual weight loss □ Will tolerate alternate feeding to meet nutrient needs □ No weight gain	□ Provide diet and fluids per physician order □ Monitor weight every week □ Monitor all labs as available □ Monitor PO food/fluid intake □ Monitor pressure ulcer/ wound healing progress □ Educate as needed □ Medications as ordered □ Monitor diet tolerance □ □ □
Intake (NI)	**Nutrition Diagnosis (NI/NB)**		**Nutrition Prescription (ND/E/RC)**
	Intake		**ND (Meals/snacks)**
Behavior/ Environ-mental	**Weight/Lifestyle/ Knowledge**		**E (Education)**
			C (Basis/approach)
Functional (NC)	**Swallowing/Chewing Deficit**		
			RC (Care coordination)

See Medical Nutrition Assessment/Re-Assessment and Progress Notes for Details

Signature:_____ Date:_____

Resource: Medical Nutrition Therapy Re-Assessment Instructions for Sample Form

The Medical Nutrition Therapy Re-Assessment form has many of the same components as the assessment form. It can be used for MNT Re-assessment or for readmission, quarterly progress note updates, significant changes, or as an annual review.

The abbreviations on the form are the same as on the assessment form. In order to complete this form, gather the information in the same way you did for the assessment form.

The top of this form is to be completed for height, UBW, BMI (and level of BMI: underweight, normal weight, overweight, obese or extremely obese), date of birth, age and gender.

Estimated Nutritional Needs:
The estimated nutritional needs are listed here and should be based on the most current information available. These can be updated as needed by crossing out the old calculations, writing in the new calculations and initialing and dating the changes.

Dining Needs:
Note whether there have been any changes to the dining location. Note whether the individual is in the restorative dining program, whether they use adaptive equipment, and list that equipment. Note whether the individual eats independently, needs tray set up, supervision, cues, assistance to eat, or is totally dependent for eating.

Date and Type of Re-Assessment:
Note the current date and circle whether the Re-assessment is for a readmission, MDS update, Quarter 1, 2, 3 or yearly, progress update or significant change.

New Medical Diagnosis:
Note any new medical diagnosis since the last review. Or note “None” if there are no changes.

Diet Prescription:
Note the Diet prescription by either circling or writing in the appropriate diet.

Oral Nutrition Supplements:
Note any Oral Nutrition Supplements that are provided and list the number of calories and grams of protein they provide.

TF/TPN/IV Changes:
Note any changes to physician orders for tube feedings, TPN or IVs. List the amount of calories, protein and/or fluid as appropriate provided by the feeding.

Food/Fluid Intake:
Is food/fluid intake adequate to meet the individual’s needs? Provide detail and comments here. Intake records for meals, snacks, and fluids should be reviewed prior to filling in this section.

Weights:
List current body weight in pounds and note the weights for the past month, 3 months and past 6 months. Note whether there has been a significant change in body weight (either weight loss or weight gain) in the time period indicated.

Note: You may also want to note waist circumference one a monthly basis to assess progress. This can be noted in the Changes in Care/Condition area or in your written summary on the MNT Notes page.

Lab Changes:
Note the date of the laboratory assessment and note any significant lab values to be evaluated by listing in the appropriate space. You may also wish to use an up or down arrow to indicate labs outside the normal range.

Changes in Care and Condition:
Note any Changes in Care/Condition which may have an impact on nutritional status. This may include medications, changes in ADLs, physical condition, diagnosis, or recent life events that may impact any of these areas.

Signature/Date:
If the data has been gathered by someone other than the RDN, they should sign and date here. The RDN completes the rest of the form. Follow the regulations and guidelines for role delineation based on your state dietetic licensure law and/or standards of professional practice from the Academy.

Summary Section:
The summary section includes the PES Statement, Nutrition Diagnosis (based on the components of the assessment), Nutrition Prescription/Intervention, whether or not to proceed to the care plan, Care Area Assessment (CAA) update, and Nutrition Monitoring (weights, labs, skin, diet, tube feeding tolerance). These sections should be filled in following the Academy Nutrition Care Process and the MDS 3.0 Resident Assessment Instrument (RAI) Instructions. Diagnostic terminology can be found in the eNutrition Care Plan Terminology manual that can be purchased on the Academy website at http://www.eatrightstore.org/.

Because these are follow up notes from the previous comprehensive Nutrition Assessment, you can choose to either continue your previous Nutrition Diagnosis and Nutrition Intervention, or change them to something new and simply note the new information. Include the Nutrition Prescription (for example, “diet to provide 1800-2200 calories and 80-100 grams of protein daily”), as well as any referrals needed to other disciplines (Social Service, Nurse Practitioner, etc.) and all MNT that will be implemented to improve or maintain nutritional status. Indicate whether you are proceeding to the care plan and care assessment areas (CAAs). Indicate what you will monitor (weight, labs, TF, etc.).

Signature
Sign and date the completed MNT Re-assessment form.

After completing this form, proceed to the plan of care for all updates and for review of the current care plan to be sure it is still valid.

For Nursing Facilities and Health Care Settings that Use Care Plans:
MDS 3.0 and Care Plan
The next step is filling out the MDS 3.0 and generating or reviewing the plan of care. Generally, the RDN or nutrition and dietetic technician registered (NDTR) would fill in Section K of the MDS 3.0. Refer to the MDS 3.0 manual for detailed information on how to complete the MDS 3.0 and CAAs. This package includes an MDS 3.0 Section K worksheet in case you need to provide the information for the MDS nurse to input into the computer for the MDS 3.0.

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Form: Medical Nutrition Therapy Re-Assessment

Name: _____ Physician: _____ Room: _____

Height	UBW	BMI □ <18.5 Underweight □ 18.5-24.9 Normal Weight □ 25-29.9 Overweight □ ≥30 Obese □ ≥40 Extremely Obese	DOB	Age	M / F

Estimated Nutritional Needs (Based on CBW)

Total Kcals:	Protein (gms):	Fluids (mL):	Dining Needs Location changes:
Mifflin St Jeor OR Kg Wt X 25 / 30 /35 + 500 kcal to gain / - 500 kcal to lose Based on CBW	1.0 / 1.25 / 1.5	25 / 30 / 35 / 1 mL/kcal consumed	Independent / Tray set up / Supervision / Limited Assist/ Total Dependence /Adaptive Equipment: Restorative dining: Y / N Adaptive equipment:

Date _____ *Re-admit / MDS update, Q 1 / Q 2 / Q 3 / Y Progress Update / Significant Change*	**Date** _____ *Re-admit / MDS update, Q 1 / Q 2 / Q 3 / Y Progress Update / Significant Change*	**Date** _____ *Re-admit / MDS update, Q 1 / Q 2 / Q 3 / Y Progress Update / Significant Change*
New Medical Diagnosis	**New Medical Diagnosis**	**New Medical Diagnosis**
Diet Order	**Diet Order**	**Diet Order**
Oral Nutrition Supplements Calories Protein (gms)	**Oral Nutrition Supplements** Calories Protein (gms)	**Oral Nutrition Supplements** Calories: Protein (gms):
TF / TPN / IV Changes	**TF / TPN / IV Changes**	**TF / TPN / IV Changes**
Food/Fluid Intake Adequate to Meet Needs Y / N	**Food/Fluid Intake Adequate to Meet Needs** Y / N	**Food/Fluid Intake Adequate to Meet Needs** Y / N
Weights: CBW: _____# _____ # ( ) ↓ ↑ **5% past Mo** _____ # ( ) ↓ ↑ **7.5% past 3 Mo** _____ # ( ) ↓ ↑ **10% past 6 Mo**	**Weights:** CBW: _____# _____ # ( ) ↓ ↑ **5% past Mo** _____ # ( ) ↓ ↑ **7.5% past 3 Mo** _____ # ( ) ↓ ↑ **10% past 6 Mo**	**Weights:** CBW: _____# _____ # ( ) ↓ ↑ **5% past Mo** _____ # ( ) ↓ ↑ **7.5% past 3 Mo** _____ # ( ) ↓ ↑ **10% past 6 Mo**
Lab Changes Date:_____ H/H _____ HbA1c _____ BS _____ Na _____ K+ _____ Ca++ _____ Alb _____ Pre-alb _____ BUN _____ Cr _____	**Lab Changes** Date:_____ H/H _____ HbA1c _____ BS _____ Na _____ K+ _____ Ca++ _____ Alb _____ Pre-alb _____ BUN _____ Cr _____	**Lab Changes** Date:_____ H/H _____ HbA1c _____ BS _____ Na _____ K+ _____ Ca++ _____ Alb _____ Pre-alb _____ BUN _____ Cr _____
Changes in Care / Condition (Meds, ADLs, physical, diagnosis, etc.)	**Changes in Care / Condition** (Meds, ADLs, physical, diagnosis, etc.)	**Changes in Care / Condition** (Meds, ADLs, physical, diagnosis, etc.)
NUTRITION DIAGNOSIS STATEMENT □ Continue previous □ Change to:	**NUTRITION DIAGNOSIS STATEMENT** □ Continue previous □ Change to:	**NUTRITION DIAGNOSIS STATEMENT** □ Continue previous □ Change to:
NUTRITION PRESCRIPTION & INTERVENTION □ Continue previous □ Change to:	**NUTRITION PRESCRIPTION & INTERVENTION** □ Continue previous □ Change to:	**NUTRITION PRESCRIPTION & INTERVENTION** □ Continue previous □ Change to:
Care Plan □ Continue previous □ Update	**Care Plan** □ Continue previous □ Update	**Care Plan** □ Continue previous □ Update
NUTRITION MONITORING Weight / Labs / Skin / Diet / TF Tolerance	**NUTRITION MONITORING** Weight / Labs / Skin / Diet / TF Tolerance	**NUTRITION MONITORING** Weight / Labs / Skin / Diet / TF Tolerance
Signature	Signature	Signature

Sample Form: Medical Nutrition Therapy Notes

Sample Worksheet for MDS 3.0 Section K Swallowing/Nutritional Status

Name _____ **Room** _____

Assessment Type
Initial / 5 day / 14 day / 30 day / 60 day / 90 day/Q____ Annual_____ / EOT _____ / Significant Change_____ / Discharge_____

K0100. Swallowing Disorder
Signs and symptoms of possible swallowing disorder
_____ A. Loss of liquids/solids from mouth when eating or drinking
_____ B. Holding food in mouth/cheeks or residual food in mouth after meals
_____ C. Coughing or choking during meals or when swallowing medications
_____ D. Complaints of difficulty or pain with swallowing
_____ Z. None of the above

K0200. Height and Weight- While measuring, if the number is X.1-X.4 round down; X.5 or greater round up
_____ A. **Height** (in inches) Record most recent height measure since the most recent admission/entry or reentry
_____ B. **Weigh**t (in pounds) Base weight on most recent measure in last 30 days

K0300. Weight Loss
_____ **Loss of 5% or more in the last 30 days or loss of 10% in last 6 months**
3. No or unknown
4. Yes, on physician prescribed weight-loss regimen
5. Yes, not on physician prescribed weight-loss regimen

K0310. Weight gain
_____ **Gain of 5% or more in last 30 days; or 10% or more in the last 6 months**
3. No
4. Yes, on a physician prescribed weight-gain regimen
5. Yes, not on a physician prescribed weight-gain regimen

K0510. Nutrition Approaches
Check all of the following nutrition approaches that were performed during the last 7 days

3. While Not a Resident
Performed **while not a resident** of this facility and within the last 7 days. Only check column 1 if resident entered (admission or reentry) IN THE LAST 7 DAYS. If resident last entered 7 or more days ago, leave column 1 blank.

4. While a Resident
Performed **while a resident** of this facility and within the last 7 days

	1. While NOT a Resident	2. While a Resident
	↓Check all that apply↓	
E. Parenteral/IV Feeding	☐	☐
F. Feeding tube – nasogastric or abdominal (PEG)	☐	☐
G. Mechanically altered diet – require change in texture of food or liquids (e.g., pureed food, thickened liquids)	☐	☐
H. Therapeutic diet (e.g., low salt, diabetic. Low cholesterol)	☐	☐
AA. None of the above	☐	☐

K0710. Percent Intake by Artificial Route – Complete K0710 only if Column 1 and/or column 2 are checked for K0510A and/or K0510B

4. While NOT a Resident
Performed while **not** a resident of this facility and within the last 7 days. Only enter a code in column 1 if resident entered (admission or reentry) **in the last 7 days.** If resident last entered 7 or more days ago, leave column 1 blank.

5. While a Resident
Performed while a resident of this facility and within the last 7 days

6. During Entire 7 Days
Performed during the entire last 7 days

	1. While NOT a Resident	2. While a Resident	3. During Entire 7 Days
	↓ Enter Codes ↓		
C. Proportion of total calories the resident received through parenteral or tube feeding **4. 25% or less** **5. 26-50%** **6. 51% or more**	☐	☐	☐
D. Average fluid intake per day by IV or tube feeding **3. 500 cc/day or less** **4. 501 cc/day or more**	☐	☐	☐

CAA Comments and Updates:
_____

Signature: _____ **Date:** _____

The Obesity Challenge: Weight Management for Adults and Older Adults

Sample Weight Management Program Interdisciplinary Care Plan

Name_____ Initial Care Plan Date_____

Date	Problem/Need/Strengths	Goals	Through (Date)	Interventions	Disc.
	__Need for weight reduction	__Will have successful weight loss of an average of 1-2 # per week as measured on weight records __Personal goal for level of weight loss: __Goal Date:		__Set realistic weight goals for successful weight loss	All
	__Need to improve habits and skills to establish a healthy living ability.	__Will attend a minimum of 5 group meetings weekly. ____ Will read weekly newsletter and participate in follow-up group, social media interactions or follow-up quiz.		__Provide weekly informational handouts as appropriate. __Provide weekly newsletter __Provide daily interactions via social media	SS
	__Need to improve skills and understanding with food choices, portion sizes, preparation methods	__Will demonstrate compliance when ordering meals without extra items and portions		__Encourage class attendance and adherence to POC	All
	__Need to improve strength and mobility	__Will maintain active participation ____ times per week with PT / OT program. __Will be physically active outside of room daily - Demonstrated by: __Will improve level of participation with activities of daily living - demonstrated by: __Personal goal for level of physical ability:		__Encourage participation in the evaluation and treatment plan for therapy with all disciplines. __Record independent physical activity. Records maintained by restorative staff and resident. __Encourage physical activity to the highest level of safe function: __Encourage active participation with ADLs to improve level of independence.	All R, N PT, N All

The Obesity Challenge: Weight Management for Adults and Older Adults

Date	Problem/Need/Strengths	Goals	Through (Date)	Interventions	Disc.
	__Need to have weights taken every ___weeks	__Will have weight taken every __week(s)		__Review weight records to assess progress towards goals	All
	__Need to have waist circumference taken every ___weeks	__Will have waist circumference taken every __week(s)		__Review waist circumference records to assess progress towards goals	All
	__Need to maintain personal log of weights, food intakes, physical activity.	__Will maintain personal log and review monthly or as needed		__Provide one-on-one coaching, diet instruction, guidance and education as needed	All
	__Needs diet instruction and/or guidance	__Will discuss current diet and weight loss goals with RDN		__Provide instructions guidance on:	RD
	__Need to engage family or other advocate to support efforts for weight loss and diet compliance	__Will verbalize to family/friends the need to be compliant with program.		__Assist individual as needed to help family and friends understand the need for compliance with program, for best possible outcomes.	All
	__Needs assistance to modify plan to increase level of progress.	__Personal goal for improvement in bariatric program:		__Rewards for successful weight loss and group participation with monthly awards.	RD
	__Needs improvement with adherence to POC in the area of:	__Resident will discuss issues with adherence with IDT Team members and voice an appropriate plan to avoid re-occurrence.		__Review issues with adherence to POC as they arise – review of appropriate decision making skill building. __Reinforce positive habits and skill building that assist to manage behaviors and compliance. Discuss resistance to change.	All All

The Obesity Challenge: Weight Management for Adults and Older Adults

Date	Problem/Need/Strengths	Goals	Through (Date)	Interventions	Disc.
	__Needs to engage with others in similar circumstances for peer support.	__Will engage peers in a social setting daily as evidenced by:		__Encourage to establish a support network of individuals with similar interests and habits.	All
	__Needs diversional activities – groups, hobbies, interests as alternative toissues with adherence.	__Will improve adherence to the bariatric program.		__Encourage participation in favorite activities daily to remain busy and focused.	All
	__Need to adhere to with prescribed diet of:	__Will understand diet and be able to state what eating plan is ordered by the physician __Will discuss appropriate snack items with staff for good choices and limits.		__Provide diet education and reinforcement as needed __Review food intake and activity records to assess progress towards goals	RD All
	__Mental Health Services with consulting Psychiatrist, Psychologist, and Counselor.	__Will accept and actively participate with _____ mental health service.		__Provide follow up quiz questions to handout with incentive for participation.	
	__Need for particular support with Issues of:				

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The Obesity Challenge: Weight Management for Adults and Older Adults

Resources

- The Academy of Nutrition and Dietetics: www.eatright.org
  - Weight Management Dietetic Practice Group (Academy of Nutrition and Dietetics): www.wmdpg.org
  - Academy of Nutrition and Dietetics Evidence Analysis Library. Adult Weight Management Project: http://www.andeal.org/topic.cfm?menu=5276
  - Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Adult Weight Management: http://www.andjrnl.org/content/sop
- 2015 Dietary Guidelines for Americans
  - Scientific Report: http://health.gov/dietaryguidelines/2015-scientific-report/
  - Dietary Guidelines for Americans: http://health.gov/dietaryguidelines/2015.asp
- Nutrition.gov: (Contains many links to helpful sites).
- Weight-control Information Network (WIN): http://www.win.niddk.nih.gov/index.htm.
- Centers for Disease Control and Prevention:
  - Overweight and Obesity. http://www.cdc.gov/obesity/.
  - Physical Activity: http://www.cdc.gov/physicalactivity/index.html
- Center for Nutrition Policy and Promotion (Many links to helpful sites) http://www.cnpp.usda.gov/
- USDA National Agricultural Librarywww.nal.usda.gov (Click on Topics, then Food and Human Nutrition for many helpful links)
- USDA Nutrient Data Laboratory http://www.nal.usda.gov/fnic/foodcomp/search (Search the USDA National Nutrient Database for Standard Reference)
- NAASO—The Obesity Society www.obesity.org
- DASH Eating Plan: http://www.nhlbi.nih.gov/health/health-topics/topics/dash
- 2008 Physical Activity Guidelines: http://www.health.gov/paguidelines/
- Jensen MD, Ryan DH, Apovian CM, et al. 2013 AHA/ACC/TOS Guidelines for the Management of overweight and obesity in adults: A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and The Obesity Society. Circulation. 2014;129:S102-138. http://circ.ahajournals.org/content/early/2013/11/11/01.cir.0000437739.71477.ee.
- Exercise for Bariatric Surgery Patients: http://www.bariatricchoice.com/exercise-for-bariatric-gastric-bypass-surgery-patients.aspx.
- A Physical Activity Toolkit for Registered Dietitians: Utilizing Resources of Exercise is Medicine®: http://exerciseismedicine.org/assets/page_documents/WM%20EIM%20Toolkit%202013%20FINAL.pdf.
- Digital Food and Activity Trackers (this list is not all inclusive):
  - ChooseMyPlate.gov supertracker: http://www.choosemyplate.gov/supertracker-tools.html and http://www.choosemyplate.gov/supertracker-tools/daily-food-plans.html
  - Fitbit: http://www.fitbit.com/
  - Jawbone: https://jawbone.com/
  - Lose It: http://www.loseit.com/
  - My Fitness Pal: https://www.myfitnesspal.com/
  - My Food Diary: https://www.myfooddiary.com/?source=b_diet_track&OVKEY=diet%20tracker%20online
- Visit www.beckydorner.com for additional resources.

The Obesity Challenge: Weight Management for Adults and Older Adults

Instructions for Obtaining Continuing Professional Education

Becky Dorner & Associates is a Continuing Professional Education (CPE) Accredited Provider (NU004) with the Commission on Dietetic Registration (CDR). CDR Credentialed Practitioners will receive 15 Continuing Professional Education units (CPEUs) for completion of this activity/material.

To obtain the CPE certificate, each participant must pass a test (a grade of 70% is required) and complete a simple evaluation. You may re-take the test as many times as needed. If you are interrupted and cannot finish the test, you can save the test and come back later to finish it. You are also required to complete the two essay questions on the following pages. These are for your own portfolio records.

There are 2 ways to access the test:

1. Access your email order confirmation and scroll towards the bottom where you will find an area that states, *"To take a TEST, click on the link(s) below:"* There will be a link after the text for you to click on; you can fill in your name to take the test and receive the certificate.

2. If you are a member on the Becky Dorner & Associates' website, you can access the test by logging into the website at www.beckydorner.com. Once you are logged in, click on the left tool bar on the category "Members Only", then click on "Purchased Tests". This page has all of the tests that you have purchased from Becky Dorner & Associates.

Carefully read the contents of this program. Keep in mind the practical applications it has for you in your individual setting. The focus is to increase your knowledge and application of the subject matter. For multiple choice questions select the one best answer from the choices given.

Upon successfully completing the test, you will automatically be directed to the evaluation. Simply enter your email address and complete the evaluation. When finished, click "Submit Survey." Click on either "print" or "download your certificate" to generate the CPE Certificate with all of the course information including your name.

For Registered Dietitian Nutritionists, Registered Dietitians, and Dietetic Technicians Registered: After successfully completing the self-testing portion of this continuing education package, a certificate of completion is provided for your portfolio. Place the certificate in your portfolio for your records. You do not need to submit this form to Becky Dorner & Associates, Inc. or to the Commission on Dietetic Registration (CDR).

Important for Certified Dietary Managers: Once you have completed the course and obtained your certificate by following the instructions above, please obtain the subsequent approval form from the Association of Nutrition & Foodservice Professionals (ANFP) website to request your continuing professional education credits (as required). Do not submit this form to Becky Dorner & Associates, Inc.
http://www.anfponline.org/CE/CE_forms_subsequent.shtml

Description

An astonishing 69% of Americans are overweight or obese. Correlate this statistic with the rapidly aging population in the U.S., and the issue of aging and obesity presents a multitude of challenges for health care providers. Obese individuals have the highest risk for developing chronic health conditions that often reduce mobility and quality of life, complicate care, and challenge providers to develop unique approaches. *The Obesity Challenge: Weight Management for Adults and Older Adults* provides essential tools and knowledge to meet the evolving needs of this growing population.

