

# ***Comprehensive Management of Adult Overweight / Obesity: A Provider Guide***



***Aligned with the 2025 VA/DoD Clinical  
Practice Guideline for Management of  
Adult Overweight and Obesity***



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## Foreword:

This Clinical Support Tool (CST) is designed to support providers in the comprehensive management of obesity as a chronic disease. It translates key recommendations from the 2025 Department of Veteran Affairs and Department of Defense (VA/DoD) Obesity Clinical Practice Guideline into a practical, provider-facing format to support clinical decision-making across the continuum of care.

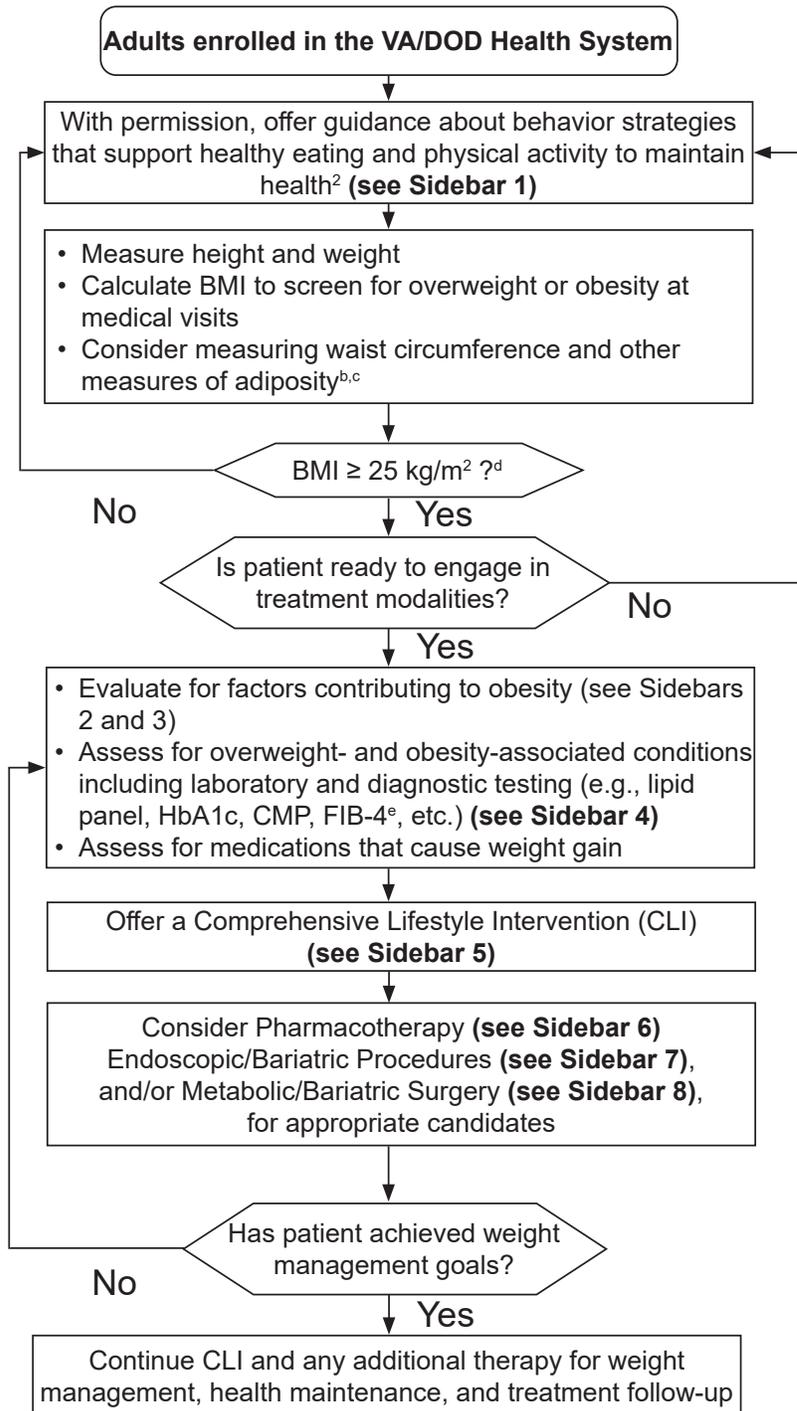
This CST is intended to be used alongside clinical judgment and in coordination with established DoD and VA programs and resources. It is not a replacement for the full Clinical Practice Guideline or for specialized treatment programs.

## What this CST Covers:

- Assessment and risk stratification of adults with overweight or obesity
- Patient-centered engagement and shared decision-making
- Overview of comprehensive lifestyle intervention (CLI) as foundational care
- Indications for concomitant pharmacotherapy and/or procedural options with CLI
- Ongoing monitoring and long-term management considerations

## What this CST does not cover:

- Detailed behavioral counseling techniques or therapy protocols
- Program-specific workflows or enrollment procedures
- Medication dosing schedules or prescribing outside CPG recommendations
- Replacement of specialty care, referral processes, or clinical judgment



<sup>a</sup> See, for example, 2020-2025 Dietary Guidelines for Americans, 9th edition, available at: Dietary Guidelines for Americans and Physical Guidelines for Americans, 2nd Edition, available at: Physical Activity Guidelines for Americans | [odphp.health.gov](https://odphp.health.gov)

<sup>b</sup> Waist circumference:  $\geq 102$  cm (40 in) for men and  $\geq 88$  cm (35 in) for women, for those of Asian descent:  $\geq 90$  cm (35.4 in) for men and  $\geq 80$  cm (31.5 in) for women or waist-to-hip ratio (WHR)  $> 0.90$  for men and  $> 0.80$  for women, or waist-to-height ratio (WtHR)  $\geq 0.50$  for all

<sup>c</sup> The waist circumference measurement should be made with a tape measure placed around the bare abdomen just above the iliac crest. The tape should be snug, but should not compress the skin, and the measurement should be obtained while the patient is standing at the end of normal exhalation

<sup>d</sup> For patients of Asian descent: is BMI  $\geq 23$  kg/m<sup>2</sup>?; for patients  $> 65$  years old: consider individualized assessment

<sup>e</sup> The Fibrosis-4 (FIB-4) index is a non-invasive scoring system used to estimate liver fibrosis based on several laboratory tests

Abbreviations: BMI: body mass index; CLI: comprehensive lifestyle intervention; CMP: comprehensive metabolic panel; DOD: Department of Defense; VA: Department of Veterans Affairs; WHR: waist-to-hip ratio; WtHR: waist-to-height ratio

# Sidebars

## Sidebar 1: Principles and Core Strategies of Motivational Interviewing and Behavioral Counseling

- Respect autonomy and resist directing
- Understand the patient's motivations
- Listen with empathy
- Empower the patient by building confidence
- Ask Open-ended questions to evoke change talk and provide Affirmations, Reflections, and Summaries (OARS)
- Use the 5 A's: Ask, Assess, Advise, Agree, Assist<sup>a</sup>

<sup>a</sup> See information for Behavioral Counseling Interventions, available at: Behavioral Counseling Interventions: An Evidence-based Approach | United States Preventive Services Task force

<https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/methods-and-processes/behavioral-counseling-interventions-evidence-based-approach>

## Sidebar 2: Select Medications and their Potential Effects on Weight<sup>a</sup> Providers will need to individualize recommendations to their patient

Medication Classes	Medications with Potential for Weight GAIN	Medications that are Weight Neutral or have Potential for Weight LOSS
Antipsychotics <sup>d</sup>	<ul style="list-style-type: none"> <li>• Chlorpromazine</li> <li>• Clozapine</li> <li>• Iloperidone</li> <li>• Olanzapine</li> <li>• Paliperidone</li> <li>• Quetiapine</li> <li>• Risperidone</li> <li>• Thioridazine</li> </ul>	<p>Consider an antipsychotic with minimal to no effect on weight gain if possible.</p> <p>NOTE: No antipsychotic medication is associated with weight loss.</p> <ul style="list-style-type: none"> <li>• Aripiprazole</li> <li>• Asenapine</li> <li>• Brexpiprazole</li> <li>• Cariprazine</li> <li>• Fluphenazine</li> <li>• Haloperidol</li> <li>• Loxapine</li> <li>• Lumateperone</li> <li>• Lurasidone</li> <li>• Molindone</li> <li>• Perphenazine</li> <li>• Pimavanserin</li> <li>• Xanomeline-trospium</li> <li>• Ziprasidone</li> </ul>
Antidepressants <sup>e</sup>	<ul style="list-style-type: none"> <li>• Mirtazapine</li> <li>• Some selective serotonin reuptake inhibitors (SSRI) (e.g., paroxetine, sertraline, citalopram<sup>b</sup>, and escitalopram<sup>b</sup>)</li> <li>• MAOIs (e.g., phenelzine)</li> <li>• Tricyclic anti-depressants (e.g., amitriptyline, clomipramine, doxepin, imipramine, nortriptyline, protriptyline<sup>b</sup>)</li> </ul>	<p>Consider an antidepressant with minimal to no effect on weight gain if possible.</p> <ul style="list-style-type: none"> <li>• Bupropion (associated with weight loss)</li> <li>• Some SSRIs (e.g., fluoxetine)</li> <li>• SNRIs (e.g., desvenlafaxine, venlafaxine, duloxetine)</li> <li>• Trazodone, Nefazodone</li> <li>• Vortioxetine</li> </ul>

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Medication Classes	Medications with Potential for Weight GAIN	Medications that are Weight Neutral or have Potential for Weight LOSS
Antiseizure drugs or mood stabilizing agents	<ul style="list-style-type: none"> <li>• Divalproex</li> <li>• Gabapentin</li> <li>• Lithium</li> <li>• Perampanel</li> <li>• Pregabalin</li> <li>• Valproic acid</li> <li>• Vigabatrin</li> </ul>	<p>Associated with weight loss:</p> <ul style="list-style-type: none"> <li>• Topiramate</li> <li>• Zonisamide</li> <li>• Cannabidiol</li> <li>• Stiripentol</li> </ul> <p>Associated with minimal weight loss, conflicting or no evidence for weight gain or loss:</p> <ul style="list-style-type: none"> <li>• Brivaracetam, levetiracetam</li> <li>• Carbamazepine, Eslicarbazepine, Oxcarbazepine</li> <li>• Cenobamate</li> <li>• Clobazam</li> <li>• Ethosuximide</li> <li>• Felbamate</li> <li>• Lacosamide</li> <li>• Lamotrigine</li> <li>• Phenobarbital</li> <li>• Phenytoin</li> <li>• Primidone</li> <li>• Rufinamide</li> <li>• Tiagabine</li> </ul> <p>NOTE: Prioritize seizure control</p>
Antihyperglycemic agents	<ul style="list-style-type: none"> <li>• Insulin<sup>c</sup></li> <li>• Sulfonylureas (e.g., chlorpropamide, glimepiride, glipizide, glyburide)</li> <li>• Meglitinides (e.g., nateglinide, repaglinide)</li> <li>• Thiazolidinediones (e.g., pioglitazone, rosiglitazone)</li> </ul>	<p>Associated with weight loss:</p> <ul style="list-style-type: none"> <li>• GLP-1/GIP tirzepatide</li> <li>• GLP-1 containing agonists (e.g., semaglutide, liraglutide, exenatide, dulaglutide, lixisenatide)</li> <li>• SGLT2 inhibitors (e.g., empagliflozin, canagliflozin, dapagliflozin, ertugliflozin)</li> <li>• Metformin</li> <li>• Alpha-glucosidase inhibitors (e.g., acarbose, miglitol)</li> <li>• Pramlintide</li> </ul> <p>Weight neutral:</p> <ul style="list-style-type: none"> <li>• Dipeptidyl-peptidase-4 inhibitors (e.g., alogliptin, linagliptin, saxagliptin, sitagliptin)</li> </ul>
Beta-blockers	<ul style="list-style-type: none"> <li>• Metoprolol</li> <li>• Atenolol</li> <li>• Propranolol</li> <li>• Less weight gain than above:</li> <li>• Carvedilol<sup>b</sup></li> <li>• Nebivolol<sup>b</sup></li> </ul>	<p>Consider calcium channel blockers, angiotensin receptor blockers, angiotensin-converting enzyme inhibitors, and thiazide or loop diuretics, as indicated.</p> <p>NOTE: Other alternative classes of antihypertensive medications may be an option depending on the indication (e.g., angina, heart failure, HTN, migraine).</p>

**Sidebar 2: Select Medications and their Potential Effects on Weight<sup>a</sup>**  
**Providers will need to individualize recommendations to their patient**

Medication Classes	Medications with Potential for Weight GAIN	Medications that are Weight Neutral or have Potential for Weight LOSS
Alpha-blockers	<ul style="list-style-type: none"> <li>• Terazosin</li> <li>• Doxazosin</li> <li>• Prazosin</li> </ul>	<ul style="list-style-type: none"> <li>• Alfuzosin</li> <li>• Tamsulosin</li> </ul>
Glucocorticoids	<ul style="list-style-type: none"> <li>• Systemic Steroids (e.g., Prednisone, Dexamethasone, Methylprednisolone, Hydrocortisone)</li> </ul>	Consider weight-neutral steroid-sparing alternatives based on indication. Some examples include: <ul style="list-style-type: none"> <li>• Biologics/disease-modifying antirheumatic drugs</li> <li>• Nontraditional therapies</li> <li>• NSAIDs</li> </ul>
Hormonal agents	<ul style="list-style-type: none"> <li>• Oral or Depot Progestin-only therapy (e.g., medroxyprogesterone, megestrol acetate)<sup>f</sup></li> <li>• Less weight gain than above:</li> <li>• Combination contraceptives (e.g., oral, patch)<sup>f</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Consider alternative methods based on indication (e.g., contraception; menopause). Some examples include:               <ul style="list-style-type: none"> <li>• Copper intrauterine device</li> <li>• Barrier Method</li> </ul> </li> </ul>
Antihistamines	<ul style="list-style-type: none"> <li>• H1 antihistamines (e.g., hydroxyzine, diphenhydramine, fexofenadine), cetirizine, and desloratadine</li> </ul>	Depending on symptoms, consider alternatives such as: ipratropium nasal spray, decongestants, inhalers, and/or nonpharmacologic measures (e.g., nasal irrigation)
Antiretrovirals	<ul style="list-style-type: none"> <li>• Protease Inhibitors (e.g., atazanavir, darunavir)</li> <li>• Integrase Inhibitors (e.g., bictegravir, dolutegravir, raltegravir)</li> </ul>	Other ARVs are typically weight-neutral. Prioritize viremia control.

