

Kraft Foods Global Nutrition Based In Science — Areas of Research: Weight Management

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A randomized, controlled clinical trial to evaluate the efficacy of a modified carbohydrate diet for reducing body weight and fat in overweight and obese men and women.

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Objective. This randomized, controlled trial assessed the effects of a modified carbohydrate diet (MCD) on body weight and fat in overweight and obese men and women.

Methods. Eighty-seven subjects, 18 to 65 years of age, with waist circumference ≥ 87 cm (females) or ≥ 90 cm (males) were randomly assigned to consume a MCD or a low-fat, portion-controlled diet (control). MCD subjects were instructed on maintaining a low-carbohydrate intake (~ 40 g/d) during weeks 0-2, then on incorporating low glycemic index carbohydrates back into their diets during weeks 2-12 and to eat until satisfied. Control subjects were instructed to reduce fat intake and decrease portion sizes, with a targeted energy deficit of 500-800 kcal/d.

Results. Sixty-nine subjects completed to week 12. Glycemic load was reduced to a greater extent at week 12 in the MCD group (-51% vs. -11%, $p < 0.001$), which also showed greater mean loss of body weight (4.8 vs. 2.7 kg, $p = 0.006$) and fat (2.0 vs. 1.1 kg, $p = 0.04$) than controls. MCD subjects had significant improvements vs. controls in fasting triglycerides (-16.5 vs. -5.0 mg/dL; $p = 0.045$) and the total/HDL cholesterol ratio (-0.22 vs. -0.01, $p = 0.03$).

Conclusion. During a 12-week treatment period, a MCD yielded greater losses of body weight and fat, as well as improvements in serum triglycerides and the total/HDL cholesterol ratio compared to a traditional low-fat, portion-controlled diet.
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