The Obesity Challenge provides essential tools and knowledge to meet the evolving needs of this growing population. This comprehensive publication includes information on obesity trends, health issues, nutritional needs calculations, sample screening, assessment and care plan clinical documentation forms, and almost 90 fabulous copy ready educational handouts you can use with your clients, patients, and residents! It includes the tools and resources you need to set up inpatient and outpatient weight management programs for adults and older adults in a variety of settings - hospital based systems, long term care or private practice.

* Hard copy includes a CD-Rom of almost 90 pages of full color, copy ready educational materials with lessons for healthy eating and lifestyle suggestions to help your clients, patients, and residents reach their individualized weight loss goals. E-copy includes the handouts in easily downloadable files.

The Obesity Challenge: Weight Management for Adults and Older Adults

Learning Objectives

Upon completion of this program, participants will:

1. Understand and apply available evidence based research related to successful adult weight loss
2. Apply tools provided to implement successful Nutrition Care Process documentation for this population including nutrition assessment, nutrition diagnosis, nutrition interventions, monitoring and evaluation
3. Implement appropriate policies and procedures for an organized interdisciplinary weight management program
4. Utilize available resources to assist in providing information and education for the unique long term health care needs of this population
5. Apply practical tips for assisting people to implement positive healthy changes

CDR Learning Needs Codes

5370 Weight Management, Obesity
3000 Nutrition Assessment
5000 Medical Nutrition Therapy
5090 Adults

CDR Level: 2

CDR Performance Indicators

8.3.6 Keeps abreast of current nutrition and dietetics knowledge and trends.
8.1.1 Interprets and applies evidence-based comparative standards for determining nutritional needs.
10.2.9 In collaboration with the client and interdisciplinary team (including NDTRs), selects and implements current and evidence-based nutrition interventions and patient education.
12.4.6 Applies and integrates the Nutrition Care Process to meet the complex needs of the target population.

Continuing Professional Education Expert Reviewers

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The Obesity Challenge: Weight Management for Adults and Older Adults

Copy Ready Educational Materials

Introduction

Educational Materials

A combination of lifestyle and eating behaviors contribute to healthy weight status. The copy ready educational materials in this publication provide "Lifestyle Lessons" and "Nutrition Nuggets" for you to use to teach participants to recognize how simple changes in lifestyle and behaviors can yield positive results in health and weight. The Eating Plan is provided for use as desired. There are also examples of other healthy diet guidelines in the main text section of The Obesity Challenge book.

These materials may be used as tools for individual education and counseling, or as part of a class or newsletter for your clients. You may want to consider providing the materials on three hole punch paper and providing a three ring binder for each participant's use. Please note that the copyright must remain on all copied materials.

Suggestions for use of copy ready materials:

1. Place the following materials from *Lifestyle Lessons* in a three ring notebook for each participant's use:
   - Lose Weight to Improve Health
   - Reasons I Want to Lose Weight
   - The Importance of Goal Setting
   - Lifestyle Commitment Contract
   - Goals for the Week of _____ pages
   - Food and Activity Diary
   - Measurements and Weight Record
   - Additional materials may be added as desired
2. Utilize the materials in any way you choose based on individual needs for counseling and education. Provide the materials with three hole punches to be placed in the three ring binder. Ask the client to bring the binder to each counseling session so you can review the meal planner, measurements, goals for the week, and place new material in the binder.
3. Materials may also be used for group classes. Optional class outlines are included for your use. We have presented them in what we think is a logical order, however you may combine them any way you choose.
4. The materials may be printed in full color or black and white.

Introduction

Suggested Classes for 8 Week Course

Combine these Lifestyle Lessons with these Nutrition Notes:

Lifestyle Notes	Nutrition Notes
1. Lose Weight to Improve Health and Measurements and Weight Records	Nutrition Basics, How Does Your Diet Rate and Guidelines for a Healthy Lifestyle
2. Reasons I Want to Lose Weight	Finding Your Way to a Healthier You, Choose My Plate and/or Eating Plan
3. Importance of Goal Setting, and Lifestyle Commitment Contract	Portion Sizes
4. Physical Activity for Weight Management	Dietary Fats
5. Identify Why You Eat	Dietary Protein and Increasing the Fiber in Your Diet
6. Controlling the Amount You Eat	Reducing Sodium in Your Diet
7. Positive Reinforcement	How to Use Nutrition Information From Food Labels
8. Visualization and Positive Affirmations	Medications and Herbs for Weight Loss
9. Munch Busters	Carbohydrates: Choose Wisely
10. Website Resources for a Healthy Lifestyle	Good Selections When Dining Out

Introduction

Template: Instructor's Outline for Weight Management Program

Class ___: Title:_____

1. **Handouts for this session:**
    - **a.**
    - **b.**
    - **c.**

2. **Weights and Measurements** (Can be done by individual or by instructor.)
    - **a.** Take weight and write it in on the ***Measurement and Weight Record.*** Take measurements the first, middle and the week of classes.

3. **General Discussion About Last Week's Class and Assignments** (or if this is the first class, discuss their desired results from taking the classes)**:**
    - a. Reinforce the importance of attending the classes, doing the assignments, following the techniques offered, and reviewing the materials provided to reinforce what they learn in each class. These are the things that will help them to be successful.

4. **Review the Handouts, Discuss and Answer Questions**
    - a. Build in some exercises to help reinforce key messages.
    - b. Sample Activity: Have participants fill in the ***How Does Your Diet Rate?*** form
        - i. Discuss the results of rating their diets—What changes can they easily make that will create success? Examples:
            1. Reduce portions sizes and visible fats
            2. Increase vegetables, fruits and whole grains
            3. Drink more water
            4. Eat fewer sweets and high fat snacks

5. **Summary of Today's Class (Key Points)**

6. **Assignments/Action Plan:**
    - a. Review the actions you want them to take for the next week based on the lesson for the day.
    - b. Example: Follow your eating plan and your physical activity plan.
        - i. Record your food intake and physical activity in the ***Food and Activity Diary.***
            1. Keep it with you and document as soon as you have eaten or exercised (this helps to keep it accurate).
            2. Document EVERTHING you eat or drink (including amounts of cream, sugar, butter, salad dressing, etc.).
            3. Measure portion sizes for accuracy.
        - ii. Work on 1-2 of the behaviors you want to improve and document what you do to improve.

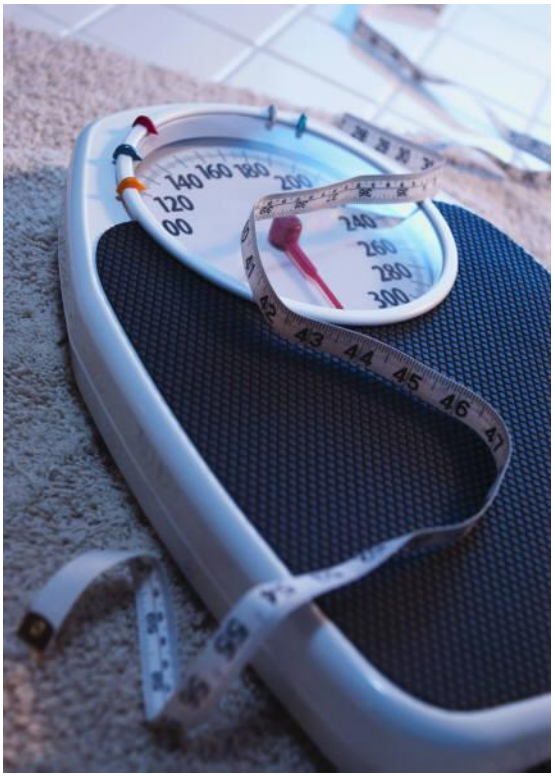
Introduction
Lose Weight to Improve Health

Obesity Defined
Approximately 69% of Americans are considered overweight or obese. Overweight and obesity are classified using body mass index (BMI). BMI is a measure of body fat based on height and weight which is often utilized as an indicator of weight status and health. The following chart indicates classifications of overweight and obesity based on BMI:

NIH Classification of Overweight and Obesity by BMI*

	Obesity Class	BMI (kg/m^2)
Normal		18.5-24.9
Overweight		25.0-29.9
Obesity	I	30.0-34.9
	II	35.0-39.9
Extreme Obesity	III	≥40

*This guideline specifically excludes pregnant women. Source (adapted from): Preventing and Managing the Global Epidemic of Obesity. Report of the World Health Organization Consultation of Obesity. WHO, Geneva, June 1997.



My Height: _____

My Weight: _____
Date: _____

My BMI Level: _____

My Weight Classification:

Obesity's Effect on Health
Obesity increases the risk of high blood pressure, high cholesterol, high triglyceride levels, type 2 diabetes, heart disease, stroke, gallbladder disease, sleep apnea, respiratory problems, and certain types of cancer (endometrial, breast, prostate, and colon).

Waist Circumference
The presence of excess fat in the abdomen (waist circumference) out of proportion to total body fat also creates risk for disease.

The following levels indicate risk for disease:

≥35 in women
≥40 in men

My Waist Circumference: _____ (Date:_____)

Introduction
Lose Weight to Improve Health

Advantages of Weight Loss
Weight loss helps decrease the likelihood of developing diseases, or if disease is present, to control diseases such as: diabetes, high blood pressure, high cholesterol and triglyceride levels.

- **Diabetes:** Weight loss decreases blood glucose levels and HbA1c (a measure of blood glucose levels over several weeks) in some patients with type 2 diabetes. People with pre-diabetes can prevent or delay the onset of diabetes by losing just 5 to 7% of their body weight.
- **Blood Pressure:** Weight loss and increased aerobic activity have been shown to reduce blood pressure levels in overweight and obese individuals.
- **High Cholesterol or Triglycerides:** Weight loss and increased aerobic activity are recommended to decrease total cholesterol, LDL, and triglycerides, and to increase HDL in overweight and obese individuals.

Goals of Weight Loss and Management
- Reduce body weight by 10% within 6 months. Further weight loss can be attempted if indicated.
- Diet, physical activity and lifestyle changes are needed to maintain weight loss.
- Sustained physical activity can help prevent weight regain.

My Current Weight:	My 6 Month Weight Loss Goal:

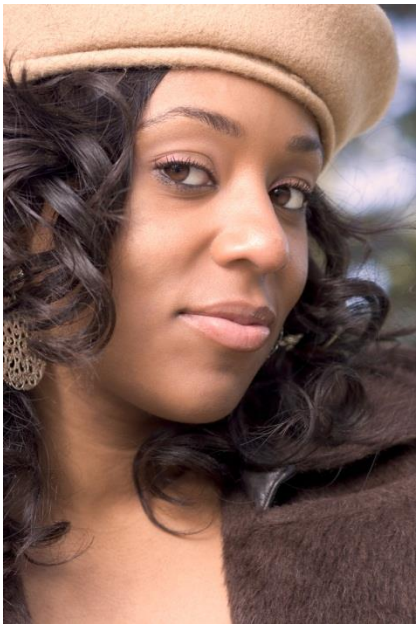
Remember:

1. **Balance energy expenditure with food consumption:**
   The number of calories you consume must be lower than the number of calories you expend in order to lose weight.
2. **Control portion sizes:**
   Controlling portions and gradually reducing portion sizes is a key to losing weight and keeping it off.
3. **All foods can fit:**
   Balance, moderation and variety are the key.

"And in the end, it's not the years in your life that count. It's the life in your years."
- Abraham Lincoln

Introduction
Reasons I Want to Lose Weight

There are many reasons for wanting to lose weight: appearance, health, self-esteem, etc. You might have only one reason or you might have many. Why do you want to lose weight? Be sure you are choosing to lose weight for the right reasons. Your desire to lose weight needs to be because *YOU* want to. Do it for yourself—not for someone else!



Reasons I Want to Lose Weight:

1._____

2._____

3._____

4._____

5._____

What's Holding You Back?

List your usual excuses for not sticking to a weight control program. Are these excuses logical? List a logical argument against each excuse. Then note what you will do differently from now on.

My Usual Excuses for NOT Following a Program	Logical Argument	What I'll do Now
Example: I'm just too stressed and when I'm stressed, I eat.	**There are other things I can do to manage stress.**	**I'll go for a walk.**
1.		
2.		
3.		
4.		
5.		

Introduction
The Importance of Goal Setting

Learn to Set Reasonable Goals

Avoid all-or-nothing goals (use of the words *always* or *never*). Perfection is difficult to achieve, and you may be setting yourself up for failure. Instead of deciding, *"I'll never eat snacks again," set a reasonable goal such as "I'll limit my snacks to once a day."*

Set SMART goals. Each goal must be:

1. **Specific:** Make the goal as specific as possible: answer who, what, where, when, how?
2. **Measurable:** Be able to measure the results: answer how much, how many, how will I know when I've done it?
3. **Attainable:** Be sure it is achievable within the time frame you set.
4. **Realistic:** It must be something you are truly willing and able to achieve. The goal is probably realistic if you *believe* you can do it.
5. **Timely:** Set a goal date of when each goal will be accomplished.

Expect some difficulty performing new behaviors in situations where you have habitually overeaten. But realize that repeated failures may mean that you have set goals that are too difficult.. Go back and review your goals and make them reasonable for your new way of living.

Sample SMART Goals

- I will eat at least 2½ cups of vegetables and 2 cups of fruits every day starting June 1.
- I will walk a minimum of 30 minutes at least 4 times a week.
- I will limit empty calorie foods to no more than 200 calories each day.

List Your Personal Goals Here

Do you want to be slim? Confident? Assertive? Do you want to be energetic? Active? Physically fit? Do you want to improve your relationships with others?

List your main goals here:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Introduction
The Importance of Goal Setting

Use Positive Affirmations
In order to start believing that you can be what you want to be, you must first start telling yourself that you are the person you want to become. In other words, you must project into the future and visualize that you are already the person you want to be.

- *"I am now a slim size 10."*
- *"I am energetic and I feel great!"*
- *"I am enjoying an active lifestyle."*

These examples are called affirmations. Affirmations are always stated in the present tense. Review your personal goals, and write at least 5 affirmations that will help you to achieve your goals.

To be most effective, affirmations are repeated when you first wake up, before you go to sleep, and as many times throughout the day as possible. Use affirmations in combination with visualization for a very positive impact on achieving your goals and you will be on your way to becoming the person you want to be!

List your affirmations here:

1.

2.

3.

4.

5.

6.

7.

8.

Turn Negative to Positive
Practice using positive thinking to reach your goals for weight control and health.

Jot down a typical negative thought:

Now turn it into a positive statement:

Remember: YOU Are In Control
You are in charge of your eating and exercise behaviors, only you.

Take responsibility now and choose to live with healthy habits: A well-controlled healthy diet, a reasonable exercise plan and positive thoughts will help you to achieve all of your goals and dreams.

Lifestyle Commitment Contract

This contract is only one step in a series of lifestyle changes that you will be making, but it will help to guide the decisions that you make on a daily and weekly basis. It is important for you to look into the future and visualize what you want your lifestyle to be like. Picture how you will look and feel a year from now, and visualize your fitness level and your health. Think about how you will live your daily life, what kinds of people you will spend time with, what types of activities you will spend your time on, and how your newly found health and fitness will affect your life.

It's time to enjoy life to the fullest! Focus on your goals for a healthy life by keeping these goals in a place where you can view them and visualize your success every day.

My Personal Health Goals

I will make the following lifestyle changes:	For these healthy reasons:	My plans for accomplishing these goals are:	I'll know I have reached this goal when:	My reward for achieving this goal:
1				
2				
3				
4				
5				
6				

My support will come from these people, who I will talk with at least weekly:	
_____	_____
_____	_____

_____ _____

Signature Date

Goals for the Week of _____

Name: _____ **Date:** _____

"Life is not merely to be alive, but to be well." ~Marcus Valerius Martial

Goal 1: Nutrition

Strategies: _____ Reward: _____

_____ _____

_____ _____

_____ _____

Goal 2: Lifestyle

Strategies: _____ Reward: _____

_____ _____

_____ _____

_____ _____

Goal 3: Fitness

Strategies: _____

_____

_____

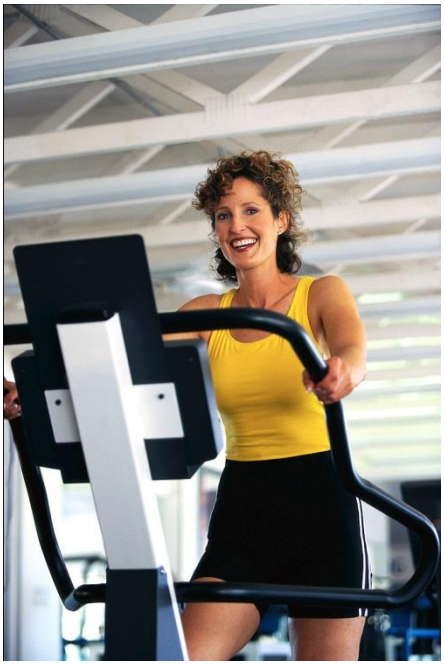
_____

Reward: _____

_____

_____

_____



Goals for Week of _____

Name: _____ **Date:** _____

"Lack of activity destroys the good condition of every human being, while movement and methodical physical exercise save it and preserve it." ~Plato

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____

_____

_____

_____

Reward: _____

_____

_____

_____

Goals for Week of _____

Name: _____ **Date:** _____

"A man's health can be judged by which he takes two at a time - pills or stairs."
~Joan Welsh

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____
_____
_____
_____

Reward: _____
_____
_____
_____

Goals for Week of _____

Name: _____ **Date:** _____

"Those who think they have not time for bodily exercise will sooner or later have to find time for illness". ~Edward Stanley

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____
_____
_____
_____

Reward: _____
_____
_____
_____

Goals for Week of _____

Name: _____ **Date:** _____

"An early-morning walk is a blessing for the whole day." ~Henry David Thoreau

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

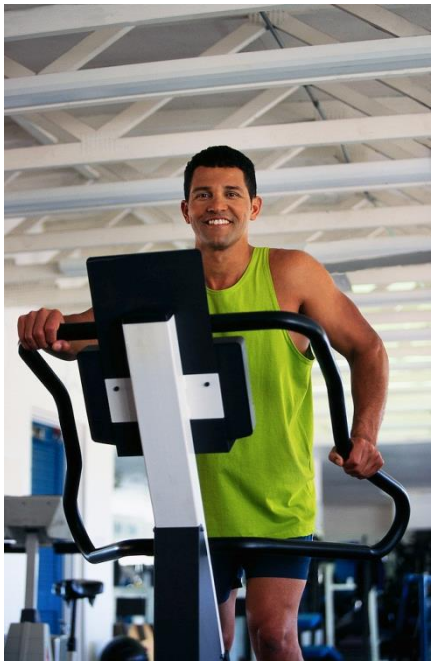
Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____
_____
_____
_____

Reward: _____
_____
_____
_____



Goals for Week of _____

Name: _____ **Date:** _____

"A vigorous 5 mile walk will do more good for an unhappy but otherwise healthy adult than all the medicine and psychology in the world". ~Paul Dudley White

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____
_____
_____
_____

Reward: _____
_____
_____
_____

Goals for Week of _____

Name: _____ **Date:** _____

"After dinner sit a while, and after supper walk a mile." ~English Saying

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____
_____
_____
_____

Reward: _____
_____
_____
_____

Goals for Week of _____

Name: _____ **Date:** _____

"Wherever flaxseeds become a regular food item among the people, there will be better health." ~Mahatma Gandhi

Goal 1: Nutrition

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 2: Lifestyle

Strategies:	Reward:
_____	_____
_____	_____
_____	_____

Goal 3: Fitness

Strategies: _____
_____
_____
_____

Reward: _____
_____
_____
_____

Nutrition Nuggets
How Does Your Diet Rate?

Please rate your diet according to the following system:

A (5) = All the time / Excellent
B (4) = Most of the time / Good
C (3) = Sometimes / Fair
D (2) = Rarely / Poor
F (1) = Never / Very Poor

Rate Your Diet:	**A** (5)	**B** (4)	**C** (3)	**D** (2)	**F** (1)
I eat/drink at least 3 servings of low fat **milk/alternates** daily					
I eat 6 ounces of **grains** (half of them whole) daily					
I eat at least 2 ½ cups of **vegetables** daily					
I eat at least 2 cups of **fruit** daily					
I eat 5-6 ounces of **meat or meat alternates** daily					
I eat at least 1 serving of fruit or vegetable/juice that is high in **vitamin C** daily (Orange/juice, grapefruit/juice, broccoli, strawberries, cauliflower, cantaloupe, etc.)					
I eat at least 1 serving of fruit or vegetable/juice that is high in **vitamin A** daily (Carrots, sweet potatoes, apricots, apricots, green leafy vegetables, etc.)					
I limit empty calorie-sweets to occasional treats					
I limit salty foods and I avoid adding **salt** at the table					
I limit **high fat/high cholesterol** foods in my diet					
I include at least 5-8 servings of **high fiber** foods in my daily diet (whole grains, fruits, vegetables)					
I eat at least 3 **meals** a day					
I eat no more than 3 **snacks** a day					
I drink at least 8-10 (8 ounce) glasses of **calorie free beverages** such as water daily					
Total Score					

Total score =_____. Divide your total score by 15 = _____. Compare your average score to the rating system at the top of the page.

How did your diet rate? _____ (A=5, B=4, C=3, D=2, F=1)

Nutrition Nuggets
Guidelines for a Healthy Lifestyle

The Department of Health and Human Services and the Department of Agriculture releases US Dietary Guidelines for Americans to guide consumers to choose a healthy lifestyle. The following are some general guidelines that are helpful for weight management.

Take 3 Major Action Steps for a Healthy Lifestyle

1. **Balance calories with physical activity to manage weight.**
   - Know your calorie needs (how many calories to consume each day based on age, sex, level of physical activity). *Work with your healthcare professional to determine an appropriate calorie level.*
   - Consume smaller portions, especially of high-calorie foods such as sugar-sweetened beverages.
   - Choose lower-calorie options, especially when eating foods away from home.
   - Increase overall physical activity.
   - Avoid negative eating behaviors such as snacking, fast food and eating in front of the television.

   - Reduce sedentary behaviors (especially television and video games).
   - Adults should do the equivalent of 150 minutes of moderate intensity aerobic activity each week (some people may need up to 300 minutes per week).

2. **Consume more of certain foods such as fruits, vegetables, whole grains, fat-free and low fat dairy products, and seafood.**
   - Shift food intake patterns to a more plant-based diet that emphasizes vegetables, cooked dry beans and peas, fruits, whole grains, nuts and seeds.
   - Increase the intake of seafood and fat free and low fat milk and milk products, and consume only moderate amounts of lean meats, poultry and eggs.
   - These changes will help increase nutrient intake.

