

# Comprehensive Obesity Management Part 1: Assessment and Initiation of Treatment

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## KEY TAKEAWAYS

- The pathophysiology of obesity is complex and involves interactions among genetics, environment, hormones, and neural pathways regulating appetite and energy expenditure.
- Body mass index is a screening tool but is not an optimal diagnostic tool. Obesity treatment decisions should be clinically based with the goal of improving health through weight loss.
- Comprehensive obesity management includes addressing psychosocial factors (eg, weight stigma and internalized weight bias), lifestyle behaviors (ie, nutrition, physical activity, stress, and sleep), behavioral therapy, and consideration of obesity medications and/or metabolic and bariatric surgery.
- Approved obesity medications include phentermine, orlistat, phentermine/topiramate extended release, naltrexone sustained release (SR)/bupropion sustained release (SR), liraglutide, semaglutide, setmelanotide, and tirzepatide.
- Selection of treatment options should be based on the burden of disease to the patient. The goal of treatment is to prevent and/or improve complications and to reduce the burden of obesity.
- Considerations when selecting obesity medications include evaluating: adverse effects, contraindications, or potential drug-drug interactions; whether improve-

ments in other symptoms or comorbidities can be achieved with obesity medications selected; and desired weight loss to achieve clinical improvements.

- Patient preferences, cost, and insurance coverage are considerations for all treatment approaches.
- Use person-centered language and the 5As (ask, assess, advise, agree, assist) in developing and modifying the comprehensive obesity management plan. Additionally, set the expectation on the need for continued individualization of the management plan and long-term treatment.

Once treatment options are agreed upon, ensure the patient understands rationale for treatment, treatment recommendations, and intended outcomes. It is important to provide education and referrals to resources for long-term support.

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## DISCLOSURES

Dr. Kushner serves as a consultant or an advisory board member for Altimmune, Boehringer Ingelheim, Currax Pharmaceuticals, Eli Lilly, Novo Nordisk, Regeneron, Structure, and Weight Watchers. Dr. Lazarus is a consultant to Novo Nordisk. He is also an advisor to Boehringer Ingelheim, Eli Lilly, and Novo Nordisk, and is on the speakers bureaus of Currax Pharmaceuticals, Eli Lilly, and Novo Nordisk. Dr. Miller serves as a speaker and an advisory board member of Abbott, Bayer, Boehringer Ingelheim, Eli Lilly, Embecta, Insulet, and Novo Nordisk, and as an advisory board member for Corcept and Dexcom.

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## INTRODUCTION

Overweight and obesity affect nearly 75% of adults in the United States.<sup>1</sup> Recent estimates from the Centers for Disease Control suggest a plateau in obesity rates at 40.3% from 2021 to 2023<sup>2</sup>; however, the obesity rate is still higher than the *Healthy People 2030* goal of 36%.<sup>3</sup>

Obesity is recognized as a disease and is causally linked to many other noncommunicable complications and comorbidities (eg, prediabetes, diabetes, cardiovascular disease, obstructive sleep apnea [OSA], and metabolic dysfunction-associated steatohepatitis, among others).<sup>4,5</sup>

Overweight and obesity are often categorized using body mass index (BMI). For individuals aged 18 years and older, a BMI of 25 to <30 is defined as overweight, and a BMI of  $\geq 30$  is defined as obese. BMI is a good screening tool; however, it has many limitations as a diagnostic tool.<sup>6-8</sup> In clinical practice, it is recommended to add another anthropometric measure with BMI, such as waist circumference (WC), waist-to-hip ratio, waist-to-height ratio, or body fat measurement (eg, bioelectrical impedance analysis) to assess excess body fat, and utilize clinical indicators (ie, obesity-related organ dysfunction, limitations of daily activi-

ties, or both) to determine the best next steps in obesity management.<sup>6</sup>

