

# Nonsurgical Treatment Tips in the Care of Patients With Obesity

This piece contains the expert opinion of Dr. Robert Kushner, who prepared this document.

## Assess Patient Readiness

Assess the patient’s readiness to change behaviors and lose weight before making any other treatment decisions. Treating a patient who is not ready or motivated to lose weight will lead to frustration and may impair the physician/patient relationship.<sup>1</sup>

- Address all other risk factors in patients who are not ready to lose weight. Advise them to maintain their weight and recheck their readiness periodically
- Help the patient identify and address the barriers to losing weight. If there are psychological issues, refer the patient to a health psychologist
- Develop a partnership with patients ready to lose weight. Create a personalized treatment plan together

## Setting Treatment Goals

Treatment decisions will vary depending on patient risk factors, expectations, and resources. Weight loss is important for appearance, but the primary goal of treatment is to improve obesity-related comorbid conditions and reduce the risk of developing future comorbidities.<sup>1</sup>

- Select the most appropriate treatment based on patient’s BMI and comorbid conditions (Table A)
- Encourage patients to first try to lose weight through diet, exercise, and behavior modification before considering pharmacotherapy or weight loss surgery
  - Lifestyle management has been shown to result in modest weight loss, typically 3 kg to 5 kg
- Set an achievable initial weight loss goal. Losing 10% of initial body weight over 6 months is a realistic target

**Table A. Guide to Selecting Treatment<sup>1</sup>**

Treatment	BMI Category <sup>1</sup>					
		25-26.9	27-29.9	30-34.9	35-39.9	≥40
Diet, Exercise, Behavior Therapy		With comorbidities	With comorbidities	+	+	+
Pharmacotherapy			With comorbidities	+	+	+
Surgery					With comorbidities	+

## Diet Treatment Tips

The primary goal of diet therapy is to reduce total caloric intake regardless of dietary composition. Adherence to any calorie-reduced diet will lead to weight loss.

- The macronutrient composition (percentage of fat, carbohydrate, and protein) of the diet will vary depending on the patient's preference and medical conditions<sup>2</sup>
- The revised Dietary Reference Intakes for Macronutrients released by the Institute of Medicine (IOM) offers flexible ranges instead of specific targets<sup>3</sup>
  - The guidelines recommend that adults consume:
    - 45% to 65% of calories from carbohydrates
    - 20% to 35% of calories from fat
    - 10% to 35% of calories from protein
  - The guidelines also recommend a daily fiber intake of:
    - 30 g for men over 50 years of age
    - 21 g for women over 50 years of age
    - 38 g for men under 50 years of age
    - 25 g for women under 50 years of age
- The 2005 United States Department of Agriculture (USDA) Dietary Guidelines for Americans recommends<sup>2</sup>:
  - High-fiber foods including a variety of colorful fruits, vegetables, and whole grains
  - 2 weekly servings (8 oz) of fish high in omega-3 fatty acids
  - Lean meats and poultry
  - 3 daily servings of low-fat dairy
  - Less than 2300 mg of sodium per day
  - Limit total fat to 20% to 35% of daily calories and choose heart-healthy fats like fish, nuts, and vegetable oils
  - Limit saturated fats to less than 10% of daily calories
  - Choose foods and beverages with little added sugar or high-calorie sweeteners
  - Drink alcohol in moderation
- Application of these guidelines to specific calorie goals can be found on the USDA Web site, [www.mypyramid.gov](http://www.mypyramid.gov)
- According to the National Heart, Lung, and Blood Institute (NHLBI) Guidelines, patients should reduce daily caloric intake by 500 to 1000 calories with the goal of losing 1 to 2 pounds per week<sup>1</sup>
  - Decrease portion sizes using meal replacements such as frozen entrees, canned beverages, and meal bars<sup>1</sup>
    - Use of meal replacements has been shown effective in achieving and sustaining weight loss<sup>4,5</sup>
  - Choose high-fiber whole grains instead of lower-fiber breads, cereals, and pastas<sup>1</sup>
  - Eat more fruits and vegetables that displace less-healthy food choices<sup>1</sup>
  - Choose lean cuts of meat and skimmed dairy products instead of fattier meats and full-fat dairy products<sup>1</sup>
  - Choose light salad dressing instead of full-fat, creamy salad dressing<sup>1</sup>
  - Choose water or other noncaloric beverages instead of sugary sodas<sup>1</sup>