3. **Consume fewer foods with sodium (salt), saturated fats, *trans* fats, cholesterol, added sugars, and refined grains.**
   - Significantly lower excessive calorie intake from solid fats and added sugars (SoFAS) because these dietary components contribute excess calories and few, if any, nutrients.
   - Reduce sodium intake and lower intake of refined grains, especially refined grains that are coupled with added sugar, solid fat and sodium.

One should eat to live, not live to eat.
~Cicero, Rhetoricorum LV

Nutrition Nuggets
Guidelines for a Healthy Lifestyle

Overarching Concepts
Nutrient needs should be met primarily through foods that are nutrient-dense and relatively low in calories. In certain cases, fortified foods and dietary supplements may be useful in providing one or more nutrients that otherwise might be consumed in less than recommended amounts.

Two eating patterns that embody the Dietary Guidelines are the *USDA Food Patterns* and their vegetarian adaptations and the *DASH Eating Plan* (Dietary Approaches to Stop Hypertension). These patterns emphasize vegetables, fruits, low fat dairy products, whole grains, poultry, seafood, nuts and are lower in sodium, red/processed meats, sweets and sugar containing beverages. Refer to *Eating Plan: Food Choice Values* for more information.

Key Recommendations

Balance Calories to Manage Weight
• Prevent and/or reduce overweight/obesity through improved eating and physical activity behaviors. • Control total calorie intake to manage body weight. For people who are overweight or obese, this means consuming fewer calories from foods and beverages. • Increase physical activity and reduce time spent in sedentary behaviors. • Maintain appropriate calorie balance during each stage of life.

Foods and Nutrients to Increase

Individuals should meet the following recommendations as part of a healthy eating pattern while staying within their calorie needs:

- Increase vegetable and fruit intake. Eat a variety of vegetables, especially dark-green, red/orange vegetables, beans and peas.
- Consume at least half of all grains as whole grains. Increase wholegrain intake by replacing refined grains with whole grains.
- Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages. Choose a variety of protein foods including seafood, lean meat/poultry, eggs, beans/peas, soy products, unsalted nuts/seeds.
- Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.
- Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils.
- Use oils to replace solid fats where possible.
- Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in American diets. These foods include vegetables, fruits, whole grains, and low fat milk and milk products.

Nutrition Nuggets
Guidelines for a Healthy Lifestyle

Foods/Food Components to Reduce

- Reduce daily sodium intake to less than 2,300 mg and further reduce intake to 1,500 mg among persons who are 51 and older, those of any age who are African American, or have hypertension, diabetes, or chronic kidney disease. The 1,500 mg recommendation applies to about half the U.S. population, including children and the majority of adults.
- Consume less than 10% of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.
- Consume less than 300 mg/day of dietary cholesterol.
- Keep *trans* fatty acid consumption as low as possible by limiting foods that contain synthetic sources of *trans* fats, such as partially hydrogenated oils, and by limiting other solid fats.
- Reduce the intake of calories from solid fats and added sugars (SoFAS).
- Limit the consumption of foods that contain refined grains, especially refined grain foods that contain SoFAS and sodium.
- If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and two drinks per day for men—and only by adults of legal drinking age.

Individuals Ages 50 Years and Older

- Consume foods fortified with vitamin B_{12}, such as fortified cereals, or B_{12} supplements

Building Healthy Eating Patterns

- Select an eating pattern that meets nutrient needs over time at an appropriate calorie level.
- Account for all foods and beverages consumed. Assess how they fit within a total healthy eating pattern.
- Follow food safety recommendations to prepare and eat foods to reduce the risk of foodborne illnesses.

Note*:* For more information, visit *The Dietary Guidelines for Americans* website at: http://www.dietaryguidelines.gov.

Nutrition Nuggets
Choose My Plate

USDA ChooseMyPlate Food Guidance System

The U.S. Department of Agriculture (USDA) released the ChooseMyPlate food guidance system in 2011 to help Americans make healthy food choices and to be physically active every day. This is a brief review of the ChooseMyPlate system. Details can be found at http://www.choosemyplate.gov/.

The ChooseMyPlate icon is designed to remind us to eat healthfully. It illustrates the five food groups using a familiar mealtime visual, a place setting. The www.choosemyplate.gov website features practical information and tips to help people build healthier diets, featuring selected messages that focus on key behaviors including:

- Enjoy your food, but eat less.
- Avoid oversized portions.
- Make half your plate fruits and vegetables.
- Switch to fat-free or low-fat (1%) milk products
- Make at least half your grains whole grains.
- Compare sodium in foods like soup, bread, and frozen meals—and choose foods with lower sodium levels.
- Drink water instead of sugary drinks.

ChooseMyPlate's Basic Messages

ChooseMyPlate's basic messages about healthy eating and physical activity apply to people over the age of 2 years. The messages mirror those found in the 2010 Dietary Guidelines for Americans:

1. Balancing Calories: Enjoy your food, but eat less. Avoid oversized portions.
2. Foods to Increase: Make half your plate fruits and vegetables. Make at least half your grains whole grains. Switch to fat-free or low-fat (1%) milk and milk products.
3. Foods to Reduce: Compare sodium in foods like soup, bread, and frozen meals — and choose the foods with lower numbers. Drink water instead of sugary drinks.

				
Grains Group	Vegetable Group	Fruit Group	Dairy Group	Protein Foods Group
Make at least half your grains whole.	Vary your veggies.	Focus on fruits.	Get your calcium-rich foods.	Go lean with protein.

Nutrition Nuggets
Choose My Plate

Choose My Plate:
10 Tips to a Great Plate

The 10 Tips Nutrition Education Series includes the Choose MyPlate tips shown here as well as additional tip sheets on the following topics:

- Add More Vegetables to Your Day
- Focus on Fruits
- Make Half Your Grains Whole
- Got Your Dairy Today?
- With Protein Foods, Variety Is Key
- Build a Healthy Meal
- Healthy Eating for Vegetarians
- Smart Shopping for Veggies and Fruits
- Liven up Your Meals With Vegetables and Fruits
- Kid-Friendly Veggies and Fruits
- Be a Healthy Role Model for Children
- Cut Back on Your Kid's Sweet Treats
- Salt and Sodium

The website includes consumer information such as: Sample Menus for a Week, Food Group-Based Recipes, and print-ready content. Personalized ChooseMyPlate plans can be created by visiting www.choosemyplate.gov.

Interactive Tools

Interactive tools on the website include:

- Daily Food Plan for personalized eating plans.
- My Foodapedia for quick access to food information – food groups, calories and comparisons.
- SuperTracker where people can plan what they should eat to reach their personal goals and, track food intake and physical activity.
- Calorie burn chart, and more.

Visit the website for additional information to address special population needs including information on weight loss.

Source: United States Department of Agriculture, Choose MyPlate Website. http://www.choosemyplate.gov/index.html.

Additional tools related to the *Dietary Guidelines for Americans, 2010* are available through the Health.gov website at http://health.gov/dietaryguidelines/2010.asp#overview.

Nutrition Nuggets
Finding Your Way To A Healthier You

The food and physical activity choices you make every day affect your health—how you feel today, tomorrow, and in the future. Healthful habits can help reduce the risk of many chronic diseases and increase your chances for a longer life.

1. Make smart choices from every food group

Give your body the balanced nutrition it needs by eating a variety of nutrient-packed foods every day within your daily calorie needs.

- **Focus on fruits:** Eat a variety of fruits (rather than fruit juice) for most of your fruit choices.
- **Vary your veggies:** Eat more dark green vegetables (broccoli, kale, dark leafy greens); orange vegetables (carrots, sweet potatoes, pumpkin, winter squash); and beans and peas (pinto, kidney, black, garbanzo beans, split peas, lentils).
- **Get your calcium-rich foods:** 3 cups of fat free or low-fat milk (or equivalent) every day. If needed, consider lactose-free products and/or calcium-fortified foods and beverages to meet your calcium needs.
- **Make half your grains whole:** Eat at least 3 ounces of whole-grain cereals, breads, crackers, rice, or pasta every day (1 ounce = 1 slice of bread, 1 cup of cereal, or ½ cup of cooked rice/pasta). When reading labels, look for ***whole*** wheat, rice, oats, corn.
- **Go lean with protein:** Choose lean meats and poultry. Bake, broil, or grill. And vary protein choices—with more emphasis on fish, beans, peas, nuts, and seeds.
- **Know the limits on fats, salt, and sugars:** Read the Nutrition Facts label on foods. Look for foods low in saturated fats and *trans* fats. Choose and prepare foods and beverages with little salt (sodium) and/or added sugars (caloric sweeteners).

2. Find a balance between food and physical activity

Regular physical activity helps control body weight by balancing the calories you consume with the calories you expend each day.

- Be physically active at least 30 minutes on most days.
- Increasing the intensity or the amount of time you exercise can have even greater health benefits.
- 60 minutes a day may be needed to prevent weight gain.

3. Get the most nutrition out of your calories

- The right number of calories for you depends on your age, activity level and whether you want to maintain or lose weight.
- Choose the most nutritionally-rich foods from each food group daily—those packed with vitamins, minerals, fiber, and other nutrients but lower in calories. Pick fruits, vegetables, whole grains, and fat-free or low-fat milk/milk products more often.

4. Understand and manage behaviors related to overeating and lack of physical activity.

Consider This:
If you eat 100 more calories a day than you burn, you'll gain about 1 pound per month (10 pounds a year). To lose weight, you must reduce calories and increase physical activity. Body fat provides 3500 calories per pound. To lose 1 pound of body fat, reduce calorie intake and/ or increase caloric expenditure by 3500 calories a week.

Nutrition Nuggets

Eating Plan: Food Choice Values

The Eating Plan is a nutritionally well-balanced diet. Approximately 50 to 55% of the calories are from carbohydrates, 15 to 20% from protein, and 25 to 30% from fat.

Your nutrition care provider will assist you in establishing the eating plan this is right for you.

Work with your registered dietitian nutritionist (RDN) or nutrition and dietetic technician registered (NDTR) for suggestions to increase fiber, lower sodium, cholesterol or trans fats if needed.

There is no need to count calories. Simply follow your Eating Plan Level as determined by your health care provider, and the calories have already been calculated for you.

In addition, you are guaranteed to have a well balanced, nutritionally adequate diet if you follow the food plan as outlined.

All you have to do is follow the guidelines for your Eating Plan Level.

The Eating Plan includes 6 different food groups:

1. **Meats/Meat Alternates**
2. **Milk/Milk Alternates**
3. **Fruits**
4. **Vegetables**
5. **Breads/Grains**
6. **Discretionary Calories**

The foods in each group contain similar levels of calories, carbohydrates, proteins, fat, vitamins and minerals. Therefore, you may trade, substitute, or exchange one food for another ***within*** each list. Foods need to be eaten in the proper portion sizes as outlined in the food lists. For example, one Fruit serving would consist of any food from the Fruit Group (1 small apple, 12 grapes, or 1 small orange, etc.). A serving is a portion of food from one of the 6 food groups.

You may exchange one food for another within each group, but you may not exchange a food from one group with a food from another group. For example, you may exchange 1 slice of bread for 6 soda crackers, but you cannot exchange 1 slice of bread for 1 oz. of meat.

Nutrition Nuggets

Eating Plan: Food Choice Values

The **Fruit Group** provides carbohydrates, fiber, minerals such as potassium, and vitamins such as vitamins A and C. Fruits will help satisfy your sweet tooth and fill you up.

The **Vegetable Group** is an excellent source of carbohydrates, fiber, minerals such as magnesium and potassium, and vitamins such as vitamins A and C.

The **Bread/Grain Group i**s an excellent source of carbohydrates, B vitamins, and iron. Some of these foods are also good sources of fiber (mostly foods derived from whole grains). This group not only contains bread, but also bagels, buns, crackers, cereal, rice and pasta.

The **Milk/Milk Alternate Group** is an excellent source of **calcium**. It also provides protein, carbohydrates, vitamins and minerals such as magnesium, phosphorus, potassium and riboflavin. And most milk is fortified with vitamins A and D. Some of the choices in the milk group contain fat. Choose from fat free or low fat choices.

The **Protein Foods Group** is a good source of **protein** and iron. Select foods that are low in fats and saturated fats. Choose low fat meats and alternates, low fat cheese, dry beans, peas and lentils. And use only moderate amounts of higher fat foods such as fatty meats, peanut butter, and eggs.

Discretionary Calories from alcohol, fat and sugar provide additional calories, but may be lower in nutrients. These foods can be part of your eating plan in small amounts. Some fat is essential for health. Foods from the fat group provide fat, vitamin A, and some provide omega 3 fatty acids.

Fats are classified as polyunsaturated, monounsaturated and saturated fats. Choose mostly from polyunsaturated and monounsaturated fats. Fats should be kept to a minimum because fat is the most concentrated form of calories. Carbohydrate and protein contain 4 calories per gram, while fat contains 9 calories per gram.

Free Foods may be eaten in limited amounts.

Refer to list of ***Free Foods*** for details.

Nutrition Nuggets

Eating Plan: Food Choice Values

Implementing My Individualized Eating Plan
Daily Food Guidelines for Each Calorie Level

Calories	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
My Calorie Level (check the level that is right for you)											
Meat/alternate Ounce equivalents	3	4	5	5	5.5	6	6.5	6.5	7	7	7
Milk/Alternate Cups	2	2	3	3	3	3	3	3	3	3	3
Fruit Cups	1	1.5	1.5	1.5	2	2	2	2	2.5	2.5	2.5
Vegetable Cups	1	1.5	1.5	2	2.5	3	3	3.5	3.5	4	4
Breads/Grains Ounce Equivalents	3	4	5	5	6	7	8	9	10	10	10
Oils (healthy fat) Teaspoons	3	4	5	5	6	6	7	8	8	10	11
Discretionary Calories (alcohol, solid fats and added sugars)	171	171	132	195	267	290	362	410	426	512	648
Calorie Free Beverage/Water 8 oz. Servings	≥8	≥8	≥8	≥8	≥8	≥8	≥8	≥8	≥8	≥8	≥8

These patterns are based on a healthy, well-balanced diet which can also be low in fat, cholesterol, sugar and salt; and high in fiber with the proper food choices (USDA MyPlate)

Notes:

_____

_____

_____

Nutrition Nuggets

Eating Plan: Food Choice Values

My Healthy Eating Plan

Copy your Eating Plan under "Servings per Day". Next plan your meals and snacks spreading the number of servings throughout the day in equal amounts. Plan at least 2 snacks per day.

Foods	***Servings Per Day***	***Breakfast***	***Snack***	***Lunch***	***Snack***	***Dinner***	***Snack***
Meat/Alternative							
Milk/Alternative							
Fruit							
Vegetable							
Bread/Grain							
Oils (healthy fat)							
Discretionary Calories							
Calorie Free Beverage/Water 8 oz. Servings							

Nutrition Nuggets

Eating Plan: Food Choice Values

Guidelines for Following the Eating Plan

1. Follow your meal plan
Eat all foods listed on your eating plan. Do your best not to exceed the total number of selections of food in a given day.

2. Plan meal times, and eat on schedule
Plan your meals in advance to avoid impulse eating. Avoid eating for the 2 hours before bedtime.

3. Eat 5 to 6 small meals and snacks per day
Studies have shown that we burn calories more efficiently in smaller amounts. Eating 5 to 6 times a day may be beneficial with the use of controlled portions. It may also be a good way to help control hunger.

4. Measure and weigh all foods and calorie containing beverages
All foods should be measured or weighed after cooking. Use standard measuring cups and spoons, and a small scale for meats and cheeses.

5. Count all foods as part of your plan
This includes items used in preparation, such as milk, bread crumbs, flour, eggs, margarine, butter, etc. Fat allowances may be used to prepare foods (to season vegetables, flavor salads or spread on breads) but you must stay within the limits of fat as specified your eating plan.

6. Eat a variety of foods each day
Include as many different types of foods as possible within your eating plan.

7. Avoid high fat preparation techniques
Do bake, broil, roast or boil. Don't fry food.

8. Only the foods within a food list are interchangeable
For example, a slice of bread ***may not*** be exchanged for an ounce of meat. However, when your diet calls for 2 servings from one food group, you may either double the amount of one food item, or choose 2 different food items.

9. Special "diet" foods are not necessary unless desired
Use fresh, canned or frozen foods without added sugar or fat. Many so-called "diet" foods are no lower in calories than their regular counterparts. Read food labels carefully: Check calories, carbohydrates, protein and fat per serving.

10. Drink at least 8 (8 ounce) glasses of calorie free beverages including water daily.

Nutrition Nuggets

Eating Plan: Food Choice Values

Vegetables

Each portion contains approximately 25 calories, 5 grams carbohydrate and 2 grams protein. Vegetables provide carbohydrates, vitamin A, B6, potassium, dietary fiber, calcium, magnesium, vitamin C, and folate. NOTE: Also see "Free Foods" for list of Free Vegetables.

Food and Amount Equivalent to 1 Portion: Prepared without added fat or other ingredients	
Raw • 1 cup raw vegetables • Note: Includes starchy vegetables such as potatoes	**Canned, Cooked or Frozen** • ½ cup **Juice** • ½ cup (vegetable or V-8 juice)

Vegetables are organized into 5 subgroups (dark green, red and orange, starchy, dry beans and peas, and other), based on their nutrient content. Because the starchy vegetables and dry beans contain higher amounts of carbohydrate, they are included in the Grains/Breads group.

Dark Green Vegetables

x Bok Choy
+ x Broccoli
x Collard Greens
+ x Dark Green Leafy Lettuce
x Kale
x Mesclun
x Mustard Greens
x Romaine Lettuce
+ x Spinach
x Turnip Greens
x Watercress

Other Vegetables and Juices

Artichokes
Asparagus
Bean Sprouts
Beets
+Brussels Sprouts
x Cabbage
Cauliflower
Celery
Cucumbers
Eggplant
Green Beans
+Green / **+ x** Red/Yellow Peppers

Other Vegetables and Juices

Iceberg (Head) Lettuce
Italian Green Beans
Mushrooms
Okra
Onions
Parsnips
Pea Pods
Sauerkraut (High sodium)
Summer Squash
Turnips
Water Chestnuts
Wax Beans

***Red and Orange Vegetables**

x Carrots
+ x Carrot Juice
x Pumpkin
+ x Red Peppers
+Tomatoes (If canned, choose low sodium)
+Tomato Juice (choose low sodium
+ x Vegetable Juice (choose low sodium)

+ Good source of Vitamin C **x Good source of Vitamin A**

Nutrition Nuggets

Eating Plan: Food Choice Values

Fruits

Each portion contains approximately 60 calories and 15 grams carbohydrate. Fruits are good sources of carbohydrates, dietary fiber, minerals, potassium, vitamins A and C. Choose fresh fruits when possible. Choose sugar-free frozen, or canned fruits packed in water or juice. Choose vitamin C fortified juice if juice is used to meet vitamin C requirements.

Fresh, Frozen or Canned	Amount
Apple, Fresh, small	1 (4 oz)
Applesauce	½ cup
xApricots, Fresh, Medium	4 (5½ oz)
xApricots, Canned	½ cup or 4 halves
Banana	½ (4 oz)
Blackberries, Fresh	¾ cup
Blueberries, Fresh	¾ cup
+xCantaloupe, Small	⅓melon (11 oz)
+xCantaloupe, Cubes	1 cup
Cherries, Large, Fresh	12
Cherries, Canned	½ cup
Fruit Cocktail, Canned	½ cup
+Grapefruit, Large	½ (11 oz)
+Grapefruit, Canned	¾ cup
Grapes, Small	12-15
Honeydew Melon, Medium	1/8
Honeydew Melon, Cubes	1 cup or 1 slice (10 oz)
+Kiwi, Large	1 (3⅓ oz)
Mandarin Oranges	¾ cup
xMango, Small	½ (5 ½ oz)
Nectarine	1 (5 oz)
+Orange, 2 1/2”	1 (6 ½ oz)
+xPapaya, Cubes	1 cup
Peaches, Fresh, 2 3/4”	1 (6 oz)
Peaches, Fresh, Pieces	1 cup (6 oz)
Peaches Canned	½ cup
Pear, Fresh, Large	½
Pears, Canned	½ cup
Pineapple, Fresh	¾ cup
Pineapple, Canned	½ cup
Plum, Fresh, 2”	2
Raspberries, Fresh	1 cup
+Strawberries,Fresh Whole	1¼ cup
+Tangerines	2 (8 oz)
Watermelon, Cubes	1¼ cup

Juice	Amount
Apple Juice	½ cup
Apple Cider	½ cup
Cranberry Juice Cocktail	⅓ cup
Cranberry Juice Cocktail, Reduced Calorie/Sugar	1 cup
Fruit Juice Blends 100% Juice	⅓ cup
+Grapefruit Juice	½ cup
Grape Juice	⅓ cup
+Orange Juice	½ cup
Pineapple Juice	½ cup
Prune Juice	⅓ cup

Dried Fruit	
Apple Rings	4
Apricot, Halves	8
Dates, Medium	3
Figs	1½
Prunes, Medium	3
Raisins	2 Tbsp

+Good source of Vitamin C **xGood Source of Vitamin A**

Note: A high vitamin C juice (orange, grapefruit or fortified) will provide 90 mg vitamin C per day in 6 ounces.

Nutrition Nuggets

Eating Plan: Food Choice Values

Grains, Breads and Starches

Each portion contains approximately 80 calories, 15 grams carbohydrate, 3 grams protein and less than or equal to 1 gram fat. Breads, grains and starches are good sources of carbohydrates, B vitamins and iron. Whole grains are good sources of dietary fiber. Starchy vegetables are included here due to higher carbohydrate and calorie levels than other vegetables.