<sup>a</sup> The information provided in the table is not to be considered all-inclusive and is a compilation of information from the medical literature (systematic reviews, meta-analyses, subgroup analysis of clinical trials, cohort studies, reviews), some of which may have included differing comparators with variable results based on length of follow-up, baseline weight, patient comorbidities, etc.; medical and pharmacy resources; and select product information (adverse events, post-marketing and case reports).

<sup>b</sup> Weight gain and weight loss have been reported. \*should there be more description of initial vs. long-term effects on weight\* for beta blockers: Bakris GL, Fonseca V, Katholi RE, et al. Metabolic Effects of Carvedilol vs Metoprolol in Patients With Type 2 Diabetes Mellitus and Hypertension: A Randomized Controlled Trial. JAMA. 2004;292(18):2227–2236. doi:10.1001/jama.292.18.2227

<sup>c</sup> High basal insulin (≥ 0.5units/kg) can cause sub-clinical hypoglycemia that can increase appetite (see Clinical Care Note in Introduction to the 2025 OBE CPG Pharmacotherapy Recommendations)

<sup>d</sup> See Table D-3: Antipsychotic Adverse Event Profiles in the April 2023 VA/DOD Clinical Practice Guideline for Management of First-Episode Psychosis and Schizophrenia. Available at: <https://www.healthquality.va.gov/guidelines/MH/scz/>

<sup>e</sup> See Table J-2: Antidepressant Adverse Event Profiles in the February 2022 VA/DOD Clinical Practice Guideline for the Management of Major Depressive Disorder. Available at: <https://www.healthquality.va.gov/guidelines/MH/mdd/>

<sup>f</sup> Lopez LM, Ramesh S, Chen M, et al. Progestin-only contraceptives: effects on weight. Cochrane Database Syst Rev. 2016(8):CD008815.; Gallo MF, Lopez LM, Grimes DA, Carayon F, Schulz KF, Helmerhorst FM. Combination contraceptives: effects on weight. Cochrane Database Syst Rev. 2014(1):CD003987.

Abbreviations: ARB: angiotensin receptor blocker; ARV: antiretroviral; GLP-1: glucagon-like peptide-1 receptor; HTN: hypertension; MAOI: monoamine oxidase inhibitor; NSAID: nonsteroidal anti-inflammatory drug; SGLT2: sodium-glucose cotransporter 2

**Sidebar 3: Assessment of Factors Associated with Obesity**

- Assess for presence of obesogenic medications (see Sidebar 2 on pharmacotherapy)
- Assess for factors associated with overweight or obesity if physical exam and personal family history warrant, including but not limited to: depression, eating disorders or disordered eating, food insecurity and nutritional insufficiency, menopause, endocrine disorders (e.g., hypothyroidism, acromegaly, hypogonadism, hypercortisolism), neurologic conditions (e.g., hypothalamic obesity, traumatic brain injury, brain tumor, cranial irradiation, spinal cord injury), sleep apnea

#### Sidebar 4: Common Overweight- & Obesity-Associated Conditions By System<sup>a</sup>

- Endocrine conditions (e.g., Prediabetes and Diabetes Mellitus, Metabolic Syndrome<sup>b</sup>)
- Cardiovascular conditions (e.g., ASCVD, HTN, Dyslipidemia, Atrial Fibrillation, CHF, Stroke)
- Gastrointestinal conditions (e.g., MASLD, GERD)
- Musculoskeletal (e.g., OA/degenerative joint disease)
- Mental health conditions (e.g., depression, PTSD, anxiety, disordered eating)
- Respiratory conditions (e.g., OSA, asthma, hypoventilation syndrome)
- Genitourinary conditions (e.g., PCOS, female infertility, male hypogonadism, stress incontinence)
- Renal (e.g., microalbuminuria, CKD)
- Cancer
- Neurological (e.g., IIH)

<sup>a</sup> This list of conditions is not a comprehensive list of overweight and obesity associated conditions.

<sup>b</sup> See National Cholesterol Education Program definition of metabolic syndrome, available at: <https://www.nhlbi.nih.gov/files/docs/guidelines/atglance.pdf>

Abbreviations: ASCVD: atherosclerotic cardiovascular disease; CHF: congestive heart failure; CKD: chronic kidney disease; GERD: gastroesophageal reflux disease; HTN: hypertension; IIH: idiopathic intracranial hypertension; MASLD: metabolic dysfunction-associated steatotic liver disease; OA: osteoarthritis; OSA: obstructive sleep apnea; PCOS: polycystic ovarian syndrome; PTSD: post-traumatic stress disorder

#### Sidebar 5: Comprehensive Lifestyle Intervention

- Defined as an intervention that combines behavioral, nutritional, and physical activity components together (see Recommendation 2, Recommendation 6, Recommendation 8, Recommendation 9, and Appendix O\*)
- The intervention can be delivered in an individual or group setting, in person, by telephone, or through synchronous video (see Recommendation 2, Recommendation 4, Recommendation 5, and Appendix O\*)
- Though there is insufficient evidence to recommend a specific number of sessions of comprehensive lifestyle intervention, most CLIs offer at least 12 intervention sessions in the first 12 months of intervention (see Recommendation 2\*)

Abbreviations: CLI: comprehensive lifestyle intervention

#### Sidebar 6: Assessment for Pharmacotherapy

The thresholds listed below are for the initiation of therapy. These medications may be continued for maintenance of BMI target goals.

Consider for long-term pharmacotherapy (see Appendix J):

- Patients with a BMI  $\geq 30$  kg/m<sup>2</sup>
- Patients with a BMI  $\geq 27$  kg/m<sup>2</sup> and an obesity-related comorbidity (see Table J-1)
- Individualize choice of medication to patient-specific comorbidities, dosing, administration, and potential for side effects

NOTE: Patients with BMI  $\geq 25$ -27 kg/m<sup>2</sup> with additional adiposity measures require special considerations. See Recommendations for further information.

Abbreviations: BMI: body mass index; kg: kilograms; m: meters

#### Sidebar 7: Assessment for Endoscopic and/or Bariatric Therapies

Consider for endoscopic and/or bariatric therapies (see Recommendation 11, Recommendation 13, and Appendix K\*):

- For intragastric balloons, patients with a BMI of 30-40 kg/m<sup>2</sup>
- For endoscopic sleeve gastrectomy, patients with a BMI of 30-50 kg/m<sup>2</sup>

Abbreviations: BMI: body mass index; kg: kilograms; m: meters

#### Sidebar 8: Assessment for Metabolic and/or Bariatric Surgery

- Consider for metabolic/bariatric surgery (see Recommendation 12 and Appendix K\*):
- Patients with a BMI  $\geq 30$  kg/m<sup>2</sup> and T2DM
- Patients with a BMI  $\geq 35$  kg/m<sup>2</sup>

Abbreviations: BMI: body mass index; kg: kilograms; m: meters

\*See Recommendations found in the 2025 VA/DoD Clinical Practice Guideline for Management of Adult Overweight and Obesity found at: <https://www.health.mil/About-MHS/MHS-Elements/DVPO/VADOD-CPGs>



## Appendix J: Pharmacotherapy

### A. Medications FDA-Approved for Weight Maintenance

The following tables summarize pharmacotherapy options for the long-term treatment of overweight and obesity. Refer to each drug's prescribing information for full details.

Included in Table J-1 are dose escalation titrations for each medication per manufacturer labeling. However, titrations should be individualized based on patient tolerance and response. Many patients do not need higher dosages of obesity medications to reach desired goals, and patients tolerate best if titrated slowly. A weight loss goal of about 0.5-2lbs per week with optimal nutrition, physical activity, sleep, stress management, and the appropriate individualized dose for the patient should be practiced. Rapid and large amounts of weight loss may be associated with increased loss of skeletal muscle, vitamin deficiencies, and gallstone formation.

Medication	Dosing	Monitoring	Common Side Effects	Contraindications	Warnings
Semaglutide (Wegovy®)  Two Additional FDA-approved indications for: (1) secondary prevention of MACE in adults with overweight or obesity; and (2) metabolic dysfunction-associated steatohepatitis (MASH) irrespective of BMI	<ul style="list-style-type: none"> <li>■ Initial dose-escalation:               <ul style="list-style-type: none"> <li>■ Week 1-4: 0.25 mg subQ weekly</li> <li>■ Week 5-8: 0.5 mg subQ weekly</li> <li>■ Week 9-12: 1 mg subQ weekly</li> <li>■ Week 13-16: 1.7mg subQ weekly</li> <li>■ Week ≥17: 2.4mg subQ weekly</li> </ul> </li> <li>■ Maintenance doses are 2.4 mg weekly (preferred) or 1.7 mg weekly (if 2.4 mg is not tolerated)</li> </ul>	<p><u>Common to all NuSHes/GLP-1 RA containing agents listed except where agent-specific information is listed:</u></p> <ul style="list-style-type: none"> <li>■ Weight</li> <li>■ Blood pressure: hypotension risk may warrant de-escalation of antihypertensives</li> <li>■ Heart rate</li> <li>■ Glucose and/or signs/symptoms of hypoglycemia. Use additional caution if the patient is prescribed another glucose-lowering agent</li> <li>■ Mood (symptoms of depression) and sleep disorders</li> <li>■ Delayed gastric emptying may impact absorption of some oral medications. Tirzepatide PI recommends women using oral hormonal contraceptives to switch to a non-oral contraceptive method or add a barrier method of contraception for 4 weeks after initiation and for 4 weeks after each dose escalation.</li> </ul> <p><u>Common to all NuSHes/GLP-1 RA containing agents listed except where agent-specific information is listed:</u></p> <ul style="list-style-type: none"> <li>■ Increased heart rate</li> <li>■ Headache</li> <li>■ Nausea</li> <li>■ Diarrhea</li> <li>■ Constipation</li> <li>■ Vomiting</li> <li>■ Dyspepsia</li> <li>■ Abdominal pain</li> <li>■ Fatigue</li> <li>■ Injection site reactions</li> </ul>			
Tirzepatide (Zepbound®)  Additional FDA-approved indication for treatment of moderate to severe OSA in adults with obesity	<ul style="list-style-type: none"> <li>■ Initial dose-escalation: 2.5 mg subQ weekly for 4 weeks. Increase by 2.5mg/week every 4 weeks</li> <li>■ Maintenance doses are 5 mg, 10 mg, and 15 mg weekly (for OSA, recommended doses are 10 mg or 15 mg weekly)</li> </ul>	<p><u>Common to all NuSHes/GLP-1 RA containing agents listed except where agent-specific information is listed:</u></p> <ul style="list-style-type: none"> <li>■ Personal or family history of medullary thyroid carcinoma or MEN2 [<b>U.S. Boxed Warning</b>]</li> <li>■ Pregnancy: Liraglutide PI recommends discontinuation if a woman wishes to become pregnant or pregnancy occurs. Semaglutide PI recommends discontinuation at least 2 months prior to planning pregnancy. Tirzepatide PI recommends women using oral hormonal contraceptives to switch to a non-oral contraceptive method or add a barrier method of contraception for 4 weeks after initiation and for 4 weeks after each dose escalation.</li> </ul>			

Medication	Dosing	Monitoring	Common Side Effects	Contraindications	Warnings
Liraglutide (Saxenda®)	<ul style="list-style-type: none"> <li>■ Initiate dose titration with 0.6 mg daily, subcutaneously for 1 week; increase daily dose by 0.6 mg per week until reaching a target dose of 3 mg; slow titration to every other week if the patient cannot tolerate weekly titration</li> <li>■ Per the product information, discontinue if 4% weight loss is not achieved by week 16 as it is unlikely that a meaningful weight loss will be achieved and sustained with continued treatment</li> <li>■ <u>Patients on secretagogues (such as sulfonylureas) or insulin:</u> Consider reducing the dose of the secretagogue (e.g., by 50%) or insulin to avoid hypoglycemia</li> </ul>				<p><u>Common to all NuSHes/GLP-1 RA containing agents listed except where agent-specific information is listed:</u></p> <ul style="list-style-type: none"> <li>■ Thyroid C-cell tumors [<b>U.S. Boxed Warning</b>]</li> <li>■ Injection site reactions Hypersensitivity reactions (caution if previous reactions to GLP-1 agonist)</li> <li>■ Gallbladder disease</li> <li>■ Pancreatitis</li> <li>■ Renal impairment</li> <li>■ Acute/chronic renal failure exacerbation</li> <li>■ Suicidal behavior and ideation</li> <li>■ Hypoglycemia</li> <li>■ Pulmonary aspiration risk during general anesthesia or deep sedation</li> <li>■ Tachycardia (not a warning in tirzepatide PI, but is increased heart rate was experienced in clinical trials)</li> <li>■ Severe GI effects and not recommended in patients with severe gastroparesis (not a warning in liraglutide PI, but listed in post-marketing experience)</li> <li>■ Diabetic retinopathy (in semaglutide and tirzepatide PIs only)</li> </ul>

