CLINICAL OVERVIEW of the AACE/ACE obesity guidelines

A guide for optimizing your approach to the medical care of patients with obesity

It is important to assess each individual patient thoroughly. A complete diagnosis will include both anthropometric and clinical considerations.

Patient presentation[1]

- Screen positive for overweight or obesity BMI ≥25 kg/m^2 (≥23 kg/m^2 in some ethnicities)
- Presence of obesity-related disease complication that could be improved by obesity treatment

Diagnosis[1]

The diagnosis of a patient can be achieved through the following steps:

Evaluation

- Medical history
- Physical examination
- Clinical laboratory
- Review of systems, emphasizing obesity-related complications
- Obesity history: graph weight vs age, lifestyle patterns/preferences, previous interventions

Anthropometric diagnosis

- Confirm that elevated BMI represents excess adiposity
- Measure waist circumference to evaluate cardiometabolic disease risk

Clinical diagnosis

- Normal weight: <25 kg/m^2 or <23 kg/m^2 in certain ethnicities with waist circumference below regional/ethnic cutoffs
- Overweight: 25 kg/m^2–29.9 kg/m^2
- Obesity: ≥30 kg/m^2

For patients who are overweight or have obesity, a checklist of obesity-related complications is on page 3 of the AACE Algorithm for the Medical Care of Patients With Obesity, ranging from: None › Mild to Moderate › Severe[1]

AACE, American Association of Clinical Endocrinologists; ACE, American College of Endocrinology; BMI, body mass index.

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ASSESSMENT AND EVALUATION

Diagnostic categories[1]

Normal	Stage 0 Overweight	Stage 0 Obesity	Stage 1 Obesity	Stage 2 Obesity
No obesity	Patients who present with overweight (BMI 25 kg/m^2–29.9 kg/m^2) with NO complications	Patients who present with obesity (BMI ≥30 kg/m^2) with NO complications	Patients with a BMI ≥25 kg/m^2, with one or more mild to moderate complications or who are being treated effectively with moderate weight loss	Patients with a BMI ≥25 kg/m^2, who have at least one severe complication or who require more significant weight loss for effective treatment

Phases of chronic disease prevention and treatment goals[1]

Normal	Stage 0 Obesity/Overweight	Stage 1/2 Obesity
Primary	**Secondary**	**Tertiary**
Prevent overweight/obesity	Prevent progressive weight gain or achieve weight loss to prevent complications	Achieve weight loss sufficient to ameliorate complications and prevent further deterioration

Actor portrayal.

Sandra presented with:

- BMI of 35 kg/m^2
- Waist circumference of 41 inches
- Hypertension (140/92 mm Hg)
- Prediabetes (A1C level of 6.3%)

Sandra is considered to be in the Stage 2 obesity diagnostic category.

A1C, glycated hemoglobin; BMI, body mass index.

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TREATMENT RECOMMENDATIONS

Treatment based on clinical judgment[1]

Weight classification	Treatment
Normal weight	Healthy meal plan, physical activity, health education, built environment
Stage 0 Overweight	Reduced-calorie healthy meal plan, physical activity, behavioral interventions
Stage 0 Obesity	Lifestyle/behavioral therapy, consideration of pharmacotherapy if lifestyle therapy fails to prevent progressive weight gain (BMI ≥27)
Stage 1 Obesity	Lifestyle/behavioral therapy, consideration of pharmacotherapy if lifestyle therapy fails to achieve target if BMI is ≥27 kg/m^2
Stage 2 Obesity	Lifestyle/behavioral therapy, pharmacotherapy (if BMI is ≥27 kg/m^2), consideration of bariatric surgery (if BMI is ≥35 kg/m^2)

Once the initial plateau for weight loss has been achieved, re-evaluate the obesity-related complications. If the complications have not been treated to target, then obesity treatment should be intensified or complication-specific interventions need to be employed.[1]

Obesity is a chronic disease and the diagnostic categories for obesity may not be static. Therefore, patients require ongoing follow-up, re-evaluation, and long-term treatment[1]

Actor portrayal.

Sandra is in Stage 2, which calls for a combination of lifestyle/behavioral therapy, pharmacotherapy, and possible bariatric surgery.

BMI, body mass index.