Breads	Amount
White	1 Slice
*Whole Wheat/Whole Grain	1 Slice
Rye	1 Slice
Oatmeal	1 Slice
Raisin, Unfrosted	1 Slice
English Muffin	½
Hot Dog Bun	½
Hamburger Bun	½
Roll, Small, Plain	1
Bread Sticks	
Crisp 4" x 1/2 "	2
Pancake, 4" Across, ¼" Thick	1
Waffle, 4" Square, Reduced Fat	1
Bagel, half	1 oz

Cereals	Amount
*Bran Cereals	½ cup
*Bran Cereals, Flakes	¾ cup
Grapenuts	¼ cup
Puffed Cereal	1½ cup
*Shredded Wheat	½ cup
Other Ready-to-Eat Cereals Unsweetened	¾ cup
Cooked Cereals (Oatmeal, etc.)	½ cup
Granola, Low Fat	¼ cup
Grits, Cooked	½ cup
Pasta/Rice/Grains	**Amount**
*Bulgar, Cooked	½ cup
Couscous, Cooked	⅓ cup
Pasta, Cooked	⅓ cup
Rice, White or *Brown (Cooked)	⅓ cup
*Wheat Germ	3 Tbsp

Starchy Vegetables	Amount
*Baked Beans	¼ cup
*Corn	½ cup
*Corn-on-the-Cob, Large	½ cob
Peas, Green	½ cup
Potatoes:	
Baked (1 Small or ½ Med)	3 oz
Mashed	½ cup
Lima Beans	⅓ cup
Mixed Vegetables	¾ cup
+Yam or Sweet Potato, Plain	½ cup
+xSquash, Winter (Acorn, Butternut, Pumpkin)	1 cup
Plaintain	½ cup

Crackers/Snacks	Amount
Graham Crackers, 2½" Square	3
Animal Crackers	8
Soda Crackers (Saltines)	6
Pretzels	¾ oz
Popcorn (Popped, No Fat Added)	3 cups
Rye Crisp, 2" x 3½"	4
Oyster Crackers	24
Melba Toast, Slices	4
Matzoth	¾ oz
*Whole Wheat Crackers, No Fat Added	¾ oz
Rice Cakes, 4" Across	2
Snack chips, Fat Free or Baked	¾ oz

+ Good Source of vitamin C x Good source of vitamin A *Good Source of fiber

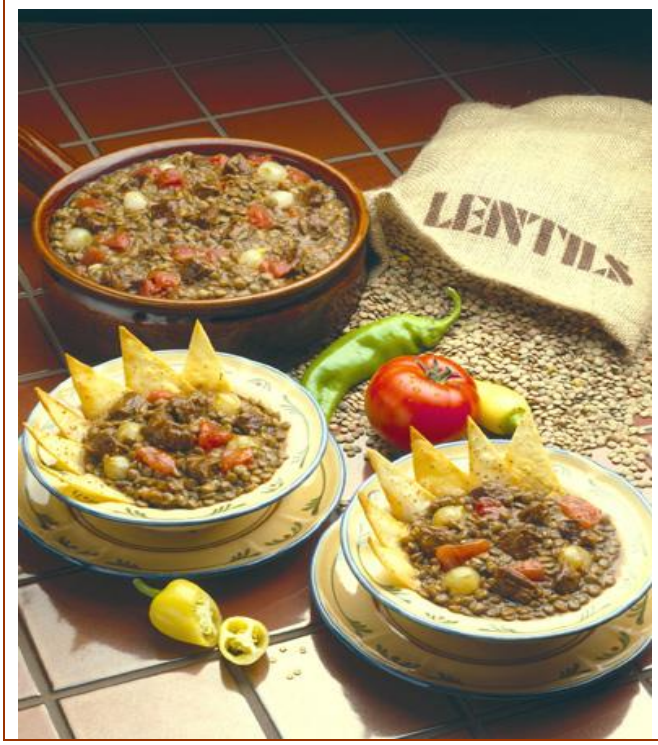
Nutrition Nuggets

Eating Plan: Food Choice Values

Grains, Breads and Starches

Each portion contains approximately 15 grams carbohydrate, 3 grams protein, less than or equal to 1 gram fat, 80 calories.

Dried Beans/Peas/Lentils	Amount
*Beans and Peas, Cooked (Black beans, Black-eyed Peas, Chick Peas, Garbonzo Beans, Kidney Beans, Pinto Beans, Split Peas, White Beans)	½ cup
*Lentils, Cooked	½ cup
*Lima Beans	⅔ cup
Miso (High Sodium)	3 Tbsp



*Starches Prepared with Fat	Amount
Note: These count as 1 Grain/Bread and 1 serving Fat	
Biscuit, 2 ½" Across	1
Butter Type Crackers	6
Bread Stuffing, Prepared	⅓ cup
Corn Bread, 2" Cube (2 oz)	1
Muffin, Small, Plain	1 oz
Taco Shell, 5" Across	2
Waffle, 4" Square	1
Whole Wheat Crackers with Added Fat (1 oz)	4-7
Croutons	1 cup
Potatoes, Oven Baked	1 cup
French Fries	(2 oz)
*Hummus	⅓ cup
*Popcorn, Microwaved	3 cups
Peanut Butter Crackers (Sandwich Type)	3
Snack Chips	¾ oz
Cookie	1 oz

***Good source of fiber**

Nutrition Nuggets

Eating Plan: Food Choice Values

Milk

Choose fresh, dried or evaporated. Use fat free or reduced fat versions depending on diet goals. Milk and dairy products may be used in cooking and food preparation (i.e. cream soups, puddings, etc.)

Limit whole milk products which contain 8 grams fat and 150 calories. Milk/Milk alternates are good sources of carbohydrates, protein, calcium, fat, magnesium, phosphorus, riboflavin, vitamins A and D.

Each portion contains approximately 12 grams carbohydrate, 8 grams protein, 0 to 3 grams fat and 90 calories for skim products; 5 grams fat and 120 calories for low fat products.

Skim and Very Low Fat	Amount
Skim Milk (Fat Free)	1 cup
½% Milk	1 cup
1% Milk	1 cup
Skim or 1% Fat Buttermilk	1 cup
Evaporated Skim Milk (Fat Free)	½ cup
Dry Nonfat Milk	⅓ cup
Plain Nonfat Yogurt (or Sweetened with Non-Nutritive Sweetener or Fructose)	6 oz
Soy Milk, Fat Free or Low Fat	1 cup

Low Fat	Amount
2% Milk	1 cup
2% Buttermilk	1 cup
Plain Low Fat Yogurt	1 cup
Yogurt, Low Fat, Sugar Free with Fruit	1 cup
Soy Milk, Low Fat	1 cup
Sweet Acidophilus Milk	1 cup
Lactaid Low Fat Milk	1 cup
Low Fat Kefir, plain	1 cup

Limit the following: Whole	Amount
Whole Milk	1 cup
Evaporated Whole Milk	½ cup
Whole Plain Yogurt	1 cup
Goat's Milk	1 cup
Kefir	1 cup

Nutrition Nuggets

Eating Plan: Food Choice Values

Protein Foods

Each one ounce portion contains approximately 55-100 calories and 7 grams protein. Calories vary depending on fat level of the meat/alternate chosen: 0 to 1 grams fat for very lean meats, 3 grams fat for lean meats, *5 grams fat for medium fat meats*, ***8 grams fat for high fat meats***. Choose the leanest meats available. Limit or avoid the high fat choices (denoted with italics) and the high fat, high cholesterol choices (denoted with bold italics). Meat and meat alternates are good sources of protein, B vitamins, iron and magnesium.

Beef	Amount
Round Steak	1 oz
Sirloin Steak	1 oz
Flank Steak	1 oz
Tenderloin	1 oz
Chipped Beef	1 oz
Ground Beef	1 oz
Rib, Chuck or Rump Roast	1 oz
Cubed Steak	1 oz
Porterhouse Steak	1 oz
T-bone Steak	1 oz
Meat Loaf	1 oz
Ribs	1 oz
Corned Beef *(High Sodium)*	1 oz

Pork	
Fresh Ham	1 oz
Boiled, Cured, or Canned Ham (High Sodium)	1 oz
Canadian Bacon (High Sodium)	1 oz
Tenderloin	1 oz
Chops	1 oz
Loin Roast	1 oz
Boston Butt	1 oz
Cutlets	1 oz
Spareribs	1 oz
Ground Pork	1 oz
Pork Sausage *(High sodium) (Patties or Links)*	1 oz

Veal	
Chops	1 oz
Roast	1 oz
Ground	1 oz
Cubed	1 oz

Poultry (Skinless)	Amount
Chicken	1 oz
Turkey	1 oz
Cornish Hen	1 oz
Ground Turkey	1 oz

Fish	
Fresh or Frozen, All Varieties	1 oz
Crab, Lobster, Scallops, Shrimp, Clams (Fresh or Canned in Water)	2 oz
Oysters	6 medium
Tuna or Salmon	1 oz
Fried Fish	1 oz

Cheese	
Cottage Cheese, Low Fat	¼ cup
Grated Parmesan	2 Tbsp
Cheese	1 oz
Cheese, Low Fat	1 oz
Ricotta, Skim or Low Fat	¼ cup
Mozzarella, part Skim	1 oz
Diet Cheese ≤ 3 Grams Fat/oz	1 oz
American	1 oz
Blue	1 oz
Cheddar	1 oz
Monterey	1 oz
Swiss	1 oz

High fat meats (Limit or use sparingly)

Nutrition Nuggets
Eating Plan: Food Choice Values

Protein Foods (continued)

Other	Amount
95% Fat Free Luncheon Meat (High Sodium)	1 oz
Egg Whites	2
Egg Substitutes (Plain)	¼ cup
Egg	1
86% Fat Free Luncheon Meat	1 oz
Tofu	2 oz (½ cup)
Soy Beans, Cooked	⅓ cup
Liver, Heart, Kidney, Sweetbreads	1 oz
Luncheon Meat, Regular *(High sodium)*	1 oz
Polish or Italian Sausage *(High sodium)*	1 oz
Smoked Knockwurst *(High sodium)*	1 oz
Bratwurst *(High Sodium)*	1 oz
Hot Dog (1 Gram Fat or Less per oz) *(High Sodium)*	1
Peanut Butter	2 Tbsp

High Fat (limit)
High Fat and High Cholesterol *(use sparingly)*

Nutrition Nuggets

Eating Plan: Food Choice Values

Healthy Fats

One portion contains approximately 45 calories and 5 grams of fat. These healthy fats are good sources of calories, vitamins D, vitamins E, vitamins K, omega fatty acids which can be helpful in controlling lipid levels.

Food & Amount Equal to 1 Serving: **Oils (1 teaspoon each)**		
• Canola • Corn • Cottonseed	• Olive • Safflower	• Soybean • Sunflower

Nuts and Seeds	Amount
Dry Roasted: +Almonds , Whole Cashews	6 nuts
Peanuts	10 nuts
+Walnuts, Whole	2
Pecans, Whole	2
Other Nuts	1 Tablespoon
Seeds: Pine Nuts or Sunflower	1 Tablespoon
Pumpkin Seeds	2 Tablespoons
Peanut Butter	2 teaspoons

+Excellent sources of Omega 3 Fatty Acids

Other Fats

Foods in this group are concentrated forms of energy (high in fat). Each portion contains approximately 45 calories and 5 grams of fat.

Fat	Amount
*Margarine: Regular	1 teaspoon
Reduced Fat	1 Tablespoon
Mayonnaise: Regular	1 teaspoon
Calorie-Reduced	1 Tablespoon
Salad Dressing: Regular	1 Tablespoon
Reduced Calorie	2 Tablespoons
Oil (Peanut)	1 teaspoon
*Butter	1 teaspoon
*Coconut, Shredded	2 Tablespoons
*Coffee Whitener, Liquid	2 Tablespoons
Powder	4 teaspoons
*Cream: Half & half	2 Tablespoons
*Sour Cream	2 Tablespoons
*Cream Cheese	1 Tablespoon
Olives, Black	8 large
Olives, Green	10 large
Avocado, Medium	1/8
*Gravy	2 Tablespoons

***Saturated Fats** (limit or use sparingly)

Nutrition Nuggets

Eating Plan: Food Choice Values

Free Foods

Free Foods in Unlimited Amounts

Sugar Substitute
Coffee/Tea
Fat Free Broth, Bouillon, Consommé Without Added Fat
Sugar-Free Carbonated Beverages
Club Soda, Sugar-Free Tonic Water, Carbonated Water
Sugar-Free Gelatin
Sugar-Free Pickles
Vinegar
Spices and Herbs
Mustard
Horseradish
Drink Mixes, Sugar-Free
Nonstick Pan Spray
Gum, Sugar-Free

Free Foods in Limited Amounts	Amount
Catsup	1 Tablespoon
Cocoa Powder, Unsweetened	1 Tablespoon
Jam/Jelly, Sugar-Free	2 teaspoons
Pancake Syrup, Sugar-Free	1-2 Tablespoons
Whipped Topping	2 Tablespoons
Salad Dressing, Low Calorie	2 Tablespoons
Taco Sauce	1 Tablespoon
Wine, Used in Cooking	¼ cup
Fruits	**Amount**
Unsweetened or Sweetened with Sugar Substitute	
Cranberries	½ cup
Lemon	½ cup
Lime	½ cup
Rhubarb	½ cup
Vegetables, Raw	**1 cup**
Cabbage	Hot Peppers
Celery	Lettuce
Chinese Cabbage	Mushrooms
Cucumber	Radishes
Endive	Romaine
Escarole	Spinach
Green Onion	Zucchini

Nutrition Nuggets

Eating Plan: Food Choice Values

Additional Calorie Foods/Beverages

Those who choose to drink alcoholic beverages should do so sensibly and in moderation—No more than 1 drink per day for women and 2 drinks per day for men. Alcoholic beverages should not be consumed by people who cannot restrict their alcohol intake, women of childbearing age who may become pregnant, pregnant and lactating women, children and adolescents, individuals taking medications that can interact with alcohol, those with specific medical conditions, or those engaging in activities that require attention, skill, or coordination, such as driving or operating machinery.

Alcohol	Portion	Calories, Approximate
Beer	12 oz	146
Wine	5 oz	122
Spirits (Gin, Vodka, Rum, etc.)	1½ oz	97

Combination Foods

Main-Dish	Amount	Food Equivalents
Casseroles, Homemade	1 cup (8 oz)	2 Starch, 2 Meats, 2 Fats
Cheese Pizza, Thin Slice	¼ of 10 inch (5 oz)	2 Starch, 2 Meats, 3 Fats
Chili with Beans	1 cup (8 oz)	2 Starch, 2 Meats, 2 Fat
Macaroni and Cheese	1 cup (8 oz)	2 Starch, 2 Meats, 2 Fats
Spaghetti and Meatballs	1 cup (8 oz)	2 Starch, 2 Meats, 2 Fats
or Lasagna	1 cup (8 oz)	2 Starch, 2 Meats, 2 Fats

Soups:	Amount	Food Equivalents
Bean	1 cup (8 oz)	1 Starch, 1 Very Lean Meat
Cream (Made with Water)	1 cup (8 oz)	1 Starch, 1 Fat
Vegetable, Chicken Noodle, Or Broth Based Soup	1 cup (8 oz)	1 Starch
Split Peas (Made with Water)	½ cup (4 oz)	1 Starch
Tomato	1 cup (8 oz)	1 Starch

Miscellaneous:	Amount	Food Equivalents
Ice Cream	½ cup	1 Starch, 2 Fat
Snack Chips	1 oz	1 Starch, 2 Fat

Nutrition Nuggets

Weekly Menu Planner for 1200 - 1800 Calorie Levels

Weekly Menu Planner Date:_____

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
BREAKFAST	__Meat/alternate __Milk/alternate __Fruit __Grains __Disc. Calories Beverage (Cal Free)							
SNACK	__Free Food __Fruit __Grains Beverage (Cal Free)							
LUNCH	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __Disc. calories Beverage (Cal Free)							

Nutrition Nuggets

Weekly Menu Planner for 1200 - 1800 Calorie Levels

Weekly Menu Planner Date:_____

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
SNACK	__Free Food __Fruit __Vegetable __Grains __ Disc. calories Beverage (Cal Free)							
DINNER	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __ Disc. calories Beverage (Cal Free)							
SNACK	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __Disc. calories Beverage (Cal Free)							

Nutrition Nuggets

Weekly Menu Planner for more than 1800 Calorie Levels

Weekly Menu Planner Date:_____

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
BREAKFAST	__Meat/alternate __Milk/alternate __Fruit __Grains __Oils and Disc. Calories Beverage (Cal Free)							
SNACK	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __Oils and Disc. Calories Beverage (Cal Free)							
LUNCH	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __Oils and Disc. Calories Beverage (Cal Free)							

Nutrition Nuggets

Weekly Menu Planner for more than 1800 Calorie Levels

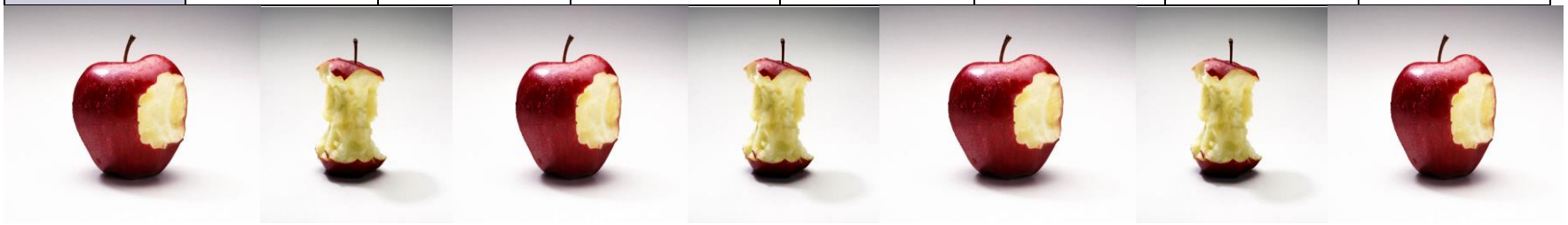
Weekly Menu Planner Date:_____

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
SNACK	__Free Food __Fruit __Vegetable __Grains __Oils and Disc. Calories Beverage (Cal Free)							
DINNER	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __Oils and Disc. Calories Beverage (Cal Free)							
SNACK	__Free Food __Meat/alternate __Milk/alternate __Fruit __Vegetable __Grains __Oils and Disc. Calories Beverage (Cal Free)							

Food & Activity Diary

Name_____ **Week of:**_____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast							
Snack							
Lunch							
Snack							
Dinner							
Snack							
Activity							
Notes							



Measurements and Weight Records

Name_____ Height _____

Starting Weight_____ Date_____ Goal Weight_____ BMI____ BMI Goal _____

Weigh only once a week. Also note weights on the Weight Record.

Use this website to calculate BMI:
http://www.cdc.gov/healthyweight/assessing/bmi/index.html.

Measurements should be taken every 2 to 4 weeks. Note: Even if you are losing weight, arm and calf measurements may increase with improved muscle mass from exercise.

Date									
Weight									
BMI									
Measurements									
Waist									
Arm (Rt/Lt)									
Chest/Bust									
Abdomen									
Hips									
Thigh (Rt/Lt)									
Calf (Rt/Lt)									

How/Where to Measure:

Waist: Measure at the smallest area of the waist.

Arm: Choose one or both and note which you are measuring (right or left). Measure at the largest area of the upper arm.

Chest/Bust: Measure at the largest area of the chest or bust.

Abdomen: Measure halfway between the waist and hips.

Hips: Measure at the largest area of the hips.

Thigh: Choose one or both and note which you are measuring (right or left). Measure at the largest area of the thigh.

Calf: Choose one or both and note which you are measuring (right or left). Measure at the largest area of the calf.

Nutrition Nuggets
Nutrition Basics

Weight and Calories

Weight control is achieved through a balance of calories consumed versus calories burned. Your nutrition care professional will help you determine the number of calories needed to safely and gradually lose weight, while increasing your activity level, to achieve a satisfying eating plan. To estimate the number of calories you need each day talk to your nutrition care professional, or visit the Mayo Clinic website at http://www.mayoclinic.org/calorie-calculator/itt-20084939.

Your eating plan should be well balanced in all the major nutrients, macronutrients (carbohydrate, protein, fat, water) and micronutrients (vitamins and minerals). Each nutrient is needed in balanced amounts to achieve a healthy diet. Carbohydrates and protein provide 4 calories per gram, while fat provides 9 calories per gram. Focus on controlling the amount of fat you eat, and choosing healthy sources of carbohydrates and proteins to balance your diet.

Carbohydrates

- The key is to choose healthy carbohydrates: whole grains, fruits and vegetables, and
- Avoid high calorie foods that are high in simple sugars and fats.

Protein

- Protein is needed to maintain healthy muscle and vital organs (as well as many other body processes).
- Protein sources that are low in fat are the focus of a healthy eating plan: lean meats, poultry, fish, and dried beans, peas, lentils.

Fat

- Fat is essential to a healthy diet, but you need to choose the right types of fat; some are healthier than others.
- Because fat is so concentrated in calories, you must limit fat in order to control calories and weight.

Water

- Water is an essential nutrient.
- Water keeps all of the cells in your body hydrated.
- Drink at least 8 - 8 ounce glasses of water and other low-calorie beverages throughout each day.

Nutrition Nuggets
Carbohydrates: Choose Wisely

Carbohydrates

- *"If you want to be healthy, avoid eating anything white (white rice, bread, flour, etc.)"*
- *"I followed a low carbohydrate, high protein diet and I lost weight!"*

With all the myths about carbohydrates like the statements above, it's easy to be confused! What are the real facts?

Carbohydrates are a great foundation for your eating plan! In fact, 50 to 60% of your total calories should come from carbohydrate sources. Carbohydrates supply the energy we need for every-day activities. Choosing the most nutritious carbohydrates every day will help to assure a healthy diet.

Simple carbohydrates or refined carbohydrates can provide "empty calories" which taste good, but provide little real nutritional value. Simple carbohydrates include: soda pop, high sugar beverages like fruit punch and sweetened tea, candy, cookies, cake, sherbet, ices, ice creams, etc. Limit your intake of simple sugars to control caloric intake and avoid missing out on important nutrients.

Complex Carbohydrates

Complex carbohydrates or unrefined carbohydrates provide important nutrients. Whole grains such as oats, wheat, and barley provide important nutrients like B vitamins and dietary fiber. Fruits and vegetables are complex carbohydrates that provide fiber and vitamins including vitamins A and C. It's important to consume at least 2 ½ cups of vegetables and 2 cups of fruit each day for a healthy diet. (See your eating plan for serving sizes).

High Fiber Carbohydrates

Whole grains, fresh fruits, vegetables, dry beans, and lentils are still the most beneficial forms of carbohydrates. These naturally high fiber foods also pack in extra vitamins and minerals. Read food labels and look for those foods that contain higher levels of fiber. Experts recommend 25 to 35 grams of dietary fiber each day.

Empty Calorie Carbohydrates Count

Just how much exercise does it take to burn off a high carbohydrate, high calorie dessert?

- **Small (6 oz.) bowl of ice cream** (215 calories): Walk 33 minutes!
- **Small (3 oz.) brownie** (344 calories): Walk 52 minutes!

Note: Calorie calculations based on a 150# person. To learn how many calories you can burn in 30 minutes of exercise refer to our informational piece entitled *Lifestyle Lessons: Physical Activity for Weight Management*.

Nutrition Nuggets
Carbohydrates: Choose Wisely

Myths about Carbohydrates

High Protein/ Low Carb Diets

Most nutrition professionals agree that high protein, low carbohydrate diets are not healthy for long periods of time. These diets promote consuming foods that are low in dietary fiber, high in fat, saturated fat, and cholesterol.