Medication	Dosing	Monitoring	Common Side Effects	Contraindications	Warnings
Phentermine / topiramate ER (Qsymia®) Controlled Substance: CIV	<ul style="list-style-type: none"> <li>■ Phentermine 3.75 mg/ topiramate 23 mg capsule each morning for 14 days; then 7.5 mg/46 mg each morning for additional 12 weeks</li> <li>■ If a 3% loss of baseline body weight is not achieved after 12 weeks, increase dose to 11.25 mg/69 mg each morning for 14 days; then increase to 15 mg/92 mg daily</li> <li>■ If a 5% loss of baseline body weight is not achieved after 12 weeks, it is unlikely that the patient will achieve a clinically meaningful weight loss with further treatment; discontinue by tapering (one dose every other day for ≥1 week)</li> <li>■ <u>Moderate/Severe Renal Impairment (CrCl &lt;50 mL/min):</u> Maximum dose: 7.5 mg/46 mg daily</li> <li>■ <u>Moderate Hepatic Impairment (Child-Pugh score 7 - 9):</u> Maximum dose: 7.5 mg/46 mg daily</li> </ul>	<ul style="list-style-type: none"> <li>■ Weight</li> <li>■ Blood pressure</li> <li>■ Resting heart rate</li> <li>■ Serum bicarbonate, especially if taking another carbonic anhydrase inhibitor</li> <li>■ Serum potassium, especially if taking another carbonic anhydrase inhibitor</li> <li>■ Glucose and/or signs/symptoms of hypoglycemia in patients with diabetes</li> <li>■ Mood (depression) and sleep disorders</li> <li>■ Pregnancy tests in women of reproductive potential</li> <li>■ Baseline and periodic monitoring of serum creatinine / estimated glomerular filtration rate</li> </ul>	<ul style="list-style-type: none"> <li>■ Increased heart rate</li> <li>■ Paresthesia</li> <li>■ Dizziness</li> <li>■ Dysgeusia</li> <li>■ Headache</li> <li>■ Insomnia</li> <li>■ Decreased serum bicarbonate</li> <li>■ Xerostomia</li> <li>■ Constipation</li> <li>■ Upper respiratory tract infection</li> <li>■ Nasopharyngitis</li> </ul>	<ul style="list-style-type: none"> <li>■ Pregnancy (REMS program exists to inform prescribers and patients of risks)</li> <li>■ Glaucoma</li> <li>■ Hyperthyroidism</li> <li>■ MAOI use during or within 14 days</li> <li>■ Allergy to Yellow dye No 5</li> </ul>	<ul style="list-style-type: none"> <li>■ Metabolic acidosis</li> <li>■ Cognitive impairment</li> <li>■ Elevated heart rate</li> <li>■ Nephrolithiasis</li> <li>■ Hypokalemia</li> <li>■ Mood and sleep disorders</li> <li>■ Depression or suicidal ideation</li> <li>■ Increased creatinine</li> <li>■ Oligohidrosis/ hyperthermia</li> <li>■ Serious skin reactions</li> <li>■ Hypoglycemia: May require adjustment of hypoglycemic medications</li> <li>■ Abuse potential: Phentermine is pharmacologically related to amphetamines, which have a high abuse potential; prolonged use may lead to dependency</li> <li>■ Avoid abrupt discontinuation to minimize the risk of seizure; taper recommended (see Dosing)</li> <li>■ Avoid concomitant consumption of alcohol due to increased CNS depressant effect</li> </ul>

Medication	Dosing	Monitoring	Common Side Effects	Contraindications	Warnings
<p>Naltrexone / bupropion ER (Contrave®)</p>	<ul style="list-style-type: none"> <li>■ <u>Naltrexone 8mg/ bupropion 90 mg dose-escalation schedule (Morning Dose/Afternoon Dose):</u></li> <li>■ Week 1: 1 tablet / None</li> <li>■ Week 2: 1 tablet / 1 tablet</li> <li>■ Week 3: 2 tablets / 1 tablet</li> <li>■ Week ≥4 (Maintenance dose): 2 tablets / 2 tablets</li> <li>■ If a 5% loss of baseline body weight is not achieved after 12 weeks, it is unlikely that the patient will achieve a clinically meaningful weight loss with further treatment; consider discontinuation</li> <li>■ <u>Moderate to Severe Renal Impairment (CrCl &lt;50mL/min):</u> Maximum dose 1 tablet twice a day. Not recommended in patients with end-stage renal disease.</li> <li>■ <u>Moderate Hepatic Impairment (Child-Pugh score 7-9):</u> Maximum dose: 1 tablet twice daily. Not recommended in patients with severe hepatic impairment.</li> </ul>	<ul style="list-style-type: none"> <li>■ Weight</li> <li>■ Pregnancy</li> <li>■ Glucose and/or signs / symptoms of hypoglycemia in patients with diabetes</li> <li>■ Blood pressure</li> <li>■ Heart rate</li> <li>■ Signs and symptoms of depression, suicidal thought or behavior, cognitive impairment, or changes in mood</li> <li>■ Baseline and periodic monitoring of renal and hepatic function</li> </ul>	<ul style="list-style-type: none"> <li>■ Headache</li> <li>■ Sleep disorder</li> <li>■ Nausea</li> <li>■ Constipation</li> <li>■ Diarrhea</li> <li>■ Vomiting</li> <li>■ Dizziness</li> <li>■ Xerostomia</li> </ul>	<ul style="list-style-type: none"> <li>■ Opioid use (agonists or partial agonists)</li> <li>■ Uncontrolled hypertension</li> <li>■ Seizure disorder</li> <li>■ Increased seizure risk in concurrent (bulimia, anorexia nervosa, other eating disorders, abrupt discontinuation of alcohol, opioid, or benzodiazepine)</li> <li>■ Concomitant MAOI use or initiation in patients receiving linezolid or IV methylene blue</li> </ul>	<ul style="list-style-type: none"> <li>■ Suicidal thinking/ behavior [<b>U.S. Boxed Warning</b>]</li> <li>■ Neuropsychiatric symptoms</li> <li>■ May precipitate acute opioid withdrawal in patients receiving opioids</li> <li>■ Seizures</li> <li>■ Increase blood pressure, heart rate</li> <li>■ Hepatotoxicity</li> <li>■ Adjust hypoglycemic medications to avoid hypoglycemia</li> <li>■ Angle-closure glaucoma</li> </ul>

Medication	Dosing	Monitoring	Common Side Effects	Contraindications	Warnings
Orlistat (Xenical®, Alli®)	<ul style="list-style-type: none"> <li>■ Xenical®: 120 mg 3 times daily with each main meal containing fat (during or up to one hour after the meal); omit dose if meal is occasionally missed or contains no fat.</li> <li>■ Alli®: OTC labeling: 60 mg 3 times daily with each main meal containing fat</li> </ul> <p>There are no dosage adjustments provided in the manufacturer's labeling for either renal or hepatic impairment</p>	<ul style="list-style-type: none"> <li>■ Weight</li> <li>■ Blood pressure</li> <li>■ Glucose and/or signs/symptoms of hypoglycemia in patients with diabetes</li> <li>■ Liver function tests if signs or symptoms of hepatic dysfunction</li> <li>■ Renal function in patients at risk of renal impairment</li> <li>■ Interference with absorption of fat-soluble vitamins, cyclosporine, thyroid hormone, and anticonvulsants</li> </ul>	<ul style="list-style-type: none"> <li>■ GI effects (e.g., oily rectal leakage, abdominal distress/pain, flatulence with discharge, bowel urgency, steatorrhea). Frequency may decline over time and low-fat diet.</li> <li>■ Headache</li> <li>■ Menstrual irregularity</li> <li>■ Back and lower extremity pain</li> <li>■ URTI / Influenza</li> </ul>	<ul style="list-style-type: none"> <li>■ Pregnancy</li> <li>■ Chronic malabsorption syndrome</li> <li>■ Cholestasis</li> </ul>	<ul style="list-style-type: none"> <li>■ Increased urinary oxalate, nephrolithiasis, and nephropathy</li> <li>■ Hepatotoxicity</li> <li>■ Cholelithiasis</li> </ul>

Medication	Dosing	Monitoring	Common Side Effects	Contraindications	Warnings
Setmelanotide (Imcivree®)	<ul style="list-style-type: none"> <li>■ For use only in patients with obesity due to Bardet-Biedl syndrome (BBS), or due to proopiomelanocortin (POMC), proprotein convertase subtilisin/kexin type 1 (PCSK1), or leptin receptor (LEPR) deficiency confirmed by genetic testing demonstrating variants in POMC, PCSK1, or LEPR genes</li> <li>■ Initial dose: 2 mg subQ daily for 2 weeks</li> <li>■ Maintenance dose if initial dose tolerated: 3 mg subQ daily</li> <li>■ Maintenance dose of initial dose not tolerated: 1 mg subQ daily</li> </ul>	<ul style="list-style-type: none"> <li>■ Monitor sexual adverse reactions (e.g., spontaneous penile erection, priapism, labial hypersensitivity)</li> <li>■ New or worsened depression (including suicidal ideation)</li> <li>■ GI adverse reactions during dose initiation and titration</li> </ul>	<ul style="list-style-type: none"> <li>■ Skin hyperpigmentation</li> <li>■ Injection site reactions</li> <li>■ GI effects (e.g., vomiting, constipation, diarrhea)</li> <li>■ Nasopharyngitis / URTI</li> <li>■ Headache</li> <li>■ Dry mouth / dry skin</li> <li>■ Insomnia</li> <li>■ Vertigo</li> <li>■ Back pain</li> </ul>	<ul style="list-style-type: none"> <li>■ Not listed as a contraindication, however prescribing information recommends discontinuation when pregnancy is known</li> </ul>	<ul style="list-style-type: none"> <li>■ Disturbance in sexual arousal for men and women</li> <li>■ Development or worsening of depression</li> <li>■ Suicidal ideation/behavior</li> <li>■ Hypersensitivity</li> <li>■ Skin hyperpigmentation/development or darkening of melanocytic nevi</li> </ul>

<sup>a</sup> If applicable, refer to VA (<https://www.va.gov/formularyadvisor/>) or DOD (<http://www.health.mil/PandT>) guidance/criteria for further recommendations on use of these agents

Abbreviations: CIV: Schedule IV controlled substance; CNS: central nervous system; CrCl: creatinine clearance; ER: extended-release; FDA: U.S. Food and Drug Administration; GI: gastrointestinal; GLP-1: glucagon-like peptide-1; IV: intravenous; MACE: major adverse cardiovascular events (for semaglutide this includes cardiovascular death, non-fatal myocardial infarction, and non-fatal stroke); MAOI: monoamine oxidase inhibitor; MEN2: multiple endocrine neoplasia type 2; NuSH: nutrient-stimulated hormonal therapies; OSA: obstructive sleep apnea; PI: prescribing information; REMS: Risk Evaluation and Mitigation Strategy; subQ: subcutaneously; URTI: upper respiratory tract infection; XR: extended-release

# What is Obesity?

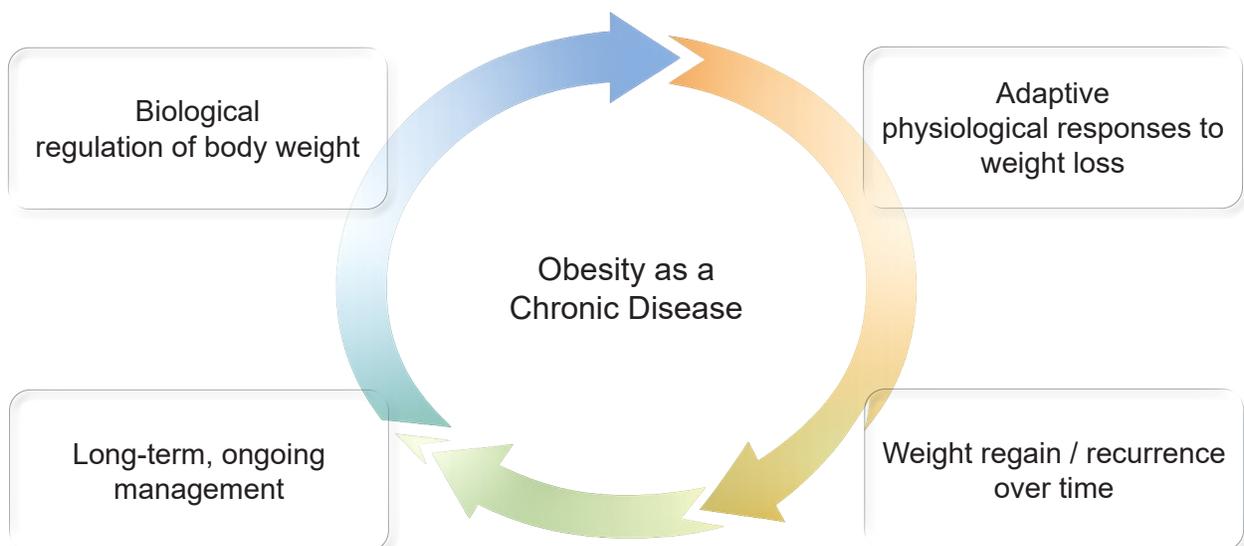
Obesity is a chronic, complex disease characterized by excess adiposity that increases the risk of adverse health outcomes. It arises from the interaction of biological, genetic, and environmental factors, along with social drivers of health, and reflects dysregulation of physiologic systems involved in energy balance.

Physiological mechanisms that regulate appetite, energy expenditure, and body weight are tightly controlled and adapt in response to weight loss. These adaptive responses favor weight regain over time, which contributes to the relapsing nature of obesity and underscores the need for long-term management strategies rather than short-term interventions.

