Cardiovascular Support

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Metagenics® Cardiovascular Health Formulas



More comprehensive, clinically effective options for enhanced outcomes

Advanced nutraceuticals and medical foods for industry-leading cardiometabolic health formulas*



| Clinical Applications at a Glance | | | | | | |
|--|--|--|---|---|--|--|
| Target | Formula | Advantages | Application | Dosage | | |
| Dyslipidemia | <u>UltraMeal</u> <u>Cardio 360°°</u> <u>medical food</u> | Provides nutritional support for the dietary management of patients with hypercholesterolemia, featuring phytosterols, bioavailable xanthohumol from hops, and a pea/rice protein base. | Dyslipidemia Hypercholesterolemia | Mix two scoops into eight ounces of chilled water twice daily | | |
| Endothelial function | ArginCor® medical food | Provides specialized nutritional support for endothelial function, wound care, and blood flow. It provides high-quality L-arginine to support wound healing through improved blood flow. | Endothelial function Wound care Blood flow | Mix two scoops into eight ounces of chilled water twice daily | | |
| NOTE: The above p | roducts are to be use | ed under the direct supervision of a physician or other licensed healthcare practitioner. Do not en | gage in any diet supplying less than 800 calor | ies per day without medical supervision. | | |
| Blood lipid | <u>Coratin</u> | Features red yeast rice and a balanced combination of plant sterols. Vitamin K_2 has been added in specific forms for better utilization. | • Blood lipid support* | Two tablets daily | | |
| | <u>Niatain</u> | Provides extended niacin delivery to support healthy lipid metabolism designed for reduced flushing.* | • Lipid metabolism support* | One tablet with a meal one to two times daily | | |
| support | Berberine GT | Berberine GT supports healthy LDL and glucose metabolism and cardiovascular health.* | Supports healthy LDL*Supports glucose metabolism*Cardiovascular health* | One capsule two to three times daily | | |
| | <u>CardioLux HDL</u> | Targeted support for HDL function and cardiovascular health* | Supports healthy HDL function* | Two tablets twice daily with food | | |
| Blood pressure support | <u>Vasotensin</u> | Provides peptides from bonito fish to support healthy blood pressure levels already in the normal range.* | • Blood pressure support* | Two tablets daily with food | | |
| | SuperGarlic 6000® | Features garlic supplying 6,000 mcg of allicin to help to support cardiovascular and immune system health.* | Support for healthy blood lipids* | One tablet daily | | |
| Cardiovascular | <u>Cardiogenics</u> Intensive Care® | Features extracts of hawthorn and arjuna, which may help maintain blood pressure levels already in the normal range, possibly through assisting blood vessel dilation. | Supports heart muscle health | One tablet daily | | |
| health | <u>CoQ10</u> <u>ST-200™</u> | Delivers 200 mg of industry-leading, crystal-free CoQ10 softgels for reliable health support.* | Overall cardiovascular health* Healthy aging support* | One softgel daily | | |
| | Nutra Gems® CoQ10 300 | Provides 300 mg of CoQ10 in an advanced, emusified chewable gel designed for enhanced absorption with a delicious, natural fruit flavor. | Overall cardiovascular health* Healthy aging support* | One chewable gel daily | | |
| | EPA-DHA 1000 | Supplies 1,000 mg of concentrated essential fatty acids in a single softgel. | Cardiovascular health support*Positive mood support*Overall health support* | One softgel up to three times daily with food | | |
| | <u>EPA 1200</u> | Supplies 1,200 mg of EPA in a single softgel. | Cardiovascular health support* Positive mood support* Overall health support* | One softgel up to three times daily with food | | |
| General cardiovascular & overall health | Mega 10° | Features a combination of omega-3 and omega-7 fatty acids to help support healthy triglyceride levels already within the normal range.* | Cardiovascular health support* Positive mood support* Overall health support* Supports healthy immune function* | One softgel one to two times daily with food | | |
| | SPM Active® | Supports the body's natural capacity to respond to physical challenges and resolve the immune response.* | • Immnue response support* • Cardiovascular health support* | Two softgels daily | | |
| | PhytoMulti® | Proprietary blend of 13 concentrated extracts and phytonutrients with scientifically tested biological activity to support cellular health and overall wellness.* | Cardiovascular health support* | Two tablets daily with food | | |
| Healthy homocysteine metabolism* | MethylCare™ | Features calcium L-5-methyltetrahydrofolate—a body-ready, nature-identical folate—along with N-acetyl-L-cysteine, vitamins ${\rm B_a}$ and methylated ${\rm B_{12}}$ and betaine HCl. | Methylation support * Healthy homocysteine metabolism* | Two softgels daily | | |
| | | Supporting Formulas | | | | |
| Detox | Silymarin 80™ | Features milk thistle seed extract providing 56 mg of silymarin per serving. | • Liver protection * | One tablet daily | | |
| Gastrointestinal health | UltraFlora® Control | Supports body weight regulation by delivering targeted probiotic support as Bifidobacterium lactis B-420™, which has been shown to help control body fat and body weight.* | • Helps control body weight* | One capsule daily | | |
| Healthy blood glucose support | <u>Insinase</u> ® | Nutritional supplement with scientifically tested ingredients designed to support healthy insulin function.* | • Healthy insulin function* | Three tablets daily | | |
| Thyroid health | Thyrosol® | Nutritional support for healthy thyroid function along with additional support for stress-related fatigue.* | Healthy thyroid function* Supports stress-related fatigue* | Three capsules daily with food | | |
| Stress management | Serenagen® | Classic herbal stress management formula based on traditional Chinese medicine.* | Stress management* | Two tablets daily | | |
| Women's health | <u>Estrovera</u> ® | Provides relief for multiple menopausal symptoms, including hot flashes, sleep disturbances, mood swings, irritability, anxiety, and sexual problems.* | • Relieves multiple menopausal symptoms* | One tablet daily with food | | |



