



Presents for your consideration:
Glucotone

- **Supports healthy blood sugar regulation**
- **Reduces tendency to insulin resistance**
- **Provides necessary nutrients for the synthesis of Glucose Tolerance Factor (GTF)**

Consider Glucotone when prescribing a product for your patient with impaired glucose metabolism. Glucotone is designed to reduce insulin resistance and dysglycemic conditions. By supporting the endogenous production of glucose tolerance factor, Glucotone assists in a healthy blood sugar balance.

Thiamine: deficiency is associated with abnormal glucose tolerance. Supplementation shows evidence that it may help correct this abnormality. Preliminary evidence gives some support to thiamin’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.

Magnesium: deficiency has been shown to result in insulin resistance as well as impaired glucose tolerance in a few studies. Supplementation has reported benefits of improved insulin response in some studies. Magnesium may effect insulin signal transduction and alter insulin receptor binding.

Glucotone	Amounts per serving
Serving size	1 capsule
Number of servings per container	60
Thiamine (mononitrate)	28 mg.
Niacin	22 mg.
Magnesium (citrate)	20 mg.
Zinc (histidinate)	9 mg.
Manganese (glycinate)	2.5 mg.
Chromium (polynicotinate)	180 mcg.
Liver (Abgland)	150 mg.
Pancreas (Abgland)	150 mg.
Suggested Dose: Take 1-3 capsules per day or as directed by your health care professional.	

Zinc: at adequate tissue status 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 following a glucose load was raised at 2-4 hours. In addition, insulin binding to red blood cells and insulin receptor number 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.

Liver and Pancreas: glandulars act as tissue sources for beneficial amino acids, enzymes, co-factors, vitamins and minerals, and micro-nutrients that may enhance the glucose regulation process.

References:

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.

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.

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.

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.

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.

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.

Durlach J, Durlach V, Bac P, et al. Magnesium and therapeutics. *Magnes Res.* 1994; 7:313-328.

Anderson RA et al. Effects of supplemental chromium on patients with symptoms of reactive hypoglycemia. *Metabolism.* 1987; 36(4):351-55.

Anderson RA et al. Chromium supplementation of humans with hypoglycemia. *Fed Proc.* 1984; 43:471.

Anderson RA. Chromium, glucose tolerance and diabetes. *J Am Coll Nutr.* 1998. 17:548-555.

Anderson 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.

Werbach MR. Nutritional Influences on Illness: A Sourcebook of Clinical Research, 2nd Ed. Third Line Press, Tarzana, CA. 1993.

Marz RB. Medical Nutrition From Marz, A Textbook in Clinical Nutrition, 2nd Ed. Omni Press, Portland, OR. 1999.

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

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Compromise*



Is the logical choice!