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Beneficial effect of chromium supplementation on serum triglyceride levels in NIDDM.

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OBJECTIVE--To investigate the effect of chromium picolinate supplementation on the lipid profile of the predominantly Hispanic population of non-insulin-dependent diabetes mellitus (NIDDM) patients in San Antonio, Texas. **RESEARCH DESIGN AND METHODS**--A prospective, double-blind, placebo-controlled, crossover study was performed on 14 men and 16 women. Initially, each patient was randomly assigned to receive either chromium picolinate or placebo for 2 months. This initial treatment phase was followed by a 2-month washout period. Subjects were then crossed-over and received the alternate capsule for an additional 2 months. Fasting blood glucose, HbA1c, and serum lipids were compared at the end of each treatment phase. **RESULTS**--Twenty-eight of the originally enrolled 30 patients completed the study. There were no adverse reactions to chromium reported. There were no differences noted between the control and chromium-treated subjects in glucose control, high-density lipoprotein cholesterol levels, or low-density lipoprotein cholesterol levels. Triglyceride (TG) levels were reduced significantly (17.4%; $P < 0.05$) during the 2 months of chromium supplementation. **CONCLUSIONS**--Ours is the first report of a significant reduction in serum TGs in a group of NIDDM patients treated with chromium. The low cost and excellent safety profile of chromium make it an attractive lipid-lowering agent for this population. Long-term studies are needed to determine if the short-term changes in plasma lipids can be sustained.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial

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