



## GlucoStat

Serving Size 6 capsules

Servings Per Container 30

	Amount Per Serving
Vitamin A (retinyl acetate, beta-carotene)	5000 IU
Vitamin C (calcium ascorbate, magnesium ascorbate)	300 mg
Vitamin D (cholecalciferol)	300 IU
Vitamin E (succinate)	250 IU
Thiamin (mononitrate)	30 mg
Riboflavin (riboflavin, riboflavin 5'-phosphate)	20 mg
Niacin (niacinamide, niacin)	150 mg
Vitamin B6 (pyridoxine HCl, pyridoxal 5'-phosphate)	50 mg
Folate (calcium folinate)	800 mcg
Vitamin B12 (cyanocobalamin)	50 mcg
Biotin	4000 mcg
Pantothenic acid (D-calcium pantothenate)	200 mg
Calcium (ascorbate, citrate)	200 mg
Magnesium (ascorbate, citrate)	400 mg
Zinc (citrate)	30 mg
Selenium (L-selenomethionine)	150 mcg
Copper (sebacate)	2 mg
Manganese (aspartate)	10 mg
Chromium (polynicotinate)	1000 mcg
Potassium (aspartate)	99 mg
L-carnitine	150 mg
Alpha R-lipoic acid	20 mg
Vanadium (vanadyl aspartate)	50 mcg

**OTHER INGREDIENTS:** Cellulose, silica.

**SUGGESTED USE:** As a dietary supplement, take 6 capsules per day with food (dose may be divided) or as directed by our healthcare professional.

### REFERENCES:

1. Avena R, Arora S, Carmody BJ, et al. Thiamin (vitamin B1) protects against glucose- and insulin-mediated proliferation of human infragenicular arterial muscle cells. *Ann Vasc Surg.* 2000; 14:37-43.
2. Bakker SJL, Hoogeveen EK, Nijpels G, et al. The association of dietary fibres with glucose tolerance is partly explained by concomitant intake of thiamin: *The Hoorn Study. Diabetologia.* 1998; 41:1168-1175.

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# GLUCOSTAT

COMPLETE MULTIVITAMIN AND MINERAL DESIGNED TO SUPPORT HEALTHY BLOOD SUGAR METABOLISM\*

- Provides antioxidant cellular protection\*
- Provides nutrients for the synthesis of Glucose Tolerance Factor (GTF)\*
- Complete multivitamin and mineral designed to support healthy blood sugar metabolism\*

GLUCOSTAT is a great product to considering for patients with impaired glucose metabolism. GlucoStat is designed to reduce insulin resistance and dysglycemic conditions. By supporting the endogenous production of glucose tolerance factor, GlucoStat assists in a healthy blood sugar balance. In addition, GlucoStat functions as a complete multivitamin/mineral and antioxidant support system.\*

VITAMIN A, VITAMIN C, VITAMIN E, RIBOFLAVIN, PANTOTHENIC ACID, SELENIUM, MANGANESE, ZINC, AND COPPER provide broad antioxidant protective support.\*

VITAMIN D adds to antioxidant support along with calcium that contributes to healthy bone metabolism.\*

THIAMIN deficiency is associated with abnormal glucose tolerance. Supplementation may help maintain normality. Preliminary evidence gives some support to thiamine's ability to prevent or delay plaque formation on vessel walls, a complication in some patients with a chronic history of elevated blood sugar and insulin resistance.\*

NIACIN is involved in the energy-generating metabolism of protein, fat and carbohydrates. Its biochemical effects are principally mediated by its metabolite nicotinamide adenine dinucleotide (NAD+). Adenosine triphosphate (ATP) production is enhanced with niacin/NAD.\*

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## REFERENCES:

