

REACTED CHROMIUM



CLINICAL APPLICATIONS

- Provides Highly-Absorbed Chromium for a Variety of Protocols
- High-Concentration Chromium for Blood Sugar Support
- Helps Maintain Healthy Insulin Levels

ESSENTIAL MINERALS

Reacted Chromium includes 200 mcg per serving of chromium, ideally formulated using the superior chromium polynicotinate (niacin-bound) form for enhanced absorption and superior function. Chromium enhances insulin control, promotes healthy glucose metabolism, and supports appetite control.

Overview

Chromium is a trace mineral essential to human health. According to the United States Department of Agriculture, approximately one in ten Americans achieves the minimum recommended daily requirement for chromium (50 mcg). Supplementing chromium can help maintain healthy levels within the body. Absorption of chromium from the intestinal tract is low and chromium reserves are easily depleted with high-sugar diets and excessive exercise, but absorption can be enhanced with niacin.^[1-8] Once chromium is properly absorbed, it is stored in the liver, spleen, soft tissue and bone.^[9]

Chromium is considered a cofactor of insulin, the hormone responsible for regulation of the metabolism of carbohydrates, fats and protein. Chromium acts as a seal between insulin and the receptor sites on cell membranes, supporting regulation of sugar and glucose transport into the cells. Chromium is essential to the efficacy of insulin in the body and contributes to blood sugar balance.^[10-12] Some studies indicate that taking chromium supplements can also contribute to bone health and longevity.

Blood Sugar Balance[†]

Chromium deficiency impairs the body's ability to efficiently use glucose to meet its energy needs and raises insulin requirements. Experts suggest that this role makes chromium

supplements essential to support insulin function and promote blood sugar balance.

Fat Metabolism[†]

In some studies, supplementing chromium at 150 to 1,000 mcg/day has been shown to support healthy HDL, LDL and triglyceride levels.^[16-22]

Directions

1 or more capsules per day or as recommended by your health care professional.

Does Not Contain

Gluten, yeast, artificial colors and flavors.

Cautions

If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts ^{v2}		
Serving Size 1 Capsule		
Servings Per Container 60		
1 capsule contains	Amount Per Serving	% Daily Value
Chromium (as O-polynicotinate) [†]	200 mcg	167%

ID# 255060 60 Capsules

[†] These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

References

1. Doisy RJ, Streeten DHP, Souma ML, Kalafer ME, Rekant SL, Dalakos TG. Metabolism of ⁵¹chromium in human subjects. In: *Newer Trace Elements in Nutrition* (edited by Mertz W, Cornatzer WE). Dekker, New York, 1971, pp. 155-68.
2. Anderson RA, Polansky MM, Bryden NA, Patterson KY, Veillon C, Glinsmann WH. Effects of chromium supplementation on urinary Cr excretion of human subjects and correlation of Cr excretion with selected clinical parameters. *J Nutr* 1983;113:276-81.
3. Bunker VW, Lawson MS, Delves HT, Clayton BE. The uptake and excretion of chromium by the elderly. *Am J Clin Nutr* 1984;39:797-802.
4. Anderson RA, Kolovsky AS. Chromium intake, absorption and excretion of subjects consuming self-selected diets. *Am J Clin Nutr* 1985;41:1177-83.
5. Offenbacher EG, Spencer H, Dowling HJ, Pi-Sunyer FX. Metabolic chromium balances in men. *Am J Clin Nutr* 1986;44:77-82.
6. Anderson RA, Polansky MM, Bryden NA, Canary JJ. Supplemental-chromium effects on glucose, insulin, glucagon, and urinary chromium losses in subjects consuming controlled low-chromium diets. *Am J Clin Nutr* 1991;54:909-16.
7. Anderson RA, Bryden NA, Patterson KY, Veillon C, Andon MB, Moser-Veillon PB. Breast milk chromium and its association with chromium intake, chromium excretion, and serum chromium. *Am J Clin Nutr* 1993;57:419-23.
8. Offenbacher E. Promotion of chromium absorption by ascorbic acid. *Trace Elem Elect* 1994;11:178-81.
9. Lim TH, Sargent T 3rd, Kusubov N. Kinetics of trace element chromium(III) in the human body. *Am J Physiol* 1983;244:R445-54.
10. Mertz W. Chromium occurrence and function in biological systems. *Physiol Rev* 1969;49:163-239.
11. Mertz W. Chromium in human nutrition: a review. *J Nutr* 1993;123:626-33.
12. Mertz W. Interaction of chromium with insulin: a progress report. *Nutr Rev* 1998;56:174-7.
13. Kozlovsky AS, Moser PB, Reiser S, Anderson RA. Effects of diets high in simple sugars on urinary chromium losses. *Metabolism* 1986;35:515-8.
14. Anderson R. *Stress Effects on Chromium Nutrition in Humans and Animals*, 10th Edition. Nottingham University Press, England, 1994.
15. Lukaski HC, Bolonchuk WW, Siders WA, Milne DB. Chromium supplementation and resistance training: effects on body composition, strength and trace element status of men. *Am J Clin Nutr* 1996;63:954-65.
16. Roeback Jr. JR, Hla KM, Chambless LE, Fletcher RH. Effects of chromium supplementation on serum high-density lipoprotein cholesterol levels in men taking beta-blockers. A randomized, controlled trial. *Ann Intern Med* 1991;115:917-24.
17. Abraham AS, Brooks BA, Eylath U. The effects of chromium supplementation on serum glucose and lipids in patients with and without non-insulin-dependent diabetes. *Metabolism* 1992;41:768-71.
18. Hermann J, Arquitt A. Effect of chromium supplementation on plasma lipids, apolipoproteins, and glucose in elderly subjects. *Nutr Res* 1994;14: 671-4.
19. Doisy RJ, Streeten DHP, Freiberg JM, Schneider AJ. Chromium metabolism in man and biochemical effects. In: *Trace Elements in Human Health and Disease*, Volume 2: Essential and Toxic Elements (edited by Prasad A, Oberleas D). Academic Press, New York, 1976, pp. 79-104.
20. Lifschitz ML, Wallach S, Peabody RA, Verch RL, Agrawal R. Radiochromium distribution in thyroid and parathyroid deficiency. *Am J Clin Nutr* 1980;33:57-62.
21. Riales R, Albrink MJ. Effect of chromium chloride supplementation on glucose tolerance and serum lipids including high-density lipoprotein of adult men. *Am J Clin Nutr* 1981;34:2670-8.
22. Mossop RT. Effects of chromium III on fasting blood glucose, cholesterol and cholesterol HDL levels in diabetics. *Cent Afr J Med* 1983;29:80-2.