

PRODUCT GUIDE

Lalmin® Chromium



AN IMPORTANT ELEMENT CRITICAL FOR OVERALL HEALTH

- Chromium is a trace mineral, and the trivalent form is required for normal carbohydrate, lipid and protein metabolism.
- Chromium yeast intake is linked to **improved blood glucose levels, lower serum lipids** and a **decreased risk of coronary heart disease**.
- It is also a co-factor for the hormone **insulin** and its activity parallels insulin activity in the body.
- Although there is no recommended daily intake, a minimum dosage of 20 - 35µg/day has been suggested, depending on gender and age.
- Lalmin®Cr contains 20 - 24µg of chromium in 10mg.



CHROMIUM BENEFITS

May help lower blood glucose levels^{(1),(2)}:

- Therefore, may help people with Type II diabetes^{(1),(2),(3),(4),(5)}
- Is often prescribed to control diabetes mellitus⁽²⁾

Supports:

- Improved cholesterol levels⁽⁶⁾
- Reduced heart disease risk⁽⁶⁾
- Muscle building and weight loss efforts⁽⁶⁾

Improves insulin sensitivity in those with PCOS (polycystic ovary syndrome)⁽⁶⁾

May help prevent insulin resistance^{(1),(4),(5)}



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Lallemand Health
Ingredients

CHROMIUM AND INSULIN RESISTANCE/ T2D

- **Type 2 diabetes** is often associated with obesity, dyslipidemia and cardiovascular anomalies and is a major health problem approaching global epidemic proportions.⁽¹⁾
- Insulin resistance, a prediabetic condition, precedes the onset of type 2 diabetes and offers potential avenues for early intervention to treat the disease.⁽¹⁾
- Most available drugs that improve insulin sensitivity have adverse effects, such as abdominal discomfort, diarrhea, muscle cramping, painful urination and others.⁽¹⁾
- The risk of type 2 diabetes is lower in adults taking Chromium containing supplements.⁽³⁾
- Chromium supplementation often improves impaired glucose metabolism.⁽⁴⁾
- The mechanism of activity is thought to be modulation of insulin signaling pathways.^{(1),(5)}



CHROMIUM AND CHOLESTEROL

- Since the 1950s, studies have supported evidence for trivalent chromium benefitting cholesterol metabolism.
- Animal studies show that chromium works to **reduce levels of total cholesterol, LDL cholesterol, triglycerides and non-esterified fatty acids.**
- Increased levels of HDL-cholesterol and the beta-oxidation process were also observed.^{(6),(7)}

References

1. Hua et al, *Molecular mechanisms of chromium in alleviating insulin resistance.* *Journal of Nutritional Biochemistry* 23 (2012) 313–319.
2. Abdollahi et al. *Effect of chromium on glucose and lipid profiles in patients with type II diabetes: a meta-analysis review of randomized trials.* *Pharm Pharmaceut Sci* 16 (1) 99 - 114, 2013.
3. McIver et al, *Risk of Type 2 Diabetes Is Lower in US Adults Taking Chromium-Containing Supplements.* *J Nutr* 2015;145:2675–82
4. Schwarz, K., and W. Mertz. 1959. Chromium (III) and the glucose tolerance factor. *Arch. Biochem. Biophys.* 85:292-295
5. Hoffman et al, *Chromium enhances insulin responsiveness via AMPK.* *Journal of Nutritional Biochemistry* 25; 5 (2014) 565-572.
6. Anderson, Richard. *Chromium as an Essential Nutrient for Humans.* *Regulatory Toxicology and Pharmacology, Volume 26, Issue 1, August 1997, Pages 535-541.*
7. Lewicki et al. *The role of Chromium III in the organism and its possible use in diabetes and obesity treatment.* *Annals of Agricultural and Environmental Medicine* 2014, Vol 21, No 2, 331–335.

Non-GMO
Allergen-free
Gluten-free
Vegan
Kosher
Halal