

1996 - Assessing the impact of almond supplementation on body weight and diet patterns

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Summary:

Regular nut consumption is associated with lower rates of heart attack. However, as nuts are fatty foods, they may in theory lead to weight gain, although preliminary evidence has suggested otherwise. We tested the hypothesis that a free daily supplement (averaging 76 kJ) of almonds for six months, with no dietary advice, would not change body weight.

Eighty-one male and female subjects completed the randomized cross-over study. During two sequential six-month periods, diet, body weight and habitual exercise were evaluated repeatedly in each subject. Almonds were provided only during the second period. The design was balanced for seasonal and other calendar trends. During the almond feeding period, average body weight increased only 0.40 (kg) ($p \sim 0.09$). The weight change depended on baseline BMI ($p = 0.05$), and only those initially in the lower BMI tertiles experienced small and mainly unimportant weight gains with the almonds. We estimated that 54% (recalls) or 78% (diaries) of the extra energy from almonds was displaced by reductions in other foods. The ratio unsaturated/saturated dietary fat increased by 40% to 50% when almonds were included in the diet.

Incorporating a modest quantity (76 kJ) of almonds in the diet each day for six months did not lead on average to statistically or biologically significant changes in body weight and did increase the consumption of unsaturated fats. Further studies are necessary to evaluate longer term effects, especially in men.

Publications:

Jaceldo-Siegl K, Batech M, Sabaté J. Influence of body mass index and serum lipids on the cholesterol-lowering effects of almonds in free-living individuals. *Nutr Metab Cardiovasc Dis* 2011, 21:S7-S13. [full text](#)

Jaceldo-Siegl K, Sabaté J, Rajaram S, Fraser G. Long-term almond supplementation without advice on food replacement induces favorable nutrient modifications to the habitual diets of free-living individuals. *Br J Nutr* 2004, 92:533-540. [full text](#)

Fraser GE, Bennet HW, Jaceldo KB, Sabaté J. Effect on body weight of a free 76 kilojoule (320 calorie) daily supplement of almonds for six months. *J Amer Col Nutr* 2002; 21: 275-283. [full text](#)

Presentations:

Jaceldo K, Sabaté J. Effect of long-term almond supplementation on food intake and eating patterns. Ninth European Nutrition Congress, Rome, Italy, October 2003. [Ann Nutr Metab 2003: 47-448] [abstract](#)

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Fraser G, Jaceldo K, Sabaté J, Bennett H, Polehna P. Changes in body weight with a daily supplement of 340 calories from almonds for six months. *Experimental Biology '99*. Washington D.C., April 1999. [abstract](#)

Jaceldo K, Sabaté J, Bennett H, Fraser G. Is there nutrient displacement with increased frequency of almond consumption? *Experimental Biology '98*. San Francisco, CA, April 1998. [*FASEB Journal* 1998; 12(4):A650]. [abstract](#)

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