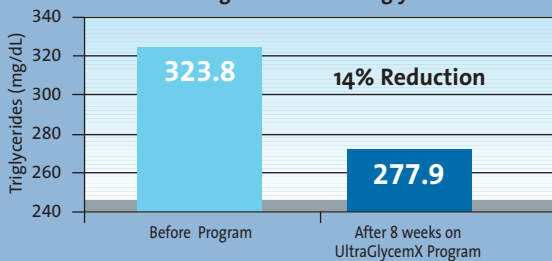


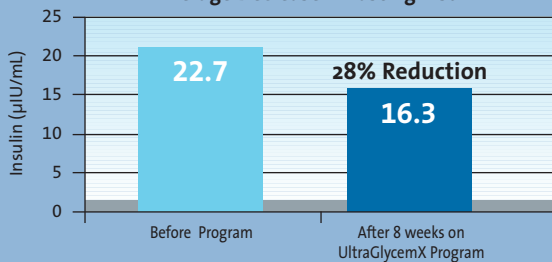
Nutrigenomic Breakthrough for the Treatment of Type 2 Diabetes

In a preliminary, randomized, 2-arm clinical trial with 37 insulin resistant patients:¹

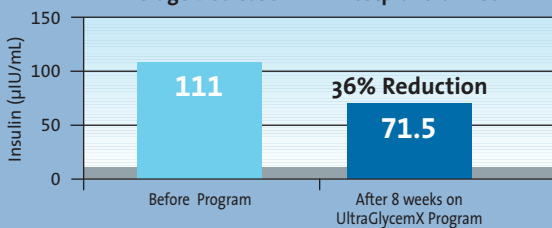
Average Decrease in Triglycerides



Average Decrease in Fasting Insulin



Average Decrease in 2-h Postprandial Insulin



UltraGlycemX[®]360[°] & PLUS

UltraGlycemX[®] Medical Foods

Nutritional Support for Patients Suffering from Type 2 Diabetes

UltraGlycemX[®]360[°] Medical Food
PLUS

Multi-mechanistic nutritional support with selective kinase response modulators (SKRMs) and key nutrients to positively impact the function of kinases involved in healthy insulin signaling and overall insulin function.

- ▶ Provides an advanced nutrient blend to promote healthy glucose, lipid, and insulin metabolism
- ▶ Helps maintain healthy cholesterol levels
- ▶ Supplies potent antioxidants to help protect against oxidative stress

UltraGlycemX[®] Medical Food

Nutritional support with specific nutrients that help to regulate glucose and insulin function.

- ▶ Supports healthy glucose uptake and insulin function
- ▶ Alternative to UltraGlycemX PLUS 360[°] for patients taking anti-coagulants
- ▶ Long history of successful clinical use

Science-based medical foods formulated to meet the specialized nutritional needs of patients with type 2 diabetes, insulin resistance, and hypoglycemia.

 **Metagenics[®]**
Genetic Potential Through Nutrition

Positively impact glucose/insulin regulation with clinically successful medical foods

WHAT SETS ULTRAGLYCEM X & ULTRAGLYCEM X PLUS 360° APART?

- ▶ **NEW breakthrough formulation.** UltraGlycemX PLUS 360° offers the same powerful ingredients as UltraGlycemX with the additions of SKRMs—as RIAA and acacia—to further support insulin and blood lipid parameters.
- ▶ **Powerful Nutrient Blend:**
 - **High quality protein base.** PharmaSoy® is a technologically advanced blend of soy protein and isoflavones. Just 2 servings provide 30 grams of high quality soy protein. Adequate dietary protein and nitrogen balance are key in controlling dysinsulinemias, and isoflavone intake may improve glucose control and insulin resistance.^{2,3}
 - **Cinnamon.** In a double-blind, controlled trial, cinnamon was shown to promote healthy insulin and glucose metabolism in people with type 2 diabetes. In vitro and animal studies also suggest that cinnamon may modulate insulin action.^{4,6}
 - **Additional specialized nutrients.** Chlorogenic acid (from green coffee bean extract), barley beta glucans, chromium, alpha-lipoic acid, vanadium, vitamin E, biotin, and magnesium provide glucose, lipid, and insulin metabolism support.^{7,9}
 - **Broad antioxidant protection.** Beta-carotene, zinc, copper, and vitamins A, C, and E help reduce the oxidative stress associated with hyper-insulinemia.
 - **Targeted carbohydrate blend.** A proprietary blend of maltodextrins and high amylose starch designed to help maintain healthy blood sugar levels. Studies have shown that high amylose starch improves insulin response and glucose levels of normal and diabetic subjects, and long-term consumption may be of benefit in improving hypertriglyceridemia.¹⁰
 - **Soluble fiber.** 4 grams per serving may help lower post-prandial blood glucose and insulin in patients with type 2 diabetes.
- ▶ **Human studies.** Clinical and case studies featuring the UltraGlycemX Program demonstrate safety and efficacy.
- ▶ **Extensive history of clinical use.** In addition to human research, thousands of clinicians and their patients worldwide have experienced reliable results from the UltraGlycemX Program for years.
- ▶ **Low glycemic index (GI).** Sweetened naturally with fructose (no HFCS)—which is found in fruits and is a preferred sugar source for patients with blood sugar concerns.
- ▶ **Complementary to restricted diets.** Formulated to exclude dairy products, gluten, wheat, egg, yeast, and artificial flavorings, sweeteners, and colors. And each serving is only 120 calories.
- ▶ **Variety.** UltraGlycemX PLUS 360° and UltraGlycemX are available in delicious Original and Natural Chocolate flavors.