UltraMeal Cardio 360°

Support for the Nutritional Management of Dyslipidemia



Revolutionary Nutritional Support for Patients with Dyslipidemia

According to the National Health and Nutrition Examination Survey (NHANES 2003-2006), more than 1 in 2 American adults (105.3 million) have dyslipidemia—an abnormal level of blood lipids.¹ Dyslipidemia may be manifested by elevation of the serum total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), triglyceride (TG) levels, and lower levels of high-density lipoprotein cholesterol (HDL-C).

UltraMeal Cardio 360° is a medical food formulated to complement a science-based food plan—supporting multiple pathways in the body that impact cholesterol and TG levels to help nutritionally manage blood lipids and reduce progression to more serious health issues.

Why UltraMeal Cardio 360°?

- Features phytosterols (as Reducol®), including beta-sitosterol the most prevalent dietary phytosterol to help promote healthy blood lipids
- Contains next-generation SKRM XNT ProMatrix—a proprietary, highly bioavailable combination of xanthohumol (XNT) and a protein matrix
- Made with pea and rice protein with added essential amino acids, including BCAAs, to support lean body mass
- Contains soluble fiber and unsaturated fatty acids, which are known to promote reduction in LDL-C levels
- Beneficial blend of over 20 essential vitamins and minerals designed to support metabolic function

Key Ingredients

- Reducol®: A randomized, double-blind clinical trial in hypercholesterolemic subjects demonstrated that consumption of a margarine containing Reducol® (1.7 g/day) helped reduce LDL levels by 24.4% in conjunction with carefully outlined eating recommendations (Figure 1).²
- XNT ProMatrix®: In a randomized, double-blind, crossover clinical trial conducted by the Functional Medicine Research Center®†, XNT ProMatrix displayed 81% greater bioavailability than a control xanthohumol.³

24.4% Reduction in LDL Cholesterol

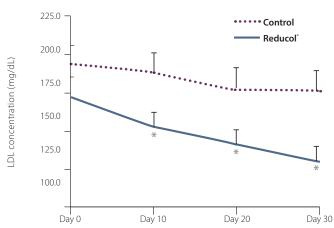


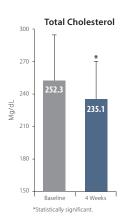
Figure 1. In a randomized, double-blind study, 32 men with hypercholesterolemia were fed either a precisely controlled diet (meal timing, composition, and quantity) or the same diet containing 1.7 g/day Reducol® in margarine for 30 days. At study end, the mean LDL-C concentrations had decreased by 8.9% in the control group and by 24.4% in the Reducol® group. LDL-C levels were significantly lower (p<0.05) by 15.5% in the Reducol® group.





Clinical Research

- In the multisite prospective case series, changes in plasma lipid profile variables from baseline to 4 and 8 weeks were measured after daily consumption of UltraMeal Cardio 360° in subjects with dyslipidemia.³
 - After 4 weeks, a significant beneficial modification in the lipid profile including TC (6.2%), LDL-C (8.5%), and ApoB (8.2%) was observed (Figure 2).
 - After 8 weeks, a significant reduction in comparison with baseline was seen in the levels of TC (-6.4%), LDL-C (-10.0%), and waist circumference (-2.0%).



