

## Weight Loss Products

(modified May 2024)

Multiple products are approved for weight loss. For information about patients requiring bariatric surgery for weight loss, see our chart, [Bariatric Surgery and Medication Use](#). The chart below reviews pertinent information about use of **approved weight-loss products**, including dosing, expected weight loss, cost, and considerations for use.

Product <sup>a</sup>	Usual Dose <sup>a</sup>	Mean Weight Loss <sup>a,b</sup>	Cost <sup>c</sup> and Considerations for Use <sup>a</sup>
<b>Products that work as a sympathomimetic, anorectic, or to reduce appetite<sup>d</sup></b> <ul style="list-style-type: none"> <li>Avoid late evening dosing to prevent insomnia.</li> <li>Products are schedule C-IV: avoid abrupt discontinuation to prevent withdrawal symptoms, especially with higher doses or prolonged use.</li> </ul>			
<b>Diethylpropion</b> (generics, US only)	<ul style="list-style-type: none"> <li>For short-term use (a few weeks)<sup>e</sup> in patients 16 years and older:                             <ul style="list-style-type: none"> <li>○ <b>IR:</b> 25 mg PO TID one hour before meals or QID (TID plus mid-evening dose).</li> <li>○ <b>CR:</b> 75 mg once daily mid-morning.</li> </ul> </li> <li>Discontinue if tolerance develops or if not effective after four weeks (e.g., &lt;1.8 kg [4 pounds] lost).</li> </ul>	<ul style="list-style-type: none"> <li>~<b>3 kg (6.6 pounds)</b>                              (75 mg once daily at six weeks to 12 months)<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>Cost: ≤\$5/day</li> <li>Monitor for increases in BP and HR.</li> <li><b>Discontinuation rate due to adverse effects:</b> unknown.</li> </ul>
<b>Phentermine</b> (US only: <i>Adipex-P</i> , generics; <i>Lomaira</i> ; generic 15 mg and 30 mg capsules)	<ul style="list-style-type: none"> <li>For short-term use (a few weeks)<sup>e</sup> in patients 17 years and older:                             <ul style="list-style-type: none"> <li>○ <b>Adipex-P:</b> 37.5 mg PO once daily before breakfast OR one to two hours after breakfast.</li> <li>○ <b>Lomaira:</b> 8 mg PO TID 30 minutes before meals.</li> <li>○ <b>generic 15, 30 mg capsule:</b> 15 to 30 mg ~2 hours after breakfast.</li> </ul> </li> <li>Discontinue if tolerance develops.</li> </ul>	<ul style="list-style-type: none"> <li>~<b>5.3 kg (11.67 pounds)</b>                              (37.5 mg once daily at 14 weeks).<sup>13</sup> &gt;80% of patients met weight loss goal (≥5%) compared to ~16% with placebo.</li> <li>~<b>3.5 kg (7.7 pounds)</b>                              (15 mg once daily at 26 weeks)<sup>14</sup></li> <li>~<b>4.5 kg (9.9 pounds)</b>                              (15 mg once daily at</li> </ul>	<ul style="list-style-type: none"> <li>Cost:                             <ul style="list-style-type: none"> <li>○ <i>Adipex-P</i>: ≤\$0.45/day (generic)</li> <li>○ <i>Lomaira</i>: ~\$1.61/day</li> <li>○ generic 15 mg, 30 mg capsules: ~\$.45/day</li> </ul> </li> <li>Monitor for increases in BP and HR.</li> <li><b>Discontinuation rate due to adverse effects:</b> ~ 1 in 18 patients (37.5 mg once daily);<sup>13</sup> ~1 in 10 patients (15 mg once daily).<sup>15</sup></li> </ul>