The fact is that the majority of people on these diets regain any lost weight and risk heart disease and cancer due to the overall poor nutritional quality of the diet.

Glycemic Index

There is insufficient research available to prove that glycemic index (GI) has an impact on weight control.

Some people use GI to measure the impact that a food has on raising blood sugar levels. Foods are ranked for their potential to increase blood sugar levels in comparison to white bread or glucose. Each food is given a GI number. Supposedly, the higher the number, the more likely the food is to raise blood sugar levels. But foods are eaten in combination, not individually, and combining foods can alter the GI. So until there is research to support the use of GI, the recommendation is to avoid its use.

Nothing but the Facts

Limit Simple Sugars

The average American consumes an unbelievable 158 pounds of sugar each year! Sugars are added to many foods and may be easily identified on nutrition labels. Avoid foods that have these items listed toward the beginning of the ingredient list: sugar, corn syrup, fructose, honey, maltose, molasses, concentrated fruit juice, sucrose.

Satisfying Your Sweet Tooth

Choose fresh, sweet fruit such as grapes, peaches, cherries, blueberries or mango. Try an artificial sweetener in your coffee, tea or iced tea. An unusual flavor of sugar free soda or soft drink (cherry, cherry cola, vanilla, raspberry, strawberry, mango or peach) might hit the spot.

Still craving something sweet? Consider an occasional treat (less than 100 calories):

- Popsicle or sugar free fudgesicle
- Animal crackers (12 = 90 calories)
- Sugar free hard candy or lollypop
- Low fat yogurt, 6 ounce
- Jelly beans (15) or plain M&Ms (25)
- Sherbet (1/2 cup)

Nutrition Nuggets
Carbohydrates: Choose Wisely

Teaspoons of Sugar in Foods

Food	Tsp
Cake, chocolate, frosted, 2 oz.	6.0
Cake, yellow, frosted, 2 oz.	6.0
Caramels, 1 oz.	5.0
Chocolate, milk, 1.5 oz. bar	5.7
Chocolate, dark, 1.5 oz. bar	5.5
Cola, sugar sweetened, 12 oz.	9.0
Cookie, chocolate, crème filled, 2 oz.	6.0
Cookie, sugar, made from refrigerated dough, 2 oz.	3.4
Doughnut, cake, frosted, 4.5 oz.	9.0
Hard candy, 1 oz.	4.5
Ice cream, chocolate, rich	6.5
Ice cream, vanilla, rich	11.0
Ice cream bar, chocolate covered, 4 oz.	21.0

Beat the Sweets!

1. Avoid having sweets in your home or office – if they are not there they can't tempt you.
2. Reduce foods that contain a high amount of sugar. Use food labels to help you choose lower sugar foods.
3. Go fresh! Avoid highly processed foods and choose fresh, natural foods instead.
4. Get into the habit of serving fruit for dessert. Fruits can help satisfy your sweet tooth.
5. Try new combinations of foods to create the flavors you crave. For example, top cereal with fruit or sprinkle a little coconut on your oatmeal instead of sugar.
6. Use creative imagery: Imagine yourself choosing a healthy food over sweet/sugary options.
7. Leave the scene of desire. If others are eating sugary foods or if you are faced with a display of sugary

options, walk away and concentrate on a healthier option.
8. Don't use sweets as a reward, or as a stress buster. Mindless eating of sweets will lead to rapidly consuming too many (empty) calories.
9. It's not all or nothing. Even though you may choose to start by cutting all sugar for 1-2 weeks to reduce your cravings, remember that sometimes the all or nothing mentality can set you up for failure. Consider reducing sweets rather than completely cutting them out of your diet.
10. Create your own lower sugar treats by cutting sugar in your recipes by up to 1/3 without drastically altering baked goods.

You can beat the sweets by following these tips and techniques!

Nutrition Nuggets
Dietary Fats

Fat Facts

The Dietary Guidelines for Americans suggests limiting total fat intake for good health.

Include a small amount of healthy fats in your diet: omega 3 fatty acids, monounsaturated fats, polyunsaturated fats.

Reduce the unhealthy fats in your diet: saturated fats and *trans* fatty acids.

Limit Intake of Dietary Fats (the most concentrated source of calories)

	Calories per gram	Calories per ounce
Fat	**9**	**270**
Carbohydrates	**4**	**120**
Proteins	**4**	**120**

There are obvious forms of dietary fat, but there are many hidden forms of dietary fats. Be aware of all dietary fats to limit total intake and control total calories each day.

Obvious/Visible Fats (Limit)	Hidden Fats (Limit)
Butter	Baked goods
Fat on meats, skin on poultry	Cakes
Fried foods (doughnuts, French fries, fried chicken, etc.)	Candy
	Cheese
Margarine	Cookies
Mayonnaise	Fat marbled into meats
Oils	Ground meats with high fat content
Salad dressings	Lunch meats
	Processed foods with high fat content
	Snack chips

Limit Saturated Fat

Challenge yourself to include no more than 5% of your total calories from saturated fats. Look for foods low in saturated fats and trans fats to help reduce your risk of heart disease (5% DV or less is low, 20% DV or more is high).

The rest of your dietary fat should come from monounsaturated and polyunsaturated fats such as olive oil, almonds, walnuts, avocado, safflower oil, and sunflower oil.

Nutrition Nuggets
Trim the Fat!

Read Food Labels

Review portion size, total calories, calories from fat, total fat grams, and types of fat (saturated, monounsaturated, polyunsaturated, and *trans* fats). Choose products that are low in total fat, calories from fat, saturated fats and *trans* fats. Avoid saturated fats: animal fats, cocoa butter, coconut oil, hydrogenated fats or oils, palm oil, shortening, vegetable fat or oil.

What Does it Mean?

Fat-free	Less than 0.5 g per serving
Low saturated fat	1 g or less per serving & 15% or less of calories from saturated fat
Low-fat	3 g or less per serving
Reduced fat	At least 25% less fat than the regular version
Light in fat	Half the fat compared to the regular version

Calculating Fat Calories and Percentage of Fat in Foods and Recipes

Most food labels show total calories and calories from fat. If you want to determine fat in recipes or percentage of calories from fat, use these formulas:

Calculation	Instructions	Example
Calculate the number of fat calories per serving in a food or recipe	Look up the total number of grams of fat per serving, and multiply by 9 (calories per gram in fat)	1 small Hot Dog has 130 calories, 11 grams fat 11 x 9 = 99 calories from fat
Determine the percentage of calories from fat	Take the total number of fat calories divided by the total number of calories per serving	99 ÷ 130 = 76% calories from fat
Here is an example for you to try	1 ounce (1" cube) cheddar cheese has 120 calories, 10 grams fat	10 x 9 = ___ calories from fat ___ ÷ 120 = ___ % of the calories from fat*

*Answer: 90 ÷ 120 =75%

Tips You Can Use

- Use more fish, poultry and lean cuts of meat (avoid high fat meats).
- Trim the fat off of meats and skin poultry before cooking and/or eating.
- Bake, broil, roast, boil, barbeque, grill, poach, stir-fry or microwave using little or no fat.
- Skim fat off soups and stews (cool down and skim solidified fat off the top).
- Use low-fat salad dressings and mayonnaise (limit the amounts—they still contain fat).
- Ask for dressings, gravies, sauces on the side and limit amount used.
- Dip your fork in the dressing instead of pouring it over your salad.
- Use low-fat dairy products.
- Review recipes for nutritional values, and choose low-fat recipes.

Nutrition Nuggets
Reducing Fat in My Eating Plan

Trim the Fat from This Menu

Review this menu and write a menu that you could follow that would be lower in fat.

Meal/Snack	High Fat Menu	Healthy Low-Fat Menu
Breakfast	2 Doughnuts 12 oz. Whole chocolate milk 2 cups Coffee with cream and sugar	½ cup Oatmeal 1 slice Whole grain toast 1 tsp. margarine 1 cup Skim milk Coffee or tea
Lunch	Big Mac Large French Fries Milkshake	Low fat sandwich with 2 ounces chicken breast, 2 slices Whole grain bread, lettuce, tomato, mustard 1 cup raw vegetables (carrots, cucumbers, broccoli, etc.) 1 cup Skim milk
Snack	3 oz. Potato chips 24 oz. Soda pop	1 piece fresh fruit (orange, apple, or kiwi, etc.) Water, iced tea, or sugar free soda pop
Dinner	10 oz. Ribeye steak Large baked potato with butter and sour cream Large tossed salad with ¼ cup dressing 2 rolls with butter 1 slice Apple pie with ¼ cup whipped cream 12 oz. Soda pop Coffee with cream & sugar	3 ounces grilled fish (tuna, salmon, or other fish) Medium baked potato with 1 tsp. margarine and 1 Tbsp. low fat sour cream 1 cup steamed Brussels sprouts Large tossed salad with 2 Tbsp. low fat dressing 1 small whole grain roll 1 baked apple with 2 Tbsp. low fat whipped topping Calorie free beverage of choice
Snack	1 Snicker's candy bar 1½ cups Ice cream with chocolate syrup, nuts and whipped cream	1 low fat granola bar 1 cup fresh strawberries 1 cup Skim milk, heated, with 1 tsp. vanilla flavoring

Every man is the builder of a Temple called his body. ~Henry David Thoreau

After dinner sit a while, and after supper walk a mile. ~English Saying

Nutrition Nuggets
Reducing Fat in My Eating Plan

Types of Dietary Fats

Fat	Details	Fats to Avoid	Fats to Include
Saturated fats	Come from both animal and plant sources.	Animal sources: whole milk and dairy products, lard and meats. Plant sources: palm oil, palm kernel oil, coconut oils and cocoa butter.	
Trans fats	**Limit as much as possible.** Can raise total and LDL cholesterol and lower HDL cholesterol.	Often used in commercial baked goods (cookies, crackers, cakes, etc.) and for frying foods.	
Hydrogen-ated fats	The process of hydrogenation changes a liquid oil to a solid form -and a more saturated form. May raise blood cholesterol levels.	Commercial food products tend to contain hydrogenated or partially hydrogenated vegetable oils.	Liquid and soft tub margarines contain little saturated fat or trans fat.
Polyunsat-urated (PUFA) and Monoun-saturated Fats (MUFA)	Healthier fats from plant sources may help lower blood cholesterol when used as part of a healthy low fat/low saturated fat diet. • PUFA oils are liquid at room and refrigerator temperature. • MUFA oils are liquid at room temperature but solidify when refrigerated.		**PUFA:** safflower, sesame, soy, corn and sunflower-seed oils; nuts and seeds. **MUFA:** olive, canola and peanut oils; and avocados. American Heart Association recommends fats and oils that contain less than 2 grams of saturated fat/ tablespoon.
Fish Oil and Omega-3 Fatty Acids	Can be of benefit to healthy people, people at high risk of or people who have CVD. **People with coronary heart disease** should consume ~1 gram of EPA+DHA/day, preferably in the form of fatty fish. ***Talk to your doctor before taking any supplements***.		**Eat fish (particularly fatty fish) at least twice a week**: albacore tuna, salmon, lake trout, mackerel, herring and sardines are high in EPA and DHA - 2 types of omega-3 fatty acids. **Eat canola, walnut and flaxseed, and their oils.**

Nutrition Nuggets
Reducing Fat in My Eating Plan

Trimming the dietary fat and switching to healthy fat is easy to do! The more you experiment with it, the better you get at healthy eating.

Over the next week I will implement the following strategies to improve my diet (reduce my dietary fat and saturated fat intake, switch to healthier fats), improve my diet and physical activity plan:

_____

_____

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I will further my plan by doing the following:

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Additional Notes:

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Nutrition Nuggets
Protein: Choose Wisely

Protein
Protein is needed to maintain healthy muscles and organs, as well as many other body processes. Most people only need about 5 ½ ounces protein each day, so getting enough protein is not usually a problem. Use the food guide provided to help plan how much protein to eat each day. Choose low fat protein foods and low fat cooking methods.

Lean Meats
Lean meats, poultry, and fish are all good sources of low fat protein. Avoid high-fat cuts of beef like New York strip steak and rib eye. Look for beef without lots of fat ("marbling") running through it. Trim excess fat from beef, pork, and poultry, and remove skin from poultry.

Dairy Foods
Milk, cheese, and yogurt are good sources of protein. Look for low fat dairy foods like skim or 1% milk, cheese and yogurt made from skim or 1% milk.

Eggs
Egg whites are an excellent source of protein and can be eaten as often as you like. Egg yolks are high in fat and cholesterol; for this reason people often limit their egg intake. However, egg yolks contain other important nutrients and can be part of a healthy diet when eaten in moderation.

Meat Alternates
Dried beans, like black-eyes peas, black beans, kidney beans, great northern beans, and lentils are inexpensive, low in fat, full of nutrition, and delicious. Try replacing some meats with dried beans.

Nuts and seeds like almonds, walnuts, pecans, peanuts, and sunflower seeds, can be a good source of protein. Nuts are high in healthy fats but also high in calories, so choose small portions!

Soy foods include soy milk, tofu, tempeh, and soy "meat" products like vegetarian patties. These are good sources of vegetable protein.

High-Protein Diets
Most nutrition professionals agree that high protein, low carbohydrate diets are not healthy for long periods of time. These diets promote consuming foods that are low in dietary fiber, high in fat, saturated fat, and cholesterol and eliminate foods that are high in nutrients.

Nutrition Nuggets
Increasing Fiber in Your Diet

What is Fiber?
Dietary fiber is the component in food which cannot be digested and simply passes through the body. It is the complex carbohydrate found in plant sources, which gives the plant cells their outer structure. Foods vary in the amounts and types of fiber they contain. There are two types of fiber: water soluble and water insoluble.

Why Do We Need Fiber?
- **Regularity:** Fiber helps stimulate the bowel due to its ability to absorb many times its weight in water. By drawing water into the large intestine, it helps to make the stool larger, softer and easier to pass. Dietary fiber is preferred over laxatives and stool softeners as an approach for bowel regularity.
- **Weight Control:** High fiber foods can replace foods that are high in fat, sugar and calories. High fiber foods take longer to chew which slows eating pace and creates a feeling of satisfaction. They tend to be more filling because they absorb water. All of this helps to reduce total caloric intake.
- **Dietary fiber may help prevent certain diseases** (diverticulosis, hemorrhoids, constipation, and cancer of the colon).

Where Does Fiber Come From?
- The best sources of fiber are fresh fruits, vegetables, whole grains, dried beans, peas and lentils.
- Whole grains include: bran cereals, oats, shredded wheat, whole wheat or whole grain breads.

How Much Fiber Do We Need?
- Most Americans only consume about 15 to 20 grams of fiber each day.
- Fiber needs are individual, however, it has been recommended that most people need to gradually increase fiber intake to **25 to 35 grams of fiber each day.**

Steps to Increasing Fiber in Your Diet
1. Include a wide variety of fibrous foods in your diet: ***Whole grain*** breads, cereals, rolls, rice, pasta, crackers; fresh fruits and vegetables; dried beans (lentils, peas, navy, pinto, kidney beans).
2. Add fiber to your diet gradually (to avoid unpleasant side affects):
   - Simply adding a serving of bran cereal to your morning breakfast will add 5 to 10 grams of fiber per day.
   - Substitute a variety of high fiber foods for the low fiber foods already in your diet.
   - Unprocessed bran can be added to cereal, muffins, applesauce or baked goods (or substitute up to half the measured amount of flour with oat or wheat bran).
3. Drink a minimum of 8 (8 ounce) glasses of fluid per day. Hot beverages may act as stimulants.

Nutrition Nuggets
Increasing Fiber in Your Diet

Label Reading

When reading labels, choose foods with the following terms in the ingredient list, preferably toward the beginning of the list:

- Bran
- Whole grain
- Whole wheat
- Whole oats

Review the fiber content of foods. When deciding between two similar foods, choose the one with the higher fiber content.

Recipes

- Use ingredients that are high in fiber such as whole grains, fresh fruits and vegetables with seeds and skins (if tolerated), bran cereals, wheat germ, oats, etc.
- Add extra vegetables to salads, casseroles, spaghetti and other dishes.
- Choose recipes that are higher in fiber, or add high fiber ingredients to recipes.

Apple Bran Muffins

Yield: 12 muffins Serving size: 1 muffin

2 cups all purpose flour
2 tsp. granulated sugar
½ tsp. salt
1 Tbsp. baking powder
2 cups all bran cereal
2 cups apple juice
1 egg
¼ cup vegetable oil

Directions:

1. Stir together flour, sugar, salt, and baking powder in medium bowl. Set aside.
2. In large mixing bowl, combine bran cereal and apple juice. Let stand 2 minutes or until cereal softens. Add egg and oil; beat well.
3. Add dry ingredients, stirring only until combined. Portion batter evenly into twelve 2½ inch muffin-pan cups coated with cooking spray.
4. Bake at 400º F about 26 minutes or until golden brown. Serve warm.

Calories per muffin	160	Fat, grams	6
Protein, grams	4	Fiber, grams	4
Carbohydrates, grams	28		

Nutrition Nuggets
Increasing Fiber in Your Diet

Food Group	Choose more of this:	Choose less of this:
Fruits	Fresh fruits with edible skins or seeds Fresh raw fruits with edible skins and seeds Offer more fresh fruits than canned or juices Prunes or prune juice may be helpful	Canned or peeled fruits Juices Limit use of fruit juice and encourage whole fruits as much as possible
Vegetables	Include more fresh vegetables than cooked, canned or juices Fresh vegetables with edible skins and seeds Fresh raw or cooked vegetables preferably with edible skins and seeds (beans, beets, broccoli, cauliflower, corn, green or wax beans, greens, lettuce, peas, squash) Lentils, dried beans (kidney, navy, pinto, white, etc.) and split peas	Limit use of vegetable juice Canned or peeled vegetables Juices Other low fiber vegetables
Breads/ Grains	Whole wheat or whole grain breads, buns, rolls, bagels, muffins, tortilla shells, taco shells, pasta, brown rice, crackers, bran muffins Bran cereals (flakes, buds, raisin bran), shredded wheat, oatmeal, other whole grain cereals, wheat germ Whole wheat flour Brown rice	Processed/white bread, buns, rolls, bagels, crackers, white rice Refined cereals, low fiber cereals (i.e. cream of wheat or rice, corn flakes, crisp rice cereal) White flour White rice, noodles
Meat/ Alternates	Lentils, split peas, navy, pinto, kidney beans may be used in baked beans, casseroles or soups	
Discretionary Calories	Popcorn (low fat, low salt), if tolerated Desserts made with oatmeal and/or whole wheat flour Fruit based desserts such as fruit crisps	Potato chips, snack chips, similar snacks Pudding, cake, refined cookies, candy
Miscellaneous	Navy bean soup, split pea soup, mixed bean soup	Chicken noodle soup, cream soups (chicken, celery, onion, mushroom, etc.)
Beverages	**Minimum of 8 (8 oz) glasses of fluids including water each day**	

Nutrition Nuggets
Increasing Fiber in Your Diet

Focus on Fiber When Dining Out

When dining out, you can choose foods that will help increase your fiber intake, fill you up, and keep you satisfied.

Many of these food options also pack a punch of vitamins, minerals, and antioxidants for extra benefits to your health! Just think about how good you will feel after making healthy choices!

Appetizers
Fresh vegetables
Hummus

Soups
Bean, lentil or split pea soups
Vegetable based soups.

Salads
Spinach salad, mixed green salad or kale salad
Coleslaw
Bean salad
Other salads made with high fiber vegetables

Main Dish
Stir fried vegetables with or without beef, chicken or tofu
Asian dishes with vegetables and brown rice
Bean dishes (fajitas, tacos, burritos, etc.)
Vegetarian dishes with plenty of vegetables

Side Orders and Breads
Steamed vegetables
Brown rice
Whole grain breads/rolls, crackers, breadsticks, bran muffins

Desserts
Fresh fruits (strawberries, blackberries, blueberries, raspberries, etc.)

Nutrition Nuggets
Increasing Fiber in Your Diet

Increase the Fiber in this Menu

Review the menu below and write a menu that you could eat that would be higher in fiber.

Meal/Snack	Low Fiber Menu	Higher Fiber Fat Menu
Breakfast	1 cup Corn flakes 8 oz. Whole milk 2 cups Coffee with cream and sugar	
Snack	1 Doughnut 1 cup Coffee with cream and sugar	
Lunch	3 oz. Roast beef on 2 slices white bread 2 oz. Potato chips 12 oz. cola	
Snack	3 oz. Potato chips 12 oz. Soda pop	
Dinner	10 oz. Ribeye steak 1 Large baked potato with butter and sour cream Large tossed salad with ¼ cup dressing 2 Rolls with butter 1 slice Apple pie with ¼ cup whipped cream 12 oz. Soda pop Coffee with cream and sugar	
Snack	1 Snicker's candy bar 1½ cups Ice cream with chocolate syrup, nuts and whipped cream	

Reasons for increasing fiber in my diet:

Nutrition Nuggets
Increasing Fiber in Your Diet

_____

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How I can change my diet to increase fiber intake:

_____

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_____

Over the next week I will include the following strategies to increase my dietary fiber intake:

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_____

I will further my plan by gradually increasing fiber using the following strategies:

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Nutrition Nuggets
Reducing Sodium in Your Diet

The Facts

> ***Did You Know?***
> **The average sodium intake in the U.S. is about:**
> - **4,200 mg per day for men**
> - **3,300 mg per day for women**

- Approximately 32% of people over the age of 20 have hypertension (high blood pressure).
- Approximately 22% of adults are undiagnosed. Hypertension often has no warning signs or symptoms.
- 36% of adults have pre-hypertension, which increases the chance of heart disease and stroke.
- Once it occurs, hypertension usually lasts a lifetime. If uncontrolled, it can lead to heart and kidney disease, stroke, and blindness.
- People with hypertension and pre-hypertension may benefit from following a healthy diet that is low in sodium.
- The U.S. Dietary Guidelines set the goal for all Americans at 2,300 hundred milligrams (mg) of sodium per day, with a goal of 1,500 mg sodium per day for people 51 or older and anyone at risk of hypertension.

What Is Hypertension (High Blood Pressure)?

- Blood pressure is the force of blood against artery walls. It is measured in millimeters of mercury (mmHg) and recorded as two numbers—systolic pressure (when the heart beats) over diastolic pressure (when the heart relaxes between beats). Both numbers are important.
- When blood pressure stays elevated over time, it is diagnosed as hypertension or high blood pressure.
- Hypertension is dangerous because it makes the heart work too hard, and the high force of the blood flow can harm arteries and organs (heart, kidneys, brain, eyes).