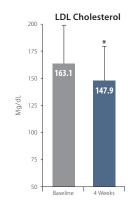


Figure 2. Significant changes in TC and LDL-C levels at 4 weeks compared with baseline (mean \pm SD; n=19).

UltraMeal Cardio 360° Medical Food

Flavor: Pear Form: Powder

Serving Size: 2 Scoops (36 g)

| Calories | 150 |
|---------------------|-------------------|
| Total Fat | 5 g |
| Saturated Fat | |
| Trans Fat | 0 g |
| Polyunsaturated Fat | 1 g |
| Monounsaturated Fat | 2.5 g |
| Cholesterol | 0 mg |
| Sodium | 130 mg |
| Potassium | 90 mg |
| Total Carbohydrate | 14 g |
| Dietary Fiber | 5 g |
| Sugars | 4 g |
| Protein | 13 g [†] |
| | |

| Typical Amino Acid Profile per Serving* | | | | |
|--|-----------------|--|--|--|
| Amino Acid | .mg/Serving | | | |
| L-Alanine | 590 | | | |
| L-Arginine*** | 1,160 | | | |
| L-Aspartic Acid | 1,470 | | | |
| L-Cystine (Cysteine)*** | 160 | | | |
| L-Glutamic Acid | 2,210 | | | |
| Glycine*** | 540 | | | |
| L-Histidine** | | | | |
| L-Isoleucine (BCAA)** | 810 | | | |
| L-Leucine (BCAA)** | 1,830 | | | |
| L-Lysine** | 1,820 | | | |
| L-Methionine** | 170 | | | |
| L-Phenylalanine** | 720 | | | |
| L-Proline*** | 590 | | | |
| L-Serine*** | 680 | | | |
| L-Threonine** | 500 | | | |
| L-Tryptophan** | 140 | | | |
| L-Tyrosine*** | 530 | | | |
| L-Valine (BCAA)** | 1,150 | | | |
| *Contributed by pea protein, rice protein, and add | ded amino acids | | | |

Each Serving Contains:

| Vitamin A (retinyl palmitate) | 1,250 IU |
|--|---------------------|
| Vitamin C | 30 mg |
| Calcium | 150 mg |
| Iron | 3 mg |
| Vitamin D ₃ (as cholecalciferol) | 400 IŬ |
| Vitamin E | 7.5 IU |
| Thiamin | |
| Riboflavin | 0.425 mg |
| Niacin | 5 ma |
| Vitamin B ₆ | |
| Folate | |
| (as calcium L-5-methyltetrahyd | rofolate†††) |
| Vitamin B ₁₂ (as methylcobalamin) | |
| Biotin | |
| Pantothenic Acid | 2.5 mg |
| Phosphorus | |
| lodine | |
| Magnesium | 80 mg |
| Zinc | |
| Selenium | 52.5 mcg |
| Copper | 2 ma |
| Manganese | |
| Chromium | 120 mcg |
| Chloride | 220 ma |
| Plant Sterols# | |
| (including 700 mg beta-sitostero | |
| Alpha-Linolenic Acid (ALA) | 400 mg [‡] |
| (from flaxseed) | |
| Rice Protein Matrix and Polypheno | ols 250 g‡ |
| from Hops (Humulus Iupulus L.) | ŭ |
| Cone Extract (standardized to 2.5 | 5% |
| xanthohumol) | |
| , | |

^{††}As Metafolin®. Metafolin® is a registered trademark of Merck KGaA, Darmstadt Germany

Directions: Blend (for no longer than 15 seconds), shake, or briskly stir about 2 level scoops of UltraMeal Cardio 360° (36 g) into 8 ounces of chilled water twice daily, or as directed by your healthcare practitioner. Consume within 10 minutes of reconstitution. You may also blend with ice cubes and/or your favorite fruit.

Ingredients: Pea protein isolate, isomalto-oligosaccharide, rice protein concentrate, high oleic sunflower oil, organic cane sugar, flaxseed, L-lysine HCl, phytosterols, L-leucine, silica, natural flavors^, magnesium citrate, L-valine, guar gum, rice protein matrix and polyphenols from hops extract, vitamin and mineral blend (zinc gluconate, ascorbic acid, manganese gluconate, d-alpha tocopheryl acetate, copper gluconate, D-biotin, retinyl palmitate, niacinamide, cholecalciferol, d-calcium pantothenate, chromium picolinate, pyridoxine HCl, riboflavin, potassium iodide, thiamin HCl, calcium L-5methyltetrahydrofolate, selenomethionine, and methylcobalamin), L-isoleucine, dicalcium phosphate, Luo Han Guo fruit (monk fruit) extract, and xanthan gum.

