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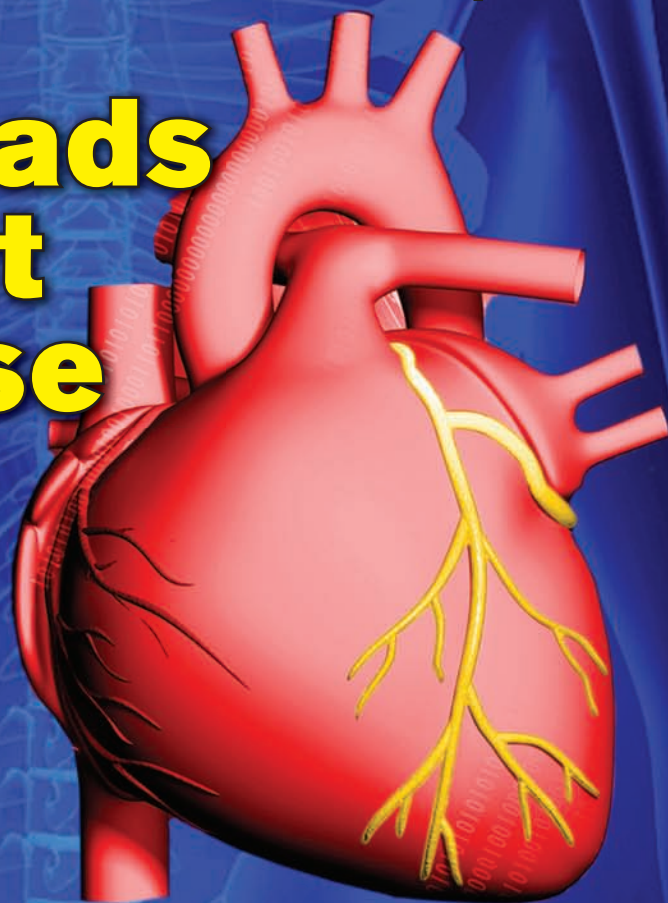
September 2010

## **Media Misleads Public About Heart Disease**

**Hidden Scourge  
of Food  
Sensitivities**

**Why Aging  
Humans Need  
Vitamins D and K**

**New Healing  
Cream  
For the Skin**



**DR. MICHAEL F. HOLICK**  
**Exclusive Interview with**  
**World Authority On Vitamin D**



# THE ULTIMATE TWO-PER-DAY TABLET

The following table compares the daily dosage of key nutrients included in both the Life Extension **Two-Per-Day Tablet** and **Centrum**®'s Daily Tablet:

SAMPLE INGREDIENT COMPARISON	LIFE EXTENSION TWO PER -DAY	CENTRUM®
Vitamin C	500 mg	60 mg
Vitamin D	2,000 IU	400 IU
Vitamin B1	75 mg	1.5 mg
Vitamin B2	50 mg	1.7 mg
Vitamin B6	75 mg	2 mg
Vitamin B12	300 mcg	6 mcg
Niacin (as niacinamide)	50 mg	20 mg
Pantothenic acid	100 mg	10 mg
Vitamin E	200 IU (natural)	30 IU (synthetic)
Folic acid	800 mcg	400 mcg
Zinc	30 mg	11 mg
Selenium	200 mcg	55 mcg
Lutein	5 mg	(none)*
Lycopene	2 mg	(none)*
Biotin	300 mcg	30 mcg
Boron	300 mcg	75 mcg
Chromium	200 mcg	35 mcg
Molybdenum	100 mcg	45 mcg
Magnesium	100 mg	50 mg
Manganese	2 mg	2.3 mg
Iodine	150 mcg	150 mcg
Potassium	25 mg	80 mg
Vitamin A (preformed)	500 IU	1,015 IU
Vitamin A (as beta-carotene)	4,500 IU	2,485 IU
Choline Bitartrate	20 mg	(none)
Inositol	50 mg	(none)
PABA	30 mg	(none)
Calcium	12 mg	200 mg

The most comprehensive nutrient formula in the world is **Life Extension Mix**. Some Foundation members, however, prefer to take their nutrients separately and need only a basic multi-nutrient supplement to fill the missing gaps. For many years, these members had to rely on commercial "one-a-day" supplements that provide very low potencies.

In response to requests for a science-based multi-nutrient, a special formula was compounded to provide the greatest potencies that can fit into two tablets. When compared to conventional "one-a-day" products, **Life Extension Two-Per-Day** contains up to **50 times more potency!**

The box on this page reveals how much more potent the **Two-Per-Day** formula is compared to the leading commercial multi-vitamin. Few consumers realize that commercial supplements often contain the cheapest form of nutrients that don't provide optimal benefits. For example, the 30 IU of synthetic vitamin E contained in Centrum® may provide relatively little vitamin E to the bloodstream. Studies show that synthetic vitamin E is distributed throughout the body only about half as much as natural vitamin E.<sup>1-5</sup> The 200 IU of natural vitamin E contained in **Two-Per-Day** thus provides about 13 times more vitamin E activity than does Centrum®.



Item #01415

## Compared to Centrum®, Two-Per-Day Tablets provide about:

- 5 times more Vitamin D
- 8 times more Vitamin C
- 7 times more Vitamin E
- 10 times more Biotin
- 40 times more Boron
- 4 times more Selenium
- 37 times more Vitamin B6
- 50 times more Vitamin B1
- 50 times more Vitamin B12
- More than twice as much niacin, zinc, and many other nutrients

Life Extension Two-Per-Day Tablets provide much higher potencies of key nutrients and represent a better value than many commercial brands.

A bottle of 120 Life Extension Two-Per-Day Tablets retails for \$18.95. If a member buys four bottles, the price is reduced to \$12.75 per bottle. (The retail price for 180 tablets of Centrum® is around \$14.)

Contains soybeans, rice, and corn.

\* Centrum® no longer contains significant amounts of lycopene nor lutein.

### References

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5. *J Nutr Biochem.* 2004 Jul;15(7):380-95.

To order Life Extension Two-Per-Day Tablets,  
call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)





## REPORTS



### 38 VITAL LINK BETWEEN VITAMINS D AND K

While most people now know they need to maintain optimal levels of **vitamin D**, conventional medicine has failed to alert them to the equally vital need for **vitamin K**. Here we detail how both of these synergistic nutrients are required to combat atherosclerosis and osteoporosis, two prevalent and life-threatening degenerative diseases.

### 50 BOOK EXCERPT: THE VITAMIN D SOLUTION

One billion people are deficient in vitamin D, including three out of every four Americans. In this excerpt from his remarkable new book, *The Vitamin D Solution*, world authority Dr. Michael F. Holick explores the consequences of this global nutritional disaster. He also offers fresh insights into the critical role vitamin D plays in warding off multiple afflictions and killer diseases of aging, including arthritis, heart disease, cancer, diabetes, dementia, and depression.

### 62 EXCLUSIVE INTERVIEW WITH PIONEERING VITAMIN D EXPERT DR. MICHAEL F. HOLICK

The recent explosion of scientific interest in vitamin D may be credited largely to the work of one visionary scientist, Dr. Michael F. Holick. In his first sit-down interview with *Life Extension*® since 2003, Dr. Holick discusses vitamin D's rapid ascent into mainstream medical awareness, the impact of his work, and future research.

### 74 NOVEL CREAM HEALS SKIN LESIONS NATURALLY

From ulcers on the hands and feet to ruptured capillaries and minor traumas, many aging individuals develop painful, unsightly wounds and lesions that take a long time to heal. The causes of this widespread problem are explored, along with four topical agents that can speed skin healing.

### 84 HIDDEN SCOURGE OF FOOD SENSITIVITIES

Do you suffer from chronic "mystery" symptoms—headaches, digestive problems, or more severe conditions your doctor can't explain? You're not alone. An estimated **60%** of all undiagnosed ailments are the result of **food sensitivities**. A cutting-edge blood test may now help you identify and *eliminate* the dietary factors behind your symptoms.

## DEPARTMENTS

### 27 IN THE NEWS

Long-term vitamin E intake lowers COPD risk; insufficient calcium linked to hypertension and osteoporosis; zinc protects aging arteries; B6 and B12 combat depression.



## 7 ON THE COVER

### MEDIA MISLEADS PUBLIC ABOUT HEART DISEASE

After Bill Clinton and Dick Cheney's heart problems re-emerged, mainstream media outlets and "expert" cardiologists lined up to parrot the conventional wisdom that there is no cure for coronary artery disease. *Life Extension*® members know otherwise. As we have long reported, a *wealth* of clinical data demonstrates that arterial blockage can be halted and even reversed.





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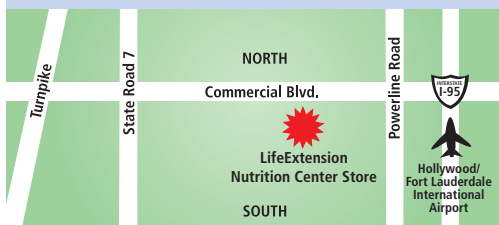
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# CoQ10 TECHNOLOGY

**Life Extension®** was the first to introduce **coenzyme Q10** to the United States way back in **1983**. Since then, we have consistently introduced more **potent** and better **absorbable** forms of this critical nutrient.

**Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** contains an organic compound called **PrimaVie® shilajit** that research shows **doubles** levels of **CoQ10** in the **mitochondria**.<sup>1</sup>

**Shilajit** has been shown to help restore and sustain **cellular energy**. The latest studies reveal that when **shilajit** is **combined** with **CoQ10**, **cellular energy** gains substantially increase.

In a breakthrough preliminary study, the combination of **CoQ10** and **shilajit** produced a **56%** increase in cellular energy production in the **brain—40% better** than **CoQ10** alone. In **muscle** there was a **144%** increase, or **27% better** than **CoQ10** alone.<sup>2</sup>

Researchers have found that **shilajit** works to boost **CoQ10's** beneficial effects by:

1. Stabilizing **CoQ10** in its superior **ubiquinol** form, thereby *prolonging* its action at the cellular level.<sup>3,4</sup>
2. Facilitating more efficient *delivery* of **CoQ10** into the **mitochondria**, resulting in greater cellular energy output.<sup>5-9</sup>

Scientific analysis shows that **shilajit** itself is rich in essential compounds that promote mitochondrial metabolism. Part of **shilajit's** beneficial effects derives from its ability to help the mitochondria convert **fats** and **sugars** into adenosine triphosphate, or **ATP**—the body's main source of energy.<sup>5-9</sup>

## Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™

Combining ubiquinol **CoQ10** with **shilajit** generates a powerful **synergy** that supports more youthful cellular energy production than **CoQ10** alone.<sup>2,4,5</sup>

The retail price for 60 100-mg softgels of **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** is **\$62**. If a member buys four bottles, the price is reduced to **\$42** per bottle. **Item #01426**

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To order **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** call **1-800-544-4440** or visit **www.LifeExtension.com**

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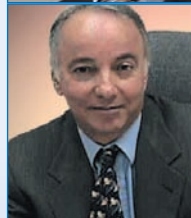
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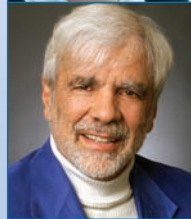
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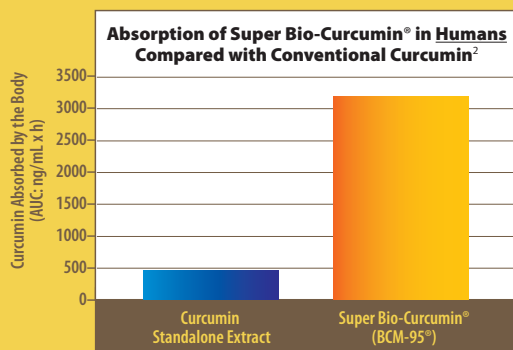
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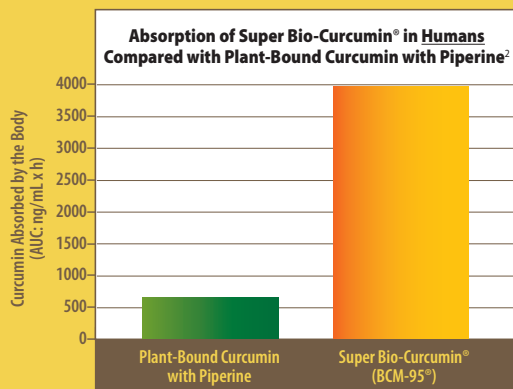
**Jonathan V. Wright, MD**, is medical director of the Tahoma Clinic in Renton, WA. He received his MD from the University of Michigan and has taught natural biochemical medical treatments since 1983. Dr. Wright pioneered the use of bioidentical estrogens and DHEA in daily medical practice. He has authored 11 books and publishes *Nutrition and Healing*, a monthly newsletter with a worldwide circulation of more than 100,000.

# Achieve Multiple Health Benefits From Highly Absorbable CURCUMIN

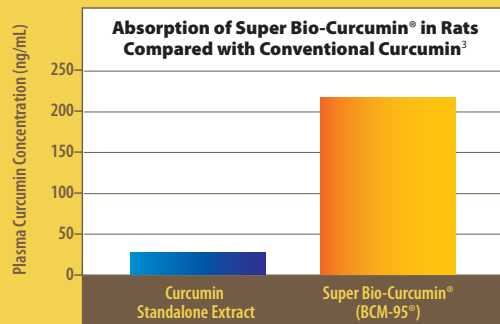
## How Much Curcumin Are You Absorbing?



**Chart 1.** Super Bio-Curcumin® (BCM-95®) showed 6.9 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with conventional curcumin (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin absorbed by the body over 8 hours).



**Chart 2.** Super Bio-Curcumin® (BCM-95®) showed 6.3 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with plant-bound curcumin with piperine (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin absorbed by the body over 8 hours).



**Chart 3.** Bioavailability in rats fed with BCM-95® is 7.8 times higher than conventional curcumin.

Curcumin and other *turmeric* constituents are impressing scientists around the world with their remarkable health benefits, such as suppressing inflammatory factors, fighting free radicals, and promoting healthy DNA function. The problem is that curcumin is *poorly* absorbed into the bloodstream.

**Super Bio-Curcumin®** has been shown to **absorb up to seven times better** than conventional curcumin. This patent-pending formula thus represents the most cost-effective way to supplement with this critical nutrient.<sup>1,2</sup>

The remarkable absorption studies charted to the left reveal that just **one 400 mg** capsule a day of this turmeric compound can provide *curcumin* blood levels equivalent to ingesting **2,500–2,800 mg** of commercial curcumin supplements.

Not only does this novel turmeric formulation provide far greater *peak* blood levels, but the curcumin also remains in the bloodstream almost **twice as long** compared with conventional supplements.

What's more, this enhanced absorption delivery complex provides other beneficial turmeric compounds in addition to standardized *curcumin*.

## SUPER BIO-CURCUMIN® WITH BCM-95®



Item #00407

Life Extension's **Super Bio-Curcumin®** contains the patent-pending BCM-95® turmeric compound. A bottle containing **60 Super Bio-Curcumin® with BCM-95®** capsules retails for \$30. If a member buys four bottles, the price is reduced to just **\$19.88** per bottle. Each bottle will last most members two months. *Contains rice.*

Bio-Curcumin® and BCM-95® are registered trademarks of Dolcas-Biotech, LLC.

### References:

1. *Spice India*. 2006 Sept;19(9):11-5.
2. A novel bioenhanced preparation of curcuminoids. Study submitted for publication, 2007.
3. Bioavailability study of BCM-95® in rats. Orcas International Inc. 2006.

**To order Super Bio-Curcumin® with BCM-95®, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)**



## Media Says: No Cure for Heart Disease



BY WILLIAM FALOON

In response to the failure of quadruple-bypass surgery to keep blood flowing to Bill Clinton's heart, the **Associated Press** proclaimed that there is no cure for coronary artery disease.<sup>1</sup>

As we predicted in the November 2004 issue of **Life Extension Magazine**®, a lot more than statin drugs would be needed to prevent *atherosclerotic* plaque from re-occluding the former President's coronary blood flow.

According to his cardiologist, Bill Clinton did everything right since his 2004 bypass, including eating well, exercising, and keeping his blood pressure and cholesterol in check. Despite this, the bypass graft re-occluded at the beginning of this year, necessitating the insertion of two stents to prop the vessel open.

Mainstream cardiologists were quoted in the media stating that those undergoing coronary artery procedures often have to return every four to five years for tune-ups, i.e., to reopen newly blocked coronary arteries. One cardiac surgeon bragged that he had performed 10 or 15 different stent procedures on the same patient over a period of time.

Bill Clinton's cardiologist stated that we don't have a cure for this condition, but we have excellent treatments.

These **blatant admissions** document the inability of conventional doctors to **prevent** and **reverse atherosclerosis**.



## AS WE SEE IT

### Life Extension® Members Know Otherwise

In response to Bill Clinton's heart attack and subsequent need for bypass surgery in 2004, *Life Extension* reminded its members that atherosclerosis arises from a chronic condition known as **endothelial dysfunction**.

We listed the risk factors that cause endothelial dysfunction and described how members could protect against each and every one of them.

The fact that mainstream cardiologists have 'thrown in the towel' when it comes to eradicating coronary artery disease reveals how little they pay attention to the published scientific literature.

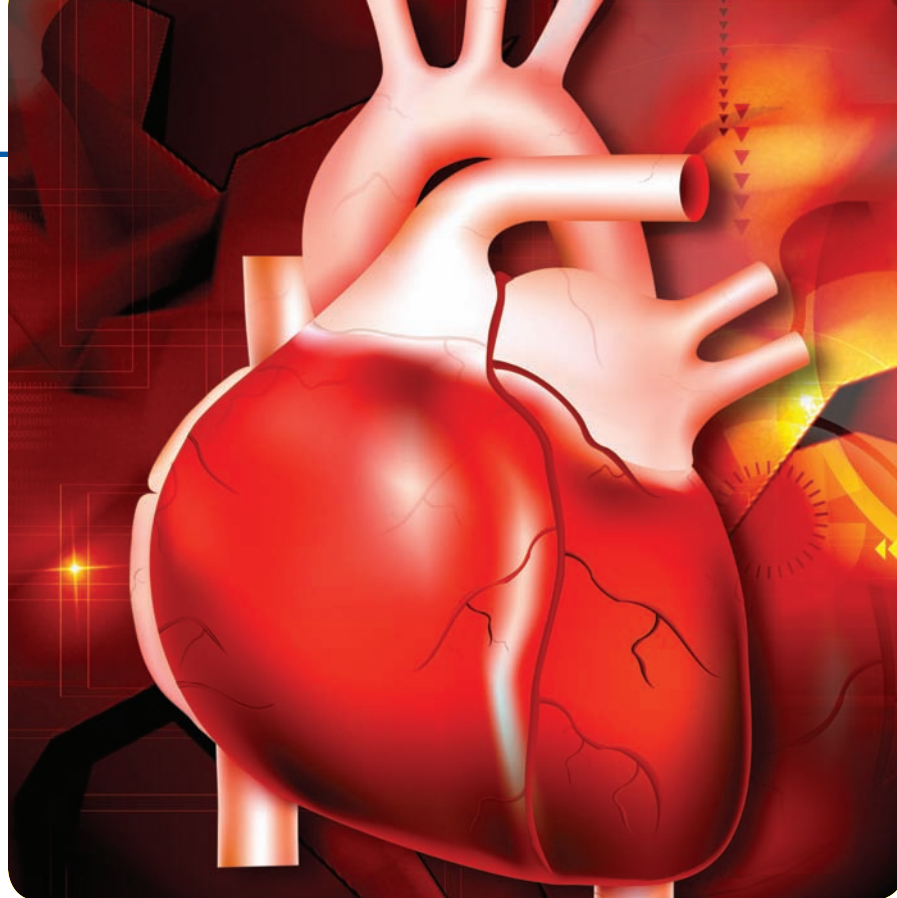
Life Extension® members long ago were made aware of 17 independent causes of atherosclerotic disease. The diagram on page 16 of this issue outlines each of these *correctable* cardiac risk factors.

### Coronary Artery Disease Can Be Reversed

Contrary to what mainstream cardiologists say, it is possible to reverse the blockage of blood flow through the coronary arteries. One way is to follow the aggressive lifestyle modification program Dean Ornish, MD has prescribed for decades.

Dr. Ornish and colleagues showed that a regimen that emphasized a very low fat diet, regular exercise, meditation, and avoidance of certain risk factors not only stopped the progression of coronary artery disease, but could reverse it.

This result was demonstrated in a randomized controlled trial, known as the Lifestyle Heart Trial, with data published in *The Lancet*



in 1990. In this study, test subjects were recruited with pre-existing coronary artery disease.<sup>2</sup> The patients assigned to Dr. Ornish's regimen had fewer cardiac events than those who followed standard medical advice.<sup>3</sup> What's more, their coronary atherosclerosis was somewhat *reversed*, as evidenced by decreased narrowing of the coronary arteries after only one year of treatment. Most patients in the control group, on the other hand, had worsening of their coronary artery blockage at the end of the trial compared to when they started. These favorable results have been replicated by doctors using similar methods (for example, Caldwell B Esselstyn, Jr., MD<sup>4</sup> and K. Lance Gould, MD).<sup>5</sup>

The drawback to Dean Ornish's program is that it is very restrictive. Participants must avoid all meat and dairy products except egg whites, nonfat milk, and non-fat yogurt; as well as all vegetable oils, nuts, seeds, and avocados. Participants following the Ornish program must supplement with calcium, iron, vitamin B12, and

essential fatty acids or deficiencies will develop.

As you'll read soon, there are other documented ways to maintain healthy coronary artery blood flow that are ignored by most practicing cardiologists.

### Dick Cheney Does Opposite of What Dr. Ornish Recommends

Perhaps no living political figure exemplifies poor lifestyle choices and ensuing chronic heart disease better than former Vice President **Dick Cheney**.

Cheney was known for eating outrageous quantities of artery-clogging foods and smoked heavily for 20 years. He almost certainly suffers today from cardiac risk factors that extend beyond his early-life unhealthy habits.

Shortly after Bill Clinton's coronary stents were inserted this year, **Dick Cheney** suffered his fifth heart attack. The first occurred in **1978**, when he was only **37**. He suffered his second in **1984** and



a third in **1988** before undergoing quadruple bypass surgery to unblock his arteries. His fourth heart attack occurred in **2000**. At that time, doctors inserted a stent to open a re-occluded coronary artery.

In **2001**, doctors implanted a device to track and control Cheney's heart rhythm. In **2008**, he underwent a procedure to restore his heart to a normal rhythm after doctors found that he was experiencing a recurrence of atrial fibrillation. Despite all this, Cheney suffered his fifth heart attack in **February 2010**.

Dick Cheney has reportedly taken statin drugs for nearly two decades. In June **2001**, his **LDL** was an excellent **72 mg/dL**, indicating he was taking a high-dose statin drug. This did not, however, prevent him from suffering another heart attack.

The former Vice President has had access to the best that con-

ventional cardiology can offer, yet his chronic heart ailments have not abated.<sup>6</sup> Cheney's multi-decade case history presented the media with another opportunity to declare there is no cure for coronary heart disease, something that Dr. Dean Ornish and many others involved in natural healing vehemently disagree with.

### **Crestor® Approved by FDA to Reduce C-Reactive Protein**

The FDA has given pharmaceutical giant AstraZeneca a gift worth tens of billions of dollars by allowing their statin drug Crestor® to be the only medication *approved* to reduce the risk of heart attack in aging men & women with LDL-cholesterol less than or equal to **130 mg/dL**, elevated C-reactive protein greater than or equal to **2 mg/L**, and at least one other tra-

ditional cardiac risk factor (e.g. hypertension, smoking, or family history).

Life Extension members were warned long ago about the dangers of excess C-reactive protein in the blood. *C-reactive protein* is a marker of inflammation. Chronic inflammation, as evidenced by high *C-reactive protein* blood levels, is one cause of *atherosclerosis*.<sup>7-9</sup> Published studies indicate that elevated C-reactive protein may be a greater risk factor than high *cholesterol* in predicting heart attack and especially stroke risk.<sup>10-14</sup>

While generic statin drugs and natural therapies have also been shown to reduce C-reactive protein, the **FDA** has anointed **Crestor®** as the only approved drug to treat patients with elevated C-reactive protein who also fit certain age and traditional risk factor criteria. This means that Medicare, Medicaid, and private insurance companies have to pay **over \$125** for 30 **20-mg** tablets of Crestor® as opposed to as little as **\$7.30** for 30 **40-mg** tablets of generic simvastatin (brand name Zocor®).

Crestor® is the most potent statin drug, so some people may require **40 mg** of simvastatin to achieve the same results as **20 mg** of Crestor®. Both of these doses are *higher* than what is usually needed to lower LDL (low-density lipoprotein). Statin drug side effects are amplified as the dose escalates, so one can expect that those prescribed high-dose Crestor® (to reduce C-reactive protein) will suffer more liver-muscle damage.

An increased risk of type 2 diabetes was recently suggested in statin drug users, which further emphasizes the need to use the lowest effective dose if one chooses to use this class of drug.<sup>15</sup> There are other options.

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**Former Vice President Dick Cheney on June 1, 2009 in Washington, DC.**

# AS WE SEE IT

## The Phony Health Care Cost Crisis

The FDA's gift to AstraZeneca means that only high-cost **Crestor®** can be advertised and health insurance-reimbursed for the purpose of reducing cardiac risk in patients with a combination of elevated *C-reactive protein*, "normal" LDL cholesterol, advancing age, and at least one traditional cardiac risk factor like high blood pressure, smoking, and family history. While AstraZeneca enjoys gargantuan profits, taxpayers will be forking over **17 times** more than what a generic of probable equal efficacy would cost.

Remember, there is no real health care cost crisis. It is governmental over-regulation of our disease-care system that causes medical prices to be hyper-inflated. Our 500-page book ***FDA Failure, Deceit and Abuse*** thoroughly documents this tragedy that politicians still cannot grasp.<sup>16</sup>

*Life Extension* has long advocated that those who need statin drugs should use the lowest pos-

sible dose. For many people with excess C-reactive protein, the life-style modifications you will soon read about (and/or low dose **5-10 mg/day** simvastatin) can bring elevated C-reactive protein down to safer ranges.

## Too Many Statin Drug Users Suffer Heart Attacks

Pharmaceutical companies have promoted statin drugs as a virtual universal remedy to prevent heart attack. According to conventional guidelines, statin drugs are to be prescribed when LDL blood levels exceed **130 mg/dL** and life-style modifications like stopping smoking and losing weight fail to bring LDL cholesterol to an optimal level.

Life Extension has long argued that **LDL** levels should be kept below **100 mg/dL** in healthy people to optimally protect against atherosclerosis. In certain high-risk cardiac patients, LDL levels need to be suppressed below **70 mg/dL**.

The high dose used in the Crestor® study pushed median **LDL** level down **50%** to a low of **55 mg/dL** from a median of **108 mg/dL** at baseline and it reduced C-reactive protein by **37%**. Despite these impressive reductions in two proven cardiac risk factors, a significant number of subjects taking Crestor® still suffered "major cardiovascular events."<sup>17</sup> This further exposes the fallacy of relying only on statin drugs to maintain healthy arterial blood flow. Remember **Bill Clinton** and **Dick Cheney** took statin drugs for years, but their coronary arteries re-occluded anyway.

Crestor® will soon be promoted as a panacea for heart attack prevention. What will not be disclosed in drug advertising, however, is that more than half of the major cardiovascular events in the Crestor® study would occur despite the high-dose use of this drug. In statistical terms, while Crestor® reduced the relative risk of the combined endpoint of heart attack, stroke, or death from cardiovascular causes by **47%**, the majority (**53%**) of these cardiovascular endpoints in this high-risk study group would still take place!

What this means is that if you have cardiac risk factors and rely solely on a high-dose statin drug, you are still at significant risk of suffering a heart attack.

## Why Crestor® Failed to Protect All the Study Subjects

There are at least **17 independent risk factors** involved in the development of atherosclerosis and subsequent heart attack and stroke. Statin drugs do not come close to correcting all of these risk factors. Based on the findings from







the Crestor® study, it is obvious that even when LDL (and total cholesterol) is reduced to extremely low levels, too many people still suffer a major cardiovascular event.

This study will nonetheless be the basis of a national advertising campaign to tout Crestor®. An analysis of the study findings, however, documents the critical need to correct all known cardiovascular risk factors (including elevated LDL, total cholesterol, and C-reactive protein).

We are not vilifying the proper use of statin drugs. For many people with stubbornly high LDL and C-reactive protein levels, they represent an important weapon against arterial disease. Our emphasis is that statin drugs are not the *only* way to lower LDL and C-reactive protein, and they should not be relied on as the *only* approach to protect against atherosclerosis.

## Reducing C-Reactive Protein Requires a Multimodal Approach

Life Extension has reviewed thousands of C-reactive protein blood test results over the years. Our consistent observation is that overweight and obese individuals have stubbornly elevated C-reactive protein levels.<sup>18</sup> Our findings were confirmed in a recent study that showed overweight and obese individuals are far more likely to have elevated C-reactive protein. In fact, obese people are **three times more** likely to have elevated C-reactive protein levels than normal-weight individuals.<sup>19,20</sup>

C-reactive protein is a marker of *chronic inflammation*. A large body of evidence correlates chronic inflammatory reactions with

the increased risks of cancer,<sup>21-23</sup> stroke,<sup>24</sup> heart attack,<sup>25-27</sup> and dementia.<sup>28</sup> People who accumulate excess body fat suffer sharply higher incidences of all these diseases, further validating the importance of maintaining C-reactive protein at optimal ranges.

In the Crestor® study, median *C-reactive protein* levels were **4.2 mg/L** in the Crestor® group, and 4.3 mg/L in the placebo group at baseline.<sup>17</sup> Obese individuals can have *C-reactive protein* levels that are easily double this.<sup>29</sup> The biological challenge in overweight people is to combat the excess *C-reactive protein* made directly by **fat cells** (adipocytes) and the *C-reactive protein* made in the **liver** in response to excess amounts of interleukin-6 expressed in **abdominal fat** that is dumped directly into the liver.

Since obese and overweight individuals spew out *C-reactive protein* from their liver and fat cells, it is often challenging to bring this lethal inflammatory compound (C-reactive protein) into safe ranges.

We are impressed with the data from the Crestor® study showing the reduction in *C-reactive protein* and major cardiovascular events.

Our decade-long evaluation of *C-reactive protein* blood results, however, prompts us to warn that it will require more than statin drugs to suppress dangerously high *C-reactive protein* levels prevalent in so many individuals.

The good news is that low-cost nutrients and hormones, along with dietary changes, can work as well as statins in reducing deadly *C-reactive protein*.

## Vitamin C Reduces C-Reactive Protein

Soon after the media put the Crestor® clinical trial on the front pages, a study was published showing that **1,000 mg** a day of *vitamin C* reduces *C-reactive protein* as effectively as some statin drugs.<sup>19</sup>

In this University of California Berkeley study, participants who received **vitamin C** and started out with C-reactive protein levels greater than **2 mg/L** had **34% lower** levels compared with the placebo group after only two months.<sup>19,20</sup>

This study was done based on previous findings that vitamin C supplements reduce elevated *C-reactive protein*. This study received scant media coverage.

## AS WE SEE IT



### A Healthy Diet Significantly Reduces C-Reactive Protein

Eating too much **saturated fat** or **high-glycemic carbohydrates** increases C-reactive protein.<sup>30,31</sup> One study showed a **39% decrease** in C-reactive protein levels after only eight weeks of consuming a diet low in saturated fat and cholesterol.<sup>32</sup> The study participants also saw reductions in their LDL, total cholesterol, body weight, and arterial stiffness.

So while you may soon see ads promoting the **37% C-reactive protein** reduction in response to high dose Crestor®, you should be aware that the same benefit has already been shown in response to healthier eating—with no drugs used.

For those who cannot adequately control their food intake, the *lipase-inhibitor* drug **orlistat** reduces absorption of dietary fat by 30%.<sup>33</sup> A drug called **acarbose** reduces the number of absorbed carbohydrate calories by inhibiting the *glucosidase* enzyme.<sup>34,35</sup> Both of these drugs lower LDL,

triglycerides, glucose, cholesterol and other cardiac risk factors when taken before each meal.<sup>34-41</sup> There are over-the-counter dietary supplements that exhibit some of these same effects.

Another study shows that eating cholesterol-lowering food works about as well as consuming a *very low-fat diet* plus *statin* drug therapy. One study showed a **33.3%** reduction in C-reactive protein and **30.9%** reduction in LDL in subjects eating a very low-fat diet and taking a statin drug. Those who ate the cholesterol-lowering foods showed a **28.2%** reduction in C-reactive protein and a **28.6%** reduction in LDL.<sup>42</sup> This study showed that eating cholesterol-lowering foods achieved almost the same benefit as those who followed a very low-fat diet and took a statin drug.

The cholesterol-lowering foods used in this study include almonds, soy protein, fiber, and plant sterols.<sup>42</sup> Few people can follow a rigorous low-fat diet and some people want to avoid statin drugs. Based on this study, those who need to

reduce LDL and/or C-reactive protein blood levels can accomplish this by eating cholesterol-lowering foods or taking supplements such as soluble fiber powder before heavy meals.

In a study of 3,920 people, subjects who ingested the most dietary fiber were found to have a **41% lower** risk of elevated C-reactive protein levels, compared with those who ate the least fiber. The doctors who conducted this study concluded: ***“Our findings indicate that fiber intake is independently associated with serum CRP concentration and support the recommendation of a diet with a high fiber content.”***<sup>43</sup>

There is an important take-home lesson here for those with high *C-reactive protein* levels that persist even after initiating statin drug therapy. You may be able to achieve significant additive benefits by making dietary modifications, taking at least **1,000 mg** of vitamin C each day, and following other proven ways to quell chronic inflammatory reactions.

### Sex Hormones and Inflammation in Men

Aging men are plagued with declining testosterone levels while their *estrogen* remains the same or even increases. This imbalance often sets the stage for a host of *chronic inflammatory* disorders, while increasing the amount of abdominal adiposity.

For years, we at *Life Extension* have advised maturing men to restore their free testosterone to youthful ranges (between **20 and 25 pg/mL** of blood) and keep their estrogen from getting too high. Ideal estrogen (estradiol) levels in men have been shown to be between **20 and 30 pg/mL** of blood.

## Dietary Supplements That Suppress Inflammation

Chronic inflammation is the result of a host of underlying pathologic processes. While statin drugs help suppress these inflammatory events, dietary supplements function via additional mechanisms to suppress the production of pro-inflammatory cytokines and C-reactive protein. Here is a partial list of nutrients that have demonstrated effects in suppressing chronic inflammatory reactions:

**Curcumin**<sup>44-48</sup>

**Irvingia**<sup>49-51</sup>

**Vitamin K**<sup>52-54</sup>

**Luteolin**<sup>55-57</sup>

**Fish oil**<sup>58-64</sup>

**Borage oil** (source of gamma-linolenic acid)<sup>65,66</sup>

**Acetyl-L-carnitine**<sup>67-71</sup>

**Vitamin C**<sup>72-76</sup>

**Theaflavins**<sup>77-82</sup>

**Soluble fiber**<sup>83-86</sup>

**Coenzyme Q10**<sup>87,88</sup>

**Isoflavones**<sup>89</sup>

We have seen countless cases of men with chronic inflammation experience a reversal of their elevated *C-reactive protein* (and painful symptoms) when a youthful sex hormone profile is properly restored. Independent published studies corroborate our findings that low testosterone and high estradiol predisposes aging men to chronic inflammatory status and higher *C-reactive protein*.<sup>90-92</sup>

### Pomegranate Restores Coronary Artery Blood Flow

In stating that there is “no cure for heart disease,” the media never bothered to look at the scientific literature, where there is a host of documented natural approaches to

reverse clinical markers of atherosclerosis.

In one study, doctors tested a group of heart disease patients to ascertain pomegranate’s effects on inducible angina and the rate of blood flow through the coronary arteries. The entire group was given a baseline stress test to induce angina and an advanced diagnostic technique to measure coronary blood flow.

One group of cardiac patients received their medications plus **placebo**, while the second group received their medications plus **pomegranate** juice. After three months, coronary blood flow was again measured using the same tests performed at baseline. In the group receiving the pomegranate juice, stress-induced angina episodes decreased by **50%**, whereas stress-induced angina increased by **38%** in the placebo group.<sup>97</sup>

When measuring **coronary artery blood flow**, the placebo group worsened by **17%** after three months, whereas coronary blood flow improved by **18%** in the **pomegranate** group.

This study showed that daily consumption of pomegranate can improve blood flow to the heart in coronary artery disease patients in a relatively short period of time. The doctors noted that the test they used to measure coronary blood flow was shown to be the best predictor of future heart attack risk.

Another study compared one group of patients receiving statin and other drugs to a group who received the same drugs plus **pomegranate** juice. In the drugs-only group, a measurement of systemic atherosclerosis (carotid intima-media thickness) increased by **9%** in a year, whereas the group receiving the drugs plus pomegranate showed a **35% reversal** in carotid intima-media thickness.<sup>98</sup>

## AS WE SEE IT

One way that **pomegranate** protects cardiovascular health is by augmenting *nitric oxide*, which supports the functioning of **endothelial cells** that line the arterial walls.<sup>99</sup> **Nitric oxide** signals the vascular smooth muscle to relax, thereby increasing blood flow through arteries and veins. In the aforementioned study, **pomegranate** also protected against atherosclerosis by reducing **LDLs** basal oxidative status by an astounding **90%** and increasing beneficial **paraoxonase-1** (PON-1) by **83%**.<sup>98</sup>

Pharmaceutical companies would pay a lot for a patented compound that performs as well as *pomegranate*. If such a compound were developed, you would see national TV ads promoting it as the “drug” every American should take to protect against heart attack. Fortunately, pomegranate is a low-cost dietary supplement. You won’t see it advertised by the mass media, but then again, you don’t have to pay inflated prescription drug prices for it.

### Avoid Foods Cooked at High Temperatures

What one eats plays a major role in chronic inflammatory processes. Cooking foods at temperatures greater than 250 degrees Fahrenheit results in sugars and certain oxidized fats reacting with proteins to form glycotoxins in the food.<sup>93</sup> Consuming foods high in glycotoxins can induce a low-grade, but chronic state of inflammation.<sup>94</sup> In addition, the glycotoxins in food cooked at high temperatures also promote the accumulation of advanced glycation end products (AGEs) in our living tissues, which results in an accelerated aging process.<sup>95,96</sup>



## Coronary Artery Occlusion May Be Controlled with Other Nutrients

Kyolic® garlic,<sup>100-102</sup> GliSODin™ (oral superoxide dismutase complex),<sup>103,104</sup> fish oil,<sup>105-108</sup> and cocoa polyphenols<sup>109-114</sup> have all been shown to improve clinical markers of arterial blood flow.