> - **Hypertension is especially common among African Americans and older adults.**
> - **The good news is that hypertension can be treated and controlled to**

Blood Pressure Levels for Adults*

Category	**Systolic**** (mmHg)***	**Diastolic**** (mmHg)***
Normal: Good for you!	Less than 120 *and*	Less than 80
Pre-hypertension: Your blood pressure could be a problem. Make changes in what you eat/drink, be physically active, & lose extra weight. If you have diabetes, see your doctor.	120 to 139 *or*	80 to 89
Hypertension: You have hypertension (high blood pressure) and should see your doctor for treatment Stage 1 Hypertension Stage 2 Hypertension	140 to 159 *or* ≥160	90 to 99 ≥100

** For adults ages 18 and older who are not on medicine for high blood pressure and do not have a short-term serious illness.*
*** If systolic and diastolic pressures fall into different categories, overall status is the higher category. *** Millimeters of mercury.*
Source: Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure; NIH Publication No. 03-5230, National High Blood Pressure Education Program.

Nutrition Nuggets
Reducing Sodium in Your Diet

My Blood Pressure: _____/_____ Date: _____

Take These Steps to Control Hypertension (High Blood Pressure)

1. If you smoke, stop. Smoking cessation reduces high blood pressure, and reduces risk of other diseases and complications.
2. Maintain a healthy weight. Risk of developing hypertension is 2 to 6 times greater in people who are overweight. Losing even 10 pounds can lower blood pressure.
3. Follow a healthy diet that balances variety, calorie control, and foods that are lower in sodium and higher in potassium. The Dietary Approaches to Stop Hypertension (DASH) Diet is highly recommended.
4. Include moderate physical activity on most days of the week: 30 minutes of activity each day (or to avoid weight gain, 60 minutes per day). If you don't have high blood pressure, being physically active can help keep it that way.
5. If you drink alcoholic beverages, do so in moderation: Limit to one drink a day for women, 2 drinks a day for men.
6. If you are on a prescribed medication, take it as directed.

Cut the Sodium in Your Diet

The key to reducing sodium intake is making wise food choices. Avoid adding salt at the table, and limit processed foods. Many foods have added sodium. Read food labels and choose foods that are lower in sodium.

The Nutrition Facts labels on foods will help you compare the amount of sodium in products. Look for the sodium content in milligrams and the Percent Daily Value (DV).

Choose foods that are less than 5% of the DV of sodium. Foods with 20% or more DV of sodium are considered high. Here's what the label language means:

Sodium free or salt free	Less than 5 mg per serving
Very low sodium	35 mg or less of sodium per serving
Low sodium	140 mg or less of sodium per serving
Low-sodium meal	140 mg or less of sodium per 3½ ounces (100 g)
Reduced or less sodium	At least 25% less sodium than the regular version
Light in sodium	50% less sodium than the regular version
Unsalted or no salt added	No salt added to the product during processing (this is not a sodium-free food)

Nutrition Nuggets
Reducing Sodium in Your Diet

Tips To Reduce Salt and Sodium

- Avoid adding salt at the table: 1 tsp of salt = 2300 mg.
- Increase consumption of fresh, frozen, or canned (low-sodium or no-salt-added) vegetables.
- Use fresh poultry, fish, and lean meat, rather than canned, smoked, or processed varieties.
- Choose whole grain cereals such as oats or ready-to-eat breakfast cereals that are lower in sodium.
- Cook rice, pasta, and hot cereals without salt (avoid instant or flavored rice, pasta, and cereal mixes).
- Limit processed and convenience foods, such as cured foods (bacon and ham), foods packed in brine (pickles, pickled vegetables, olives, and sauerkraut); and condiments (mustard, horseradish, ketchup, and barbecue sauce). Limit even lower sodium versions of soy sauce and teriyaki sauce since these are still high in sodium.
- Choose "convenience" foods that are lower in sodium (avoid frozen dinners, mixed dishes, pizza, packaged mixes, canned soups, broths, sauces and salad dressings).
- Rinse canned foods, such as tuna and canned beans, to remove some of the sodium.
- Use spices instead of salt: Flavor foods with herbs, spices, lemon, lime, vinegar, or salt-free seasoning blends.
- **Snack ideas:** Unsalted rice cakes, unsalted nuts mixed with raisins, graham crackers, fat-free/low-fat yogurt/frozen yogurt, unsalted popcorn, raw vegetables.
- Watch out for softened water! Water softeners add sodium to drinking water.

Dining Out

- Eat more home cooked meals to have greater control over sodium levels in foods.
- Ask that foods be prepared without added salt, MSG, or salt-containing ingredients.
- Avoid foods that are pickled, cured, smoked, or those that contain soy sauce or broth.
- Follow the suggestions above and in addition, ask for baked, broiled or roasted meat, fish, or poultry without sauces (or served on the side) or salt, or blackening spices.
- Choose cooked to order dishes, fresh fruit or vegetables without sauce or seasoning.

Medications

- Follow your doctor's orders for taking all medications.
- Following a healthy diet and getting exercise on a regular basis may help to increase the effectiveness of your medication.
- As you lose weight, be sure to monitor your blood pressure and work closely with your doctor who can alter your medications as needed. (Weight loss may decrease your blood pressure, and your medications may need to decrease accordingly.)

Nutrition Nuggets
Reducing Sodium in Your Diet

Spice	Allspice	Basil	Bay Leaves	Cardamom	Caraway Seed	Cayenne	Celery Seed	Cinnamon	Cloves	Cumin	Dill	Garlic Powder	Ginger	Lemon Juice	Marjoram	Nutmeg	Onion Powder	Oregano	Paprika	Parsley	Pepper	Rosemary	Sage	Turmeric	Thyme
Beef	♥	♥	♥			♥						♥			♥	♥	♥		♥	♥	♥	♥	♥	♥	♥
Broccoli					♥	♥					♥										♥				
Cakes, Cookies								♥						♥		♥									
Carrots			♥			♥					♥		♥		♥	♥					♥				♥
Chicken		♥	♥			♥											♥		♥	♥	♥	♥	♥	♥	♥
Eggs						♥				♥									♥	♥	♥				
Fish		♥	♥			♥	♥						♥	♥					♥		♥				
Green Beans		♥				♥					♥			♥	♥	♥					♥				♥
Onions					♥	♥										♥		♥			♥		♥		♥
Peas		♥				♥					♥				♥					♥	♥		♥		
Pork	♥		♥			♥			♥			♥					♥				♥	♥	♥	♥	
Potatoes		♥	♥			♥											♥			♥	♥				♥
Soups & Stews	♥	♥	♥	♥	♥	♥	♥					♥			♥		♥		♥	♥	♥	♥	♥	♥	♥
Squash		♥				♥							♥		♥	♥		♥			♥				
Tomatoes		♥	♥			♥	♥					♥									♥				♥
Yams						♥		♥	♥							♥									

Nutrition Nuggets
Reducing Sodium in Your Diet

Start Moving!

If you have a chronic health problem or a family history of heart disease at an early age, be sure to talk with your doctor before launching a new physical activity program. Remember, trying too hard at first can lead to injury and cause you to give up. Your physical activity program can be as simple as a 15 minute walk around the block each morning and evening. Gradually build up your program and set new goals to stay motivated. Find something you enjoy. Here are a few simple tips:

1. **Set a schedule** and stick to it.
2. **Buddy up!** Ask a friend or family member to join you - motivate each other to maintain your exercise program.
3. **Cross-train:** Alternate between different activities so you don't strain one part of your body day after day.
4. **Set goals and then reward yourself:** At the end of each month that you stay on your exercise program, reward yourself with something new—clothes, music, a book. **DO NOT** use food as a reward.

Action Plan

☐ **I will monitor and record my blood pressure at least one time per week.**

☐ **I will make the following dietary changes, and will keep records of what I eat:**

_____
_____
_____

☐ **I will commit to the following exercise plan, and will keep records of my activity:**

_____
_____
_____

☐ **Additional notes:**

_____
_____
_____
_____

Nutrition Nuggets
Vitamins and Minerals

Micronutrients
Micronutrients include a variety of vitamins and minerals. There are many micronutrients that are essential to health. This section highlights some of the most important vitamins and minerals that should be included in your daily diet. (See the last page of this handout for Recommended Dietary Allowances (RDA's).

Vitamins
Water-Soluble: Water-soluble vitamins (B vitamins, vitamin C) are not stored in the body and must be replenished on a daily basis.

Fat-Soluble: Vitamins A, D, E, and K are fat-soluble vitamins. This means that they are stored in the body's fat tissue, and if taken in large quantities (through the use of supplements) they may build up in the body.

Vitamin A: Vitamin A is important for vision, bone growth, immunity, and reproduction. There are two sources of vitamin A: retinol (from animal sources such as milk, eggs, beef/chicken liver) and beta-carotene (from plant sources such as those listed below, and fortified oatmeal).

Most Americans consume enough vitamin A to meet the USRDA. If you consume 2½ cups vegetables and 2 cups of fruits daily, including dark green/leafy vegetables and deep yellow or orange fruits, you are likely to get enough of this vital nutrient.

Good sources are carrots, sweet potatoes, spinach, greens (turnip, collard, kale, beet, turnip, and mustard greens), squash, pumpkin, sweet potatoes, sweet peppers, cantaloupe, apricots, papaya, mango, etc.

Vitamin C: Vitamin C is an antioxidant which is needed for healthy skin, cartilage, bones, and teeth. Good food sources of vitamin C include oranges, grapefruits, green peppers, broccoli, strawberries, tomatoes, leafy green vegetables and cantaloupe. People who smoke, and pregnant and nursing mothers need additional vitamin C each day to meet their needs.

Nutrition Nuggets
Vitamins and Minerals

B Vitamins
The B vitamins include thiamine, riboflavin, niacin, pantothenic acid, biotin, vitamin B_6, vitamin B_{12} and folate. These vitamins are essential to help your body make energy from the food you eat, and to form red blood cells. Good sources include protein foods (fish, poultry, meat, eggs, and dairy products), leafy green vegetables, beans/peas; cereals and breads may have added B vitamins. A lack of vitamin B_{12} or B_6 can cause anemia.

Vitamin B_{12} helps maintain healthy nerve cells and red blood cells, and helps to create DNA. Vitamin B_{12} is bound to the protein in food and during digestion, the B_{12} is released to combine with a substance called intrinsic factor (IF). This combination can then be absorbed by the intestinal tract.

Vitamin B_{12} is naturally found in foods that come from animals, including fish, meat, poultry, eggs, milk, and milk products. Fortified breakfast cereals are also a valuable source.

Most children and adults in the United States (U.S.) consume adequate B_{12}. However, older adults are at greater risk of developing a vitamin B_{12} deficiency because of problems absorbing it from food.

Strict vegetarians who do not consume animal foods may also be B_{12} deficient. Older adults and vegetarians may need supplementation with vitamin B_{12}.

Individuals with pernicious anemia or gastrointestinal disorders such as celiac disease or Crohn's disease may need a vitamin B_{12} supplement

Vitamin D: 50% of women do not get enough vitamin D. This vitamin is needed to maintain normal blood levels of calcium and phosphorus, to form/maintain strong bones and to maintain a healthy immune system. There are two major sources: food and the sun. Sunlight triggers vitamin D synthesis in the skin: 10 to 15 minutes of sunshine at least twice a week can help you meet your need for vitamin D. After your 10 to 15 minutes, be sure to use sunscreen with an SPF of at least 15 to prevent sun damage to the skin.

Food sources include fortified milk/milk products, salmon, mackerel, tuna, and sardines.

Older adults and those with limited sun exposure may benefit from vitamin D supplementation.

Nutrition Nuggets
Vitamins and Minerals

Minerals
Calcium: Your body needs calcium for healthy bones, muscles and blood vessels, and to secrete hormones and enzymes.

The most effectively-absorbed sources of calcium come from the foods you eat. Calcium-rich foods include dairy products (milk, cheese and yogurt), soy milk, tofu and leafy, green vegetables.

If you don't drink milk or cannot tolerate milk, fortified foods that contain calcium are available. These include beverages such as calcium-fortified orange juice.

You may also need to talk with your doctor or registered dietitian about calcium supplementation.

Iron
Iron is essential for oxygen transport and cell growth. A deficiency can result in fatigue, poor work performance, and decreased immunity.

Good sources of iron include: fortified cereals, organ meats, clams, oysters, soybeans, tofu, dried beans and beef.

Determining Nutrient Content
When reading labels for vitamins and minerals, remember that the Daily Values (DV) are reference numbers based on the Recommended Dietary Allowances (RDAs).

Most food labels list the percent DV which indicates the percentage of the DV provided in one serving. A food providing 5% or less of the DV is a poor source while a food that provides 10% to 19% of the DV is a good source. A food that provides 20% or more of the DV is high in that nutrient. Foods that

provide a low percentage of the DV still contribute to a healthful diet.

Supplements
A well balanced diet should provide all the nutrients you need for good health. However, if you feel that your diet is not well balanced, a daily multivitamin/ mineral supplement containing 100% of the USRDA for all nutrients may be recommended by your healthcare provider.

For information on making informed decisions related to use of supplements, you can visit: http://www.fda.gov/Food/DietarySupplements/ConsumerInformation/ucm110567.htm.

Sources:
www.nlm.nih.gov/medlineplus/vitamins.html and www.nutrition.gov/index.php?term=vitamins&mode=fulltext

Nutrition Nuggets
Vitamins and Minerals

Dietary Reference Intakes (DRIs)

Recommended Intakes for Select Vitamins and Minerals

Nutrient	A (ug/d)	C (mg/d)	D (ug/d)*	B_6 (mg/d)	B_{12} (ug/d)	Folate (ug/d)	Calcium	Iron
Males								
19-30 years	900	90	15 15	1.3	2.4	400	1000	8
31-50 years	900	90	15	1.3	2.4	400	1000	8
51-70 years	900	90	20	1.7	2.4	400	100	8
70+ years	900	90		1.7	2.4	400	1200	8
Females								
19-30 years	700	75	15	1.3	2.4	400	1000	18
31-50 years	700	75	15	1.3	2.4	400	1000	18
51-70 years	700	75	15	1.5	2.4	400	1200	8
70+ years	700	75	20	1.5	2.4	400	1200	8

Notes:

- Vitamin A: As Retinol Activity Equivalents (RAE). 1 RAE = 3.3 IU. IU =International Units (IU) which are used on food and supplement labels.
- Vitamin D: In the absence of adequate sunlight; 1 ug calciferol = 40 IU
- Vitamin B_{12}: 10 to 30% of older people do not correctly absorb food-bound B_{12}, so it is advisable for those over 50 to meet their RDA mainly by consuming foods fortified with B_{12} or a supplement containing B_{12}.

Source: Food and Nutrition Board, Institute of Medicine, National Academies, 2011.

Nutrition Nuggets
Portion Sizes

Increase in Portion Sizes Directly Related to Increase in Obesity

Food portions in restaurants have doubled, tripled and quadrupled since the early 1980s. Food portions at home have expanded. This growth in portion sizes has coincided with the increase in obesity. The food industry thought consumers wanted more food for less money.

- *"Do you want fries with that?"* turned into *"Would you like to Supersize your order?"*
- Fast food restaurants have offered few healthy choices.
- 10" plates have grown to 12" plates in restaurants.
- Another example of growing portion sizes: Today, the average chocolate chip cookie is 700% larger than it was in 1982.

Portion Distortion

The U.S. government dubbed this growth in portion sizes as "portion distortion."

How Portions Have Grown!

Cheeseburger

20 Years Ago

333 calories

Today

590 calories

Calorie Difference: 257 calories

Spaghetti And Meatballs

20 Years Ago

500 calories
1 cup spaghetti with sauce & 3 small meatballs

Today

1,025 calories
2 cups pasta with sauce & 3 large meatballs

Calorie Difference: 525 calories

And What You Must do to Burn it Off

Calories In = Calories Out

If you **lift weights for 1 hour and 30 minutes,** you will burn approximately **257 calories.***

*Based on 130-pound person

Calories In = Calories Out

If you **houseclean for 2 hours and 35 minutes**, you will burn approximately **525 calories.***

*Based on 130-pound person

For more examples of how portion sizes have grown over the years and how that affects caloric intake, visit Portion Distortion at http://www.nhlbi.nih.gov/health/educational/wecan/eat-right/portion-distortion.htm

Nutrition Nuggets
Portion Sizes

"The easiest way to reduce intake is to very gradually reduce the size of the portions on our plates."

- Jeffrey Prince, American Institute for Cancer (AICR)

What is a Normal Portion?

If you've lost sight of what a normal portion looks like, try a few of these tips:

1. Weigh and measure all of your portions until you have a more accurate picture of what a normal portion size should be - then check your measurements periodically to make sure you stay on track.
2. Purchase foods in single serving packages.
3. Utilize the chart below to help you visualize what a normal portion should look like.
4. Use labels on food packages to determine the recommended serving size.

Here are some suggestions on how to quickly assess portion sizes:

Food Item	Portion Size
½ cup • Chopped vegetables • Fresh fruit • Pasta, cooked cereals or dried beans • Ice cream	½ baseball Or rounded handful for average adult 
1 cup • Raw leafy vegetables	1 baseball Or rounded handful for average adult
1 medium piece fresh fruit	1 baseball Or rounded handful for average adult
3 ounces meat, poultry or seafood	Deck of cards
1 c cup of winter squash	A fist
1 baked small potato	A fist
1½ ounces of low-fat or fat-free cheese	4 stacked dice
2 tablespoons peanut butter	A ping-pong ball

Source: USDA Standard Portion Sizes
http://win.niddk.nih.gov/publications/just_enough.htm

Use your Food and Activity Diary to Track Your Intake

Research proves that people who track the food and amount they eat are more aware of their food intake and have more success with weight management. Use the *Food and Activity Diary* to track your food intake and physical activity every day.

Websites are also available for food and activity tracking if you prefer to track electronically. SuperTracker from USDA is one example. It allows you to track food intake, activity, weights, and goals. It also provides reports to track your progress.
Visit https://www.choosemyplate.gov/SuperTracker/default.aspx

Nutrition Nuggets
How to use Nutrition Information from Food Labels

Most packaged foods include Nutrition Facts labels. You can use the label to make smart food choices quickly and easily. Follow these simple tips:

Be sure to make all of your calories count: Look at the calories on the label and compare them with nutrients in the food to decide whether it is worth eating.

1. **Check the number of servings and calories:** Check the serving size on the package versus how many servings you actually consume: If you eat double the serving size listed, this doubles the calories and nutrients.

2. **Keep the following nutrients at a minimum:** total fat, saturated fats, *trans* fats, cholesterol, and sodium.

3. **Look for foods that are low in saturated fats and trans fats:** Challenge yourself to include no more than 5% of your total calories from saturated fats.

   Look for foods low in saturated fats and trans fats to help reduce your risk of heart disease (5% DV or less is low, 20% DV or more is high). Most of the fats you eat should be polyunsaturated and monounsaturated fats such as olive oil, almonds, walnuts, avocado, safflower oil, and sunflower oil.

4. **Look for foods and beverages low in added sugars:** Sugars contribute calories with few, if any, nutrients.

   Make sure that added sugars are not within the first few items on the ingredient list (sugar, sucrose, glucose, high fructose corn syrup, corn syrup, maple syrup, honey, and fructose are examples of added sugars).

5. **Get enough:** Potassium, fiber, vitamins A and C, calcium, and iron.

   Use the % Daily Value (DV) column when possible: 5% DV or less is low, 20% DV or more is high.

   Reduce sodium (salt) and increase potassium: Research shows that eating less than 2,300 milligrams of sodium (about 1 teaspoon of salt) per day may reduce your risk of high blood pressure. Some people should eat less than 1,500 milligrams per day. Most of the sodium people eat comes from processed foods, not from the saltshaker. Also look for foods high in potassium, which may help counteract some of sodium's effects on blood pressure.

Source: http://www.dietaryguidelines.gov

Find more information at www.health.gov/dietaryguidelines or view a presentation titled *Make Your Calories Count: Use the Nutrition Facts Label for Healthy Weight Management* available at http://www.fda.gov/downloads/Food/ResourcesForYou/Consumers/NFLPM/UCM275972.pdf

Nutrition Nuggets
Healthy Shopping and Cooking

Follow these simple steps for healthy shopping and cooking.

1. Keep an Organized Shopping List

- Keep a sheet of paper on your refrigerator or counter to jot down what you need as you run out of food items.
- Make your list in the order of the store layout. This will save time as you go through the store and help reduce tempting impulse purchases.
- Create your shopping list based on your planned menu.
- Stay in control of your shopping list!

2. When and How to Shop

- Shop only once a week if possible.
- Shop when you have plenty of energy, you are feeling positive, and you've had something to eat before you go.
- Go by yourself (kids and spouses can be distracting).
- Stick to your list!
- Set a time limit for shopping. Walk quickly through the aisles and avoid the sample stations.
- Spend the bulk of your time in the produce section. Use fresh, local fruits and vegetables when possible. Buy produce that is already prepared to use, or plan to wash and prepare produce as soon as you get home so it is ready to use.
- Substitute plain frozen vegetables or canned vegetables when fresh are not available (choose plain - no salt and no sauce added vegetables).
- Choose fish, seafood and lean cuts of meat.
- Avoid spending time in the convenience foods aisles, bakery/deli or other tempting areas of the store. Don't look at foods that are not on your list.
- Buy only the amount you need.

3. Food Storage

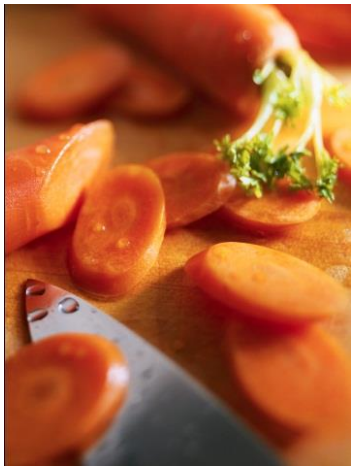
- Wash and cut vegetables and store in a convenient place in the refrigerator at eye level in clear containers. These will be ready when you want a snack or you are ready to cook a quick meal.
- Wash fruit and put it in a clear bowl on the kitchen counter.
- Hide high calorie foods in opaque containers in difficult to access places (high shelf in the back of the cupboard).
- If leftovers are tempting for you, cook only what you need for the meal, have someone else clear the table and put the food away.