This product is non-GMO and gluten-free.

CAUTION: This medical food has not been studied in children and pregnant or nursing women. If taking medication or other nutritional supplements, consult your healthcare practitioner before use. For adult use only. Keep out of reach of children.

References:

- Toth PP, Potter D, Ming EE. Prevalence of lipid abnormalities in the United States: the National Health and
- Nutrition Examination Survey 2003-2006. *J Clin Lipidol*. 2012;6:325-330.

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^{**}Essential amino acid
***Conditionally essential amino acid

^{†15} q total protein with added amino acids: L-lysine, L-leucine, I-valine, I-isoleucine, and Sustamine

[#]As Reducol®. Reducol® is a registered trademark of Pharmachem

[†]Daily value not established.

Niatain®

Support for healthy lipid metabolism*



Niatain features a high-quality form of nicotinic acid in an extended-release formula designed to reduce the flushing normally associated with niacin intake. It has been formulated with a nonwax coating for effective dissolution. For decades, niacin has been extensively researched and endorsed as support for healthy lipid metabolism.*

Clinical applications for Niatain

The benefits of niacin have been well-established over decades of research and clinical trials in multiple types of individuals.¹⁻⁴ Doses of 1-3 g of niacin per day have been shown to support healthy blood lipid concentrations, specifically supporting blood levels of:*1-4

- LDL-cholesterol already in the normal range
- HDL-cholesterol already in the normal range
- Plasma triglycerides already in the normal range

Niacin has also been shown to support healthy levels of vascular and immune markers relevant to cardiometabolic health.*5-8

Why Niatain?

Extended release technology reduces flushing

The dissolution of niacin is important for efficacy and safety. Immediate-release forms of niacin commonly produce undesirable symptoms of flushing (redness of skin, warmth, and itching). As a result, it often leads to discontinuation.⁹

Niatain is a high-quality niacin formula that features Benecel™ technology. Derived from cellulose, this technology forms a barrier that enhances the tablets' moisture-resistance, which slows dissolution time to provide a steady, sustained release of niacin to help reduce flushing.*

Niatain testing and quality

Following formulation and QA/QC testing to ensure niacin concentrations, the dissolution profile is tested by an independent third-party analytical lab to ensure continual release.†

Clinical tips for patients experiencing niacin flushing

- Flushing decreases in intensity and frequency with continued niacin supplementation¹²
- Extended-release formulas should be taken at bedtime with a low-fat snack¹²
- Avoid spicy foods, hot beverages, alcohol, or taking hot showers or baths around the timing of niacin consumption¹²
- In clinical studies, consuming niacin with apple pectin¹³ or a source of quercetin¹⁴ helped reduce flushing. In preclinical studies, luteolin in conjunction with niacin reduced niacin flushing.*¹⁵

During development, Niatain was compared with a comparator extended-release nicotinic acid formula, which has been shown previously to support healthy plasma lipid profile and acceptable safety profile. Dissolution profile as tested using methods outlined by the US Pharmacopeia.



(>) Cardiovascular Health

Sizes: 60 and 120

Serving Size: 1 Tablet[†]

Amount Per Serving:

| Niacin (as nicotinic acid) | 500 mg |
|-------------------------------------|--------|
| Calcium (as dicalcium phosphate) | |
| Phosphorus (as dicalcium phosphate) | |
| | |

Other Ingredients: Microcrystalline cellulose, hydroxypropyl-methylcellulose, magnesium stearate (vegetable), coating (hydroxypropylmethylcellulose, medium-chain triglycerides, and hydroxypropylcellulose), and silica.

Directions: Take one tablet with a meal one to two times daily or as directed by your healthcare practitioner.

This product is non-GMO, gluten-free, and vegetarian.

Warning: Do not use if pregnant or breastfeeding or if you have a history of gout or liver dysfunction. Larger than recommended doses of niacin have been associated with liver dysfunction. If taking cholesterol-lowering medications, please discuss with your clinician prior to use.

Caution: Niacin use may be associated with itching and/or flushing.

