Dietary Management of Obesity

Cornerstones of Healthy Eating Patterns

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KEYWORDS

• Weight management • Dietary strategies • Energy density • Satiety
• Dietary patterns

KEY POINTS

- Multiple dietary patterns are effective for weight management, with energy density as a unifying factor across patterns.
- There are several evidence-based strategies to lower energy intake, reduce dietary energy density, and improve diet quality that can be applied to individualized eating patterns for weight management.
- A variety of tools to help manage energy intake can be incorporated into personalized eating patterns to facilitate weight management.

INTRODUCTION

The recent surge in rates of obesity is driven by eating behaviors and food choices that promote excessive energy intake.[1–8] The current recommendations for weight management emphasize the importance of healthy eating patterns that include a variety of nutrient-dense foods, limit portions of energy-dense foods, and reduce overall energy density.[8] Several dietary patterns that reduce energy intake in relation to energy expenditure lead to similar weight loss. A unifying factor for weight loss across dietary patterns is energy density. Reducing a diet's energy density allows individuals to consume satisfying amounts of food for fewer calories. Strategies that lower energy density are flexible and can be applied to multiple dietary patterns to match differences in energy needs, taste preferences, eating behaviors, food accessibility, and cultural backgrounds.[8,9] This article discusses the current evidence related to dietary

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approaches for weight management and provides strategies and tools to create lower-energy-dense eating patterns that can be tailored to the individual to achieve a sustainable and healthy weight management program.

CURRENT EVIDENCE ON DIETARY PATTERNS FOR WEIGHT LOSS

Macronutrient Patterns for Weight Loss

Advice to alter the proportion of the macronutrients consumed has been the foundation for many weight loss diets.[10] Fat, carbohydrate, and protein have all been highlighted at different times as the key to weight loss.[11–13] There continues to be controversy over whether a low-fat or low-carbohydrate diet is better for weight loss or whether the increased satiating effects of a higher-protein diet help to sustain weight loss.[10,14] An evidence-based report from the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and The Obesity Society supports several energy-restricted dietary approaches for weight loss that focus on the macronutrients, including low-fat, lower-carbohydrate, moderate- and higher-protein, and macronutrient-targeted diets.[15] Although such diets can be effective, several systematic studies indicate that focusing on a particular macronutrient for weight loss is not necessary. Different macronutrient recommendations have all led to similar clinically significant weight loss at 6 months, 1 year, and even 2 years.[12,16,17]

One large clinical trial that compared 4 diets with different proportions of macronutrients, the Preventing Overweight Using Novel Dietary Strategies (POUNDS LOST) study, found that weight loss was similar across the diets (**Fig. 1**).[12] Although the macronutrient composition did not affect weight loss or maintenance of lost weight, regression analysis showed that reductions in dietary energy density and increases in fiber intake were strong predictors for 6-month weight loss in all diet groups.[18–20] The fundamental dietary advice given to participants on all diets included strategies to lower the energy density of the diet, such as increasing vegetable and fruit consumption and decreasing consumption of high-calorie foods.[12,21] These results suggest that regardless of macronutrient composition, a goal for weight loss should be to adopt a pattern of eating that is lower in energy density.

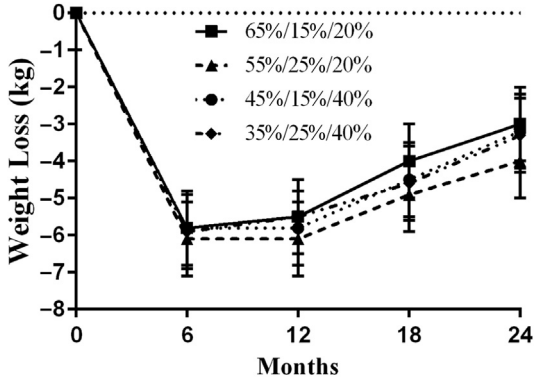

Fig. 1. Weight loss over 2 years in adults assigned to 1 of 4 diets with different proportions of carbohydrate/protein/fat as listed. There was no significant difference in weight loss related to the macronutrient composition. (*Data from* Sacks FM, Bray GA, Carey VJ, et al. Comparison of weight-loss diets with different compositions of fat, protein, and carbohydrates. N Engl J Med 2009;360(9):859–73.)