- Reduce consumption of highly processed foods with refined sugars, such as cakes, pies, candies, and cookies<sup>1</sup>
- Reduce consumption of fried foods and cream sauces<sup>1</sup>
- Eat regular meals and planned snacks; avoid skipping meals, which can lead to bingeing and overeating later in the day<sup>6</sup>

### **More Aggressive Diet Therapy: Very Low-Calorie Diets**

At times, physicians specializing in obesity treatment prescribe very low-calorie diets (VLCD) as a form of more aggressive dietary therapy. The primary purpose of prescribing a VLCD is to promote rapid and significant (13 kg to 23 kg) short-term weight loss over a 3 to 6 month period.<sup>6</sup>

- A typical VLCD will supply:
  - ≤800 kcal daily<sup>7</sup>
  - 50 g to 80 g protein daily<sup>7</sup>
  - 100% of the recommended daily intake of essential vitamins and minerals<sup>6</sup>
- According to a review by the National Task Force on the Prevention and Treatment of Obesity, a VLCD is indicated for moderately to severely obese (BMI >30) individuals who are well motivated to lose weight, have tried and failed previous conservative approaches to weight loss, and have medical conditions that would be immediately improved with rapid weight loss<sup>8</sup>
- It is important to monitor patients closely for possible complications, including the development of gallstones<sup>8,9</sup>

### **Activity Treatment Tips**

Although exercise alone is only moderately effective for weight loss, combining diet and exercise is the most effective behavioral approach for the treatment of obesity. Maintaining an exercise regimen is one of the best predictors of long-term weight maintenance.<sup>1</sup> These recommendations may feel daunting to patients and should be implemented gradually.<sup>6</sup>

- Currently, the public health recommendation for physical activity is a minimum of 30 minutes of moderate-intensity physical activity on most, preferably all, days of the week. This can be accumulated throughout the day during activities like walking, choosing the stairs, and doing home and yard work<sup>1</sup>
  - Recommendations for overweight and obese individuals include engaging in 60 minutes of moderate-intensity physical activity on most days of the week<sup>10</sup>
  - The Dietary Guidelines for Americans 2005 found compelling evidence that at least 60 to 90 minutes of daily moderate-intensity physical activity is needed to sustain weight loss<sup>10</sup>
  - Encourage patients to wear a pedometer and track their total daily steps<sup>6</sup>
    - Using a pedometer can motivate patients to become more active in their daily lives
    - The long-term goal is to accumulate 10,000 steps per day
  - The American College of Sports Medicine (ACSM) recommends resistance exercise 2 times per week to supplement an endurance exercise program<sup>10</sup>

- Studies have demonstrated that lifestyle activities are as effective as structured exercise programs in improving cardiorespiratory fitness and weight loss<sup>1</sup>
- Help patients set achievable goals and develop a realistic plan to increase workout intensity<sup>1</sup>
- Moderate-intensity physical activity is safe for most overweight and obese patients; however, it is important to determine if patients have any health conditions that limit their ability to exercise
  - Recommend that patients consult with an exercise physiologist or personal trainer<sup>1</sup>
  - Depending on a patient's physical limitations, referral to a specialist such as an orthopedic surgeon, physical therapist, or neurologist is recommended to obtain specific exercise parameters<sup>6</sup>
  - Determine if patients require a cardiac stress test before undertaking an exercise program
    - Patients with known cardiovascular or pulmonary disease or symptoms consistent with heart or lung problems should have a stress test<sup>10</sup>
    - Men  $\geq 45$  years of age and women  $\geq 55$  years of age should undergo a stress test even if they have no cardiovascular symptoms<sup>10</sup>
  - Help patients overcome exercise barriers<sup>6</sup>:
    - If time is an issue, suggest taking a brisk walk during the course of their normal daily routine
    - If bad weather hinders an outdoor walking program, suggest using home exercise DVDs or videotapes
    - If the high cost of gym membership is a problem, suggest using exercise bands at home for resistance training

