



# HEART HEALTH SYSTEM

**SYS-TEM** \ˈsɪs-təm\ *n* [LL *systemat-*, *systema*]

1: a regularly interacting or interdependent group of items forming a unified whole.

*Make Life Better.*

Nearly every adult is concerned about maintaining good heart health. Unicity's Heart Health System features the latest scientifically formulated supplements for nourishing and strengthening the cardiovascular system.

- Replenishes nutrients vital to the heart\*
- Supports healthy heart muscle and blood flow\*
- Provides heart-specific antioxidant protection\*

**Problem:** As the body's hardest-working system, the cardiovascular system experiences considerable mechanical stress and damage.

**Solution:** By supplying high-potency anti-oxidants and other powerful substances, Unicity's Heart Health products help reduce free-radical damage to cardiovascular cells and promote rebuilding of vital cardiovascular tissues.\*

**Problem:** In nearly everybody, the circulatory system develops unhealthy fat deposits, hardening of the arteries, and other health concerns.

**Solution:** The Heart Health System helps lower cholesterol, promotes flexible blood vessels, strengthens vascular walls, and helps cardiovascular cell membranes stay healthy.\*

**Problem:** As we age, levels of heart-healthy nutrients decrease in our bodies, making the heart, arteries, and vessels more vulnerable.

**Solution:** To ensure optimal cardiovascular nutrition, the Heart Health System supplies crucial nutrients at effective levels, helping support healthy heart function, blood flow, and heart rhythm.\*

## UNIQUE BENEFITS

Unicity has developed an advanced line of heart health products extensively researched and tested using the latest in nutritional science to deliver a holistic approach to heart health. Each product within the heart health system provides a specific focus to address the following heart health functions:

- ▶ Providing essential nutrients, anti-oxidants, and vitamins to enhance overall heart performance and vitality
- ▶ Lower the bad Cholesterol (LDL) and total cholesterol
- ▶ Removing plaque deposits from coronary arteries
- ▶ Rebuilding and increasing heart muscle strength and heart pumping capacity
- ▶ Strengthening and repairing blood vessel walls
- ▶ Maintains a healthy blood pressure

## UNIQUE PRODUCTS

The Heart Health System is comprised of five central products supported by additional specialized products. Four (4) of the central products are contained within the Heart Health System and the fifth product (Bios Life 2™) is contained within the core Life Health System.

- Cardio Essentials™** – Strengthens Heart Muscle and pumping performance
- Vascular Complete** – Strengthens Blood Vessel Walls
- Cellular Essentials** – Removes Plaque & Improves Cell Growth & Repair
- Essential Fish Oil** – Supports Cardiovascular and Circulatory Functions
- Bios Life 2™** (LifeHealth System) – Reduces Cholesterol & Provides Fiber

**Additional supporting products** are designed to enhance these five central products by providing specialized nutrition, vitamins, and supplements for specific heart-related functions. The additional supporting heart health products are,

- CoQ10** – Specialized dose of CoQ10 to aid in generating energy for the heart muscle.
- Vitamin E** – Proven fat-soluble anti-oxidant in the prevention of coronary artery disease.
- EFA** – Additional flax seed, borage, black currant, and primrose oils to provide Omega 3, 6, and 9 fatty acids.
- B-Complex with C** – Vitamins essential for energy generation

**Why we are unique?**

- ▶ Highly bioavailable, and effective ingredients
- ▶ Science, Research, and Medical Endorsements
- ▶ Cardio Essentials, Bios Life 2 are included in the – 2004/2005 Physicians' Desk Reference (PDR)
- ▶ All products scientifically complement each other

\* 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.

