

Are chromium supplements helpful in lowering blood sugar levels?

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Approximately 26 percent of the U.S. population has impaired fasting glucose, which is a predisposition for developing type 2 diabetes, and chromium supplementation has been suggested as a method that may help control and prevent the disease.

A new study by a University of Miami (UM) researcher analyses nearly three decades of data on the effect of [chromium](#) supplementation on blood sugar and concludes that chromium supplements are not effective at lowering fasting blood sugar in healthy individuals, or diabetics.

Chromium is a mineral required by humans in minute concentrations and is obtained naturally in the diet. Actually, few cases of deficiency have been documented.

"Some previous research reported that chromium supplements lower the levels of fasting glucose," says Christopher H. Bailey, a Ph.D. candidate in the Department of Kinesiology and Sport Sciences, at UM's School of Education and Human Development and author of the study. "However, the effect may have been exaggerated or mistaken for the effects of other concurrent treatments, such as exercise training."

Previous studies have also used different methods to analyze and report their results. These differences in methodology could potentially lead to different results regarding the effect, or lack of an effect of chromium supplementation, the study says.

Nonetheless, the door is not closed upon the possibility that chromium may have other effects of interest.

"Although chromium supplementation doesn't lower fasting blood sugar, there may be other beneficial effects on the body that require more research," Bailey says. "Fasting blood sugar is only one aspect of human health."

The current study addresses the limitations of previous research, by improving the statistical methods used to analyze the data. The project looked at 16 studies published from 1985 to 2012. It included 809 participants between 36 to 67 years old. The chromium supplements included in the analysis were chromium chloride, chromium picolinate, chromium nicotinate, chromium dinicocysteinate and chromium yeast. Doses of chromium ranged from 200 to 1,000 µg per day.

The study, "Improved meta-analytic methods show no effect on chromium supplements on [fasting glucose](#)" is published in the journal *Biological Trace Element Research*.

Bailey suggests that more research is necessary to show whether other dietary supplement ingredients may provide positive, negative, or no effects on fasting [blood sugar](#).

Provided by University of Miami

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