An interesting study compared **statin drugs** side-by-side with **fish oil** in patients with heart failure. After a median of 3 years of follow-up, fish oil showed more benefit than statin therapy.<sup>115</sup> Fish oil helps promote a shift from small, dense LDL particles (more atherogenic) to larger, “fluffier” LDL particles (less atherogenic), and it functions by numerous other mechanisms to protect against heart attack.<sup>116,117</sup> Furthermore, the data showing reduction in sudden cardiac death with **omega-3 fatty acids** (like fish oil) is far more robust and consistent than what has been found in statin drug clinical trials.<sup>118,119</sup>

Unlike side effect-prone statin drugs, fish oil seems to help protect against virtually every age-related degenerative disease.<sup>107,120-124</sup> Those with **LDL** levels above **100 mg/dL** of blood who cannot lower it with dietary changes or supplements should consider a low dose statin drug and fish oil.

## Simple Guidelines to Protect Yourself Against Heart Attack and Stroke

At the end of this article is a reprint of our 17 “daggers aimed at the heart” diagram that represents independent risk factors associated with heart attack and stroke. Any one of these daggers can create vascular disease. Regrettably, aging people often suffer multiple risk factors (daggers aimed at their

heart) that cause them to die prematurely.

Fortunately, the proper **blood tests** can identify risk factors unique to each individual so that corrective action can be taken before one’s heart or brain is decimated by a catastrophic vascular event. To view the optimal blood levels of cardiac risk markers you should seek to attain, log on to **[www.lef.org/heart](http://www.lef.org/heart)**. A review of this website reveals a wide range of lifestyle, nutrient, hormone, and drug choices available. If you don’t want to take drugs, plenty of natural alternatives exist. Some people will need to take drugs, however, to get into optimal ranges.

Multiple studies document that a *chronic inflammatory* process is directly involved in the degen-

## Homocysteine and C-Reactive Protein as Risk Factors For Atherosclerosis

The media attacked the use of B-complex vitamins because they did not reduce the risk of heart attack in a clinical study.<sup>188</sup> As Life Extension pointed out long ago, it’s not the type of nutrient, hormone, or drug that determines clinical outcomes. What matters are the achieved blood levels that occur in response to taking a compound designed to reduce disease risk.

A different study analyzed blood levels of homocysteine and C-reactive protein in heart attack patients compared with a control group who had no symptoms of heart attack. The groups were matched for serum cholesterol, HDL, triglycerides, age, sex, body mass index, and blood pressure. The results showed that compared with the control patients:

- 32% more heart attack patients had **homocysteine levels above** 10 mmol/L
- 500% more heart attack patients had **homocysteine levels above** 15 mmol/L
- 572% more heart attack patients had **C-reactive protein levels above** 3.00 mg/L

This study demonstrates the importance of keeping homocysteine below 10 mmol/L (optimal levels are below 7-8 mmol/L) and C-reactive protein as low as possible (optimal levels are below 0.55 mg/L for men and 1.5 mg/L for women).<sup>189</sup>

erative diseases of aging including cancer,<sup>125-127</sup> dementia,<sup>128-130</sup> stroke,<sup>131-133</sup> visual disorders,<sup>134,135</sup> arthritis,<sup>136-138</sup> liver failure,<sup>139,140</sup> and heart attack.<sup>141-146</sup>

Fortunately, a low-cost *C-reactive protein* blood test can identify whether you suffer a smoldering *inflammatory fire* within your body that will likely cause you to die prematurely. An abundance of scientific research provides a wide range of proven approaches to suppress chronic inflammatory reactions.<sup>147-165</sup>

The comprehensive **Male** and **Female Blood Test Panels** reveal your *C-reactive protein* level, along with other factors that could cause your *C-reactive protein* to be too high. Blood components that can spike *C-reactive protein* levels

include high LDL,<sup>166</sup> low HDL,<sup>167</sup> low testosterone<sup>168</sup> and excess estradiol (in men),<sup>169</sup> elevated glucose,<sup>170,171</sup> excess homocysteine,<sup>172</sup> and DHEA deficit.<sup>173</sup>

Optimal blood levels of C-reactive protein are below 0.55 mg/L in men and below 1.50 mg/L in women.<sup>174-177</sup> Standard reference ranges accept higher levels as normal because so many people fail to take care of themselves and thus suffer chronically high C-reactive protein levels with subsequently increased risk of heart attack,<sup>178-180</sup> stroke,<sup>181,182</sup> cancer,<sup>125,183</sup> senility,<sup>184,185</sup> etc.<sup>186</sup>

Despite the media portraying cardiac stents as the best choice for those with coronary blockage, a 2007 trial published in the *New England Journal of Medicine* evaluated 2,287 patients over 5 years and found that stents provided no additional benefit over drug cocktails in patients with chronic stable angina (chronic stable coronary artery disease). The study found that stent placement did not affect heart attack risk or coronary mortality.<sup>187</sup> Yet these procedures continue to be very popular due to the reimbursement potential (\$15,000

per procedure) offered by stent placement to cardiologists.

The fact that conventional drug cocktails, bypass grafting, and stents provide such limited benefits emphasizes the need for a comprehensive program to correct all 17 independent cardiac risk factors.

## Dangers of Relying on the Media for Health Information

Today's news media function as a *mouthpiece* for the conventional medical establishment.

It is in the economic interests of mainstream cardiology to *deceive* the public into believing the only way of treating heart disease is with bypass surgery, stents, and drugs.

A plethora of published data, however, reveals that aging humans can successfully circumvent the lethal atherosclerotic process and in many cases reverse it. It all starts with comprehensive blood testing.

The medical establishment charges around **\$1,000** for the wide-ranging blood tests needed to assess coronary risk markers.

As a **Life Extension** member, you can obtain the same tests for only **\$269**.

When you place your blood test order, we send you a requisition form along with a listing of blood-drawing stations in your area. You can normally walk in during regular business hours for a convenient blood draw.

To place your order for the comprehensive **Male and/or Female Blood Test Panels**, call **1-800-208-3444** or visit **www.lef.org/blood**.

For longer life,



William Faloon

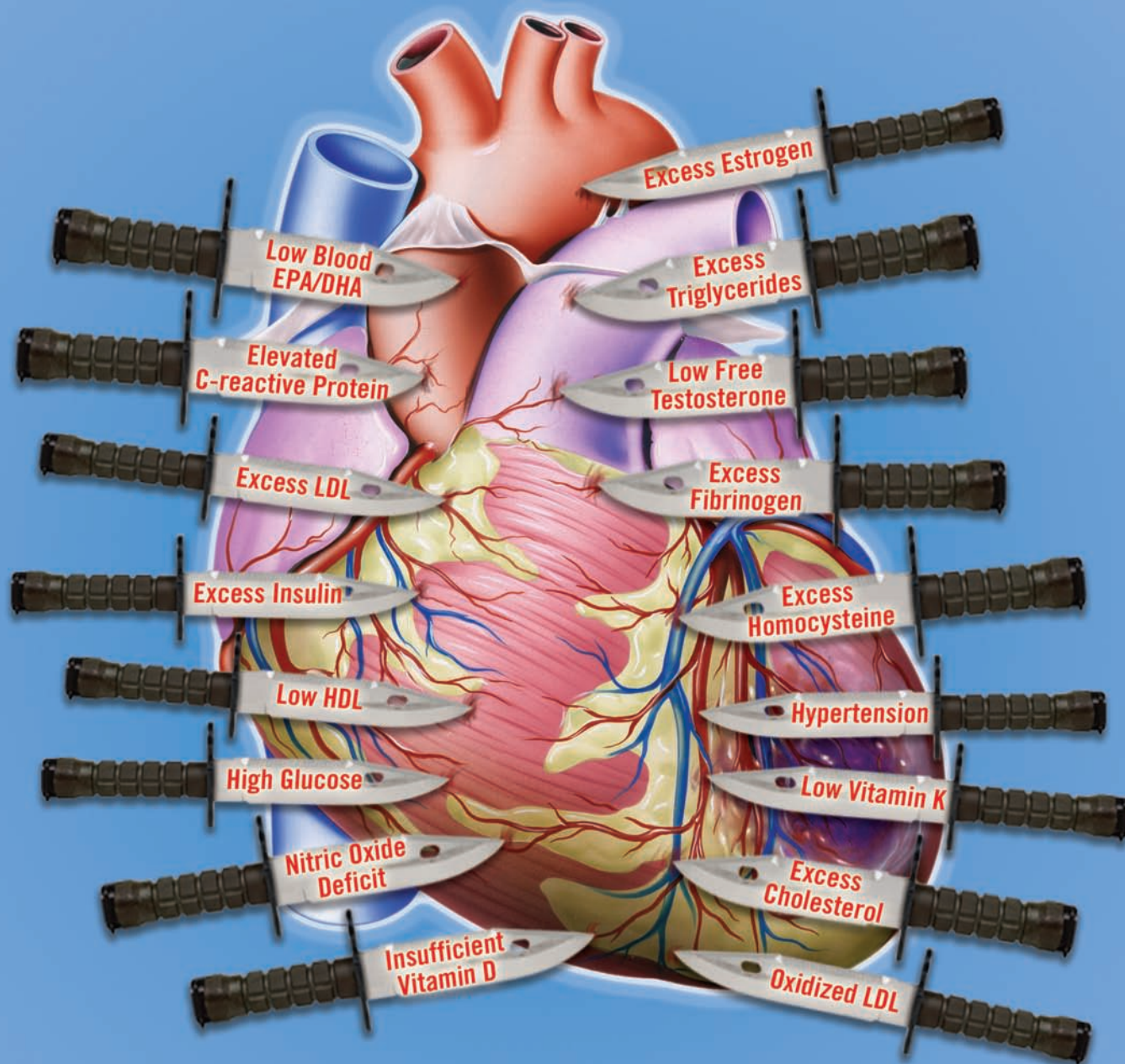
## Dick Cheney Suffers Congestive Heart Failure

This article was written in early year **2010**. As we go to press, former Vice-President **Dick Cheney** was hospitalized again, this time with progressive fluid retention diagnosed as **congestive heart failure**. He underwent yet another round of surgery that involved the implantation of a small pump called a *Left Ventricular Assist Device*. This device is placed in patients whose heart failure is so bad that they need mechanical assistance to sustain life. The failure of conventional cardiology is self-evident. I urge members to take preventative steps to reduce their risks of sudden cardiac arrest, or the agonies of repeated surgical procedures that don't correct the underlying causes of coronary occlusion and heart muscle impairment.

(References for this article begin on page 18.)



### 17 DAGGERS OF ARTERIAL DISEASE



This image depicts daggers aimed at a healthy heart. Any one of these daggers would kill if thrust deep into the heart. In the real world, however, aging humans suffer small pricks from the point of these daggers over a lifetime. The cumulative effect of these dagger pricks (risk factors) is arterial occlusion and, far too often, angina or acute heart attack.



## MALE AND FEMALE BLOOD TEST PANELS

Unlike commercial blood tests that evaluate only a narrow range of risk factors, Life Extension's **Male** and **Female Blood Test Panels** measure a wide range of blood markers that predispose people to common age-related diseases. Just look at the **huge** numbers of parameters included in the **Male and Female Blood Test Panels**:

### MALE PANEL

#### LIPID PROFILE

**Total Cholesterol**  
**LDL** (low-density lipoprotein) calculated  
**HDL** (high-density lipoprotein)  
**Triglycerides**

#### CARDIAC MARKERS

**C-Reactive Protein** (high sensitivity)  
**Homocysteine**

#### HORMONES

**DHEA-S**  
**Free Testosterone**  
**Total Testosterone**  
**Estradiol** (an estrogen)  
**\*TSH** (thyroid function)

**NEW  
&  
IMPROVED  
.....  
NOW  
INCLUDES  
TSH!**

#### METABOLIC PROFILE

**Glucose**  
**Kidney function tests:** creatinine, BUN, uric acid, BUN/creatinine ratio  
**Liver function tests:** AST, ALT, LDH, GGT, bilirubin, alkaline phosphatase  
**Blood minerals:** calcium, potassium, phosphorus, sodium, chloride, iron  
**Blood proteins:** albumin, globulin, total protein, albumin/globulin ratio

#### COMPLETE BLOOD COUNT (CBC)

**Red Blood Cell count including:** hemoglobin, hematocrit, MCV, MCH, MCHC, RDW  
**White Blood Cell count including:** lymphocytes, monocytes, eosinophils, neutrophils, basophils  
**Platelet count**

#### CANCER MARKER

**PSA (Prostate Specific Antigen)**

### FEMALE PANEL

#### LIPID PROFILE

**Total Cholesterol**  
**LDL** (low-density lipoprotein) calculated  
**HDL** (high-density lipoprotein)  
**Triglycerides**

#### CARDIAC MARKERS

**C-Reactive Protein** (high sensitivity)  
**Homocysteine**

#### HORMONES

**Progesterone**  
**DHEA-S**  
**Free and Total Testosterone**  
**Estradiol** (an estrogen)  
**\*TSH** (thyroid function)

**NEW  
&  
IMPROVED  
.....  
NOW  
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TSH!**

#### METABOLIC PROFILE

**Glucose**  
**Kidney function tests:** creatinine, BUN, uric acid, BUN/creatinine ratio  
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#### COMPLETE BLOOD COUNT (CBC)

**Red Blood Cell count including:** hemoglobin, hematocrit, MCV, MCH, MCHC, RDW  
**White Blood Cell count including:** lymphocytes, monocytes, eosinophils, neutrophils, basophils  
**Platelet count**

Non-member retail price: \$400 • Everyday member price: **\$269**

To obtain these comprehensive **Male** or **Female** Panels at these **low prices**,  
**call 1-800-208-3444 to order your requisition forms.**

Then—at your convenience—you can visit one of the  
blood-drawing facilities provided by LabCorp in your area.

\*If you plan to use the results of these blood tests to assist in a medically supervised weight loss program, consider adding the Thyroid add-on panel for \$36.

A **TSH** (thyroid-stimulating hormone) test is now included in the comprehensive Male and Female Panels, but those with weight problems should know their precise levels of free T3 and free T4.

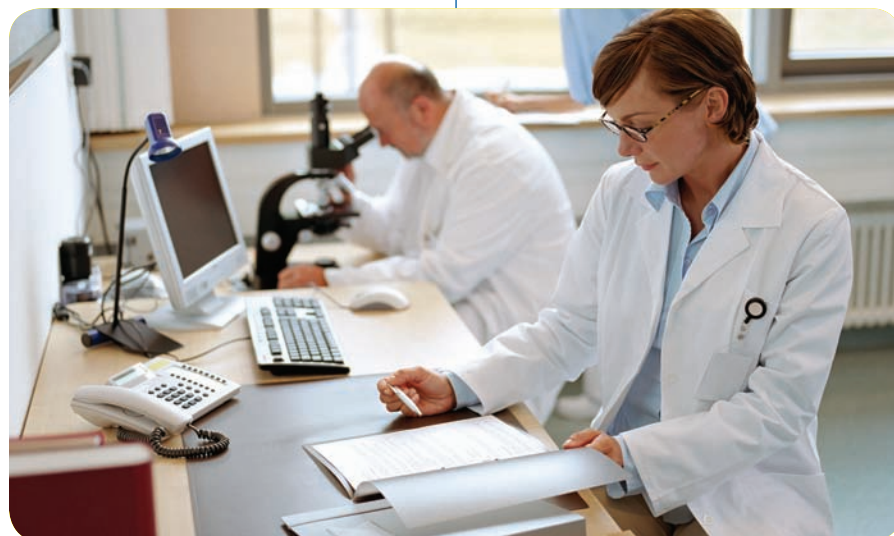


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## World's Most Advanced Resveratrol Formulas

### CR Mimetic Longevity Formula

featuring an Innovative  
Resveratrol *Enhancer*

OR

### Optimized Resveratrol

featuring an Innovative  
Resveratrol *Enhancer*



In **2003**, the **Life Extension Foundation**<sup>®</sup> introduced standardized extract of **resveratrol**, a natural compound shown to favorably alter genes implicated in the aging process—many of the same genes that respond to **calorie restriction** or **CR**.

In **2009**, we introduced the “other” resveratrol, **pterostilbene**, a compound whose effects were found to work in *synergy* with resveratrol to activate your “longevity genes.”

This year, we advanced the field even further, bringing together the **5** known **calorie restriction mimetics** in a single, high-potency formula: **resveratrol**, **pterostilbene**, **quercetin**, **grape seed polyphenols**, and **black tea extract**.<sup>1-8</sup>

Today we announce the latest innovation in the science of longevity with new **CR Mimetic Longevity Formula** and **Optimized Resveratrol**, both featuring **fisetin**. This little-known flavonoid is the sixth compound shown to simulate a similar youthful gene expression pattern as calorie restriction<sup>9</sup>—without significant dietary modification.

In the most exciting development to date, this novel compound (fisetin) may also enhance the effects of resveratrol!<sup>10</sup>

### Unleashing the Synergistic Power of Berry Actives

**Life Extension**<sup>®</sup> has gone to extraordinary lengths to identify compounds that simulate calorie restriction's ability to trigger youthful *gene expression*—the process by which genes transmit signals that slow certain aspects of aging.

For example, previous research funded by Life Extension showed that a combination of low-dose (**20 mg**) resveratrol plus **grape seed extract** induced many of the favorable gene expression changes observed in **calorie-restricted** animals.

Our comprehensive review of the scientific literature further revealed that certain compounds found in **berries**, such as pterostilbene, *also* possess potent “longevity gene” activators that work in synergy with resveratrol.

Most abundant in strawberries, **fisetin** has the power to “switch on” powerful cell signaling molecules that support youthful gene expression, DNA protection, and healthy cellular function.<sup>9</sup> It also supports aging neurons in the presence of oxidative stress.<sup>11-13</sup>

Each serving of the new **CR Mimetic Longevity Formula** contains fisetin in an amount equivalent to 2 cups of strawberries, helping to further emulate calorie restriction's favorable influence on your longevity genes.

Most importantly, fisetin works in *synergy* with resveratrol. Researchers have uncovered compelling evidence of fisetin's ability to **stabilize** resveratrol by shielding it from metabolic breakdown<sup>10</sup> and extending its effects.

To take advantage of this extraordinary property, the new **Optimized Resveratrol with Synergistic Grape-Berry Actives** also includes fisetin, to enhance resveratrol's beneficial action.

Either one of these new formulas provide cutting-edge broad-spectrum support for youthful gene expression from the most scientifically validated, natural sources.



### CR Mimetic Longevity Formula

A bottle containing 60 vegetarian capsules of **CR Mimetic Longevity Formula** retails for \$39. If a member buys four bottles, the price is reduced to just \$27 per bottle. The suggested daily dose of two capsules a day provides:

<i>Trans</i> -Resveratrol	250 mg
<i>Trans</i> -Pterostilbene	3 mg
Quercetin	150 mg
Grape seed extract	50 mg
Black tea extract	300 mg
Fisetin	48 mg



Item #01429

### Optimized Resveratrol with Synergistic Grape-Berry Actives

A bottle containing 60 vegetarian capsules of **Optimized Resveratrol with Synergistic Grape-Berry Actives** retails for \$46. If a member buys four bottles, the price is reduced to just \$31 per bottle. The suggested dose of one capsule a day provides:

<i>Trans</i> -Resveratrol	250 mg
Grape-Berry Actives	85 mg
Quercetin	60 mg
<i>Trans</i> -Pterostilbene	0.5 mg
Fisetin	10 mg



Item #01430

Contains yeast.

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To order the new  
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**Optimized Resveratrol with Synergistic  
Grape-Berry Actives**, call 1-800-544-4440  
or visit [www.LifeExtension.com](http://www.LifeExtension.com)

V-1



# FULL-SPECTRUM POMEGRANATE

## Endothelial Defense™ with Full-Spectrum Pomegranate

The *endothelium* is the inner lining of the blood vessel that regulates arterial health. Maintaining its youthful integrity supports overall *cardiovascular* health as humans age.

In 2007, **Life Extension®** introduced **Endothelial Defense™** with **GliSODin®**. This formula supplied two potent nutrients to support endothelial health: *standardized* pomegranate and an orally active form of *superoxide dismutase*.

Both of these components (pomegranate, SOD) have been clinically shown to help with blood flow and age-related changes in endothelial function.<sup>1-7</sup> Life Extension now introduces an *additional* option for individuals seeking nutritional support for aging arteries. **Endothelial Defense™ with Full-Spectrum Pomegranate™** provides the added benefit of Life Extension's *next-generation* **pomegranate flower extract** and **seed oil** blend. The blend of pomegranate extract and seed oil contains potent polyphenols that provide support for youthful **lipid** and **glucose** metabolism, natural **immunity**, and help with **inflammatory factors**.<sup>8</sup>

Scientific Studies Reveal These Additional Vascular Benefits...

### 1. Pomegranate Supports Healthy Blood Flow

In a group of aging humans with risk factors for cardiovascular events, pomegranate or placebo was ingested on a daily basis. After twelve months, blood flow through the carotid arteries **improved 44%** in the pomegranate group, whereas carotid blood flow worsened by 9% in the placebo group.<sup>1</sup> Both groups continued taking conventionally prescribed medications. In another similar group, pomegranate or placebo was ingested daily. After only three months, coronary artery blood flow **improved by 18%** in the pomegranate group, but **worsened by 17%** in the placebo group.<sup>2</sup> A standardized pomegranate extract is one of the three active components of **Endothelial Defense™**.

### 2. SOD Protects Against Nitric Oxide Degradation

Aging results in a reduction of our body's production of the critical antioxidant called *superoxide dismutase* (SOD). One consequence of SOD depletion is excess degradation of endothelial nitric oxide.

An orally active superoxide dismutase (SOD) called **GliSODin®** has been clinically proven to support healthy arterial function and structure...while boosting levels of the body's most powerful antioxidant enzymes (SOD and catalase).<sup>5-7</sup> Studies show that carotid artery thickness increases by 0.04 mm every 10 years. However, a 2007 **GliSODin®** study suggested that **2.8 years** of supplementation may turn back the clock on 10 years of age-related changes due to carotid artery wall thickening.<sup>6</sup> **Endothelial Defense™** contains the patented **GliSODin®** in the identical dose used in the successful human study.

A bottle containing 60 softgels of **Endothelial Defense™ with Full-Spectrum Pomegranate™** retails for \$58. If a member buys four bottles, the price is reduced to just **\$39.50** per bottle. Contains soybeans, tree nuts, and wheat. Contains gluten.

#### The daily serving of 2 softgels of Endothelial Defense™ contains:

<b>Superoxide Dismutase/Gliadin Complex</b> (GliSODin®) [SOD (Superoxide Dismutase) Enzyme Activity = 500 IU]	<b>500 mg</b>
<b>POMELLA® Pomegranate (Punica granatum)</b> <b>Extract</b> (fruit) [std. to 30% punicalagins (120 mg)]	<b>400 mg</b>
<b>Pomegranate (Punica granatum)</b> <b>5:1 Extract</b> (fruit)	<b>100 mg</b>
<b>PomComplete™ Pomegranate</b> (Punica granatum) Blend [fl over extract and seed oil (standardized to 22% [30 mg] punic acid)]	<b>137.5 mg</b>



Item #01497

POMELLA® Extract is covered under U.S. Patent 7,638,640.  
POMELLA® Extract is a registered trademark of Verdure Sciences, Inc.  
Isocell SA, France is the owner of US Patents Nos. 6,045,809  
and 6,426,068B1 and trademark of GliSODin®.

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**To Order Endothelial Defense™ with Full-Spectrum Pomegranate™,  
call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)**

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.





## IN THE NEWS

### Long-Term Vitamin E Supplementation Associated with Reduced COPD Risk

A presentation at the American Thoracic Association 2010 International Conference revealed the discovery by researchers at Cornell University and Brigham and Women's Hospital of a lower risk of chronic obstructive pulmonary disease (COPD) in women who supplemented with vitamin E.\*

The team analyzed data from 38,270 health professionals who participated in the Women's Health Study, which evaluated the effects of every other day regimens of aspirin or vitamin E in cancer and heart disease prevention over a 10-year period. The researchers uncovered a 10% reduction in risk in both smokers and nonsmokers who consumed 600 international units (IU) vitamin E every other day compared to those who received a placebo.

"If results of this study are borne out by further research, clinicians may recommend that women take vitamin E supplements to prevent COPD," predicted Anne Hermetet Agler, who participated in the research.

**Editor's note:** The antioxidant benefit of vitamin E may be responsible for the protective effect observed in this study.

—Dayna Dye

\* Presentation at the American Thoracic Association 2010 International Conference, May 18, 2010.

### Abnormal Kidney Markers Associated with Increased Mortality Risk Over 8-Year Average

A meta-analysis conducted by the Chronic Kidney Disease Prognosis Consortium concluded that elevations in urinary albumin and blood albumin to creatinine ratio, which indicate kidney damage, as well as a reduction in the estimated glomerular filtration rate of the kidneys predict an increased risk of death from all causes over 2.1 to 11.6 years of follow-up.\*

The Consortium selected 21 studies including a total of 1,234,182 participants for their analysis. Over the follow-up periods, 45,584 deaths occurred.

When the rate at which the glomeruli of the kidneys filter the blood dropped below a specific level, a greater risk of dying over follow-up occurred. Additionally, an increase in albumin and a greater ratio of urinary albumin to creatinine were associated with increased all-cause mortality risk. "This study provides quantitative data for use of both kidney measures for risk assessment and definition and staging of chronic kidney disease," the authors conclude.

**Editor's note:** Pyridoxal-5-phosphate (P5P), CoQ10, silymarin, resveratrol, and lipoic acid are clinically supported interventions for kidney disease.

—Dayna Dye

\* *Lancet*. 2010 May 18.

## Swimming May Be Best Exercise for Lifelong Health

A recent article by Judy Foreman in the *Boston Globe* examines a report by Steven Blair, a leading exercise scientist from the University of South Carolina, that featured data pointing to the fact that people who swim for exercise may live longer than those who run, walk, or don't exercise at all.\*

The study, which was funded by the National Institutes of Health and the National Swimming Pool Foundation, followed 40,547 men ages 20-90 who completed health exams between 1971 and 2003. Over the course of the research, 1,336 of the 20,356 runners (or 6.6%) had died, while only 11 of the 562 swimmers (1.9%) died. While no specifics could be drawn from the study, the researchers pointed out that swimming may be more beneficial from running because of the full-body nature of the workout, as well as the lack of pounding and wear and tear on the body that many runners suffer.

In a phone interview with the *Boston Globe*, Blair, while remaining cautious, said that the study does show that "swimmers have lower death rates" than sedentary people.

—Jon Finkel

\* Available at: [http://www.boston.com/news/health/articles/2010/06/14/is\\_swimming\\_better\\_than\\_running\\_or\\_walking\\_not\\_so\\_fast/](http://www.boston.com/news/health/articles/2010/06/14/is_swimming_better_than_running_or_walking_not_so_fast/) Accessed June 16, 2010.

## Insufficient Calcium May Link Hypertension, Osteoporosis

The Annual Congress of the European League Against Rheumatism was the site of a presentation of the findings of Professor Maria Manarathé of the Gaetano Pini Institute in Milan and her associates of an increased risk of high blood pressure and osteoporosis among women with a reduced intake of calcium.\*

The study included 825 postmenopausal women with hypertension matched with 3 healthy postmenopausal women. The researchers found that 35.4% of women whose calcium intake was among the lowest one-fourth of participants at less than 8 servings per week had both high blood pressure and osteoporosis, compared to 19.3% of those whose calcium was among the highest fourth at greater than 15 servings.

"Our study confirms that there may be a link between hypertension and low bone mass and that a low calcium intake could be a risk factor for the development of osteoporosis in postmenopausal women," Dr. Manarathé stated.

**Editor's note:** The authors write that "The main pathogenetic hypothesis for the association between hypertension and osteoporosis points to increased parathyroid levels depending on the urinary calcium leakage reported in subjects with hypertension."

—Dayna Dye

\* Annual Congress of the European League against Rheumatism.

## Short Periods of Exercise Protect Telomeres from Stress

Findings published in *PLoS ONE* demonstrate a protective effect for brief periods of exercise against stress-induced damage to telomeres: pieces of DNA that cap and protect the ends of chromosomes which play an important role in cellular aging.\*

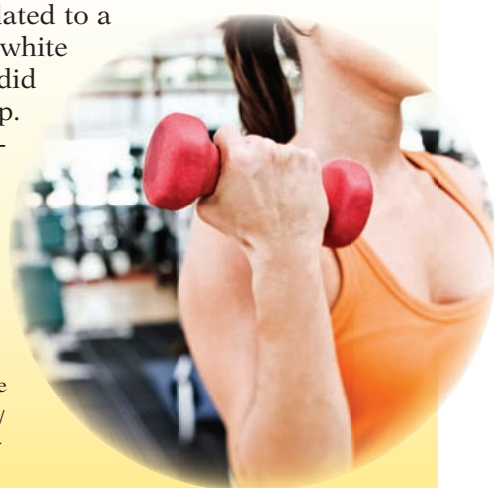
Elissa Epel, PhD and her associates evaluated the effect of exercise in 63 women with varying levels of stress during the prior month as assessed via the 10-item Perceived Stress Scale. The women were divided into an active group, who engaged in vigorous exercise for an average of at least 33 minutes daily, and a sedentary group.

Among inactive women, a one-unit increase in the Perceived Stress Scale was related to a 15-fold greater risk of having short white blood cell telomeres, while stress did not appear to affect the active group. "Even a moderate amount of vigorous exercise appears to provide a critical amount of protection for the telomeres," stated Dr. Epel.

**Editor's note:** Longer telomeres have also been associated with multivitamin supplementation and higher levels of omega-3 fatty acids.

—Dayna Dye

\* Available at: <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0010837>. Accessed June 20, 2010.







## Green Tea Compound Shows Promise in Chronic Lymphocytic Leukemia

At the annual meeting of the American Society of Clinical Oncology held in Chicago, researchers from the Mayo Clinic reported results from a Phase II trial which provide additional evidence of clinical activity and low toxicity for epigallocatechin gallate (EGCG, extracted from green tea) in chronic lymphocytic leukemia (CLL) patients.\*

Hematologist Tait Shanafelt, MD and colleagues gave 2,000 milligrams EGCG to patients with early stage, asymptomatic CLL. The extract was administered twice per day for up to 6 months. Among subjects who completed 6 months of EGCG, 31% experienced a 20% or greater reduction in blood leukemia count, and 69% of those with lymph node enlargement had their node size reduced by at least half.

"All in all, the treatment was well tolerated with very mild side effects in most patients," Dr. Shanafelt commented.

**Editor's note:** Coauthor Neil Kay, MD recommends that "Those who want to take supplements should consult with their oncologists and need to receive appropriate monitoring using laboratory tests."

—Dayna Dye

\* Annual meeting of the American Society of Clinical Oncology.

## Increased Intake of Vitamins B6 and B12 Linked to Less Depression

A report published online recently in the *American Journal of Clinical Nutrition* reveals a lower risk of developing depression among men and women who consume greater amounts of vitamin B6 and vitamin B12.\*

Researchers at Rush University Medical Center evaluated data from 3,503 participants in the Chicago Health and Aging project, an ongoing study of adults aged 65 and older. Four hundred seventy-one participants reported at least 4 depressive symptoms over up to 12 years of follow-up. Adjusted analysis of the data revealed that higher intakes of both vitamin B6 and B12 from food and supplements were associated with decreased depressive symptoms over the course of follow-up.

"Our results support the hypotheses that high total intakes of vitamins B6 and B12 are protective of depressive symptoms over time in community-residing older adults," Kimberly A. Skarupski and colleagues conclude.

**Editor's note:** The authors note that vitamin B12 from food sources has poor bioavailability and absorption, especially in older individuals.

—Dayna Dye

\* *Am J Clin Nutr.* 2010 Jun 2.



## Zinc May Be an Atheroprotective Agent

In a study published recently in the *American Journal of Clinical Nutrition* from the Department of Internal Medicine, School of Medicine at Wayne State University in Detroit, Michigan, scientists set out to test zinc's anti-inflammatory and antioxidant properties against atherosclerosis.\*

Chronic inflammation and oxidative stress are common risk factors for atherosclerosis and the scientists hypothesized that zinc, which is an essential micronutrient, may down-regulate the production of atherosclerosis-related cytokines/molecules in humans. To test this hypothesis, the researchers at Wayne State University conducted a randomized, double-blinded, placebo trial of zinc supplementation in elderly subjects.

There were 40 people involved in the study who were randomly assigned either an oral dose of 45 mg zinc gluconate per day for 6 months, or a placebo. After 6 months of supplementation, the intake of zinc, compared with the intake of placebo, increased concentrations of plasma zinc and decreased concentrations of plasma high-sensitivity C-reactive protein and interleukin-6, proving its potential as an atheroprotective agent.

**Editor's note:** The effective dose of oral zinc used in this research was 40 mg per day. People who consume Life Extension's One Per day (or Two Per Day) multi and Super Booster are also receiving 40 mg per day of zinc. The degree of inflammation is directly related to the progression of inflammation.

—Jon Finkel

\* *Am J Clin Nutr.* 2010; 91:1634-41.

### The Right Diet Could Help Reduce the Risk of Alzheimer's Disease

An article published in *The FASEB Journal* reports the discovery of Temple University researchers of the benefit of a low methionine diet in slowing or reversing early to moderate stage Alzheimer's disease in an animal model.\*

The researchers divided mice bred to develop Alzheimer's disease to receive a high methionine diet or a healthy (control) diet for 5 months, following which the group receiving the methionine-rich diet was subdivided to receive the same regimen or the healthy diet for two months. Mice on the methionine-rich diet had higher homocysteine levels and significant behavioral impairments at 5 months compared to the control group. While those that remained on the high methionine diet continued to show elevations in homocysteine, those that were switched to the healthy diet experienced reductions in homocysteine as well as improvements in fear-conditioning performance and a decrease in brain amyloid levels, which are elevated in Alzheimer's disease.

**Editor's note:** A byproduct of methionine metabolism is homocysteine, which when elevated has been linked to an increased risk of Alzheimer's disease as well as cardiovascular disease. Adequate B vitamin intake can help reduce homocysteine production. Those who consume red meat often have higher methionine levels.

—Dayna Dye

\* *FASEB Journal*. 2010 Jun 2.

### Greater Omega-3 Fatty Acid Intake Associated with Delayed Age-Related Hearing Loss

An article published in the *American Journal of Clinical Nutrition* reveals the finding of a protective effect for omega-3 fatty acid and fish consumption against the development of age-related hearing loss.\*

Australian researchers evaluated data from participants in the Blue Mountains Hearing Study of age-related hearing loss. Greater total omega-3 fatty acid intake upon enrollment was associated with a lower risk of hearing loss, and increased long chain omega-3 fatty acid intake was associated with a reduced risk of developing hearing loss over follow-up. A reduction was also observed among those who consumed at least 2 servings of fish per week, who had a 42% lower risk of hearing loss at the five-year follow-up compared with those who ate one serving per week. Additionally, a reduced risk of hearing loss progression was observed in those who consumed one to two servings of fish per week.

**Editor's note:** Long-chain omega-3 polyunsaturated fatty acids include eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and docosapentaenoic acid (DPA).

—Dayna Dye

\* *Am J Clin Nutr*. 2010 Jun 9.





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BELOW IS A LIST OF STUDIES WE ARE  
CURRENTLY CONDUCTING.

IF YOU OR SOMEONE YOU KNOW  
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LIKE TO PARTICIPATE, CALL NOW TO  
SET UP ENROLLMENT!

**(CL025)**

**Alzheimer's Disease-  
South Florida Location**

Twenty million Americans are destined to contract Alzheimer's disease, an affliction that robs us of memory, intelligence, and eventually our most rudimentary cognitive abilities. The few drugs approved to treat Alzheimer's symptoms produce only modest short-term effects and some patients cannot tolerate them at all. The objective of this study is to measure the effects of weekly medication injections and nutritional supplements that may help suppress the inflammatory factor implicated in the neuronal degeneration of Alzheimer's disease. This study requires weekly visits and runs approximately 17 weeks. You will receive blood tests, evaluations, blood pressure checks as well as study medication and supplements at no cost to you.

We are seeking adults between the ages of 60-85 who have a diagnosis of Alzheimer's disease in the mild to moderate stage. If you or someone you know meets these requirements, you may qualify for this study.

**(CL030A)**

**Comprehensive Weight Management  
Program-South Florida Location**

This program includes the use of nutritional supplements, medications, and hormone testing with assessment tools in order to evaluate the management of your weight. The program lasts 180 days.

We are currently seeking adults between the ages of 35-55 who are able to follow a recommended diet program, conduct some form of exercise throughout the program and be available to return to the investigator physician's office at the recommended time intervals for assessments. If you or someone you know meets these requirements, you may qualify to participate in this program.

**(CL037)**

**Supporting Healthy Cholesterol  
Levels-South Florida Location**

Life Extension Clinical Research Inc. is pleased to announce a new clinical study with a combination product in order to assess its effect in promoting healthy cholesterol levels, which is critical to your cardiovascular health.

We are currently seeking adults between the ages of 21-65 for this study.

If you or someone you know would like to participate in any of the above studies, please call Life Extension Clinical Research at **1-866-517-4536** for more information or visit the following website at [www.lef.org/clinicalresearch](http://www.lef.org/clinicalresearch). Click on "Register for Open Studies" and follow the directions to complete registration.

Participate in a groundbreaking study today!

# TWIN-ACTION SUPPORT for Cholesterol and Heart Health

Safely managing blood lipid levels can be a challenge for people as they get older. Yet an increasing number of doctors recognize the critical need to protect the arterial wall against low-density lipoprotein (LDL) **oxidation** and **inflammatory** insults.

For those who want to maintain healthful levels of lipids in the blood, new **Advanced Lipid Control** contains a combination of two powerful nutrients that help protect key aspects of cardiovascular function. This special formula supports healthy cholesterol levels for those already within normal range and safeguards vascular and heart health, while providing excellent antioxidant protection.

