

Nutritional OUTLOOK

Chromium picolinate maintains lean body mass during weight loss, according to a new review



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[Weight Management Nutrition, Science](#)

A recently published review¹ of weight-loss strategies and supplements found that chromium picolinate (Chromax brand by Nutrition 21; Purchase, NY) most effectively maintained lean body mass in subjects while promoting the most substantial loss in fat mass. Most weight-loss strategies cause loss in both fat mass and lean body mass, the latter having negative health implications, explain the authors. Substantial loss of lean body mass can impede the sustainability of weight-loss regimens by lowering resting energy expenditure, metabolism, fatigue, declines in neuromuscular function, and increased risk of injury, write the authors.

For example, one study² found that subjects who continued normal physical and dietary habits while supplementing with 400 mcg of chromium picolinate per day experienced weight loss that was 98% fat mass loss and only 2% lean body mass loss. Another study³ of competitive swimmers supplementing with 400 mcg of chromium picolinate per day for 24 weeks even saw an increase in lean body mass of 3.5% and a decrease in fat mass of 4.5%. The supplement that came closest to chromium picolinate in maintaining lean body mass was green tea catechin, which saw a total weight loss that was 86% fat mass loss and 14% lean body mass loss.⁴

“It’s encouraging to see how Chromax enabled subjects to achieve weight loss primarily from body fat, while maintaining their lean body mass, providing supportive evidence that incorporating chromium picolinate into a reduced-calorie diet plan can markedly help maintain lean body mass,” said James Komorowski, MS, CNS, chief science officer at Nutrition 21, in a press release.

References:

1. Willoughby D et al. “Body composition changes in weight loss: strategies and supplementation for maintaining lean body mass, a brief review.” *Nutrients*, vol. 10, no. 12 (2018): 1876
2. Kaats GR et al. “A randomized, double-masked, placebo-controlled study of the effects of chromium picolinate supplementation on body composition: A replication and extension of a previous study.” *Current Therapeutic Research*, vol. 59, no. 6 (1998): 379–388
3. Bulbulian R et al. “Chromium picolinate supplementation in male and female swimmers.” *Medicine & Science in Sports & Exercise*, vol. 28 (1996): 111
4. Maki KC et al. “Green tea catechin consumption enhances exercise-induced abdominal fat loss in overweight and obese adults.” *Journal of Nutrition*, vol. 139, no. 2 (2009): 264–270