Despite the long-held belief that obesity is caused primarily by excess caloric intake and inadequate calorie expenditure, obesity is more complex. It results from the relationship among environmental, social, behavioral, psychological, genetic, and biological drivers that alter hunger, satiety, and energy balance.<sup>9,10</sup> Within these complex factors, individual variability is driven by other influences that can affect body weight (eg, stress, weight stigma, and life transitions such as menopause).<sup>7,9</sup>

Given the complexity of obesity, the goal of an individualized obesity management plan is to address obesity-related health risks. Weight loss is an outcome that can contribute to improvement in those risks.<sup>6-8</sup> The plan should consider psychosocial factors, including weight stigma and internalized weight bias (IWB), lifestyle behaviors (ie, nutrition, physical activity, stress, and sleep), and behavioral therapy. It should also include consideration of obesity medication and/or metabolic and bariatric surgery (MBS), when appropriate.<sup>7,8,11,12</sup>

Primary care practitioners (PCPs) are a main source of contact for patients, and research suggests that patients do want to discuss weight management with their PCP.<sup>13</sup> Recent recognition of IWB and stigma<sup>7</sup> as contributing factors associated with obesity makes it especially important to gauge readiness and ask permission to discuss weight as part of the treatment planning. Obesity is a disease, not a lifestyle choice<sup>7</sup>; however, lifestyle changes are foundational to treatment. Lifestyle interventions have been demonstrated to lead to meaningful weight loss of 7% to 8.6% over 1 year<sup>14,15</sup> and are key components of treatment plans for obesity.<sup>6</sup> The growth in the number of obesity medications<sup>11,16-18</sup> and the clinically meaningful weight loss achieved with newer incretin-based obesity medications (ranging from 15% to 21% based on treatment estimates)<sup>19,20</sup> make obesity medication or MBS recommended options to improve or prevent some potentially life-threatening conditions (eg, diabetes or heart disease).<sup>21-23</sup> The purpose of this first of 2 articles on comprehensive obesity management is to help PCPs screen for, assess, and diagnose obesity, and initiate a comprehensive obesity treatment plan in collaboration with patients.

## CASE STUDY

SB is a 55-year-old postmenopausal woman who recently scheduled an appointment with her PCP due to continuing symptoms of OSA (ie, morning headaches, fatigue, and snoring). SB has not been using a continuous positive airway pressure (CPAP) machine. She is currently taking blood pressure medication (metoprolol) and has recently started using over-the-counter (OTC) sleep aids like diphenhydramine and acetaminophen to help her sleep. She noted that over the past 10 years dur-

ing perimenopause and now menopause she has gained more than 25 pounds. She also describes eating higher-calorie foods along with reduced activity, which she attributes to changes in her sleep patterns. She sleeps well for a few hours and then more intermittently unless she takes an OTC sleep aid. She reports the sleep aids leave her groggy in the morning and she is more anxious and depressed due to poor sleep habits. SB indicates that prior to perimenopause and menopause she did not struggle with her weight. She has tried to lose weight the past few years but has been unsuccessful.

Her current height is 5'4" and her weight is 175 pounds. She has not seen her PCP in a few years because she did not like how she was treated at her last visit by another clinician (ie, weighed in the office hall, improper comments about her weight, gown did not fit, physician told her to eat less as treatment for her weight without asking about her lifestyle choices). Her feelings about her treatment led her to skip preventive screenings.

## DEVELOPING A COMPREHENSIVE OBESITY MANAGEMENT PLAN

The treatment of obesity has been evolving. It is now recognized that BMI is not the primary tool for diagnosing obesity.<sup>6-8</sup> Weight bias and stigma are linked to obesity, poor treatment outcomes and adherence,<sup>7,8</sup> and newer obesity medications and MBS have expanded treatment options to improve health and weight loss outcomes.<sup>21-24</sup> See the following guidelines and resources to inform clinicians about optimal approaches for obesity diagnosis and management:

