

Effect of chronic consumption of almonds on body weight in healthy humans.

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Abstract:

Small changes of diet may reduce CVD risk. One example is the inclusion of nuts. They are rich in fibre, unsaturated fatty acids and phytonutrients. However, their fat content and energy density raise concerns that chronic consumption will promote weight gain. Randomized intervention studies are required to evaluate whether this concern is well founded. This study's aim was to determine if the inclusion of a 1440 kJ serving of almonds in the daily diet results in positive energy balance, and body composition change. During a 23 week cross-over design study, participants were required to consume almonds for 10 weeks and were provided no advice on how to include them in their diet. For another 10 weeks (order counter-balanced), participants followed their customary diet and there was a 3-week washout between. The study group consisted of twenty women. Potential mechanisms of energy dissipation were measured. Ten weeks of daily almond consumption did not cause a change in body weight. This was predominantly due to compensation for the energy contained in the almonds through reduced food intake from other sources. Moreover, inefficiency in the absorption of energy from almonds was documented ($P,0.05$). No changes in resting metabolic rate, thermic effect of food or total energy expenditure were noted. A daily 1440 kJ serving of almonds, sufficient to provide beneficial effects on cardiovascular risk factors, may be included in the diet with limited risk of weight gain. Whether this can be generalized to other high-fat energy dense foods warrants evaluation.