## Unique Theaflavin Extracts From Black Tea

A staple beverage in many cultures for millennia, black tea contains beneficial flavonoids found naturally in its leaves called **theaflavins**. **Advanced Lipid Control**



contains theaflavins, which scientists have discovered hold multiple applications for arterial health. As well as supporting cholesterol levels that are already within the normal range,<sup>1</sup> **theaflavins** have been shown in human studies to protect against **LDL oxidation** and favorably affect **endothelial function**,<sup>2</sup> thus helping to maintain a healthy circulation.

Scientists have also found that black tea flavonoids possess strong antioxidant properties, which can help mitigate oxidative damage to cells and tissues from free radicals.<sup>3</sup> In addition, theaflavins have been found to be helpful in regulating key inflammatory mediators in the body, thus helping to preserve endothelial integrity.<sup>4,5</sup>

## Coronary-Protective Effects of Ancient Indian Berry

The second ingredient in **Advanced Lipid Control** is called AmlaMax®, a patent-pending extract of Indian gooseberry fruit. It contains a diverse blend of phenolic compounds that have been clinically shown to safely support healthy levels of all three key blood lipids<sup>6</sup>—LDL, high-density lipoprotein (HDL), and triglycerides—as well as markers of inflammation such as C-reactive protein. Studies have also shown that this plant extract helps to induce rapid and significant improvement in endothelial function.

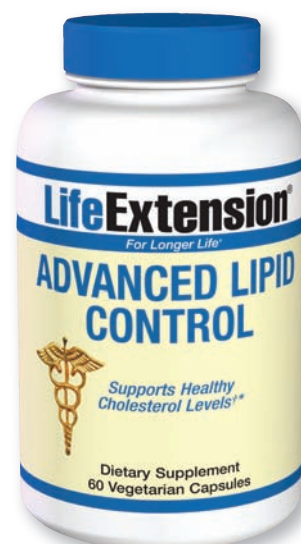


A bottle of 60 vegetarian capsules of **Advanced Lipid Control** retails for \$30. If a member buys four bottles, the cost is only **\$20.25 per bottle**.

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This product contains a black tea extract which is licensed from Applied Food Science, Inc. and is protected by US Patent Nos. 6,811,799 and 6,602,527. AmlaMax® is a registered trademark of DolCas Biotech, LLC.



Item #01308

To order **Advanced Lipid Control**, call  
**1-800-544-4440** or visit **www.LifeExtension.com**

# The New Germ Warfare

## How Probiotic Lozenges Improve Oral Hygiene and Systemic Health

The human mouth is teeming with bacteria. Brushing, flossing, and traditional dental care often aren't enough to escape the health risks of too much of the *wrong* kind of bacteria found floating around the human mouth. With oral probiotics, we may be able to prevent or at least control the growth of the dangerous organisms where they originate.

**Advanced Oral Hygiene** is a new oral probiotic that provides the *beneficial* bacteria that can help block harmful bacteria that first develop in the mouth. This sophisticated oral probiotic therapy allows the healthy and naturally occurring organisms found in the body to out-compete the harmful bacteria.<sup>1-3</sup>

### Multiple Health Benefits

**Advanced Oral Hygiene** contains BLIS K12™ and *Bacillus coagulans*, a unique blend of two oral probiotics, which aim to triumph over many of the chronic threats to our health caused by oral microbes that may pose harm to the body. BLIS K12™ (*Streptococcus salivarius*) and *Bacillus coagulans* (GanedenBC<sup>30™</sup>) organisms naturally survive in human tissue, maximizing their health-promoting potential and providing help with the regulation of inflammation and cell destruction caused by the dangerous germs that originate in the mouth.

Regular use of **Advanced Oral Hygiene** could make a significant impact in protecting oral health,<sup>1-3</sup> which in turn can strengthen the immune system, ease inflammation, and help the body maintain good health.<sup>4,5</sup>

### Poor Oral Health is Associated With Risk Factors Throughout the Entire Body

Inflammation in the mouth can translate to poor health in other parts of the body. Traditionally, poor mouth conditions have a tendency to become chronic, producing a steady elevation of inflammation in other parts of the body that receive high blood flow—thereby “seeding” the entire system with circulating “cytokines.” These cytokines, or “chemical messengers,” produce inflammatory responses in tissues far distant from the mouth, and affect cellular behavior critical to the immune system's defense. When cytokine levels continue to increase—the occurrence of even more acute inflammation can also increase.

**Advanced Oral Hygiene** can offer relief and modulate the body's inflammatory response, making these “good” microorganisms found in the BLIS K12™ and GanedenBC<sup>30™</sup> strain the ideal candidates for easing inflammatory conditions in the body.<sup>5</sup>

### Live Life Longer and Healthier

In combination with a rigorous oral hygiene regime, **Advanced Oral Hygiene** provides the body with beneficial bacteria to naturally help protect the immune system and prevent harmful bacteria from colonizing throughout the body.

A bottle containing **60** mint lozenges of **Advanced Oral Hygiene** retails for \$20. If a member buys four bottles, the cost is only **\$13.50 per bottle**.

**References:** 1. *Oral Microbiol Immunol*. 2009 Apr;24(2):152-61. 2. *Infect Immun*. 1985 Apr;48(1):44-50. 3. Ganeden. Data on file. 2009. 4. *Eur J Clin Microbiol Infect Dis*. 2008 Dec;27(12):1261-3. 5. *Infect Immun*. 2008 Sep;76(9):4163-75.

GanedenBC<sup>30™</sup> is a trademark of Ganeden Biotech, Inc.  
BLIS K12™ is licensed trademark of Frutarom, Ltd.



Item #01300

To order **Advanced Oral Hygiene**  
call **1-800-544-4440** or  
visit **[www.LifeExtension.com](http://www.LifeExtension.com)**

Contains milk, corn, and yeast.

**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.**



ENHANCED

# ULTRA NATURAL PROSTATE FORMULA

A huge percentage of men over age 50 suffer from prostate-induced discomforts.

**Ultra Natural Prostate Formula** contains the most scientifically substantiated nutrients to help protect the prostate gland and maintain its healthy function.

Included in the formula is a standardized European pumpkin seed oil extract rich in **delta-7 sterols** and **fatty acids** to support a healthy prostate.<sup>1</sup> A supercritical CO<sub>2</sub> extraction technology supplies optimal amounts of these key phytonutrients to *complement* the fatty acid composition of saw palmetto. It is sourced from a unique variety of pumpkin cultivated specifically to yield **higher ratios** of these compounds than pumpkins grown for commercial use.

The nine additional active ingredients in **Ultra Natural Prostate Formula** are:

- **Saw palmetto extract.** A number of normal biological events in aging men affect the prostate gland. Saw palmetto has been shown to interfere with DHT activity in the prostate, inhibit alpha-adrenergic receptor activity (to support normal urinary flow), and help control inflammatory actions in the prostate gland.<sup>2-4</sup> A novel DeepExtract™ extraction technology ensures the most desirable and complete profile of saw palmetto available.
- **HMRlignan™** Norway spruce and **ActiFlax™** flax lignan extracts. Standardized *lignans* from Norway spruce and flax seeds convert to **enterolactone** that is then absorbed into the bloodstream where it provides significant biological effects. **Enterolactone** has demonstrated anti-estrogen and anti-DHT effects that are of particular importance for the aging prostate gland.<sup>5-7</sup>
- **5-LOXIN® boswellia extract.** Published studies show that normal aging and poor diet cause levels of a dangerous enzyme (*5-lipoxygenase*) to increase, which can affect prostate cells. 5-LOXIN® is a patented extract from the boswellia plant that has been shown to suppress *5-lipoxygenase* in addition to other pro-inflammatory factors.<sup>8-10</sup>



These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

## Now with More Potent Saw Palmetto and Pumpkin Seed Oil Extracts

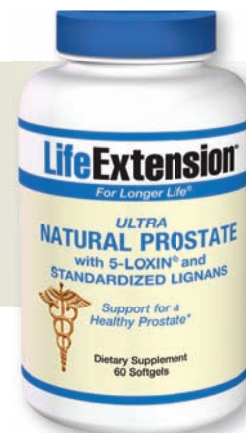
- **Nettle root extract** (*Urtica dioica*). Testosterone converts to estrogen at higher rates as men age. Prostate cells are sensitive to estrogen's growth stimulatory effects. Nettle root helps support prostate cells against excess estrogen levels.<sup>11</sup>
- **Pygeum**. Normal aging results in levels of certain prostaglandins increasing in the prostate gland. *Pygeum africanum* extract helps suppress these prostaglandins, keeping the prostate gland placid and promoting prostate comfort.<sup>12</sup>
- **Beta-sitosterol**. The most biologically active constituent of pygeum is beta-sitosterol. Beta-sitosterol from other plant sources is also included in this prostate support formula.<sup>13</sup>
- **Cernitin**®. This European pollen extract has been shown to relax smooth muscle tone of the urethra, counteract DHT, and help regulate inflammatory reactions.<sup>14-17</sup>
- **Boron**. In addition to helping protect bones, this mineral has been shown to slow elevation of prostate-specific antigen (PSA)—a benefit seeming to occur as a result of boron's positive effect on the presence of protein-degrading enzymes in the prostate gland.<sup>18,19</sup>
- **Lycopene**. This carotenoid, associated with the tomato's red color, helps maintain healthy DNA gene function in prostate cells.<sup>20-24</sup>

The daily dose of two softgels of **Ultra Natural Prostate Formula** provides:

<b>USPlus® Saw Palmetto</b> (C <sub>0</sub> 2 DeepExtract™)	<b>320 mg</b>
<b>Cernitin®</b>	<b>252 mg</b>
<b>5-LOXIN®</b>	<b>70 mg</b>
<b>Pumpkin seed oil (Cucurbita pepo) extract</b> (standardized to 85% total fatty acids)	<b>200 mg</b>
<b>Stinging nettle root extract</b> ( <i>Urtica dioica</i> )	<b>240 mg</b>
<b>Pygeum extract</b>	<b>100 mg</b>
<b>Lycopene</b>	<b>10 mg</b>
<b>Phytosterol complex</b> (standardized to 26.6% beta-sitosterol)	<b>678 mg</b>
<b>HMRlignan™</b> Proprietary blend of Norway Spruce and ActiFlax™ Flax Lignan extracts	<b>20.15 mg</b>
<b>Boron</b>	<b>3 mg</b>

**Ultra Natural Prostate Formula** provides scientifically validated standardized plant extracts that have been shown to promote healthy prostate function. No other prostate protection formula provides such a broad array of nutrients to support the multiple factors involved in maintaining a healthy prostate gland.  
Contains soybeans.

The retail price for one of bottle **Ultra Natural Prostate Formula** is \$38. If a member buys four bottles, the price is reduced to **\$26.25** per bottle.



Item #01495

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US Patents 6,319,524 & 6,669,968.  
Not available for export.

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# GREEN TEA EXTRACT

Large volumes of published **scientific findings** validate the multiple health benefits of **green tea**.

The active constituents in green tea are **polyphenols**, with **epigallocatechin-3-gallate (EGCG)** being the most powerful. The antioxidant activity of **EGCG** is about **25-100 times** more potent than **vitamins C** and **E**.

When Life Extension® introduced the first **standardized green tea extract** in **1993**, the supplement was very expensive. As more research was published about green tea's multifaceted benefits, more companies competed to make **higher-potency** extracts at **lower** prices.

The good news for consumers is that they can obtain **high-potency standardized** green tea extract capsules at a fraction of the prices charged just five years ago.

The Life Extension Foundation Buyers Club offers **98% green tea extracts** in either a **lightly caffeinated** or **decaffeinated** form. These **98%** extracts are **standardized** to provide high potencies of critical **EGCG**, the most important **polyphenol** found in green tea. Each capsule of **Mega Green Tea Extract** provides **more** polyphenols than are found in five cups of green tea.

These highly-concentrated **Mega Green Tea Extract Caps** contain **725 mg** of either **lightly caffeinated** or **decaffeinated 98% standardized** green tea extracts. The retail price for a **100-capsule bottle** of **Mega Green Tea Extract** is **\$28**.

If a member buys four bottles of 725-mg **Mega Green Tea Extract** capsules, the price is reduced to **\$19.88 per bottle**.

Contains rice.



To order Mega Green Tea Extract,  
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# NATURAL STRESS RELIEF

## WITH LEMON BALM AND L-THEANINE

It's hard to find a natural antidote to today's overstressed world. The encouraging news is that **lemon balm** (*Melissa officinalis*), a plant native to the Mediterranean region, has been **clinically proven** to help with **anxiety** and **sleeplessness**. What's more, lemon balm produces these calming effects while also enhancing memory and attention!<sup>1</sup>

Cyracos® lemon balm extract is prepared from special lemon balm chosen for its high concentrations of *hydroxycinnamic* and *rosmarinic acids*. These active lemon balm constituents appear to enhance mood by modulating specific nicotinic and muscarinic receptors in the cerebral cortex of the brain.

Aside from relieving everyday stress and sleep problems, the anxiety-relieving properties of this plant extract may also offer smokers relief from the mental stress of quitting, aid in leveling mood swings, and help reduce the emotional hunger associated with dieting (or calorie restriction).

### RELAXATION PROMOTING EFFECTS OF L-THEANINE

The Japanese have long known that *L-theanine*, an amino acid derived from green tea, is a natural relaxant that diminishes stress<sup>2</sup>—without drowsiness, impaired thought, or other side effects.

*L-theanine* produces calming effects in the brain in ways that have been compared to meditation, massage, and aromatherapy. L-theanine induces relaxation without causing drowsiness. In fact, studies show that **L-theanine enhances the brain's ability to concentrate, learn, and remember**. Unlike caffeine, L-theanine increases GABA (gamma-aminobutyric acid), an inhibitory neurotransmitter that not only induces relaxation but also produces a sense of well-being. L-theanine may normalize levels of dopamine, a critical brain hormone that is depleted by various stress factors.

### A HOST OF HEALTH-ENHANCING BENEFITS

Research shows that L-theanine has numerous health-enhancing effects, including protecting cognitive function.\* In studies of neurons in cell culture, L-theanine significantly reversed glutamate-induced toxicity, a major cause of normal brain aging.<sup>3</sup>

To order Natural Stress Relief  
with Lemon Balm and L-Theanine,  
call 1-800-544-4440 or visit  
[www.LifeExtension.com](http://www.LifeExtension.com)



LEMON BALM

+

L-THEANINE

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NATURAL STRESS RELIEF

Based on an enormous amount of published data showing the multiple beneficial effects of lemon balm extract and L-theanine, Life Extension® has combined these potent, but safe nutrients into a proprietary formula called **Natural Stress Relief**. Each capsule of **Natural Stress Relief** provides:

300 mg of **Cyracos®** lemon balm extract  
200 mg of **Suntheanine®** L-Theanine

Note that the amount of L-theanine in this product is double that of most L-theanine stand-alone supplements. The reason for this potency increase is reports of greater benefit when at least **200 mg of L-theanine** are taken.

The retail price of a 30 count bottle of **Natural Stress Relief** is \$28. If a member buys four bottles, the price of this potent stress-relieving formula is reduced to just **\$18** per bottle.

**BEWARE OF IMITATIONS** The L-theanine used in the new **Natural Stress Relief** is Suntheanine®, the only pure form of L-theanine available worldwide and the only form protected by 40 internationally recognized patents and scientifically proven in clinical studies to be safe and efficacious. Independent laboratory analysis has verified that certain other products on the market claiming to contain "L-theanine" are only half L-theanine, the other half being a different form of theanine known as "D-theanine" which has not been scientifically evaluated in published studies. Suntheanine® is a registered trademark of Taiyo International, Inc. Use of Suntheanine® is protected by US Trademark Registration No. 2,548,957. Cyracos® is a registered trademark of Naturex, Inc.

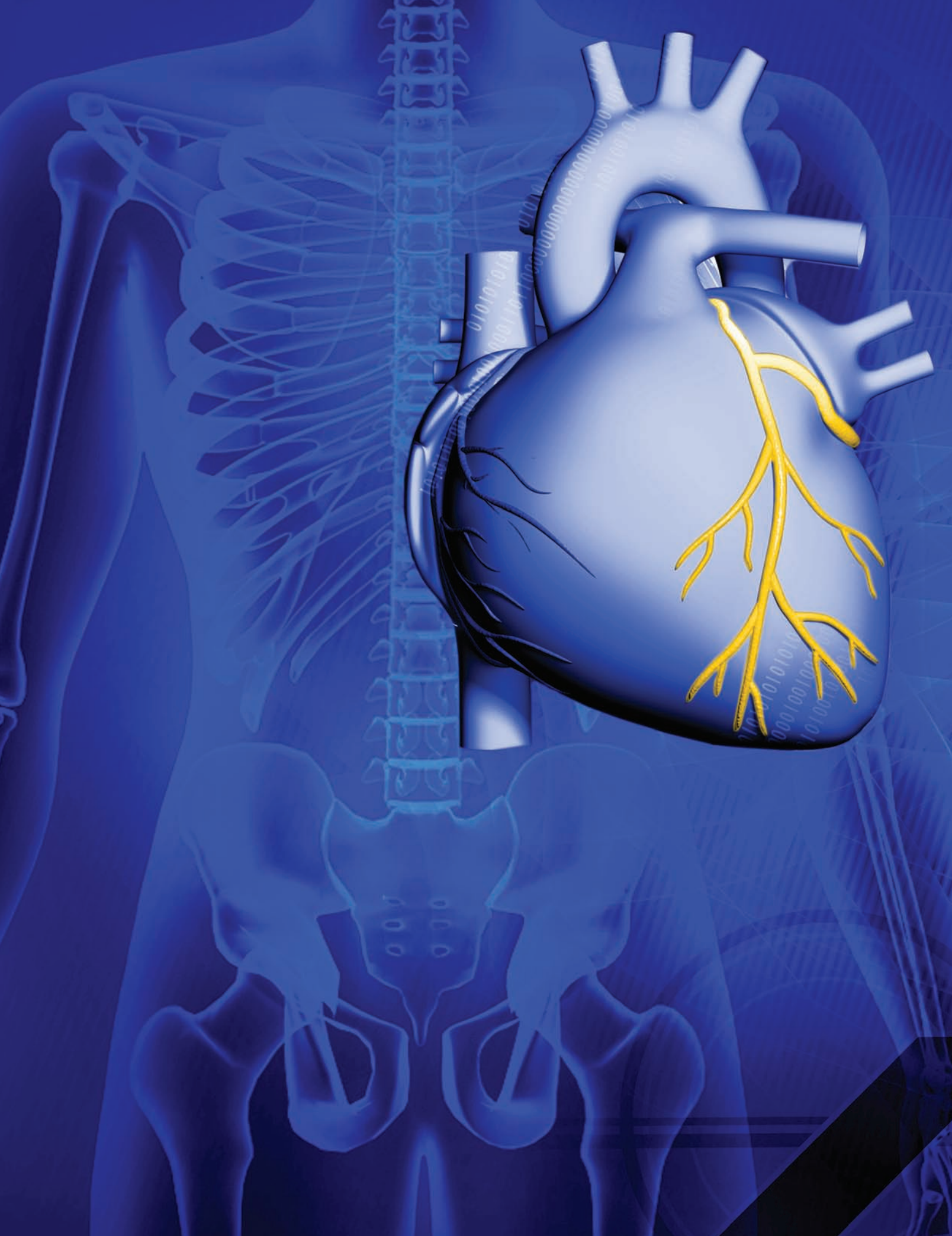
Contains rice.

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\* These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.





# Brittle Bones and Hardened Arteries: **THE HIDDEN LINK**

Are your arteries turning into bone? They very well may be, at this very moment . . .

This is only a slight exaggeration based on a little-known medical fact: the cells lining your arteries (endothelial cells) can turn into *bone* cells as you age.<sup>1-3</sup> Known as *osteoblasts*, these cells normally regulate bone formation.

The unexpected discovery of osteoblasts in the *endothelial* lining of individuals with arterial disease was made in 1993.<sup>4</sup> It marked a major advance in our understanding of *vascular and bone* disease. This finding uncovered a previously unknown link between **atherosclerosis**, which involves *calcification* of vascular tissue, and **osteoporosis**, which involves the decalcification of bone tissue.

This finding gained validation when researchers confirmed that osteoporosis sufferers are *also* more likely to exhibit atherosclerotic calcification (hardening of the arteries)—while those with *atherosclerosis* are more likely to have weaker, more brittle bones and increased risk of fracture.<sup>5-8</sup>

While the precise mechanisms behind the transformation of endothelial cells into bone-forming osteoblasts remain unclear, we *do* know of specific, natural interventions that ensure bone strength and vascular health in aging individuals.

Cutting-edge research points to the central role of two key nutrients to ensure optimal calcification of your bones while preventing pathologic calcification of your arteries: vitamins D and K.

In this article, you will learn of the underlying mechanisms that regulate calcium in the body. You will discover the vital role of vitamins D and K in maintaining optimal bone strength and vascular health. You will also find out how optimal levels of these two vital nutrients operate *synergistically* to combat osteoporosis and atherosclerosis, two of the most common scourges confronting aging humans. >>



## D and K: A Vital Interplay in Bone and Heart Health

In all likelihood, your cardiologist is unaware that the mechanisms underlying arterial calcification closely resemble the process of new bone formation, involving many of the same cells (including osteoblasts), proteins, and *cytokines* (signaling molecules).<sup>9</sup>

People with osteoporosis are more likely to exhibit atherosclerotic calcification in their blood vessels. And those with atherosclerosis are more likely to possess lower bone mass. What do these groups have in common? Both exhibit *insufficient vitamin K* levels.<sup>5-8</sup>

Researchers have since delineated the complex process by which the body manages calcium uptake, distribution, and deposition.<sup>5</sup> Many of the same factors that regulate healthy calcium levels in bones are *also* implicated in the destructive accumulation of calcium in arteries.<sup>10</sup> Among those factors are specific proteins called **Gla proteins**, found in bone tissue and in vascular walls, that require **vitamin K** for their proper function.<sup>5</sup> Other factors crucial to atherosclerosis and osteoporosis prevention are modulated by **vitamin D**. These include fat-derived inflammatory cytokines.<sup>5,11</sup>

Osteoporosis and atherosclerosis, in other words, both involve insufficiencies of **D** and **K**.

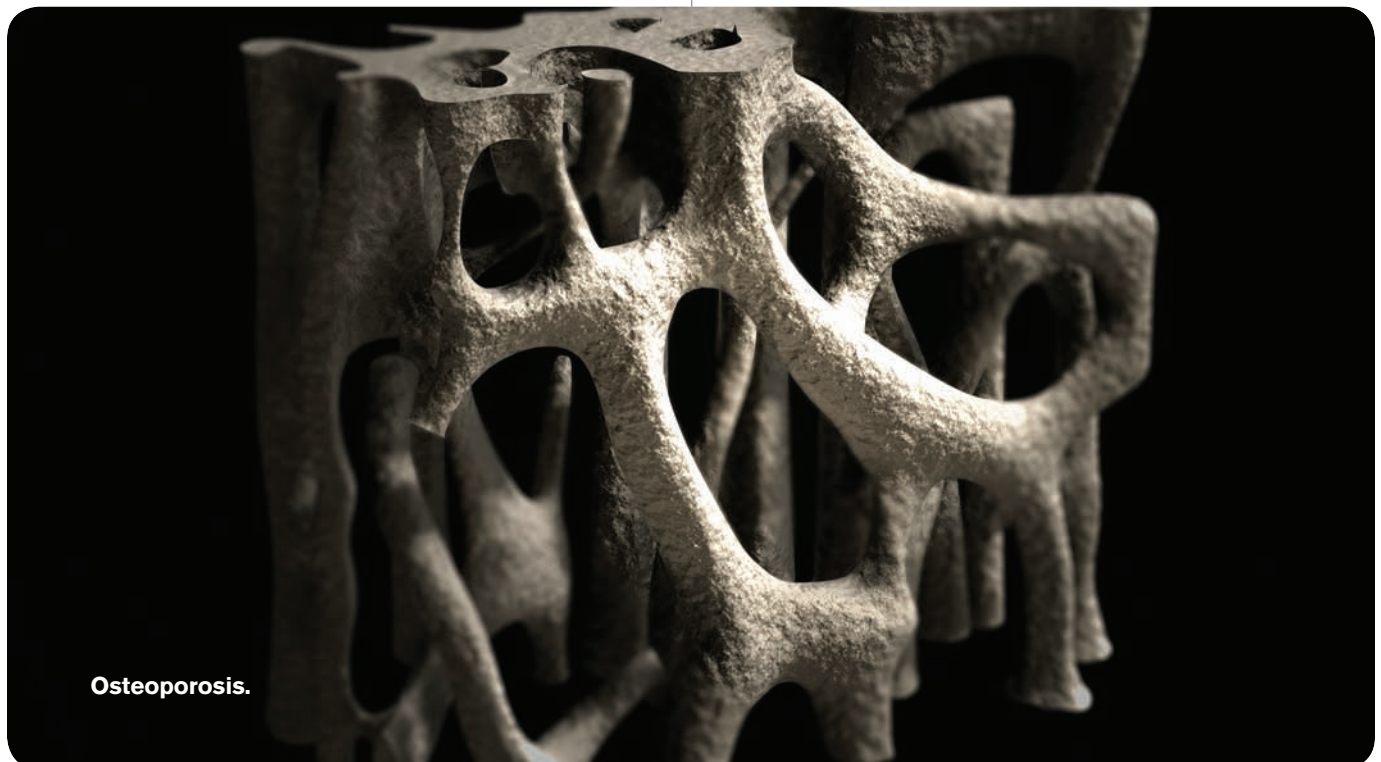
## Vitamin D

Vitamin D's role in the formation and maintenance of healthy bone structure and function has been established for decades. It is a vital co-factor in bone mineralization through the absorption of calcium and phosphorus. Severe D deficiency may thus lead to rickets, a childhood disease characterized by impeded growth and deformity of the long bones of the body.

More recently, its definitive importance in optimizing cardiovascular health has emerged. Vitamin D *inhibits* vascular calcification by blocking the release of inflammatory cytokines and adhesion molecules and preventing abnormal changes in smooth muscle cells in vessel walls.<sup>13</sup> Accordingly, low vitamin D levels are associated with increased risk for development of the coronary arterial calcifications seen in atherosclerosis.<sup>14</sup>

Vitamin D deficiency is also associated with multiple risk factors for cardiovascular disease—including hypertension, diabetes, increased carotid artery intima-media thickness, as well as heart attack and stroke.<sup>15</sup> Vitamin D also reduces gene expression of bone-forming cells abnormally present in the aortas of experimental animals with chronic kidney disease.<sup>16</sup>

A 2009 national health survey found “a strong and independent relationship of vitamin D deficiency with



Osteoporosis.

prevalent cardiovascular disease in a large sample representative of the US adult population.”<sup>17</sup> Low vitamin D levels have also been implicated in congestive heart failure (CHF).<sup>18</sup>

Replenishment of low vitamin D levels provides a simple and effective means of reversing many of these risks. To take one example, a 2009 study examined the effect of monthly injections of 300,000 IU of vitamin D3 in a group of deficient subjects with no overt symptoms of cardiovascular disease.<sup>11</sup> At the outset of the study, subjects had low *flow-mediated dilation* of their arteries, a key index of endothelial health. After only 3 months of supplementation, significant improvement in *flow-mediated dilation* was observed, with diminished post-treatment measures of oxidative stress as well.

These findings have been complemented by recent research into the mechanisms dependent upon vitamin K for optimal heart and bone health—mechanisms that operate both parallel to and in tandem with vitamin D.

## Vitamin K

Vitamin K is not a single nutrient, but rather denotes several related nutritional compounds. These can be produced within the human body but not by the body.<sup>19</sup> Gut flora (beneficial intestinal bacteria) generate about 75% of the vitamin K your body absorbs each day, with the other 25% coming from dietary sources.<sup>20</sup> Just as importantly, vitamin K is not stored in the body, underscoring the need for daily intake.<sup>21</sup>

It occurs in nature in two primary forms: K1 or *phylloquinone* and K2 or *menaquinone*. Vitamin K is a cofactor required to convert the amino acid *glutamate* into *gamma-carboxyglutamate*, or **Gla-proteins**.<sup>22</sup> Gla-proteins regulate physiological processes controlled by **calcium**. These include blood coagulation (clotting) and bone mineralization.

Accordingly, Gla-proteins are critical to the formation and replenishment of bone tissue. Unless these proteins are modified by vitamin K, they cannot properly form the matrix in which calcium and phosphorus bind together to make solid, well-mineralized bone. Vitamin K has been shown to stimulate new bone formation and reduce the incidence of vertebral fractures.<sup>23,24</sup>

The Gla-protein **osteocalcin**, normally present in bone, has been found in calcified atherosclerotic plaque lesions, and production of this protein is pathologically upregulated in people with atherosclerosis.<sup>25-28</sup>



What You Need to Know

## Vitamins D and K

- Scientists have discovered that blood vessel cells can transform into bone-forming cells.
- This unexpected finding confirmed a little-known link between atherosclerosis and osteoporosis.
- Insufficient D and K intake lie at the juncture of these two lethal age-related conditions.
- They operate synergistically to optimize bone mineralization and prevent calcium deposits in vascular tissue.
- Low vitamin D is linked with arterial calcification and bone loss.
- Vitamin K stimulates bone formation and modifies specific proteins (Gla) that ensure arterial flexibility.



At the same time, another vitamin K-dependent Gla-protein known as MGP (for “matrix Gla-protein”), normally found in healthy arterial walls, is a strong *inhibitor* of vascular calcification.<sup>29,30</sup> In other words, by increasing **matrix Gla-protein** in the arterial walls, vitamin K protects against the calcification-inducing effects of osteocalcin.

This may explain the emergence of compelling evidence for vitamin K as a key factor in overall heart health. To take one example, a large study of more than 4,800 subjects followed for 7-10 years in the Netherlands demonstrated that people in the highest **one-third** of vitamin K2 intake had a **57% reduction in risk of dying from cardiovascular disease**, compared to those with the lowest intake. And their risk of having severe aortic calcification plummeted by **52%**—a clear demonstration of the vitamin’s protective effects.<sup>31</sup> Another study by the same group showed that vitamin K2 intake was associated with a **20% decreased risk of coronary artery calcification**.<sup>32</sup>

Another study suggests that vitamin K2 may work synergistically with anti-osteoporosis drugs called **bisphosphonates**, inhibiting arterial calcification and inducing production of a protein important in maintaining vessels’ elasticity.<sup>33</sup>



Vitamin K *insufficiency* thus explains the so-called “calcification paradox” whereby older adults suffer a concurrent *loss* of calcium from their bones and abnormal *increases* of calcium in their arteries.<sup>34</sup>

Compelling evidence reveals widespread vitamin K insufficiency among aging individuals. Recent population-level (epidemiological) research reveals that even in apparently healthy people, a substantial proportion of Gla-proteins do not exhibit the vitamin K-dependent changes they require for activity—suggesting that the majority of these people are vitamin K-deficient.<sup>35,36</sup>

These studies further indicate that the amount of vitamin K needed for optimal bone tissue function turns out to be *higher* than that needed for healthy clot formation. In other words, people with K levels adequate for normal coagulation may still be deficient when it comes to bone health.<sup>37</sup>

### A Synergistic Combination

The body of clinical evidence supporting mutually reinforcing interplay between vitamins D and K in bone and heart health is growing at a steady pace.

In a study of older women with Parkinson’s disease and osteoporosis, for instance, all the patients were found to be deficient in both vitamins K and D at the outset.<sup>38</sup> After 12 months of supplementation with **45 mg per day** of vitamin K2, bone mineral density in the hands increased significantly compared with placebo recipients. At the same time, blood levels of bone deterioration markers, as well as calcium, dropped significantly, indicating that the K2 was doing its job of generating the vital Gla-proteins and locking calcium into bone. Most compelling of all, women in the placebo group were nearly **12 times** more likely to sustain a fracture as those in the vitamin K group!

Continuous combined therapy with vitamins K2 and D3 have been shown to significantly increase vertebral bone mass in postmenopausal women while *maintaining* normal blood coagulation parameters.<sup>39</sup> And the combination, with added calcium supplementation, contributed to a **7.5-fold reduction in the risk of fractures** in elderly women with Alzheimer’s disease.<sup>40</sup>

Even in the absence of calcium supplementation, a K2/D3 regimen sustained bone mineral density in a group of early postmenopausal women with highly active bone turnover—a prime example of the benefits of early prevention.<sup>41</sup>

The combination of K1 with vitamin D and calcium has also been shown to be effective in retarding bone loss in postmenopausal women between



ages 50 and 60.<sup>42</sup> Vitamin K2 supplements on the other hand, produced remarkable improvement in Gla-protein markers of bone mineralization as early as 2 weeks after starting treatment.<sup>43</sup> K2 supplementation also inhibited bone loss in a group of patients treated with steroid drugs, a group at high risk for pathological fractures.<sup>44</sup> And **45 mg per day** of K2 plus 1,500 mg per day of calcium produced a significant increase in bone mineral density in the vertebral columns of postmenopausal women with osteoporosis.<sup>45</sup> Tellingly, that study also showed a significant decrease in the level of incompletely transformed Gla-proteins<sup>45</sup>—a direct measure of vitamin K2's effectiveness replicated in other studies.<sup>42,46,47</sup>

## Summary

The remarkable discovery that blood vessel cells can transform into bone-forming cells confirmed the little-known link between atherosclerosis and osteoporosis. At the core of this connection is insufficient D and K intake. These vital nutrients operate in synergy to optimize bone mineralization and prevent calcium deposits in vascular tissue. Low vitamin D is linked with arterial disease and bone loss, while vitamin K stimulates bone formation and modifies specific proteins (Gla) that help protect against arterial calcification.

Vitamin D taken in higher doses (5,000-10,000 IU/day) has become popular over the last two years based on findings showing that this potency is required to achieve optimal blood levels (over 50 ng/mL of 25-hydroxyvitamin D). Relatively few supplement takers, however, understand the critical need for aging humans to also take a daily vitamin K supplement.

Fortunately, Life Extension members were informed in 1999 about the critical need of including vitamin K in their supplement regimen. ●

If you have any questions on the scientific content of this article, please contact a **Life Extension®** Health Advisor at 1-866-864-3027.

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# ARE YOU TAKING THE OPTIMAL FORMS OF VITAMIN E?

According to the *Proceedings of the National Academy of Sciences*, alpha tocopherol (regular vitamin E) displaces critically important gamma tocopherol in the cells.<sup>1</sup> While alpha tocopherol inhibits free-radical production, gamma tocopherol is required to trap and neutralize existing free radicals.<sup>2</sup>

Four prestigious scientific journals have highlighted **gamma tocopherol** as one of the most critically important forms of **vitamin E** for those seeking optimal health benefits.

Most commercial vitamin E supplements contain little, if any, **gamma tocopherol**. They instead rely on **alpha tocopherol** as the primary ingredient. However, it is gamma tocopherol (not the alpha form) that quenches **peroxynitrite**, the free radical that plays a major role in the development of **age-related decline**.<sup>2,3</sup>

## **SESAME LIGNANS: The Natural Vitamin E Booster**

Life Extension® has uncovered research suggesting that adding **sesame lignans** to gamma tocopherol may significantly enhance its beneficial effects. Sesame and its lignans have been shown to boost antioxidant levels and help maintain already-normal blood pressure.\*

In a human study that combined **gamma tocopherol** with **sesame lignans**, gamma tocopherol/sesame was **25% more effective** than gamma tocopherol/tocotrienols in suppressing tissue measurements for free-radical and inflammatory damage.<sup>4,5</sup> Since tocotrienols are considered nature's most potent antioxidants, the fact that low-cost gamma tocopherol with sesame is more effective is a remarkable finding.

Life Extension fortifies the popular **Gamma E Tocopherol** supplement with standardized **sesame lignans**. Consumers obtain superior benefits at a much **lower cost**.

## **WORLD'S MOST COMPREHENSIVE VITAMIN E FORMULA!**

The **Gamma E Tocopherol** formula provides potent doses of critically important gamma **vitamin E** along with **sesame lignans** to augment its antioxidant effects.

The retail price for 60 softgels of **Gamma E Tocopherol with Sesame Lignans** is **\$32**. If a member buys four bottles, the price is reduced to only **\$21.75 per bottle**.

Each softgel of Gamma E Tocopherol  
with Sesame Lignans provides:

Gamma tocopherol	215.4-244.12 mg
Delta tocopherol	89.75-125.65 mg
Alpha tocopherol	17.95-35.9 mg
Beta tocopherol	0-7.18 mg
Sesame seed	20 mg
<i>(Sesamum indicum)</i> <b>lignan extract</b>	



Item #00759

Contains soybeans, peanuts, and sesame.

Antioxidant Vitamins & Cancer. Some scientific evidence suggests that consumption of antioxidant vitamins may reduce the risk of certain forms of cancer. However, the FDA does not endorse this claim because this evidence is limited and not conclusive.


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**To order Gamma E Tocopherol with Sesame Lignans, call 1-800-544-4440  
or visit [www.LifeExtension.com](http://www.LifeExtension.com)**

\* These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.





Heart Healthy

# SUPER omega-3

EPA/DHA

Fish Oil Blend with Sesame Lignans  
and a MORE Concentrated Olive Fruit Extract

## A Comprehensive Essential Fatty Acid Formula

An abundance of scientific research substantiates the wide-ranging health benefits, including promoting a healthy heart, of **omega-3 fatty acids** in fish oil and **monounsaturated fatty acids-polyphenols** in olive fruit.<sup>1-9</sup>

**SUPER OMEGA-3** from Life Extension® uses a patented EPA/DHA extraction process that results in a pure, stable and easy-to-tolerate **fish oil extract**.

While most fish oil is distilled to decrease contaminants such as mercury and PCBs, the **Pure +™** fish oil used in **Super Omega-3** is produced with a patented method that purifies the oil with a highly advanced *distillation process* to reduce pollutants to virtually undetectable levels. The result is an improved **fish oil** that *exceeds* the standards set by international rating agencies.

### Sesame Lignans Enhance Fish Oil's In Vivo Effects

The *unstable* nature of fatty acids like fish oil limits their biological efficacy in the body. Scientific studies show that when **sesame lignans** are supplemented with fish oil, the beneficial effects are augmented.<sup>10</sup>

**Sesame lignans** help guard against **lipid peroxidation**, thereby extending the stability of **DHA** in the body. These **lignans** also direct fatty acids toward pathways which can

help with inflammatory reactions. **Super Omega-3** provides standardized **sesame lignans** to enhance the overall benefits of the improved EPA/DHA fish oil blend.