Effective obesity care requires a longitudinal approach that integrates ongoing assessment, individualized treatment selection, and regular reassessment of outcomes. As with other chronic diseases, treatment plans should be adjusted over time based on patient response, comorbid conditions, and evolving clinical needs.

Recognizing obesity as a chronic disease supports patient-centered care, reduces stigma, and reinforces the importance of sustained clinical engagement across the continuum of care.

The 2025 VA/DoD Obesity Clinical Practice Guideline, recognizes obesity as a chronic disease requiring sustained, adaptive management across the lifespan.



# What is Obesity?

What defines obesity as a disease?

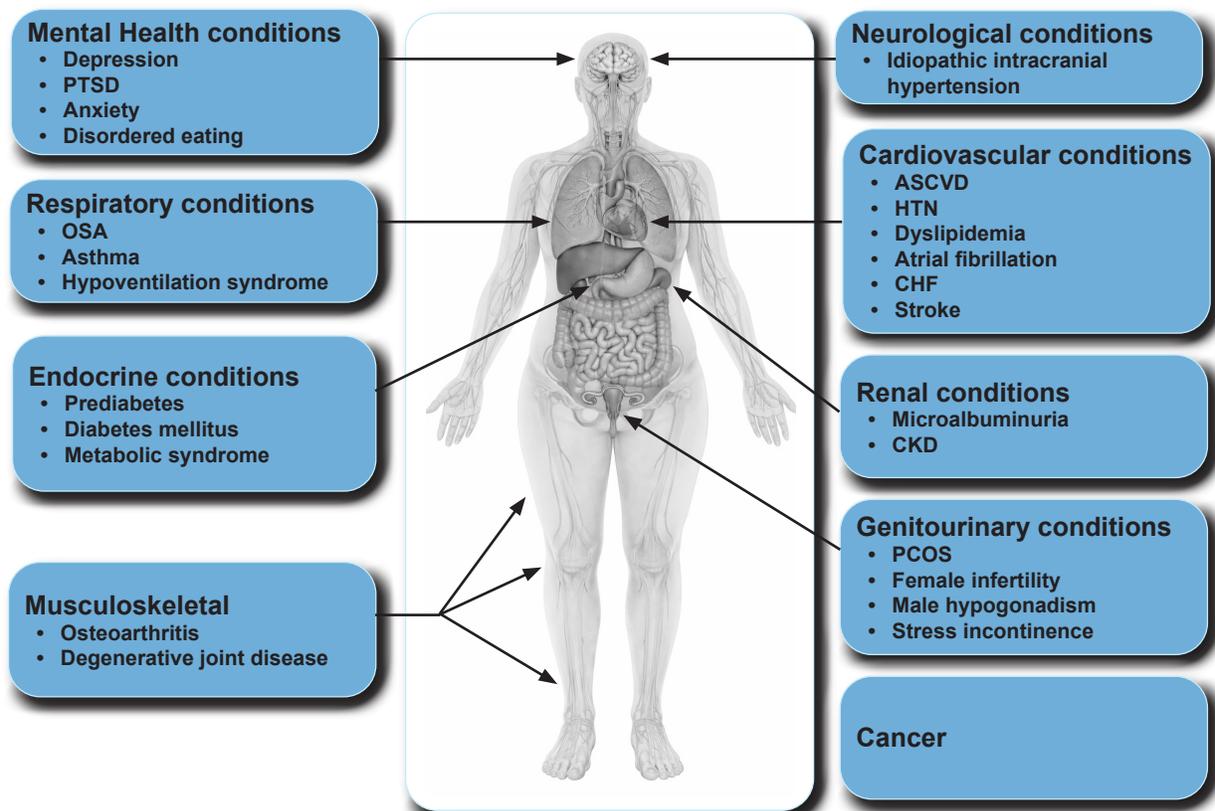
- Excess and dysfunctional adipose tissue (adiposopathy)
- Dysregulated metabolic, inflammatory, and endocrine signaling
- Chronic, relapsing disease physiology driven by biological adaptation

Why adiposity matters

- Adipose tissue is an active endocrine organ
- Visceral fat has more dysfunction than subcutaneous fat. Location matters.
- Dysfunction promotes insulin resistance, inflammation, ectopic fat, and hormonal disruption
- Drives risk across cardiometabolic, mechanical, respiratory, neurologic, renal, and reproductive systems

Clinical implications

- >200 conditions related to Obesity (listed below)
- Prevention prior to development of disease
- Complications—not BMI—should guide care
- Long-term, adaptive management is required



Abbreviations: ASCVD: atherosclerotic cardiovascular disease; CHF: congestive heart failure; CKD: chronic kidney disease; GERD: gastroesophageal reflux disease; HTN: hypertension; IIH: idiopathic intracranial hypertension; MASLD: metabolic dysfunction-associated steatotic liver disease; OA: osteoarthritis; OSA: obstructive sleep apnea; PCOS: polycystic ovarian syndrome; PTSD: post-traumatic stress disorder

# Patient Education

## Why Education Matters

Most patients benefit from understanding why weight change is difficult. Teaching one new concept at each visit can:

- Reduce shame and self-blame
- Improve engagement and adherence
- Support realistic expectations
- Reinforce obesity as a chronic, biologically regulated disease

## Core Concepts to Teach Patients

### 1. The Body Defends Weight (Set Point)

What to say:

“Your body defends a weight range. When weight drops, your brain pushes back.”

Teach:

- Hunger increases, metabolism slows
- Hormonal shifts promote regain
- Biology, not willpower
- Medications can help counter this

### 2. Weight Plateaus Are Normal and Expected

What to say:

“A plateau means your body has adapted — not that treatment failed.”

Teach:

- Common at ~3–6 months
- Reflect metabolic adaptation
- Reassessment is expected
- Adjustments are part of care

### 3. Quality and Quantity Both Matter

What to say:

“What you eat helps first. How much often comes later.”

Teach:

- Start with food quality
- Many lose weight here alone
- Address quantity if weight plateaus
- Supports sustainability, not restriction

## Key provider reminders:

- Normalize biologic resistance to weight loss
- Reinforce that needing ongoing therapy is expected
- Use education to support shared decision-making
- Reframe plateaus as signals to reassess, not stop

## Factors that Contribute to Obesity



## Language & Communication in Obesity Care

Use of people-first and bias-aware language when communicating about obesity. Respectful communication supports trust, engagement, and long-term care.

**People-First Language (Words Matter!) - places the individual before the medical condition and avoids defining a person by a diagnosis**

Phrases to Use	Phrases to Avoid
Say "Person with obesity"	Avoid referring to patients as "Obese patients"
Describe medical conditions, not identities	Avoid Defining individuals by diagnosis
Use neutral, respectful language (e.g., "Affected by obesity", "excess weight", "people in larger bodies")	Avoid stigmatizing or judgmental terms (e.g. "diabetic", "obese person", "morbidly obese", "fat", "heavy")

**Reducing Weight Bias (How we communicate) - patient-centered communication promotes respect, trust, and patient engagement in obesity care**

Practices to Use	Practices to Avoid
Treat obesity as a chronic disease	Avoid framing obesity as a personal failure
Ask permission to discuss weight	Avoid assuming readiness or assigning blame
Focus on health, function, and goals	Avoid focusing only on weight or appearance
Use collaborative language	Avoid using directive or shaming language

Using the 5 As aligns obesity care with chronic disease management principles, promotes shared decision-making, and supports individualized, evidence-based treatment plans to improve health outcomes.

Action	Step	Description / Clinical Focus	Example Clinical Prompts
ASK	Ask permission to discuss weight	Respectfully initiate the conversation in a nonjudgmental, patient-centered way	<i>"Would it be okay if we talked about how your weight may be affecting your health and what options you might consider?"</i>
ASSESS	Assess BMI, waist circumference and obesity stage Evaluate health status, drivers, and barriers	Evaluate weight history, adiposity measures, obesity stage, comorbidities, lifestyle habits, medications, psychosocial factors, and readiness to change	<i>"Can you tell me about changes in your weight over time?"</i>  <i>"Let's look at how your sleep, stress, and medications might be contributing."</i>
ADVISE	Advise on health risks and treatment options	Provide clear, evidence-based information about the health impact of obesity and available treatment options tailored to disease severity.	<i>"A 5-10% weight reduction could help improve your blood pressure and blood sugar control. Here are some treatment approaches we could consider."</i>
AGREE	Agree on goals, behavioral changes, and a care plan	Collaboratively set realistic goals and develop a personalized care plan based on the patient's values, preferences, and readiness.	<i>"What's a health goal that feels most important to you right now?"</i>  <i>"Would it feel manageable to start with meal planning or walking after work?"</i>
ASSIST ARRANGE	Assist in identifying and navigating barriers; Assist with resources and arrange follow-up	Provide tools, referrals, medications, and support. Help patients navigate barriers and ensure regular follow-up to monitor progress and adapt the plan.	<i>"Let's refer you to the weight management program, and I'll follow up in a couple months to check in. We can try switching out this medication that causes weight GAIN, for one that promotes weight loss instead."</i>

See information for Behavioral Counseling Interventions, available at: Behavioral Counseling Interventions: An Evidence-based Approach | United States Preventive Services Task Force  
<https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/methods-and-processes/behavioral-counseling-interventions-evidence-based-approach>

# Classification of Obesity

The most commonly used criterion is body mass index (BMI). BMI is a useful screening tool that has strong associations with morbidity and mortality risk. However, it cannot be used to diagnose obesity because it does not consider adiposity for an individual patient.

BMI Category	BMI Range (kg/m <sup>2</sup> )	BMI Range for Asian Populations (kg/m <sup>2</sup> )
Underweight	Less than 18.5	Less than 18.5
Normal Weight	18.5 - 24.9	18.5 - 22.9
Overweight	25.0 - 29.9	23.0 - 24.9
Obesity Class 1	30.0 - 34.9	25.0 - 29.9
Obesity Class 2	35.0 - 39.9	30.0 - 34.99
Obesity Class 3	40.0 and above	35.0 and above

Measurement	Standard Cutoff for Obesity	Asian Population Cutoff	Notes
<b>Body Mass Index (BMI) (weight (kg)/height (m<sup>2</sup>))</b>	≥ 30 kg/m <sup>2</sup>	≥ 27.5 kg/m <sup>2</sup>	BMI is widely used, but does not capture adiposity distribution or lean mass differences
<b>Waist Circumference</b>	≥ 102 cm (40 in) for men ≥ 88 cm (35 in) for women	≥ 90 cm (35.4 in) for men ≥ 80 cm (31.5 in) for women	Reflects central (visceral) adiposity and is a stronger predictor of cardiometabolic risk
<b>Waist-to-Height Ratio</b>	≥ 0.5	≥ 0.5	Reflects fat distribution and is strongly associated with increased cardiometabolic risk.
<b>Percent Body Fat (PBF) (%) (Total body fat/Total body weight)</b>	Age 20-39		Measured using multiple modalities with varying levels of accuracy, ranging from calipers to MRI. Useful in those with suspected elevated or low lean muscle mass. Limited availability in a clinical setting. Variations in cutoffs based on study, age, sex, and ethnicity. These cutoffs obtained from NHANES data. Note that modality measuring PBF can have limitations (e.g., BIA often underestimates PBF in normal to elevated BMI levels)
	>25% for men >39% for women	>28% for men >40% for women	
	Age 40-59		
	>28% for men >40% for women	>29% for men >41% for women	
	Age 60-79		
>30% for men >42% for women	>29% for men >41% for women		

Abbreviations: BIA: bioelectrical impedance analysis; BMI: body mass index; MRI: magnetic resonance imaging; NHANES: National Health and Nutritional Examination Survey; PBF: percent body fat

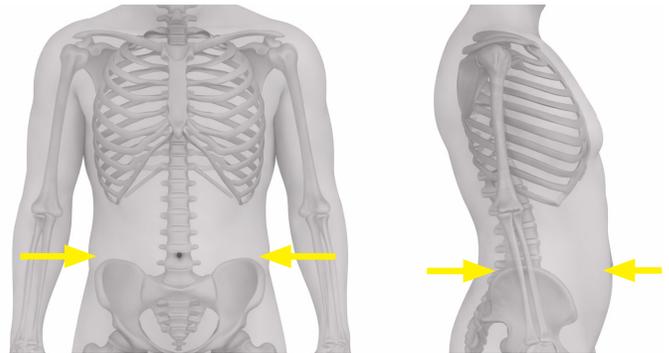
# Initial Assessment

Initial assessment should be comprehensive and individualized, recognizing obesity as a chronic disease influenced by biological, behavioral, environmental, and social factors. Findings guide shared decision-making and inform management strategies over time.

## Diagnosis

- Body mass index (BMI) + anthropometric measurement (e.g., waist circumference) + clinical component
- Waist circumference - Waist circumference should be measured midway between the lower rib margin and the iliac crest
  - Tips: Have patient find the top of their hip and the bottom of the ribs for you. Complete the measurement after exhalation.

