

What is chromium picolinate? Do you really need it?

January 31 2023, by Steven Reinberg



Chromium picolinate is a supplement that many folks take, as it's touted

to unlock insulin, burn fat and build muscle.

But do you really need to add it to your diet when the mineral [chromium](#) is already present in many foods, albeit in tiny amounts?

"There is little evidence or support for chromium supplementation, though advertisements suggest it can enhance muscle mass and help with [weight loss](#) and [insulin sensitivity](#)," said [Samantha Heller](#), a senior clinical nutritionist at NYU Langone Medical Center in New York City.

The European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies agrees, saying there is [no convincing evidence that chromium is an essential nutrient](#).

Tell that to athletes and bodybuilders, who claim chromium picolinate supplements are a safe and effective alternative to steroids and growth hormones.

And some tout chromium's benefits in helping people with diabetes lower their [blood sugar levels](#).

According to Mount Sinai in New York City, as many as 90% of American have diets that are low in chromium. People with low chromium levels can include:

- The elderly
- Those who do a lot of strenuous exercise
- Those who eat a lot of sugary foods
- Pregnant women.

Chromium picolinate benefits

Low chromium levels can increase [blood sugar](#), triglycerides and

cholesterol levels, and increase the risk for diabetes and [heart disease](#), according to Mount Sinai.

Chromium supplements have also been seen as helpful in reducing obesity, building muscle, lowering blood pressure and fighting depression. These uses, however, remain unproven.

A recent study in the journal [Clinical Nutrition Research](#) found that among people with type 2 diabetes, chromium supplements had no effect on weight or blood sugar levels, but did have a small benefit in improving lipid levels and [insulin resistance](#).

Most people are getting a sufficient amount of chromium from their diet, according to study published in the [Journal of Trace Elements in Medicine and Biology](#). So for most people, supplemental chromium is unnecessary.

The [U.S. Food and Drug Administration](#) allows only the following health claim for chromium picolinate dietary supplements:

"One small study suggests that chromium picolinate may reduce the risk of insulin resistance, and therefore possibly may reduce the risk of type 2 diabetes. FDA concludes, however, that the existence of such a relationship between chromium picolinate and either insulin resistance or type 2 diabetes is highly uncertain," the agency says.

Some side effects

Chromium from food is generally considered safe, but high-dose supplements can have consequences, according to Mount Sinai.

Side effects can include reducing the sugar-lowering effect of insulin, stomach irritation, itching and reddening of the skin. Fast or irregular

heart rhythms, [liver problems](#) and [kidney damage](#) have also been reported.

People with liver or kidney problems, or those with anemia, should not use chromium without talking to their doctors.

Because of these potential side effects and interactions with medications, you should take supplements only under the supervision of a health care provider, Mount Sinai experts say.

Some of the drugs that chromium can interact with include antacids, like Tums, Mylanta, Nexium, Prevacid and Prilosec.

And if you already take diabetes medications, chromium might lower blood sugar levels to dangerous levels. These medications include insulin, metformin, Diabeta (glyburide), Glucotrol (glypizide) or Diabinese (chlorpropamide).

Also, [nonsteroidal anti-inflammatory drugs](#) (NSAIDs) such as aspirin, Advil, Motrin and Aleve can raise chromium levels in the body.

Meanwhile, steroids can lower chromium levels in the body. And if you take Synthroid (levothyroxine) to treat a hypothyroid, chromium might lower the amount of the drug the body absorbs.

If you are taking any of these medications, you should speak with your doctor about the risk of taking chromium supplements.

Chromium in foods

"Chromium is present in many foods including fruits, vegetables, [whole grains](#) and poultry, so supplementation is generally unnecessary," Heller said, noting that chromium deficiency has not been reported in healthy

populations and there are no definitive deficiency symptoms. Adequate intake for adult men is set at 35 mcg/day and for adult women, 25 mcg/day, she added.

Sources of chromium include:

- Whole grain breads and cereals
- Lean meats
- Cheeses
- Spices, such as black pepper and thyme
- Brewer's yeast
- Some bran cereals
- Pork kidneys and other organ meats
- Mushroom
- Oatmeal
- Prunes
- Nuts
- Asparagus

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