### Higher Potency Standardized Olive Fruit

To emulate a Mediterranean diet, **Super Omega-3** provides a standardized **olive fruit extract** to deliver the polyphenol **hydroxytyrosol**, a powerful antioxidant that protects normal **LDL** from oxidation and counters dangerous free radicals.<sup>11-14</sup> Research shows that a combination of olive oil and fish oil supplements helps with inflammation better than a placebo or fish oil alone.<sup>15</sup> Therefore, Super Omega-3 provides the equivalent polyphenol content of **6 ounces of Extra Virgin Olive Oil**.

**Super Omega-3** provides a high concentration of **olive fruit extract** standardized for **hydroxytyrosol**, **tyrosol** and **oleuropein** polyphenols. Research shows the value of **oleuropein** in favorably altering gene expression, delaying senescence in specialized skin cells, and helping maintain normal platelet activation.

Life Extension's **Super Omega-3** is a fish oil concentrate that contains a *full-spectrum blend* of *synergistic* nutrients, providing a product of the utmost quality to produce optimal effects.

Just four softgels of SUPER OMEGA-3 EPA/DHA with Sesame Lignans & Olive Fruit Extract provide:

<b>EPA Pure+™ Extract</b> (eicosapentaenoic acid)	<b>1400 mg</b>
<b>DHA Pure+™ Extract</b> (docosahexaenoic acid)	<b>1000 mg</b>
<b>Olive Fruit Extract</b> [standardized to 1.5% hydroxytyrosol (9 mg), 0.7% oleuropein (4.2 mg), 0.5% verbascoside (3 mg) and 0.23% tyrosol (1.4 mg)]	<b>600 mg</b>
<b>Sesame seed lignan extract</b>	<b>20 mg</b>



Two softgels should be taken twice daily with meals. A bottle of 120 softgels of **SUPER OMEGA-3 EPA/DHA with Sesame Lignans and Olive Fruit Extract** retails for \$32. If a member buys four bottles, the price is reduced to **\$21 per bottle**. If **10 bottles** are purchased, the price per bottle is reduced to only **\$18.68**. Item #01482

For those with a sensitive stomach, Super Omega-3 is now also available with enteric coating and retails for \$34. If a member buys four bottles, the price is reduced to **\$23.25 per bottle**. If **10 bottles** are purchased, the price per bottle is reduced to only **\$21**. Item #01484

**CAUTION:** If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your healthcare provider before taking this product. Contains fish (anchovy, sardine, mackerel), soybeans, and sesame.

Super Omega-3 is certified to contain no detectable levels of mercury, arsenic, lead, cadmium, and other toxic metals by the International Fish Oil Standards (IFOS™). This product meets or exceeds IFOS™ standards for PCBs, dioxins, and other contaminants, and thus has received its highest 5-star rating.

IFOS™ certification mark is a registered trademark of Nutrasource Diagnostics, Inc. These products have been tested to the quality and purity standards of the IFOS™ program conducted at Nutrasource Diagnostics, Inc.

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Supportive but not conclusive evidence shows that **consumption of EPA and DHA omega-3 fatty acids may reduce the risk of coronary heart disease**.

**To order the most advanced fish oil supplement, Super Omega-3 EPA/DHA with Sesame Lignans and MORE Olive Fruit Extract with or without enteric coating call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)**



## Next-Generation Formula

# Enhanced Berry Complete with RZD™ Açai



## Another Breakthrough in Antioxidant Defense!

In 2008, Life Extension® introduced **Berry Complete**, a unique, high-potency blend of extracts from Nature's most powerful free radical fighters.<sup>1-5</sup> The antioxidant strength of just one capsule equaled **more than 50%** of the recommended five daily servings of fruits and vegetables.

Today, we introduce an *even more* powerful antioxidant formula. A single capsule of the new **Enhanced Berry Complete with RZD™ Açai** delivers an antioxidant value equivalent to **more than 100%** of the recommended daily fruit and vegetable intake.

It is also the first antioxidant formula to use a cutting-edge extraction technology called **Radiant Zone Drying™**. This patented process delivers the most *complete* nutritional profile of the **açaí berry**—for a breakthrough in antioxidant defense.

### ORAC:

#### A Measure of Antioxidant Power

To measure the antioxidant strength of various foods, scientists use what is known as the ORAC index. While berries score higher than most fruits and vegetables, **açaí** boasts one of the *highest* ORAC values known to modern science.

Unfortunately, most commercial products containing açai do not reflect the full nutritional content of the fruit. Only a *fraction* of its phenolic content survives industrial processing, handling, and storage.

**RZD™** extraction technology allows for optimal delivery of açai polyphenols, including highly beneficial **anthocyanins**, **proanthocyanidins**, and **flavonoids**, along with **essential fatty acids** and other vital compounds.

Each vegetarian capsule of **Enhanced Berry Complete with RZD™ Açai** also contains standardized extracts of high-ORAC value foods including:

Blackcurrant	Grape
Blackberry	Cranberry
Elderberry	Prune
Wild blueberry	Strawberry
Wild bilberry	Pomegranate
Sweet cherry	Black soybean hull
Tart cherry	Blue corn
Raspberry	

Item #01406

**Enhanced Berry Complete with RZD™ Açai** gives you a convenient way to obtain a broad spectrum of seasonal, hard-to-find, highly perishable foods, for optimal antioxidant value.

A bottle containing 60 vegetarian capsules of **Enhanced Berry Complete with RZD™ Açai** retails for \$29. If a member buys four bottles, the cost is just **\$19.50** per bottle.

#### References

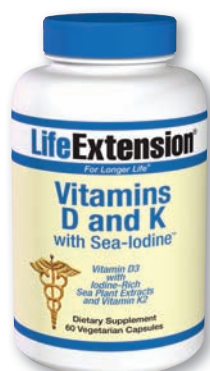
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RZD™ and Radiant Zone Drying™ are trademarks of Columbia Phytotechnology, LLC.  
Contains soybeans. Contains corn.



To order **Enhanced Berry Complete with RZD™ Açai**, call **1-800-544-4440** or visit **www.LifeExtension.com**

# Two Critical Fat-Soluble Nutrients *Deficient* in Food Sources



Item #01472

An avalanche of favorable studies has resulted in record numbers of Americans supplementing with **vitamin D**.

Since it is virtually impossible to obtain adequate **vitamin D** from food sources, supplementation with **5,000-10,000 IU** daily is *required* by most aging individuals.

Overlooked by almost everyone (except **Life Extension®** members) is the critical importance of **vitamin K**. If one is concerned enough about their health to take higher dose **vitamin D**, it seems absurd to miss out on the proven benefits of **vitamin K**.

For instance, **vitamin D** facilitates calcium absorption into the bloodstream and thus plays an important role in maintaining **bone density**. Less recognized is the need for **vitamin K** to transport calcium from the bloodstream into the bone. Vitamin K is also required by calcium-regulating proteins in the arteries.<sup>1-5</sup> Together these two vitamins help maintain youthful calcium skeletal distribution while promoting vascular health.<sup>6-11</sup>

**Vitamin K** can be found in small amounts in the diet, but to obtain the desired higher potencies requires supplementation.

## **Vitamins D and K with Sea-Iodine™**

Most Life Extension members obtain optimal potencies of long-acting **vitamin K** in the **Super Booster** or **Super K** formulations. An increasing number of new members, however, are asking for high-potency **vitamin D**—but are not taking any supplemental **vitamin K**.

**To order the new Vitamins D and K with Sea-Iodine™, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)**

To directly address this critical problem, Life Extension has put together a new formula called **Vitamins D and K with Sea-Iodine™**. Just one capsule provides:

<b>Vitamin D3</b>	<b>5,000 IU</b>
<b>Vitamin K (MK-4) (short-acting)</b>	<b>1,000 mcg</b>
<b>Vitamin K (MK-7) (long-acting)</b>	<b>100 mcg</b>
<b>Sea-Iodine™</b>	<b>1,000 mcg</b>

Like vitamins D and K, few Americans obtain optimal amounts of **iodine**. As people seek to limit their salt intake, this deficit is exacerbated since “iodized salt” is the principal source of this mineral in many diets. We expect the issue of *iodine insufficiency* to receive more media attention as new studies uncover the problems this creates. **Sea-Iodine™** is included in this formula to provide iodine without the harmful effects of sodium.

For members seeking high-potency vitamin D, but who are not yet aware of the body’s essential need for vitamin K and iodine, the new **Vitamins D and K with Sea-Iodine™** is available at the retail price of \$24 for 60 vegetarian capsules. If a member buys four bottles, the cost is reduced to only **\$16.50** per bottle.

Contains rice and corn. Due to the source of the kelp, this product may contain fish and crustacean shellfish. For product cautions visit [www.LifeExtension.com](http://www.LifeExtension.com)

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**MICHAEL F. HOLICK, Ph.D., M.D.**

Foreword by **ANDREW WEIL, M.D.**

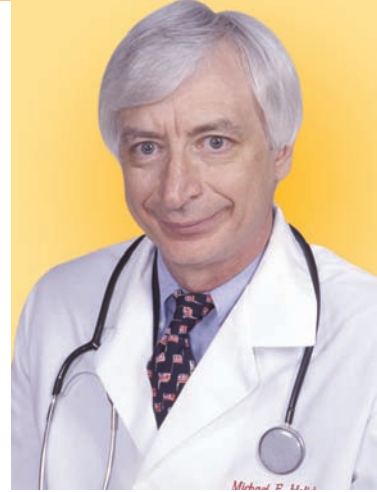
# THE VITAMIN D SOLUTION

A 3-Step Strategy to Cure Our  
Most Common Health Problem

**PREVENT AND TREAT:**

Osteoporosis • Heart Disease • Cancer • Autoimmune Diseases • Stroke •  
Depression • Insomnia • Arthritis • Diabetes • Dementia • Hypertension •  
Chronic Pain • Psoriasis • Fibromyalgia...as well as other diseases,  
chronic conditions, mild infections, and daily aches and pains

# The VITAMIN D *Solution*



BY MICHAEL F. HOLICK, PHD, MD

If I had to give you a single secret ingredient that could apply to the prevention—and treatment, in many cases—of heart disease, common cancers, stroke, infectious diseases from influenza to tuberculosis, type 1 and 2 diabetes, dementia, depression, insomnia, muscle weakness, joint pain, fibromyalgia, osteoarthritis, rheumatoid arthritis, osteoporosis, psoriasis, multiple sclerosis, and hypertension, it would be this: vitamin D.

I have been traveling around the world not only lecturing about vitamin D but also hearing from physicians how common vitamin D deficiency is. It's not only the most common nutritional deficiency in the world, but it's also the most common medical condition, affecting at least one billion people. Three out of every four Americans are deficient in vitamin D, up from one out of two twenty years ago. > >





### A Hormone, Not a Vitamin

Naturally, we're disposed to think about vitamin D as a vitamin—a substance that we get from our diets, like vitamin C or niacin, and that participates in biological reactions to help the body operate optimally. But despite its name, vitamin D isn't really a vitamin. Vitamin D is in a class by itself; its far-reaching effects on the body are aligned with how hormones act to influence metabolic pathways, cellular functions, and the expression of myriad genes. Vitamin D's active metabolic product in the body, in fact, is a molecule called 1,25-dihydroxyvitamin D (let's call it 1,25-vitamin D for simplicity), which is a secosteroid hormone that directly or indirectly targets more than two thousand genes, or about 6 percent of the human genome.

### From Bone Health to Brain Health

Contrary to what was previously believed—that vitamin D receptors were only in bones, intestines, and kidneys—we now know that vitamin D receptors are *everywhere* in the body. There is even proof that vitamin D receptors exist in the brain and that the active form of vitamin D stimulates the production of mood-elevating serotonin. This explains how it may help reduce depression (or just a chronically foul mood). Fat cells, too, have vitamin D receptors, and fat cells can be more metabolically active (burn more calories) if they have more vitamin D. People tend to think that fat cells are like inanimate blobs of lard when in fact they are active participants in the process by which your brain learns that you're full and don't need to take another bite of food. When you've had enough, fat cells secrete a hormone called leptin that allows you to push away from the table. A lack of

vitamin D will interfere with this appetite-suppressing hormone whose job it is to regulate your body weight. And we all know what an unchecked appetite can lead to: weight gain and a higher risk of developing type 2 diabetes. Speaking of which, vitamin D deficiency has also been shown to exacerbate type 2 diabetes, impair insulin production in the pancreas, and increase insulin resistance.

### Benefits of Vitamin D in Brief

**Bone health:** prevents osteopenia, osteoporosis, osteomalacia, rickets, and fractures.

**Cellular health:** prevents certain cancers, such as prostate, pancreatic, breast, ovarian, and colon; prevents infectious diseases and upper-respiratory-tract infections, asthma, and wheezing disorders.

**Organ health:** prevents heart disease and stroke; prevents type 2 diabetes, periodontitis and tooth loss, and other inflammatory diseases.

**Muscular health:** supports muscle strength.

**Autoimmune health:** prevents multiple sclerosis, type 1 diabetes mellitus, Crohn's disease, and rheumatoid arthritis.

**Brain health:** prevents depression, schizophrenia, Alzheimer's disease, and dementia.

**Mood-related health:** prevents seasonal affective disorder, premenstrual syndrome (PMS, also known as premenstrual tension), and sleeping disorders.

### Vitamin D and Obesity

Because vitamin D is stored in fat cells, you'd think that people with excess fat would have plenty of extra vitamin D on hand to make up any shortage. As it turns out, that thinking is wrong, and a parallel relationship exists between vitamin D deficiency and obesity. The fatter you are, the higher your risk for a deficiency. Why? The vitamin D essentially gets locked inside the fat cells, unavailable for use.

In one of my studies, we exposed obese and non-obese individuals to the same amount of UVB radiation and showed that obese people can only raise their blood levels of vitamin D by about 45 percent compared to a normal-weight person. Obese people (defined as those with a body mass index, or BMI, above 30) often need at least twice as much vitamin D to satisfy their body's needs. With the majority of Americans overweight or obese these days, it's not a stretch to understand why a similar number of people

#### What Constitutes a Deficiency?

My extensive studies have helped redefine what it means to be vitamin D deficient. Before one of my publications in the *Lancet* in 1998, vitamin D deficiency was defined as a having 25-vitamin D levels below **10** nanograms per milliliter. I demonstrated, however, that a blood level of twice that—20 nanograms per milliliter—is needed to prevent an unhealthy elevation in parathyroid hormone level, a sign of vitamin D deficiency.

are vitamin D deficient. The two epidemics have worsened in unison.

Obesity-related conditions now account for nearly 10 percent of all medical spending, having doubled in the last decade. It's hard to believe that the obesity rate could rise 37 percent in just eight years alone, but that's exactly what happened between 1998 and 2006—bringing a breathtaking one third of the adult American population into the obese camp. Why the spike in such a short time frame?

We've evolved to store vitamin D in fat. This allows us to have ample supplies on hand during the long winter months, when it's virtually impossible to make vitamin D—when the active synthesis of vitamin D from the sun is in hibernation until the spring. But humans did not evolve to carry such copious amounts of excessive fat. The result is that this fat begins to have negative effects on the body's metabolism and hormonal balance.

Contrary to what you might think, overweight people don't have higher levels of 25-vitamin D due to their higher fat content. They have lower levels, because the excess fat absorbs and holds onto the vitamin D so that it cannot be used for bone building and cellular health. Unlike a normal-weight person, whose fat is continually being recycled so the vitamin D can be released, those with relatively immobile fat stores cannot access their vitamin D, which is literally locked up in their adipose tissue. Making matters worse, obese people are frequently vitamin D deficient to start with because they go outside much less. Obese people need two to three times more vitamin D a day than those of normal weight, so I advise such patients to take between 3,000 and 6,000 IU of vitamin D a day.

### Cracking One of Cancer's Codes Breast Cancer

Here's a staggering statistic: Women who are deficient in vitamin D at the time they are diagnosed with breast cancer are nearly 75 percent more likely to die from the disease than women with sufficient vitamin D levels. What's more, their cancer is twice as likely to metastasize to other parts of the body.

In the United States, more than forty thousand women die from breast cancer every year—making it the deadliest killer of women after heart disease. One woman in eight either has or will develop breast





cancer in her lifetime. There are 214,000 new cases and 41,000 deaths from breast cancer each year in the United States. A 2008 study found that women who had a vitamin D deficiency at the time they were diagnosed with breast cancer were 94 percent more likely to have their cancer spread than women with adequate 25-vitamin D levels in their bodies.

In May 1999, a landmark study by Dr. Esther John, based on the meticulous analysis of breast cancer statistics from the National Health and Nutrition Examination Survey, was published. The authors conclude definitively that sun exposure and a vitamin D-rich diet significantly lower the risk of breast cancer.

### Prostate Cancer

Only heart attacks and lung cancer kill more men than cancer of the prostate. Cancer of the prostate is especially feared by men because surgical treatment for this form of cancer frequently results in impotence. A study in the August 2001 issue of the *Lancet* proves that the risk of developing prostate cancer is directly related to sunlight exposure. The study divided people into four groups according to how much sunlight they had been exposed to. The lowest quarter, or quartile, of the study participants were three times more likely to develop prostate cancer than those in the highest

quartile of sun exposure. The results show that those in the highest quartile reduced their risk of developing prostate cancer by 66 percent. Those in the second and third quartiles also had a significantly lower chance of getting prostate cancer compared with those in the lowest quartile, who received the least sun exposure. Another study took a long look, over almost two years, at men with prostate cancer who received 2,000 IU of vitamin D a day and found that overall the men had a 50 percent reduction in the rise of their levels of prostate specific antigen (PSA), which is an indicator of prostate cancer activity.

### Colon Cancer

Cancer of the colon and its neighboring area, known sometimes as colorectal cancer, affects both men and women. Like breast cancer and prostate cancer, colorectal cancer is seen much more frequently than skin cancers and is much more deadly. About 150,000 Americans are told each year that they have colon cancer, and about 35 percent of these will die of it.

A study published in the *Journal of Clinical Oncology* in 2008, conducted by lead researcher Dr. Kimmie Ng of the Dana-Farber Cancer Institute in Boston found that high blood levels of 25-vitamin D increased colon cancer patients' survival rate by 48 percent. In this study, Dr. Ng and her team collected data on 304 patients who had been diagnosed with colon cancer between 1991 and 2002. Everyone in the study had had their 25-vitamin D blood levels measured a minimum of two years before being diagnosed with the disease. The patients were tracked until they died or until the study ended in 2005; 123 patients died, 96 of them from colon or rectal cancer during the follow-up period. Dr. Ng and her team found that the patients with the highest 25-vitamin D levels were 39 percent less likely to die from colorectal cancer than the patients who had the lowest levels.

These findings are consistent with dozens and dozens of other observations that have been made in the past decade, including those by Dr. Cedric Garland. His lab reports that you are three times less likely to die from colon cancer if you have healthy levels of 25-vitamin D in your bloodstream.

### A New Model for Cancer?

Though it's a stretch to say vitamin D can totally prevent and cure cancer, some scientists have been bold enough to suggest a whole new theory about cancer. Just last year, the Garland brothers raised the possibility that there's another story behind cancer's genesis in the body. The current scientific model assumes that a genetic mutation is cancer's point of





origin. But what if that assumption is wrong? What if there is another way to explain how cancer develops? Those are the questions the Garlands put forth, which were published in the *Annals of Epidemiology* and immediately picked up by the media.

First, Dr. Cedric Garland and his team pointed to a host of research that suggests cancer develops when cells lose the ability to stick together in a healthy, normal way. He went on to argue that the key factor in this initial triggering of a malignancy could well be a lack of vitamin D. According to Dr. Garland, researchers have documented that with enough activated vitamin D present, cells adhere to one another in tissue and act as normal, mature cells. But if there is a deficiency of activated vitamin D, cells can lose this stick-to-each-other quality, as well as their identity as differentiated cells. The result? They may revert to a dangerous, immature state and become cancerous.

What can stop this process from occurring, says Dr. Garland, is ample supplies of vitamin D in the body. Whether or not this theory can be proven true will be told by future studies and research.

### Testing, Testing, 1-2-3

The only surefire way to know for certain the extent of your vitamin D deficiency is to ask for a *25-hydroxyvitamin D* test, also called a 25(OH) D test. This is the circulating form of vitamin D that the liver generates and that then becomes activated by the kidneys. While it's intuitive to think you'd want to test for the body's "active form" rather than just a precursor,

testing for the activated vitamin D (1,25-vitamin D) does not give an accurate portrayal of your vitamin D status.

And here's the rub: many doctors order the wrong test, and when the results come back showing a normal level of activated vitamin D, they think everything is D-okay. You could, however, be suffering from a serious deficiency even though your activated levels appear normal—or even elevated. ●

### Following Dr. Holick's Recommendations

Dr. Holick uses vitamin D supplements, milk, and sensible sun exposure to keep his **25-hydroxyvitamin D** blood levels at **50 ng/mL**. Dr. Holick believes that this and higher levels of 25-hydroxyvitamin are optimal.

**Life Extension®** has always used the more accurate **25-hydroxyvitamin D** blood test recommended by Dr. Holick. Foundation members can order this **25-hydroxyvitamin D blood test** for **\$47** by calling **1-800-208-3444**.

To order a copy of *Vitamin D Solution* by Dr. Michael F. Holick, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)  
Item#33824 • Retail price \$25.95  
Member price \$18.17



# Quit Eating More Than You Want To!

**D**o you often find yourself snacking between meals? Resolve to stop, but can't help reaching for that extra cookie? Are you losing the "battle of the bulge" because you have difficulty exercising portion control?

A next-generation, 100% *natural* nutrient may be the answer.

## An Ancient Solution to a Modern Problem

**Satiereal®** is a clinically studied, proprietary extract of **saffron**. You know saffron as a spice. What you may not know is that it has been prized in traditional cultures since ancient Persia as a way to enhance mood and relieve stress.<sup>1,2</sup>

Previously available only in Europe, this standardized saffron extract provides support for healthy body weight by targeting some of the emotional factors that make you eat more when you're *trying* to eat less.

The suggested daily serving of just two **88.25 mg** capsules of new **Optimized Saffron with Satiereal®** delivers the active constituents **safranal** and **crocin**. They have been shown to modulate certain *serotonergic* receptors in the brain to support mood.<sup>3-6</sup> In clinical studies,<sup>7,8</sup> women taking Satiereal® experienced . . .

1. **100% reduction in the desire to snack**
2. **50% fewer instances of eating between meals**
3. **Less hunger**
4. **Moderate weight loss**
5. **More energy**
6. **Better mood**

## Feel Better About Food Again

In fact, they reported feeling better about themselves *and* better in general. The result was a greater sense of control over between-meal snacking, and a change in eating behavior, without that "jittery feeling" or other undesirable effects.<sup>8</sup>

The same can happen for you.

No more "grazing."

No more midnight "kitchen raids."

Strengthen your resolve. Let **Optimized Saffron with Satiereal®** help you break the cycle of eating more than you want to—and eat what you want, *when* you want.

A bottle containing 60 vegetarian capsules of **Optimized Saffron with Satiereal®** retails for \$36. If a member buys four bottles, the cost is just **\$24** per bottle.

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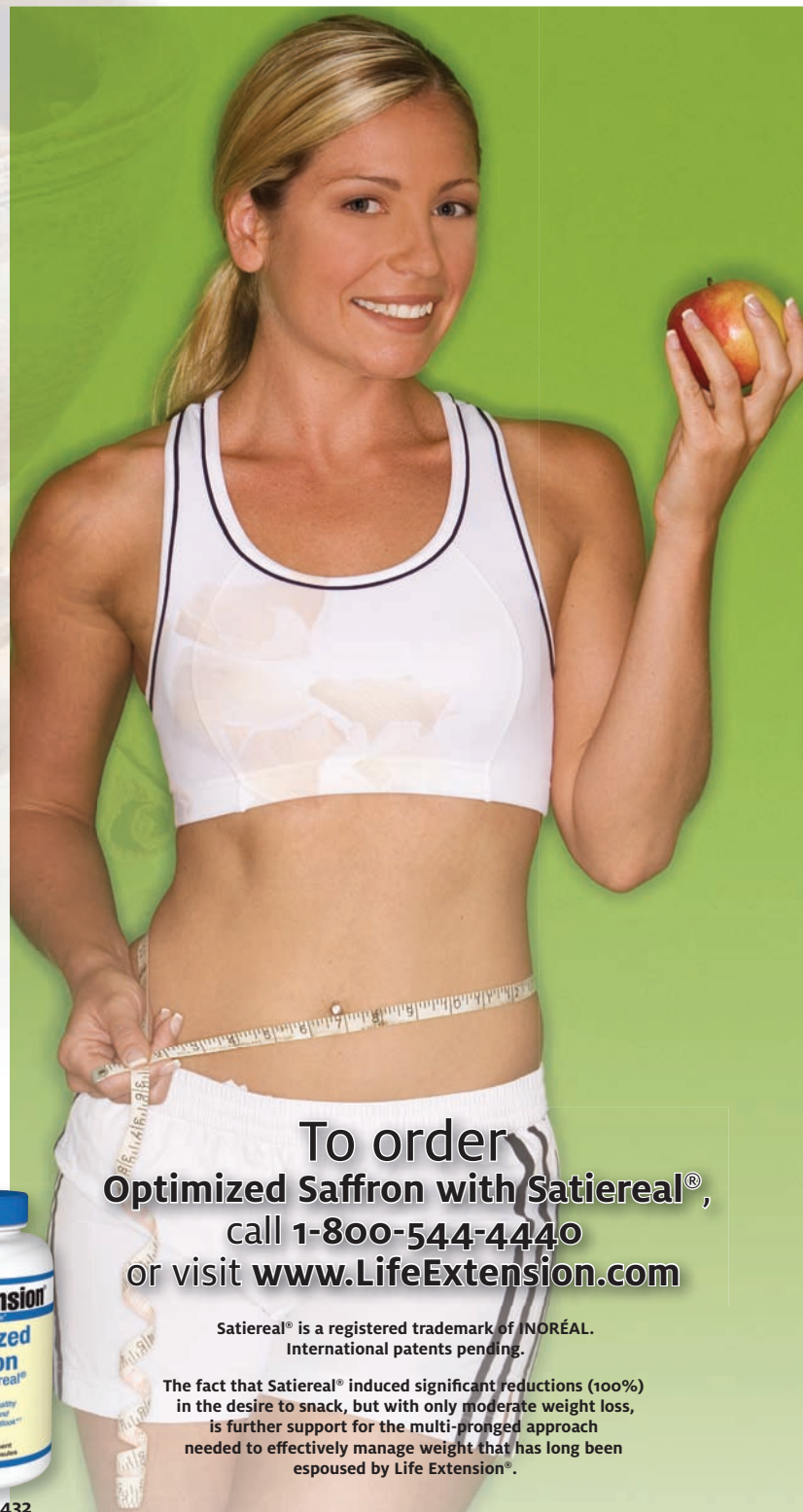
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Item #01432

This supplement should be taken in conjunction with a healthy diet and regular exercise program. Results may vary.

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.



To order  
**Optimized Saffron with Satiereal®**,  
call **1-800-544-4440**  
or visit **www.LifeExtension.com**

Satiereal® is a registered trademark of INORÉAL.  
International patents pending.

The fact that Satiereal® induced significant reductions (100%) in the desire to snack, but with only moderate weight loss, is further support for the multi-pronged approach needed to effectively manage weight that has long been espoused by Life Extension®.



# PROTECT EYE HEALTH AND FIGHT TIRED EYES

By absorbing blue-light, **carotenoids** protect delicate **photo-receptor cells** in the retina's macula from light damage. The *density* of your macular pigment (composed of lutein, zeaxanthin, and meso-zeaxanthin) is essential to proper vision. Unfortunately, this density declines naturally over time. Some aging people also lose their ability to convert lutein into **meso-zeaxanthin** inside their macula.

Eating lots of lutein- and zeaxanthin-containing vegetables can help maintain the structural integrity of their macula. However, since **meso-zeaxanthin** is not part of the typical diet, it cannot be replaced except in supplement form.

**Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin** gives you therapeutic doses of **all three carotenoids** to help protect your precious eyesight plus a special ingredient that's scientifically proven to help fight tired eyes.\*

## Fight Tired Eyes With Astaxanthin

If you're one of the more than 72 million people in America who use a computer daily at work,<sup>1</sup> you're probably familiar with eye fatigue. Staring at a fixed-distance object such as a computer screen for a long period of time can cause the



Item #01286

muscles that focus your eyes (called the ciliary body) to tire or go into spasm. This can result in physical symptoms such as head discomfort, sensitivity to glare, tiredness, soreness, dryness, and blurry vision.

**Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin** contains a potent dose of **astaxanthin**, a carotenoid found in a red algae called *Haematococcus pluvialis*. Studies show that taking **astaxanthin** with other carotenoids protects against

free-radical induced DNA damage, repairs UVA-irradiated cells, and inhibits inflammatory cell infiltration.<sup>2-5</sup> Astaxanthin also helps support vascular health within the eye and improves visual acuity.<sup>4</sup> Its fat-soluble nature offers protection to sensitive cells inside the eye.<sup>6</sup>

With its special combination of ingredients that targets eyestrain and protects visual acuity, **Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus**

### Each softgel of Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin provides:

<b>OptiLut® and Lutein Plus® with MZ®</b> Marigold ( <i>Tagetes erecta</i> ) Extract (flower) [free lutein equivalent 10 mg]	<b>38 mg</b>
<b>Zeaxanthin &amp; Meso-zeaxanthin blend</b> (micronized zeaxanthin, OptiLut® Marigold <sup>®</sup> and Lutein Plus® with MZ® Marigold Extract)	<b>3.75 mg</b>
<b>Natural Astaxanthin</b> (from <i>Haematococcus pluvialis</i> algae extract)	<b>6 mg</b>

**Astaxanthin** is truly an exciting breakthrough in eye care.

The retail price for a bottle containing 60 softgels of **Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin** is \$42. If a member buys four bottles, the price is reduced to just **\$28.50** per bottle. **Contains soybeans.**

**To order Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)**

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Lutein Plus® and MZ® are registered trademarks of Quantum Nutritionals. Licensed under U.S. Patents 5,523,494; 6,218,436; 6,329,432; and 6,504,067.

\* These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.





## The FDA-Approved WEIGHT-LOSS DRUG

Back in **1999**, a drug called **orlistat** was approved by the FDA to facilitate weight loss. Orlistat works by inhibiting the *lipase* enzyme in the digestive tract. When taken before a meal, orlistat will prevent about **30%** of ingested fat from being absorbed into the bloodstream. Since **fat grams** contain twice as many calories as **protein** or **carbohydrate**, orlistat targets a significant offender involved in the accumulation of excess body weight.

Some studies show impressive weight-loss results when **120 mg** of **orlistat** is taken before each meal (three times a day). One study showed that overweight women who followed a lifestyle modification program and took orlistat lost **20.5 pounds** after one year compared with virtually no weight loss in the control group.<sup>1</sup> In a study of obese men taking orlistat, **17.4 pounds** of weight was lost after three months.<sup>2</sup> Not all studies yield these favorable results.

*Life Extension*® believes the reason that orlistat fails many consumers is that it inhibits only one of *many* factors involved in today's obesity epidemic. *Life Extension* also believes that while orlistat blocks the absorption of **30%** of dietary fat, the **70%** of ingested fat that is absorbed can preclude significant weight loss. Compared with a reduced calorie diet alone, those who take orlistat can expect to lose **50%** more weight.<sup>3</sup> That means if you are able to lose **20 pounds** through diet alone, taking orlistat would improve the amount of weight lost to **30 pounds**.



Item #46925

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## WHY YOU SHOULD TRY ORLISTAT FOR 60-90 DAYS

Life Extension believes that there are **physiological** and **psychological** benefits to using **orlistat** at least on a temporary basis. By combining orlistat with a comprehensive weight management program, **more fat pounds** will be shed from the body, thus providing the *physiological* effect.

A **psychological** benefit is seeing undigested fat being passed naturally from the body. Understanding that this fecal fat was destined for your bloodstream, where it would contribute to unwanted body fat (and health problems), may motivate you to reduce your dietary fat intake in the long run. Those who continue to eat excess fat and take orlistat may experience bowel changes such as oily spotting and loose stools. This may provide another psychological barrier against ingesting excess fat calories.

Those embarking on a weight-loss program expect to see relatively rapid results. While **orlistat** has yielded only modest effects by itself, its unique mechanism of blocking 30% of dietary fat from being absorbed provides an important weapon in a comprehensive fat-loss armamentarium.

## WHERE TO BUY ORLISTAT

**Orlistat** is available without a prescription under the brand name **alli**® at the retail price of **\$69.95** for 120 **60-mg** capsules. It is also sold as a prescription drug under the brand name **Xenical**® that comes in **120 mg** caps (twice the potency of **alli**®).

If you have insurance that covers prescription drugs, you may be better off asking your doctor to prescribe **Xenical**® (and any other medications that might induce weight loss).

Members who don't have insurance, or who want to get on orlistat right away can order **alli**® from the Life Extension Foundation Buyer's Club for **\$58** (120 **60-mg** capsules)—about a 16% discount off the retail price.

**Note:** Supplements should be taken in conjunction with a healthy diet and regular exercise program. Results may vary.

**alli**® is a registered trademark of GlaxoSmithKline.

**Xenical**® is a registered trademark of Roche Laboratories, Inc.

In order to maintain optimal nutritional status while taking **alli**® or other compounds that impede fat absorption, it is of paramount importance that you supplement each day with *fat-soluble* nutrients such as vitamins D, K, and omega-3. Since fat normally shuttles these nutrients into the bloodstream, you should also take them at a time of day that ensures maximum absorption.

**Life Extension**® now offers a simple one-per-day to meet this critical need. The new **Essential Fat-Soluble Nutrients** formula supplies an array of key nutrients in amounts that help to offset the potential for nutritional insufficiency. Just one softgel provides:

Vitamin D3	7,000 IU
Vitamin K2	100 mcg
DHA (from fish oil)	500 mg
Gamma tocopherol	215.4-244.12 mg
Delta tocopherol	89.75-125.65 mg
Alpha tocopherol	17.95-35.9 mg
Beta tocopherol	0-7.18 mg

Taking one softgel at least 4 hours before or after using lipase inhibitors (or other compounds that impede fat digestion) will help maintain a healthy nutritional profile as you safely induce weight loss.

The retail price for a thirty-day supply of **Essential Fat-Soluble Nutrients** is \$28. If a member buys four bottles, the price is just **\$18.75** per bottle. Contains fish (tuna), soybeans, and corn.

## References

1. *Eat Weight Disord.* 2006 Mar;11(1):e35-41.
2. *Metab Syndr Relat Disord.* 2005 Summer;3(2):122-9.
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# 18th Annual World Congress on Anti-Aging Medicine and Biomedical Technologies

## December 9-11, 2010 Las Vegas, Nevada

### Guest Speaker: Suzanne Somers



To many, **Suzanne Somers** has become the face and voice of alternative and integrative medicine. She has single handedly done with her past 4 books, what the movement has wanted to achieve for many years. Her louder voice and credibility built up over the past 33 years brought BHRT and chemical-free cancer cures to the forefront of modern medicine and has enlightened millions of men and women about available options in deciding on treatment protocols.

She has walked her talk for decades and will continue to forge new inroads in Medicine.

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- New Anti-Obesity Protocols and Weight Management
- Environmental Toxins and Detoxification methods/Liver Detoxification
- Cancer Laboratory measures and markers
- Exercise with Oxygen to improve Mitochondrial Metabolic Function
- Clinical Application of Interventional Endocrinology
- Aesthetic medicine and laser-light therapies
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- Sleep Revitalization and Sleep Disorders
- Advanced Facial Sculpting with Botox
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- Aesthetic Medicine Modalities: Laser-Light Therapies, Botox procedures and Facial fillers

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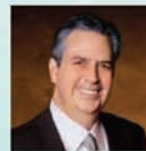
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The use of diets high in **collagen** to improve bone health dates back to ancient cultures. That's why Life Extension® formulates an exciting patented formulation of chelated **calcium and collagen** called **KoAct™** to help maintain **bone strength** and **mineral density**.\*

KoAct™ allows for greater flexibility...so your bones can absorb energy, **reducing the risk of age-related injuries**. Additional plant extracts are included for their bone-protective minerals and polyphenols.

A bottle of **Bone Strength Formula with KoAct™** retails for **\$42**. If a member buys four bottles, the price is reduced to **\$28.50** per bottle.

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Item #01211

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<b>Collagen</b> (from 3000 mg KoAct™ Calcium Collagen Chelate)	<b>2,700 mg</b>
<b>Calcium</b> (from 3000 mg KoAct™ Calcium Collagen Chelate)	<b>300 mg</b>
<b>Vitamin D3</b> (as cholecalciferol)	<b>1,000 IU</b>
<b>Magnesium</b> (as magnesium citrate)	<b>100 mg</b>
<b>Silica</b> [from standardized Bamboo ( <i>Bambusa vulgaris</i> ) extract (stem)]	<b>5 mg</b>
<b>Dried Plum</b> ( <i>Prunus domestica</i> ) extract (fruit) [standardized to 50% polyphenols (50 mg)]	<b>100 mg</b>
<b>Boron</b> (calcium fructoborate as patented FruiteX B® OsteoBoron®)	<b>3 mg</b>

If you need extra bone support, ask your health care professional how Bone Strength Formula with KoAct™ can be part of a comprehensive nutritional program in conjunction with proper resistance exercise. Life Extension offers many mineral formulas that may complement Bone Strength Formula with KoAct™ to ensure optimal mineral intake.

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# Michael F. Holick, PhD, MD

## The Pioneer of Vitamin D Research

INTERVIEW BY PHILIP SMITH

The explosive scientific interest in the broad-spectrum benefits of vitamin D are largely due to the lifelong research of one man, Dr. Michael F. Holick. As the world's leading vitamin D researcher, Dr. Holick has pioneered and inspired significant studies that have investigated how receptors located throughout the body can employ vitamin D to reduce the risk of cancer, heart disease, diabetes, and depression. In this exclusive interview with *Life Extension Magazine*®, Dr. Holick discusses the impact of his work and his future projects. > >





**LE:** Dr. Holick, when *Life Extension Magazine* first interviewed you back in 2003, very few people were interested in the subject of vitamin D.

