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## A Vitamin, Mineral, Herb Dietary Supplement Effect on Blood Glucose in Uncontrolled Type II Diabetic Subjects

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**We tested a dietary supplement formulated with a synergistic combination of vitamins, minerals, herbals in a group of 15 patients with uncontrolled diabetes type II. The supplement was given for 30 days. Fasting blood glucose was measured prior to the supplementation and at the end of the 30 days treatment period. Blood glucose was significantly reduced in all patients with no adverse effects. This orthomolecular**

**correction of faulty glucose metabolism with a combination of nontoxic, safe and fairly inexpensive nutraceuticals needs to be further substantiated. Nevertheless the idea of correcting metabolism with micronutrients is a new concept of genetic nutritioneering that seems appealing and cost effective.**

*Key words: Dietary supplements, Blood glucose, Diabetes Type II*

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**W**e designed a supplement to help with sugar metabolism. This supplement is an oral synergistic natural formula designed to control the glucose/insulin system. Disturbances in the glucose/insulin system are known to increase diabetes (1), cause hyperglycemia (2), promote hypoglycemia (3), convert sugar to fat (4), and accelerate aging (5). Any nutraceutical capable of helping in the balance of this important metabolic crossroad will be of enormous value. This new formula contains vitamins and minerals: Vitamin C, Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Panthotenic Acid, Choline, Inositol, PABA, Calcium, Phosphorus, Chromium, Vanadium, and Herbs: *Garcinia cambogia*, *Gymnema sylvestre*, White Kidney Bean extract and Green Tea. All which have been of some value in helping with glucose/insulin disturbances. This research was done to evaluate the safety and effectiveness of this formula.

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### Methods

This pilot study was conducted with 15 subjects (8 females, 7 males) with uncontrolled type II diabetes. All patients received two bottles containing 60 tablets of the formula. The dose was set at 2 tabs/after lunch and dinner (4 tabs a day). Supplement was taken for a period of a month (30 days). Blood glucose was measured prior to and post supplementation treatment. In addition, a consent release form was signed by a patients. The compliance was 100% during the 30 days of the trail as measured by patient interview.

### Results

The product proved to be non-toxic, with no detrimental side effects and easy to take. The statistical analysis utilized was a Paired Sample T-test to determine statistical significance ( $p < 0.05$ ). Results were as follows: fasting blood glucose prior to treatment was  $190.55 \pm 5.11$  (mean  $\pm$  standard error) and post treatment  $152.75 \pm 3.32$ . The result showed a statistically significant difference. Fasting blood sugar glucose was reduced 1/3 with the experimental formula in hard to respond patients with Type II diabetes.

### Discussion

The formula was a safe, effective and easy to take product to reduce blood glucose. Its scientific formulation

is a combination of vitamins, minerals and herbs that work synergistically to balance the glucose/insulin system. It produced a significant reduction in blood glucose in the experimental group in our study. This result is probably due to metabolic correction by necessary nutrients that are lacking or insufficient in the diabetic metabolism. This orthomolecular correction of faulty glucose metabolism with a combination of nontoxic, safe and fairly inexpensive nutraceuticals needs to be further substantiated. It is of great interest to understand the possible effect of these nutrients combined at the level of the Glut receptors and at the of beta cell insulin production.

### Conclusion

The formula at a dose of 2 tabs a day after lunch and dinner for a period of 30 days, produced a significant reduction in blood glucose of experimental subjects with uncontrolled diabetes type II.

This preliminary study demonstrated a powerful blood glucose reductive action of the combined nutraceutical formula in Type II diabetic patients. A follow-up study should be done in hypoglycemic patients; this will be a nice follow-up to this extraordinary positive outcome for a better metabolic understanding of the orthomolecular control of the glucose insulin system.

An addition possible benefit of the nutraceutical Formulation (reported in 1 patient that had the homocysteine test done) is the reduction of homocysteine; an irritant of the endothelial cells in the wall of the blood vessels that is a risk for cardiovascular disease (6).

### Resumen

Examinamos un suplemento nutricional formulado con una combinación sinérgica de vitaminas, minerales y

hierbas en un grupo de 15 pacientes con diabetes tipo II. El suplemento fue administrado por un periodo de 30 días. Los niveles de glucosa en sangre se redujeron significativamente en todos los pacientes al final de los 30 días sin exhibir efectos adversos. Esta corrección ortomolecular del metabolismo alterado de glucosa con una combinación de nutraceuticos no-tóxicos, seguros y económicos necesita investigarse mas a fondo. Sin embargo, la idea de corregir metabolismo con micronutrientes, un nuevo concepto de nutri-ingeniería genética es muy atractiva.

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