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# iCARDIO Alliance Global Implementation Guidelines for the Management of Obesity 2025

## Focus on Prevention and Treatment of Cardiometabolic Disease

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**Supplementary Table.** FDA-approved dosages for weight loss medications.

| Drug | FDA-Approved Dosage |
|---|---|
| **Liraglutide** | Initiate at 0.6 mg subcutaneously daily; increase by 0.6 mg weekly to a maintenance dose of 3.0 mg daily (for weight loss). |
| **Semaglutide** | Initiate at 0.25 mg subcutaneously once weekly for 4 weeks; increase every 4 weeks to 0.5 mg, 1 mg, 1.7 mg; maintenance at 2.4 mg once weekly (or 1.7 mg once weekly, if not tolerated). |
| **Tirzepatide** | Initiate at 2.5 mg subcutaneously once weekly for 4 weeks; increase by 2.5 mg every ≥4 weeks to 5 mg, 7.5 mg, 10 mg, 12.5 mg, and 15 mg; maintenance at 5–15 mg once weekly. |
| **Orlistat** | 120 mg orally three times daily with each fat-containing meal (for weight loss). |
| **Phentermine/Topiramate ER** | Start at 3.75 mg/23 mg orally once daily; titrate to 7.5 mg/46 mg or up to 15 mg/92 mg once daily (for weight loss). |
| **Naltrexone/Bupropion** | 32 mg naltrexone/360 mg bupropion orally daily (divided into two doses) (for weight loss). |
| **Lisdexamfetamine** | 30–70 mg orally once daily (FDA-approved for binge eating disorder, not specifically for obesity). |

## References for the supplementary table


Liraglutide related

1. Pi-Sunyer X, Astrup A, Fujioka K, et al. A Randomized, controlled trial of 3.0 mg of liraglutide in weight management. N Engl J Med 373:11-22. doi: 10.1056/NEJMoa1411892
2. Wadden TA, Hollander P, Klein S, et al. Weight maintenance and additional weight loss with liraglutide after low-calorie-diet-induced weight loss: the SCALE Maintenance randomized study. Int J Obes (Lond) 2013;37:1443-51. doi: 10.1038/ijo.2013.120
3. Davies MJ, Bergenstal R, Bode B, et al. Efficacy of liraglutide for weight loss among patients with type 2 diabetes: The SCALE diabetes randomized clinical trial. JAMA 2015;314:687-99. doi: 10.1001/jama.2015.9676
4. Blackman A, Foster GD, Zammit G, et al. Effect of liraglutide 3.0 mg in individuals with obesity and moderate or severe obstructive sleep apnea: the SCALE Sleep Apnea randomized clinical trial. Int J Obes (Lond) 2016;40:1310-9. doi: 10.1038/ijo.2016.52
5. le Roux CW, Astrup A, Fujioka K, et al. 3 years of liraglutide versus placebo for type 2 diabetes risk reduction and weight management in individuals with prediabetes: a randomised, double-blind trial. Lancet 2017;389:1399-409. doi: 10.1016/s0140-6736(17)30069-7

Semaglutide related

6. Wilding JPH, Batterham RL, Calanna S, et al. Once-weekly semaglutide in adults with overweight or obesity. N Engl J Med 2021;384:989-1002. doi: 10.1056/NEJMoa2032183
7. Davies M, Færch L, Jeppesen OK, et al. Semaglutide 2·4 mg once a week in adults with overweight or obesity, and type 2 diabetes (STEP 2): a randomised, double-blind, double-dummy, placebo-controlled, phase 3 trial. Lancet 2021;397:971-84. doi: 10.1016/s0140-6736(21)00213-0
8. Wadden TA, Bailey TS, Billings LK, et al. Effect of subcutaneous semaglutide vs placebo as an adjunct to intensive behavioral therapy on body weight in adults with overweight or obesity: The STEP 3 randomized clinical trial. JAMA 2021;325:1403-13. doi: 10.1001/jama.2021.1831
9. Rubino D, Abrahamsson N, Davies M, et al. Effect of continued weekly subcutaneous semaglutide vs placebo on weight loss maintenance in adults with overweight or obesity: The STEP 4 randomized clinical trial. JAMA 2021;325:1414-25. doi: 10.1001/jama.2021.3224
10. Garvey WT, Batterham RL, Bhatta M, et al. Two-year effects of semaglutide in adults with overweight or obesity: the STEP 5 trial. Nat Med 2022;28:2083-91. doi: 10.1038/s41591-022-02026-4
11. Rubino DM, Greenway FL, Khalid U, et al. Effect of weekly subcutaneous semaglutide vs daily liraglutide on body weight in adults with overweight or obesity without diabetes: The STEP 8 randomized clinical trial. JAMA 2022;327:138-50. doi: 10.1001/jama.2021.23619
12. Bliddal H, Bays H, Czernichow S, et al. Once-weekly semaglutide in persons with obesity and knee osteoarthritis. N Engl J Med 2024;391:1573-83. doi: 10.1056/NEJMoa2403664
13. ClinicalTrials.gov. A research study to see how semaglutide helps people with excess weight, lose weight (STEP UP). Updated December 12, 2024. Accessed January 17, 2025. https://clinicaltrials.gov/study/NCT05646706
14. Kosiborod MN, Abildstrøm SZ, Borlaug BA, et al. Semaglutide in patients with heart failure with preserved ejection fraction and obesity. N Engl J Med 2023;389:1069-84. doi: 10.1056/NEJMoa2306963
15. Kosiborod MN, Petrie MC, Borlaug BA, et al. Semaglutide in patients with obesity-related heart failure and type 2 diabetes. N Engl J Med 2024;390:1394-407. doi: 10.1056/NEJMoa2313917

