

Gluco-Mend
Nutritional Support for Glucose Metabolism†

DESCRIPTION

Gluco-Mend is a blend of herbs, minerals, and alpha lipoic acid designed to provide healthy blood glucose support.† This product features *Garcinia cambogia*, supplying HCA which supports healthy fat metabolism and glucose metabolism. Additional ingredients in this formula support pancreatic beta cell function and glucose absorption.†

FUNCTIONS

Gymnema sylvestre is an Ayurvedic botanical that may assist in the regeneration and support of pancreatic beta cells. Gymnema is also suspected of reducing intestinal glucose absorption. Bitter melon (*Momordica charantia*) grows in tropical areas, including parts of East Africa, Asia, the Caribbean, and South America, where it is used as a food as well as a medicinal remedy. The fruit of this plant lives up to its name—it tastes very bitter. At least three different groups of constituents in bitter melon have been reported to have blood sugar regulating or other actions of potential benefit. These include a mixture of steroidal saponins known as charantin, insulin-like peptides, and alkaloids.

Research shows that (-) hydroxycitric acid helps maintain a healthy balance of hepatic lipogenesis and gluconeogenesis, thus preventing excessive conversion of glucose from carbohydrate into body fat. It is found in *Garcinia cambogia*, a tropical fruit grown in Asian rain forest area. Research also indicates that (-) hydroxycitric acid plays an important role in the regulation of a normal appetite.

Alpha-lipoic acid is a fat- and water-soluble, sulfur- containing coenzyme. It functions in the body much like a B-vitamin, since it is involved in energy production. As part of several multi-enzyme complexes located in the mitochondria, alpha-lipoic acid is essential for metabolizing carbohydrates, proteins, and fats, and for the conversion of their energy into ATP. Two of these enzyme complexes, PDH (pyruvate dehydrogenase) and alpha-KGDH (alpha-ketoglutarate dehydrogenase) are part of the citric acid cycle (Krebs cycle), and as such assume a central role for general energy production. Another lipoic acid containing enzyme complex, BCKADH (branched-chain keto-acid dehydrogenase), is involved in deriving energy from the branched chain amino acids, leucine, isoleucine, and valine. A related metabolic function of alpha-lipoic acid is its role in blood glucose disposal. This important coenzyme appears to be necessary for the normal transport of blood glucose into the cell. This may be explained by its functions in the glucose-metabolizing enzymes, PDH and alpha-KGDH, but some researchers suspect a more direct role in cellular glucose uptake at the cell membrane.

Chromium is an integral component of the glucose tolerance factor (GTF), a naturally occurring compound of chromium, nicotinic acid, and amino acids that is essential for proper glucose metabolism. Adequate chromium nutrition is essential for the formation of GTF and subsequent control of blood glucose levels.

INDICATIONS

Gluco-Mend may be a useful dietary supplement for those who wish to support nutritional control of blood sugar metabolism. †

FORMULA (#80442)

3 Vegetarian Capsules Contain:

Gymnema sylvestre	200 mg
Bitter Melon extract.....	200 mg
Fenugreek Seed extract.....	150 mg
(continued on reverse)	
Garcinia cambogia extract.....	995 mg
(supplying 500 mg of HCA)	
Alpha Lipoic Acid.....	100 mg
Chromium GTF.....	200 mcg
Vanadium.....	2.5 mg

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(Vanadyl Sulfate)

SUGGESTED USE

Adults take 3 capsules daily or as directed by a healthcare professional.

SIDE EFFECTS

No known side effects.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

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Raman A, Lau C. Anti-diabetic properties and phytochemistry of *Momordica charantia* L (Curcubitaceae). *Phytomed Res* 1996;2:349-62.

Shanmugasundaram ER, Rajeswari G, Baskaran K, et al. Use of *Gymnema sylvestre* leaf extract in the control of blood glucose in insulin

For more information on Gluco-Mend visit douglaslabs.com

† 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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