

Effect of monounsaturated rich almonds on factors of inflammation in healthy adults.

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Inflammation plays a major role in cardiovascular disease. Markers of inflammation including C-reactive protein, E-selectin and interleukin-6 have been proposed to be newer risk factors for cardiovascular disease. The objective of this study was to determine the effect of almond consumption on markers of inflammation and hemostatic factors in healthy adults. This was a randomized, crossover, controlled feeding study. After a 2-week run-in period on a typical American diet (34% energy from fat), subjects were randomized to the Step I diet, low almond diet and high almond diet (0%, 10% or 20% isoenergetic replacement of Step I diet with almonds respectively), for four weeks each. Serum fibrinogen, tPA, E-selectin, IL-6, CRP and lipoprotein(a) were analyzed at the end of each dietary period. E-selectin was significantly lower on the almond diets and decreased as the percentage of energy from almonds increased (P-trend <0.0001). CRP was statistically significantly lower on the low (P=0.04) and high (P=0.03) almond diets in comparison to the Step I diet. tPA was significantly lower on the Step I (P=0.01) and high almond (P=0.004) diets compared with the low almond diet. Fibrinogen, IL-6 and lipoprotein(a) were not significantly different between the three diets. Consumption of almonds was able to lower levels of inflammatory markers, E-selectin and CRP, which may be an indication of reduction in the inflammatory process and thus impact CVD. However, other hemostatic and inflammatory factors studied did not appear to be significantly influenced by the diets enriched with almonds.