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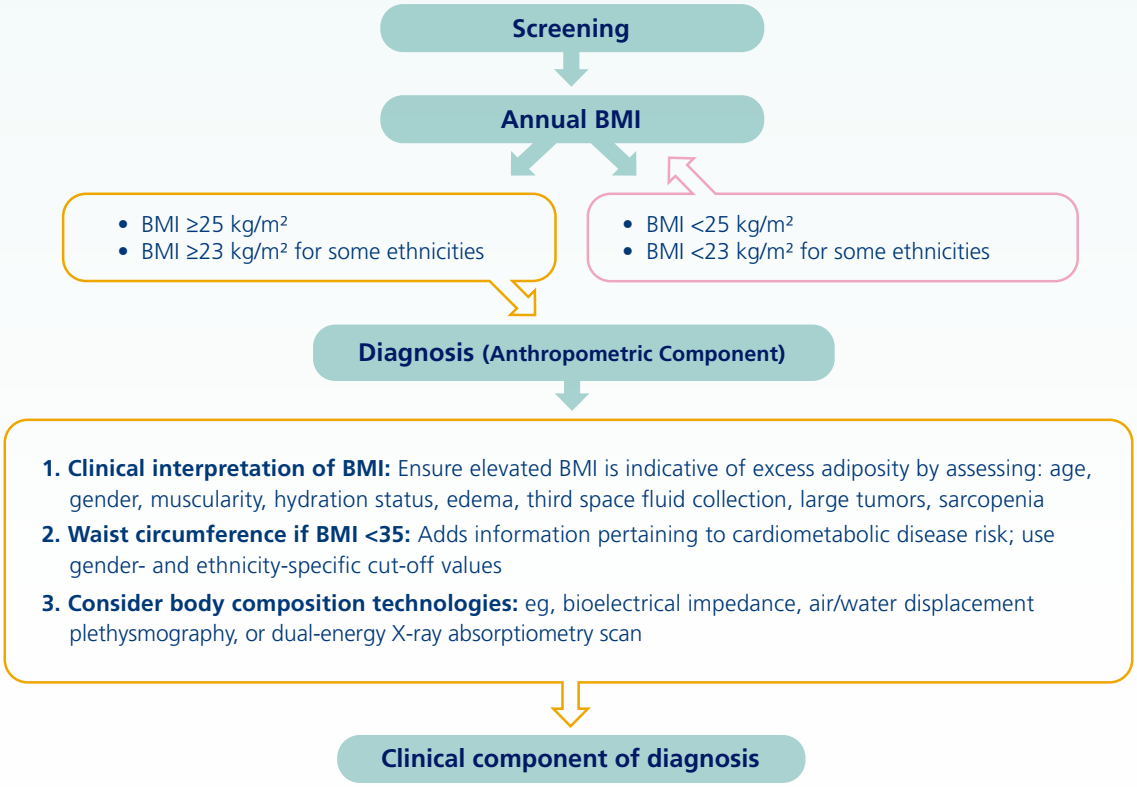
ANTHROPOMETRIC MEASUREMENT AND DIAGNOSIS

For patients with BMI ≥25 kg/m^2, anthropometric diagnosis includes the following steps[1]:

1. Clinically interpret BMI → **2.** Assess waist circumference → **3.** Consider body composition measurement

Evidence-based screening and diagnosis for excess adiposity in clinical settings



AACE, American Association of Clinical Endocrinologists; BMI, body mass index.

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THE CLINICAL COMPONENT OF DIAGNOSIS

Patients may present with either obesity or obesity-related complications. Since complications may often present with overweight or obesity, it's important to check for both.

Evaluation criteria for obesity therapy[1]

Patients present with overweight or obesity (anthropometric component)	Candidates for obesity therapy	Patients present with obesity-related disease or complication (clinical component)	
Patients present with BMI ≥25 kg/m^2, or ≥23 kg/m^2 in certain ethnicities, and excess adiposity	Evaluate for obesity-related complications Evaluate for overweight or obesity	• Prediabetes • Metabolic syndrome • Type 2 diabetes • Dyslipidemia • Hypertension • Cardiovascular disease • Nonalcoholic fatty liver disease • Polycystic ovary syndrome	• Female infertility • Male hypogonadism • Obstructive sleep apnea • Asthma/reactive airway disease • Osteoarthritis • Urinary stress incontinence • Gastroesophageal reflux disease • Depression

For more information on how to properly screen patients for obesity-related complications, please refer to page 3 of the AACE Algorithm for Medical Care of Patients with Obesity

