

# Metabolic Synergy™



— Nutritional Support for Optimal Glucose, Insulin & Leptin Levels —

**Metabolic Synergy™** is an ideal formula for the *metabolic syndrome patient* - a patient who is becoming more prevalent in the health-care system. This multivitamin was originally designed by diabetes specialist Dr. Ron Rosedale, and was updated with the help of Dr. Bob Steinberg. It includes two more state-of-the-art, newly researched anti-glycating agents *carnosine* and *benfothiamine* (a form of vitamin B1) to prevent diabetic complications. A few core nutrients have been added to make **Metabolic Synergy™** a complete multivitamin mineral supplement for metabolic syndrome patients.

Metabolic syndrome is a condition many people risk developing by the time they reach middle age. It has affected 1 in 5 Canadians as of 2011 and rates continue to increase, with these patients requiring their own special therapeutic considerations.

The factors that may lead to these conditions are:

- Excessive carbohydrate consumption, with especially damaging effects from fructose and galactose
- Excessive stored body fat, especially in the abdominal area, due to its active hormonal activity
- Nutrient deficiencies (inositol, chromium, vanadium, magnesium, zinc, omega-3 fatty acids, vitamin D, taurine, vitamin C, vitamins B1, B2, B3)
- High oxidative stress, which depletes antioxidants
- Prolonged demand on the pancreas to produce insulin
- Excessive stress (high adrenaline and cortisol)

A sustained program of lifestyle and diet changes combined with proper nutrient supplementation can correct most of the underlying causes of metabolic syndrome.

The mineral forms of magnesium, chromium, zinc, manganese and vanadium are true chelates from Albion, the leader in the manufacture of mineral chelates with superior absorption.

## Metabolic Synergy™ may help:

- Support conversion of carbohydrates to energy
- Lower fasting and average glucose levels and Hemoglobin A1C
- Lower fasting and average insulin and leptin levels with improved tissue sensitivity
- Reduce risk of dysglycemia
- Support pancreatic sensitivity and ability to produce adequate amounts of insulin
- Help prevent problems associated with elevated sugar levels such as:
  - neuropathy
  - retinopathy
  - kidney damage
  - blood vessel damage
  - pancreatic damage
- Prevent nutrient deficiencies induced by excessively high glucose/insulin levels
- Lower cardiovascular complications associated with diabetes and insulin resistance
- Protect from metabolic damage induced by excessive fructose consumption
- Lower homocysteine

## Highlights

- **600 mg lipoic acid + 4 mg biotin** - prevents the typical reduction in carboxylase enzymes seen in research when lipoic acid is given alone. These two nutrients together aid healthy insulin secretion and glucose metabolism.
- **600 mg taurine, 200mg EGCg from green tea and 400 IU vitamin D** - all of which help increase insulin sensitivity
- **50 mg benfothiamine, 200 mg carnosine and 165 mg of vitamin E** - to protect from neuropathy and kidney damage
- **3000 IU vitamin A** - important for immune function which is compromised in metabolic syndrome patients
- **75 mg vitamin B1 (as thiamine HCL and benfothiamine)** - needed for energy production
- **100 mcg molybdenum** - needed for detoxification
- **400 mcg NatureFolate™** - proprietary blend of active isomer, naturally-occurring folates

**Metabolic Synergy™** provides nutrients needed for the TCA (tricarboxylic acid) cycle. This cycle allows the body to burn food for energy by converting glucose into ATP. The more glucose burned, the less glucose in the bloodstream. Nutrients needed for the TCA cycle include magnesium, manganese and lipoic acid. Due to their insulin mimicking action, vanadium and magnesium help shuttle glucose inside cells where the TCA cycle occurs. These two nutrients are also helpful for blood pressure regulation

**Metabolic Synergy™** is protective against many complications associated with elevated glucose levels by reducing its ability to glycate proteins in the blood which in turn has damaging effects on the eyes, brain, and kidney. Lipoic acid, carnosine and benfotiamine have been proven to reduce the risk of neuropathy/retinopathy along with support from vitamin B6, B12 and high gamma vitamin E. This formula has multiple antioxidants for controlling the oxidative stress common in diabetics.

Excessive fructose consumption can lead to excessive glycation of proteins by as much as 16-fold and can also cause hypertension and impaired insulin function via reduced tyrosine phosphorylation. **Metabolic Synergy™** reduces the damaging effects of fructose consumption through EGCG, zinc, and taurine.

The benefits of normalizing glucose, insulin, and leptin metabolism include: reduced risk of diabetes-related complications such as neuropathy, kidney or vision damage; lower cardiovascular risk such as lower blood pressure, triglycerides, increased HDL, better endothelial function; reduced cell proliferation and cancer prevention; less water retention; less fat storage and easier fat release from the adipose cells.

**Metabolic Synergy: NPN80051748**

**Medicinal Ingredients (per capsule):**

Taurine (2-Aminoethanesulfonic acid).....	100 mg
Niacinamide (3-Pyridinecarboxamide).....	8.3 mg
Biotin.....	666.7 mcg
Green tea extract (Camellia sinensis-Leaf) (45% Epigallocatechin 3-gallate, 98% Polyphenols, 20.018:1).....	33.3 mg
Chromium (Chromium nicotinate, Chromium bisglycinate) .....	83.3 mcg
Pantothenic acid (Calcium d-pantothenate).....	8.3 mg
DL-alpha-lipoic acid .....	100 mg
Folate (Brassica oleracea var. italica-Herb top).....	66.7 mcg
Iodine (Potassium iodide) .....	2.5 mcg
Magnesium (Dimagnesium malate).....	16.7 mg
Manganese (Manganese bisglycinate).....	500 mcg
Mixed carotenoids (Daucus carota-Root) (.9 mg beta carotene).....	5.7 mg (500 IU)
Mixed tocopherol concentrate .....	27.5 mg
Molybdenum (Molybdenum glycinate).....	16.7 mcg
Inositol (Myo-inositol).....	83.3 mg
Potassium (Potassium glycinate).....	33.3 mg
Vitamin B2 (Riboflavin).....	4.17 mg
Selenium (Selenium glycinate).....	33.3 mcg
Vitamin B1 (Thiamin hydrochloride).....	12.5 mg
Vanadium (Vanadium amino acid chelate).....	33.3 mcg
Vitamin B12 (Methylcobalamin) .....	166.7 mcg
Vitamin B6 (Pyridoxine hydrochloride) .....	8.33 mg
Vitamin C (Ascorbic acid).....	83.3 mg
Vitamin D (Cholecalciferol).....	1.7 mcg (66.7 IU/UI)
Vitamin E (D-alpha Tocopherol).....	2.8 mg AT (4.17 IU/UI)
Zinc (Zinc bisglycinate) .....	5 mg
L-Carnosine (Beta-alanyl-L-histidine).....	33.3 mg

**Non-Medicinal Ingredients:** Microcrystalline cellulose, silicon dioxide, vegetable stearate.

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