

CARB BLOCKER

Everybody says low-carb diets are the greatest way to eat well and still control your waistline. But low-carb diets aren't perfect – they lack two major nutrient groups – dietary fiber and B-vitamins. Besides, a life without the occasional plate of pasta, baked sweet potato or slice of whole-wheat toast with homemade marmalade just isn't as much fun.



Wouldn't it be great if you could, now and then, indulge in a healthy meal that included an otherwise healthy high-carb food? What about those carbs you can't avoid, like the ones in fruits and vegetables? And do you really want to rely on artificial sweeteners to brighten up your tea or coffee?

It can be quite a dilemma – you don't want carbs but you can't completely avoid them. What to do?

Carb Blocker to the Rescue!

Carb Blocker contains two dynamic and powerful ingredients that work together synergistically to reduce the conversion of the carbs you eat into the fat you wear. While they're at it, they also help insulin work more efficiently to move sugars out of your blood and into your muscles, where they can be used for energy instead of "decoration."



Can it get any better?

Yes! -- **Carb Blocker** also contains a protein from kidney beans – **phaseolin** – that reduces your body's ability to break down into simple sugars any starches you may eat.¹⁻⁴ With less sugar going (it seems) straight to your hips and other "carb-sensitive" areas, and adding to your blood's sugar burden along the way, phaseolin allows you to take advantage of the primary axiom of the science of nutrition:

If you don't digest it, you can't use it.

When it comes to dietary starch, this is a GOOD thing!

Minerals for Sugar Control

You're probably wondering what the trace microminerals in **Carb Blocker**, **chromium** and **vanadium**, have to do with sugar metabolism. The answer is – EVERYTHING!

For years, scientists searched for something they nicknamed a “Glucose Tolerance Factor” – something they knew had to exist, they just didn't know what it was. They did know that without enough of this factor – “GTF” – in the blood, insulin couldn't do its job of managing sugar metabolism and preventing diabetes, no matter how much insulin there was. Long story short – GTF is chromium.⁵⁻⁹

– But not any chromium; industrial chromium will kill you. The form of chromium that insulin needs is the same as the form in the ingredient of **Carb Blocker** – chromium picolinate. This form of chromium is fantastically safe – the EPA says it can't determine whether ANY amount of this form of chromium is at all harmful.^{5,10}

Plus, this form of chromium is extremely potent in working with insulin to push carbs out of your blood and into your muscles, where carbs are burned for energy and not stored as fat.^{5,6,10-16} The Food and Drug Administration even states that “chromium picolinate may reduce the risk of insulin resistance, and therefore possibly may reduce the risk of type 2 diabetes.”¹⁴

Vanadium complements chromium. While chromium is helping your muscles feed on the sugar in your blood, vanadium works to speed the transfer of sugar from blood into your liver, providing this very busy organ with the energy it needs to keep your blood clean and toxin-free.¹⁷⁻¹⁹

Healthy carbohydrate metabolism and fewer sugars and calories from starchy foods – the **Carb Blocker** story

1. Mosca M, Boniglia C, Carratù B, Giammarioli S, Nera V, Sanzini E. Determination of alpha-amylase inhibitor activity of phaseolamin from kidney bean (*Phaseolus vulgaris*) in dietary supplements by HPAEC-PAD. *Anal Chim Acta* 2008;617:192-195.
2. Tormo MA, Gil-Exojo I, Romero de Tejada A, Campillo JE. White bean amylase inhibitor administered orally reduces glycaemia in type 2 diabetic rats. *Br J Nutr* 2006;96:539-544.
3. Yoshikawa H, Kotaru M, Tanaka C, Ikeuchi T, Kawabata M. Characterization of kintoki bean (*Phaseolus vulgaris*) alpha-amylase inhibitor: Inhibitory activities against human salivary and porcine pancreatic alpha-amylases and activity changes by proteolytic digestion. *J Nutr Sci Vitaminol* 1999;45:797-802.

4. Nahoum V, Roux G, Anton V, Rougé P, Puigserver A, Bischoff H, Henrissat B, Payan F. Crystal structures of human pancreatic alpha-amylase in complex with carbohydrate and proteinaceous inhibitors. *Biochem J* 2000;346:201-208.
5. Anderson RA. Chromium and diabetes. *Nutrition* 1999;15:720-722.
6. Anderson RA. Chromium, glucose tolerance and diabetes. *J Amer Coll Nutr* 1998;17:548-555.
7. Schwarz K and Mertz W. Chromium (III) and the glucose tolerance factor. *Arch Biochem Biophys* 1959;85:292-295.
8. Henry RR. Type 2 diabetes care: The role of insulin-sensitizing agents and practical implications for cardiovascular disease prevention. *Am J Med* 1998;105:20S-26S.
9. Mudaliar S, Henry RR. New oral therapies for type 2 diabetes mellitus: The glitazones or insulin sensitizers. *Annu Rev Med* 2001;52:239-257.
10. Chowdhury S, Pandit K, Roychowdury P, Bhattacharya B. Role of chromium in human metabolism, with special reference to type 2 diabetes. *JAPI* 2003;51:701-705.
11. Vincent JB. The biochemistry of chromium. *J Nutr* 2000;130:715-718.
12. Wilson BE, Gondy A. Effects of chromium supplementation on fasting insulin levels and lipid parameters in healthy, non-obese young subjects. *Diabetes Res Clin Pract* 1995;28:179-184.
13. Anderson RA. Chromium and polyphenols from cinnamon improve insulin sensitivity. *Proc Nutr Soc* 2008;67:48-53.
14. Schneeman BO. Qualified health claims: Letter of enforcement discretion - Chromium picolinate and insulin resistance (Docket No. 2004Q-0144) (letter). Office of Nutritional Products, Labeling, and Dietary Supplements, Center for Food Safety and Applied Nutrition, Food and Drug Administration, Washington, DC, August 25, 2005.
15. Cefalu WT, Bell-Farrow AD, Stegner J, Wand ZQ, King T, Morgan T, Terry JG. Effect of chromium picolinate on insulin sensitivity in vivo. *J Trace Elem Exp Med* 1999;12:71-83.
16. Martin J, Wang ZQ, Zhang XH, Wachtel D, Volaufova J, Matthews DE, Cefalu WT. Chromium picolinate supplementation attenuates body weight gain and increases insulin sensitivity in subjects with type 2 diabetes. *Diabetes Care* 2006;29:1826-1832.
17. Cohen N, Halberstam M, Shlimovich P, Chang CJ, Shamooh H, Rossetti L. Oral vanadyl sulfate improves hepatic and peripheral insulin sensitivity in patients with non-insulin-dependent diabetes mellitus. *J Clin Invest* 1995;95:2501-2509.
18. Cusi K, Cukier S, DeFronzo RA, Torres M, Puchulu FM, Redondo JC. Vanadyl sulfate improves hepatic and muscle insulin sensitivity in type 2 diabetes. *J Clin Endocrinol Metab* 2001;86:1410-1417.

19. Verma S, Cam MC, McNeill JH. Nutritional factors that can favorably influence the glucose/insulin system: Vanadium. *J Am Coll Nutr* 1998;17:11-18.



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