**MH:** I remember very well.

**LE:** Most doctors and most people knew that they received vitamin D in their milk and that it was good for bones, end of story. No one had any idea as to the wealth of health benefits that vitamin D can deliver. You had a long fight to make your work heard. People thought vitamin D was boring.

**MH:** I felt like a Maytag® repairman every time I got up to talk to doctors about vitamin D. Everyone was aware of the need of vitamin D for childhood bone health and it was assumed that adults were able to get enough vitamin D from a balanced healthy diet. So, why should we care about vitamin D?

**LE:** Seven years later, vitamin D is now *the* topic of discussion throughout the medical world. Doctors, who think that supplementation is a waste of time, are now recommending vitamin D to their patients. What happened to change the conversation?

**MH:** I think what happened was a few people started to actually listen and initiated studies to look at disease incidence, as it related to both sun exposure and vitamin D status. And all of a sudden, they were amazed to find compelling associations. In the past two years, we now have mechanisms by which we can understand why vitamin D has so many important biologic roles to play and why it's so important to be vitamin D sufficient to maintain maximum health.



**LE:** In your new book *The Vitamin D Solution*, one of the most fascinating chapters is the discussion on vitamin D and the prevention of breast, prostate, and colon cancer. A few years ago no one would have imagined that vitamin D could play such an important role in the prevention of cancer. Do the studies show that vitamin D's role is just in prevention or are there possible treatment modalities?

**MH:** We are currently investigating these possibilities. What concerns me is that people may now think, "Aha, I won't need to take my chemotherapy, I can just take more vitamin D." I would never recommend that. But we do have evidence from our mouse studies that a patient may respond better to chemotherapy, have less tumor growth and have less metastatic activity, if you increase your vitamin D intake and get your blood levels in the range that I recommend in *The Vitamin D Solution*, which is to maintain a blood level of 25-hydroxyvitamin D of between 40-60 ng/mL.

**LE:** Based on these studies, it would seem that every oncologist should be testing their patients for 25-hydroxyvitamin D levels and putting them on a regimen for optimal levels, in order to potentially improve their response to chemotherapy.

**MH:** Cancer patients are at high risk for vitamin D deficiency. These patients usually can't go out in the sun, because the chemotherapeutic agents cause a photosensitivity reaction. Also, they often have nausea, so that they don't eat a well balanced diet that includes foods containing vitamin D such as dairy products, vitamin D fortified orange juice, salmon and mushrooms. They may also have malabsorption of a whole range of nutrients including vitamin D. As a result, vitamin D deficiency in cancer patients not only can affect their bone health but also causes them to have a feeling of being depressed, having muscle weakness, and aches and pains in their bones and muscles. A lot of these symptoms that have been thought to be due to the cancer and the chemotherapy—many of them may be due to vitamin D deficiency. Patients that I have treated feel better after treating their vitamin D deficiency. So separate from its potential benefits of improving responsiveness to chemotherapeutic agents, patients feel better and they're more active.

**LE:** Is this valuable information about the benefits of vitamin D to cancer patients getting into the hands of oncologists?

**MH:** No, I don't believe so. Interestingly, cardiologists have begun to realize the importance of vitamin D for cardiovascular health but the oncologists have not appreciated the non-skeletal benefits of vitamin D for their cancer patients. It is important for



cancer patients to receive the appropriate cancer therapy. They should also increase their vitamin D intake to take advantage of all of the health benefits that vitamin D can provide including improvement in feeling of well-being.

**LE:** Given the obesity epidemic that is now spreading throughout the world, what is the relationship between vitamin D deficiency and obesity?

**MH:** That's a good question. People who are obese have so much body fat that the vitamin D gets sequestered in it, and so it no longer becomes bioavailable. We did a study that showed obese adults exposed to simulated sunlight or given an oral dose of vitamin D only raised their blood level to about 45% of what a person with normal weight could. Thus obese people need at least two to three times more vitamin D to satisfy the requirement. Vitamin D deficiency causes muscle weakness, aches and pains in bones and muscles, and so it makes them want to be more of a couch potato. As a result, they are more likely to be less active. Therefore, if they're eating the same number of calories, they will exacerbate their obesity. We know that fat cells have a vitamin D receptor, as I point out in *The Vitamin D Solution*, and that the active form of vitamin D seems to play a role in fat cell metabolism and in insulin sensitivity, all of which are very important for helping to reduce the risk of obesity and type 2 diabetes.

**LE:** Speaking of insulin sensitivity, what is the relationship of vitamin D and diabetes?

**MH:** The most serious form of diabetes is type 1. We believe that if children have adequate vitamin D on board, they are less likely to develop viral and bacterial infections, and there is evidence to suggest that type 1 diabetes may be caused by an initial viral infection, followed by an autoimmune response causing the destruction of the insulin producing cells in the pancreas.

In *The Vitamin D Solution*, I discussed a study conducted in Finland where children in the 1960s who received 2,000 IU of vitamin D a day during the first year of life and followed for 31 years reduced their risk of developing type 1 diabetes by 88%.

In terms of type 2 diabetes, the beta islet cell that makes insulin has a vitamin D receptor. Active vitamin D stimulates insulin production. There is evidence that vitamin D may be directly acting on fat cells to improve insulin sensitivity. Therefore, vitamin D plays a role in insulin production, as well as enhancing insulin sensitivity and is a likely explanation for one of the studies I cite in the book that there was a 33% reduced relative risk of developing type 2 diabetes for men and women who had the highest vitamin D intake.

**LE:** Given the broad spectrum importance of vitamin D with regard to cardiac health as well as cancer and diabetes prevention, why are we so deficient?

**MH:** If you're Mother Nature and you had to guarantee that your inhabitants needed to get a biochemical nutrient, i.e. vitamin D, to maximize their health, you probably wouldn't want to depend on a nutrient found in the diet. Since most living creatures on the earth were exposed to sunlight one simple way to guarantee their vitamin D requirement was to be simply exposed to sunlight and to make vitamin D in the skin.

Our hunter-gatherer forefathers were outside every day and most likely were making thousands of IUs of vitamin D a day. As a result, our bodies adapted to that amount of vitamin D to maximize health. However, now we have limited our sun exposure and have been encouraged to always wear sun protection. In my opinion, this is one of the major causes for the vitamin D deficiency pandemic. In India and Thailand, vitamin D deficiency is common. Even in Saudi Arabia, Qatar and South Africa, more than 50% of the population is deficient in vitamin D, all because of their avoidance of sun.

Studies have shown that 40% of Floridians were vitamin D deficient. It's often recommended that in the summer you should go out in early morning or late afternoon to minimize skin damage and to get your vitamin D. However it turns out you make no vitamin



D during this period. Your body produces vitamin D between the hours of 10 AM and 3 PM even in Florida.

As I mention in the book, if you're in a bathing suit and are exposed to sunlight and 24 hours later have a light pinkness to your skin, it's equivalent to ingesting about 20,000 IUs of vitamin D. So if you think about that, it's pretty clear our hunter-gatherer forefathers were making thousands of IUs a day, and now with little sun exposure the only sources of vitamin D are from natural sources including salmon and mushroom and fortified foods such as some dairy products and orange juices which contain 100 IU of vitamin D per serving. Even a multivitamin only contains 400 IU of vitamin D. For every 100 IU of vitamin D ingested an adult raises their blood level of 25-hydroxyvitamin D (the measure for vitamin D status) by 1 ng/mL. Thus drinking a glass of vitamin D fortified milk or taking a multivitamin will only raise your blood level of 25-hydroxyvitamin D by 1 and 4 ng/mL respectively. I think we've been off by a factor of 5 to 10 for the amount of vitamin D that everybody needs. Children need at least 400 IU and up to 1,000 IU daily is preferred. Teenagers and all adults need at least 1,500-2,000 IU of vitamin D daily.

**LE:** What are the misperceptions about vitamin D supplementation in terms of toxicity?

**MH:** I talk about this a lot when I give talks to physicians. I joke about this by saying to them that



the one thing doctors remember from medical school more than anything else is...don't ever make your patient vitamin D intoxicated. However, they've never seen vitamin D intoxication and they don't even know what it is. Yet, despite all of the new information about vitamin D, they still believe that taking 50,000 IU of vitamin D once a week for eight weeks to treat vitamin D deficiency is going to cause vitamin D intoxication. We did a study with Dr. Heaney in 2002 and showed that you can take up to 10,000 IU of vitamin D a day for almost a half a year and not worry about vitamin D intoxication. In *The Vitamin D Solution*, I suggest that for children during the first year of life, up to 2,000 IU of vitamin D a day is safe. Children from age 1 to 12 years 5,000 IU of vitamin D a day is safe. All teenagers and adults can easily tolerate 10,000 IU of vitamin D a day without concern for toxicity.

**LE:** There is a great deal of discussion regarding optimal vitamin D levels. What should we strive for?

**MH:** I think you need to maintain your 25-hydroxyvitamin D level above 30 ng/mL. For my patients and for me personally, I like for it to be between 40-60 ng/mL of 25-hydroxyvitamin D to guarantee vitamin D sufficiency and its health benefits.

**LE:** From an objective point of view, this doesn't seem to be so hard to accomplish. You get some moderate sun exposure, you take your supplements; yet we have a massive population that is vitamin D deficient. What's going on?

**MH:** I discuss in *The Vitamin D Solution* that it is essentially impossible to get an adequate amount of vitamin D from dietary sources on a daily basis. It is also difficult to convince all children, especially teenagers, and all adults to take a vitamin D supplement every day. We have always depended in the past on sensible sun exposure as the major source of vitamin D which we have now abandoned.

Vitamin D can be taken with or without food and can be taken daily, weekly or even monthly as long as the total dose is equivalent. For example, teenagers and adults need a total of at least 2,000 IU of vitamin D a day. Taking 14,000 IU of vitamin D weekly or 50,000 IU of vitamin D every two weeks has been shown to be effective in maintaining the blood levels of 25-hydroxyvitamin D above 30 ng/mL in teenagers and adults.

**LE:** In order to establish one's need of this critical vitamin, people need to be tested. It would seem that physicians should include vitamin D testing with the standard CBC testing for cholesterol and other markers.



**MH:** It's not unreasonable, but the problem is that it's expensive. It can cost up to \$225 for an assay and Medicare reimburses only forty dollars. My recommendations—there's an editorial coming out in the journal *Clinical Chemistry* by me for them—is that not everybody should be screened but everybody should be getting a vitamin D supplement. If you take a vitamin D supplement as I have recommended along with sensible sun exposure in the spring, summer, and fall, you should be able to maintain your blood level of 25-hydroxyvitamin D above 30 ng/mL. I personally take 2,000 IU vitamin D supplement along with a multivitamin containing 400 IU of vitamin D and drink three glasses of vitamin D fortified milk daily and my blood level of 25-hydroxyvitamin D is in the range of 40-50 ng/mL. However if you have an intestinal malabsorption syndrome, you're obese, you're on glucocorticoids such as prednisone, antiseizure or AIDS medications, or have sarcoidosis, these patients need to be carefully followed and monitored. (**Editor's note:** Life Extension members pay only \$47 for vitamin D (25-hydroxyvitamin D) blood testing as opposed to the up to \$225 cost Dr. Holick has observed.)

**LE:** Is there any data on the impact of aging on vitamin D absorption and levels?

**MH:** Twenty years ago, we published a study that stated that aging does not affect your ability to absorb vitamin D from diet or supplements. Others have now reproduced those findings. However, aging does markedly decrease your ability to make vitamin D in your skin. When you compare a seventy-year old to a twenty-year old, the seventy-year old only makes about 25 % of the vitamin D compared to the 20-year-old. I usually recommend for older people over the age of about 70 years to expose more of their skin—abdomen, back, legs, arms while always protecting their face.

**LE:** Given the recent studies that point out that anti-depressants are only about 50% effective, what role does vitamin D play in mood modulation?

**MH:** We know that vitamin D receptors exist in the brain, and there is evidence that *in utero*--as the infant is developing—if the mother is vitamin D deficient, the child has a much higher risk of developing schizophrenia later in life. There are animal studies that have shown that vitamin D will increase serotonin levels in the brain. Therefore it is thought that if you have a healthy vitamin D status (25-hydroxyvitamin D 30-100 ng/mL), it will do the same thing for people: improve their serotonin levels and improve their mood and feeling of well-being.

**LE:** Can you tell us about some of your current research projects?

**MH:** Right now we are estimating that there may be up to 2,000 genes in the body regulated by vitamin D, which is probably why it plays such an important role for your health. We're now on the hunt for these genes to better understand how much vitamin D a person needs to maximize their gene activity for improving and maintaining good health.

**LE:** In a perfect world, where people are getting optimal levels of vitamin D, do you see a drop in the major killers such as cancer, heart disease, and diabetes?

**MH:** Absolutely. Based on some of the literature, it seems that we could probably decrease health care costs across the board by 25% if everybody had optimal vitamin D status.

**LE:** That's very, very significant. We are grateful for your innovative work with vitamin D and the life-saving changes it is bringing to all of us. ●

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Michael F. Holick, PhD, MD, is a professor of medicine, physiology, and biophysics at Boston University Medical Center. He is also the director of the General Clinical Research Unit, the Bone Health Clinic, and the Heliotherapy Light and Skin Research Center at BUMC.

Dr. Holick speaks worldwide about the benefits of vitamin D and has been featured in *The New York Times*, *Forbes*, *Time Magazine*, *Newsweek*, *Men's Health*, and *Scientific American*.

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# Natural Support for Cellular Energy Production

## Optimized Carnitine with GlycoCarn®

Diminished cellular energy production is an inevitable consequence of aging. As adults mature, the cellular power plants known as the *mitochondria* become dysfunctional. The resulting slowdown in energy production manifests in numerous health problems.

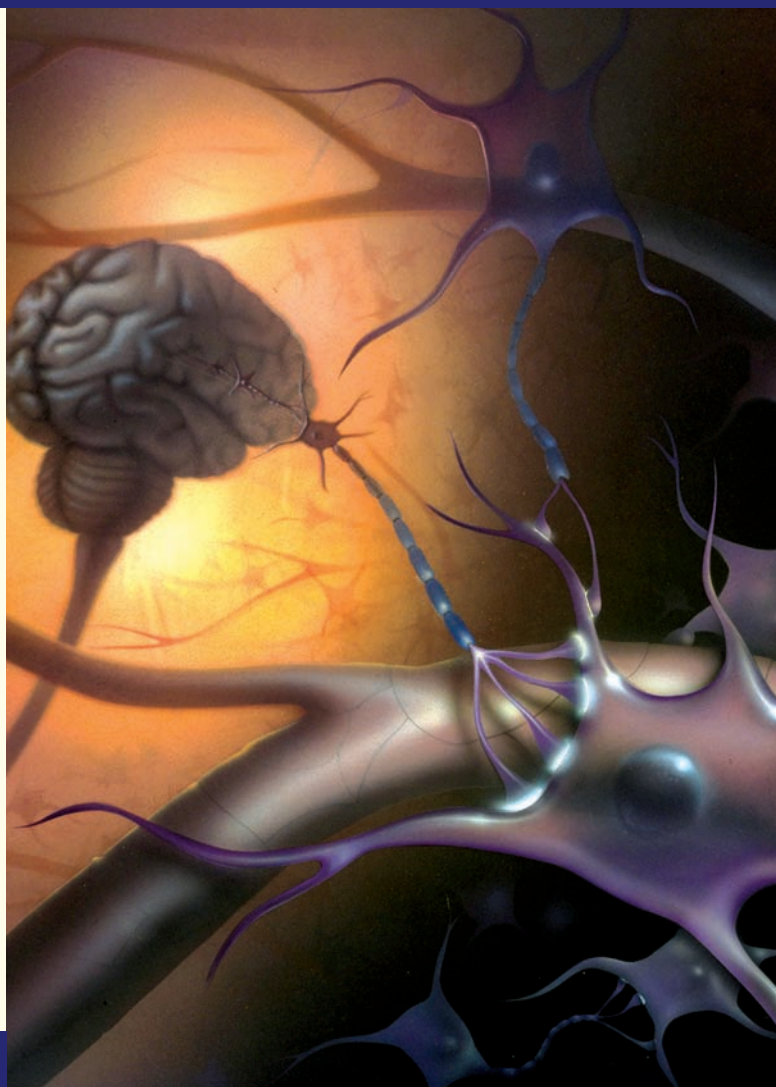
Nutritional researchers have discovered that the amino acid **carnitine** promotes the burning of fat for fuel in the mitochondria, thus promoting youthful levels of cellular energy production.\* Researchers have now identified several optimized, next-generation forms of **carnitine** that not only help boost cellular energy production, but also may confer targeted benefits for the brain, heart, muscles, and central nervous system.

**Optimized Carnitine with GlycoCarn®** combines these advanced forms of carnitine—*acetyl-L-carnitine*, *glycine propionyl-L-carnitine*, and *acetyl-L-carnitine arginate*—in a single formula that provides balanced, broad-spectrum support for cellular energy production throughout the body.

**Acetyl-L-carnitine** readily crosses the blood-brain barrier to combat oxidative stress and promote energy production in critical brain and central nervous system tissues.<sup>1</sup> Acetyl-L-carnitine also supports healthy brain function by stimulating the release of acetylcholine and dopamine, two neurotransmitters that play vital roles in brain health and communication.\*

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Two capsules of **Optimized Carnitine with GlycoCarn®** provide:

<b>Acetyl-L-Carnitine HCl</b>	<b>800 mg</b>
<b>ArginoCarn® Acetyl-L-Carnitine Arginate Di-HCl</b>	<b>300 mg</b>
<b>GlycoCarn® Glycine Propionyl-L-Carnitine HCl</b>	<b>300 mg</b>

A bottle of 60 vegetarian capsules of **Optimized Carnitine with GlycoCarn®** retails for \$29. If a member buys four bottles, the price is reduced to only **\$19.58 per bottle**.

#### References

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# Super Vitamin K Softgels



Humans get most of their vitamin K from green vegetables in the form of **vitamin K1**. The problem is that K1 is tightly bound to plant fiber and only a small fraction *absorbs* into the bloodstream.

**Vitamin K2** is absorbed much more efficiently than K1. Scientific studies show **K2** provides overwhelmingly superior benefits for the bones, arteries and other tissues.<sup>1-8</sup>

The predominant sources of **K2** in Western diets are organ meats, dairy and egg yolks — foods that health conscious people seek to minimize. The result is that most people in Western societies are not obtaining *optimal* potencies of vitamin K.

The solution is to use a vitamin K supplement that provides ideal potencies of K1 and the two active forms of K2.

## Ideal Forms of Vitamin K2

Two forms of **vitamin K2** have been extensively researched and the findings reveal vastly improved effects compared to K1.

The **MK-4** form of vitamin K2 is the most rapidly absorbed and is now routinely used in Japan to maintain healthy bone density. **MK-4**, however, only remains active in the blood for a few hours.

In contrast, the **MK-7** form of vitamin K2 boasts a very long half-life in the body, yielding higher sustained levels in the blood, for optimal transport of calcium into bone tissue.<sup>9</sup>

Both **MK-4** and **MK-7** have demonstrated remarkable health benefits when studied in human populations.

## The Most Complete Vitamin K Formula

**Vitamin K1** is the form found in plants and vegetables and should be part of most people's daily supplement regimen. Even more important is inclusion of the **MK-4** and **MK-7** forms of **vitamin K2**.

Based on data substantiating the long-acting effects of **MK-7**, one can achieve far higher sustained blood levels of this critical nutrient.

Super K formula provides in just one daily softgel:

Vitamin K1	1000 mcg
Vitamin K2 (MK-4)	1000 mcg
Vitamin K2 (MK-7)	100 mcg



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The virtue of Super K is that it provides the precise amount of the long-acting **MK-7** form of **vitamin K2** that human studies have shown provides optimal K2 levels over a 24-hour period. The **MK-4** is included to provide the rapid increase in vitamin K blood levels that may account for its beneficial effects in certain studies.

## All Three Forms of Vitamin K

**Super K with Advanced K2 Complex** provides all three forms of vitamin K that the body can utilize.

The retail price for a bottle containing **90 softgels** (three-month supply) is \$26. If a member buys four bottles, the price is reduced to just **\$17.25 per bottle**.

The same **Super K** formula containing the identical potencies of Vitamin K1, K2 (MK-4) and K2 (MK-7) can be found in the **Life Extension® Super Booster**. If you take the **Super Booster**, you do not need additional **Super K** softgels.

Contains tree nuts (coconut).

## References:

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## Warning to Coumadin® (warfarin) Drug Users

Patients prescribed vitamin K-antagonist anti-coagulant prescription drugs like warfarin should consult their physician before taking vitamin K supplements like Super K and Super Booster. There is evidence, however, that users of drugs like warfarin could benefit from a consistent low dose of supplemental vitamin K. Ask your doctor if you can take a low dose (45 mcg a day) of vitamin K2 in the long-acting MK-7 form for the purpose of stabilizing your INR levels and also protecting your body against long-term vitamin K deficit. Do not initiate any form of vitamin K supplementation without full cooperation of your treating doctor, as your doctor may need to increase your dose of warfarin to compensate for the vitamin K you supplement with. Life Extension provides several forms of low-dose vitamin K for physician consideration.

To order Super K formula  
or Super Booster, call 1-800-544-4440  
or visit [www.LifeExtension.com](http://www.LifeExtension.com)





# Does Your Pharmacy Care if You Live or Die?

Today's chain pharmacies have become drug-dispensing assembly lines. They fill whatever your doctor prescribes or insurance covers, regardless of what is best for your individual needs.

At **Life Extension Pharmacy™** we do things differently. We take advantage of our partnership with the Life Extension Foundation® for intimate knowledge of the peer-reviewed scientific literature about the prescription drugs you take ... including drug interactions, side effects, lower-cost alternatives, and, in some cases, safer and more effective ways to use your medications. It's our mission to preserve **your health and save you money.**

## Our Independent Thinking

As well as offering advice on the safety and effectiveness of your prescriptions, our team of pharmacists also explains how they can work synergistically with nutrient and hormone supplements to keep you healthy.

Consider the anti-coagulant drug **Coumadin®** (warfarin) as an example. While most doctors advise patients who are taking **Coumadin®** to avoid vitamin K supplements and vitamin K-containing foods, recent research demonstrates that **Coumadin®** plus low-dose vitamin K supplements (around **45 mcg** a day) can achieve more stable measurement of blood clotting time (the INR test). Even more important is that Coumadin's horrendous **side effects** (accelerated atherosclerosis and bone loss) may be preventable in the presence of stable vitamin K levels in the body.

Another problem occurs with drugs prescribed to treat **prostate cancer** (such as **Lupron®**) that deplete the body of **testosterone**. Through our collaboration with the Life Extension Foundation, we can advise patients on the specific steps they should take to protect against the lethal "**Androgen Deprivation Syndrome.**"

Another example is the statin drug **Crestor®**. This high-priced medication is flying out of pharmacies across the country. But should it be? Recent studies reveal that it's not right for everyone who is taking it. Visit [www.LifeExtensionRx.com/crestor](http://www.LifeExtensionRx.com/crestor) for our in-depth analysis on the latest Crestor® study.

## Tailored Services

So keep this in mind... the **Life Extension Pharmacy™** puts your **welfare first**. If a lower-cost drug may work better for you than an expensive brand name, we're going to recommend it. Combining the Life Extension Foundation's nutraceutical expertise with our pharmacists' in-depth knowledge of pharmaceuticals and customized prescription compounding, **Life Extension Pharmacy™** is committed to helping you get the very best results from your therapy.

### Simvastatin 40-mg (90 Tablets)

CVS Price	Life Extension Rx Price	% Saved
\$154.99	\$21.23*	<b>86%</b>

### Glyburide 5-mg (90 Tablets)

CVS Price	Life Extension Rx Price	% Saved
\$33.59	\$13.06*	<b>61%</b>

\* Prices as of July 15, 2010. Prices subject to change.

## Saving Your Money & Your Health

**Life Extension Pharmacy™** offers a range of ways to save you money including low-cost compounded drugs, life-saving prescription drugs at greatly discounted prices, and practical suggestions on how to conserve your health care dollars. To see how much we can save you, look at our prices for the statin **simvastatin** and the antidiabetic drug **glyburide** compared with CVS in the table above!

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## NEXT-GENERATION FORMULA

# Optimized Cran-Max<sup>®</sup> with UTIRose<sup>™</sup>

## Featuring a Novel High-Concentration *Hibiscus Polyphenol Blend*



The anatomy of the female **urinary tract** differs greatly from men, resulting in the need for additional nutritional support for women.

A wealth of published studies indicates that **cranberry polyphenols** may help to support a healthy urinary tract.<sup>1-5</sup>

Of particular importance is the flavonoid content of the cranberry, including **anthocyanins** and **proanthocyanidins**. These natural compounds exert powerful antioxidant effects that can reduce oxidative stress.

Recent clinical data suggest that the proanthocyanidins found only in cranberries also possess **unique** molecular features that specifically promote urinary system health.<sup>6-8</sup>

### A Synergistic Compound Available Only in Europe—Until Now

In a significant advance, **Life Extension<sup>®</sup>** has identified a unique compound available overseas but little-known in the United States that provides a **synergistic complement** to the whole cranberry's phytonutrient profile.

**UTIRose<sup>™</sup>** is derived from ***Hibiscus sabdariffa***, a species native to Europe, Asia, and Africa. Scientific analysis has shown that this species' flower and calyx (the green floral envelope surrounding the blossom) are rich in active polyphenols, including **flavonoids**, **sambubiosides**, and **proanthocyanidins**.

Of special importance is a flavonoid found in *Hibiscus sabdariffa* called **gossypetin** (3,5,7,8,3', 4'-hexahydroxy flavone), which has been shown to provide support for urinary system health.<sup>9</sup>

**Life Extension<sup>®</sup>** uses a unique, patented process in the manufacture of Optimized Cran-Max<sup>®</sup> with UTIRose<sup>™</sup>. Each daily serving supplies the complete phenolic profile of the whole cranberry *plus* hibiscus polyphenols in a standardized, highly absorbable, *concentrated* form. Two capsules of Optimized Cran-Max<sup>®</sup> with UTIRose<sup>™</sup> contain:

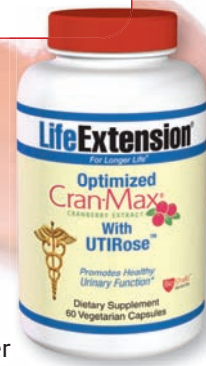
<b>UTIRose<sup>™</sup> (<i>Hibiscus sabdariffa</i>) extract (flower, calyx)</b>	<b>200 mg</b>
<b>Cran-Max<sup>®</sup> Cranberry infused whole fruit extract</b>	<b>500 mg</b>

The suggested daily amount of Cran-Max<sup>®</sup> in this formula alone (500 mg) was demonstrated to provide the **anthocyanin** equivalent of **seven 8 oz glasses** of Ocean Spray<sup>®</sup> Cranberry Juice Cocktail.<sup>10</sup>

The price for one bottle of **Optimized Cran-Max<sup>®</sup> with UTIRose<sup>™</sup>** containing 60 vegetarian capsules is \$18. If a member buys four bottles, the price is reduced to **\$12 per bottle**.

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Item #01424



To order the new **Optimized Cran-Max<sup>®</sup> with UTIRose<sup>™</sup>**,  
call **1-800-544-4440** or visit **www.LifeExtension.com**

Cran-Max<sup>®</sup> registered trademark of BDM Technologies, LLC. UTIRose<sup>™</sup> is a trademark of Burgundy Botanical Extract. Bio-Shield<sup>®</sup> is a registered trademark of Bio-Nutra Technologies, LLC.

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.



# Vital Greens Plant Foods In a Convenient Powder Blend

We try to eat healthfully, but getting enough **plant foods** each day can be a challenge for many people.

**Vital Greens Mix** is a blend of **organic** whole plant foods that provide diverse benefits ranging from protecting DNA integrity and maintaining immune function to suppressing vascular risk factors and restoring healthy intestinal flora.

Some of the ingredients in **Vital Greens Mix** superfood include:

- **Chia**, a rich source of protein, fiber, vitamins, minerals, and alpha-linolenic acid (an omega-3 precursor). Recent research at the University of Toronto has shown that regular **chia** intake may help maintain healthy **blood pressure** and **C-reactive protein** levels, both of which are well-known markers of cardiovascular disease.<sup>1</sup>
- **Green Grasses and Sprouts** to provide a full array of **chlorophyll-rich**, nutrient-dense natural “green” foods that help **detoxify** and maintain **youthful DNA integrity**. In addition, clinical trials with *chlorella* supplements demonstrate that daily use of this green food may **support healthy immunity** and **wound healing**.<sup>2,3</sup>
- **Probiotics** to sustain **healthy bacterial balance** in the gut, which may support overall **immune** and **digestive health**.
- A **mushroom blend** combining *maitake*, *shiitake* and *cordyceps* extracts to support **immune health** and provide adaptogenic benefits for balance and resistance.



Item #01098

## Each serving provides:

Chia Seed (organic)	3000 mg
Chlorella (organic)	1000 mg
Spirulina (organic)	1000 mg
Acerola (organic)	750 mg
Wheat Grass (organic)	430 mg
Maitake Mushroom Extract (organic)	400 mg
Wheat Sprout (organic)	300 mg
Barley Malt (organic)	300 mg
Probiotic Blend ( <i>Lactobacillus acidophilus</i> , <i>Lactobacillus casei</i> , <i>Lactobacillus plantarum</i> , <i>Lactobacillus rhamnosus</i> , <i>Bifidobacterium breve</i> , <i>Bifidobacterium longum</i> )	300 mg
Shiitake Mushroom (organic)	300 mg
Cordyceps Mushroom Extract (organic)	300 mg
Dulse (organic)	250 mg
Beet Juice (organic)	250 mg
Barley Grass (organic)	200 mg
Brown Rice Bran (organic)	200 mg
Cilantro (organic)	200 mg
Suma (organic)	150 mg
Flower Pollen Extract (organic)	120 mg

**Life Extension®'s Vital Greens Mix** is a great way to start off a meal. It induces some immediate satiety while providing beneficial plant foods that help neutralize mutagenic components of modern diets.

Each scoop of **Life Extension's Vital Greens Mix** provides a daily dose of nutrient-dense foods and herbal extracts. The retail price of a 30-serving jar of this organic superfood is \$48. When a member buys four jars, the price is reduced to only **\$33 per jar**.

To order **Vital Greens Mix**,  
call **1-800-544-4440** or visit  
**www.LifeExtension.com**

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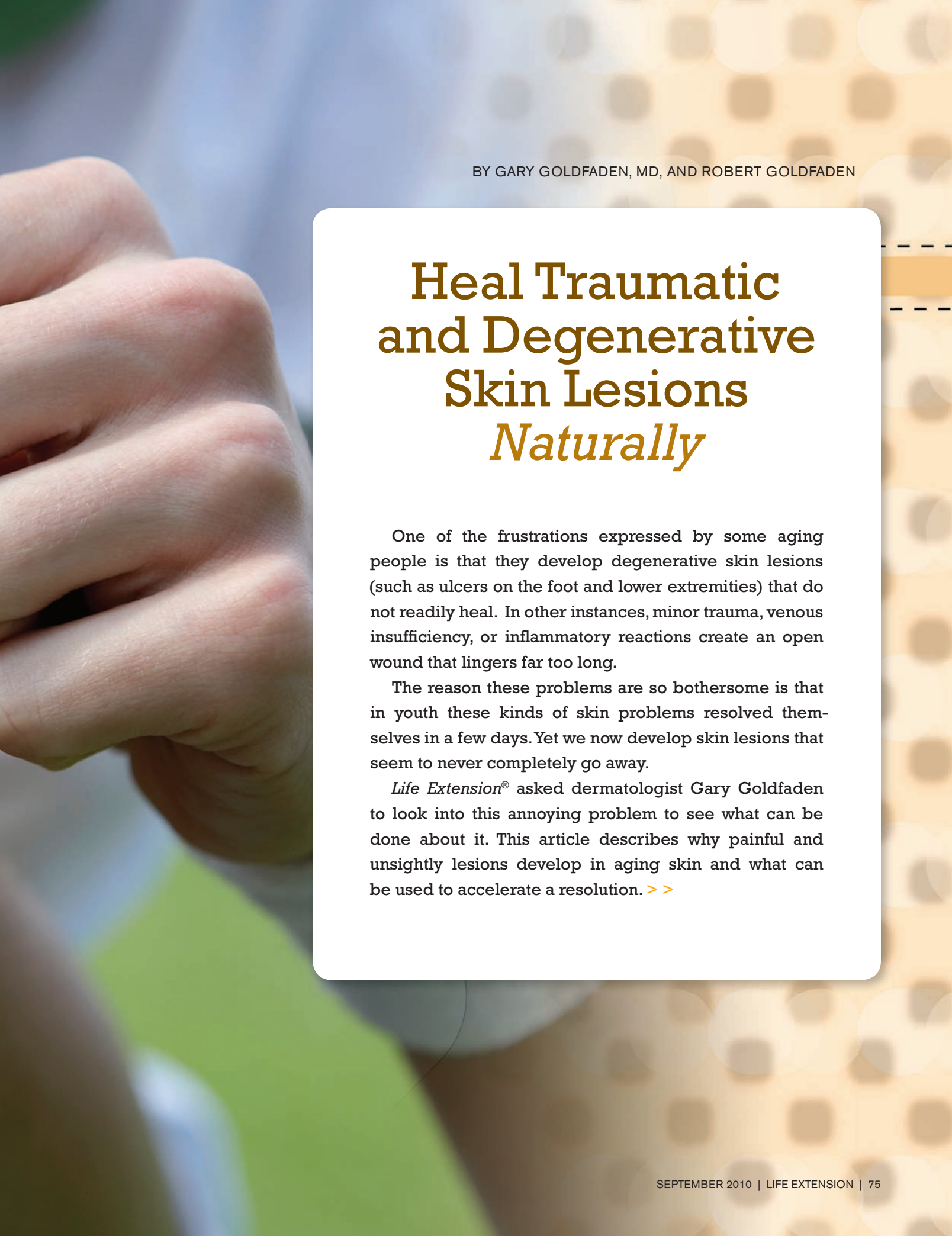
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Contains milk, wheat, gluten, rice, corn, and barley.

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.







BY GARY GOLDFADEN, MD, AND ROBERT GOLDFADEN

# Heal Traumatic and Degenerative Skin Lesions *Naturally*

One of the frustrations expressed by some aging people is that they develop degenerative skin lesions (such as ulcers on the foot and lower extremities) that do not readily heal. In other instances, minor trauma, venous insufficiency, or inflammatory reactions create an open wound that lingers far too long.

The reason these problems are so bothersome is that in youth these kinds of skin problems resolved themselves in a few days. Yet we now develop skin lesions that seem to never completely go away.

*Life Extension*® asked dermatologist Gary Goldfaden to look into this annoying problem to see what can be done about it. This article describes why painful and unsightly lesions develop in aging skin and what can be used to accelerate a resolution. > >





The *degradation* of skin and vascular tissue that comes with aging produces unsightly, often painful effects. To take one example, varicose veins now affect *half* of all people aged 50 or older.<sup>1</sup>

The list of age-related cosmetic defects and abnormalities is a long one. Pooled blood from ruptured capillaries; chronic bruising that takes months to heal; collecting of fluids and swelling beneath the skin; inflamed, distended spider veins and areas of discoloration. You may have seen these or other age-related skin deformities in elderly individuals. You may suffer from some of them yourself.

While medical interventions (injections, surgery, artificial creams, and ointments) can be painful, costly, and unreliable, a body of clinical evidence is emerging that supports low-cost, *natural* solutions to these and other age-related skin disfigurements.

The unique properties of topically-applied vitamin K, extracts of the wildflower *Arnica montana* and oats, along with vitamin D can speed skin healing and combat age-related degradation. Taken together, their synergistic action offers a multitargeted approach that protects your skin and ensures its youthful, healthy appearance despite advancing age.

### Common Culprits of Skin Disfigurement

Aside from sports injuries sustained in your younger years, many *cosmetic procedures* cause bruising and swelling. Whether through surgery, an injection of a dermal filler or Botox®, a vascular laser treatment, or liposuction, the resulting trauma can lead to blood

leakage from ruptured arteries and veins and a pooling of fluids. This blood ultimately collects and dries in a deposit of disintegrating red blood cells (called **hemosiderin**), leaving a visible discoloration that changes hue as the blood undergoes various chemical reactions. Other fluids that accumulate at the wound site also cause swelling that can increase the visibility of the bruise.

Aside from cuts, scrapes, and bruises, the passage of time inflicts a number of destructive physical alterations on your skin. Many of the surface imperfections seen in older skin are actually the result of progressive damage to the skin's vascular system. As you age, the outermost layer of your skin begins to suffer from a loss of vertical capillary loops that supply much-needed oxygen and nutrients to the skin. It gradually thins, rendering the underlying blood vessels much more susceptible to injury. In many older people a condition known as **purpura senilis** develops, in which extreme bruising on the hands, arms, and legs can occur from the slightest contact and may take many months to heal.

With advancing age there is also a marked decrease in the number of “veil” cells, fibroblast-like cells that surround small vessels in the skin's dermis. They're responsible for depositing basement membrane materials around blood vessels in response to vascular damage. Cumulative exposure to ultraviolet light can also degrade the underlying collagen that supports blood vessels, creating an environment in which these tiny capillaries become stretched and permanently dilated by the pressure from larger veins. This abnormal

dilation gradually weakens the capillary walls, causing the unsightly red spots and spidery veins (known as *telangiectasia*) that can often appear on the nose and cheeks. Weakened capillary walls are more prone to rupture, which can cause blood to leak out and flow along pathways made by surrounding capillaries. Escaped blood from facial capillaries around the eyes can also appear on the surface as dark circles.

Fortunately, all these conditions, from accidental trauma to age-related skin defects, can be effectively treated with a variety of clinically proven, *natural* topical interventions.