## CARDIO-ESSENTIALS™

### Benefits:

1. Strengthens the heart muscle and increases heart performance through three main nutritional ingredients combined with Hawthorn extract.
  - ▶ 100 mg of Co-enzyme Q10
  - ▶ L-Carnitine
  - ▶ L-Taurine
  - ▶ Hawthorn extract
1. Backed by primary clinical studies

### Science & Nutritional Facts:

1. Co-enzyme Q10
  - ▶ Co-enzyme Q10 – is found in every cell of the human body and is key to the production of 95% of the energy consumed at the cellular level.
  - ▶ Co-enzyme Q10 – is an essential part of the energy producing mechanism.
  - ▶ Co-enzyme Q10 – is found in high concentrations in muscle cells – especially in the heart. The heart creates a greatest demand for energy. CoQ10 increases the energy production of the mitochondria, which are the cells' powerplants.
  - ▶ Co-enzyme Q10 – is an anti-oxidant much like Vitamin C & E, which protects cells and cell membrane walls from being damaged.
2. L-Carnitine
  - ▶ L-carnitine is a combination of two essential amino acids, lysine and methionine. Essential means that the body cannot synthesize these by itself.
  - ▶ L-carnitine is essential in utilizing fatty acids to serve as fuel for energy production in the mitochondria, the power plants of the cells.
  - ▶ L-carnitine activates the enzyme responsible for glucose metabolism
3. Taurine
  - ▶ Taking taurine improves left ventricle function
  - ▶ Taurine improves symptoms of heart failure.
  - ▶ Taurine is important for intra cellular calcium transport.
  - ▶ has slight blood pressure lowering effect
  - ▶ improves platelet function
4. Hawthorn
  - ▶ The herb Hawthorn contains powerful antioxidants and natural bioflavonoids that support the health of the entire cardiovascular system.
  - ▶ Hawthorn increases the body's ability to utilize oxygen, and the heart's ability to utilize calcium, which is important for efficient muscle function.
  - ▶ Its phytochemicals support blood flow by vasodilation, the relaxation of the arteries.
  - ▶ Helps regulate both high and low blood pressure. The bioflavonoids help strengthen the contractive force of the heart, and gently dilate & relax the coronary blood vessels, improving overall circulation.



### Cardio Essentials™

This exclusive, powerful formula supplies high amounts of coenzyme Q-10, L-carnitine, L-aurine, and Hawthorn to nourish the heart's muscle tissue, support healthy heart rhythm, promote pumping strength, and help the heart maximize its use of energy.\*

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### Primary Clinical Studies

The ingredients of Cardio Essentials have been studied in a trial in congestive heart failure patients. The product proved to be effective in improving left ventricular function, and end-diastolic volume.

- ▶ Jeejeebhoy et al, "Nutritional supplementation with MyoVive repletes essential cardiac myocyte nutrients and reduces left ventricular size in patients with left ventricular dysfunction," *American Heart Journal* (2002) 143, 1092-1100.



## VASCULAR COMPLETE<sup>™</sup>

### Benefits:

1. Strengthens blood vessel walls
  - ▶ Keeps veins flexible and strong. When arteries walls become brittle plaque ruptures occur and result in heart attacks or strokes.
2. Key nutritional circulatory ingredients
  - ▶ Amino Acids and Anti-Oxidants

### Science & Nutritional Facts:

1. Amino Acids (l-arginine, l-lysine, l-proline, l-ornithine):
  - ▶ Amino acids are the building blocks of proteins. Proteins play an important role as enzymes in all biochemical reactions. They also have many structural roles, such as in the vascular system. Adequate protein synthesis improves vascular cell strength.
2. Anti-Oxidants (citrus bioflavonoids, rutin, hesperidin, acerola fruit extract)
  - ▶ Free radicals attack vital body systems, such as proteins, DNA, and cells. Strong antioxidants in Vascular Complete protect our body against these free radicals, and therefore structural damage to vein/artery walls.

## CELLULAR ESSENTIALS<sup>™</sup>

### Benefits:

1. Removes plaque deposits (atherosclerosis) from coronary arteries while repairing cell walls and enhancing cell growth and repair.
2. Softens and makes more supple blood vessels – thus reversing atherosclerosis (hardening of the arteries).
3. Contains two products: Bio-C and Cardio-Basics
4. Backed by primary clinical studies

### Science & Nutritional Facts:

1. Bio-C : High-potency blend of four (4) forms of Vitamin C
  - ▶ Among others Ascorbyl Palmitate (unique fat-soluble form of Vitamin C)
  - ▶ Bioflavonoids to promote absorption of vitamin C within cellular walls
  - ▶ Breaks down plaque inside artery walls
2. Bio-C : Body cannot produce Vitamin C – must be replenished daily
  - ▶ Vitamin C benefits particularly the cardiovascular system
  - ▶ Integral part to the production of collagen, an important structural component of arterial walls
3. Cardio-Basics: Heart-specific blend of vitamins, amino acids, and minerals
  - ▶ Contains anti-oxidants to protect against free radical damage to arterial walls and fatty acids.
  - ▶ Supports circulatory functions.
  - ▶ Releases calcium for the heart muscle function.