- *The Lancet Diabetes & Endocrinology Commission: Definition and Diagnostic Criteria for Clinical Obesity (2025)*.<sup>6</sup>
- *American Association of Clinical Endocrinology Consensus Statement: Addressing Stigma and Bias in the Diagnosis and Management of Patients With Obesity/Adiposity-Based Chronic Disease and Assessing Bias and Stigmatization as Determinants of Disease Severity (2023)*.<sup>7</sup>
- *American Society for Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO): Indications for Metabolic and Bariatric Surgery (2022)*.<sup>23</sup>
- *Obesity Algorithm* by the Obesity Medicine Association (2024).<sup>25</sup>
- *Obesity Definition, Diagnosis, Bias, Standard Operating Procedures (SOPs), and Telehealth: An Obesity Medicine Association (OMA) Clinical Practice Statement (CPS) (2022)*.<sup>8</sup>
- *Practice Manual: Addressing Health Disparities for Patients With Obesity* from the American Academy of Family Physicians (2024).<sup>26</sup>
- *Obesity in Adults: A Clinical Practice Guideline* from the Canadian Medical Association (2020).<sup>27</sup>

- American Association of Clinical Endocrinologists and American College of Endocrinology: *Comprehensive Clinical Practice Guidelines for Medical Care of Patients With Obesity* (2016).<sup>28</sup>

This article focuses on 5 steps to developing a collaborative, comprehensive plan for a person living with obesity. These steps are modified from the recommended guidelines and resources.<sup>6-8,23,26,27,29</sup> Each step will be briefly reviewed with supporting evidence. The steps correspond with the 5As framework (ask, assess, advise, agree, assist), which evidence suggests is helpful to guide discussions with patients diagnosed with obesity.<sup>27,29</sup>

### **Step 1: ASK (use a patient-centric approach to reduce stigma and treat obesity)**

A patient-centered approach begins before a patient arrives at the office. Patients presenting with obesity should not experience weight bias and stigma in the clinic setting.<sup>8</sup> Evaluate the office setting for patient comfort. Think about privacy and where the weight scale is located, the size of the chairs in the waiting room, the available blood pressure cuff sizes, and other office features.

Prior to the patient visit, some information can be obtained by a pre-visit questionnaire completed by the patient. Clinicians should thoroughly review current and past medications in addition to medical, surgical, family, and psychiatric history, including specifically screening for untreated/uncontrolled eating disorders and substance use disorders.<sup>11</sup> Also include in the pre-visit survey questions on weight history and prior weight loss attempts; lifestyle history regarding eating habits; lifestyle behaviors such as nutrition, physical activity, stress, and sleep; psychosocial factors; food access; and more.<sup>27,29</sup>

Once your patient arrives in your exam room, it is important to do the following:

- Ask if they would like to discuss their weight during the visit. Patients who have experienced weight bias and stigma may experience higher levels of psychological disorders such as depression, anxiety, and disordered eating. As a result, it is important to ask permission to discuss their weight in the context of clinical obesity.<sup>7,8</sup>
- Use person-centered language in your conversation that does not label the individual by their disease.<sup>8</sup> Some examples are “person with obesity,” “person affected by obesity.” Or note in the chart the patient has obesity instead of referring to them as an obese person or large person. Acknowledge your patient’s struggles and validate how they feel.

### **Step 2: ASSESS (diagnose obesity, identify contributing factors, and prioritize treatment plan goals)**

Conduct a physical exam, and order labs and other tests based on clinical judgment. While most guidelines still rec-

ommend a BMI as a primary way of diagnosing obesity, PCPs should develop their practice to integrate another anthropometric measure, such as WC, waist-to-hip ratio, weight-to-height ratio, or a body fat measurement, such as bioelectrical impedance analysis to appropriately diagnose excess body fat.<sup>6,7</sup> Note that with WC, waist-to-hip, and waist-to-height cutoffs, the increased risk needs to be interpreted by clinicians using published gender- and race-specific values.<sup>30</sup> In addition to adiposity, an obesity diagnosis should include a clinical component, such as diagnosis of health risks and obesity-related complications.