Product <sup>a</sup>	Usual Dose <sup>a</sup>	Mean Weight Loss <sup>a,b</sup>	Cost <sup>c</sup> and Considerations for Use <sup>a</sup>
		28 weeks) <sup>15</sup> 46% of patients met weight loss goal (≥5%).	<ul style="list-style-type: none"> <li>• Limit dose to 15 mg/day if eGFR 15 to 29 mL/min/1.73 m<sup>2</sup> (<i>Adipex-P</i>, generic capsules).</li> </ul>
<b>Products that work as a sympathomimetic, anorectic, or to reduce appetite,<sup>d</sup> continued</b>			
<p><b>Phentermine/topiramate ER</b> (<i>Qsymia</i>, US only)</p> <p>Provide a MedGuide with each Rx.</p> <p>Pharmacies must enroll and be certified to dispense. REMS info at <a href="http://www.qsymiarems.com">www.qsymiarems.com</a>.</p>	<p>For patients 12 years and older:</p> <ul style="list-style-type: none"> <li>• Start with 3.75 mg/23 mg PO once daily in the morning x 14 days, then double the dose. See product labeling for additional dosage adjustments based on weight loss.</li> <li>• Discontinue after 12 weeks at max dose if patient has not achieved a reduction of ≥5% of baseline body weight (adults) or BMI (pediatrics).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>~9 kg (19 pounds)</b> (15 mg/92 mg once daily at one year)</li> <li>• ~70% of patients met weight loss goal (≥5%) at one year compared to 21% with placebo.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost: ~\$6.75/day</li> <li>• Monitor for (due to topiramate): <ul style="list-style-type: none"> <li>○ decreased sweating, hyperthermia</li> <li>○ pregnancy (test baseline and monthly due to risk of birth defects)</li> <li>○ mood, behavior, or sleep changes; suicidal ideation/behaviors</li> <li>○ cognitive impairment</li> <li>○ metabolic acidosis</li> <li>○ reduced kidney function</li> <li>○ hypokalemia</li> <li>○ hypotension (with antihypertensives)</li> <li>○ hypoglycemia (with insulin, secretagogues, or pioglitazone)</li> <li>○ vision changes (angle closure glaucoma)</li> </ul> </li> <li>• <b>Discontinuation rate due to adverse effects: ~1 in 6 patients.<sup>8</sup></b></li> </ul>
<p><b>Products that work as a GLP-1 receptor agonist (and GIP receptor agonist [tirzepatide]) to reduce appetite and food/calorie intake.</b></p> <ul style="list-style-type: none"> <li>• GI side effects are common during dose escalation (e.g., nausea, vomiting, diarrhea, constipation). These drugs carry warnings about gallbladder disease and pancreatitis (rare). Stop if pancreatitis is suspected, and do not restart if pancreatitis is confirmed. Also associated with bowel obstruction.<sup>17</sup></li> <li>• These drugs are contraindicated in patients with a personal or family history of medullary thyroid cancer or patients with multiple endocrine neoplasia type 2. They cause thyroid C-cell tumors in mice.</li> <li>• May cause hypoglycemia.</li> <li>• Monitor for depression and suicidal ideation. Discontinue if symptoms develop.</li> <li>• Don't combine with other GLP-1 agonists. Generally, avoid use in patients taking a dipeptidylpeptidase-4 inhibitor (e.g., saxagliptin), as combining these two classes of medications is unlikely to improve weight loss and is not cost-effective.<sup>11</sup></li> </ul>			
<p><b>Liraglutide</b> (<i>Saxenda</i>)</p>	<p>For patients 12 years and older:</p> <ul style="list-style-type: none"> <li>• 3 mg subcutaneously <b>once daily</b> (start with 0.6 mg once daily, increase dose</li> </ul>	<ul style="list-style-type: none"> <li>• <b>~3.7 to 5.2 kg (8.1 to 11.4 pounds)</b> (3 mg once daily at 56 weeks)</li> </ul>	<ul style="list-style-type: none"> <li>• Cost: <ul style="list-style-type: none"> <li>○ US: ~\$45/day</li> <li>○ Canada: ~\$15/day</li> </ul> </li> </ul>