Iliac crests on physical examination



## S

- Weight History and prior attempts
- Triggers and life context
- Eating patterns and sleep
- Physical activity and limitations
- Symptoms and concerns
- Goals, priorities, and expectations

## O

- BMI and anthropometrics
- Waist circumference
- Vital signs and physical exam
- Obesity-related complications
- Relevant laboratory and diagnostic data

## A

- Obesity severity and phenotype
- Presence and impact of complications
- Secondary or contributing causes
- Functional and cardiometabolic risk
- Drivers of weight dysregulation

## P

- Identify priority clinical targets
- Align treatment intensity to complications
- Establish initial care goals
- Plan further testing or referrals

Use non-elastic measuring tape



## Clinical Component

- Assessment of obesity
- Associated complications
- REFER TO SIDEBAR 4

# Weight History and Clinical Assessment

## Weight History

- Age of onset of weight gain
- Triggers or life changes (e.g., pregnancy, menopause, injury, deployment, medications, stressors)
- Prior weight-loss attempts
  - Methods used
  - Duration of weight loss maintenance
- Lowest adult weight maintained for  $\geq 6$ –12 months
- Maximum lifetime weight
- Prior weight loss attempts (e.g., calorie restriction, commercial diets, low-carb, intermittent fasting)

## Sleep & Stress

- Sleep duration and quality
  - Note:  $\downarrow$  sleep  $\rightarrow$   $\uparrow$  ghrelin,  $\downarrow$  leptin
- Stressors, stress levels, stress management strategies

## Secondary Causes & Comorbidities

- Review of weight-promoting medications (REFER TO SIDEBAR 2)
- Contributing conditions:
  - Screen if there is clinical suspicion
  - Obstructive sleep apnea (OSA) - screen with STOP-BANG
  - Hypothyroidism
  - Hypercortisolism

## Eating Behaviors

- Current eating pattern and timing (meals, grazing, night eating)
- Cravings, loss of control eating, or binge-eating behaviors

## Social & Contextual Factors

- Social history relevant to eating and activity
- Experiences with weight bias and stigma, internalized weight stigma
- Social drivers of health impacting food access, time, or resource
- Substance use, as relevant

## Physical Activity

- Current activity level
- Barriers (pain, mobility, time, safety)

## Review of Systems

- Symptoms suggestive of obesity-related complications
- Symptoms raising concern for secondary causes

## Family History

- Obesity
- Type 2 diabetes
- Cardiometabolic disease

## Physical Examination

- Look for clinical signs of secondary conditions or obesity-related complications

## Laboratory and Diagnostic Testing

*This is not an exhaustive list*

### Lab Testing

- A1c
- Post-prandial blood glucose
- Post-prandial lipid panel and apo B level
- Creatinine/eGFR
- ALT/AST/platelets for FIB-4 (Evaluation for MASLD)

### Additional testing if indicated based on risk/history exam:

- EKG/stress testing
- Sleep Study
- Additional secondary causes testing (hypercortisolism, hypothyroidism, PCOS, hypogonadism)

### Follow-up studies if indicated based on history, exam and initial lab evaluation:

- 2hr OGTT
- Microalbumin (higher risk of CKD with obesity)
- Echocardiography
- Ambulatory BP
- Liver elastography

**Assessment should be revisited over time, as patient goals, health status, and treatment response evolve.**

## Clinical Risk Stratification and Severity Assessment

**Obesity Staging** - enables providers to assess not only the degree of excess adiposity but also the severity of associated comorbidities, functional impairments, and overall health risk and align treatment intensity with disease severity. Higher obesity stages are independently associated with increased risk of complications and all-cause mortality, regardless of BMI category

Clinical risk stratification integrates anthropometric measures, comorbidity burden, and functional impact to characterize obesity severity and guide the intensity of management strategies.

### Edmonton Obesity Staging System (EOSS)

	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4
	No Sign of Obesity-Related Complications	Mild Obesity-Related Disease	Obesity-Related Chronic Disease	Severe End-Organ Damage	Severe/Disabling & Dysfunctional Chronic Disease
<b>Physical / Medical</b>	None	Pre-clinical/Mild <ul style="list-style-type: none"> <li>• PreHTN</li> <li>• PreDM</li> <li>• Dyspnea on exertion</li> </ul>	Established/Moderate <ul style="list-style-type: none"> <li>• HTN</li> <li>• T2DM</li> <li>• Mild - moderate OSA</li> <li>• MASLD</li> <li>• GERD</li> </ul>	Severe organ damage <ul style="list-style-type: none"> <li>• CAD/CVA</li> <li>• MASH</li> <li>• HF</li> <li>• T2DM, severe OSA, and HTN with complications</li> </ul>	End-stage <ul style="list-style-type: none"> <li>• CVA with disability</li> <li>• End-stage heart, liver, lung, and renal disease</li> <li>• Obesity-related cancer</li> <li>• T2DM with severe complications</li> </ul>
<b>Mental Health</b>	None	Mild impairment <ul style="list-style-type: none"> <li>• Occasional symptom fluctuations</li> </ul>	Moderate impairment <ul style="list-style-type: none"> <li>• Symptoms impacting quality of life</li> </ul>	Severe impairment <ul style="list-style-type: none"> <li>• Symptoms significantly impacting quality of life</li> </ul>	Psychologically Disabling Symptoms
<b>Functional</b>	None	Mildly restrictive <ul style="list-style-type: none"> <li>• Occasional joint pain</li> </ul>	Moderately restrictive <ul style="list-style-type: none"> <li>• OA impacting quality of life</li> </ul>	Severely limited <ul style="list-style-type: none"> <li>• Severe OA with significant mobility limitations</li> </ul>	<ul style="list-style-type: none"> <li>• Immobile</li> <li>• Inability to work</li> </ul>

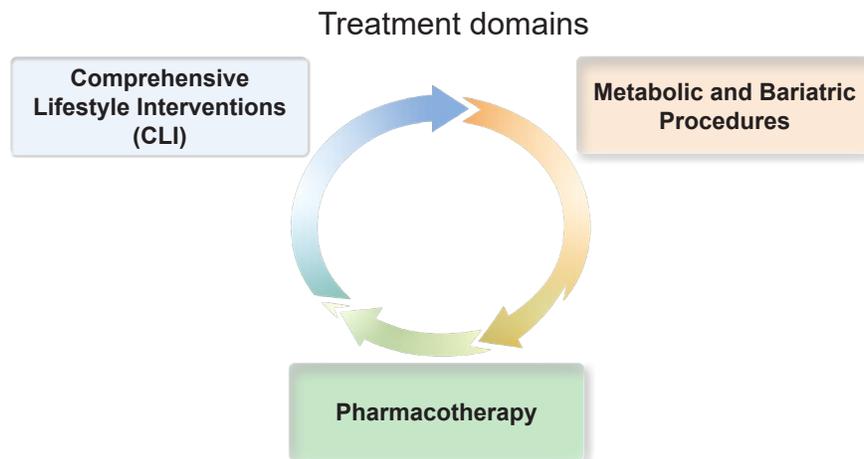
Abbreviations: CAD: coronary artery disease; GERD: gastrointestinal reflux disease; HF: heart failure; HTN: hypertension; MASH: metabolic dysfunction-associated steatohepatitis; MASLD: metabolic dysfunction-associated steatotic liver disease; OA: osteoarthritis; OSA: obstructive sleep apnea; preDM: prediabetes; preHTN: pre-hypertension; T2DM: type 2 diabetes mellitus

# Treatment Planning: Matching Intensity to Clinical Need

Treatment planning for overweight and obesity should be individualized and aligned with clinical severity, comorbidity burden, functional impact, and patient preferences. Management strategies should be selected collaboratively and adjusted over time as disease status and treatment response evolve.

## Core principles of treatment planning

- Obesity management is long-term and adaptive, not episodic
- Treatment intensity should reflect overall clinical risk, not BMI or weight alone
- Shared decision-making is central to sustained engagement and outcomes



## Comprehensive Lifestyle Interventions (CLI)

A CLI is one that combines behavioral, dietary, and physical activity components in a structured curriculum or protocol and aims to produce a negative energy balance.

### Core components:

- Behavioral strategies that support health behavior change (e.g., goal setting, self monitoring, problem solving, stress management, social support.)
- Dietary changes that are aligned with individual health needs and goals
- Physical activity tailored to functional capacity and medical status

Note: Recommend utilization of CLI programs available through VA/DoD systems (e.g., MOVE! Weight Management Program for Veterans. Eat Right for Life and Diabetes Self-Management Education may complement CLI but are not substitutes for it.

## Pharmacotherapy

- Considered for patients with obesity or overweight with obesity-related comorbidities
- Selection guided by clinical profile, comorbid conditions, contraindications, and patient preferences
- Medications are used with comprehensive lifestyle intervention as part of a comprehensive management plan, not as standalone therapy

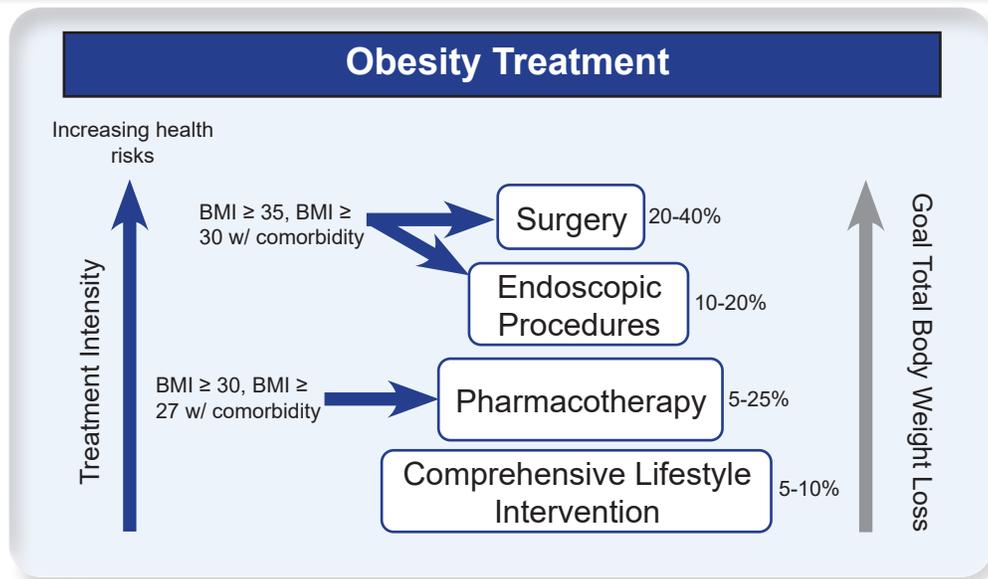
## Metabolic and Bariatric Procedures

- Considered for patients with obesity with a high clinical risk or significant comorbidity burden
- Requires multidisciplinary evaluation and longitudinal follow-up
- Long-term management strategies are used with comprehensive lifestyle intervention as part of a comprehensive management plan, not as standalone therapy

## Ongoing reassessment

- Treatment plans should be reassessed at regular intervals
- Adjustments should reflect changes in weight trajectory, comorbidities, functional status, and patient goals
- Escalation or de-escalation of therapy may be appropriate over time

# Choosing Weight Loss Goal with Patient



Obesity treatment should be individualized based on obesity-related conditions and desired outcomes. The degree of weight loss needed for clinical benefit varies by condition. This table summarizes approximate weight-loss ranges associated with improvement, while the graphic illustrates the average weight loss associated with different treatment modalities to support selection of realistic goals and appropriate treatment intensity.

Condition	Weight Loss Goal	Clinical Goals
Metabolic syndrome	10%	Prevent DM
Glycemic Improvement (Pre-Diabetes)	>2.5%, Max benefit 10%	Prevent DM
Type 2 DM	2.5-15% +	↓A1c, # of meds
Dyslipidemia	5-15% +	↓TG, LDL; ↑HDL
Hypertension	5-15% +	↓BP, # of meds
MASLD	5% +	↓intrahepatic lipid
MASH	10-40%	↓inflammation, fibrosis
PCOS	5-15% +	Ovulation, ↓hirsutism, androgens, ↑insulin sens
Obstructive Sleep Apnea	7-11%	↓Sx, ↓AHI
Asthma	7-8% +	↓Sx, ↑FEV1
Osteoarthritis	10% + or 5-10% w/ exercise	↓Sx, ↑function
Stress Incontinence	5-10% +	↓Sx
Gastroesophageal reflux	10% +	↓Sx
ASCVD	≥ 10%	ASCVD and MACE
Mood disorder	Uncertain	↓Sx

Abbreviations: AHI: Apnea-Hypopnea Index; ASCVD: atherosclerotic cardiovascular disease; BP: Blood Pressure; CAD: coronary artery disease; DM: diabetes mellitus; FEV1: Forced Expiratory Volume in 1 second; HDL: High Density Lipoprotein; LDL: Low Density Lipoprotein; MACE: Major Adverse Cardiovascular Event; MASH: metabolic dysfunction-associated steatohepatitis; MASLD: metabolic dysfunction-associated steatotic liver disease; OA: osteoarthritis; OSA: obstructive sleep apnea; PCOS: polycystic ovarian syndrome; Sx: Symptoms

# Collaborative Goal Setting

## Case Example



47 year old male  
Class I Obesity  
Stage 3

BMI 33 kg/m<sup>2</sup>  
WtHR: 0.75  
WC 127 cm

Contributing Factors	Obesity-related Complications	Treatment Considerations
<p><b>Weight Promoting Medications</b></p> <p><b>Stress</b></p> <p><b>Sleep</b></p> <p><b>Long Work Commute</b> <b>Increased Sedentary Time</b></p>	<p><b>Pre-Diabetes (R/O Diabetes)</b></p> <p><b>Metabolic Syndrome</b></p> <p><b>Obstructive Sleep Apnea</b></p> <p><b>Hypertension</b></p>	<p>Home Med Adjustments w/ MH</p> <p>Comprehensive Lifestyle Intervention</p> <p>Obesity Medications</p> <p>Bariatric &amp; Metabolic Surgeries</p>



Specific



Measurable



Action-Oriented



Realistic



Time-Based

Letter	Meaning	Description	Obesity-Related Examples
<b>S</b>	Specific	The goal should be clear and detailed, stating exactly what is to be achieved.	"I will walk after dinner for 15 minutes." "I will add an extra serving of vegetables for dinner."
<b>M</b>	Measurable	The goal should include a way to track progress or success.	"I will walk 5 days a week and record it on my smart watch." "I will add an extra serving of vegetables at dinner Monday through Friday and take a picture on my phone."
<b>A</b>	Action-Oriented	The goal should feature a specific behavioral action that the person will take	"I will drink water with dinner instead of soda." "I will go for a 10-minute walk after lunch every day."
<b>R</b>	Realistic	The goal should be realistic and achievable, given the individual's resources and abilities.	"I will buy frozen vegetables that I can microwave, in case I run out of fresh options." "I can walk after dinner because I have time and safe sidewalks nearby."
<b>T</b>	Time-Based	The goal should have a specific timeframe or deadline.	"I will do this for the next 4 weeks and reassess my progress."
<b>SMART Goal Examples</b>	<p>"I will walk after dinner for 15 minutes, five days a week, for the next four weeks and record it using my smart watch." "I will add an extra serving of vegetables for dinner, five days a week, for the next four weeks and record it by taking pictures on my phone."</p>		

# Foundation of Obesity Management

Comprehensive Lifestyle Intervention is the foundation of obesity management and should be offered to all patients as part of long-term care. CLI assists individuals in reaching clinically meaningful weight loss by creating a negative energy balance through dietary changes and increased physical activity that are supported by behavioral strategies. It supports weight management, improves cardiometabolic health, and enhances functional outcomes, with or without additional therapies.