References:

1. Lukaczer D, Lerman R, Schiltz B, et al. A pilot trial comparing the effects of identical weight loss diet programs with or without additional nutrient supplementation in subjects with insulin resistance and hyperinsulinemia. Gig Harbor, WA: Functional Medicine Research Center; Research Report 105, 5/00.
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3. Bhatena SJ, Velasquez MT. Beneficial role of dietary phytoestrogens in obesity and diabetes. *Am J Clin Nutr.* 2002;76(6):1191-1201.
4. Khan A, Safdar M, Ali Khan MM, Khattak KN, Anderson RA. Cinnamon improves glucose and lipids of people with type 2 diabetes. *Diabetes Care.* 2003;26(12):3215-3218.
5. Qin B, Nagasaki M, Ren M, Bajotto G, Oshida Y, Sato Y. Cinnamon extract prevents the insulin resistance induced by a high-fructose diet. *Horm Metab Res.* 2004;36(2):119-125.
6. Broadhurst CL, Polansky MM, Anderson RA. Insulin-like biological activity of culinary and medicinal plant aqueous extracts in vitro. *J Agric Food Chem.* 2000;48(3):849-852.
7. Johnston KL, Clifford MN, Morgan LM. Coffee acutely modifies gastrointestinal hormone secretion and glucose tolerance in humans: glycemic effects of chlorogenic acid and caffeine. *Am J Clin Nutr.* 2003;78:728-733.
8. McCarty MF. A chlorogenic acid-induced increase in GLP-1 production may mediate the impact of heavy coffee consumption on diabetes risk. *Medical Hypotheses.* 2005;64:848-885.
9. Casiraghi MC, Garsetti M, Testolin M, Brighenti F. Post-prandial responses to cereal products enriched with barley beta-glucan. *J Am Coll Nutr.* 2006;25(4):313-320.
10. Behall KM, Howe JC. Effect of long-term consumption of amylose vs. amylopectin starch on metabolic variables in human subjects. *Am J Clin Nutr.* 1995;61(2):334-340.



THE ULTRAGLYCEM/ ULTRAGLYCEM PLUS 360° PROGRAM

The UltraGlycemX/ UltraGlycemX PLUS 360° Program consists of the medical food product and a specially designed low-glycemic-index dietary program (as outlined in the UltraGlycemX Patient Guide) for patients who have problems with blood sugar regulation.

Suggested Step Approach:

- **Step 1** (Days 1-2): Patients begin by mixing ½ scoop of UltraGlycemX/ UltraGlycemX PLUS 360° with 4-5 oz. of pure water two times daily, and start on the dietary plan as instructed.
- **Step 2** (Days 3-4): Patients gradually increase to 1 scoop of UltraGlycemX/ UltraGlycemX PLUS 360° mixed with 4-5 oz. of pure water two times daily, and continue on the dietary plan.
- **Step 3** (Days 5-6): Patients gradually increase to 1½ scoops of UltraGlycemX/ UltraGlycemX PLUS 360° mixed with 6-8 oz. of pure water two times daily, and continue on the dietary plan.
- **Step 4** (Thereafter): Gradually increase to 2 scoops of UltraGlycemX/ UltraGlycemX PLUS 360° mixed with 8-10 oz. of pure water, two times daily, and continue on the dietary plan.

Discuss your patient's response to the program. You may recommend a continuation of the program, continuation of the product or diet alone, or some other combination of diet and medical food.

SUPPORTIVE MATERIALS

- **Patient Guide.** Comprehensive program guide with menus, recipes, and FAQs.
- **Patient card.** Brief overview of UltraGlycemX PLUS 360° medical food that invites patients to ask for health recommendations.
- **Maintaining Healthy Blood Sugar brochure.** Patient-friendly education piece.
- **Wall poster.** Framed illustration of the physiology of insulin resistance and where components of UltraGlycemX can offer management support.
- **Information sheet.** Smaller version of the wall poster with explanatory text on the back.



NOTE: UltraGlycemX PLUS 360° is not recommended for individuals taking anticoagulant medications. UltraGlycemX may be an excellent alternative for these patients.