Product <sup>a</sup>	Usual Dose <sup>a</sup>	Mean Weight Loss <sup>a,b</sup>	Cost <sup>c</sup> and Considerations for Use <sup>a</sup>
Provide a MedGuide with each Rx (US)	weekly by 0.6 mg to goal of 3 mg once daily). <ul style="list-style-type: none"> <li>For adults, discontinue after 16 weeks if &lt;4% (after 12 weeks if ≤5% [Canada]) weight loss achieved.</li> </ul>	<ul style="list-style-type: none"> <li>~44% to 62% of patients met weight loss goal (≥5%) at 56 weeks compared to 16% to 34% with placebo.</li> </ul>	<ul style="list-style-type: none"> <li><b>Discontinuation rate due to adverse effects:</b> ~ 1 in 11 patients.</li> </ul>
<b>Products that work as a GLP-1 receptor agonist (and GIP receptor agonist [tirzepatide], continued</b>			
<b>Semaglutide</b> ( <i>Wegovy</i> )*  Provide a MedGuide with each Rx (US)	For patients 12 years and older: <ul style="list-style-type: none"> <li>2.4 mg subcutaneously <b>once weekly</b> (start with 0.25 mg once weekly, increase dose every four weeks to 0.5 mg, 1 mg, 1.7 mg, and 2.4 mg).</li> <li>Canada: consider stopping if the patient is not showing progress after 12 weeks on the maintenance dose.</li> </ul>	<ul style="list-style-type: none"> <li>~<b>10.6 to 12.7 kg (22 to 27 pounds)</b> (2.4 mg once weekly at one year)<sup>2,10</sup></li> <li>67% to 85% of patients met weight loss goal (≥5%) at 52 weeks compared to 30% to 48% with placebo.<sup>2,10</sup></li> </ul>	<ul style="list-style-type: none"> <li>Cost:               <ul style="list-style-type: none"> <li>○ <b>US:</b> ~\$337/week (once weekly dosing)</li> <li>○ <b>Canada:</b> \$105/week (once weekly dosing)</li> </ul> </li> <li>Reduces CV risk (prevents 1 event for every 67 patients treated for ~ 3 years.<sup>3</sup></li> <li><b>Discontinuation rate due to adverse effects:</b> ~1 in 15 patients.</li> </ul>
<b>Tirzepatide</b> ( <i>Zepbound</i> [US only])  Provide a MedGuide with each Rx	For patients 18 years and older: <ul style="list-style-type: none"> <li>5, 10, or 15 mg subcutaneously <b>once weekly</b> (start with 2.5 mg once weekly, increase dose every 4 weeks to 5 mg, 7.5 mg, 10 mg, 12.5 mg, and 15 mg).</li> <li>Though no specific guidance is available, stopping after 12 weeks if &lt;5% weight loss achieved is reasonable based on the guidelines.<sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>~<b>18.8 kg (41 pounds)</b> (15 mg once weekly at week 72)<sup>16</sup></li> <li>85% to 91% of patients met weight loss goal (≥5%) at 72 weeks compared to 35% with placebo<sup>16</sup></li> </ul>	<ul style="list-style-type: none"> <li>Cost: ~\$265/week (once weekly dosing)</li> <li><b>Discontinuation rate due to adverse effects:</b> ~1 in 15 patients (15 mg once weekly)</li> </ul>
<b>Product that works to inhibit GI lipase to prevent fat absorption</b>			
<b>Orlistat</b> ( <i>Xenical</i> ) ( <i>Alli</i> [over-the-counter (OTC); US only])	<ul style="list-style-type: none"> <li>For patients <b>12 years and older:</b> <ul style="list-style-type: none"> <li>○ <i>Xenical</i>: 120 mg PO TID with each main meal containing fat (and a diet with ~30% of calories from fat).</li> </ul> </li> <li>For patients <b>18 years and older:</b> <ul style="list-style-type: none"> <li>○ <i>Alli</i>: 60 mg PO up to TID with meals containing fat.</li> </ul> </li> </ul>	<b><i>Xenical</i> (120 mg TID):</b> <ul style="list-style-type: none"> <li><b>3.45 kg (7.6 pounds)</b> at one year</li> <li>36% to 55% of patients met weight loss goal (≥5%) at one year compared to 16% to 27% with placebo.</li> </ul> <b><i>Alli</i> (60 mg TID): ~2 kg (~4.4 pounds)</b> at 24 weeks <sup>7</sup>	<ul style="list-style-type: none"> <li>Cost:               <ul style="list-style-type: none"> <li>○ <b>US:</b> ~\$25/day (<i>Xenical</i>); \$1.38/day (<i>Alli</i>)</li> <li>○ <b>Canada:</b> ~\$6/day (<i>Xenical</i>)</li> </ul> </li> <li>May reduce absorption of certain meds. See product labeling for specifics (e.g., timing, monitoring, dose adjustments).</li> <li>Recommend additional contraception if patients taking an oral contraceptive experience severe diarrhea (Canada).</li> </ul>