Storage: Keep tightly closed in a cool, dry place.

Certified



TruQuality: Transparency you can trust

We document our ingredient quality through TruQuality, an innovative transparency program that provides full access to data from third-party analytical tests performed on each lot. From heavy metal testing to active ingredient potency, we have laid it all on the table so that you know exactly what is inside each of our bottles.

Scan the QR code below to visit TruQuality:



Or visit Metagenics.com/TruQuality

Complementary Products

- CardioLux HDL™: Targeted support for HDL function and cardiovascular support*
- <u>UltraMeal Cardio 360°®</u> medical food:† Support for the nutritional management of dyslipidemia*
- <u>Berberine GT</u>: Supports cardiovascular health and healthy glucose metabolism*

†Notice: this product is 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.

*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.

References:

- 1. Taylor AJ et al. Circulation. 2004;110(23):3512-3517.
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 Second Supplement to USP 41-NF 36.





Supports cardiovascular health and healthy glucose metabolism*



Clinical applications

- · Maintaining healthy glucose and insulin metabolism*
- Supporting healthy lipid metabolism and cholesterol levels already in the normal range*

Why Berberine GT?

Berberine has potent molecular and metabolic effects; however, bioavailability is usually low due to P-glycoprotein activity in the gut.¹ Berberine GT contains epigallocatechin gallate (EGCG), an inhibitor of P-glycoprotein.² Preclinical studies suggest inhibition of P-glycoprotein improves berberine bioavailability.*³

Berberine GT features:

- 500 mg berberine HCl per capsule
- 80 mg EGCG per capsule
- Non-GMO, gluten-free, vegetarian
- TruQuality® transparency of purity and potency testing

Where do the key ingredients come from?

- Berberine is an alkaloid found in various plants.⁴
- EGCG is the most abundant polyphenol in green tea.5

Mechanisms of action

Berberine:

- Activates adenosine monophosphate kinase (AMPK) in human cells,⁶
 AMPK activation supports glucose metabolism via insulin-independent mechanisms*⁷
- Supports healthy lipid metabolism, such as healthy triglycerides, cholesterol, and HDL cholesterol already in the normal range*8-10
- Supports healthy insulin receptor function*11
- Has antioxidant properties¹²

EGCG from green tea extract:

- Supports healthy lipid metabolism, healthy insulin function and healthy cholesterol levels already in the normal range*5,13
- Inhibits P-glycoprotein in intestinal cells in preclinical studies;^{2,14}
 P-glycoprotein activity has been linked with reduced absorption of berberine*1,15
- Has powerful antioxidant properties*16



TruQuality: Transparency you can trust

We document our berberine and EGCG quality through TruQuality, an innovative transparency program that provides full access to data from third-party analytical tests performed on each lot. From heavy metal testing to active ingredient potency, we have laid it all on the table so that you know exactly what is inside each of our bottles. Scan the QR code below to visit TruQuality:



Or visit Metagenics.com/TruQuality

Form: 60 Capsules

Serving Size: 1 Capsule[†]

Amount Per Serving:

Berberine HCI... (from Phellodendron amurense bark extract) Decaffeinated^{††} Green Tea.. 200 mg (Camellia sinensis) Leaf Extract [standardized to 60% (120 mg)

catechins and 40% (80 mg) epigallocatechin gallate (EGCG)]

Other Ingredients: Capsule (hydroxypropylmethylcellulose), microcrystalline cellulose, magnesium stearate (vegetable), and silica.

Directions: Take one capsule two to three times daily or as directed by your healthcare practitioner.

This product is non-GMO, gluten-free, and vegetarian.

Warning: Do not use if pregnant or nursing.

Caution: If taking medications, including cyclosporine and oral antidiabetic medications, or other nutritional supplements consult your healthcare practitioner before use. Keep out of the reach of

Tamper Evident: Do not use if safety seal is missing or broken.

Storage: Keep tightly closed in a cool, dry place.

or visit Metagenics.com



(>) Talk to your healthcare practitioner about Berberine GT

Complementary medical foods

- UltraMeal Cardio 360°®:† support for the nutritional management of dyslipidemia
- Ultra Glucose Control®:† support for the nutritional management of glucose response

†Notice: this product is to be used under the direct supervision of a physician or other licensed healthcare

Complementary supplement formulas

- CardioLux™ HDL: comprehensive support for lipid levels and HDI function*
- Coratin: red yeast rice & plant sterol combination
- SPM Active®: specialized pro-resolving mediators

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease

References:

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