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A recent study showed that adding inulin, a prebiotic fiber, to the diet of healthy young men improved measures of glucose and lipid metabolism and reduced insulin resistance, a major contributor to metabolic syndrome.

INULIN INTAKE IMPROVES GLUCOSE AND LIPID METABOLISM AND REDUCES INSULIN RESISTANCE

Various research has presented evidence that higher fiber intakes may protect against metabolic syndrome. Specifically, the prebiotic *inulin* has widely been studied for its beneficial effects on lipid and glucose metabolism. It is thought that adding inulin to the diet may be a possible strategy to prevent metabolic syndrome.

A recent study evaluated the effects of daily consumption of inulin-enriched pasta on lipid and glucose metabolism in young healthy subjects. Gastrointestinal motility, a common measurement in fiber studies, was also measured.

This randomized double-blind crossover study included 22 healthy young male volunteers. The study included two five-week study periods with an eight-week washout period in between. During each study period, subjects were given either 11% inulin-enriched pasta or control (normal) pasta. Serum lipid and glucose concentrations were evaluated by routine biochemical analyses. Gastric emptying time and electrical activity were evaluated by ultrasound and electrogastrography.

Significant differences between the baseline and treatment group were found for HDL-cholesterol, total cholesterol/HDL-cholesterol ratio, triglycerides, fasting glucose level, and other measures of glucose and lipid metabolism. Also, gastric emptying was significantly delayed in the group that consumed inulin-enriched pasta.

In this study, consumption of inulin-enriched pasta improved glucose metabolism, lipid metabolism, and insulin resistance in healthy young subjects. In addition, it delayed gastric emptying time, which may explain much of inulin's beneficial effects on metabolism.

Russo F, Riezzo G, Chiloiro M, De Michele G, Chimienti G, Marconi E, D'Attorna B, Linsalata M, Clemente C. Metabolic effects of a diet with inulin-enriched pasta in healthy young volunteers. 2010. Current Pharmaceutical Design 16(7):825-31.