Nutrition Nuggets
Healthy Shopping and Cooking

4. Choose Healthy Cooking Methods

- Trim all fat from meats and skin poultry before cooking.
- Bake, broil, grill, boil, poach or stir fry rather than frying.
- When cooking, use only small amounts of monounsaturated or poly-unsaturated oils such as: olive, canola, safflower, and corn oil.
- Use spices for flavoring rather than rich sauces or gravies. If you choose to have sauces and gravies, prepare them low-fat, low-sodium.
- Cut sugar in recipes by one third to one half, or substitute sweeteners where you can.
- Season vegetables with lemon juice, citrus rind, broth, herbs and spices instead of butter or cream sauce.
- Make baked or boiled potatoes instead of mashed, scalloped or au gratin. Or cook some green, yellow, orange or red vegetables (fresh, steamed or grilled).
- Refrigerate soups and stews and skim the fat off the top. Then reheat to serve.
- Avoid excessive tasting while cooking by chewing gum or eating a sugar free mint.

5. Use Healthy Recipe Substitutions



Replace This	With This
Cheese, full-fat	Low fat or fat-free cheese, cream cheese
Cream or half & half	Low-fat evaporated milk
Egg, whole	Two egg whites, or ½ cup egg substitute if desired
Fruits, canned	Fresh or frozen without added sugar
Mayonnaise	Low-fat or fat free mayonnaise, yogurt
Milk, whole	Skim, 1%, or 2% milk
Salad dressing	Low-fat salad dressing
Soups	Lower-sodium versions
Sour cream	Plain low-fat yogurt, or ½ cup cottage cheese blended with 1½ tsp lemon juice, or low or nonfat sour cream
Vegetables, canned	Fresh or frozen without added salt or fat
Vegetables, shredded or sliced	Pasta noodles
Vegetable and tomato juices	Lower-sodium versions
Whipped cream	Chilled, whipped evaporated skim milk or nondairy whipped topping

Nutrition Nuggets
Good Selections When Dining Out

Research shows that the more often a person eats out, the more body fat he or she has. So instead of eating out, plan ahead and have groceries on hand to cook healthy meals at home more often. Eat take-out, fast foods and restaurant foods less often.

There will be times when you will need to eat away from home. It is important to make smart food choices and watch portion sizes all the time - especially when eating on the run. When you do eat out, try the following tips:

Prior to the Meal

- Choose the restaurant carefully: pick a restaurant that offers healthy options such as salads, grilled or steamed entrees, steamed vegetables, plain baked potatoes, and fresh fruits.
- Think about what you will order prior to arriving at the restaurant: most major restaurants offer menus online. Review the menu ahead and decide on your order before you arrive.
- Be sure that you are not feeling overly hungry when you go out to eat: Hunger may easily have you ordering unhealthy food choices and eating more than you need. Have a healthy snack before you go if needed.
- Drink a full glass of water while you are waiting.

When Ordering

- Ask how foods are prepared so that you can make the healthiest choices: choose steamed, grilled, or broiled dishes rather than fried or sautéed.
- Don't be afraid to ask for special requests when it comes to food preparation. Ask for meat or poultry to be broiled rather than breaded and fried, ask for salad dressings and sauces on the side.
- Opt for a double serving of steamed vegetables and skip the loaded baked potato, or other starchy side dishes.
- Consider sharing your meal with someone else.
- Order a healthy appetizer or light soup and a side salad as your main meal.
- Ask the server to box up half of your meal before it is served so you won't be tempted to eat more than you need.
- If they do not have fat-free or low-fat salad dressings, order the dressing on the side and simply dip the tip of your fork in the dressing prior to stabbing each bite of salad to cut the calories.
- Order ice water with lemon, carbonated water with lime, low-fat or fat-free milk with your meal. Avoid calorie-laden beverages (milkshakes, fancy coffee drinks, iced drinks or sugar-sweetened soft drinks).

Nutrition Nuggets
Good Selections When Dining Out

While Waiting for Your Meal

- Try not to munch mindlessly on chips or bread while you are waiting for your meal. If you choose to eat prior to the meal, take a reasonable portion on your plate and eat it S-L-O-W-L-Y!
- Push the bread basket to the other end of the table, or better yet, have the server skip the bread.
- Avoid drinking alcohol prior to dinner. Alcohol can make you let go of all of your best intentions for controlling what you eat at the meal.
- Join in the conversation and sip your calorie-free beverage.
- If it's too tempting, get up and go make a phone call from outside the restaurant, walk out to your car - anything to avoid the mindless munchies!

Once the Meal Arrives

- Be sure your food is served as you ordered it (dressings and sauces on the side; broiled, baked or steamed)—If not, calmly send it back and request what you ordered.
- Enjoy every bite - savor the flavor! Chew all foods thoroughly. Take at least 20 minutes to eat the meal.
- Put your fork down between bites and wipe your mouth with your napkin to slow your eating.
- Talk with others to slow your eating.
- Stop eating when you begin to feel full.
- Push your plate aside and put your napkin on top of it so you stop eating.
- Ask the server to take your plate away as soon as you are finished.
- Skip the dessert! Finish your meal with hot coffee or tea (preferably decaf if caffeine bothers you). It helps fill you up!
- If you feel you must have a dessert, choose fresh berries or sorbet.
- Or share a dessert with the whole table and only take one or two bites.

After the Meal

Dance or walk off the calories!

Nutrition Nuggets
Good Selections When Dining Out

Ideas for Eating on the Road

- Plan in advance so you can shop for what you need.
- Pack a cooler of healthy foods, such as fresh fruit, sliced raw vegetables, and fat-free or low-fat yogurt.
- Pack a few bottles of water or your favorite calorie-free beverage.
- If fast food is your only choice, look for salads, plain baked potatoes, or other healthy options. Order the smallest size or share with someone else.
- When ordering pizza, ask for a single slice with vegetable toppings such as onions, mushrooms, peppers, etc. Use your napkin to soak some of the fat off the top of the pizza. (Even if you choose cheese and vegetables, most pizza is made with high fat cheese, and you can save some fat calories by dabbing the fat off with your napkin).

Healthy Breakfast Options

Food Item	Healthy Option
Meat or Alternate	**Eggs**: Scrambled, poached, boiled or in omelets - egg whites or egg substitutes if desired. **Alternates:** Low fat cheese, lean ham.
Fruit	**Fruit**: Grapefruit, melon slices, seasonal fruit cups, low fat yogurt with fruit.
Milk or Milk Alternates	**Milk:** Fat-free/low fat milk or milk-based products. **Milk Alternates:** Café au lait, cappuccino, café latte made with skim milk, yogurt, cottage cheese
Vegetables	As part of an egg dish (onions, green peppers, tomatoes).
Grains and Breads	**Whole Grain:** Whole wheat bagels, toast, English muffins, oatmeal, buckwheat pancakes, grits, some cold cereals, whole wheat waffles, or granola topped with fruit.

Nutrition Nuggets
Good Selections When Dining Out

Healthy Lunch and Dinner Options

Food Item	Healthy Lunch & Dinner Options
Meat or Alternate	**Meat:** Baked, grilled, broiled or roasted fish, chicken, turkey. No butter or gravy. **Sandwich Fillings:** Look for those made with low-fat ingredients: turkey, chicken, low-fat tuna or chicken salad, lettuce, tomato, low-fat mayonnaise or spread.
Other Entrees	**Casseroles:** Look for those made with low-fat, lower-sodium ingredients, low-fat meats, vegetables, etc.
Fruit	**Fruit:** Fresh fruits: apples, cherries, grapes, melons, oranges, pineapple.
Milk or Milk Alternates	Skim milk, skim milk latte, or other coffee drink made with low fat milk, or low fat yogurt.
Vegetables	**Vegetables:** Fresh salads/dressing on side, salad bar options, steamed vegetables. Plain potatoes (butter, sour cream on the side).
Grains & Breads	**Grains:** Whole grain breads, rolls, bagels, English muffins, etc. (label should list whole wheat, oats, etc.), brown rice, whole wheat noodles, quinoa.

Nutrition Nuggets
Good Selections When Dining Out

Watch out for Liquid Calories!
When eating on the run, it's tempting to grab a fancy beverage for a treat. However, flavored coffee or tea drinks, milkshakes, soda pops, juices, alcohol and other calorie containing beverages can raise your daily intake of calories before you know that you've overdone it.

If you do decide to indulge in these popular beverages, be sure to plan the calories into your day. Either increase your exercise or skip other calorie dense treats for the day.

Soda Pop
We all know that regular soda pop is laden with sugar. If you drink one 12 oz. soda pop a day at 152 calories and 9-10 teaspoons sugar each… Simply switching to sugar free will save you 55,480 calories which could help you lose up to 16 pounds a year ! And as a bonus, you will reduce your sugar intake by 17 to 19 pounds per year!

Coffee Drinks
Want to treat yourself to a fancy coffee drink? Ask for a sugar free, fat free version, and hold the whipped cream. If you are into frappucinos, a 16 oz. Vanilla frappucino with whole milk and whipped cream is a whopping 430 calories! Choose the 12 oz. Portion and split it with a friend for a 100 calorie treat – and a savings of 330 calories.

Even plain coffee drinks can offer calorie savings if you choose wisely. A 16 oz. caffe latte with whole milk is 220 calories compared to the same size with skim milk at 130 calories. That's a savings of 90 calories per serving. Doesn't sound like much? On a daily basis that ads up to 32,850 calories per year - potentially 9 ½ pounds of weight loss!

Alcohol
Alternate choices include: Virgin Mary (a Bloody Mary without the alcohol), club soda with lime, club soda with a splash of cranberry juice, or diet soda with a twist of lemon.

If you must indulge, take it easy! Alcohol may loosen your resolve to follow your healthy eating plan, and it's loaded with calories.

Beer, 12 oz.	146 calories
Wine, 5 oz.	122 calories
Spirits (gin, vodka, rum, etc.), 1 oz.	97 calories

Nutrition Nuggets
Medications and Herbs for Weight Loss

Weight Loss Cures?
Diet powders, pills and potions…People are always looking for the magic bullet, or the pill, potion or powder that will provide an easy way to lose weight. However, these remedies are not recommended by most health practitioners for effective, long term weight loss. Over-the-counter (OTC) appetite stimulants and other herbal remedies may be addicting and can be harmful. For that reason, use caution!

Cautions with Use of OTC Drugs and Herbal Supplements:
- Before taking an herbal substance or OTC drug, always talk to your doctor - especially if you have a chronic medical condition, are on medications, are planning to have surgery, are pregnant, considering pregnancy, or nursing.
- Herbs can act the same way as drugs in the body. If not taken correctly or if taken in combination with prescription medications, they can cause serious side effects and medical problems.
- Active ingredients are not known for many herbs and herbal supplements.
- Be cautious when purchasing supplements over the Internet. Many claims are made that may be incorrect or deceptive.
- Do not take a higher dose of a supplement than what is listed on the label without the recommendation from your health care provider.
- Stop taking the supplement and contact your doctor if you experience any side effects that concern you.

OTC Remedies that Don't Work
The following ingredients have been touted for weight loss, however, ***there is no scientific evidence that any of them work, and some may be harmful to your health:***

Ephedra (or ma huang) has a principal active ingredient, ephedrine, which powerfully stimulates the nervous system and heart. Ephedra has been used for weight loss, to increase energy, and to enhance athletic performance. The Food and Drug Administration (FDA) has found little evidence of ephedra's effectiveness, except for short-term weight loss. The increased risk of heart problems and stroke outweighs any benefits. Additional risks include psychiatric, GI problems, high blood pressure, headache, kidney stones, tremors and sleep problems. The FDA banned the sale of dietary supplements containing ephedra in 2004, but the ban does not apply to traditional Chinese herbal remedies or herbal teas. Serious side effects and health problems may occur when ephedra is combined with other dietary supplements, medicines or caffeine.

Nutrition Nuggets
Medications and Herbs for Weight Loss

OTC Remedies that Don't Work
(continued)

Chitosan cannot be digested and may bind with fatty foods allowing some fat to pass through the GI tract without being absorbed. It has not been shown to promote weight loss.

Chromium has been promoted as a weight loss aid and fat burner, however there is no conclusive evidence that it has any benefit for weight loss.

Conjugated linoleic acid (CLA) has claims that it reduces appetite and body fat and builds muscle. It may reduce body fat and increase muscle, but total body weight is not likely to drop. This product can cause diarrhea and other GI side effects such as indigestion.

Glucomannan is said to delay absorption of glucose in the intestines and thus contribute to weight loss. It creates a feeling of fullness by swelling on contact with liquids. It has been banned in several countries due to GI obstruction. Persons with diabetes should use caution in considering this compound.

Green coffee extract is thought to lower body fat and help with weight loss. Early research suggests it may lead to modest weight loss. More research is needed to better determine the effects, but the Natural Medicines Comprehensive Database rates it as "possibly effective: for weight loss.

Green tea has been studied to see if it protects against or slows growth of certain cancers, but results are mixed. Data is unreliable regarding its effects

on weight loss, cholesterol lowering, and protection from skin damage. It is generally safe for most adults in moderate amounts.

Guar Gum is a dietary fiber commonly used as a thickening agent in foods and medications. It creates a feeling of fullness by expanding 10 to 20 times its volume. It may cause esophageal obstruction. Studies indicate it has no positive effect on weight loss.

Herbal diuretics used in weight loss products are commonly derived from caffeine and may interact with medications such as Lasix and Lanoxin. They do not promote weight loss as they do not provide a large water loss effect.

Hoodia is derived from a South African plant, *Hoodia gordonii.* Historically, South Africans ate this plant to stave off hunger. However, there is no conclusive scientific evidence to support the claim that it acts as an appetite suppressant.

Raspberry ketones are thought to increase fat metabolism. Insufficient data exists to evaluate its effectiveness.

For More Information visit the National Center for Alternative and Complimentary Medicine (NCAM) website "Herbs at a Glance": http://nccam.nih.gov/health/herbsataglance.htm.

Nutrition Nuggets
Medications and Herbs for Weight Loss

The following medications should only be taken with the approval of your physician. You should be monitored regularly to avoid any negative side effects.

Over-the-Counter Medications

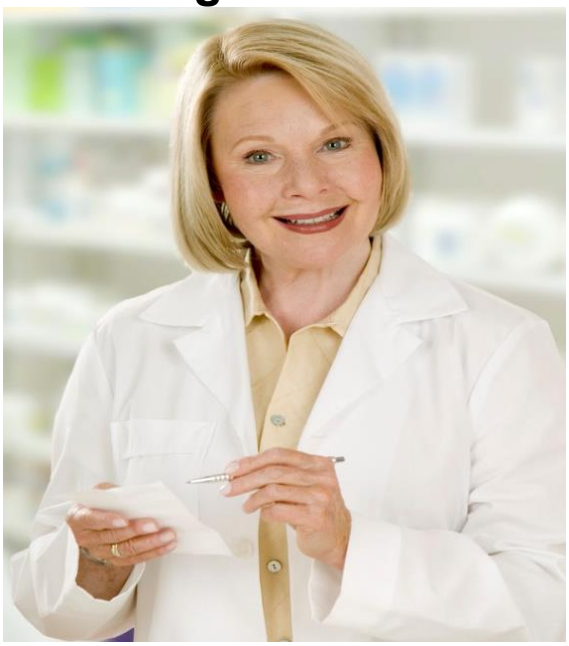
Talk to your doctor before choosing to use any over-the-counter (OTC) pill or remedy for weight loss or suppressing appetite. ***These drugs may have negative side effects or may interact with prescription medications to increase or decrease their effectiveness.***

Tell Your Doctor

If you are pregnant or nursing, currently have or have a history of any of the following: diabetes, high blood pressure, heart disease, hyperthyroidism, kidney disease, migraines, glaucoma, epilepsy, depression, mental illness, alcohol or drug abuse. Take medications with caution, and be aware that appetite suppressants may cause light-headedness or drowsiness. Take these medications only as directed and with the approval of your doctor.

Alli (half-strength prescription Xenical) First approved by FDA in 1999, Xenical blocks about 25% of dietary fat absorption. Individuals on this drug should consume a low fat diet (<30% of calories from fat) to avoid side effects such as cramping, intestinal discomfort, gas, diarrhea, and leakage of oily stool.

This drug should be taken within 1 hour of mealtime. A daily multivitamin at bedtime is recommended because this drug can decrease absorption of fat soluble vitamins.



OTC Appetite Suppressants such as Dexatrim and Accutrim generally work by increasing serotonin or catecholamine, brain chemicals which make you feel like you are not hungry, or even make you feel full.

These medications contain phenylpropanolamine (PPA), which is known to significantly increase blood pressure and heart rate in some individuals. Do not take these drugs if you have heart or high blood pressure issues.

These drugs may only be effective for a few days, and then you may need more to reduce your appetite. Taking larger dosages can be harmful as these drugs are essentially stimulants.

Play It Safe!

Always talk to your doctor about the herbs, pills, powders or supplements you plan to take ***before*** you take them. Drug-drug or food-drug interactions are common. Don't take a chance—talk to your doctor first.

Nutrition Nuggets
Medications and Herbs for Weight Loss

Prescription Medications
Prescription drugs for weight loss may be considered as an adjunct to comprehensive lifestyle interventions if you have a BMI over 40. They may also be suggested if your BMI is 30 or above or if your BMI is 27 and you have an obesity-related condition such as high blood pressure, type 2 diabetes or abnormal fat levels in your blood (dyslipidemia).

Weight loss Medications
Weight loss medications should only be considered these if all lifestyle and diet changes have been tried and you still cannot lose weight. Discuss the options with your doctor before deciding whether or not to use prescription medications for weight loss. Consider the state of your health, potential side effects and the cost before deciding. Most obesity drugs have side effects and ***you still need to concentrate on creating new, healthy lifestyle habits***.

Weight loss medications either suppress appetite or reduce the amount of fat that your body absorbs.

Prescription medications approved by the Food and Drug Administration (FDA) weight loss for long term use (up to 1 year) include Orlistat, Naltrexone and bupropion (brand name Contrave), Phenetermine and topiaramate (Qysmia), Lorcaserin (Belviq), and Liraglutide (Saxenda).

Short Term Medications
Weight loss using medications approved for short term use (up to 12 weeks) may reduce health risks such as high blood pressure, high cholesterol, high triglycerides, and insulin resistance.

Physicians sometimes prescribe drugs used to treat depression, seizures, diabetes or a combination of drugs because they have been shown to promote short term weight loss in clinical studies. They are not FDA approved for the treatment of obesity. But because they promote weight loss, physicians may prescribe them off label.

Weight loss medications may not work for everyone, and the effects may decrease over time. Prescription drugs that do not appear to be having their intended effect should be discontinued.

No Magic Bullets
People respond differently to weight loss medications. Some experience more weight loss than others. Without lifestyle changes, most people regain weight after they stop taking the medications.

Drugs are not a magic bullet for obesity. They should always be combined with a healthy eating plan and increased physical activity. Talk to your doctor or registered dietitian nutritionist for more information and advice.

Lifestyle Lessons
Controlling the Amount You Eat

Using Meal Replacements

Grocery stores, pharmacies and health food stores abound-with shakes, bars and frozen dinners promoted for weight loss. Many of these products have been mainstreamed and are commonly used to assist with weight loss or maintenance of weight loss. But are they helpful?

Prepare/Consume Smaller Portions

The U.S. Dietary Guidelines recommend that we prepare, serve, and consume smaller portions of foods and beverages, especially those high in calories. People tend to eat and drink more when provided larger portions. Serving and consuming smaller portions is associated with weight loss and weight maintenance over time.

Meal replacement products may be helpful in controlling calories and portion sizes if used as part of a balanced diet. Here are some tips for choosing meal replacements:

- Meal replacements should fit into a healthy eating plan with adequate protein, carbohydrates, essential fatty acids, vitamins and minerals.
- Plan a minimum of 2 cups of fruits and 2 ½ cups of vegetables daily. In addition to providing valuable nutrients, these help round out the meal, add color to the plate, and fill the stomach.
- Frozen foods should contain about 250-400 calories, 5-20 g fat, and have a reasonable sodium level (preferably 400-600 mg sodium per meal).
- If shakes are used as a meal replacement or snack, use one that has a minimum of 8 grams of protein and 25% of the US RDI for vitamins and minerals per serving. One or two shakes a day can be used as part of a well-balanced, healthy diet that includes adequate calories, fiber and fluids.
- Food bars may also be part of a healthy diet. Most bars do not contain enough calories or protein to be used as a meal replacement unless combined with other foods, but can be a healthy snack.

Choose Real Food

The healthiest way to lose weight is through balanced diet and exercise. Talk to your registered dietitian nutritionist (RDN) for a healthy eating plan and assistance to lose weight. Or visit USDA's Choose MyPlate website at www.choosemyplate.gov.

Sample healthy calorie-controlled plans can also be found at the National Institute of Health website: http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/sampmenu.htm.

Lifestyle Lessons
Controlling the Amount You Eat

It takes the brain 20 minutes to realize that the stomach is full. Yet many of us rush our eating pace and end up feeling full and uncomfortable after a meal or snack. When you slow your eating pace, you will feel more satisfied with fewer calories.

15 Ways to Slow Your Eating Pace and Enjoy Each Bite!
Circle the tips that you will use at your next meal or snack!

Try as many slowing techniques as possible at each meal or snack.

1. Drink 8 to 12 ounces of water before you begin to eat.
2. Wait 1 to 2 minutes before you begin to eat your food - start a conversation instead of digging in! Think about how you are going to eat slowly.
3. Cut your food into very small pieces before you begin eating.
4. Model your behavior after someone who eats slowly.
5. Chew your food very thoroughly - think about the food as you chew it, and really take time to enjoy the flavor.
6. Swallow each bite before you put another bite in your mouth.
7. Pause between bites. Put your utensils down or wipe your mouth with your napkin.
8. Play with your food - despite what your mother taught you, this can slow down your eating pace.
9. Wipe your mouth with your napkin after every bite.
10. Take sips of water in between bites.
11. Talk - a lot!
12. Use your utensils to eat all foods (including finger foods such as pizza).
13. Take a break halfway through the meal.
14. Push your plate away or leave the table as soon as you are full. Do not pick at food left on your plate or take second helpings.
15. Clear the table quickly. Let someone else put leftovers away if they are tempting to you.

There is a strong relationship between being able to implement these types of changes and being successful with weight management.

Lifestyle Lessons
Positive and Empowering Reinforcement

Fat Thoughts

Most people have conversations with themselves all the time. Whether you realize it or not, your mind is constantly working through a series of thoughts, daydreams, memories, and plans. Your thoughts are your constant companions, and they have a strong affect on the way you feel and the way you behave. Thoughts lead to feelings which lead to actions. In other words, what you say to yourself affects how you feel and what actions you take.