Multi-Mechanistic Patient Support

Nutrition Information per Serving (Original Flavor)

Serving Size:	2 Scoops (47 g)
Servings Per Container:	14
Calories:	120
Fat:	2 g
Saturated Fat:	1 g
Trans Fat:	0 g
Cholesterol:	0 mg
Sodium (as sodium chloride):	200 mg
Potassium (as potassium chloride):	455 mg
Carbohydrate:	23 g
Dietary Fiber:	11 g
Protein ¹ :	15 g

Each Serving Contains		% RDI
Vitamin A (as retinyl palmitate)	1500 IU	30
Vitamin A (as beta-carotene)	2500 IU	50
Vitamin C (as ascorbic acid)	250 mg	420
Calcium	550 mg	55
Iron	3 mg	15
Vitamin D (as cholecalciferol)	140 IU	35
Vitamin E (as d-alpha tocopheryl acetate)	200 IU	670
Thiamin (as thiamin HCl)	1 mg	70
Riboflavin	1 mg	60
Niacin (as niacinamide, niacin)	55 mg	275
Vitamin B ₆ (as pyridoxine HCl)	1 mg	50
Folate (as folic acid)	200 mcg	50
Vitamin B ₁₂ (as cyanocobalamin)	3 mcg	50
Biotin	5 mg	1670
Pantothenic Acid (as D-calcium pantothenate)	5 mg	50
Phosphorus	440 mg	45
Magnesium (as magnesium citrate)	220 mg	55
Zinc (as zinc gluconate)	13 mg	85
Copper (as copper gluconate)	1 mg	50
Manganese	0.4 mg	20
Chromium (as chromium polynicotinate)	500 mcg	420
Isoflavones	17 mg	*
Cinnamon Bark (<i>Cinnamomum cassia</i>)	500 mg	*
Chlorogenic Acid	145 mg	*

(as Green Coffee Bean Extract)
* Daily value not established

Other Ingredients: Soy protein isolate¹ (PharmaSoy[®]) (soy), modified high amylose starch, fructose, barley beta glucan, natural flavors, maltodextrin, proprietary blend of RIAA and acacia^{††} [magnesium salts of reduced iso-alpha acids (from hops extract: *Humulus lupulus* L.), hydrogenated soybean oil encapsulate, and acacia extract]. Contains: soy.

Directions: Blend, shake, or briskly stir UltraGlycemX PLUS 360[°] into water as follows:

Consume within 10 minutes of reconstitution.

Day 1-2	1/2 scoop (12 g) twice daily	4 to 5 ounces of water
Day 3-4	1 scoop (23 g) twice daily	4 to 5 ounces of water
Day 5-6	1 1/2 scoops (35 g) twice daily	6 to 8 ounces of water
Thereafter	2 scoops (47 g) twice daily	8 to 10 ounces of water

Form: 23.2 oz (658 g) Powder Container

¹Non-genetically engineered, identity-preserved soy protein

^{††}Patent Pending

This product contains no high fructose corn syrup.

Caution: Not recommended for individuals taking anti-coagulant medications.

NOTICE: THESE PRODUCTS ARE TO BE USED UNDER THE DIRECT SUPERVISION OF A PHYSICIAN OR OTHER LICENSED HEALTHCARE PRACTITIONER. DO NOT ENGAGE IN ANY DIET SUPPLYING LESS THAN 800 CALORIES PER DAY WITHOUT MEDICAL SUPERVISION.

UltraGlycemX[®] PLUS 360[°] and UltraGlycemX[®] medical foods are researched, developed, and manufactured by Metagenics, Inc.

Nutritional Support of Glucose/Insulin Regulation

Nutrition Information per Serving (Original Flavor)

Serving Size:	2 Scoops (47 g)
Servings Per Container:	14
Calories:	120
Fat:	1 g
Saturated Fat:	0 g
Trans Fat:	0 g
Cholesterol:	0 mg
Sodium (as sodium chloride):	150 mg
Potassium (as potassium chloride):	455 mg
Carbohydrate:	23 g
Dietary Fiber:	11 g
Protein ¹ :	15 g

Each Serving Contains		% RDI
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Thiamin (as thiamin HCl)	1 mg	70
Riboflavin	1 mg	60
Niacin (as niacinamide, niacin)	55 mg	275
Vitamin B ₆ (as pyridoxine HCl)	1 mg	50
Folate (as folic acid)	200 mcg	50
Vitamin B ₁₂ (as cyanocobalamin)	3 mcg	50
Biotin	5 mg	1670
Pantothenic Acid (as D-calcium pantothenate)	5 mg	50
Phosphorus	440 mg	45
Magnesium (as magnesium citrate)	220 mg	55
Zinc (as zinc gluconate)	13 mg	85
Copper (as copper gluconate)	1 mg	50
Manganese	0.4 mg	20
Chromium (as chromium polynicotinate)	500 mcg	420
Isoflavones	17 mg	*
Cinnamon Bark (<i>Cinnamomum cassia</i>)	500 mg	*
Chlorogenic Acid	mg	*

(as Green Coffee Bean Extract)
* Daily value not established

Other Ingredients: Soy protein isolate¹ (PharmaSoy[®]) (soy), modified high amylose starch, fructose, barley beta glucan, natural flavors, and maltodextrin. Contains: soy.

Directions: Blend, shake, or briskly stir UltraGlycemX into water as follows:

Consume within 10 minutes of reconstitution.

Day 1-2	1/2 scoop (12 g) twice daily	4 to 5 ounces of water
Day 3-4	1 scoop (23 g) twice daily	4 to 5 ounces of water
Day 5-6	1 1/2 scoops (35 g) twice daily	6 to 8 ounces of water
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