## Comprehensive Lifestyle Intervention



### Behavioral Strategies

- Goal setting, self-monitoring, and problem-solving
- Reinforce engagement and self-efficacy



### Physical Activity

- Tailored to functional capacity and health status
- Gradual progression with reduced sedentary time
- Aerobic, strength, and mobility activities as tolerated



### Dietary

- Individualized, sustainable dietary patterns
- Aligned with comorbidity management
- Referral to Registered Dietitian Nutritionist (RDN) when indicated

Continuous Reassessment & Adjustment Over Time

# Dietary Approaches

- Individualized based on patient preferences, cultural context, and clinical needs
- Emphasis on sustainable eating patterns rather than short-term restrictive diets
- Alignment with comorbidity management (e.g., diabetes, cardiovascular disease)
- For all the diets listed below, formal consultation with a Registered Dietitian Nutritionist (RDN) is advised.

Dietary Approaches to Support Comprehensive Lifestyle Intervention	
Dietary Approaches	Description
<b>American Heart Association (AHA) Dietary Guidance</b>	Dietary patterns rather than isolated nutrients, recommending a flexible, food-based approach that prioritizes high intake of fruits, vegetables, whole grains, healthy protein sources (mostly plants, fish/seafood, low-fat dairy, lean unprocessed meats if chosen), use of liquid plant oils, minimal added sugars and salt, and avoidance of ultra-processed foods. The AHA guidance is designed to be adaptable to personal, cultural, and economic preferences, and is intended for lifelong adherence to support cardiometabolic health and weight management.
<b>Dietary Approaches to Stop Hypertension (DASH) diet<sup>b</sup></b>	Dietary pattern that is moderate in fat (25–30% of energy, low in saturated fat), high in fruits, vegetables, and low-fat dairy, and has the strongest evidence for blood pressure reduction and cardiometabolic benefit.
<b>High Protein Diet</b>	Dietary pattern in which protein provides more than 20% of total daily energy intake, or typically 1.2–1.6 g/kg body weight per day, with some studies using up to 30–45% of energy from protein. These diets often reduce carbohydrate and/or fat intake to maintain energy balance.
<b>Ketogenic diet</b>	Dietary pattern that is very high in fat (>70% of energy), very low in carbohydrates (<10% of energy). Short-term weight loss is similar to low-fat diets, but ketogenic diets may increase LDL cholesterol and have less favorable long-term cardiovascular profiles.
<b>Intermittent Fasting</b>	<ul style="list-style-type: none"> <li>• Intermittent fasting: a general term for dietary regimens that alternate periods of voluntary fasting (no or minimal caloric intake) with periods of normal eating</li> <li>• Alternate day fasting: a form of intermittent fasting in which individuals alternate between days of significant caloric restriction (typically 0–600 kcal, or about 25% of energy needs) and days of ad libitum (unrestricted) food intake. This regimen induces repeated cycles of fasting and feeding, leading to metabolic adaptations such as increased fatty acid oxidation, ketone body production, and improved insulin sensitivity.</li> <li>• 5:2 diet: a form of intermittent fasting in which individuals consume a very low-calorie diet (typically 500–600 kcal) on two non-consecutive days per week and eat ad libitum (without restriction) on the remaining five days. This regimen is designed to create an overall weekly caloric deficit while allowing flexibility and fewer days of restriction compared to alternate-day fasting (ADF)</li> <li>• Time-restricted eating (TRE): a form of intermittent fasting in which all caloric intake is confined to a consistent daily window, typically 4–10 hours, with fasting (zero-calorie beverages allowed) for the remaining hours of the day. TRE does not prescribe specific foods or calorie targets but instead focuses on the timing of food intake, often aligning eating with circadian rhythms to optimize metabolic health.</li> </ul>
<b>Lacto-ovo vegetarian diet</b>	Dietary pattern that excludes all meat, poultry, and fish but includes dairy products and eggs, along with plant-based foods.
<b>Low-carbohydrate diet</b>	Dietary pattern in which carbohydrates provide less than 40–45% of total daily energy intake, or, in some protocols, less than 130 g/day. These diets typically increase fat and/or protein intake to compensate for the reduction in carbohydrates.

# Dietary Approaches

Dietary Approaches to Support Comprehensive Lifestyle Intervention	
Dietary Approaches	Description
<b>Low-fat diet</b>	Dietary pattern in which less than 30% of total daily energy intake is derived from fat, with saturated fat typically limited to less than 10% of energy. Carbohydrates generally comprise 55–60% or more of total energy, and protein intake is moderate. This pattern emphasizes fruits, vegetables, whole grains, and lean proteins, while minimizing added fats and high-fat animal products.
<b>Low-glycemic index (GI) diet</b>	Dietary pattern that emphasizes carbohydrate-containing foods with a GI less than 55, resulting in smaller and slower postprandial glucose excursions. Such diets are rich in non-starchy vegetables, legumes, whole grains, and certain fruits, and are designed to flatten postprandial glycemia and insulin response, which may promote satiety and improve glycemic control.
<b>Mediterranean diet<sup>a</sup></b>	Dietary pattern that is higher in total fat (35–40% of energy, mostly unsaturated from olive oil and nuts), moderate in carbohydrates, and associated with the most consistent and robust improvements in weight, glycemia, and cardiovascular outcomes.
<b>Meal Replacement</b>	Dietary pattern that includes commercially prepared products such as shakes, bars, or portion-controlled packaged meals – formulated to provide a defined amount of calories and essential nutrients designed to substitute one or more conventional meals per day.
<b>MyPlate</b>	Dietary guideline developed by the United States Department of Agriculture that divides the plate into four sections: fruits, vegetables, grains (with an emphasis on whole grains), and protein, with a side of dairy. It emphasizes variety, nutrient density, and portion control, and limits added sugars, saturated fat, and sodium. MyPlate is designed to be flexible and adaptable to individual preferences and cultural traditions, and aligns with the Healthy US-Style dietary pattern referenced in the American Heart Association dietary guidance.
<b>Vegan diet</b>	Dietary pattern that excludes all foods and beverages derived wholly or partly from animals, including meat, poultry, fish, dairy, eggs, and often honey, relying exclusively on plant-based foods such as vegetables, fruits, grains, legumes, nuts, and seeds.

More Dietary Approaches can be found in Medical Nutrition Therapy Interventions provided by Dietitians for Adult Overweight and Obesity Management: An Academy of Nutrition and Dietetics Evidence-Based Practice Guideline. *J Acad Nut Diet* 2023;23(3):520-545. doi: <https://doi.org/10.1016/j.jand.2022.11.014>

<sup>a</sup> For further information about the Mediterranean eating pattern see the 2020-2025 Dietary Guidelines for Americans, available at: [https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary\\_Guidelines\\_for\\_Americans-2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf)

<sup>b</sup> For further information on the DASH dietary pattern visit: <https://www.nhlbi.nih.gov/health-topics/dash-eating-plan> and [https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary\\_Guidelines\\_for\\_Americans-2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf)

**Abbreviations:** ACC: American College of Cardiology; ADF: alternate-day fasting; AHA: American Heart Association; DASH: Dietary Approaches to Stop Hypertension; g: grams; kg: kilograms; LDL: low-density lipoprotein; mg: milligrams; RDA: recommended dietary allowance; SR: systematic review; TOS: The Obesity Society; TRE: Time-restricted eating; USDA: United States Department of Agriculture

# Physical Activity

Physical activity is a core component of CLI and obesity care. **Both cardiovascular activity and strength training are essential for improving health, function, and metabolic outcomes.** Strength training and adequate protein intake play a critical role in preserving muscle mass during weight loss, supporting long-term health and physical capacity.

## A. Non-Exercise Activity

- Accounts for the majority of variation in a patient’s total daily caloric expenditure.
- Includes conscious activity (walking upstairs instead of taking an elevator) or spontaneous/subconscious activity (fidgeting while sitting at a desk or posture).
- Step counts are a useful way to monitor this. Higher daily step counts are associated with weight loss, cardiovascular health (CV), decreased all-cause and CV mortality, and improved cardiometabolic risk factors.
  - 2,600-4,000 steps/day – initial benefits
- Progressive risk reduction up to approximately 8,000–10,000 steps/day

## B. Exercise and Physical Activity

- There is a dose-dependent response to the amount of physical activity and intensity:
- For moderate intensity, <150 minutes per week → minimal weight loss; prevention of weight gain
- 150-225 minutes per week → small weight loss; prevention of weight gain
- 225-420 minutes per week → moderate weight loss (<3 kg)
- For vigorous activity, approximately half of this time for each category is needed
- Modest caloric restriction added to aerobic physical activity amounts per above will enhance weight loss

Taken from page 135 of September 2025 draft of VA/DOD Clinical Practice Guideline for the Management of Overweight and Obesity in Adults.

**Common Types of Physical Activities with Higher Patient Adherence**

Physical Activity Category	Examples	
<b>Cardiovascular (Aerobic) Activities</b>	<ul style="list-style-type: none"> <li>• Cycling (outdoor or indoor)</li> <li>• Hiking</li> <li>• Jogging/Running</li> <li>• Jumping rope</li> </ul>	<ul style="list-style-type: none"> <li>• Kayaking/Canoeing</li> <li>• Rowing</li> <li>• Swimming</li> <li>• Brisk walking</li> </ul>
<b>Group classes</b>	<ul style="list-style-type: none"> <li>• Cardio kickboxing</li> <li>• Cross Training</li> <li>• Cycling</li> <li>• Dance/Zumba</li> </ul>	<ul style="list-style-type: none"> <li>• HIIT</li> <li>• Step aerobics</li> <li>• Strengthening</li> </ul>
<b>High-Intensity Interval Training (HIIT)</b>	<ul style="list-style-type: none"> <li>• HIIT circuits</li> <li>• HIIT/SIIT Sprint intervals</li> </ul>	<ul style="list-style-type: none"> <li>• Tabata workouts</li> </ul>
<b>Low-Impact, Therapeutic Movement, and Balance</b>	<ul style="list-style-type: none"> <li>• Pilates</li> <li>• Tai Chi or Qigong</li> <li>• Walking with poles (Nordic walking)</li> </ul>	<ul style="list-style-type: none"> <li>• Yoga (power or vinyasa styles)</li> <li>• Balance specific training</li> </ul>
<b>Resistance Training</b>	<ul style="list-style-type: none"> <li>• Bodyweight exercises</li> <li>• Circuit training</li> </ul>	<ul style="list-style-type: none"> <li>• Resistance band training</li> <li>• Weightlifting (machine, free-weight, competitive)</li> </ul>
<b>Sports and Recreational Activities</b>	<ul style="list-style-type: none"> <li>• Dance classes (hip hop, ballroom, etc.)</li> <li>• Martial arts (Brazilian jiu-jitsu, boxing, etc.)</li> <li>• Pick-up sports (basketball, soccer, tennis)</li> </ul>	<ul style="list-style-type: none"> <li>• Pickleball</li> <li>• Tennis</li> </ul>

# Pharmacotherapy in Obesity Management

Pharmacotherapy may be considered as part of a comprehensive obesity management plan for patients with obesity or overweight with obesity-related comorbidities. Medications are used to support long-term weight management.

Pharmacologic therapy should be integrated with comprehensive lifestyle intervention and regular reassessment and support for maintenance of behavior change, rather than used as standalone treatment.



## Role of Pharmacotherapy

- Medications may be initiated alongside comprehensive lifestyle intervention as part of comprehensive obesity management
- Pharmacotherapy may be used early in care when comorbidity burden, disease severity, or functional impact warrants escalation
- Medications are not a replacement for comprehensive lifestyle intervention and should be used alongside it.
- Combination therapy may be appropriate as part of comprehensive management



## When to Consider Pharmacotherapy

- Adults with obesity (BMI  $\geq 30$  kg/m<sup>2</sup>)
- Adults with overweight (BMI  $\geq 27$  kg/m<sup>2</sup>) and at least one obesity-associated comorbidity
- After or alongside participation in Comprehensive Lifestyle Intervention (CLI)
- When potential benefits outweigh risks based on clinical profile and comorbidities
- When aligned with patient preferences and readiness for medication support



## Key Principles of Medication Selection

- Selection guided by overall clinical profile, not BMI alone
- Consideration of comorbid conditions and contraindications
- Alignment with patient goals and treatment preferences
- Medications support long-term management, not short-term weight loss



# Pharmacotherapy in Obesity Management

## Core Prescribing Principles

### 1. Frame obesity as a medical disease, not a personal failure.

Use non-stigmatizing language. Reinforce that obesity is a chronic condition requiring medical care.