### Halt Subcutaneous Bleeding with Vitamin K

Vitamin K1 is a fat-soluble vitamin that activates the proteins involved in blood clotting (coagulation), which prevents unchecked bleeding or hemorrhaging throughout the body. It is an essential cofactor in the synthesis of at least 6 of the 13 proteins needed for coagulation. Because of its fat-soluble nature and importance in healthy blood clotting, vitamin K1 is ideal as a topical treatment for all disorders arising from vascular injury. When applied topically, vitamin K1 readily penetrates the pores of the skin and is transported deep into the dermis where it effectively targets damaged capillaries. Vitamin K1 functions naturally to support the blood clotting process and end seepage, eventually permitting the skin tissue to heal itself. The impressive recuperative benefits of vitamin K1 have long been recognized by plastic surgeons, who have used vitamin K creams for many years to minimize post-procedure bruising and scarring.<sup>2,3</sup>

In one clinical study on the healing power of vitamin K1, patients suffering from blood vessel and skin disorders caused by trauma, surgery, or sun damage were treated using a vitamin K1 cream. At the end of 6 weeks, 3 out of 5 patients showed a significant decrease in the appearance of blood vessels following application of the vitamin K1 cream.<sup>4</sup>

In another study, 12 patients suffering from easy bruising on the hands and arms applied a vitamin K1 cream daily for 4 weeks. At the end of this period, all participants showed a decrease in the time required for healing on the active compound side compared to the opposite (placebo) side, as well as a decreased appearance of lesions following trauma. No adverse effects were reported. Two patients even noticed a decrease in the appearance of liver spots on the active side versus the placebo side.<sup>4</sup>

## Healing Cream

- Minor accidents, sports injuries, surgical procedures, and other trauma can result in lasting damage to aging skin.
- The degradation of skin and vascular tissue that comes with aging also produces unsightly, often painful cosmetic defects.
- Medical interventions—injections, surgery, artificial creams and ointments—can be painful, costly, and unreliable.
- A body of clinical evidence is emerging that supports a number of safe, low-cost, *natural* solutions to these and other age-related skin disfigurements.
- Vitamin K, *Arnica montana* extract, oats, and vitamin D have been shown to help speed the recovery time for bruises, accelerate wound healing, reduce swelling and inflammation, combat infection, and relieve pain.





## ***Arnica montana*: Nature's Preferred Healing Agent**

*Arnica montana*, more commonly known as mountain tobacco or leopard's bane, is a wildflower that grows in the mountains of Europe and North America. A member of the sunflower family, it has bright yellow flowers that grow on stems about 1 to 2 feet in height.

Arnica has a documented history of medicinal use going back to the 1500s. In North America, Native Americans such as the Catawba have used arnica flower, root, and whole plant extracts for hundreds of years as natural remedies to relieve bruising, soothe muscle aches, reduce inflammation, and heal injuries. Some of the useful constituents found in arnica are **flavonoids**, **polysaccharides**, and **sesquiterpene lactones**.

Sesquiterpene lactones are a class of plant compounds that includes over 3,000 naturally occurring substances, making it one of the largest groups of

biologically active polyphenols known to modern science. **Helenalin**, the main sesquiterpene lactone found in alcohol extracts of arnica flowers, helps fight painful inflammation by inhibiting the activity of nuclear factor-kappaB, or **NF- $\kappa$ B**.<sup>5</sup> This inflammatory cytokine (cell signaling molecule) enters the cell's nucleus and "switches on" specific genes that activate an inflammatory or immune response.<sup>6</sup>

Arnica's well documented anti-inflammatory properties make it ideal for reducing puffiness and skin inflammation. In one clinical study, subjects with

Native Americans have used arnica plant extracts for hundreds of years as natural remedies to relieve bruising, soothe muscle aches, reduce inflammation, and heal injuries.

modest to severe eye area puffiness applied a simple emulsion with arnica extract to their under eye area on one side of their face twice a day for 4 weeks. Puffiness was evaluated on a 1-10 scale based on a combination of visual observation, palpation of the test area, indentometry (a method to measure skin firmness), and photography. It was found that the arnica extract reduced puffiness by **24%** compared to the control.<sup>7</sup>

In another study, an irritant was applied to the skin of participants, which was then treated with an arnica extract. Reduction in skin irritation was compared to an untreated control site over a two-hour test period. The arnica extract produced a **64.6%** decrease in skin redness and irritation.<sup>7</sup>

Besides sesquiterpene lactones, arnica also features another active ingredient—a beneficial oil called **thymol**. This essential oil, concentrated in the plant's roots, has been clinically shown to initiate spontaneous contraction of the smooth muscles in blood vessel walls,<sup>8</sup> thereby modulating blood flow. By enhancing circulation, thymol helps break up and facilitate the transport of trapped blood and fluid accumulations, making it highly effective in the treatment of bruise discoloration and swelling.

Thymol is a free radical scavenger<sup>9</sup> that has demonstrated significant anti-inflammatory benefits as well.<sup>10</sup> Emerging research suggests that thymol may possess analgesic effects via its ability to interact with specific nerve cells receptors.<sup>11</sup> In addition, thymol exhibits significant antibacterial activity.<sup>10</sup> As an essential oil, thymol may even help *maximize* the absorption of vitamin K1 across the skin barrier.





### Combat Inflammation with Oats

The topical use of oatmeal preparations for natural skin care can be traced as far back as ancient Rome. Medical texts by Pliny and others recommend oatmeal flour as a cure for a variety of dermatological conditions.<sup>12</sup> Over the years, the powerful healing virtue of oats has been a staple of traditional medicine.<sup>13</sup> However, it wasn't until the 1930s that oatmeal's ability to relieve itch and function as a skin protectant in facial masks and bath oils was scientifically documented.<sup>14</sup>

The therapeutic benefits of ground oats are mainly due to the happy coincidence that compounds essential for the natural development of oats are also beneficial to humans. Oats are generally considered to have the highest protein and lipid content of any cereal grain, as well as a high fatty acid content.<sup>14,15</sup> They're rich in phenolic antioxidants, including a class of ultra-potent free radical fighters called *avenanthramides*.

Phenolic compounds are regarded as the strongest antioxidants in nature, yet within this group, there is a wide variation of characteristics and antioxidant activity. Avenanthramides exhibit *10 to 30 times* the antioxidant activity of other phenols in oats.<sup>15</sup>

In addition to their formidable antioxidant power, avenanthramides are potent anti-inflammatory agents. One recent study showed that avenanthramides at concentrations as low as **1 part per billion** were able to effectively *inhibit* the release of NF-κB in keratinocytes. Cells treated with oat avenanthramides also showed a significant reduction in the release of the pro-inflammatory cytokine **interleukin-8**

(IL-8). It was demonstrated that a topical application of avenanthramides from oats *compared favorably with a 1% topical hydrocortisone preparation* in reducing contact hypersensitivity, inflammation, and itching in test subjects.<sup>16</sup>

### Vitamin D: Antimicrobial and Natural Regenerator

Research has shown that another vitamin, **vitamin D**, is an absolutely essential participant in the normal wound healing process. The importance of the active form of vitamin D in healing lies in its ability to initiate your skin's production of a vital antimicrobial peptide called **cathelicidin**.<sup>17</sup>

When an injury to your skin occurs, keratinocytes immediately rush to surround the wound.<sup>17</sup> Your keratinocytes are not only able to photosynthesize vitamin D3 directly from sunlight, they also have all the biological equipment necessary to manufacture the *active* form of vitamin D that your body uses, **calcitriol**.<sup>18</sup> As your keratinocytes gather, more and more active vitamin D is produced until a sufficient quantity is reached that can activate your **vitamin D receptors**. These, in turn, trigger the expression of genes such as CD14 and TLR2 that code for proteins that help detect microbes.<sup>17,19,20</sup> Once the presence of a pathogen is detected, production of cathelicidin begins.

Cathelicidin works by disrupting the integrity of bacterial cell membranes, and studies have shown it to be a very efficient killer of offending microbes, even at very low concentrations.<sup>21,22</sup> Aside from its germ-killing power, cathelicidin also promotes the



development of blood vessels and helps encourage new cell growth, two vital factors that are also essential for proper wound healing.<sup>23,24</sup> Vitamin D's crucial roles as an antimicrobial agent and instigator of normal wound repair make it highly desirable as a healing ingredient.

## Summary

In addition to minor accidents, sports injuries, or surgical procedures, the inevitable *degradation* of skin and vascular tissue that comes with aging produces unsightly, often painful effects. Varicose veins now affect *half* of all people aged 50 or older.

While medical interventions (injections, surgery, artificial creams and ointments) can be painful, costly, and unreliable, a body of clinical evidence is emerging that supports a number of safe, low-cost, *natural* solutions to these and other age-related skin disfigurements. Vitamin K, *Arnica montana* extract, oats, and vitamin D have been shown to help speed the recovery time for bruises, accelerate wound healing, reduce swelling and inflammation, combat infection, and relieve pain. Specific *forms* of vitamin K and arnica have even been shown to help remedy age-related skin imperfections, such as red blotches, spider veins, dark circles, and wrinkles. ●

If you have any questions on the scientific content of this article, please call a Life Extension® Health Advisor at 1-866-864-3027.



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SUPPORTS HEALTHY  
TESTOSTERONE LEVELS—NATURALLY  
WITH STANDARDIZED LIGNANS

# SUPER MIRAFORTE

Low levels of testosterone have been implicated in a host of life-threatening health problems. *Maintaining normal testosterone levels is one of the most important steps you can take to regain your health and improve your performance.*

If you're over 40, odds are you're already starting to feel the debilitating effects of low testosterone. Research shows that by the time they are 60 years old, men typically produce **60% less** testosterone than they did at age 20.<sup>1</sup> With this drastic reduction comes several well-documented problems—from the blues and cognitive impairment to reduced sex drive and abdominal weight gain. Normal testosterone has been associated with maintaining a healthy cardiovascular system.<sup>2</sup>

## RESTORING HEALTH AND SEXUAL VIGOR

Life Extension's **Super MiraForte** contains high potencies of **chrysin** and **nettle root**—plant extracts that naturally reduce the aromatization (conversion) of testosterone to estrogen to *enhance free testosterone levels*.<sup>3</sup> **Bioperine**<sup>®</sup> is included to facilitate the absorption of **chrysin** (a natural flavonoid) into the bloodstream.

**Muira puama** is a rainforest herb classified in the Brazilian Pharmacopeia as an aphrodisiac. In a trial of men with decreased libido and other sexual issues, **62%** of those taking **muira puama** reported positive results in regard to libido, while **51%** of those with a common sexual problem felt that the herb was helpful.<sup>4</sup> A second trial examined men with decreased libido and found that **85%** of the test subjects taking **muira puama** enjoyed an enhanced libido, **90%** had improved sexual function, and **100%** of test subjects experienced an increase in intercourse frequency.<sup>5</sup>

To augment these protective effects, a standardized **lignan extract** from Norwegian spruce is included in Super MiraForte. These lignans convert to enterolactone in the intestine that is then rapidly absorbed into the bloodstream where it provides significant biological effects.<sup>6</sup> Enterolactone has demonstrated **anti-estrogen** and **anti-DHT** effects that are of particular importance for the aging prostate gland.<sup>7-9</sup>

The suggested daily dose of four capsules of Super MiraForte contains potencies of the following nutrients:

<b>Chrysin</b>	<b>1500 mg</b>
<b>Bioperine</b> <sup>®</sup>	<b>15 mg</b>
<b>Muira puama</b>	<b>850 mg</b>
<b>Nettle root</b>	<b>282 mg</b>
<b>Ginger root</b>	<b>50 mg</b>
<b>Chelated elemental zinc</b>	<b>15 mg</b>
<b>Maca</b>	<b>320 mg</b>
<b>HMRlignan</b> <sup>™</sup> Norway Spruce lignan extract	<b>33.4 mg</b>



Item #01315

The retail price for a bottle of 120 capsules of **Super MiraForte with Standardized Lignans** is \$62. If a member buys four bottles, the price is reduced to just **\$42** a bottle. **Contains corn.**

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**Caution:** If you are taking any medication, use only under physician supervision. Men with existing prostate cancer may not be able to use this product. Elevations in free testosterone can unmask an occult (hidden) prostate cancer. Anyone with this concern should have a baseline PSA prior to using this product and a follow-up PSA test 60 days later. If a significant elevation of PSA is found, discontinue this product and advise physician. Do not take more than 15 mg per day of Bioperine<sup>®</sup>.

**Bioperine**<sup>®</sup> is a registered trademark of Sabinsa Corp.  
**HMRlignan**<sup>™</sup> is a trademark used under sublicense from Linnea SA.

**To order Super MiraForte with  
Standardized Lignans, call 1-800-544-4440  
or visit [www.LifeExtension.com](http://www.LifeExtension.com)**



# Femmenessence MacaPause®

## A New Frontier in Natural Menopause Support

For years, aging women have faced an urgent need for more options in the management of menopausal symptoms. Those who advocated safer approaches were vindicated when clinical studies confirmed that synthetic estrogen-progestin drugs increase risk of breast cancer, stroke, and other diseases.<sup>1-3</sup>

In a major scientific advance, a 100% natural form of support is now available that helps menopausal women in an entirely new way.

**Femmenessence MacaPause®** contains a proprietary compound of **maca** root (*Lepidium peruvianum* Chacon) that has been shown to provide significant support to women undergoing menopause.<sup>4-6</sup> Up to **87%** reported improvement of menopausal discomforts in clinical trials, including:

- **Better mood**
- **More energy**
- **Healthy body weight**
- **Fewer hot flashes**
- **Fewer night sweats**
- **Enhanced sexual experience**
- **Healthy hormone metabolism**
- **Support for bone health**

What makes **Femmenessence MacaPause®** unique is **Maca-GO™**, a proprietary concentration of 4 distinct phenotypes of all-natural, **organically certified** maca. Unlike many other nutrients for menopause support, maca is an *adaptogen*.<sup>7</sup> Scientists believe these plant-based energizers increase the activity of molecular “chaperones,” modulating response to stressors that affect cellular function and longevity.<sup>8</sup> Randomized clinical trials show that these herbal extracts support energy, brain health, sexual experience, and reduce stress.<sup>9</sup>

The result is a cutting-edge approach that gives menopausal women a new, natural alternative. The suggested daily serving of **2,000 mg** may help to decrease common complaints associated with menopause, either alone or in conjunction with other forms of natural female support.



A box containing 120 (500 mg) vegetarian capsules (30-day supply) of **Femmenessence MacaPause®** retails for \$34.99. **Life Extension®** members pay just **\$26.24**.

Item #01064



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Maca-GO™ is a registered trademark of Natural Health International.

To order **Femmenessence MacaPause®**,  
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INTRODUCING

# All-in-One HEALING FORMULA CREAM by Cosmesis®

**RED SPOTS. ABRASIONS. SWOLLEN,  
PURPLE BLOTCHES AND SCARS.**  
Even minor incidents can cause  
major cosmetic problems.

When you were younger, these problem areas disappeared in a matter of days. Now they seem to last for weeks. And they crop up in more places than ever before: hands, arms, legs, feet, back, buttocks.

The fact is that as you age, your skin grows thinner and more fragile. The result? Age-related imperfections, blemishes, discoloration, areas of raised skin, and other stubborn eyesores become more frequent—and lasting.

That's why **Life Extension®** asked renowned dermatologist Gary Goldfaden, MD to formulate new **Healing Formula All-in-One Cream**. It brings together nature's most powerful skin protectors, revitalizers, and healing agents to offset the visible impact of minor trauma to aging skin, including:

- **VITAMIN K1.** Prized for decades by dermatologists to help minimize bruising, scarring, and blemishes—even *after* cosmetic surgery.<sup>1-5</sup>
- **ARNICA MONTANA.** Extract of a European subalpine flower that's been clinically shown to help bruised or scarred skin.<sup>6</sup> Arnica is rich in phenols (plant-based compounds) called **sesquiterpene lactones** that penetrate<sup>7,8</sup> your skin's outer layer to deliver deep healing.<sup>9</sup> It also contains the essential oil **thymol**, to moisturize and protect.
- **OATS.** Used since the days of the Romans, oats contain **avenanthramides**, naturally occurring compounds with proven anti-itching and soothing properties.<sup>10,11</sup>
- **VITAMIN D.** As **cholecalciferol**, its quenching action locks in moisture, helping to counter the unsightly effects of your skin's gradually declining capacity to renew itself.

The result is a unique formula delivering a blend of high-potency, synergistic ingredients to preserve and protect your skin's healthy-looking, vibrant glow.

A 1 oz jar of **Healing Formula All-in-One Cream** retails for \$49. If a member buys two jars, the cost is just **\$31.50** per jar.

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# What's Really Making You Sick?

## **NEW BLOOD TEST**

### **Can Uncover the Real Cause of Your Symptoms**

Do you regularly suffer from headaches, insomnia, stomach upset, constipation, or diarrhea—but can't seem to get lasting relief? Have you gone from one doctor to another for nagging or painful “mystery” symptoms—only to find that *none* of them has been able to tell you exactly what's wrong, much less come up with an effective treatment?

You're not alone. It is estimated that anywhere from **45-60%** of the general population struggles with an extraordinary range of symptoms whose causes can't be readily identified.<sup>1,2</sup> You may be one of them.

Before you give up altogether, though, take heart: your health “problem” may not be the problem at all. In reality, your symptoms may be signs that something in your *diet* is making you feel sick.

Unfortunately, identifying which of the many foods you regularly consume may be causing your symptoms, or the specific natural or artificial compound *contained* in any of those foods, can be like trying to find a needle in a haystack. There are as many food allergies and sensitivities as there are symptoms. And until recently, the available detection methods have been rudimentary at best.

The good news is that advances in *individualized* blood testing now enable you and your doctor to zero in on the compounds causing your problem. With the results in hand, you can methodically and definitively eliminate them from your diet.

In this article, you will discover the multitude of health conditions that food sensitivities can cause. You will learn about the underlying mechanisms at the core of your body's response to certain foods. You will also find out how a cutting-edge diagnostic test can help you uncover the cause (or causes) of nagging symptoms or painful conditions—and possibly make them disappear. > >





## Food Sensitivities and Food Allergies: A Widely Overlooked Problem

Food allergies and sensitivities account for approximately 60% of all undiagnosed conditions, by some estimates.<sup>2,3</sup> Any system of the body can be affected, resulting in one or many of the following health conditions:

- Asthma
- Bedwetting (enuresis)
- Recurrent bladder infections
- Recurrent bronchitis
- Bursitis
- Canker sores
- Celiac disease
- Chronic low back pain
- Depression
- Diarrhea
- Childhood ear infection
- Fatigue
- Gas
- Gastritis
- Headache
- Hives
- Irritable bowel syndrome (IBS)
- Itching
- Learning disabilities
- Personality changes
- Recurrent infection (various)
- Joint pain and swelling
- Skin rash
- Ulcerative colitis

And this is just a short list.

So it's worth your while to step back and take a look at the foods you're eating in order to improve your health and quality of life. As with pollen, dust, or pollutants, natural or introduced chemical compounds contained in foods can trigger an allergic response. We've all heard of someone who had to be rushed to the hospital because a restaurant used peanut oil in preparing certain dishes without informing its patrons.

These are properly defined food allergies, and they manifest immediately. They may pose a more immediate health threat, but are relatively easy to detect and treat. Food *sensitivities*, on the other hand, are triggered by a distinct underlying mechanism. They can take a long time to develop, making them difficult to identify as the culprits behind a given set of secondary symptoms. The problem is they can wreak just as much havoc on your body over the long-term. Think of them as a food allergy in slow motion.

Here's the difference between food allergies and sensitivities: once your immune system detects a substance it considers foreign, a chain reaction is set in motion to repel the perceived "invader." This defensive mechanism is launched by *lymphocytes*, white blood cells capable of producing specific antibodies to target and neutralize the threat.

They release five different types of antibodies: IgA, IgD, IgE, IgG, and IgM. It is the **IgE** and **IgG** antibodies that are mobilized when lymphocytes come in contact with allergenic food proteins.<sup>4,5</sup> We don't know precisely what causes some people's immune

systems to consider foods to be “foreign,” while other people’s immune systems consider food to be—well, just food! However, in the process of trying to rid the body of something it believes shouldn’t be there, a vital and normal process goes very wrong, subjecting us to “symptom attacks” triggered by the foods we depend on every day for life.

Again, these types of intense reactions—anaphylactic reactions—occur within minutes after eating or being exposed to a food or other substance<sup>6</sup> and are usually associated with “IgE” antibodies. IgE-mediated food allergies are most common in infants and children; we tend to lose sensitivity to many of these common food allergens as we age.<sup>7,8</sup>

“IgG”-mediated food sensitivities tend to be “masked” or hidden, since IgG antibody-related symptoms tend to occur *many* hours to days after exposure to offending foods.<sup>3</sup> Considerable controversy exists about these types of food allergies and sensitivities, precisely because of the delayed onset of symptoms and the difficulty this presents in making a clinical correlation between symptoms and food triggers.

This is where accurate and reliable allergy testing has the most to contribute to diagnosis. The best support comes from research and from actual patients showing that, when foods suspected of causing adverse reactions are eliminated from the diet based upon sensitivity testing, symptoms improve. If the food is then added back into the diet, patients often report a return of symptoms, a pattern that suggests a strong correlation between the ingestion of the food and your body’s reaction.<sup>9</sup>

### Sickness... Or Food Sensitivity?

A surprisingly broad array of health “problems” are in reality the result of these undetected food sensitivities. Perhaps the most well-known example of this is the widespread number of health problems produced by **gluten** (or gliadin, one of its constituents), proteins found in products made with **wheat, rye, barley** and **spelt** (in fact, most grains except corn and rice). Though oats are not a gluten-containing grain, they tend to be included in this group because they are often processed on the same equipment as wheat and may be contaminated by it.

The most serious form of gluten sensitivity, known as **celiac disease**, may affect as many as 1 out of every 133 people.<sup>10</sup> If undetected and untreated, gluten sensitivity can cause a weakening of the *villi* of the small intestines. These minute, finger-like protuberances are vital to nutrient absorption; their atrophy may lead to a host of chronic ailments.<sup>11</sup> Those who are

## Food Sensitivities and Blood Diagnostics

- An estimated 45-60% of the general population suffers from serious symptoms and health conditions whose causes cannot be readily identified.
- Many of these “mystery” symptoms are attributable to an underlying **food sensitivity**, including headaches and migraines, insomnia, digestive disorders, and a multitude of stubborn health problems.
- There are as many problematic foods as there are symptoms, and until recently, the available detection methodologies have been rudimentary at best.
- An advanced, convenient, low-cost diagnostic technology called the FoodSafe™ test now enables you and your doctor to zero in on the potential food-related cause of your health problems and methodically eliminate them, providing optimal health and lifelong relief from your “mystery” symptoms.





sensitive to gluten can, at its worst, experience severe weight loss, fatigue, and malnutrition, all caused by nutritional malabsorption related to gluten. Of course, many if not most of these adverse effects can be prevented or *reversed* when gluten sensitivity is detected early and products containing gluten are eliminated from the diet.<sup>12-14</sup>

Though many theories have been proposed for its cause, irritable bowel syndrome (IBS) is another condition that may have its origins in food sensitivity.<sup>15,16</sup> At any given time, 12-20% of adults complain of symptoms consistent with a diagnosis of IBS, making it one of the most common gastrointestinal disorders in the United States.<sup>17-19</sup> The symptoms characteristic of IBS include gastrointestinal discomfort and pain accompanied by intermittent diarrhea and constipation. More women than men are affected. When patients are assessed for food sensitivity and those foods identified by testing are eliminated from the diet, many report significant improvement in their symptoms.<sup>16,20-25</sup> In one study, improvement after specific food elimination was sustained a minimum of one year later for most participants.<sup>9</sup>

Migraine headache is another condition long associated with food sensitivity.<sup>26</sup> Among the foodborne triggers most frequently associated with migraine are

**nitrates**, a type of preservative found in certain types of processed meats; **tyramines**, which are found in red wine, cheese, and soy sauce; and **phenylethylamine**, found in chocolate.<sup>27</sup> Caffeine, citrus, vinegar, and alcohol may also be migraine triggers. People suffering from migraines have been shown to improve significantly once they remove offending migraine “trigger foods” from their diet.<sup>3,28</sup>

IgG-mediated food sensitivities tend to be masked or hidden, since IgG antibody-related symptoms tend to occur many hours to days after exposure to offending foods.

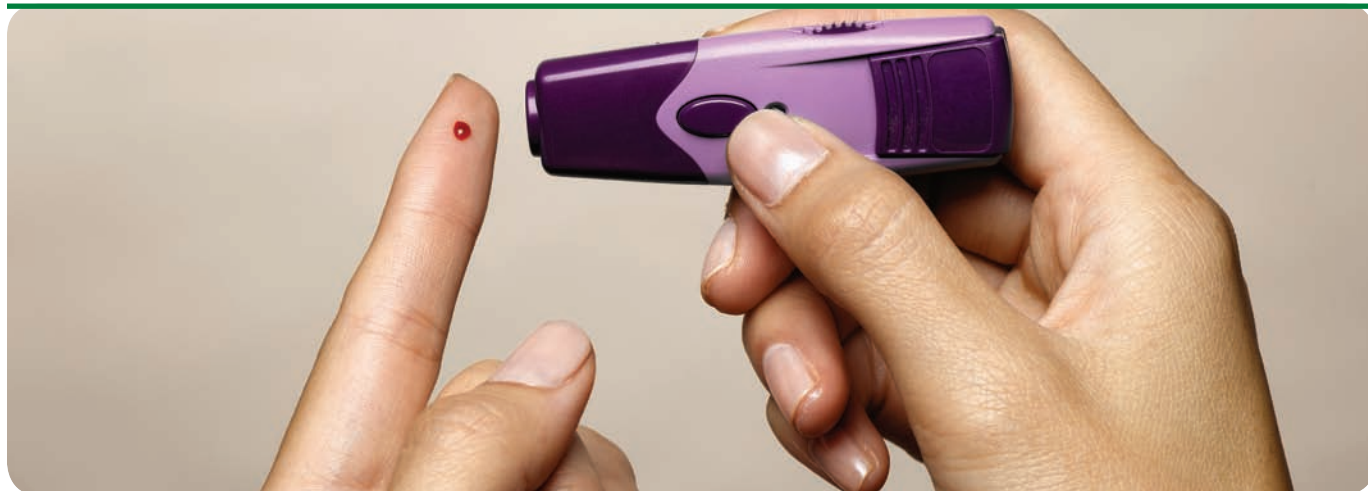
### Inconvenient and Expensive Test Methods

Diagnosis of a food sensitivity depends on many things, including your previous medical history, comprehensive physical examination, oral food challenges, and results of laboratory testing.<sup>7,29,30</sup> There are several types of laboratory tests designed to detect food allergies and sensitivities. One of the best known allergy tests measures for food-specific IgE antibodies using a **skin prick test**, in which the patient is exposed to a variety of foods scratched into the skin and observed for a local allergic reaction. Although fairly accurate for inhalant allergies, the positive predictive accuracy of skin prick tests for *food* allergens is less than 50% compared to double-blind, placebo-controlled food challenges.<sup>31</sup>

There are two types of skin testing that may be far more accurate, but they take considerably more time. Performed almost exclusively by physician-members of the American Academy of Environmental Medicine ([www.aaem.com](http://www.aaem.com)), they’re termed “provocation-neutralization” and “serial dilution titration.” In addition to accurate testing, these techniques can help you identify and resolve your food sensitivity issues.

The “radioallergosorbent” test (RAST) and its successor, the “enzyme-linked immunoassay” (ELISA) are both blood tests used to detect food-specific IgE and/or IgG responses. Most commonly, food sensitivities are assessed using the ELISA test to detect IgG4 antibodies to food antigens, a subclass of IgG antibodies. Between 45 and 95 separate foods are measured. Accurate testing requires the patient to eat a wide range of foods within 3 weeks of assessment for IgG4 exposure to be present.





### A Cutting-Edge Detection Method

Fortunately, an advance in diagnostic technology is now available that uses a very small amount of your blood to assess your sensitivity to 45 of the most common food antigens. Instead of requiring blood to be drawn from a vein, a small lancet is used to prick the finger so that a few drops of blood can be placed on a blood spot collection card. After the card is allowed to air dry, it is returned to the laboratory for assessment of IgG4 antibodies to food.

Known as the **FoodSafe™** test, this is a simple and effective way for you and your doctor to detect the foods your body can't handle. Each test report comes with a personalized profile showing how you tested against 45 foods most commonly associated with food sensitivities. The report indicates whether the levels of antibodies to the various foods suggest they are "safe" to eat, best to eat in moderation, or foods you should avoid entirely. Results are ranked and reported to you and your doctor as either safe or not safe.

After reviewing your test results, you may wonder what's left for you to eat, since it's not uncommon for many of the foods causing you the most trouble to be your favorite foods. Although each person's plan may vary, more than likely your doctor will ask you to avoid the foods that are considered "unsafe" on your test results. Generally, this means going on an elimination diet for up to 30 days, during which time you avoid the foods that you are most reactive to in your profile. It's a good idea to also avoid foods that are from the same "family" as those foods you are reactive to. For example, sensitivity to one kind of shellfish may mean that you should avoid other types of shellfish for a certain length of time. For this reason, your doctor may prescribe a diet that contains foods less likely to trigger reactions and allows your body and gastrointestinal tract time to recover from the continuous assault it has unknowingly experienced.

Does this mean you will never be able to eat these foods again? The answer depends on your problem foods and your symptoms. Obviously, if your allergic reaction is life-threatening, you'll be advised to permanently avoid that food. There are other reasons for life-long avoidance, too, such as gluten intolerance, which makes absorption of many nutrients difficult and good health impossible.

In other cases, you may be able to add a food back into your diet after a period of avoidance, as long as you eat it less frequently. One approach is to avoid the "reactive" foods for a period of time specified by your physician, typically 2 to 4 weeks, and then re-introduce these foods back into your diet to see if you respond to them.<sup>32</sup>

When avoiding foods during trial periods, eliminate even very small amounts! Reading food labels and understanding the many ways foods are listed as ingredients is important. By avoiding foods for this length of time, your body and immune system have time to recover, and you'll have a more accurate idea about whether the food can be re-introduced or not, and if so, how often.

During the "challenge" (re-introduction) phase of the elimination diet trial, your doctor may ask you to re-introduce one food that you were reactive to once every 4 days to see if symptoms recur. If you don't develop symptoms, then it may be possible to include the food in your diet, but less frequently. If symptoms do recur, then you may have to avoid the food for 6 months or longer.

Rotation diets have been shown to be very effective for treating food sensitivities in some people.<sup>33</sup> On the rotation diet, a food is only eaten once every 4 days, allowing the body to clear it between exposures. The rotation diet helps you avoid too much exposure to any one food and gives you a better idea what foods are contributing to your symptoms, in case they recur. If you are more sensitive to certain foods or clear them



more slowly from the body, you may need to eat them no more frequently than once every 7-10 days.

Your plan may also include taking omega-3 fatty acids to lessen inflammation, probiotics to replenish gastrointestinal flora, and other products like glutamine that promote intestinal healing.<sup>9,34-36</sup> One of the primary benefits of food sensitivity testing is that your doctor can more easily customize your approach based upon your history and test results.

## Summary

An estimated 45-60% of the general population suffers from serious symptoms and health conditions whose causes cannot be identified. Many of them have no idea that various forms of **food sensitivity** may be to blame. Reactions to food are the hidden cause behind an extraordinary array of health problems, including headaches and migraines, insomnia, and digestive disorders. An advanced, convenient diagnostic blood test technology called the FoodSafe™ test now enables you and your doctor to zero in on the potential foods behind your health problems and methodically eliminate them—for lifelong relief and optimal health. ●

If you have any questions on the scientific content of this article, please call a Life Extension® Health Advisor at 1-866-864-3027.

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Diminished levels of neurotransmitters and other brain compounds profoundly affect cognition and memory in aging adults. **Cognitex** was developed in 1982 to increase brain levels of **acetylcholine**—a neurotransmitter that enables neurons to communicate. Over the years, **Cognitex** has been improved with the addition of nutrients used in Europe to protect and enhance neurological function.

**Cognitex with Pregnenolone & NeuroProtection Complex** provides the following scientifically validated nutrients to provide broad-spectrum neurological support:

- **Uridine-5'-monophosphate (UMP)** is a phosphatide building block of RNA-DNA that is critical to optimal brain function and the health of neuronal cell membranes. Naturally found in the milk of nursing mothers, UMP is essential not only for the growth and development of infant brains, but also for healthy cognitive function in aging adults.
- **Sharp-PS® GOLD**, a rich **phosphatidylserine** compound bound to **DHA**, promotes already-normal neuronal cell membrane function and structure.
- **Alpha-glyceryl phosphoryl choline (A-GPC)** boosts acetylcholine, a critical neurotransmitter that declines with age.
- **Vinpocetine** enhances circulation and oxygenation to brain cells, improves neural electrical conductivity, and protects against neuron-destroying excitotoxicity.
- **Phospholipid-grape seed extract** bound together results in a compound that is better absorbed into the bloodstream where it improves blood vessel tone and elasticity, thus enhancing blood circulation and oxygen flow to the brain.
- **Wild blueberry extract** protects against free-radical damage in the brain and helps maintain fluid balances already within the normal range.
- **Sensoril® ashwagandha extract** helps alleviate mental fatigue by inhibiting an enzyme (acetylcholinesterase) that degrades acetylcholine in the aging brain.
- **Proprietary NeuroProtection Complex Blend** contains standardized extracts of **hops**, **ginger**, and **rosemary** — proven to help with inflammation.
- **Pregnenolone** is a hormone that may be especially beneficial to the brain.

The retail price for 90 softgels of Cognitex (with or without pregnenolone) is \$74 (item #00922) and \$72 (item #00921), respectively. If a member orders four bottles of either version, the price per bottle is reduced to just **\$49.95** and **\$48**, respectively.

Caution: Cognitex is also available without pregnenolone for those with existing steroid hormone-sensitive cancer.

Perlunan® is used with permission. Sensoril® is protected under US Patents Nos. 6,153,198 and 6,713,092, and is a registered trademark of Natreon, Inc. Sharp-PS® GOLD is a registered trademark of Enzymotec Ltd.

Contains fish (wild herring, blue whiting), soybeans, and rice.

# FIGHT BACK AGAINST BRAIN AGING WITH COGNITEX

Just three softgels of Cognitex provide the following nutrients:

<b>Alpha-Glyceryl Phosphoryl Choline (A-GPC)</b>	<b>600 mg</b>
<b>Phosphatidylserine-DHA (PS-DHA)</b> [Sharp-PS® GOLD Conjugated Phosphatidylserine-DHA]	<b>100 mg</b>
<b>Pregnenolone</b>	<b>50 mg</b>
<b>Vinpocetine</b>	<b>20 mg</b>
<b>Phospholipid-Grape Seed Extract</b>	<b>150 mg</b>
<b>Wild Blueberry Extract</b> ( <i>Vaccinium angustifolium</i> )	<b>150 mg</b>
<b>Sensoril® Ashwagandha Extract</b> ( <i>Withania somnifera</i> )	<b>125 mg</b>
<b>Uridine-5'-Monophosphate (disodium)</b>	<b>50 mg</b>
<b>Proprietary NeuroProtection Complex Blend</b> Perlunan® Hops Extract ( <i>Humulus lupulus</i> ) Ginger ( <i>Zingiber officinale</i> ) Extract Rosemary ( <i>Rosmarinus officinalis</i> ) Extract	<b>125 mg</b>



Item #00921



Item #00922

To order Cognitex, call 1-800-544-4440  
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- Medical ID Access™ is a safe, password-protected and HIPAA compliant online service that will be your personal online medical records depository. You will automatically receive your own website when you register your card. This site operates either with or independently from your card, and allows you to access, update or print your information from any Internet connection. If your card is ever lost or damaged, your data on file can easily be down loaded to a new 911 Medical ID™ card.
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Impressive results in anti-aging research mean that one day we may greatly extend human lifespan – but most of these treatments won't be widely available for many years.

Fortunately, daily advances are also being made on what each of us can do NOW to slow the aging process to a minimum, and to delay or prevent the diseases of aging.

## ***Speakers***



**Esther Dyson**  
*Keynote*



**Peter Thiel**  
*Keynote*



Terry Grossman



Gregory Benford



Greg Fahy



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- **Participants:** While some attendees will be new to life extension, early indications are that this audience may be the most highly informed group ever gathered to compare personal action for longevity.

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**B**lood testing provides the ultimate information regarding correctable risk factors which may predispose you to disorders such as cancer, diabetes, cardiovascular disease, and more. Information about general health and nutritional status can also be gained through standard blood analysis. Standing behind the belief that blood testing is an essential component of any program designed to attain optimal health and longevity, *Life Extension®* offers this innovative and convenient service at a very affordable price. Not only is comprehensive blood testing an important step in safeguarding your health, it is a simple process from virtually anywhere in the United States.

#### Five Easy Steps:

1. Call 1-800-208-3444 to discuss and place your order with one of our knowledgeable health advisors. (This order form can also be faxed to 1-866-728-1050 or mailed). Online orders can also be placed at [www.lifeextension.com](http://www.lifeextension.com).
2. After your order is placed, you will be mailed either a requisition form to take to your local LabCorp Patient Service Center or a Blood Draw Kit; whichever is applicable (Please note: If a blood draw kit is used an additional local draw fee may be incurred.)
3. Have your blood drawn.
4. Your blood test results will be mailed directly to you by Life Extension.
5. Take the opportunity to discuss the results with one of our knowledgeable health advisors by calling 1-800-226-2370; or review the results with your personal physician.

It's that simple! Don't delay—call today!

#### For Our Local Members:

For those residing in the Ft. Lauderdale, Florida area, blood-draws are also performed at the Life Extension Nutrition Center from 9:00 am to 2:00 pm Monday through Saturday. Simply purchase the blood test and have it drawn with no wait! Our address is 1100 West Commercial Blvd, Ft. Lauderdale, FL, 33309. We're located at Commercial Blvd and Powerline Road, just west of I-95. For more information or directions call 954-766-8144.

