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A Vegetarian Dietary Pattern as a Nutrient-Dense Approach to Weight Management: An Analysis of the National Health and Nutrition Examination Survey 1999-2004

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ABSTRACT

Background Population-based studies have shown that vegetarians have lower body mass index than nonvegetarians, suggesting that vegetarian diet plans may be an approach for weight management. However, a perception exists that vegetarian diets are deficient in certain nutrients.

Objective To compare dietary quality of vegetarians, nonvegetarians, and dieters, and to test the hypothesis that a vegetarian diet would not compromise nutrient intake when used to manage body weight.

Design Cross-sectional analysis of National Health and Nutrition Examination Survey (1999-2004) dietary and anthropometric data. Diet quality was determined using United States Department of Agriculture's Healthy Eating Index 2005. Participants included adults aged 19

years and older, excluding pregnant and lactating women (N=13,292). Lacto-ovo vegetarian diets were portrayed by intakes of participants who did not eat meat, poultry, or fish on the day of the survey (n=851). Weight-loss diets were portrayed by intakes of participants who consumed 500 kcal less than their estimated energy requirements (n=4,635). Mean nutrient intakes and body mass indexes were adjusted for energy, sex, and ethnicity. Using analysis of variance, all vegetarians were compared to all nonvegetarians, dieting vegetarians to dieting nonvegetarians, and nondieting vegetarians to nondieting nonvegetarians.

Results Mean intakes of fiber, vitamins A, C, and E, thiamin, riboflavin, folate, calcium, magnesium, and iron were higher for all vegetarians than for all nonvegetarians. Although vegetarian intakes of vitamin E, vitamin A, and magnesium exceeded that of nonvegetarians (8.3±0.3 vs 7.0±0.1 mg; 718±28 vs 603±10 µg; 322±5 vs 281±2 mg), both groups had intakes that were less than desired. The Healthy Eating Index score did not differ for all vegetarians compared to all nonvegetarians (50.5±0.88 vs 50.1±0.33, P=0.6).

Conclusions These findings suggest that vegetarian diets are nutrient dense, consistent with dietary guidelines, and could be recommended for weight management without compromising diet quality.

J Am Diet Assoc. 2011;111:819-827.

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Manuscript accepted: December 15, 2010.
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0002-8223/ \$36.00
doi: 10.1016/j.jada.2011.03.012

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Journal of the AMERICAN DIETETIC ASSOCIATION 819

Citation: Farmer, B., Larson, B. T., Fulgoni, III, V. L., Rainville, A. J., & Liepa, G. U. (2011). A Vegetarian Dietary Pattern as a Nutrient-Dense Approach to Weight Management: An Analysis of the National Health and Nutrition Examination Survey 1999-2004. *Journal of American Dietetic Association*, 111, 819-827.