After you assess BMI, excess body fat, and clinical indicators of obesity, a diagnosis of overweight or obesity is recommended. Include in your diagnosis an assessment of whether the patient has health risks, such as organ dysfunction and/or reduced ability to conduct daily activities.<sup>6</sup>

Stigma and IWB are also recognized as contributing factors to obesity.<sup>7,8</sup> Patients diagnosed with obesity can experience weight bias and stigma in all aspects of their lives, including healthcare settings, and this can lead to lack of follow-up, poor adherence to recommended therapies, and additional stress.<sup>9,26</sup> The PCP can broach the topic of weight bias and stigma by using reflective language, as in this example: “Many of my patients who live with obesity have experienced discrimination, prejudice, or emotional distress because of their weight. Have you had this experience? If so, how has this affected your mental and physical health?” This gives individuals permission to share their stories so that the PCP can better understand their lived experience. To minimize weight bias and stigma, it is important to explore the patient’s readiness to focus on their health and understand their weight loss expectations before prioritizing the treatment plan recommendations. Do not assume they are ready to initiate treatment; the goal is to determine what they are ready to start.

### **Step 3: ADVISE (on treatment options)**

To help patients improve obesity-related health risks effectively, PCPs should recommend a comprehensive strategy that incorporates a lifestyle prescription including nutrition, physical activity, aerobic exercise and strength training, stress management, and sleep, as well as obesity medication or MBS, as appropriate.

Lifestyle is the base strategy for any comprehensive obesity management plan. Long-term lifestyle intervention studies like the Diabetes Prevention Program<sup>14</sup> and Look Ahead<sup>15</sup> trials have demonstrated that lifestyle behavior changes are foundational to weight loss. Key behavioral strategies include self-monitoring of food intake, activity levels, weight, stress level, sleep habits, and others, as well as problem solving, cognitive restructuring, goal setting, and ongoing support.<sup>14,15</sup>

Treatment plans for obesity should consider the expected

goals of treatment. Weight loss has been demonstrated to improve obesity-related complications and comorbidities.<sup>29</sup>

If obesity medications are part of the treatment recommendation, **TABLE** provides a summary of current US Food and Drug Administration (FDA)-approved medications for weight loss.<sup>18-20,24,31-34</sup> Potential weight loss outcomes and other approved indications are also included. Considerations when choosing an obesity medication<sup>11,29</sup> include side effects, contraindications, or drug-drug interactions; whether a specific medication can improve other conditions or symptoms the patient is having; the desired weight loss to achieve intended health outcomes; patient preferences for administration (oral or weekly or daily injection); cost; and patient insurance coverage.

#### **Step 4: AGREE (on treatment goals)**

It is important to collaborate on treatment goals with a focus on health outcomes. However, patients will be focused on weight, so it is good to discuss expected efficacy of the selected treatment that is expressed as percentage of weight loss from highest weight as opposed to trying to achieve a specific goal weight. Ensure patients also know that once the weight loss has been achieved, it is recommended that the chosen treatment be continued to prevent weight regain. Additionally, agree upon goals for lifestyle behaviors such as nutrition, physical activity, aerobic exercise, strength training, sleep, and stress management, in addition to clinical treatment goals.

#### **Step 5: ASSIST (with education and follow-up, including referrals)**

Prior to leaving the office, ask the patient to articulate the treatment plan to ensure understanding. If obesity medication is part of the treatment plan, stress the need for long-term treatment of obesity and provide education on how to take and store the medication (oral or injection) and how to manage common adverse effects. Any food or activity considerations to mitigate medication adverse effects should also be discussed.

Ensure patients receive education and referrals for support to registered dietitian nutritionists (RDNs), behavioral health professionals, exercise physiologists, and/or other specialists. The patient should understand the desired follow-up schedule. For example, when obesity medications are part of the treatment plan, patients should be aware that more visits may be required to titrate medication doses.

