

Semaglutide Added to Lifestyle Modification Boosts Weight Loss Among Adults Without Diabetes

Semaglutide treatment added to behavioral therapy induces more weight loss than behavioral therapy alone among adults with overweight or obesity but without diabetes.

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January 10, 2024 – Semaglutide treatment added on behavioral therapy resulted in 16.0% reduction in baseline body weight versus the 5.7% reduction observed with behavioral therapy alone among adults with overweight or obesity and without diabetes.

Thomas A. Wadden, PhD, with the Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania, Philadelphia, and other STEP 3 investigators reported their findings in the February 24, 2021, issue of the *Journal of American Medical Association*.

Studies have shown that intensive behavioral therapy (IBT) leads to 5 to 10% weight loss. Additional weight loss can be induced by combining IBT with a low-calorie diet. However, greater weight loss produces more health benefits.

Previous studies showed treatment with semaglutide led to weight loss in individuals with type 2 diabetes. Another study demonstrated semaglutide combined with monthly counseling achieved more weight reduction than monthly counseling alone.

This study evaluated the effect of once-weekly subcutaneous semaglutide, 2.4 mg, versus placebo on body weight, with all participants on IBT and an 8-week initial low-calorie meal-replacement diet. The study participants had a body mass index (BMI) ≥ 30 kg/m² or a BMI ≥ 27 kg/m² and at least one weight-related co-morbidity. Individuals with diabetes, glycated hemoglobin $> 6.5\%$, prior or planned obesity treatment, or > 5 kg change in body weight in the past 90 days were excluded.

Co-primary outcomes were the percentage change in body weight and the proportion of participants who lost at least 5% of baseline weight by week 68.

The study involved 611 participants randomized to receive semaglutide (407 participants) or placebo (204 participants). The mean age of study participants was 46 years, with 81% being females and 76.1% being White individuals.

The researchers reported a greater reduction in weight of the semaglutide-treated group compared with the placebo group, with a mean difference of -10.3 percentage points ($P < .001$).

At week 68, a higher proportion of participants who received semaglutide lost at least 5% of baseline body weight compared with participants who received a placebo (86.6% vs 47.6%; $P < .001$). Similarly, a greater proportion of participants in the semaglutide group compared to the placebo group lost at least 10% (75.3% vs 27% $P < .001$), 15% (55.8% vs 13.2% $P < .001$), and 20% (35.7% vs 3.7% $P < .001$) of their baseline body weight.

The proportion of participants reporting adverse events was similar in both groups, and the most common adverse events were nausea, constipation, and diarrhea. However, more participants in the semaglutide group reported serious adverse events.

A limitation of the study is the failure to determine the contribution of each intervention to weight loss.

“The present findings suggest that the addition of semaglutide to intensive behavioral therapy may help patients achieve more than the average 5% to 10% reduction in body weight typically produced by behavioral interventions at 6 to 12 months,” wrote Dr Wadden and colleagues.

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