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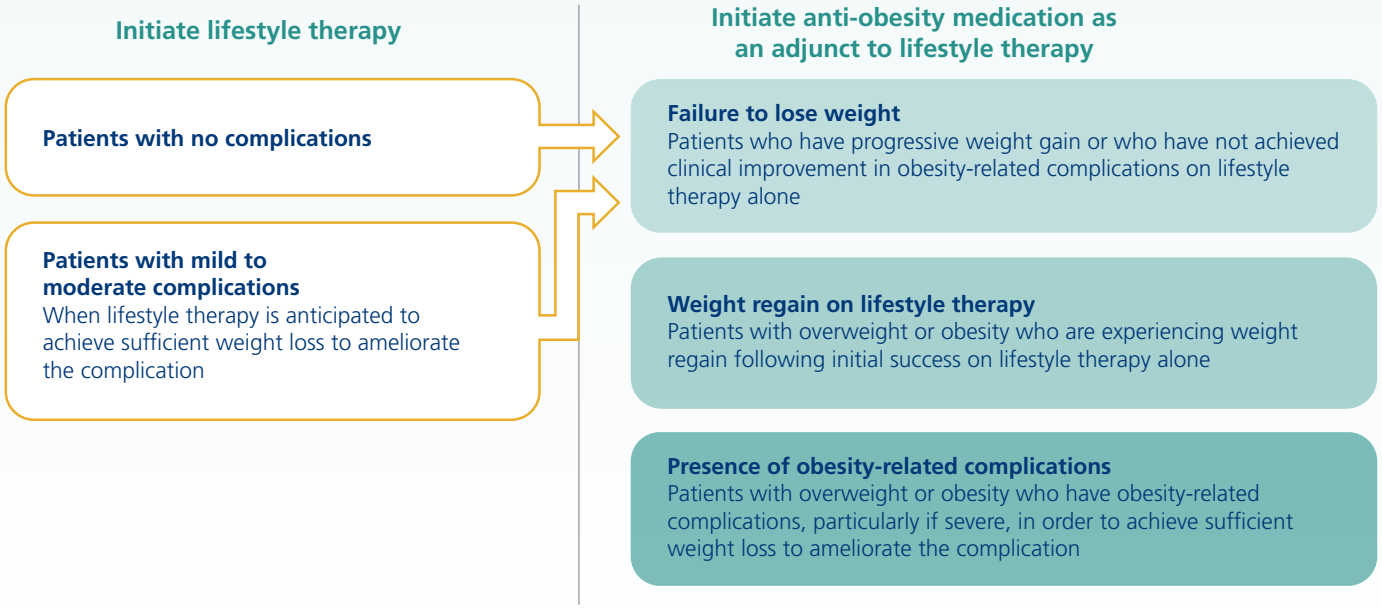
OBESITY TREATMENT OPTIONS

After a patient has been diagnosed with overweight or obesity, lifestyle/behavioral modification should be implemented to help prevent further weight gain. Adjunctive treatment with pharmacotherapy for obesity management can also be considered based on clinical judgment.[1]

Reasons to initiate anti-obesity medication include[1]:

- Failure on lifestyle therapy
- Weight regain on lifestyle therapy
- Presence of obesity-related complications

When to initiate anti-obesity medication in patients with overweight/obesity[1]



For more information on preferred anti-obesity medications and how to use them, see page 6 of the AACE Algorithm for the Medical Care of Patients With Obesity[1]

AACE, American Association of Clinical Endocrinologists.

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EVALUATION-BASED TREATMENT GOALS

Treatment goals should be based on a diagnosis that includes both anthropometric and clinical components. They should include intervention/weight loss goals and clinical goals.[1]

Associated risk	Weight loss goal	Clinical goal
Metabolic syndrome	**10%**	• **Prevent type 2 diabetes**
Prediabetes	**10%**	• **Prevent type 2 diabetes**
Type 2 diabetes	**5%–15%** or more	• **Reduce A1C** • **Reduce number and/or doses of glucose-lowering medications** • **Diabetes remission, especially when diabetes duration is short**
Dyslipidemia	**5%–15%** or more	• **Lower triglycerides and non-HDL-c** • **Increase HDL-c**
Hypertension	**5%–15%** or more	• **Lower systolic and diastolic blood pressure** • **Reduce number and/or doses of antihypertensive medications**
Asthma/reactive airway disease	**7%–8%** or more	• **Improve FEV_1** • **Improve symptomatology**

Actor portrayal.