3. La Selva M, Beltramo E, Pagnozzi F, et al. Thiamine corrects delayed replication and decreases production of lactate and advanced glycation end-products in bovine retinal and human umbilical vein endothelial cells cultured under high glucose conditions. *Diabetologia*. 1996; 39:1263-1268.
4. Elam MB, Hunninghake DB, Davis KB, et al. Effect of niacin on lipid and lipoprotein levels and glycemic control in patients with diabetes and peripheral arterial disease: *The ADMIT Study: A randomized trial*. *JAMA*. 2000; 284:1263-1270.
5. Wang W, Basinger A, Neese RA, et al. Effects of nicotinic acid on fatty acid kinetics, fuel selection, and pathways of glucose production in women. *Am J Physiol Endocrinol Metab*. 2000; 279:E50-E59.
6. Paolisso G, Sgamabato S, Pizza G, et al. Improved insulin response and action by chronic magnesium administration in aged NIDDM. *Diabetes Care*. 1989; 12:265-269.
7. Durlach J, Durlach V, Bac P, et al. Magnesium and therapeutics. *Magnes Res*. 1994; 7:313-328.
8. Anderson RA et al. Effects of supplemental chromium on patients with symptoms of reactive hypoglycemia. *Metabolism*. 1987; 36(4):351-55.
9. Anderson RA et al. Chromium supplementation of humans with hypoglycemia. *Fed Proc*. 1984; 43:471.
10. Anderson RA. Chromium, glucose tolerance and diabetes. *J Am Coll Nutr*. 1998; 17:548-555.
11. Anerson RA, Cheng N, Bryden NA, et al. Elevated intakes of supplemental chromium improve glucose and insulin variables in individuals with type II diabetes. *Diabetes*. 1997; 46:1786-1791.
12. Werbach MR. Nutritional Influences on Illness: A Sourcebook of Clinical Research, 2nd Ed. *Third Line Press, Tarzana, CA*. 1993.
14. Marz RB. Medical Nutrition From Marz, A Textbook in Clinical Nutrition, 2nd Ed. *Omni Press, Portland, OR*. 1999.
15. PDR For Nutritional Supplements, 1st Ed. *Medical Economics/Thomson Healthcare*, 2001.

**VITAMIN B<sub>6</sub>, VITAMIN B<sub>12</sub> AND FOLIC ACID** assist in the healthy metabolism of homocysteine, supporting conversion of this inflammatory mediator to non-toxic “safe” byproducts. This triad of B vitamins is considered cardio protective.\*

**BIOTIN** has been found to improve glucose tolerance and decrease insulin resistance in a diabetic mouse model.\*

**MAGNESIUM** deficiency, in a few studies, has been shown to result in insulin resistance as well as impaired glucose tolerance. Supplementation has had reported benefits of improved insulin response. Magnesium may affect insulin signal transduction and alter insulin receptor binding.\*

**ZINC** is an adequate tissue status of zinc is required for healthy insulin function. Zinc deficiency may be associated with impaired glucose tolerance.\*

**CHROMIUM** supplementation may be beneficial for glucose regulation. In a double-blind crossover study 8 female patients were supplemented with 200 mcg chromium chloride daily. By 3 months, low blood sugar symptoms were alleviated and the glucose nadir (lowest point) following a glucose load was raised at 2-4 hours. In addition, insulin binding to red blood cells and insulin receptor numbers improved significantly. Results suggest that impaired chromium nutrition and/or metabolism may be a factor in the cause of low blood sugar. Chromium may have glucose-regulatory activity.\*

**VANADIUM** has insulin-mimetic activity. Preliminary animal studies have shown that vanadium may improve glucose homeostasis and assist in achieving normoglycemia.\*

**ALPHA R-LIPOIC ACID** is natural ALA. Regular ALA products are a racemic mixture of RS ALA. Alpha RS Lipoic Acid is synthetic just as DL alpha tocopherol is synthetic. ARLA is considered a much stronger antioxidant. ARLA enhances cellular energy production.\*

**L-CARNITINE** enhances energy production by improving the metabolism of long-chain fatty acids.\*

\*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.