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Effect of wheat bran on glycemic control and risk factors for cardiovascular disease in type 2 diabetes.

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OBJECTIVE: Cohort studies indicate that cereal fiber reduces the risk of diabetes and coronary heart disease (CHD). Therefore, we assessed the effect of wheat bran on glycemic control and CHD risk factors in type 2 diabetes. **RESEARCH DESIGN AND METHODS:** A total of 23 subjects with type 2 diabetes (16 men and 7 postmenopausal women) completed two 3-month phases of a randomized crossover study. In the test phase, bread and breakfast cereals were provided as products high in cereal fiber (19 g/day additional cereal fiber). In the control phase, supplements were low in fiber (4 g/day additional cereal fiber). **RESULTS:** Between the test and control treatments, no differences were seen in body weight, fasting blood glucose, HbA(1c), serum lipids, apolipoproteins, blood pressure, serum uric acid, clotting factors, homocysteine, C-reactive protein, magnesium, calcium, iron, or ferritin. LDL oxidation in the test phase was higher than that seen in the control phase (12.1 +/- 5.4%, $P < 0.034$). Of the subjects originally recruited, more dropped out of the study for health and food preference reasons from the control phase (16 subjects) than the test phase (11 subjects). **CONCLUSIONS:** High-fiber cereal foods did not improve conventional markers of glycemic control or risk factors for CHD in type 2 diabetes over 3 months. Possibly longer studies are required to demonstrate the benefits of cereal fiber. Alternatively, cereal fiber in the diet may be a marker for another component of whole grains that imparts health advantages or a healthy lifestyle.

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