Clinical overview of the AACE/ACE obesity guidelines

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

AACE, American Association of Clinical Endocrinologists; ACE, American College of Endocrinology.
Assessment and evaluation

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

Patient presentation

- Screen positive for overweight or obesity BMI ≥25 kg/m² (≥23 kg/m² in some ethnicities)
- Presence of obesity-related disease complication that could be improved by obesity treatment

Diagnosis

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

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

### Anthropometric diagnosis
- Confirm that elevated BMI represents excess obesity
- Measure waist circumference to evaluate cardiometabolic disease risk

### Clinical diagnosis
- Normal weight: <25 kg/m² or <23 kg/m² in certain ethnicities with waist circumference below regional/ethnic cutoffs
- Overweight: 25 kg/m²–29.9 kg/m²
- Obesity: ≥30 kg/m²

### Diagnosis

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

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**Diagnostic categories**

<table>
<thead>
<tr>
<th>Normal</th>
<th>Stage 0</th>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>No obesity</td>
<td>Patients with a BMI ≥25 kg/m², with one or more mild to moderate complications or who are being treated effectively with moderate weight loss</td>
<td>Patients with a BMI ≥25 kg/m², with one or more mild to moderate complications or who are being treated effectively with moderate weight loss</td>
<td>Patients with a BMI ≥25 kg/m², who have at least one severe complication or who require more significant weight loss for effective treatment</td>
</tr>
</tbody>
</table>

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**Phases of chronic disease prevention and treatment goals**

<table>
<thead>
<tr>
<th>Normal</th>
<th>Stage 0</th>
<th>Stage 1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Secondary</td>
<td>Tertiary</td>
</tr>
<tr>
<td>Prevent overweight/obesity</td>
<td>Prevent progressive weight gain or achieve weight loss to prevent complications</td>
<td>Achieve weight loss sufficient to ameliorate complications and prevent further deterioration</td>
</tr>
</tbody>
</table>

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Monica presented with:
- BMI of 35 kg/m²
- Waist circumference of 41 inches
- Hypertension (140/92 mm Hg)
- Prediabetes (A1C level of 6.3%)

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

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A1C, glycated hemoglobin.
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.

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.

### Monica’s BMI is 35

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

For patients with BMI ≥25 kg/m², anthropometric diagnosis includes the following steps¹:

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

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

**Screening**

- BMI ≥25 kg/m²
- BMI ≥23 kg/m² for some ethnicities

**Annual BMI**

- BMI <25 kg/m²
- BMI <23 kg/m² for some ethnicities

**Diagnosis (Anthropometric Component)**

1. Clinical interpretation of BMI: Ensure elevated BMI is indicative of excess adiposity by assessing age, gender, muscularity, hydration status, edema, third space fluid collection, large tumors, sarcopenia
2. Waist circumference if BMI <35: Adds information pertaining to cardiometabolic disease risk; use gender- and ethnicity-specific cut-off values
3. Consider body composition technologies: eg, bioelectrical impedance, air/water displacement plethysmography, or dual-energy X-ray absorptiometry scan

Clinical component of diagnosis

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.

<table>
<thead>
<tr>
<th>Patients present with overweight or obesity (anthropometric component)</th>
<th>Candidates for obesity therapy (clinical component)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI ≥25 kg/m², or ≥23 kg/m² in certain ethnicities, and excess adiposity</td>
<td>Patients present with obesity-related disease or complication</td>
</tr>
</tbody>
</table>

**Evaluation criteria for obesity therapy**¹

- Prediabetes
- Metabolic syndrome
- Type 2 diabetes
- Dyslipidemia
- Hypertension
- Cardiovascular disease
- Non alcoholic 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

Visit RethinkObesity.com to learn more.
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 include¹:
- Failure on lifestyle therapy
- Weight regain on lifestyle therapy
- Presence of obesity-related complications

When to initiate anti-obesity medication in patients with overweight/obesity¹

![Diagram showing decision tree for when to initiate anti-obesity medication]

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 Obesity¹

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

<table>
<thead>
<tr>
<th>Associated risk</th>
<th>Weight loss goal</th>
<th>Clinical goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metabolic syndrome</td>
<td>10%</td>
<td>• Prevent type 2 diabetes</td>
</tr>
<tr>
<td>Prediabetes</td>
<td>10%</td>
<td>• Prevent type 2 diabetes</td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td>5%-15% or more</td>
<td>• Reduce A1C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduce number and/or doses of glucose-lowering medications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Diabetes remission, especially when diabetes duration is short</td>
</tr>
<tr>
<td>Dystipidemia</td>
<td>5%-15% or more</td>
<td>• Lower triglycerides and non-HDL-c</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increase HDL-c</td>
</tr>
<tr>
<td>Hypertension</td>
<td>5%-15% or more</td>
<td>• Lower systolic and diastolic blood pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduce number and/or doses of antihypertensive medications</td>
</tr>
<tr>
<td>Asthma/reactive airway disease</td>
<td>7%-8% or more</td>
<td>• Improve FEV₁</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improve symptomatology</td>
</tr>
</tbody>
</table>

A1C, glycated hemoglobin; FEV₁, forced expiratory volume in 1 second; HDL-c, high-density lipoprotein cholesterol.

Based on Monica’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.
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

<table>
<thead>
<tr>
<th>Anthropometric component (BMI kg/m²)</th>
<th>Clinical component</th>
<th>Complication-specific staging and treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25 in certain ethnicities, waist circumference below regional/ethnic cutoffs</td>
<td>Evaluate for presence or absence of adiposity-related complications and severity of complications</td>
<td>Normal weight, Primary</td>
</tr>
<tr>
<td>25–29.9 in certain ethnicities</td>
<td>• Metabolic syndrome&lt;br&gt;• Prediabetes&lt;br&gt;• Type 2 diabetes&lt;br&gt;• Dyslipidemia&lt;br&gt;• Hypertension&lt;br&gt;• Cardiovascular disease&lt;br&gt;• Nonalcoholic fatty liver disease&lt;br&gt;• Polycystic ovary syndrome&lt;br&gt;• Female infertility&lt;br&gt;• Male hypogonadism&lt;br&gt;• Obstructive sleep apnea&lt;br&gt;• Asthma/reactive airway disease&lt;br&gt;• Osteoarthritis&lt;br&gt;• Urinary stress incontinence&lt;br&gt;• Gastroesophageal reflux disease&lt;br&gt;• Depression</td>
<td>Overweight stage 0, Secondary</td>
</tr>
<tr>
<td>≥30 in certain ethnicities, BMI ≥25</td>
<td>Obesity stage 0, Secondary</td>
<td></td>
</tr>
<tr>
<td>≥25 in certain ethnicities, BMI ≥23</td>
<td>Obesity stage 1, Tertiary</td>
<td></td>
</tr>
<tr>
<td>≥25 in certain ethnicities, BMI ≥23</td>
<td>Obesity stage 2, Tertiary</td>
<td></td>
</tr>
</tbody>
</table>

- **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 diagnosis 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.

- **Stage 0** is defined as no adiposity-related complications. **Stage 1** is defined as mild to moderate adiposity-related complications. **Stage 2** is defined as severe adiposity-related complications.

- **BMI ≥27** is consistent with the recommendations established by the US Food and Drug Administration for weight-loss medications.

Visit RethinkObesity.com to learn more.
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


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