

Glucose Manager



INTEGRATIVE
NATURAL HEALTH

Clinical Applications

- Supports Healthy Glucose Metabolism*
- Supports Healthy Insulin Sensitivity*
- Supports Healthy Blood Lipid Levels Already Within The Normal Range*

*Glucose Manager is an extraordinary combination of herbal and nutrient support for healthy glucose metabolism. It features concentrates of fenugreek, gymnema and bitter gourd, the addition of high levels of vanadium along with select B vitamins and the mineral, chromium. This formula provides nutritional support for glucose and insulin metabolism and supports healthy blood lipid levels already within the normal range**

All Integrative Natural Health Formulas Meet or Exceed cGMP Quality Standards

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Discussion

Thiamin activates glyceraldehyde phosphate dehydrogenase (GAPDH). Decreased availability of this enzyme has been implicated in diabetes complications such as blindness, nerve damage, kidney failure, stroke and cardiovascular disease.^[1] Thiamin repletion in the case of a six year-old girl with diabetes caused by a genetic mutation effecting thiamine transport demonstrated its benefits.^[2] Thiamin deficiency may cause diabetic neuropathy by decreasing transketolase, needed for normal myelinization and thiamine monophosphatase, needed for primary sensory neuron function.^{*[3]}

Niacin is required for lipid metabolism, tissue respiration and glycogenolysis. It may preserve and protect Beta cells.^[4] Niacinamide improved insulin secretion in lean diabetics who had failed drug treatment.^{*[5]}

Chromium and Biotin synergistically improve glucose tolerance.^[6,7] Biotin, in large doses (5-15 mgs) enhances the effects of enzymes involved in glucose metabolism. One small study demonstrated reversal of diabetic neuropathy.^[8] Chromium polynicotinate, preferred for its bioavailability and biological activity may increase insulin receptor sensitivity and enhance glucose transport. Anderson, et al. showed 1000 mcgs of chromium stabilized blood sugar in two months along with insulin and cholesterol level improvement.^{*[9]}

Vanadyl Sulfate may reduce hepatic gluconeogenesis and “mimic” insulin’s effect.^[10] In rats, vanadyl sulfate was also shown to alter the expression of genes dysregulated in diabetes.^{*[11]}

Fenugreek Seed and its constituent, 4-isoleucine appear to directly stimulate insulin.^[12] The combination of fenugreek with vanadium appeared to normalize altered membrane linked functions and GLUT4 distribution.^[13] Fenugreek also lowered high serum cholesterol and triglycerides.^{*[14]}

Bitter Gourd (aka. bitter melon) contains an insulin-like polypeptide shown to exhibit hypoglycemic effects^[15] with an onset of action between 30-60 minutes and a peak effect at about 4 hours.^[16] It is approved as an antidiabetic drug in China.^{*[17]}

Gymnema sylvestre reduced fasting blood sugars, glycosylated hemoglobin (HbA1c) and glycosylated plasma protein levels and thus insulin requirements in Type 1 diabetics by reducing glucose absorption in the intestine, stimulating pancreatic beta cell growth and possibly increasing endogenous insulin secretion as suggested by an increase in C-peptide levels. Gymnema was shown to also reduce serum triglycerides, total cholesterol, VLDL and LDL.^{*[18]}

*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.

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Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 30

	Amount Per Serving	%Daily Value
Thiamin (as thiamine HCl)	100 mg	8333%
Niacin (as niacinamide)	100 mg	625%
Biotin	10,000 mcg	33,333%
Chromium (as chromium nicotinate glycinate chelate) ^{S1}	1000 mcg	2857%
Fenugreek Extract (<i>Trigonella foenum-graecum</i>)(seeds)	300 mg	**
Bitter Gourd Extract (<i>Momordica charantia</i>)(fruit)	150 mg	**
Gymnema 5:1 Extract (<i>Gymnema sylvestre</i>)(leaf)	100 mg	**
Vanadium (as vanadium nicotinate glycinate chelate) ^{S1}	5 mg	**

** Daily Value not established.

Other Ingredients: Capsule (hypromellose and water), stearic acid, magnesium stearate, and silica.



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Directions

Take two capsules daily after meals, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

References

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Does Not Contain

Wheat, gluten, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

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