### 2. Set realistic expectations and goals.

- Target  $\geq 5$ –10% total body weight loss for meaningful health benefit.
- Medications support lifestyle change; they do not replace it.
- A safe rate of loss is  $\sim 0.5$ –2 lb/week. Faster loss increases lean mass risk.

### 3. Focus beyond weight and BMI.

Emphasize improvements in function, pain, cardiometabolic health, sleep, medications, and body composition.

- Consider body composition monitoring when available (every 3–6 months).

### 4. Individualize drug selection and dosing.

- Review contraindications and interactions.
- Match agents to comorbidities and symptom drivers (e.g., diabetes, cravings).
- Start low, titrate gradually to improve tolerability.
- Reassess response every 1–3 months; escalate, switch, or combine if needed.

### 5. Treat obesity as a long-term condition.

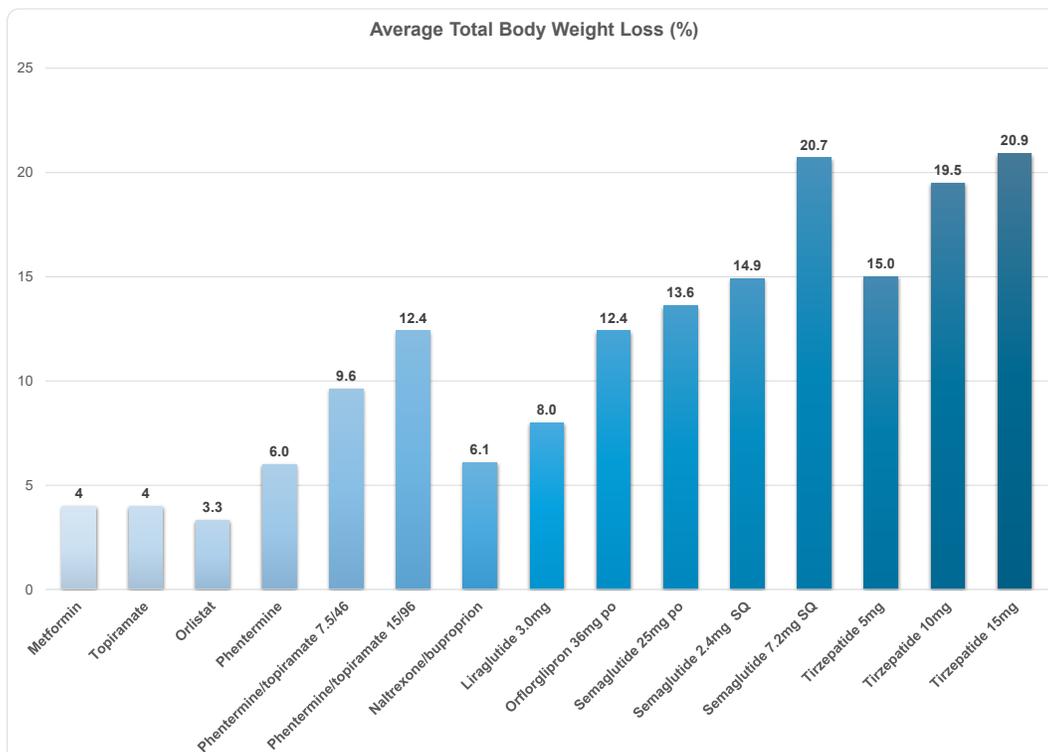
- Many patients require chronic or combination therapy, similar to hypertension or diabetes management.

### 6. Protect lean mass and metabolic health.

- Encourage resistance training 1–2x/week.
- Ensure adequate protein intake ( $\sim 1.0$ –1.5 g/kg ideal body weight).
- Reinforce hydration.

### 7. Integrate behavioral and psychological care.

- Medications are most effective when paired with behavioral support.
- Screen for disordered eating.
- Refer for counseling when emotional eating, stress, or mental health factors are present.



# Metabolic and Bariatric Procedures in Obesity Management

Bariatric and metabolic procedures are used as part of a comprehensive management plan and are not standalone therapy. It has been shown to be the most effective and durable treatment for obesity in appropriately selected patients. Advances in minimally invasive surgical techniques, surgical instrumentation, and quality improvement and accreditation programs (e.g., American College of Surgeons and American Society of Metabolic and Bariatric Surgery) have led to significant reductions in morbidity and mortality and increased public acceptance of these procedures.

Metabolic and bariatric procedures and surgeries should be delivered as part of comprehensive, long-term obesity management with structured follow-up and ongoing multidisciplinary care.

## When to Consider Procedural Interventions

- BMI  $\geq 35$  kg/m<sup>2</sup> regardless of comorbidity status
- BMI  $\geq 30$  kg/m<sup>2</sup> for patients with DM or other metabolic disease
- Inadequate response to comprehensive lifestyle intervention and pharmacologic therapy
- Clinical risk profile indicating potential benefit
- Patient readiness, understanding, and preference following informed discussion

## Key Principles of Procedural Care

- Procedures are adjuncts to, not replacements for, comprehensive lifestyle intervention
- Multidisciplinary evaluation is required prior to intervention
- Long-term nutritional, behavioral, and medical follow-up is essential
- Outcomes depend on sustained engagement and monitoring

## Integration With Ongoing Care

Metabolic and bariatric procedures require coordination with primary care, specialty services, and behavioral support. Ongoing assessment of weight trajectory, comorbidities, nutritional status, and patient goals is necessary to optimize outcomes over time.

## Important Scope Note

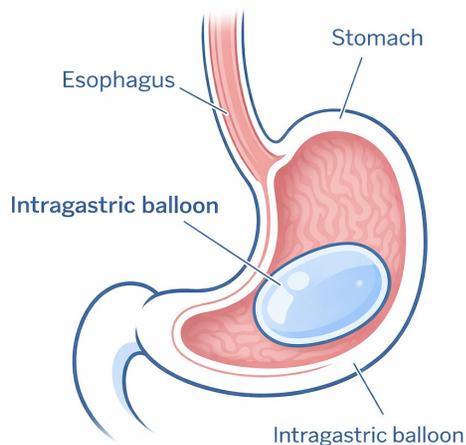
Specific procedural selection, eligibility criteria, perioperative management, and postoperative care should follow Clinical Practice Guideline recommendations and institutional protocols and are not detailed in this CST.

# Metabolic and Bariatric Procedures in Obesity Management

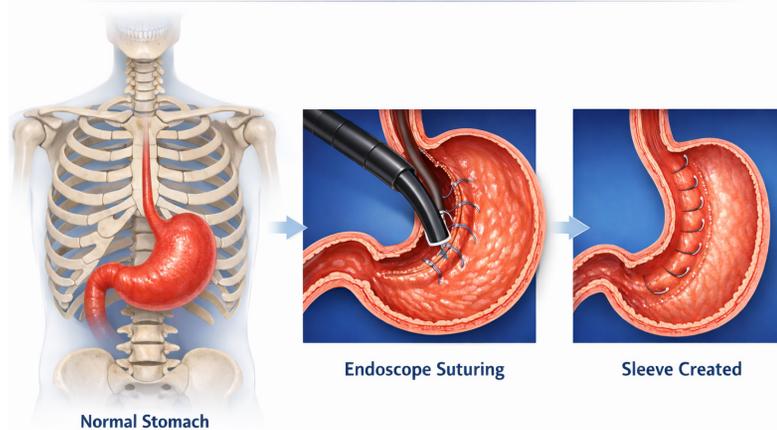
Metabolic and Bariatric Endoscopic Procedures				
Procedure	Procedure Overview	Mechanism	Target Total Body Weight Loss (TBWL)	Risks
<b>Intragastric Balloon (IGB)</b>  **Only procedure approved for active duty service members	Temporary saline-filled balloon placed endoscopically to occupy gastric space. FDA-approved devices in U.S.: Orbera (6 months) and Spatz3 (adjustable; 8 months). Endoscopic placement and removal.	Restriction (early satiety, reduced intake)	~6–10% total body weight loss at 6 months; weight regain common after removal	Nausea, vomiting, dehydration; gastric ulcer/bleeding; serious adverse events ~5–6%; early removal may be required
<b>Endoscopic Sleeve Gastroplasty (ESG)</b>	Endoscopic suturing to reduce gastric volume by creating a sleeve-like configuration without resection. Outpatient, incisionless procedure.	Restriction + delayed gastric emptying	~15–20% total body weight loss at 12 months	Abdominal pain, nausea; lower complication rate than surgery; long-term durability still under study

Note: Endoscopic bariatric therapies provide minimally invasive, reversible options for weight loss and should be offered as part of a comprehensive lifestyle intervention program. Weight loss is generally less durable than surgical procedures, and long-term outcomes vary by modality.

**Intragastric Balloon**



**Endoscopic Sleeve Gastroplasty (ESG)**



# Metabolic and Bariatric Procedures in Obesity Management

Metabolic and Bariatric Surgical Procedures				
Procedure	Procedure Overview	Mechanism	Target Total Body Weight Loss (TBWL)	Risks
<b>Roux-en-Y Gastric Bypass (RYGB)</b>  Long track record; commonly used in U.S.	Creation of a ~30 mL gastric pouch with Roux-en-Y reconstruction. Gastric pouch drains into jejunum via gastrojejunostomy; biliopancreatic limb rejoins ~100–150 cm downstream forming common channel.	Restriction + mild–moderate malabsorption + hormonal effects	30-35%	Dumping syndrome, marginal ulcers, micronutrient deficiencies, internal hernia risk
<b>Vertical Sleeve Gastrectomy (SG)</b>  Most commonly performed MBS worldwide	Resection of ~75–80% of stomach along greater curvature, creating tubular “sleeve”; fashioned over 36–40 Fr bougie; pylorus preserved.	Restriction + hormonal (↓ ghrelin)	25-30%	Risk of worsening or de novo GERD; lower malabsorption
<b>Biliopancreatic Diversion with Duodenal Switch (BPD-DS)</b>  Limited use in USA	Sleeve gastrectomy plus duodenal bypass via duodenojejunostomy; very short common channel	Restriction + marked malabsorption	35-45%	High risk of nutritional deficiencies, diarrhea, surgical morbidity
<b>Single Anastomosis Duodenoileostomy with Sleeve (SADI-S)</b>  Often performed after prior SG	Sleeve gastrectomy with single end-to-side duodenoileostomy to ileum; blind hepatobiliary limb remains	Restriction + significant malabsorption	35-45%	Nutritional deficiency risk similar to BPD-DS; higher early morbidity
<b>One Anastomosis Gastric Bypass (OAGB)</b>  Common internationally; limited use in USA	Long vertical gastric pouch with loop gastrojejunostomy 150–250 cm distal to ligament of Treitz.	Restriction + malabsorption	35-40%	Risk of bile reflux and malnutrition



Roux-en-Y Gastric Bypass (RYGB)



Sleeve Gastrectomy (SG)



Biliopancreatic Diversion with a Duodenal Switch (BPD-DS)

# Metabolic and Bariatric Procedures in Obesity Management

Potential Complications Associated with Surgical Procedures		
Complication	Operation	Prevalence <sup>a</sup>
Gastrointestinal Leak	RYGB, SG, BPD-DS	<3%
Bleeding	RYGB, SG, BPD-DS	0.4-4.4%
Marginal Ulcer	RYGB, BPD-DS	0.5-16%
Stricture/Stenosis	RYGB, SG, BPD-DS	<3.9%
Bowel Obstruction	RYGB, BPD-DS	<1%
Pulmonary Embolism	RYGB, SG, BPD-DS	<1%
Portomesenteric Vein Thrombosis	RYGB, SG, BPD-DS	<0.5%
Nutritional Deficiency <sup>b</sup>	RYGB, BPD-DS	<1-49%

<sup>a</sup> Varies, based on operation performed

<sup>b</sup> Vitamins B1, B12, A, D, E, K, Folate, Iron, Calcium, Zinc, Copper

Abbreviations: BPD-DS: Biliopancreatic Diversion with Duodenal Switch; RYGB: Roux-en-Y Gastric Bypass; SG: Sleeve Gastrectomy

Example of Post-Surgical Schedule for Clinical/Biochemical Monitoring							
	Pre-Operative	1 Month	3 Months	6 Months	12 Months	24 Months	Continue Annually
Complete Blood Count	X	X	X	X	X		X
Complete Metabolic Panel	X	X	X	X	X		X
Liver Function Tests	X	X	X	X	X		X
Lipid Panel**	X			X	X		X
Iron	X		X	X	X		X
Folate	X	X	X	X	X		X
Vitamin B1	X	+/-	+/-	+/-	+/-		+/-
Vitamin B12	X		X	X	X		X
Vitamin 25(OH)D/ Calcium/PTH	X		X	X	X		X*
Vitamin A	X			X			+/-
Vitamin E**	X						
Vitamin K**	X						
Zinc	X				X		X
Copper	X				X		X
Bone mineral density and body composition						X	X***

X: Indicates the suggested schedule for laboratory monitoring after metabolic/bariatric surgery

+/-: Recommended for high-risk patients, including those with excessive weight loss

\*: 24-h urinary calcium excretion measurement at 6 months and annually for BPD-DS

\*\* : Selectively for symptomatic patients or patients at increased risk for deficiency

\*\*\*: Continue annually for patients with ongoing weight loss or increased risk

# Why Weight Loss Often Slows or Plateaus

## Understanding Weight Plateaus and Metabolic Adaptation

Weight loss is not linear. Many patients experience periods where weight stops decreasing despite continued adherence to nutrition and physical activity plans. These plateaus are normal, expected, and biologically driven—not a sign of failure or lack of effort.

### Weight Plateaus

A weight plateau occurs when body weight stops decreasing even though a patient is still following their treatment plan.

This commonly happens because over time, energy intake and energy expenditure rebalance. As weight decreases, the body requires fewer calories to maintain itself, and physiologic adaptations reduce energy expenditure.

