Long-term consumption of a raw food diet is associated with favorable serum LDL cholesterol and triglycerides but also with elevated plasma homocysteine and low serum HDL cholesterol in humans.


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High consumption of vegetables and fruits is associated with reduced risk for cardiovascular disease. However, little information is available about diets based predominantly on consumption of fruits and their health consequences. We investigated the effects of an extremely high dietary intake of raw vegetables and fruits (70-100% raw food) on serum lipids and plasma vitamin B-12, folate, and total homocysteine (tHcy). In a cross-sectional study, the lipid, folate, vitamin B-12, and tHcy status of 201 adherents to a raw food diet (94 men and 107 women) were examined. The participants consumed approximately 1500-1800 g raw food of plant origin/d mainly as vegetables or fruits. Of the participants, 14% had high serum LDL cholesterol concentrations, 46% had low serum HDL cholesterol, and none had high triglycerides. Of raw food consumers, 38% were vitamin B-12 deficient, whereas 12% had an increased mean corpuscular volume (MCV). Plasma tHcy concentrations were correlated with plasma vitamin B-12 concentrations (r = -0.450, P < 0.001), but not with plasma folate. Plasma tHcy and MCV concentrations were higher in those in the lowest quintile of consumption of food of animal origin (P(trend) < 0.001). This study indicates that consumption of a strict raw food diet lowers plasma total cholesterol and triglyceride concentrations, but also lowers serum HDL cholesterol and increases tHcy concentrations due to vitamin B-12 deficiency.