

Comparative effectiveness of plant-based diets for weight loss: a randomized controlled trial of five different diets

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Abstract

Objective: The aim of this study was to determine the effect of plant-based diets on weight loss.

Methods: Participants were enrolled in a 6-mo, five-arm, randomized controlled trial in 2013 in South Carolina. Participants attended weekly group meetings, with the exception of the omnivorous group, which served as the control and attended monthly meetings augmented with weekly e-mail lessons. All groups attended monthly meetings for the last 4 mo of the study. Diets did not emphasize caloric restriction.

Results: Overweight adults (body mass index 25-49.9 kg/m²; age 18-65 y, 19% non-white, and 27% men) were randomized to a low-fat, low-glycemic index diet: vegan (n = 12), vegetarian (n = 13), pesco-vegetarian (n = 13), semi-vegetarian (n = 13), or omnivorous (n = 12). Fifty (79%) participants completed the study. In intention-to-treat analysis, the linear trend for weight loss across the five groups was significant at both 2 (P < 0.01) and 6 mo (P < 0.01). At 6 mo, the weight loss in the vegan group (-7.5% ± 4.5%) was significantly different from the omnivorous (-3.1% ± 3.6%; P = 0.03), semi-vegetarian (-3.2% ± 3.8%; P = 0.03), and pesco-vegetarian (-3.2% ± 3.4%; P = 0.03) groups. Vegan participants decreased their fat and saturated fat more than the pesco-vegetarian, semi-vegetarian, and omnivorous groups at both 2 and 6 mo (P < 0.05).

Conclusions: Vegan diets may result in greater weight loss than more modest recommendations.

Keywords: Diet; Obesity; Vegan; Vegetarian; Weight loss.

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