Fiber Can Reduce Crp Levels

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CHARLESTON, S.C.—**High fiber intake from a diet naturally rich in fiber or from a supplement can reduce levels of C-reactive protein (CRP);** however, further research is needed to elucidate the effects on obese individuals and whether modification of dietary fiber may be helpful in modulating inflammation.

The randomized, crossover, intervention trial (*Arch Intern Med*, **167:502-506, 2007**) included 35 participants—28 women and 7 men (18 lean normotensive and 17 obese hypertensive individuals)—ages 18 to 49 years (16 were black, the remainder white).

They were given one of two diets—a high-fiber (30 g/d) Dietary Approaches to Stop Hypertension (DASH) diet or the fiber-supplemented diet (30 g/d)—after a baseline (regular) diet period of three weeks.

Mean (SD) fiber intake on the baseline diet was 11.9 (0.3) g/d; on the high-fiber DASH diet, 27.7 (0.6) g/d; and on the supplemented diet, 26.3 (0.4) g/d. Overall, the mean C-reactive protein (CRP) level changed from 4.4 to 3.8 mg/L (–13.7 percent; P=.046) in the high-fiber DASH diet group and 3.6 mg/L (–18.1 percent) in the fiber-supplemented diet group (P=.03). However, CRP levels decreased in the 18 lean normotensive participants in either intervention diet group (2.0 mg/L [baseline] vs.1.4 mg/L [high-fiber DASH] vs. 1.2 mg/L [supplemented], P<.05), but did not change significantly in obese hypertensive participants (7.1 mg/L [baseline] vs. 6.2 mg/L [high-fiber DASH] vs. 6.5 mg/L [supplemented]; P>.05). Neither age nor race influenced the response of CRP levels to the diets. No evidence of a crossover effect was detected.

The results demonstrate about 30 g/d fiber intake from a diet naturally rich in fiber or from a supplement can reduce levels of CRP. Future studies are needed to clarify the differential effect seen in lean compared to obese individuals and whether modification of dietary fiber may be helpful in modulating inflammation and its cardiovascular consequences.