### **Behavior Change Treatment Tips**

- Encourage patients to build skills to help maintain long-term behavior change<sup>1</sup>
  - Self-monitor: Record weekly weights, keep a food and activity journal, and record pedometer steps taken daily
  - Stress management: Pay attention to how emotions trigger overeating, develop an emotional-eating action plan, and take time to relax and unwind
  - Stimulus control: Create an environment with fewer temptations. Clear problem foods from home, move the candy dish from the desk at work, take another route home so as not to pass fast food restaurants, etc
  - Social support: Identify people who will support weight loss efforts
- Many patients will benefit from seeing a registered dietitian to assist with weight-reducing behavior change plans
- Both you and your patients should keep a record of anticipated behavioral changes and update progress at each office visit
- When recommending any behavioral change, ask patients to identify:
  - What actions are required of them
  - When the behavioral change should be implemented
  - Where it should be used

## Medication Treatment Tips

- Adjuvant pharmacological treatments should be considered for patients with a BMI >30 kg/m<sup>2</sup> or with a BMI >27 kg/m<sup>2</sup> who also have concomitant obesity-related risk factors or diseases and for whom dietary and physical activity therapy has not been successful<sup>11</sup>
- Antiobesity medications should be prescribed while patients are actively engaged in a lifestyle-management program. Educate patients on the strategies and skills needed to effectively use the drug<sup>1</sup>
- The 3 most commonly prescribed FDA-approved medications for obesity are:
  - Phentermine
  - Sibutramine
  - Orlistat
- Phentermine is a centrally acting sympathomimetic adrenergic agent that is pharmacologically related to amphetamine and stimulates norepinephrine release<sup>12</sup>
  - The usual adult dose is one tablet (37.5 mg) daily, administered before breakfast or 1 to 2 hours after breakfast. The dosage may be adjusted to the patient's need. For some patients, half a tablet (18.75 mg) daily may be adequate, while in some cases it may be desirable to give half a tablet 2 times a day
  - The most common adverse effects of phentermine are restlessness, insomnia, dry mouth, constipation, and increased blood pressure and heart rate
- Sibutramine (*Meridia*®) functions as a serotonin and norepinephrine reuptake inhibitor (SNRI). It produces a dose-dependent weight loss with an average loss of about 5% to 9% of initial body weight at 12 months<sup>13</sup>
  - The most commonly reported adverse events of sibutramine are headache, dry mouth, insomnia, and constipation. The principal concern is a dose-related increase in blood pressure and heart rate
  - A dose of 10 mg/d to 15 mg/d causes a large increase in blood pressure or heart rate in some people
  - Contraindications to sibutramine use include uncontrolled hypertension, congestive heart failure, symptomatic coronary heart disease, arrhythmias, or history of stroke
- Orlistat (*Xenical*®) is a potent, slowly reversible inhibitor of pancreatic, gastric, and carboxyl ester lipases and phospholipase A<sub>2</sub>, which are required for the hydrolysis of dietary fat in the gastrointestinal tract into fatty acids and monoacylglycerols. Taken at a therapeutic dose of 120 mg tid, orlistat blocks the digestion and absorption of about 30% of dietary fat<sup>14</sup>
  - After 1 year, orlistat produces a weight loss of about 9% to 10% compared with a 4% to 6% weight loss in the placebo-treated groups. Since orlistat is minimally (<1%) absorbed from the gastrointestinal tract, it has no systemic side effects
  - Six gastrointestinal-tract adverse effects have been reported to occur in at least 10% of orlistat-treated patients: oily spotting, flatus with discharge, fecal urgency, fatty/oily stool, oily evacuation, and increased defecation. The events are generally experienced early, diminish as patients control their dietary fat intake, and infrequently cause patients to withdraw from clinical trials. Psyllium mucilloid is helpful in controlling the orlistat-induced gastrointestinal side effects when taken concomitantly with the medication

- The manufacturer's package insert for orlistat recommends that patients take a vitamin supplement along with the drug to prevent potential deficiencies
- Orlistat was approved for over-the-counter (OTC) use in 2006 and is marketed as *Alli*®

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