### Primary Clinical Studies

Cell Essentials has been studied in a group of documented coronary artery disease patients. The product proved to reduce the calcification in the arteries.

- ▶ Rath et al, "Nutritional supplement program halts progression of

### Vascular Complete<sup>®</sup>

This unique product has been specifically formulated with nutrients known to optimize the health of blood vessels by promoting elasticity, strength, and efficiency. Vascular Complete provides nutrients and cell repair factors to optimize the function of your blood vessels and the entire cardiovascular system.\*

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### Cellular Essentials<sup>®</sup> Pack

Featuring Cardio-Basics<sup>®</sup> and Bio-C<sup>™</sup>, this pack promotes cardiovascular health by nourishing cells with a special combination of vitamins, minerals, antioxidants, plant compounds, phytonutrients, and amino acids. This product actively removes plaques from clogged arteries\*

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early coronary atherosclerosis documented by Ultrafast Computerized Tomography." *Journal of Applied Nutrition* (1996) 48, 67-78.

- ▶ Curley, B. et al, "Cell Essentials cleared the arteries of the carotid artery," *Manuscript in preparation.*

## ESSENTIAL FISH OILS

### Benefits:

1. Nutrients to support vital organs, stimulate cardiovascular and circulatory functions, and maintain healthy cholesterol levels.
2. Omega 3 fatty acids from fish oils help cardiovascular system stay in balance and function properly.
3. Enhances blood flow and cellular health.
4. Maintain healthy blood pressure.

### Science & Nutritional Facts:

1. Omega 3 Fatty Acids: Enhance Cellular Health
  - ▶ Provide anti inflammatory agents to the whole body, has antithrombotic effect
  - ▶ Reduce narrowing of the circulatory system, thereby keeping blood pressure in balance.
  - ▶ Reduce heart rate, preventing other heart diseases.
  - ▶ Dissolve body fat and increase metabolism of enzymes and proteins, thus increasing energy production within cells.
2. Fish Oil (DHA & EPA) reduces Triglyceride levels in the blood.
  - ▶ Triglycerides are simply fat. All the fats you eat are triglycerides, and triglycerides are transported through the bloodstream as a source of energy for the body. Fatty acids from triglycerides are used for muscle work or stored in body fat (for future energy).
  - ▶ Fish oils decrease blood viscosity
  - ▶ Saturated fats are prone to form plaque in the veins and thus promote heart disease. We call these "bad fats".
  - ▶ Unsaturated fatty acids are present in the fish oil (DHA and EPA). These are "good fats" which are more easily consumed in the production of energy through enzymes and proteins.
  - ▶ The more unsaturated fats, the less cholesterol, plaque build- up, and more consumable energy.



### Essential Fish Oil Concentrate

This supplement's beneficial omega-3 fatty acids strengthen and protect the cardiovascular system and help maintain healthy cholesterol levels and normal blood pressure.\*

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## BIOS LIFE 2<sup>®</sup>—(core product within the Life Health System)

### Benefits:

1. Natural Fiber Drink, patented and clinically proven to reduce total and LDL (bad) cholesterol.
2. Soluble and insoluble fibers to aid in digestive health.
3. Stabilizes blood glucose levels in diabetics — reduces Homocysteine, an independent risk factor.

### Science & Nutritional Facts:

1. Cholesterol: What is it?

High levels of Cholesterol are among the major risk factors for heart disease but are among the most manageable risk factors. Fat is a significant contributor to cholesterol problems.

Cholesterol is essential for life to make strong cell membranes and serves as a precursor for hormones. The body manufactures about 1,000 mgs of cholesterol daily. Too much cholesterol can cause fatty plaques on arterial walls that narrow the artery. This condition is known as atherosclerosis. The build up of fat on the vessel walls can occlude and, in some cases, totally block the flow of blood to organs like the heart. When atherosclerosis occurs in heart vessels, also known as coronary heart disease, chest pain and heart attacks can result.

