

Impact on Weight and Physical Function of Intensive Medical Weight Loss in Older Adults with Stage II and III Obesity

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Study Objective:

To compare two weight loss strategies in older adults with body mass indexes (BMIs) >35 kg/m² to assess weight loss response, safety, and impact on physical function.

Methodology:

28 volunteers who were >65 years old and weight stable with a BMI >35 kg/m² were randomized to an intensive, low-calorie, meal replacement diet (ILCD, 960 kcal/day)

or a balanced deficit diet (BDD, 500 kcal/day below estimated total energy expenditure [TEE] needs).

- ILCD participants used the OPTIFAST[®] medical weight loss protocol
 - 12 weeks of 5-6 servings of meal replacement/day
 - Weeks 13-26 1,100 to 1,600 kcal/day were consumed using a combination of meal replacements and food for continued weight loss
- BDD participants consumed a minimum of 1,200 kcal/day (500 calories below TEE) using a prescribed diet provided by the study dietician
- Both groups utilized the same exercise program and behavioral interventions; body weight and composition, including body fat, and physical function were measured at baseline and 6 months; adverse events were monitored weekly

Results:

- The average weight change for ILCD was 19.1± 2.2 kg or 15.9± 4.6% of initial body weight vs. 9.1± 2.7 kg or 7.2± 1.9% for BDD (P = 0.0120)
- Compared with BDD, ILCD lost more fat mass (−7.7 kg, 95% CI [−11.9 to − 3.5]); no significant difference was shown in loss of lean mass (−1.7 kg, 95% CI [4.1 to 0.6])
- In both groups, there was limited improvement in physical function
- No significant differences in adverse event frequency were shown between treatment groups

Conclusions:

A short-term, medically supervised, intensive, low-calorie diet intervention led to greater reductions in fat mass without evidence of increased risk in older adults with severe obesity compared with a moderate weight loss intervention based on a balanced deficit diet.

REFERENCES:

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Highlights from: Impact on Weight and Physical Function of Intensive Medical Weight Loss in Older Adults with Stage II and III Obesity

Short-term, ILCD intervention led to larger reductions in fat mass with no evidence of increased risk in older adults with severe obesity compared with a traditional BDD intervention.

- The ILCD group using the OPTIFAST® medical weight loss protocol had a 10 + 3.6 kg greater weight loss compared to the BDD group (P = 0.0120)
- The ILCD group had a 4.6 kg greater decrease in trunk fat mass compared with the BDD group (95% CI [1.6 to 7.5])
- The ILCD intervention resulted in 19.1 + 2.2 kg weight loss in 6 months compared to 9.1 + 2.7 kg weight loss in BDD group
- Study authors discussed “potential benefits of higher volume weight loss in older adults include risk factor and quality of life improvements as well as greater long-term weight loss management” however these factors were not studied in this trial
- No difference in the frequency of adverse events were found between treatment groups
- Although the initial improvements in physical function was limited, the authors hypothesized that a potential health benefit may be that longer term changes in physical function will be impacted by the weight loss interventions; additional long-term studies will be needed to provide more definitive assessment of physical function

Summary:

Study results suggest that for older adults who have severe obesity, an ILCD intervention can provide greater weight loss and decreases in fat mass without a higher frequency of adverse events vs. a traditional BDD intervention.