#### **CASE STUDY (CONTINUED)**

SB experienced weight bias on a prior visit, which contributed to delays in seeking treatment to address health changes resulting from menopause, weight gain, and sleep issues. As part of her care, it will be important to:

- **ASK:** Get permission to discuss her weight in addition to

discussing modifications to existing treatments.

- **ASSESS:** Consider screening for weight bias and stigma given initial comments about her prior clinic visit and lack of follow-up on preventive measures. Measure abdominal circumference to assess excess body fat rather than relying solely on BMI. The measurement should be at the level of the anterior superior iliac crest in a horizontal plane, after having the patient take a deep breath and then exhale. Given that diphenhydramine and metoprolol may both cause weight gain, consider making changes. Assess blood pressure control and further assess reasons for not using a CPAP machine, which could help improve sleep.

Based on assessment, SB has a BMI of 30 and an abdominal circumference measurement >88 cm (~34.6 inches), confirming a diagnosis of obesity (excess body fat). She also has a history of high blood pressure controlled with medication, a history of OSA with an apnea-hypopnea index of 35, recent weight gain, inadequate sleep, and poor eating behaviors. Assessment confirms changes in treatment plan are necessary.

- **ADVISE:** Recommend SB cross-titrate from metoprolol to an angiotensin-converting enzyme inhibitor or an angiotensin receptor blocker like lisinopril for blood pressure control, and start SB on an obesity medication, specifically tirzepatide, which can also improve OSA (see **TABLE**). Encourage her to use her CPAP machine and follow up on preventive screenings. Discuss how the required foundational lifestyle behaviors, along with an obesity medication, will improve her outcomes.
- **AGREE:** Reach agreement on the treatment plan, including obesity medication and use of the CPAP machine. Prior to leaving the office, a nurse educator and RDN should introduce themselves.
- **ASSIST:** Provide SB education on the medication: dose, frequency, storage, injection instructions, and potential adverse effects. Schedule a follow-up appointment in 4 weeks and make referrals, for example, to an RDN, for ongoing education and support.

#### **SUMMARY**

Overweight and obesity are common diagnoses in primary care but often go unaddressed or undertreated. Obesity is a chronic disease that requires ongoing medical management to reduce complications and associated comorbidities. The pathophysiology of obesity is complex and involves interactions among genetics, environment, hormones, and neural pathways regulating appetite and energy expenditure. Optimal treatment for obesity starts with confirming an obesity diagnosis and requires a comprehensive approach using foundational lifestyle interventions (nutrition, physical activity, aerobic exercise, strength training, stress management, and sleep),