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	<ul style="list-style-type: none"> <li>Recommend an MVI with A, D, E, K, and beta-carotene at bedtime or <b>≥2 hours before or after</b> orlistat.</li> </ul>		<ul style="list-style-type: none"> <li><b>Discontinuation rate for <i>Xenical</i> due to adverse effects:</b> ~1 in 12 patients.</li> </ul>
<b>Product that works to reduce appetite and cravings<sup>9</sup></b>			
<p><b>Naltrexone 8 mg/ bupropion 90 mg ER</b> (<i>Contrave</i>)</p> <p>Provide a MedGuide with each Rx (US)</p>	<p>For patients 18 years and older:</p> <ul style="list-style-type: none"> <li>2 tabs PO BID (start with 1 tab once daily, increase by 1 tab weekly to target dose).                             <ul style="list-style-type: none"> <li>Avoid taking with a high-fat meal to minimize seizure risk.</li> </ul> </li> <li>Discontinue after 12 weeks at the maintenance dose if &lt;5% weight loss achieved.</li> </ul>	<ul style="list-style-type: none"> <li><b>≤4.1 kg (9 pounds)</b> (16 mg/180 mg BID at 56 weeks)</li> <li>36% to 57% of patients met weight loss goal (≥5%) at 56 weeks compared to 17% to 43% with placebo.</li> </ul>	<ul style="list-style-type: none"> <li>Cost:                             <ul style="list-style-type: none"> <li>US: ~\$20/day</li> <li>Canada: \$10/day</li> </ul> </li> <li>Associated with CYP2B6 drug interactions. See product labeling for specifics.</li> <li>Avoid in patients taking opioids (due to naltrexone).</li> <li>Monitor for increases in BP, HR, and suicidal thoughts/behavior (due to bupropion).</li> <li><b>Discontinuation rate due to adverse effects:</b> ~1 in 4 patients.</li> </ul>
<b>Product that works as a melanocortin 4 (MC4) receptor agonist to reduce appetite</b>			
<p><b>Setmelanotide</b> (<i>Imcivree</i>)</p>	<ul style="list-style-type: none"> <li>For patients 6 years of age and older, target dose is 3 mg once daily (start with 1 to 2 mg once daily [US], or 0.5 to 1 mg once daily [Canada], depending on age, increasing every two weeks as tolerated).</li> <li>See product labeling for titration details.</li> <li>Discontinue after 12 to 16 weeks at full dose if &lt;5% weight loss achieved.</li> </ul>	<ul style="list-style-type: none"> <li>80% of patients with POMC or PCSK1 deficiency or 46% of patients with LEPR deficiency achieved ≥10% weight loss at one year.</li> </ul>	<ul style="list-style-type: none"> <li>Cost                             <ul style="list-style-type: none"> <li>US: \$343.20/mg</li> <li>Canada: available only from Bayshore specialty distribution</li> </ul> </li> <li>Approved in patients with <b>obesity due to Bardet-Biedl syndrome deficiency or abnormality of one of the following:</b> <ul style="list-style-type: none"> <li>proopiomelanocortin (POMC)</li> <li>proprotein convertase subtilisin/kexin type 1 (PCSK1)</li> <li>leptin receptor (LEPR)</li> </ul> </li> <li>Requires dose reduction for eGFR 15 to 29 mL/min/1.73 m<sup>2</sup>.</li> <li><b>Discontinuation rate due to adverse effects:</b> unknown.</li> </ul>

- a. **Information from product labeling, unless otherwise noted. US prescribing information:** diethylpropion extended-release (Lannett Company, December 2019); diethylpropion hydrochloride tablet (KVK-tech, October 2021); *Adipex-P* (September 2020); *Lomaira* (December 2023); phentermine capsule 15 mg, 30 mg (TAGI, May 2019); *Qsymia* (June 2023); *Saxenda* (April 2023); *Wegovy* (March 2024); *Zepbound* (March 2024); *Xenical* (December 2023); *Alli* (January 2024); *Contrave* (November 2023); *Imcivree* (November 2023). **Canadian product monographs:** *Saxenda* (April 2024); *Wegovy* (March 2024); *Xenical* (July 2023); *Contrave* (August 2023); *Imcivree* (May 2023).
- b. Mean weight loss with lifestyle changes and/or diet. Weight loss is the amount above that seen with placebo. Weight loss varies based on lifestyle modification, baseline weight, etc.
- c. Pricing (for generic when available) based on wholesale acquisition cost (WAC). US medication pricing by Elsevier, accessed May 2024. Discount programs may be available for some drugs.
- d. Older amphetamines indicated for weight loss (e.g., benzphetamine [US], methamphetamine [US], phendimetrazine [US]) are not included in the chart. However, adverse effects, contraindications, and cautions are similar to diethylpropion and phentermine. Product labeling should be consulted for more specific information.
- e. Though product labeling may specify use should be limited to a few weeks, guidelines suggest that if weight loss from an approved medication is at least 5% at 12 weeks, medications can be continued.<sup>4</sup>

**Abbreviations:** CV = cardiovascular; GI = gastrointestinal; GIP = glucose-dependent insulinotropic polypeptide; GLP = GLP-1 = glucagon-like peptide-1; BID = twice daily; BP = blood pressure; CR = controlled-release; ECG = electrocardiogram; ER = extended-release; HR = heart rate; IR = immediate-release; PO = orally; TID = three times daily; QID = four times daily.

*Users of this resource are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.*

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