# Blood Testing The Ultimate Information

## MOST POPULAR PANELS

### Life Extension Member Pricing

<p><b>○ COMPREHENSIVE PANELS</b></p> <p><b>○ MALE LIFE EXTENSION PANEL (LC322582)</b> <b>\$269</b></p> <p>CBC/Chemistry Profile DHEA-S PSA (prostate-specific antigen) Homocysteine C-Reactive Protein (high-sensitivity) Free Testosterone Total Testosterone Estradiol TSH for thyroid function</p>		<p><b>○ DR. LICHTEN COMPREHENSIVE MALE PANEL (LICHTEN01M)</b> <b>\$668</b></p> <p><b>MALE LIFE EXTENSION PANEL PLUS:</b> IGF-1, FSH, LH, TSH, T4 free, Cortisol, Fasting Insulin, Sex Hormone Binding Globulin, and Hemoglobin A1C.</p>
<p><b>○ MALE HORMONE ADD-ON PANEL (LCADDM)</b> <b>\$155</b></p> <p><b>Pregnenolone and Dihydrotestosterone (DHT)</b> To provide an even more in-depth analysis of a man's hormone status, Life Extension has created this panel as an addition to the Male Life Extension Panel. This panel provides valuable information about a testosterone metabolite that can affect the prostate, and the mother hormone that acts as a precursor to all other hormones.</p>		<p><b>○ DR. LICHTEN COMPREHENSIVE FEMALE PANEL (LICHTEN01F)</b> <b>\$668</b></p> <p><b>FEMALE LIFE EXTENSION PANEL PLUS:</b> IGF-1, FSH, LH, TSH, T4 free, Cortisol, Fasting Insulin, Sex Hormone Binding Globulin, and Hemoglobin A1C.</p>
<p><b>○ FEMALE LIFE EXTENSION PANEL (LC322535)</b> <b>\$269</b></p> <p>CBC/Chemistry Profile DHEA-S Estradiol (an estrogen) Homocysteine C-Reactive Protein (high-sensitivity) Progesterone Free Testosterone Total Testosterone TSH for thyroid function</p>		<p><b>○ THE CBC/CHEMISTRY PROFILE (LC381822) OVER 40 PARAMETERS TESTED</b> <b>\$35</b></p> <p><b>CARDIOVASCULAR RISK PROFILE</b> Total Cholesterol      Cholesterol/HDL Ratio HDL Cholesterol      Estimated CHD Risk LDL Cholesterol      Glucose Triglycerides      Iron</p> <p><b>LIVER FUNCTION PANEL</b> AST (SGOT)      Total Bilirubin ALT (SGPT)      Alkaline Phosphatase LDH</p> <p><b>KIDNEY FUNCTION PANEL</b> BUN      BUN/Creatinine Ratio Creatinine      Uric Acid</p> <p><b>BLOOD PROTEIN LEVELS</b> Total Protein      Globulin Albumin      Albumin/Globulin Ratio</p> <p><b>BLOOD COUNT/RED AND WHITE BLOOD CELL PROFILE</b> Red Blood Cell Count      Monocytes White Blood Cell Count      Lymphocytes Eosinophils      Platelet Count Basophils      Hemoglobin Polys (Absolute)      Hematocrit Lymphs (Absolute)      MCV Monocytes (Absolute)      MCH Eos (Absolute)      MCHC Baso (Absolute)      Polynucleated Cells RDW</p> <p><b>BLOOD MINERAL PANEL</b> Calcium      Sodium Potassium      Chloride Phosphorus      Iron</p> <p><b>NOTE: CBC/Chemistry profile is included in the Male and Female Life Extension panels.</b></p>
<p><b>○ FEMALE HORMONE ADD-ON PANEL (LCADDF)</b> <b>\$125</b></p> <p><b>Pregnenolone and Total Estrogens</b> To provide an even more in-depth analysis of a woman's hormone status, Life Extension has created this panel as an addition to the Female Life Extension Panel. This panel provides valuable information about total estrogen status, and the mother hormone that acts as a precursor to all other hormones.</p>		<p><b>○ 24-HOUR URINARY PROFILES</b></p> <p><b>○ URINARY COMPLUS PANEL (LCM4008)</b> <b>\$472.50</b></p> <p>This 24-hour urinary steroid hormone profile contains a combination of 30 hormones and metabolites. This panel may be used to evaluate bio-identical hormone replacement therapy.</p>
<p><b>○ THYROID ADD-ON PANEL (LCTHYROID)</b> <b>\$55</b></p> <p><b>Free T3 &amp; Free T4.</b> LE strongly recommends adding these important thyroid tests to the Male or Female Life Extension Panels, especially for those interested in weight loss.</p>		<p><b>○ URINARY COMPREHENSIVE PANEL (LCM4001)</b> <b>\$360</b></p> <p>This 24-hour urinary steroid hormone profile contains a combination of 17 hormones and metabolites. This panel may be used to evaluate bio-identical hormone replacement therapy.</p>
<p><b>○ LIFE EXTENSION THYROID PANEL (LC304131)</b> <b>\$75</b></p> <p>TSH, T4, Free T3, Free T4.</p>		<p><b>○ URINARY ADRENAL PROFILE (LCM4000)</b> <b>\$315</b></p> <p>This 24-hour urine test measures a combination of 12 steroid hormones and metabolites synthesized by the adrenal cortex and may prove useful in the evaluation of endocrine disorders, stress, adrenal insufficiency, and more.</p>
<p><b>○ OMEGA SCORE™** (LCOMEGA)</b> <b>\$131.25</b></p> <p>Provides valuable information on your risk of developing heart disease, sudden heart attack, and cardiac death. The Omega Score™ also includes your AA:EPA ratio, allowing you to determine and track a major factor in total body inflammation.</p>		<p><b>○ URINARY ESTROGEN PROFILE (LCM4061)</b> <b>\$281.25</b></p> <p>This 24-hour urinary steroid hormone profile contains a combination of 8 hormones and metabolites. This panel may be used to evaluate bio-identical hormone replacement therapy.</p>
<p><b>○ MALE HORMONE RE-TEST PROFILE (LCRTM)</b> <b>\$275</b></p> <p>CBC/Chemistry Profile, DHEA-S, Dihydrotestosterone (DHT), Estradiol, PSA, Pregnenolone, Total and Free Testosterone, and TSH. Continual monitoring of hormone levels is necessary for men seeking to maintain optimal blood level values.</p>		
<p><b>○ FEMALE HORMONE RE-TEST PROFILE (LCRTF)</b> <b>\$250</b></p> <p>CBC/Chemistry Profile, DHEA-S, Total Estrogen, Pregnenolone, Total and Free Testosterone, Progesterone, and TSH. Continual monitoring of hormone levels is necessary for women seeking to maintain optimal blood level values.</p>		

\* This test requires samples to be shipped to the lab on dry ice for customers using a Blood Draw Kit and will incur an additional \$35 charge. If the customer is having blood drawn at a LabCorp facility, this extra charge does not apply.

\*\* This test is packaged as a kit, requiring a finger stick performed at home.



## MOST POPULAR SINGLE TESTS

### Life Extension Member Pricing

#### HORMONES

- ☐ **CORTISOL (LC004051)** \$39  
This test is to measure adrenal function.
- ☐ **ADRENOCORTICOTROPIC HORMONE (ACTH)\* (LC004440)** \$91.50  
A pituitary function test useful in evaluating adrenocortical dysfunction.
- ☐ **DHEA-SULFATE (LC004697)** \$61  
This test shows if you are taking the proper amount of DHEA. This test normally costs \$100 or more at commercial laboratories.
- ☐ **DIHYDROTESTOSTERONE (DHT)\* (LC500142)** \$99  
Measures serum concentrations of DHT.
- ☐ **ESTRADIOL (LC004515)** \$33  
For men and women. Determines the proper amount in the body.
- ☐ **INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN 3 (IGFBP3) (LC140152)** \$47  
Elevated levels in hypertensive individuals have been associated with a nine-fold increase of carotid arteriosclerosis.
- ☐ **INSULIN FASTING\* (LC004333)** \$42  
Can predict those at risk of diabetes, obesity, and heart and other diseases.
- ☐ **PREGNENOLONE\* (LC140707)** \$116  
Used to determine ovarian failure, hirsutism, adrenal carcinoma, and Cushing's syndrome.
- ☐ **PROGESTERONE (LC004317)** \$55  
Primarily for women. Determines the proper amount in the body.
- ☐ **SEX HORMONE BINDING GLOBULIN (SHBG) (LC082016)** \$33  
This test is used to monitor SHBG levels which are under the positive control of estrogens and thyroid hormones, and suppressed by androgens.
- ☐ **SOMATOMEDIN C (IGF-1) (LC010363)** \$75  
Indicates growth hormone secretion levels. Low levels have been associated with atherosclerosis as well as all-cause mortality.
- ☐ **TOTAL AND FREE TESTOSTERONE (LC140103)** \$99  
Determines whether testosterone replacement should be considered as a therapy for depression, abdominal obesity, low energy, poor mental performance, or loss of libido.
- ☐ **URINARY 2/16 ESTROGEN METABOLITE RATIO (LCU73000)** \$128  
This ratio is relevant as a risk factor for estrogen-sensitive diseases including breast and cervical cancers, osteoporosis, and recurrent respiratory papillomatosis.

#### CARDIAC RISK

- ☐ **Lp-PLA2 (PLAC TEST)\* (LC141275)** \$125  
This test is used to aid in predicting risk for coronary heart disease, and ischemic stroke associated with atherosclerosis. Lp-PLA2 is a cardiovascular risk factor that provides unique information about the stability of the plaque inside your arteries.
- ☐ **C-REACTIVE PROTEIN (HIGH-SENSITIVITY) (LC120766)** \$42  
Measures inflammation factors in arteries. Recent studies indicate that C-reactive protein may be the most accurate risk factor for predicting heart attack and stroke.
- ☐ **APOLIPOPROTEIN ASSESSMENT - (APO A1 + APO B + RATIO) (LC216010)** \$55  
This ratio correlates with risk of coronary artery disease and is useful in the presence of borderline elevations of cholesterol.
- ☐ **FIBRINOGEN\* (LC001610)** \$31  
High levels of this blood-clotting factor increase the risk of heart attack and stroke.
- ☐ **HOMOCYSTEINE (LC706994)** \$64  
Can indicate if you are likely to have a heart attack or stroke. Even if you take folic acid, you still may have dangerously high levels of this artery-clotting metabolic debris that can be lowered with high doses of TMG and vitamin B6.
- ☐ **VAP™ TEST (LC804500) (UPDATED)** \$90  
NEW LOW PRICE  
The VAP cholesterol test provides a more comprehensive coronary heart disease (CHD) risk assessment than the conventional lipid profile. Direct measurements, not estimations, are provided for total cholesterol, LDL, HDL, VLDL, and cholesterol subclasses.

#### MALE HEALTH

- ☐ **PSA (PROSTATE-SPECIFIC ANTIGEN) (LC010322)** \$31  
Can provide an early warning sign for prostate disorders and possible cancer.
- ☐ **FREE-PSA (INCLUDES TOTAL PSA)\* (LC480780)** \$61  
Recommended to determine if an elevated PSA is indicative of prostate cancer.

#### GENERAL HEALTH

- ☐ **CELIAC DISEASE ANTIBODY SCREEN (LC334971)** \$99  
This test measures deamidated gliadin IgA, tissue transglutaminase IgA, and serum IgA.
- ☐ **VITAMIN D (25OH) (LC081950)** \$47  
This test is used to rule out vitamin D deficiency as a cause of bone disease. It can also be used to identify hypercalcemia.
- ☐ **VITAMIN C\* (LC001479)** \$47  
Levels of vitamin C are used to measure nutritional status.
- ☐ **FOOD SAFE ALLERGY TEST (LCM73001)** \$174  
This test measures delayed (IgG) food allergies for 45 common foods.

**For non-member prices  
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This is NOT a complete listing of LE blood test services. Call 1-800-208-3444 for additional information.

## ORDER LIFE SAVING BLOOD TESTS FROM VIRTUALLY ANYWHERE IN THE US!

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This blood test service is for informational purposes only and no specific medical advice will be provided. National Diagnostics, Inc., and the Life Extension Foundation contract with a physician who will order your test(s), but will not diagnose or treat you. Both the physician and the testing laboratory are independent contractors and neither National Diagnostics, Inc., nor the Life Extension Foundation® will be liable for their acts or omissions. Always seek the advice of a trained health professional for medical advice, diagnosis, or treatment. When you purchase a blood test from Life Extension/National Diagnostics, Inc., you are doing so with the understanding that you are privately paying for these tests. There will be absolutely no billing to Medicare, Medicaid, or private insurance. I have read the above Terms and Conditions and understand and agree to them.

Signature of Life Extension Member

X

Life Extension Foundation Members only

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Arginine/L-Ornithine Capsules  
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Meso-Zeaxanthin  
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Life Extension Shampoo and Conditioner  
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Fibrinogen Resist  
Forskolin  
Homocysteine Resist  
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Natural BP Management  
Peak ATP® with GlycoCarn®  
Policosanol  
Red Yeast Rice  
Super Absorbable CoQ10™ with d-Limonene  
Super Omega-3 EPA/DHA with Sesame  
Lignans & Olive Fruit Extract  
Super Ubiquinol CoQ10  
Super Ubiquinol CoQ10 with Enhanced  
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Calcium D-Glucarate  
Cilantro Herbal Extract  
Citrus Bioflavonoid  
CocoaGold™ Cocoa Polyphenols  
Enhanced Berry Complete with RZD™ Acai  
Grapeseed Extract with Resveratrol &  
Pterostilbene  
Huperzine A with Natural Vitamin E  
Kyoic® Garlic Formula 105  
Kyoic® Reserve  
Lycopene  
Mega Green Tea Extract  
Mega Green Tea Extract (Decaffeinated)  
Mega Lycopene  
Mega Silymarin with Isosilybin B  
Nutrim  
Optimized Ashwagandha Extract  
Pomegranate Extract  
(Full-Spectrum) Pomegranate™  
Pomegranate Juice Concentrate  
ProGreens®  
Pure-Gar™  
Pycnogenol

Optimized Quercetin  
Resveratrol with Synergistic Grape-Berry Actives  
Rhodiola Extract  
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Silymarin  
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Stevia Extract  
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Whole Grape Extract

## HORMONES

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DHEA  
DHEA Complete  
GH Pituitary Support Day Formula  
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Melatonin  
Melatonin Timed Release  
Natural Estrogen with Pomegranate Extract  
Pregnenolone  
ProFem Cream  
Pure IGF  
Super Miraforte with Standardized Lignans

## IMMUNE ENHANCEMENT

Agave Digestive-Immune Support  
AHCC® (Active Hexose Correlated Compound)  
Buffered Vitamin C Powder  
Echinacea  
Enhanced Life Extension Whey Protein  
i26 Hyperimmune Egg  
Immune Protect with PARACTIN®  
Lactoferrin  
Maitake SX-Fraction  
Norwegian Shark Liver Oil  
Primal Defense™  
ProBoost™ Thymic Protein A  
Pure Gar™  
Sambu® Guard  
Theralac Capsules  
Thymic Immune Factors  
Ultimate Flora Advanced Immunity  
Vitamin C with Dihydroquercetin  
Zinc Lozenges with Vitamin C

## INFLAMMATORY REACTIONS

Arthro-Immune Joint Support  
ArthroMax™ with Theaflavins  
Barlean's Kids DHA  
Boswellia  
Boswellia™ Topical Cream  
Bromelain (Specially-coated)  
Coromega Kids Brain and Body (DHA)  
DHA 240  
Emulsified Norwegian Cod Liver Oil  
Emulsified Super Twin EPA/DHA  
Fast Acting Joint Formula  
5-LOXIN®  
Mega EPA/DHA  
Mega GLA with Sesame Lignans  
MSM  
Natural Relief 1222™ Cream  
Phosphomega™ Krill Oil  
Perilla Oil  
Serraflazyme  
SODzyme™ with GliSODin® and Wolfberry  
Super Omega-3 EPA/DHA with Sesame  
Lignans & Olive Fruit Extract  
Tart Cherry  
Udo's Choice Oil  
Zyflamend Easy

## LIVER HEALTH

Branch Chain Amino Acids  
HepatoPro  
Mega Silymarin with Isosilybin B  
N-Acetyl Cysteine  
SAME  
Silymarin

## MINERALS

Biosil  
Bone Restore  
Bone Strength Formula w/KoAct™  
Bone-Up™  
Boron Capsules  
Calcium Citrate with D3  
Chromium Ultra  
Copper  
Iodoral  
Iron Protein Plus  
Magnesium  
Magnesium Citrate  
Mineral Formula for Men  
Mineral Formula for Women  
Only Trace Minerals  
OptiZinc  
Sea-Iodine™  
Selenium  
Se-Methylselenocysteine  
Vanadyl Sulfate  
Zinc/Vitamin C Lozenges

## MISCELLANEOUS

Blood Pressure Monitor Arm Cuff Medium  
Cell Sensor Gauss Meter™  
Empty Gelatin Capsules  
The Capsule Filler Machine  
The Pill Cutter and Grinder

## MITOCHONDRIAL SUPPORT

Acetyl-L-Carnitine  
Acetyl-L-Carnitine-Arginate  
Mitochondrial Energy Optimizer  
Optimized Carnitine with GlycoCarn®  
Super Absorbable CoQ10™ with d-Limonene  
Super Alpha Lipoic Acid with Biotin  
Super R-Lipoic Acid  
Super Ubiquinol CoQ10 with Enhanced Mitochondrial™ Support

## MOOD RELIEF

L-Theanine  
5 HTP  
Natural Stress Relief  
Optimized Tryptopure™ Plus  
SAME  
St. John's Wort Extract  
Tryptopure™ L-Tryptophan

## MOUTH CARE

Advanced Oral Hygiene  
Dr. Tung's Tongue Cleaner  
Life Extension Mouthwash w/Pomegranate  
Life Extension Toothpaste  
MistOral III™ with CoQ10

## MULTIVITAMIN

Children's Formula Life Extension Mix  
Comprehensive Nutrient Pack  
Life Extension Booster  
Life Extension Mix™ Capsules  
Life Extension Mix™ Powder  
Life Extension Mix™ Tablets  
Life Extension Mix™ w/o Copper Capsules  
Life Extension Mix™ w/o Copper Tablets  
Life Extension Mix™ w/Extra Niacin  
Life Extension Mix™ w/Extra Niacin w/o Copper  
Life Extension Mix™ w/Stevia Powder  
Life Extension Mix™ w/Stevia w/o Copper Powder  
Life Extension One-Per-Day  
Life Extension Two-Per-Day  
Super Booster Softgels w/Advanced K2 Complex  
Vital Greens Mix

## PET CARE

Life Extension Cat Mix  
Life Extension Dog Mix

## PROSTATE & URINARY HEALTH

BetterWOMAN®  
Optimized Cran-Max® with UTIRose™  
5-LOXIN®  
(Water-Soluble) Pumpkin Seed Extract

Super Saw Palmetto with Beta-Sitosterol  
Super Saw Palmetto/Nettle Root Formula w/Beta-Sitosterol  
Ultra Natural Prostate Formula

## SKIN CARE

Anti-Aging Mask  
Anti-Glycation Serum  
Antioxidant Facial Mist  
Antioxidant Rejuvenating Foot Cream  
Antioxidant Rejuvenating Foot Scrub  
Antioxidant Rejuvenating Hand Cream  
Antioxidant Rejuvenating Hand Scrub  
Anti-Redness & Blemish Lotion  
Cellulite Suppress™ Formula  
Corrective Clearing Mask  
Derma Whey  
Dual-Action MicroDerm Abrasion  
Essential Plant Lipids Reparative Serum  
Face Master® Platinum  
Face Rejuvenating Antioxidant Cream  
Enhanced FernBlock® with Sendara™  
Fine Line-Less  
Hair Suppress Formula  
Healing Formula All-in-One Cream  
Healing Mask  
Hyaluronic Facial Moisturizer  
Hydroderm®  
Lavilin Underarm Deodorant  
Life Extension Sun Protection Spray  
Lifting & Tightening Complex  
Melatonin Cream  
Mild Facial Cleanser  
NaPCA w/Aloe Vera  
Neck Rejuvenating Antioxidant Cream  
New Face Solution  
Peel Off Cleansing Mask  
Pigment Correcting Cream  
(Ultra) Rejuvenex®  
Rejuvenex® Body Lotion  
Rejuvenex® Factor  
Rejuvenating Serum  
Skin Lightening Serum  
Skin Stem Cell Serum  
Total Sun Protection Cream  
Triple Action Under Eye Rejuvenator  
Ultra Rejuvenex®  
Ultra RejuveNight® w/ Progesterone  
Ultra RejuveNight® w/o Progesterone  
Ultra Lip Plumper  
Ultra Wrinkle Relaxer  
Under Eye Refining Serum  
Under Eye Rescue Cream  
Vitamin C Serum  
Vitamin D Lotion  
Vitamin K Healing Cream

## SOY

Natural Estrogen w/Pomegranate  
Soy Power Powder  
Soy Protein Concentrate  
Super Absorbable Soy Isoflavones  
Ultra Soy Extract

## SPECIAL PURPOSE FORMULA

Anti-Alcohol Antioxidants w/HepatoProtection Complex  
Benfotiamine w/Thiamine  
Breast Health Formula  
Butterbur Extract w/Standardized Rosmarinic Acid  
Chlorella  
Chlorophyllin w/Zinc  
Coriolus Versicolor Super Strength  
CR Mimetic Longevity Formula  
Derma-Vits™  
Enhanced Cinsulin® w/Glucose Management Proprietary Blend  
EDTA  
(European Leg Solution) Diosmin95  
Fem Dophilus  
Femmenessence MacaPause®  
GlucFit™  
Ideal Bowel Support 299V  
Lustre™

Maitake SX-Fraction™  
Menopause Solutions  
Migra-eeze™  
Natural Female Support  
Organic Total Body Cleanse  
Pecta-Sol®  
Potassium Iodide  
Prelox® Natural Sex for Men®  
Pyridoxamine  
Rosmarinic Acid Extract

## SPORTS PERFORMANCE

Enhanced Life Extension Protein  
DMG (N, N-dimethylglycine)  
Inosine  
L-Glutamine Capsules  
L-Glutamine Powder  
Micronized Creatine Capsules  
Micronized Creatine Powder  
Octacosanol

## VITAMINS

Ascorbic Acid Powder  
Ascorbyl Palmitate Capsules  
B1  
B2  
B12  
Beta-Carotene  
Biotin Capsules  
Biotin Powder  
Buffered Vitamin C Powder  
Complete B Complex  
Eligen® B12  
Essential Fat-Soluble Nutrient  
Folic Acid + B12  
Gamma E Tocopherol w/Sesame Lignans  
Gamma E Tocopherol/Tocotrienols  
Inositol Capsules  
Inositol Powder  
Liquid Emulsified Vitamin A  
Mega Lycopene Extract  
Methylcobalamin  
MK-7  
No-Flush Niacin  
Optimized Folate  
PABA Capsules  
Super Ascorbate C Capsules  
Super Ascorbate C Powder  
Super K w/Advanced K2 Complex  
Tocotrienols w/Sesame Lignans  
Vitamin B3 (Niacin) Capsules  
Vitamin B6  
Vitamin B12 Tablets  
Vitamin C  
Vitamin D  
Vitamin D3  
Vitamin D3 w/Sea-Iodine™  
Vitamins D and K w/Sea-Iodine™  
Vitamin E  
Vitamin K1

## WEIGHT MANAGEMENT

Alli® Refill Pack  
Belly Slim & Tone  
7-Keto DHEA  
DHEA Complete  
Fucosanthin Slim™  
HCA  
Integra-Lean® Irvingia  
Optimized Irvingia w/Phase 3™ Calorie Control Complex  
Optimized Saffron with Satiereal®  
Life Mix  
Natural Appetite Control  
SlimStyles® PGX Natural Weight Loss  
Stevia Liquid Extract  
Super CLA Blend w/Guarana and Sesame Lignans  
Super CLA Blend w/Sesame Lignans  
Udo's Choice Wholesome Fast Food Blend  
WellBetX PGX® Soluble Fiber Blend



# Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
<b>A</b>					
00449	ACETYL-L-CARNITINE - 500 mg, 100 caps	\$56.00	\$42.00		
	ACETYL-L-CARNITINE - 4 bottles of 100 caps	186.64	139.98		
00788	ACETYL-L-CARNITINE ARGINATE - 100 caps	59.00	44.25		
	ACETYL-L-CARNITINE ARGINATE - 4 bottles of 100 caps	203.96	152.97		
01308	ADVANCED LIPID CONTROL - 60 veg. caps	30.00	22.50		
	ADVANCED LIPID CONTROL - 4 bottles of 60 veg. caps	108.00	81.00		
01300	ADVANCED ORAL HYGIENE - 60 veg. mint lozenges	20.00	15.00		
	ADVANCED ORAL HYGIENE - 4 bottles of 60 veg. mint lozenges	72.00	54.00		
01417	AGAVE DIGESTIVE-IMMUNE SUPPORT - 360 grams of powder	30.00	22.50		
	AGAVE DIGESTIVE-IMMUNE SUPPORT - 4 bottles of powder	108.00	81.00		
00681	AHCC - 500 mg, 30 caps	48.98	36.74		
	AHCC - 4 bottles of 30 caps	174.20	130.65		
46925	ALLI® REFILL PACK - 60 mg, 120 caps	69.95	58.00		
00457	(SUPER) ALPHA-LIPOIC ACID w/BIOTIN - 250 mg, 60 caps	37.00	27.75		
	(SUPER) ALPHA-LIPOIC ACID w/BIOTIN - 4 bottles of 60 caps	128.00	96.00		
01420	ANTI-ALCOHOL ANTIOXIDANTS w/HEPATOPRO - 100 caps	18.00	13.50		
	ANTI-ALCOHOL ANTIOXIDANTS w/HEPATOPRO - 4 bottles of 100 caps	64.00	48.00		
00105	APPLE PECTIN POWDER - 227 grams of powder	14.75	11.06		
	APPLE PECTIN POWDER - 4 bottles of powder	55.00	41.25		
01012	ARGININE CAPS - 800 mg, 200 caps	26.50	19.88		
	ARGININE CAPS - 4 bottles of 200 caps	93.00	69.75		
01039	ARGININE/ORNITHINE CAPS - 500/250 mg, 100 caps	16.00	12.00		
	ARGININE/ORNITHINE CAPS - 4 bottles of 100 caps	58.00	43.50		
00038	ARGININE/ORNITHINE POWDER - 150 grams of powder	22.95	17.21		
	ARGININE/ORNITHINE POWDER - 4 bottles of powder	76.00	57.00		
01025	(L)-ARGININE FREE-FORM POWDER - 100 grams of powder	15.98	11.99		
	(L)-ARGININE FREE-FORM POWDER - 4 bottles of powder	57.24	42.93		
01303	ARTHRONAX™ w/THEAFLAVINS - 120 veg. caps	44.00	33.00		
	ARTHRONAX™ w/THEAFLAVINS - 4 bottles of 120 veg. caps	160.00	120.00		
01404	ARTHRO-IMMUNE JOINT SUPPORT - 60 veg. caps	30.00	22.50		
	ARTHRO-IMMUNE JOINT SUPPORT - 4 bottles of 60 veg. caps	108.00	81.00		
00919	ARTICHOKE LEAF EXTRACT - 500 mg, 180 veg. caps	28.00	21.00		
	ARTICHOKE LEAF EXTRACT - 4 bottles of 180 veg. caps	101.52	76.14		
00086	(SUPER) ASCORBATE C POWDER - 8 oz of powder	26.99	20.24		
	(SUPER) ASCORBATE C POWDER - 4 bottles of powder	99.48	74.61		
00080	ASCORBIC ACID POWDER - 16 oz of powder vitamin C	38.00	28.50		
	ASCORBIC ACID POWDER - 4 bottles of powder vitamin C	139.72	104.79		
00082	ASCORBYL PALMITATE CAPSULES - 500 mg, 100 caps	22.50	16.88		
	ASCORBYL PALMITATE CAPSULES - 4 bottles of 100 caps	80.00	60.00		
00888	(OPTIMIZED) ASHWAGANDHA EXTRACT - 60 veg. caps	10.00	7.50		
	(OPTIMIZED) ASHWAGANDHA EXTRACT - 4 bottles of 60 veg. caps	36.00	27.00		
01066	(LOW DOSE) ASPIRIN ENTERIC COATED - 81 mg, 300 tablets	6.00	4.50		
	(LOW DOSE) ASPIRIN ENTERIC COATED - 4 bottles of 300 tablets	21.32	16.00		
00708	ASTAXANTHIN - 2 mg, 30 softgels	10.25	7.69		

\* These products are not 25% off retail price.

**SUB-TOTAL OF COLUMN 1**

SEPTEMBER 2010

No.		Retail	Member Price	Qty	Total
<b>B</b>					
01040	BELLY SLIM & TONE - 6 fl oz	\$42.00	\$31.50		
	BELLY SLIM & TONE - 4 bottles of 6 fl oz	152.00	114.00		
00920	BENFOTIAMINE w/ THIAMINE - 100 mg, 120 caps	19.95	14.96		
	BENFOTIAMINE w/ THIAMINE - 4 bottles of 120 caps	74.40	55.80		
00925	(MEGA) BENFOTIAMINE - 250 mg, 120 veg. caps	30.00	22.50		
	(MEGA) BENFOTIAMINE - 4 bottles of 120 veg. caps	108.00	81.00		
01206	BERRY COMPLETE - 30 veg. caps	21.00	15.75		
	BERRY COMPLETE - 4 bottles of veg. caps	74.68	56.00		
01406	(ENHANCED) BERRY COMPLETE w/RZD™ ACAI - 60 veg. caps	29.00	21.75		
	(ENHANCED) BERRY COMPLETE w/RZD™ ACAI - 4 bottles of veg. caps	104.00	78.00		
00664	BETA-CAROTENE - 25,000 IU, 100 softgels	10.98	8.24		
	BETA-CAROTENE - 4 bottles of 100 softgels	39.32	29.49		
00653	BETTERWOMAN -40 caps	40.00	30.00		
	BETTERWOMAN - 4 bottles of 40 caps	152.00	114.00		
00497	BILBERRY EXTRACT - 100 mg, 100 caps	28.00	21.00		
	BILBERRY EXTRACT - 4 bottles of 100 caps	100.00	75.00		
*01006	BIOSIL™ - 5 mg, 30 veg. caps	18.95	15.16		
*01007	BIOSIL™ - 30 fl ml	29.99	23.99		
00102	BIOTIN CAPSULES - 600 mcg, 100 caps	7.50	5.63		
	BIOTIN CAPSULES - 4 bottles of 100 caps	26.00	19.50		
00145	BIOTIN POWDER - 30 grams of powder	12.50	9.38		
	BIOTIN POWDER - 4 bottles of powder	44.00	33.00		
01037	BLACKCURRANT FREEZE DRIED EXTRACT - 60 veg. caps	21.95	16.46		
01034	BLACKCURRANT JUICE CONCENTRATE - 12 fl. oz	17.95	13.46		
01008	BLAST™ - 600 grams of powder	26.95	20.21		
70000	BLOOD PRESSURE MONITOR-ARM CUFF (medium)	99.95	64.97		
70001	BLOOD PRESSURE MONITOR-WRIST (travel size)	69.95	45.47		
01214	BLUEBERRY EXTRACT - 60 veg. caps	22.50	16.88		
	BLUEBERRY EXTRACT - 4 bottles of 60 veg. caps	80.00	60.00		
01338	BLUEBERRY EXTRACT w/ POMEGRANATE & COCOAGOLD™ - 60 veg. caps	30.00	22.50		
	BLUEBERRY EXTRACT w/ POMEGRANATE & COCOAGOLD™ - 4 bottles of 60 veg. caps	108.00	81.00		
00811	BONE RESTORE - 150 caps	22.50	16.88		
	BONE RESTORE - 4 bottles of 150 caps	78.00	58.50		
01211	BONE STRENGTH FORMULA w/KOACT™ - 120 caps	42.00	31.50		
	BONE STRENGTH FORMULA w/KOACT™ - 4 bottles of 120 caps	152.00	114.00		
00313	BONE-UP® - 240 caps (hydroxyapatite complex)	24.95	18.71		
	BONE-UP® - 4 bottles of 240 caps	90.00	67.50		
01079	BOOSTER - 60 softgels	48.00	36.00		
	BOOSTER - 4 bottles of 60 softgels	176.00	132.00		
01380	(SUPER) BOOSTER w/ADVANCED K2 COMPLEX - 60 softgels	42.00	31.50		
	(SUPER) BOOSTER w/ADVANCED K2 COMPLEX - 4 bottles of 60 softgels	152.00	114.00		
00621	BORON CAPS - 3 mg, 100 caps	5.95	4.46		
	BORON CAPS - 4 bottles of 100 caps	21.00	15.75		
00202	BOSWELLA - 100 caps	38.00	28.50		
	BOSWELLA - 4 bottles of 100 caps	120.00	90.00		
00258	BOSWELLA TOPICAL CREAM - 4 oz jar	15.00	11.25		
	BOSWELLA TOPICAL CREAM - 4 jars	52.00	39.00		
00253	BRANCHED CHAIN AMINO ACIDS - 90 caps	19.50	14.63		
	BRANCHED CHAIN AMINO ACIDS - 4 bottles of 90 caps	68.00	51.00		
00999	BREAST HEALTH FORMULA - 60 veg. caps	34.00	25.50		
	BREAST HEALTH FORMULA - 4 bottles of 60 veg. caps	120.00	90.00		
00893	BRITE EYES III - 2 vials, 5 ml each	34.00	25.50		
	BRITE EYES III - 4 boxes	128.00	96.00		

**SUB-TOTAL OF COLUMN 2**

**LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS**

No.		Retail	Member Price	Qty	Total
00136	BROMELAIN POWDER - 100 grams of powder	\$21.00	\$15.75		
	BROMELAIN POWDER - 4 bottles of powder	75.00	56.25		
01203	(SPECIALLY COATED) BROMELAIN - 500 mg, 60 enteric coated tablets	21.00	15.75		
	(SPECIALLY COATED) BROMELAIN - 4 bottles of 60 tablets	76.00	57.00		
00884	BUTTERBUR EXT. W/ STANDARDIZED ROSMARINIC ACID - 60 softgels	44.00	33.00		
	BUTTERBUR EXT. W/ STANDARDIZED ROSMARINIC ACID - 4 bottles of 60 softgels	158.40	118.80		
<b>C</b>					
01015	CALCIUM CITRATE - 300 caps	\$24.00	\$18.00		
	CALCIUM CITRATE - 4 bottles of 300 caps	85.00	63.75		
00535	CALCIUM D-GLUCARATE - 200 mg, 60 caps	18.00	13.50		
	CALCIUM D-GLUCARATE - 4 bottles of 60 caps	60.00	45.00		
00118	CAPSULE FILLER MACHINE FOR "00" CAPSULES	12.00	9.00		
	CAPSULE FILLER MACHINE FOR "00" CAPSULES - 4 machines	45.00	33.75		
00613	CAPSULE FILLER MACHINE FOR "0" CAPSULES	12.00	9.00		
	CAPSULE FILLER MACHINE FOR "0" CAPSULES - 4 machines	45.00	33.75		
00916	(OPTIMIZED) CARNITINE w/GLYCOCARN® - 60 veg. caps	29.00	21.75		
	(OPTIMIZED) CARNITINE w/GLYCOCARN® - 4 bottles of 60 veg. caps	104.40	78.30		
01041	L-CARNITINE CAPSULES - 500 mg, 30 caps	15.00	11.25		
	L-CARNITINE CAPSULES - 4 bottles of 30 caps	52.80	39.60		
01258	CARNOSOOTHE w/PICROPROTECT™ - 60 veg. caps	29.95	22.46		
	CARNOSOOTHE w/PICROPROTECT™ - 4 bottles of 60 veg. caps	108.00	81.00		
01287	(SUPER) CARNOSINE CAPS - 500 mg, 90 caps	66.00	49.50		
	(SUPER) CARNOSINE CAPS - 4 bottles of 90 caps	240.00	180.00		
01011	CELLULITE SUPPRESS™ FORMULA - 6 fl. oz	58.00	43.50		
	CELLULITE SUPPRESS™ FORMULA - 4-6oz bottles	208.00	156.00		
00390	CDP CHOLINE CAPS - 250 mg, 60 caps	36.00	27.00		
	CDP CHOLINE CAPS - 4 bottles of 60 caps	136.00	102.00		
00998	CELL SENSOR-EMF DETECTION/MEASUREMENT METER	39.95	29.95		
01370	CHILDREN'S FORMULA MIX - 100 chewable tablets	18.00	13.50		
	CHILDREN'S FORMULA MIX - 4 bottles of 100 chewable tablets	64.00	48.00		
00550	CHLORELLA - 500 mg, 200 tablets	23.50	17.63		
	CHLORELLA - 4 bottles of 200 tablets	84.00	63.00		
01048	CHLOROPHYLLIN w/ZINC - 100 mg, 100 caps	24.00	18.00		
	CHLOROPHYLLIN w/ZINC - 4 bottles of 100 caps	80.00	60.00		
01359	CHO-LESS - 90 capsules	32.50	24.38		
00541	CHOLINE CHLORIDE - 16 oz liquid	14.95	11.21		
	CHOLINE CHLORIDE - 4 bottles of 16 oz liquid	56.00	42.00		
00364	CHONDROITIN SULFATE CONCENTRATE - 400 mg, 60 tablets	19.95	14.96		
	CHONDROITIN SULFATE CONCENTRATE - 4 bottles of 60 tablets	72.00	54.00		
00169	CHROMIUM - 200 mcg polynicotinate, 365 caps	28.00	21.00		
	CHROMIUM - 4 bottles of 365 caps	104.00	78.00		
01071	CHROMIUM ULTRA - 100 veg. caps	24.00	18.00		
	CHROMIUM ULTRA - 4 bottles of 100 veg. caps	84.00	63.00		
00551	CILANTRO HERBAL EXTRACT - 1 oz	12.00	9.00		
	CILANTRO HERBAL EXTRACT - 4 bottles of 1oz	44.00	33.00		
01267	(ENHANCED) CINSULIN®	32.00	24.00		
	W/GLUCOSE MGMT PROP BLEND - 90 veg. caps				
	(ENHANCED) CINSULIN®	120.00	90.00		
	W/GLUCOSE MGMT PROP BLEND - 4 bottles of 90 veg. caps				
00069	CITRUS BIOFLAVONOID - 100 caps	15.99	11.99		
	CITRUS BIOFLAVONOID - 4 bottles of 100 caps	59.28	44.46		
00818	(SUPER) CLA BLEND w/SESAME LIGNANS - 1000 mg, 120 softgels	36.00	27.00		
	(SUPER) CLA BLEND w/SESAME LIGNANS - 4 bottles of 120 softgels	132.00	99.00		
	(SUPER) CLA BLEND w/SESAME LIGNANS - 10 bottles, 120 softgels	263.30	197.48		