Based on Sandra's diagnosis of obesity with hypertension and prediabetes, a weight loss goal of 10%–15% should be set with the goal of preventing type 2 diabetes, lowering blood pressure, and reducing antihypertensive medications.

A1C, glycated hemoglobin; FEV_1, forced expiratory volume in 1 second; HDL-c, high-density lipoprotein cholesterol.

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DIAGNOSING AND MANAGING OBESITY

For patients with overweight or obesity, the principal therapeutic target should be to improve patients' health by preventing or treating obesity-related complications. Evaluating patients for risk and obesity-related complications is critical in the development of a therapeutic plan for weight management.[1]

Diagnosis and medical management of obesity[1]

Diagnosis			Complication-specific staging and treatment		
Anthropometric component (BMI kg/m²)		Clinical component	Disease stage	Chronic disease phase of prevention	Suggested therapy (based on clinical judgment)
<25	**<23** in certain ethnicities waist circumference below regional/ethnic cutoffs		**Normal weight**	**Primary**	• **Healthy lifestyle:** healthy meal plan/physical activity
25–29.9	**23–24.9** in certain ethnicities	**Evaluate for presence or absence of adiposity-related complications and severity of complications** • Metabolic syndrome • Prediabetes • Type 2 diabetes • Dyslipidemia • Hypertension • Cardiovascular disease • Nonalcoholic fatty liver disease • Polycystic ovary syndrome • Female infertility • Male hypogonadism • Obstructive sleep apnea • Asthma/reactive airway disease • Osteoarthritis • Urinary stress incontinence • Gastroesophageal reflux disease • Depression	**Overweight stage 0**	**Secondary**	• **Lifestyle therapy:** Reduced-calorie healthy meal plan/physical activity/behavioral interventions
≥30	**≥25** in certain ethnicities		**Obesity stage 0**	**Secondary**	• **Lifestyle therapy:** Reduced-calorie healthy meal plan/physical activity/behavioral interventions • **Anti-obesity medications:** Consider if lifestyle therapy fails to prevent progressive weight gain (BMI ≥27)
≥25	**≥23** in certain ethnicities		**Obesity stage 1**	**Tertiary**	• **Lifestyle therapy:** Reduced-calorie healthy meal plan/physical activity/behavioral interventions • **Anti-obesity medications:** Consider if lifestyle therapy fails to achieve therapeutic target or initiate concurrently with lifestyle therapy (BMI ≥27)
≥25	**≥23** in certain ethnicities		**Obesity stage 2**	**Tertiary**	• **Lifestyle therapy:** Reduced-calorie healthy meal plan/physical activity/behavioral interventions • **Add anti-obesity medication:** Initiate concurrently with lifestyle therapy (BMI ≥27) • **Consider bariatric surgery:** (BMI ≥35)

a. All patients with BMI ≥25 have either overweight or obesity stage 0 or higher, depending on the initial clinical evaluation for presence and severity of complications. These patients should be followed over time and evaluated for changes in both anthropometric and clinical diagnostic components. The diagnoses of overweight/obesity stage 0, obesity stage 1, and obesity stage 2 are not static, and disease progression may warrant more aggressive weight-loss therapy in the future. BMI values ≥25 have been clinically confirmed to represent excess adiposity after evaluation for muscularity, edema, sarcopenia, etc.
b. Stages are determined using criteria specific to each obesity-related complication; stage 0=no complication; stage 1=mild to moderate; stage 2=severe.
c. Treatment plans should be individualized; suggested interventions are appropriate for obtaining the sufficient degree of weight loss generally required to treat the obesity-related complication(s) at the specified stage of severity.
d. BMI ≥27 is consistent with the recommendations established by the US Food and Drug Administration for weight-loss medications.

BMI, body mass index.

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Visit the AACE Obesity Resource Center at **obesity.aace.com** for more valuable information, including:

- A complete set of resources to help you assist patients with obesity from diagnosis to treatment and management
- How appropriately sized equipment and furnishings can ensure patient comfort
- Where to purchase appropriate equipment and furnishings

Reference: 1. Reprint with permission from American Association of Clinical Endocrinologists © 2016. American Association of Clinical Endocrinologists and American College of Endocrinology comprehensive clinical practice guidelines for medical care of patients with obesity. *Endocr Pract*. 2016;22(suppl 3):1-203.

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