**TABLE. FDA-approved obesity medications.**<sup>18-20,24,31-34</sup>

Generic	Brand	Year	Mechanism of action (effects)	Dosing guideline	Percentage of total body weight loss	Other clinical considerations <sup>a</sup>	Most common adverse effects
Phentermine	Adipex, Lomaira	1959	Increases neurotransmitter norepinephrine (appetite regulation)	Oral: typical dosage for Adipex is 15 mg or 30 mg per day; typical dosage for Lomaira is 8 mg by mouth 3 times/day 30 minutes before meals	6.1%	Currently approved for short-term use by the FDA. State regulations may vary	Dry mouth, constipation, anxiety, and dysgeusia
Orlistat	Xenical, Alli	1999	Blocks enzyme, lipase, which breaks down fat (reduces fat absorption)	Oral: 120 mg capsule 3 times/day with fat-containing meals	9%	Not approved for any other medical conditions	Oily fecal spotting and fecal urgency
Phentermine/Topiramate ER	Qsymia	2012	Increases the neurotransmitters norepinephrine and GABA (appetite regulation)	Oral: Qsymia (3.75 mg/23 mg) daily for 14 days; then increase to 15 mg/92 mg daily	9.8%	Topiramate is also used for seizures and migraine prophylaxis	Abnormal sensations, such as “pins and needles” sensation on skin, dry mouth, constipation, dysgeusia, and kidney stones/nephrolithiasis
Naltrexone SR/Bupropion SR	Contrave	2014	Increases neurotransmitters, including norepinephrine and dopamine (appetite regulation)	Oral: Maximum dose: 4 tablets/day (naltrexone 32 mg/bupropion 360 mg); start 1 tablet per day in morning week 1; week 2, 1 tablet morning and evening; week 3, 2 tablets morning and 1 evening; week 4, 2 tablets twice daily	6.1%	Bupropion is used to treat major depressive disorder and to prevent seasonal affective disorder. It also aids in smoking cessation Bupropion is also known to lower the seizure threshold Naltrexone is an opioid receptor antagonist	Nausea, constipation, headache, vomiting, dizziness, insomnia, and dry mouth
Liraglutide	Saxenda	2014	Mimics glucagon-like peptide-1 (GLP-1) (appetite regulation)	Subcutaneous injection: 0.6-3.0 mg maximum dose daily. Follow dose escalation schedule, increasing by 0.6 mg each week to maximum dose	8.0%	Also indicated to treat type 2 diabetes and heart disease to lower the risk of heart attack, stroke, or death caused by heart disease	Nausea, diarrhea, vomiting, and constipation
Setmelanotide	Imcivree	2020	Activates melanocortin-4 receptors in the brain, specifically in the paraventricular nucleus of the hypothalamus and the lateral hypothalamic area (appetite and hunger regulation)	Subcutaneous injection: 2.0-3.0 mg, once daily, for 6 years of age and older	10.0%	Patients selected for treatment should have a genetically determined deficiency of pro-opiomelanocortin, proprotein subtilisin/kexin type 1, or leptin receptor or a clinical diagnosis of Bardet-Biedl syndrome	Nausea, headache, diarrhea, stomach pain, back pain, vomiting, depression, upper respiratory infection, and erection in males without sexual activity

TABLE CONTINUED ON NEXT PAGE

pharmacotherapy, and/or MBS when indicated. All treatment plans should align with the patient’s goals and preferences.

Obesity medications may include phentermine, orlistat, phentermine/topiramate extended release, naltrexone sus-

tained release (SR)/bupropion SR, liraglutide, semaglutide, setmelanotide, or tirzepatide. Newer incretin-based therapies have demonstrated promising results, leading to more significant weight loss and improved clinical outcomes. Their

**TABLE. FDA-approved obesity medications.<sup>18-20,24,31-34</sup> (cont'd)**

Generic	Brand	Year	Mechanism of action (effects)	Dosing guideline	Percentage of total body weight loss	Other clinical considerations <sup>a</sup>	Most common adverse effects
Semaglutide	Wegovy	2021	Mimics GLP-1 (appetite regulation)	Subcutaneous injection: 0.25 mg, 0.5 mg, 1 mg, and 1.7 mg weekly. Maintenance dose: 1.7 mg and 2.4 mg weekly	14.9%	Also indicated to treat type 2 diabetes and heart disease to lower the risk of recurrent events caused by heart disease	Nausea, diarrhea, vomiting, and constipation
Tirzepatide	Zepbound	2023	Mimics GLP-1 and glucose-dependent insulinotropic polypeptide receptor (appetite regulation)	Subcutaneous injection: 2.5 mg, 5.0 mg, 7.5 mg, 10 mg, 12.5 mg, and 15 mg weekly. Maintenance doses: 5.0 mg, 10 mg, and 15 mg weekly	20.9%	Also indicated to treat type 2 diabetes and to improve moderate-to-severe OSA	Nausea, diarrhea, vomiting, and constipation

<sup>a</sup>No obesity medications are approved for use during pregnancy, so it is important to discuss adequate contraception.

safety and novel mechanisms of action make them appealing options for the treatment of clinical obesity. In part 2 of this series, we will discuss how to adjust the treatment plan for weight loss and weight maintenance. ●

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