Tirzepatide related

16. Jastreboff AM, Aronne LJ, Ahmad NN, et al. Tirzepatide once weekly for the treatment of obesity. N Engl J Med 2022;387:205-16. doi: 10.1056/NEJMoa2206038
17. Garvey WT, Frias JP, Jastreboff AM, et al. Tirzepatide once weekly for the treatment of obesity in people with type 2 diabetes (SURMOUNT-2): a double-blind, randomised, multicentre, placebo-controlled, phase 3 trial. Lancet 2023;402:613-26. doi: 10.1016/S0140-6736(23)01200-X
18. Wadden TA, Chao AM, Machineni S, et al. Tirzepatide after intensive lifestyle intervention in adults with overweight or obesity: the SURMOUNT-3 phase 3 trial. Nat Med 2023;29:2909-18. doi: 10.1038/s41591-023-02597-w
19. Aronne LJ, Sattar N, Horn DB, et al. Continued treatment with tirzepatide for maintenance of weight reduction in adults with obesity: The SURMOUNT-4 randomized clinical trial. JAMA 2024;331:38-48. doi: 10.1001/jama.2023.24945
20. Aronne LJ, Horn DB, le Roux CW, et al. Tirzepatide as compared with semaglutide for the treatment of obesity. N Engl J Med 2025;393:26-36. doi: 10.1056/NEJMoa2416394
21. Malhotra A, Grunstein Ronald R, Fietze I, et al. Tirzepatide for the treatment of obstructive sleep apnea and obesity. N Engl J Med 2024;391:1193-205. doi: 10.1056/NEJMoa2404881

Orlistat related

22. Sjöström L, Rissanen A, Andersen T, et al. Randomised placebo-controlled trial of orlistat for weight loss and prevention of weight regain in obese patients. European Multicentre Orlistat Study Group. Lancet 1998;352:167-72. doi: 10.1016/s0140-6736(97)11509-4
23. Zavoral JH. Treatment with orlistat reduces cardiovascular risk in obese patients. J Hypertens 1998;16:2013-7. doi: 10.1097/00004872-199816121-00024
24. Allison DB, Gadde KM, Garvey WT, et al. Controlled-release phentermine/topiramate in severely obese adults: a randomized controlled trial (EQUIP). Obesity (Silver Spring) 2012;20:330-42. doi: 10.1038/oby.2011.330COR

Naltrexone / Bupropion related

25. Greenway FL, Fujioka K, Plodkowski RA, et al. Effect of naltrexone plus bupropion on weight loss in overweight and obese adults (COR-I): a multicentre, randomised, double-blind, placebo-controlled, phase 3 trial. Lancet 2010;376:595-605. doi: 10.1016/s0140-6736(10)60888-4
26. Apovian CM, Aronne L, Rubino D, et al. A randomized, phase 3 trial of naltrexone SR/bupropion SR on weight and obesity-related risk factors (COR-II). Obesity (Silver Spring) 2013;21:935-43. doi: 10.1002/oby.20309
27. Hollander P, Gupta AK, Plodkowski R, et al. Effects of naltrexone sustained-release/bupropion sustained-release combination therapy on body weight and glycemic parameters in overweight and obese patients with type 2 diabetes. Diabetes Care 2013;36:4022-9. doi: 10.2337/dc13-0234
28. Wadden TA, Foreyt JP, Foster GD, et al. Weight loss with naltrexone SR/bupropion SR combination therapy as an adjunct to behavior modification: the COR-BMOD trial. Obesity (Silver Spring) 2011;19:110-20. doi: 10.1038/oby.2010.147