The method of cholesterol transport in the blood separates cholesterol into “good” and “bad” types. The harmful type of cholesterol is known as LDL. Cholesterol and triglycerides are closely watched by your physician. Lipoproteins (LDLs) are a combination of fat (lipo) and protein. LDLs are the most common type of cholesterol carrier in your blood stream and are known as bad cholesterol because excessive amounts of this lipoprotein stick to vessel walls forming plaques.

High-density lipoproteins (HDLs) are known as good cholesterol carriers because high levels of HDLs are associated with a reduced risk of heart disease. HDLs unstick LDLs from vessel walls and transport cholesterol out of the arteries.

### How Bios Life 2 Works!

1. Mix Bios Life 2 with water or juice and drink immediately about 20 minutes before your meal.
2. The acid conditions in the stomach will cause Bios Life 2 to form a thick fiber gel in your stomach and small intestine.
3. When fat from your meal reaches your digestive tract, the body starts to secrete bile acids to help digestion of the fat.
4. The liver uses cholesterol to synthesize these bile acids.
5. The bile acids are trapped inside the fiber gel.
6. The fiber gel removes the bile acids, along with the cholesterol out of the body. In that way, fiber reduces the cholesterol levels in your body.

Bios Life 2 is a unique, patented fiber product. It's not just a fiber drink. The patent protects two ingredients of Bios Life 2 that work together in a unique fashion to form a gel structure that binds bile acids efficiently.

### Primary Clinical Studies

Unicity has completed a number of clinical studies with Bios Life 2. This work proves the side-effect free cholesterol lowering power of Bios Life 2. Other studies



### Bios Life 2<sup>®</sup>

Clinically proven to lower cholesterol, Bios Life 2 provides essential fiber and other nutrients to improve your cardiovascular and digestive health and support healthy blood glucose levels. Conveniently packaged in single-serving packets or bulk canisters.

- Item 6104 Natural, canister
- Item 6110 Natural, packets
- Item 21544 Natural Tropical Fruit, canister
- Item 6120 Natural Tropical Fruit, packets
- Item 6100 Original, canister
- Item 6109 Original, packets

indicate glucose levels stabilization in diabetics.

- ▶ Freed, S. and Joffe, D., "The Clinical Impact of Fiber Supplementation for the Reduction of Postprandial Blood Glucose and Risk Reduction of Complications from Diabetes II," *Manuscript in preparation* (2004).
- ▶ Balajadia, E., Valerio, A. and Yumul, N., "Beneficial effects of Bios Life 2 (dietary fiber supplement) in patients with dyslipidemia," *Manuscript in preparation* (2004).
- ▶ Freed, S. and Joffe, D., "The Clinical Impact of Fiber Supplementation for the Reduction of Postprandial Blood Glucose and Risk Reduction of Complications from Diabetes II," *Diabetes in Control*, 12-18 (2000).
- ▶ Sprecher, D. L. and Pearce, G. L., "Fiber-multivitamin combination therapy: a beneficial influence on low-density lipoprotein and homocysteine," *Metabolism* 51, 1166-70 (2004).

In the Cleveland Clinic Study, Dr. Dennis Sprecher studied the effects of Bios Life 2 in 119 subjects with elevated cholesterol. The study started with a 6 week run-in period, in which all subjects followed a low fat diet, as advised by the National Cholesterol Education Program. This ensured comparable cholesterol levels in all subjects prior to supplementation. Then the study population was divided into two groups, one taking Bios Life 2 for eight weeks and one taking placebo for the same time. Already after four weeks the group taking Bios Life 2 had a reduction in the bad cholesterol (LDL-c) of 7.1%, which even increased to 7.9% reduction after eight weeks. In the same time, the placebo group had an increase in the bad cholesterol of 2.4%. Hence the total difference in reduction of the bad cholesterol amounted to 10.3% between both groups. Two other independent risk factors for heart disease, namely apoprotein B and homocysteine were also reduced by 20 and 11% respectively in the group taking Bios Life 2. The study did not reveal any negative effects on total glycerides and HDL-c, the good cholesterol. Dr. Sprecher concluded that Bios Life 2 can be used in combination with prescription cholesterol lowering medication, possibly lowering the need for these medications, or use a stand-alone prevention strategy.