Most individuals reach a plateau within 6–12 months of starting weight-loss treatment.

Key clinical points:

- Plateaus occur in nearly all weight-loss efforts
- They are driven by physiology, not willpower
- They often signal the need to adjust the treatment approach, not abandon it

### Metabolic Adaptation

With weight loss, the body does not simply burn fewer calories because it is smaller—it becomes more energy-efficient.

This process, known as metabolic adaptation, involves:

- Lower resting energy expenditure than predicted
- Hormonal changes that increase hunger and reduce satiety
- Improved metabolic efficiency that conserves energy

As a result, patients may burn fewer calories than expected for their new body size, making continued weight loss progressively more difficult and increasing the risk of regain.

### Clinical Implications

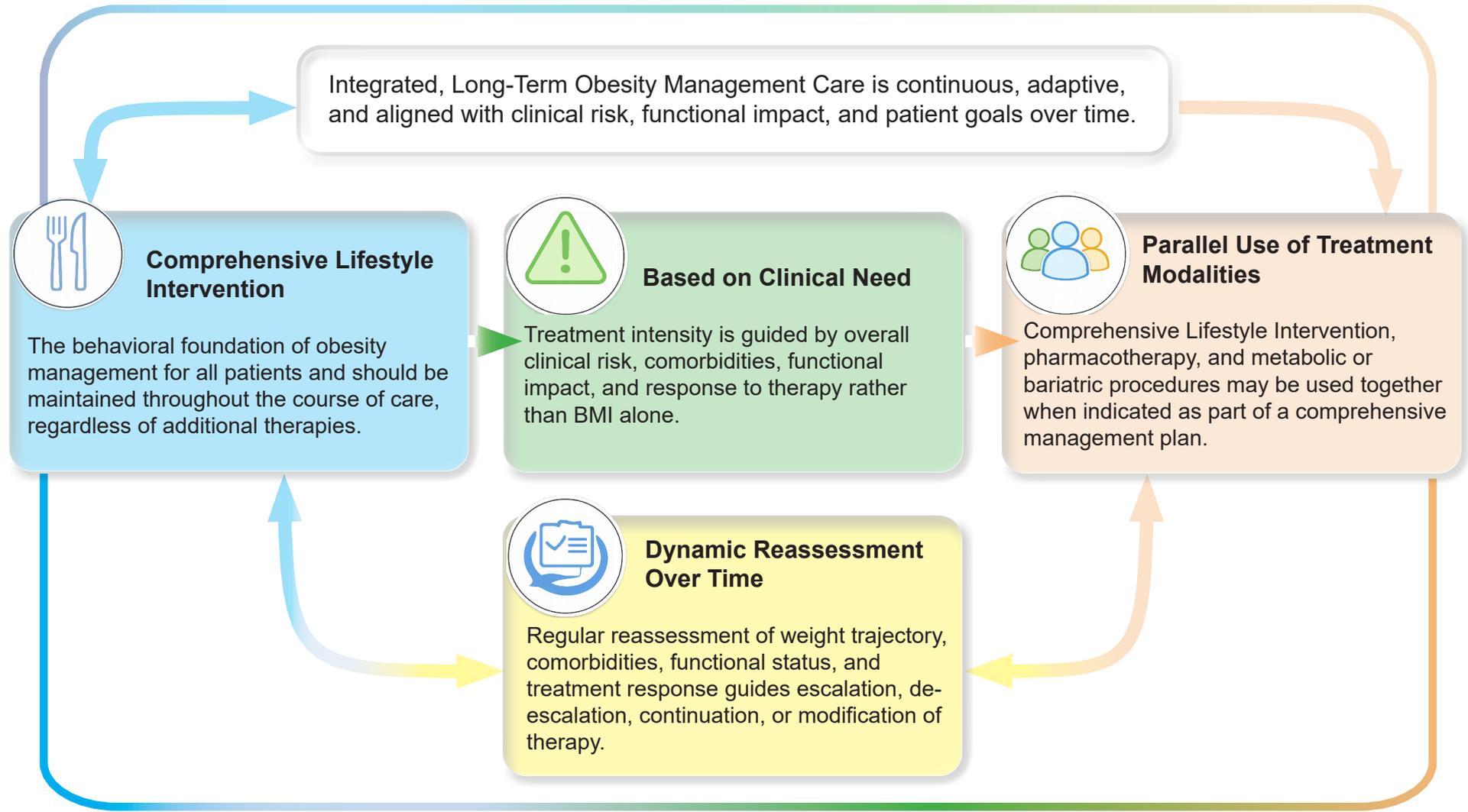
- Weight plateaus are an expected phase of obesity treatment
- Ongoing progress often requires escalation or modification of therapy
- Plateaus should prompt reassessment, not blame

Examples of appropriate responses:

- Intensifying lifestyle support
- Adding or adjusting pharmacotherapy
- Evaluating for secondary contributors
- Reframing goals toward health outcomes, not only scale weight

# Treatment Pathway Summary: Integrated, Long-Term Obesity Management

Obesity management requires an integrated, longitudinal approach that adapts over time based on clinical severity, treatment response, functional impact, and patient goals. Interventions should not be viewed as linear or sequential steps, but as complementary components that may be introduced, intensified, or modified as clinical needs evolve.



**MYTH****VS****FACT****What Obesity Is (Disease Model & Stigma)**

These myths reflect moral judgment, stigma, and misunderstanding of obesity as a disease

“People with overweight and obesity lack willpower.”

Obesity is a complex, chronic disease influenced by genetics, environment, biology, psychology, medications, social determinants, and behavior.

“People with obesity are lazy.”

This is a harmful stereotype. Many individuals with obesity are highly motivated and active, but face metabolic adaptations, hormonal changes, and systemic barriers.

“Obesity isn’t a disease.”

Major medical organizations including the AMA, AACE, WHO, and CDC recognize obesity as a chronic, progressive, relapsing disease that warrants medical treatment, not moral judgment.

“Talking about weight is always motivating.”

Uninvited or stigmatizing weight discussions can be harmful, triggering shame and avoidance of healthcare. Providers should always ask permission and use respectful, nonjudgmental language.

**MYTH****VS****FACT****Measurement & Appearance (BMI, Body Fat, Visual Bias)**

These myths stem from overreliance on BMI and visual assumptions.

“BMI tells you everything you need to know about a person.”

BMI is a screening tool, not a diagnostic measure. It doesn’t account for fat distribution, muscle mass, or health status. Body composition evaluation and obesity staging systems (e.g., Edmonton Obesity Staging System (EOSS)) provide more meaningful risk stratification.

“A high BMI always means excess body fat.”

BMI is a screening tool, not a diagnostic measure of adiposity. It does not distinguish fat from lean mass or account for fat distribution and may misclassify individuals with high muscle mass or fluid retention.

“A normal BMI means there is no excess body fat.”

Individuals may have normal BMI with excess visceral or ectopic fat (“normal-weight obesity”), which is associated with increased cardiometabolic risk.

“High muscle mass means there is no increased adiposity.”

High lean mass does not exclude the presence of excess visceral or ectopic adipose tissue, which can still confer metabolic and cardiovascular risk.

“You can tell someone’s health just by looking at them.”

Weight does not always reflect metabolic health. Individuals with obesity may have normal labs and good fitness, while others with “normal” weight may have high cardiometabolic risk with findings of prediabetes, hypertension, mixed hyperlipidemia, elevated transaminase levels, etc.

**MYTH****VS****FACT****Causes of Obesity (Oversimplification Myths)**

These myths reduce obesity to single causes and ignore biology.

“Obesity is always the result of overeating.”

Factors like medications, stress, sleep, trauma, endocrine disorders, and food insecurity can all contribute. Calories in equals calories out is an oversimplification.

“Obesity is solely due to eating too much.”

Obesity is a multifactorial chronic disease influenced by genetics, neurohormonal regulation, medications, sleep, stress, trauma, environment, and social determinants. Not caloric intake alone.

“Obesity is unrelated to the caloric content of food.”

Calories consumed are important, but whether or not a person gains or loses weight is dependent on many variables including the quality of the food and its effects on gut microbiome, thermal effect of food, calories absorbed from the intestines, differences in non-exercise activity thermogenesis, sleep, stress and much more.

“Individuals with obesity have a slow metabolism.”

Absolute resting metabolic rate is often higher in individuals with obesity due to greater body mass. However, adaptive metabolic slowing after weight loss contributes to weight regain risk.

“Body weight set point cannot be altered.”

Although biologic mechanisms defend body weight, pharmacotherapy, metabolic surgery, and sustained behavioral interventions can shift weight regulation pathways over time.

“Children will grow out of obesity.”

Childhood obesity often tracks into adulthood. Early intervention is crucial, especially given rising rates of type 2 diabetes, metabolic dysfunction-associated steatotic liver disease (MASLD), mixed hyperlipidemia and hypertension in youth.

**MYTH****VS****FACT****Health Impact & Risk Attribution**

These myths promote diagnostic anchoring and clinical oversimplification.

“Obesity is the cause of all a patient’s health conditions.”

While obesity increases risk for many diseases, not all conditions in people with obesity are obesity-related. Focusing only on weight can lead to missed or delayed diagnoses; evaluation should always be comprehensive and individualized.

“You can’t be fit and have obesity.”

While obesity is a risk factor, some individuals with obesity are metabolically healthy, physically active, and have good cardiorespiratory fitness. Fitness improves outcomes independent of weight.

“All people with obesity want to lose weight.”

Not everyone with obesity prioritizes weight loss. Some may focus on improving health, mobility, or energy, and providers should respect patient goals rather than assume.

**MYTH****VS****FACT****Treatment Effectiveness & Expectations**

These myths create unrealistic or harmful expectations about treatment.

“All you need is diet and exercise.”

Lifestyle changes are foundational but often not sufficient for sustained weight loss in individuals with obesity. Many benefit from medical therapies or bariatric procedures in addition to comprehensive lifestyle interventions and support.

“Increasing physical activity is the most efficient way to lose weight.”

Physical activity is critical for health and weight maintenance, but dietary intervention has a greater impact on initial weight loss. Physical activity plays a supportive role.

“Low-fat or low-carbohydrate diets are the best way to lose body fat.”

No single diet is superior for all patients. Adherence, sustainability, and individual preference are more predictive of success than macronutrient composition.

“If someone isn’t losing weight, they must not be trying.”

Obesity treatment is not always linear. Metabolic adaptation, medications, stress, and chronic inflammation can blunt or plateau weight loss despite strong adherence.

**MYTH****VS****FACT****Weight Loss Outcomes & Maintenance**

These myths foster nihilism and treatment avoidance.

“You must reach a ‘normal’ weight to see health benefits.”

Clinically meaningful improvements occur with modest weight loss (5–10%), including improvements in blood pressure, glycemia, lipids, sleep apnea, and quality of life even when BMI is above the normal range.

“Slow, gradual weight loss is always better than rapid weight loss.”

Both approaches can be effective. Some evidence shows early, larger weight loss predicts better long-term outcomes when combined with structured support.

“Once you lose weight, it’s easy to keep it off.”

Long-term weight maintenance is difficult due to physiologic adaptations (e.g., lower resting energy expenditure, increased hunger hormones) and environmental triggers. Most people regain weight without structured support.

“Weight-loss efforts are unhealthy because weight will return, and weight cycling is worse than having obesity.”

Intentional weight loss is associated with health benefits, even if some weight is regained. While weight cycling is not ideal, maintaining obesity carries greater long-term health risk than repeated, supported treatment attempts.

**MYTH****VS****FACT****Medical & Surgical Therapy Myths**

These myths reinforce stigma around evidence-based treatment.

<p>“Obesity medications are dangerous or not effective.”</p>	<p>Modern obesity medications are FDA-approved, evidence-based, and can lead to 10–20% or more total body weight loss, with metabolic benefits (e.g., GLP-1 containing RAs). They are safe and appropriate when used under medical supervision.</p>
<p>“Weight loss surgery is the easy way out.”</p>	<p>Bariatric/metabolic surgery and procedures are medically indicated, evidence-based treatments for obesity, and require lifelong behavior changes and follow-up. It is not an “easy fix.”</p>
<p>“Weight loss is always beneficial, no matter how it’s achieved.”</p>	<p>Unhealthy or unsupervised weight loss (e.g., via fad diets, purging, or over-exercising) can lead to muscle loss, micronutrient deficiencies, and disordered eating behaviors.</p>
<p>“Weight loss surgery is only for ‘severe’ obesity or after ‘failing’ other treatments.”</p>	<p>Bariatric surgery and procedures are evidence-based therapies chosen by risk and benefit, not failure, and may be appropriate for patients with BMI <math>\geq 35</math> kg/m<sup>2</sup> or BMI 30–34.9 kg/m<sup>2</sup> with diabetes or metabolic disease, within a comprehensive, multidisciplinary care model.</p>

# Key Takeaways

- Obesity is a chronic disease requiring continuous, adaptive management rather than episodic or stepwise treatment.
- Comprehensive Lifestyle intervention remains foundational and should be maintained throughout the course of care, regardless of additional therapies.
- Pharmacologic, endoscopic, and surgical interventions are adjunctive tools that may be introduced, combined, intensified, or modified based on clinical need.
- Treatment decisions should be guided by overall clinical risk, functional impact, comorbidities, and patient goals—not BMI alone.
- Effective care relies on regular reassessment of weight trajectory, comorbid conditions, functional status, treatment response, and tolerability.
- Long-term success is supported by shared decision-making, sustained engagement, and coordinated, multidisciplinary care over time.



To access the VA/DoD Clinical Practice Guidelines webpage (which includes the Management of Adult Overweight & Obesity CPG), visit:  
<https://www.health.mil/About-MHS/MHS-Elements/DVPO/VADOD-CPGs>