Are you thinking fat thoughts? Have you ever overeaten, and then told yourself something like this?: *"I can't follow a diet! I don't care. I'll always be fat anyway. What does it matter? I might as well eat the rest of this."*

It's not your ability to think or talk to yourself that gets you into trouble with fat thoughts: It's what you talk to yourself about. Are your thoughts cluttered with self-criticism, unrealistic standards, negtive predictions and self defeating monologues?

Practice Positive Self-Talk

If you find that your thoughts are filled with unrealistic expectations, self doubt and negative monologues, then you need to learn to practice positive self talk. It's easy to do, and the more you do it, the more it works!

Make positive statements to yourself all day long. Use the "I am" statement at the beginning of each sentence so it as if good habits are already in place.

- *"I am in control of my eating."*
- *"I am healthy. I am exercising daily."*
- *"I am in control of my life. I make the right decisions for my good health."*
- *"I choose to eat a healthy diet and exercise daily. I feel so much better in my new, slim body!"*

When you are faced with a tempting food which doesn't fit into your eating plan, tell yourself, *"I can be successful." "If I choose not to eat this I'll be thinner." "Now that I'm following a healthy diet and exercising daily I feel better and I'm more in control of my life."*

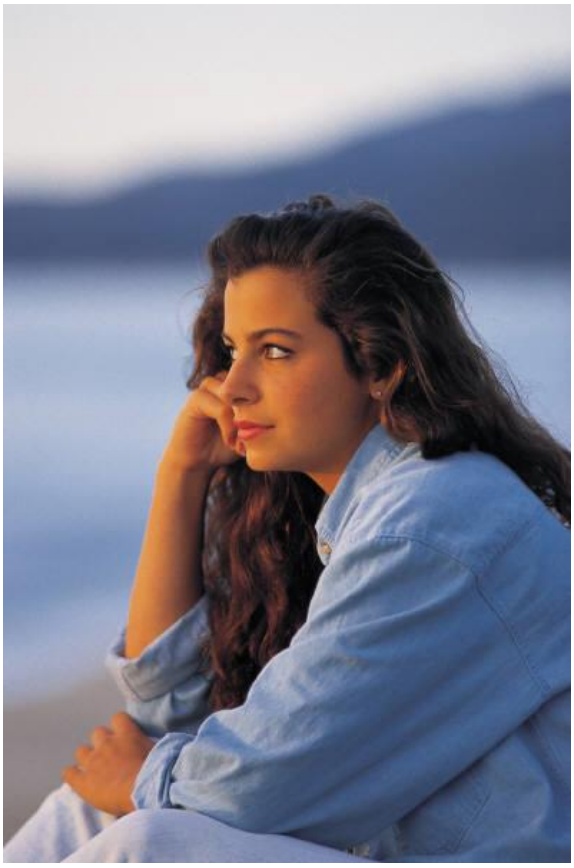
Lifestyle Lessons
Positive and Empowering Reinforcement

Use Your Imagination
Imagine yourself in a situation which you have had difficulty with in the past: maybe it's a dinner party, a buffet, a restaurant situation… But this time, use your imagination to see yourself in control of the entire situation.

Recreate the whole experience in your mind. Imagine the sights, sounds, aromas, your emotional feelings, the people you are with, the atmosphere, the whole situation.

Take yourself through the entire event and visualize yourself eating slowly, feeling satisfied, staying on your eating plan, and having a great time! Imagine yourself being the calm, confident, slim new you: Choosing the healthiest foods in reasonable portions, eating slowly, savoring the flavor of the food, and feeling very satisfied with the food and the socialization of the people you are with.

Use this technique multiple times before the event, and you will be much more successful at the actual event.



Believe It to Achieve It
The most important part of your anatomy needed for successful weight control is your head – specifically your brain and your thought process. You are in charge of your thoughts, your emotions and your eating behaviors.

Reevaluate your belief system. Are you holding on to old unhealthy beliefs? Do you think thoughts such as:

- *"I have no will power."*
- *"When I get upset, I eat."*
- *"I need food to help me cope with life's stresses."*

You need to let go of old, negative beliefs and accept new, healthy positive thoughts. ***If you truly believe that you can be successful, you will be!***

Lifestyle Lessons
Visualization and Positive Affirmations

Visualize the Person You Want to Become

Every night before you go to bed and every morning as soon as you wake up, take a moment to visualize the person you want to become.

See yourself as the healthy, happy individual of your dreams. You are at a healthy weight, you are eating a healthy diet, you are shopping for the clothes you want to wear and you are enjoying exercise and healthy activities.

Visualize yourself stepping onto the scale and the scale's needle pointing to your goal weight. See yourself going shopping and trying on the clothes you would wear with your new trim body.

Visualize the salesperson telling you how wonderful you look in these great new clothes. See yourself eating appropriate portions and healthy foods, exercising daily, and enjoying every minute of it!

Do this 2 to 3 times a day every day, and before long, you will reinforce the healthy habits you need to develop in order to live this wonderful new life.

Turn Negatives into Positives

Catch yourself when you begin to think negative self thoughts - or when you hear yourself speaking these thoughts out loud. Turn that negative thought around into a positive thought. You can find something positive to say or think about any situation.

Forgive yourself when you make a mistake. No one is perfect! Learn from your mistakes and decide what you will do differently the next time. Plan ahead and create situations that allow you to be successful.

Be Who You Want to Be!

"If you think you can do a thing or think you can't do a thing, you're right."
~Henry Ford

You are the sum total of all the things you tell yourself. Start changing your negative thought patterns into positive thoughts and messages and you can reprogram your thoughts to become the person you want to be.

Put some energy into improving your thoughts. You're worth it! You can do it!

Self Talk Solutions

It's what you believe that really counts…and what you tell yourself over and over is truly what you believe.

If you need to change your thoughts into something more positive, then write down what you'd like to say to yourself.

Write these positive statements on 3x5 cards, carry them with you and review them every day, multiple times a day.

Lifestyle Lessons
Visualization and Positive Affirmations

Use Affirmations Daily

In order to start believing that you can be what you want to be, you must first start telling yourself that you are the person you want to become. In other words, you must project into the future and visualize that you are already the person you want to be.

- *"I am now a slim size 10."*
- *"I follow my eating plan every day."*
- *"I am energetic and I feel great!"*
- *"I am enjoying an active lifestyle."*
- *"I love to exercise at least 60 minutes every day."*

These examples are called affirmations. Affirmations are always stated in the present tense.

Research has shown that using positive affirmations, you can restructure your thoughts to help manage your weight.

Affirmations and Visualization - A Powerful Combination!

Use affirmations in combination with visualization for a very positive impact on achieving your goals and you will be on your way to becoming the person you want to be!

Review your personal goals, and write at least 5 affirmations that you can use daily to help you to achieve your goals.

List Your Affirmations Here:

1.

2.

3.

4.

5.

6.

Use these affirmations daily for the greatest success!

To be most effective, affirmations are repeated:

- When you first wake up,
- Before you go to sleep, and
- As many times throughout the day as possible.

Lifestyle Lessons
Identify Why You Eat

What Makes You Want to Eat?
There are many cues which may lead you to eat when you really aren't hungry. People tend to develop associations between certain events and eating. For example, you go to the movies and you want to eat popcorn. You go to a baseball game and you want to have a hot dog and some beer. You are watching television and you want to eat …

In order to break the cycle of overeating, first, you need to determine your eating cues, and then you need to change your habits to get your eating under control.

What Are Eating Cues?
Cues that lead you to eat can be as simple as seeing a food commercial on television which causes you to want to go to the kitchen and grab a bite to eat. Other cues might include eating when you are feeling stressed, bored, or angry. Or maybe there are certain people who you always eat with when you spend time with them.

Eating Chain of Events
Did you ever stop to think about the chain of events that lead up to eating out of control? The next time you want to reach for food when you aren't even hungry, think about what event (or events) may have cued you to reach for food. Then think about how you can break the chain of events that lead to uncontrolled eating.

There are a whole series of events that may lead you to eat. Here is just one example:

Overslept and rushed to get ready for work → Late for work and the boss gave you "the look" → Feeling stressed → Ate 3 doughnuts in the coffee room.

Here is an example of how to alter the chain of events:
Set the alarm clock and get up earlier to get ready for work → Have plenty of time to shower, dress and eat a healthy breakfast → Get to work on time (your boss smiles at you;) → You feel relaxed and ready to start the day!

The earlier in the series of events that you can break the chain, the better your chances of breaking the cycle of overeating.

Breaking the Chain
Keeping a food diary can help you discover your personal eating cues or eating chains. If you find yourself eating when you aren't really hungry, jot a note in your diary about what event or events led you to eat. Once you identify your eating cues, it's easy to find ways to fix them. It's also important to identify those events that DO NOT lead you to eat.

Lifestyle Lessons
Identify Why You Eat

What are Your Eating Behavior Chains?

Can you identify your eating chains? Think of any common series of events that cause you to eat and list them here:

What Are Your Eating Cues?

Do you eat when you are:

- **Stressed?** Instead of eating, take a hot bath or a long shower. Do some deep breathing or relaxation exercises. Take a relaxing walk. Or lose yourself in a good book.
- **Tired?** You need rest, not food. Take a nap or at least a rest.
- **Bored?** Develop a list of activities that you enjoy doing. Post it on the refrigerator or cupboard door to remind you of what you can do instead of eating. Plan your activities ahead of time and keep a full schedule of events.
- **Angry or Sad?** Separate situations from food. The food won't make you feel better. Eating will only make you feel worse. Work on solving the problem instead.
- **Lonely?** Call or visit a friend. Write a letter or email a loved one. Get involved with others. Make friends. Take the initiative to make plans with friends. Join a special interest group.
- **Happy?** Share your happiness with someone special (not with food). Call a friend. Get together with someone and share your feelings.

Analyze Your Relationships

List the 5 most important people in your life. Are they helpful or harmful to your weight control efforts? Tell these people how they can help you, and then reward them (at least verbally) when they do.

Most Important People in My Life	Helpful (Check)	Harmful (Check)
1		
2		
3		
4		
5		

Lifestyle Lessons
Identify Why You Eat

Strategies

The following is a list of strategies you can use to change your environment and/or break the chain of events or habits that cue you to eat.

- **Shake it up!** Change your routine and alter the order in which you do things. If you are in the habit of stopping for a calorie-laden breakfast or coffee on your way to work, consider making some changes. Change the order in which you get ready for work in the morning. Change your driving route to work. Maybe talking on the phone is a cue for you to eat. Instead of eating, pace while you are on the phone.
- **Leave the scene!** Get away from food and from situations that make you want to eat. For example, don't hang around the food table at a party. Eat before you arrive and then get as far away from temptation as you possibly can.
- **Think before you eat.** Emotional eating is a problem for a lot of people. Some of us eat when we are angry, bored, sad, tired, happy, depressed… You get the picture. Don't let your emotions rule you? Food won't make the problem go away. Deal with the emotion or the problem that caused the emotion in the first place. Alcoholics Anonymous uses this strategy, and it is easily applied to overeaters: Avoid getting too hungry, angry, lonely or tired (HALT).

What I'll Do to Break the Chain

Non-Eating Cues

There are people, places and activities which do NOT cue a desire for you to eat. These might include exercise, hobbies (knitting, sewing, woodworking, etc.), places you go where you don't eat (church, the park or the zoo), or friends with whom you do things other than eating. Identify your non-eating cues and then make a real effort to be involved with these people, places and activities as often as possible.

My Non-Eating Cues:

People:

Places:

Activities:

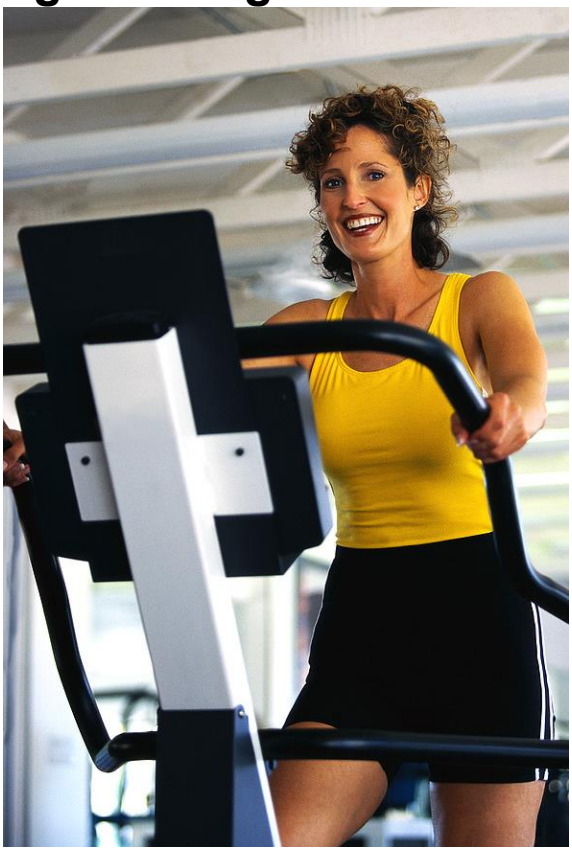
Lifestyle Lessons
Physical Activity for Weight Management

Benefits of Exercise
Diet and exercise together will promote optimum health and weight loss. There is a strong correlation between 30 minutes of exercise a day and weight loss. And once you have lost weight the best predictor of long term success with keeping weight off is exercise. Exercise provides many benefits: increased metabolism, improved muscle tone, healthy heart and lungs, stress management, increased energy, and a general feeling of well-being.

Exercise should be part of your daily routine. Your exercise program should include aerobic activity, strength training and flexibility. Use a variety of activities to build strength and endurance, increase flexibility, prevent injuries, exercise different muscle groups, and reap the benefits of different activities.

There are many forms of exercise to select from. Choose something that suits your lifestyle and that you enjoy (so you'll stick with it)! Aerobic exercise (i.e. walking, biking, swimming, jogging, dancing, jumping rope) strengthens the heart and lungs. The goal is to increase your heart rate for a minimum of 20 minutes at a time. You should be able to talk comfortably while doing your exercise. Strength training (i.e. lifting weights, using resistance bands) helps maintain and build muscle.

Fitting Exercise into Your Schedule
Make exercise a priority in your daily schedule. Schedule it into your day just like any important appointment. Try to exercise at the same time each day. Choose a time that fits your schedule. If it's hard to fit in an hour of exercise, try doing 10 to 15 minute blocks a few times a day.



Getting Started
If you haven't exercised for a while, you should consult your physician before starting any exercise program. Choose an activity that you will enjoy and that you will be able to continue no matter what the circumstance and no matter what the weather. Avoid activities that depend on other people. Choose things you can do independently such as walking, biking, and swimming.

Start slowly. Don't go out and run a mile if you haven't exercised for a long time. Instead, warm up and cool down for at least 5 minutes prior to heavy activity. Simple stretches and walking slowly will help you warm up or cool down. Listen to your body. If you start feeling too many aches and pains, cool down and stop. Be careful to prevent injuries.

Lifestyle Lessons
Physical Activity for Weight Management

Too Busy to Fit It In?

You can sneak more movement into your daily routine by trying these tips:

- Wear a pedometer - go for 10,000 steps a day!
- Take the stairs instead of the elevator or escalator.
- Park your car further away and walk.
- Get up and walk from your desk to your colleague's desk, rather than picking up the phone and calling.
- At work, hand-deliver messages rather than emailing.
- At home, disconnect the phone that is closest to you and walk farther to answer the phone instead.
- Pace (walk) while talking on the phone.
- At the grocery store, walk your cart back to the store to return it.
- Don't let weather be an excuse. Bad weather? Go walk at the mall
- Make many trips up and down the stairs rather than just one trip.

- Take the dog for a walk.
- Take a break from your desk job and take a walk the long way to refill your coffee or talk to a colleague.
- Take every opportunity you can to move!

How Many Calories Can I Burn in 30 Minutes (Based on Weight)?

Activity	Calories Burned At 155#	Calories Burned At 185#	Calories Burned At #215
Basketball, playing a game	298	355	413
Bicycling, stationary, moderate	260	311	361
Gardening, general	167	200	232
Golfing, carry clubs	205	244	284
Hiking, cross country	223	226	263
Heavy cleaning, wash windows/cars	167	200	232
Jogging, 11 min. mile (5.2 mph)	335	400	465
Mowing lawn, push, power	167	200	232
Raking	149	178	207
Low impact aerobics	205	244	284
Swimming, laps, vigorous	372	444	516
Tai Chi	149	178	207
Walking brisk, 17 min. mile (3.5 mph)	149	178	207
Weight lifting, general	112	133	155

Source: http://www.health.harvard.edu/diet-and-weight-loss/calories-burned-in-30-minutes-of-leisure-and-routine-activities

Lifestyle Lessons
Physical Activity for Weight Management

Maximum and Target Heart Rate

It is important to determine whether your heart rate is within a healthy target zone during physical activity. Maximum target heart rate is based on your age. To estimate maximum heart rate, subtract your age from 220.

My Maximum Heart Rate

220- ____ (Age) = _____

For moderate-intensity physical activity (MIPA) your target heart rate should be 50 to 70% of your maximum heart rate.

Example: 50-years-old, 220 - 50 years = 170 beats per minute (bpm). The 50% and 70% levels would be:

- 50% level: 170 x 0.50 = 85 bpm, and
- 70% level: 170 x 0.70 = 119 bpm.

Heart rate for a 50-year-old person doing MIPA should be between 85 and 119 bpm during physical activity.

My Target Heart Rate (Moderate)

_____(Max HR) x 0.5-0.7 = _____

For vigorous-intensity physical activity (VIPA) your target heart rate should be 70 to 85% of your maximum heart rate.

Example: 35-years-old, 220 - 35 years = 185 beats per minute (bpm). The 70% and 85% levels would be:

- 70% level: 185 x 0.70 = 130 bpm, and
- 85% level: 185 x 0.85 = 157 bpm.

Heart rate for a 35-year-old person doing VIPA should be between 130 and 157 bpm during physical activity.

My Target Heart Rate (Vigorous)

_____(Max HR) x 0.7-0.85 = _____

Exercising in Your Target Heart Rate

To determine whether you are exercising within your target heart rate zone, stop exercising briefly to take your pulse at the wrist. You can feel the radial pulse on the artery of the wrist in line with the thumb. Place the tips of the index and middle fingers over the artery and press lightly. (Do not use your thumb.) Take a full 60-second count of the heartbeats, or take it for 30 seconds and multiply by 2. Start the count on a beat, which is counted as "zero." Your final number should fall within the target range for moderate-intensity or vigorous-intensity activity depending on what you are trying to achieve.

Source:http://www.cdc.gov/nccdphp/dnpa/physical/measuring/target_heart_rate.htm

Lifestyle Lessons
Munch Busters

Control the Munchies
During those times when you just "feel like eating" even though you aren't really hungry, there are many things you can do to control temptations.

Start with a Strong Base
- Keep written records of the times and circumstances that make you want to eat. Note the situation and the mood you were in. Once you determine a pattern, you can start avoid or limit exposure to your eating cues.
- Stay busy to avoid boredom. Keep a list of activities you enjoy on your refrigerator door - and do those instead of snacking.
- Don't skip meals and don't be too strict with yourself. Feeling deprived can lead to a desire to overeat.
- Keep a jar where your snacks used to be. Give yourself a dollar every time you choose to resist the temptation to munch.
- Hold off for at least 10 minutes and see if the craving passes.

Make it Easy to Eat Healthy
- Replace snacks with ready-to-eat, easy-to-reach fresh fruits and vegetables and other nutrient dense, low calorie snacks.
- Remove all tempting foods from your home and/or place of work.
- Make it a rule to only eat at the table in your home or at work.
- Limit screen time. Commercials and ads can increase the desire for food.
- Drink at least 8 – 8 oz. glasses of water and/or calorie free beverages daily.

Stop and Think
- Before you eat an unplanned snack, stop and think: "What do I really want?" Are you hungry or are you bored, stressed, upset, fatigued…?
- Avoid entering the kitchen when you are emotionally upset.
- Be aware of what you eat as well as how much. Record everything you eat. This will help you control your eating, and it may also help you identify problem times of the day. You may be able to associate your munchies with an event, or you may find you simply need to plan for a healthy snack.
- If you are stressed, do a relaxation technique such as deep breathing, stretching or walking.
- If the end of the work day is a tough transition, plan something special to help you through this time: a warm bath, a walk, a phone call with a special friend, etc.
- When cravings are too strong to resist, eat one portion of what you really want. Eat it slowly and savor it.
- If you do give in to munchies, forgive yourself and get back on track.

Nutrition Nuggets
Website Resources for Healthy Eating

Nutrition & Healthy Eating
- **US Dietary Guidelines:** wwwhttp://health.gov/dietaryguidelines/
- **Choose My Plate:** MyPlate.gov
- **Nutrition.gov:** www.nutrition.gov
- **USDA:** http://www.usda.gov/wps/portal/usdahome
- **FDA:** http://www.fda.gov
- **Food & Nutrition Information Center:** http://fnic.nal.usda.gov/nal_display/index.php?info_center=4&tax_level=1
- **Academy of Nutrition and Dietetics:** www.eatright.org
- **The Academy's Nutrition Tip Sheets:** http://www.eatright.org/nutritiontipsheet/
- **Calorie Control Council:** www.caloriecontrol.org/index.html
- **Menu Planning/General Information:**
  Create a diet: http://hp2010.nhlbihin.net/menuplanner/menu.cgi

Recipes
- **Recipes from the American Institute for Cancer Research Test Kitchen:** http://www.aicr.org/reduce-your-cancer-risk/diet/reduce_diet_recipes_test_kitchen.html
- **American Heart Association:** http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/Recipes/Recipes_UCM_001184_SubHomePage.jsp

Exercise/Fitness
- **Centers for Disease Control and Prevention:** http://www.cdc.gov/physicalactivity/
- **U.S. Department of Health and Human Services Physical Activity Guidelines:** http://www.health.gov/paguidelines/

Dining Out
- **National Restaurant Association:** www.foodfit.com/nra/dineoutsmart.asp
- **American Heart Association:** http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/DiningOut/Dining-Out_UCM_304183_SubHomePage.jsp

Heart Health
- **American Heart Association website:** www.americanheart.org www.goredforwomen.org
- **National Cholesterol Education Program: High Blood Cholesterol: What You Need to Know:** http://www.nhlbi.nih.gov/health/public/heart/chol/wyntk.pdf

DASH Diet
- **National Institutes of Health** www.nhlbi.nih.gov/health/public/heart/hbp/dash/index.htm

Supplements
- **FDA Consumer Health Information:** http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm050803.htm
- **Office of Dietary Supplements:** http://dietary-supplements.info.nih.gov/
- **Office of Complementary and Alternative Medicine:** http://nccam.nih.gov/