

# **Efficacy of Meal Replacements Versus a Standard Food-Based Diet for Weight Loss in Type 2 Diabetes**

A Controlled Clinical Trial

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The purpose of this study is to compare the efficacy of a portion-controlled meal replacement diet (PCD) to a standard diet (SD) based on recommendations by the American Diabetes Association in achieving and maintaining weight loss among obese participants with type 2 diabetes.

## Methods

This study is a university-based, controlled clinical trial. Participants were 119 men and women with diabetes with a body mass index between 25 and 40 kg/m<sup>2</sup>, assigned randomly to one of two 34-week, 75% of predicted energy need diets (portion controlled or standard, self-selected, food based) and then followed by 1-year maintenance.

## Results

Using intention-to-treat analyses, weight loss at 34 weeks and weight maintenance at 86 weeks was significantly better on PCD versus SD. Approximately 40% of the PCD participants lost  $\geq 5\%$  of their initial weight compared with 12% of those on the SD. Significant improvements in biochemical and metabolic measures were observed at 34 weeks in both groups. The retention rate and self-reported ease of adherence in the PCD group were significantly higher throughout the study.

## Conclusions

A diet using portion-controlled meal replacements yielded significantly greater initial weight loss and less regain after 1 year of maintenance than a standard, self-selected, food-based diet. As PCDs may help obese patients with type 2 diabetes adhere to a weight control program, diabetes educators may consider recommending them as part of a comprehensive approach to weight control.