SUB-TOTAL OF COLUMN 3

LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS

No.		Retail	Member Price	Qty	Total
00819	(SUPER) CLA BLEND w/GUARANA & SESAME -120 softgels	\$42.00	\$31.50		
	(SUPER) CLA BLEND w/GUARANA & SESAME - 4 blts of 120 softgels	153.32	114.99		
00863	COCOAGOLD™ COCOA POLYPHENOLS - 130 mg, 60 veg. caps	12.50	9.38		
	COCOAGOLD™ COCOA POLYPHENOLS - 4 bottles of 60 veg. caps	44.00	33.00		
00050	COD LIVER OIL - 12 fl oz (355 ml) (Emulsified)	14.58	10.94		
	COD LIVER OIL - 4 bottles of 12 fl oz (355 ml)	49.08	36.81		
00293	COD LIVER OIL - 100 softgels (Emulsified)	9.95	7.46		
	COD LIVER OIL - 4 bottles of 100 softgels	37.52	28.14		
00922	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 90 softgels	74.00	55.50		
	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 4 blts of 90 softgels	266.40	199.80		
	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 12 blts of 90 softgels	768.00	576.00		
00921	COGNITEX w/o PREGNENOLONE w/NEUROPROTECTION COMPLEX - 90 softgels	72.00	54.00		
	COGNITEX w/o PREGNENOLONE w/NEUROPROTECTION COMPLEX - 4 bottles of 90 softgels	256.00	192.00		
	COGNITEX w/o PREGNENOLONE w/NEUROPROTECTION COMPLEX - 12 bottles of 90 softgels	744.00	558.00		
00110	COMPLETE B-COMPLEX - 180 caps	21.50	16.13		
	COMPLETE B-COMPLEX - 4 bottles of 180 caps	72.00	54.00		
01374	COMPREHENSIVE NUTRIENT PACK - 30-day supply	189.00	141.75		
	COMPREHENSIVE NUTRIENT PACK - 120-day supply	684.00	513.00		
00119	COPPER CAPSULES - 2 mg, 100 caps	8.95	6.71		
	COPPER CAPSULES - 4 bottles of 100 caps	32.36	24.27		
00208	(ENHANCED) COQ10 (with Brewer's Yeast) - 30 mg, 100 caps	32.00	24.00		
	(ENHANCED) COQ10 (with Brewer's Yeast) - 4 bottles of 100 caps	108.00	81.00		
	(ENHANCED) COQ10 (with Brewer's Yeast) - 10 bottles of 100 caps	245.00	183.75		
00949	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 50 mg, 60 softgels	25.00	18.75		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 4 bottles of 60 softgels	88.00	66.00		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 10 bottles of 60 softgels	200.00	150.00		
00950	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 100 mg, 100 softgels	66.00	49.50		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 4 bottles of 100 softgels	240.00	180.00		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 10 bottles of 100 softgels	560.00	420.00		
01226	(SUPER UBIQUINOL) COQ10 - 100 mg, 60 softgels	56.00	42.00		
	(SUPER UBIQUINOL) COQ10 - 4 bot of 60 softgels	208.00	156.00		
	(SUPER UBIQUINOL) COQ10 - 10 bot of 60 softgels	480.00	360.00		
01426	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -100 mg, 60 softgels	62.00	46.50		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -4 bot of 60 softgels	224.00	168.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -10 bot of 60 softgels	520.00	390.00		
01425	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -50 mg, 100 softgels	58.00	43.50		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -4 bot of 100 softgels	212.00	159.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -10 bot of 100 softgels	500.00	375.00		
01427	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -50 mg, 30 softgels	20.00	15.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -4 bot of 30 softgels	72.00	54.00		
01431	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -200 mg, 30 softgels	62.00	46.50		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -4 bot of 30 softgels	224.00	168.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ -10 bot of 30 softgels	520.00	390.00		
01053	CORIOLUS VERSICOLOR SUPER STRENGTH - 600 mg, 150 veg. caps	99.95	74.96		
00857	COROMEGA CHILD BRAIN & BODY - (Lemon Lime) 30 packets	25.00	18.75		
	COROMEGA CHILD BRAIN & BODY - (Lemon Lime) 4 boxes of 30 packets	90.00	67.00		
80118	COSMESIS ANTI-AGING MASK - 2 oz bottle	66.60	49.95		
	COSMESIS ANTI-AGING MASK - 2-2 oz bottles	117.22	87.92		
80134	COSMESIS ANTI-GLYCATION SERUM - 1 oz bottle w/BLUEBERRY & POMEGRANATE EXTRACTS	24.00	18.00		
	COSMESIS ANTI-GLYCATION SERUM - 2-1 oz bottles w/BLUEBERRY & POMEGRANATE EXTRACTS	45.60	34.20		

SUB-TOTAL OF COLUMN 4

SEPTEMBER 2010



# Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
<b>C CONTINUED</b>					
80133	COSMESIS ANTIOXIDANT FACIAL MIST - 2 oz bottle	\$29.95	\$22.46		
	COSMESIS ANTIOXIDANT FACIAL MIST - 2-2 oz bottles	56.90	42.68		
80132	COSMESIS ANTIOXIDANT FACIAL MIST - 4 oz bottle	39.95	29.96		
	COSMESIS ANTIOXIDANT FACIAL MIST - 2-4 oz bottles	76.00	57.00		
80127	COSMESIS ANTIOXIDANT REJUVENATING FOOT CREAM - 2 oz jar	39.95	29.96		
	COSMESIS ANTIOXIDANT REJUVENATING FOOT CREAM - 2-2 oz jar	76.00	57.00		
80128	COSMESIS ANTIOXIDANT REJUVENATING FOOT SCRUB - 2 oz jar	52.95	39.71		
	COSMESIS ANTIOXIDANT REJUVENATING FOOT SCRUB - 2-2 oz jar	93.20	69.90		
80117	COSMESIS ANTIOXIDANT REJUVENATING HAND CREAM - 2 oz jar	59.00	44.25		
	COSMESIS ANTIOXIDANT REJUVENATING HAND CREAM - 2-2 oz jars	106.00	79.50		
80121	COSMESIS ANTIOXIDANT REJUVENATING HAND SCRUB - 2 oz jar	52.95	39.71		
	COSMESIS ANTIOXIDANT REJUVENATING HAND SCRUB - 2-2 oz jars	93.20	69.90		
80105	COSMESIS ANTI-REDNESS & BLEMISH LOTION - 1 oz	69.95	52.46		
	COSMESIS ANTI-REDNESS & BLEMISH LOTION - 2-1 oz bottles	123.12	92.34		
80120	COSMESIS CORRECTIVE CLEARING MASK - 2 oz jar	59.95	44.96		
	COSMESIS CORRECTIVE CLEARING MASK - 2-2 oz jars	105.52	79.14		
80108	COSMESIS ESSENTIAL PLANT LIPIDS REPARATIVE SERUM - 1 oz	71.60	53.70		
	COSMESIS ESSENTIAL PLANT LIPIDS REPARATIVE SERUM - 2-1 oz bottles	126.00	94.50		
80123	COSMESIS FACE REJUVENATING ANTIOXIDANT CREAM - 2 oz jar	65.00	48.75		
	COSMESIS FACE REJUVENATING ANTIOXIDANT CREAM - 2-2 oz jars	114.40	85.80		
80107	COSMESIS FINE LINE-LESS - 1 oz	69.95	52.46		
	COSMESIS FINE LINE-LESS - 2-1 oz bottles	123.12	92.34		
80131	COSMESIS HAIR SUPPRESS FORMULA - 4 oz bottle	53.75	40.31		
	COSMESIS HAIR SUPPRESS FORMULA - 2-4 oz bottles	94.60	70.95		
80137	COSMESIS HEALING FORMULA ALL-IN-ONE CREAM - 1 oz jar	49.00	36.75		
	COSMESIS HEALING FORMULA ALL-IN-ONE CREAM - 2-1 oz jars	84.00	63.00		
80115	COSMESIS HEALING MASK - 2 oz bottle	59.95	44.96		
	COSMESIS HEALING MASK - 2-2 oz bottles	105.52	79.14		
80109	COSMESIS HYALURONIC FACIAL MOISTURIZER - 1 oz	52.95	39.71		
	COSMESIS HYALURONIC FACIAL MOISTURIZER - 2 bottles of 1 oz	93.20	69.90		
80110	COSMESIS HYALURONIC OIL-FREE FACIAL MOISTURIZER - 1 oz	52.95	39.71		
	COSMESIS HYALURONIC OIL-FREE FACIAL MOISTURIZER - 2 btl of 1 oz	93.20	69.90		
80103	COSMESIS LIFTING & TIGHTENING COMPLEX - 1 oz	69.95	52.46		
	COSMESIS LIFTING & TIGHTENING COMPLEX - 2 bottles of 1 oz	123.12	92.34		
80135	COSMESIS MELATONIN CREAM - 1 oz jar	28.00	21.00		
	COSMESIS MELATONIN CREAM - 2 - 1 oz jars	46.00	34.50		
80114	COSMESIS MILD FACIAL CLEANSER - 8 oz	52.95	39.71		
	COSMESIS MILD FACIAL CLEANSER - 2 bottles of 8 oz	93.20	69.90		
80122	COSMESIS NECK REJUVENATING ANTIOXIDANT CREAM - 2 oz jar	59.00	44.25		
	COSMESIS NECK REJUVENATING ANTIOXIDANT CREAM - 2-2 oz jars	106.00	79.50		
80119	COSMESIS PEEL OFF CLEANSING MASK - 2 oz bottle	59.95	44.96		
	COSMESIS PEEL OFF CLEANSING MASK - 2-2 oz bottles	105.52	79.14		
80111	COSMESIS PIGMENT CORRECTING CREAM - 1/2 oz	69.95	52.46		
	COSMESIS PIGMENT CORRECTING CREAM - 2 bottles of 1/2 oz	123.12	92.34		
80106	COSMESIS REJUVENATING SERUM - 1 oz	69.95	52.46		
	COSMESIS REJUVENATING SERUM - 2 bottles of 1 oz	123.12	92.34		
80112	COSMESIS SKIN LIGHTENING SERUM - 1/2 oz	79.95	59.96		
	COSMESIS SKIN LIGHTENING SERUM - 2 bottles of 1/2 oz	140.72	105.54		
80130	COSMESIS SKIN STEM CELL SERUM - 1 oz	69.00	51.75		
	COSMESIS SKIN STEM CELL SERUM - 2 bottles of 1 oz	128.00	96.00		
80116	COSMESIS ULTRA LIP PLUMPER - 1/3 oz	59.95	44.96		
	COSMESIS ULTRA LIP PLUMPER - 2 bottles of 1/3 oz	105.52	79.14		

**SUB-TOTAL OF COLUMN 5**

SEPTEMBER 2010

No.		Retail	Member Price	Qty	Total
80101	COSMESIS ULTRA WRINKLE RELAXER - 1 oz	\$89.95	\$67.46		
	COSMESIS ULTRA WRINKLE RELAXER - 2 bottles of 1 oz	159.52	119.64		
80113	COSMESIS UNDER EYE REFINING SERUM - 1/2 oz	69.95	52.46		
	COSMESIS UNDER EYE REFINING SERUM - 2 bottles of 1/2 oz	123.12	92.34		
80104	COSMESIS UNDER EYE RESCUE CREAM - 1/2 oz	69.95	52.46		
	COSMESIS UNDER EYE RESCUE CREAM - 2 bottles of 1/2 oz	123.12	92.34		
80129	COSMESIS VITAMIN C SERUM - 1 oz	79.95	59.96		
	COSMESIS VITAMIN C SERUM - 2 bottles of 1 oz	140.72	105.54		
80136	COSMESIS VITAMIN D LOTION - 4 oz	29.95	22.46		
	COSMESIS VITAMIN D LOTION - 2 bottles of 4 oz	56.00	42.00		
80102	COSMESIS VITAMIN K HEALING CREAM - 1 oz	74.95	56.21		
	COSMESIS VITAMIN K HEALING CREAM - 2 bottles of 1 oz	131.92	98.94		
00862	CRAN-MAX® - 500 mg, 60 veg. caps	17.50	13.13		
	CRAN-MAX® - 4 bottles of 60 veg. caps	60.00	45.00		
01424	(OPTIMIZED) CRAN-MAX® with UTIROSE™ - 60 veg. caps	18.00	13.50		
	(OPTIMIZED) CRAN-MAX® with UTIROSE™ - 4 bottles of 60 veg. caps	64.00	48.00		
00609	CREATINE CAPS MICRONIZED - 120 caps	10.95	8.21		
	CREATINE CAPS MICRONIZED - 4 bottles of 120 caps	37.00	27.75		
00610	CREATINE POWDER MICRONIZED - 500 grams of powder	29.00	21.75		
	CREATINE POWDER MICRONIZED - 4 bottles of powder	106.52	79.89		
01096	CREATINE-WHEY-GLUTAMINE POWDER - 1 kg vanilla	45.00	33.75		
	CREATINE-WHEY-GLUTAMINE POWDER - 4 bottles of powder	168.00	126.00		
01429	CR MIMETIC LONGEVITY FORMULA - 60 veg. caps	39.00	29.25		
	CR MIMETIC LONGEVITY FORMULA - 4 bottles of 60 veg. caps	144.00	108.00		
00912	(SUPER) CURCUMIN W/BIOPERINE® - 800 mg, 60 caps	20.75	15.56		
	(SUPER) CURCUMIN W/BIOPERINE® - 4 bottles of 60 caps	74.72	56.04		
00407	(SUPER BIO) CURCUMIN® - 400 mg, 60 veg. caps	30.00	22.50		
	(SUPER BIO) CURCUMIN® - 4 bottles of 60 veg. caps	106.00	79.50		
00064	(L) CYSTEINE CAPSULES - 500 mg, 60 caps	18.95	14.21		
	(L) CYSTEINE CAPSULES - 4 bottles of 60 caps	65.24	48.93		
<b>D</b>					
01063	DERMA-VITS™ - 90 caps	\$14.99	\$11.24		
01313	DERMA WHEY - 400 mg, 60 caps	65.00	48.75		
	DERMA WHEY - 4 bottles of 60 caps	236.00	177.00		
00856	(BARLEAN'S KID'S) DHA (Fruit Punch Flavor)- 8 fl. oz	22.00	16.50		
	(BARLEAN'S KID'S) DHA (Fruit Punch Flavor)- 4 bottles of 8 fl. oz	80.00	60.00		
00995	DHA 240 - 240 mg, 60 softgels	19.00	14.25		
	DHA 240 - 4 bottles of 60 softgels	68.00	51.00		
00658	7-KETO® DHEA METABOLITE - 25 mg, 100 caps	28.00	21.00		
	7-KETO® DHEA METABOLITE - 4 bottles of 100 caps	96.00	72.00		
01271	7-KETO® DHEA METABOLITE - 100 mg, 60 veg. caps	40.00	30.00		
	7-KETO® DHEA METABOLITE - 4 bottles of 60 veg. caps	144.00	108.00		
00607	DHEA - 25 mg dissolve in mouth 100 tablets pharmaceutical-grade	14.00	10.50		
	DHEA - 4 bottles of 100 tablets pharmaceutical-grade	47.00	35.25		
01250	DHEA COMPLETE - 60 veg. caps	48.00	36.00		
	DHEA COMPLETE - 4 bottles of 60 veg. caps	172.80	129.60		
00335	DHEA - 25 mg, 100 caps	15.00	11.25		
	DHEA - 4 bottles of 100 caps	50.00	37.50		
00454	DHEA - 15 mg, 100 caps	12.00	9.00		
	DHEA - 4 bottles of 100 caps	40.00	30.00		
00882	DHEA - 50 mg, 60 caps	16.00	12.00		
	DHEA - 4 bottles of 60 caps	56.00	42.00		

**SUB-TOTAL OF COLUMN 6**

LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS

No.		Retail	Member Price	Qty	Total
00883	DHEA - 100 mg, 60 caps	\$22.50	\$16.88		
	DHEA - 4 bottles of 60 caps	76.00	57.00		
01358	DIGEST RC - 30 tablets	19.95	14.96		
	DIGEST RC - 4 boxes of 30 tablets	68.00	51.00		
01272	(ENHANCED SUPER) DIGESTIVE ENZYMES - 100 veg. caps	18.95	14.21		
	(ENHANCED SUPER) DIGESTIVE ENZYMES - 4 bottles of 100 veg. caps	64.00	48.00		
01273	(ENHANCED SUPER) DIGESTIVE ENZYMES w/PROBIOTICS - 100 veg. caps	24.00	18.00		
	(ENHANCED SUPER) DIGESTIVE ENZYMES w/PROBIOTICS - 4 bottles of 100 veg. caps	88.00	66.00		
*01042	(EUROPEAN LEG SOLUTION) DIOSMIN95 - 600 mg, 30 veg. tabs	20.00	15.00		
	(EUROPEAN LEG SOLUTION) DIOSMIN95 - 4 bottles of 30 veg. tabs	72.00	54.00		
00034	D,L-PHENYLALANINE CAPSULES - 500 mg, 100 caps	18.75	14.06		
	D,L-PHENYLALANINE CAPSULES - 4 bottles of 100 caps	64.00	48.00		
00257	DMAE BITARTRATE - 150 mg, 200 caps	14.00	10.50		
	DMAE BITARTRATE - 4 bottles of 200 caps	42.00	31.50		
00197	DMAE-GINKGO CAPSULES - 100 caps	36.00	27.00		
	DMAE-GINKGO CAPSULES - 4 bottles of 100 caps	120.00	90.00		
	DMAE-GINKGO CAPSULES - 8 bottles of 100 caps	220.00	165.00		
00059	DMG - 125 mg dimethylglycine, 60 tablets	18.50	13.88		
	DMG - 4 boxes of 60 tablets	68.00	51.00		
01052	DNA PROTECTION FORMULA - 60 veg. caps	28.00	21.00		
	DNA PROTECTION FORMULA - 4 bottles of 60 veg. caps	100.80	75.60		
00321	DR. PROCTOR'S ADVANCED HAIR FORMULA - 2 oz	39.95	29.96		
	DR. PROCTOR'S ADVANCED HAIR FORMULA - 4 bottles	128.00	96.00		
00320	DR. PROCTOR'S HAIR FORMULA SHAMPOO - 8 oz bottle	24.95	18.71		
	DR. PROCTOR'S HAIR FORMULA SHAMPOO - 4 bottles	88.00	66.00		
00376	DR. TUNG'S TONGUE CLEANER	8.45	6.34		
	DR. TUNG'S TONGUE CLEANERS - 4 quantity	32.20	24.15		
00899	DUAL-ACTION MICRODERMABRASION ADV. EXFOLIATE - 2.4 net oz jar	39.95	29.96		
	DUAL-ACTION MICRODERMABRASION ADV. EXFOLIATE - 4 jars of 2.4 net oz	155.80	116.85		
00240	DUAL-C - 90 caps	12.00	9.00		
	DUAL-C - 4 bottles of 90 caps	42.00	31.50		
<b>E</b>					
00388	ECHINACEA - 250 mg, 60 caps	\$14.35	\$10.76		
	ECHINACEA - 4 bottles of 60 caps	50.00	37.50		
01024	EDTA - 500 mg, 100 caps	17.50	13.13		
01403	ELIGEN® B12 - 100 mcg 30 veg tablets	28.00	21.00		
	ELIGEN® B12 - 4 bottles of 30 veg tablets	100.00	75.00		
00048	(EMULSIFIED SUPER TWIN) EPA/DHA - 12 fl. oz.	22.45	16.84		
01497	ENDOTHELIAL DEFENSE™ w/FULL-SPECTRUM POMEGRANATE™ - 60 softgels	58.00	43.50		
	ENDOTHELIAL DEFENSE™ w/FULL-SPECTRUM POMEGRANATE™ - 4 bottles of 60 softgels	216.00	158.00		
00625	(MEGA) EPA/DHA - 120 softgels	19.95	14.96		
	(MEGA) EPA/DHA - 4 bottles of 120 softgels	72.00	54.00		
01428	ESSENTIAL FAT-SOLUBLE NUTRIENTS - 30 softgels	28.00	21.00		
	ESSENTIAL FAT-SOLUBLE NUTRIENTS - 4 bottles of 30 softgels	100.00	75.00		
<b>F</b>					
†01054	FACE MASTER® PLATINUM	\$199.00	\$199.00		
00965	FAST-ACTING JOINT FORMULA - 30 caps	39.00	29.25		
	FAST-ACTING JOINT FORMULA - 4 bottles of 30 caps	144.00	108.00		
20053	FEM DOPHILUS® - 30 caps	24.95	18.71		
20055	FEM DOPHILUS® - 60 caps	35.95	26.96		
01064	FEMMESENCE MACAPAUSe® - 120 veg. caps	34.99	26.24		
*01311	(ENHANCED) FERNBLOCK® w/SENDARA™ - 30 veg. caps	39.00	29.25		
	(ENHANCED) FERNBLOCK® w/SENDARA™ - 4 bottles of 30 veg. caps	140.00	105.00		
00229	FIBER FOOD CAPS - 200 caps	15.00	11.25		
	FIBER FOOD CAPS - 4 bottles of 200 caps	50.00	37.50		
	FIBER FOOD CAPS - 10 bottles of 200 caps	119.00	89.25		

SUB-TOTAL OF COLUMN 7

LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS

No.		Retail	Member Price	Qty	Total
00228	FIBER FOOD - 300 grams of powder	\$15.00	\$11.25		
	FIBER FOOD - 4 bottles of powder	50.00	37.50		
	FIBER FOOD - 10 bottles of powder	119.00	89.25		
00718	FIBRINOGEN RESIST FORMULA (NATTOKINASE) - 30 veg. caps	49.00	36.75		
	FIBRINOGEN RESIST FORMULA (NATTOKINASE) - 4 bottles of 30 caps	176.00	132.00		
00873	FLAXSEED POWDER (HI-LIGNAN NUTRI-FLAX) - 16 oz powder	9.95	7.46		
01200	FLORASTOR® - 250 mg, 50 caps	55.15	41.36		
01312	(OPTIMIZED) FOLATE (5-METHYLTETRAHYDROFOLATE) - 100 veg. caps	28.00	21.00		
	(OPTIMIZED) FOLATE (5-METHYLTETRAHYDROFOLATE) - 4 bottles of 100 veg. caps	100.00	75.00		
00347	FOLIC ACID + B12 CAPSULES - 200 caps	10.50	7.88		
	FOLIC ACID + B12 CAPSULES - 4 bottles of 200 caps	38.00	28.50		
00300	FORSKOLIN - 10 mg, 60 caps of elemental forskolin	15.00	11.25		
	FORSKOLIN - 4 bottles of 60 caps of elemental forskolin	50.00	37.50		
00993	FUCOXANTHIN-SLIM™ - 90 softgels	44.00	33.00		
	FUCOXANTHIN-SLIM™ - 4 bottles of 90 softgels	156.00	117.00		
<b>G</b>					
00127	GABA POWDER - 100 grams of powder	\$23.75	\$17.81		
	GABA POWDER - 4 bottles of powder	90.00	67.50		
00559	GAMMA E TOCOPHEROL/TOCOTRIENOLS - 60 softgels	42.00	31.50		
	GAMMA E TOCOPHEROL/TOCOTRIENOLS - 4 bottles of 60 softgels	148.00	111.00		
00759	GAMMA E TOCOPHEROL W/SESAME LIGNANS - 60 softgels	32.00	24.00		
	GAMMA E TOCOPHEROL W/SESAME LIGNANS - 4 bottles of 60 softgels	116.00	87.00		
00117	GELATIN CAPSULES - Set of 1000 empty caps size "00"	19.00	14.25		
	GELATIN CAPSULES - 4 Sets	72.00	54.00		
01301	GH PITUITARY SUPPORT DAY FORMULA - 120 vegetarian tabs	48.00	36.00		
	GH PITUITARY SUPPORT DAY FORMULA - 4 bottles of 120 veg. tabs	176.00	132.00		
01302	GH PITUITARY SUPPORT NIGHT FORMULA - 120 veg. caps	25.00	18.75		
	GH PITUITARY SUPPORT NIGHT FORMULA - 4 bottles of 120 veg. caps	90.00	67.50		
00778	GINKGO BILOBA CERTIFIED EXTRACT™ - 120 mg, 365 caps	46.00	34.50		
	GINKGO BILOBA CERTIFIED EXTRACT™ - 2 bottles of 365 caps	87.00	65.25		
00504	(SUPER) GINKGO EXTRACT - 120 mg, 100 caps	29.00	21.75		
	(SUPER) GINKGO EXTRACT - 4 bottles of 100 caps	106.00	79.50		
01032	(PANAX RED) GINSENG - 60 veg. caps	29.99	22.49		
00756	(MEGA) GLA WITH SESAME LIGNANS - 60 softgels	19.50	14.63		
	(MEGA) GLA WITH SESAME LIGNANS - 4 bottles of 60 softgels	72.00	54.00		
00345	(L) GLUTAMINE CAPSULES - 500 mg, 100 caps	14.95	11.21		
	(L) GLUTAMINE CAPSULES - 4 bottles of 100 caps	54.00	40.50		
00141	(L)-GLUTAMINE POWDER - 100 grams of powder	19.00	14.25		
	(L)-GLUTAMINE POWDER - 4 bottles of powder	67.52	50.64		
00522	GLUCOSAMINE/CHONDROITIN CAPSULES - 100 caps	38.00	28.50		
	GLUCOSAMINE/CHONDROITIN CAPSULES - 4 bottles of 100 caps	128.00	96.00		
00512	GLUCOFIT™ (COROSOLIC ACID) - 100 softgels	28.00	21.00		
	GLUCOFIT™ (COROSOLIC ACID) - 4 bottles of 100 softgels	100.00	75.00		
00113	GLUTATHIONE, C & CYSTEINE - 750 mg, 100 caps	18.00	13.50		
	GLUTATHIONE, C & CYSTEINE - 4 bottles of 100 caps	64.00	48.00		
00314	(MEGA) L-GLUTATHIONE - 250 mg, 60 caps	35.95	26.96		
	(MEGA) L-GLUTATHIONE - 4 bottles of 60 caps	129.44	97.08		
00795	GLYCINE CAPSULES - 1000 mg, 100 caps	12.00	9.00		
	GLYCINE CAPSULES - 4 bottles of 100 caps	43.20	32.40		

\* Due to license restrictions, this product is not for sale to wholesalers outside of the United States of America and Canada.

\*\* Can only be sold in the United States and cannot be sold into the health food retail store channel.

† Member pricing not valid on this item.

SUB-TOTAL OF COLUMN 8



# Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
<b>G CONTINUED</b>					
00128	GLYCINE POWDER - 300 grams of powder	\$18.00	\$13.50		
	GLYCINE POWDER - 4 bottles of powder	64.00	48.00		
01091	(WHOLE) GRAPE EXTRACT w/RESVERATROL - 60 veg. caps	36.00	27.00		
	(WHOLE) GRAPE EXTRACT w/RESVERATROL - 4 bottles of 60 veg. caps	136.00	102.00		
01411	GRAPE SEED EXTRACT w/RESVERATROL & PTEROSTILBENE-100 mg, 60 veg. caps	36.00	27.00		
	GRAPE SEED EXTRACT w/RESVERATROL & PTEROSTILBENE-4 bottles of 60 veg. caps	136.00	102.00		
00953	(MEGA) GREEN TEA EXTRACT - lightly caffeinated - 100 veg. caps	28.00	21.00		
	(MEGA) GREEN TEA EXTRACT - 4 bottles of 100 veg. caps	106.00	79.50		
00954	(MEGA) GREEN TEA EXTRACT - decaffeinated - 100 veg. caps	28.00	21.00		
	(MEGA) GREEN TEA EXTRACT - 4 bottles of 100 veg. caps	106.00	79.50		
<b>H</b>					
01074	5 HTP - 100 mg, 60 caps	\$27.95	\$20.96		
00230	HCA - 90 caps	18.00	13.50		
	HCA - 4 bottles of 90 caps	62.00	46.50		
01405	HEALTHY HAIR SPRAY - 5 fl. oz (150 ml) 1 bottle	35.00	26.25		
	HEALTHY HAIR SPRAY - 4 bottles of 5 fl. oz	128.00	96.00		
00656	HEPATOPRO - 900 mg, 60 softgel	49.50	37.13		
	HEPATOPRO - 4 bottles of 60 softgel	188.00	141.00		
00873	HI-LIGNAN NUTRI-FLAX - 16 oz powder	9.95	7.46		
00800	HOMOCYSTEINE RESIST - 100 caps	24.00	18.00		
	HOMOCYSTEINE RESIST - 4 bottles of 100 caps	86.40	64.80		
00067	HOODIA GORDONII - 60 caps	14.00	10.50		
00627	HUPERZINE A W/NATURAL VITAMIN E - 50 mcg, 60 caps	27.95	20.96		
	HUPERZINE A W/NATURAL VITAMIN E - 4 bottles of 60 caps	96.00	72.00		
00661	HYDRODERM® - 1 oz bottle	79.95	59.96		
	HYDRODERM® - 2 - 1 oz bottles	130.66	98.00		
<b>I</b>					
01060	i26 HYPERIMMUNE EGG - 140 grams of powder	\$49.99	\$42.00		
01065	IDEAL BOWEL SUPPORT 299V - 30 veg. caps	21.95	16.46		
00955	IMMUNE PROTECT W/PARACTIN® - 30 veg. caps	29.50	22.13		
	IMMUNE PROTECT W/PARACTIN® - 4 bottles of 30 veg. caps	106.20	79.65		
01049	INNERPOWER™ W/SWEET STEVIA- Tropical Flavor Powder	42.00	31.50		
00155	INOSINE CAPSULES - 500 mg, 60 caps	22.95	17.21		
	INOSINE CAPSULES - 4 bottles of 60 caps	84.00	63.00		
00109	INOSITOL CAPSULES - 500 mg, 100 caps	14.99	11.24		
	INOSITOL CAPSULES - 4 bottles of 100 caps	55.16	41.37		
00410	INOSITOL CAPSULES - 1000 mg, 360 caps	48.00	36.00		
	INOSITOL CAPSULES - 4 bottles of 360 caps	175.00	131.25		
00108	INOSITOL POWDER - 100 grams of powder	18.00	13.50		
	INOSITOL POWDER - 4 bottles of powder	67.52	50.64		
01021	INTACT DIGEST™ - 8 fl oz	35.00	26.25		
	INTACT DIGEST™ - 4 - 8 fl oz bottles	132.00	99.00		
01292	INTEGRA-LEAN® IRVINGIA - 150 mg, 60 veg. caps	34.00	25.50		
	INTEGRA-LEAN® IRVINGIA - 4 bottles of 60 veg. caps	120.00	90.00		
01002	IODORAL - 180 caps	50.00	37.50		
00563	IRON PROTEIN PLUS - 300 mg, 100 caps	24.00	18.00		
	IRON PROTEIN PLUS - 4 bottles of 100 caps	88.00	66.00		
01492	(OPTIMIZED) IRVINGIA W/PHASE 3™ - 120 veg. caps	64.00	48.00		
	CALORIE CONTROL COMPLEX				
	(OPTIMIZED) IRVINGIA w/PHASE 3™ - 4 bottles of 120 veg. caps	240.00	180.00		
	CALORIE CONTROL COMPLEX				
<b>SUB-TOTAL OF COLUMN 9</b>					

No.		Retail	Member Price	Qty	Total
<b>J, K</b>					
00056	JARRO-DOPHILUS EPS™ - 60 veg. caps	\$19.95	\$14.96		
01224	(SUPER) K WITH ADVANCED K2 COMPLEX - 90 softgels	26.00	19.50		
	(SUPER) K WITH ADVANCED K2 COMPLEX - 4 bottles of 90 softgels	92.00	69.00		
01050	NKO KRILL OIL - 60 softgels	33.95	25.46		
00316	KYOLIC® GARLIC FORMULA 102 - 350 mg, 200 caps	23.95	17.96		
	KYOLIC® GARLIC FORMULA 102 - 4 bottles of 200 caps	82.00	61.50		
00214	KYOLIC® GARLIC FORMULA 105 - 200 caps	22.95	17.21		
	KYOLIC® GARLIC FORMULA 105 - 4 bottles of 200 caps	73.00	54.75		
00789	KYOLIC® RESERVE - 600 mg, 120 caps	24.75	18.56		
	KYOLIC® RESERVE - 4 bottles of 120 caps	85.80	64.36		
<b>L</b>					
00513	LACTOFERRIN (APOLACTOFERRIN) CAPS - 300 mg, 60 caps	\$40.00	\$30.00		
	LACTOFERRIN (APOLACTOFERRIN) CAPS - 4 bottles of 60 caps	144.00	108.00		
00017	LAVILIN UNDERARM DEODORANT - 12.5 grams of cream	15.00	11.25		
	LAVILIN UNDERARM DEODORANT - 4 jars of cream	55.00	41.25		
01003	LIFE EXTENSION CAT MIX - 100 grams of powder	15.00	11.25		
	LIFE EXTENSION CAT MIX - 4 bottles of powder	48.00	36.00		
00544	LIFE EXTENSION DOG MIX - 100 grams of powder	19.50	14.63		
	LIFE EXTENSION DOG MIX - 4 bottles of powder	64.00	48.00		
00010	LIFE EXTENSION HAIR CONDITIONER - 16 oz bottle	6.00	4.50		
	LIFE EXTENSION HAIR CONDITIONER - 4 bottles	18.00	13.50		
00020	LIFE EXTENSION LECITHIN GRANULES - 16 oz. jar	15.00	11.25		
	LIFE EXTENSION LECITHIN GRANULES - 4 jars	50.00	37.50		
00019	LIFE EXTENSION LECITHIN w/B5 AND BHA - 16 oz. jar	15.00	11.25		
	LIFE EXTENSION LECITHIN w/B5 AND BHA - 4 16 oz. 4 jars	50.00	37.50		
01455	LIFE EXTENSION MIX™ - 315 tablets	98.00	73.50		
	LIFE EXTENSION MIX™ - 4 bottles of 315 tablets	344.00	258.00		
	LIFE EXTENSION MIX™ - 10 bottles of 315 tablets	695.00	521.25		
01457	LIFE EXTENSION MIX™ W/EXTRA NIACIN - 315 tablets	98.00	73.50		
	LIFE EXTENSION MIX™ W/EXTRA NIACIN - 4 bottles of 315 tablets	344.00	258.00		
	LIFE EXTENSION MIX™ W/EXTRA NIACIN - 10 bottles of 315 tablets	695.00	521.25		
01454	LIFE EXTENSION MIX™ - 490 caps	110.00	82.50		
	LIFE EXTENSION MIX™ - 4 bottles of 490 caps	392.00	294.00		
	LIFE EXTENSION MIX™ - 10 bottles of 490 caps	850.00	637.50		
01456	LIFE EXTENSION MIX™ POWDER - 14.81 oz of powder	98.00	73.50		
	LIFE EXTENSION MIX™ POWDER - 4 bottles of powder	344.00	258.00		
	LIFE EXTENSION MIX™ POWDER - 10 bottles of powder	720.00	540.00		
01465	LIFE EXTENSION MIX™ - 315 tablets without copper	98.00	73.50		
	LIFE EXTENSION MIX™ - 4 bottles of 315 tablets without copper	344.00	258.00		
	LIFE EXTENSION MIX™ - 10 bottles of 315 tablets without copper	695.00	521.25		
01467	LIFE EXTENSION MIX™ W/EXTRA NIACIN 315 tablets w/o copper	98.00	73.50		
	LIFE EXTENSION MIX™ W/EXTRA NIACIN 4 bottles of 315 tablets w/o copper	344.00	258.00		
	LIFE EXTENSION MIX™ W/EXTRA NIACIN 10 bottles of 315 tablets w/o copper	695.00	521.25		
01464	LIFE EXTENSION MIX™ - 490 caps without copper	110.00	82.50		
	LIFE EXTENSION MIX™ - 4 bottles of 490 caps without copper	392.00	294.00		
	LIFE EXTENSION MIX™ - 10 bottles of 490 caps without copper	850.00	637.50		
01466	LIFE EXTENSION MIX™ POWDER - 14.81 oz of powder without copper	98.00	73.50		
	LIFE EXTENSION MIX™ POWDER - 4 bottles of powder without copper	344.00	258.00		
	LIFE EXTENSION MIX™ POWDER - 10 bottles of powder without copper	720.00	540.00		
<b>SUB-TOTAL OF COLUMN 10</b>					

No.		Retail	Member Price	Qty	Total
01279	LIFE EXTENSION MOUTHWASH w/POMEGRANATE - 16 oz bottle	\$18.50	\$13.88		
	LIFE EXTENSION MOUTHWASH w/POMEGRANATE - 4 -16 oz bottle	68.00	51.00		
01401	LIFE EXTENSION ONE-PER-DAY - 60 veg. tablets	19.95	14.96		
	LIFE EXTENSION ONE-PER-DAY - 4 bottles of 60 veg. tablets	72.00	54.00		
00011	LIFE EXTENSION SHAMPOO - 16 oz bottle	6.00	4.50		
	LIFE EXTENSION SHAMPOO - 4 bottles	19.00	14.25		
01278	LIFE EXTENSION TOOTHPASTE MINT FLAVOR - 4 oz	9.50	7.13		
	LIFE EXTENSION TOOTHPASTE MINT FLAVOR - 4, 4 oz tubes	34.68	26.00		
01416	LIFE EXTENSION TWO-PER-DAY - 60 veg. tablets	9.95	7.46		
	LIFE EXTENSION TWO-PER-DAY - 4 bottles of 60 veg. tablets	36.00	27.00		
01415	LIFE EXTENSION TWO-PER-DAY - 120 veg. tablets	18.95	14.21		
	LIFE EXTENSION TWO-PER-DAY - 4 bottles of 120 veg. tablets	68.00	51.00		
00263	LIFE FLORA™ - 300 mg, 120 caps	20.50	15.38		
	LIFE FLORA™ - 4 bottles of 120 caps	75.00	56.25		
00032	LIFE MIX - 1 lb can of powder	25.00	18.75		
	LIFE MIX - 4 cans of powder	90.00	67.50		
00294	LIQUID EMULSIFIED VITAMIN A DROPS - 20,000 IU per drop	27.00	20.25		
	LIQUID EMULSIFIED VITAMIN A DROPS - 4 bottles	96.00	72.00		
00939	5-LOXIN® - 75 mg, 100 veg. caps	19.50	14.63		
	5-LOXIN® - 4 bottles of 100 veg. caps	69.00	51.75		
01013	L-LYSINE CAPSULES - 620 mg, 100 caps	9.00	6.75		
	L-LYSINE CAPSULES - 4 bottles of 100 caps	32.00	24.00		
00129	L-LYSINE POWDER - 300 grams of powder	16.00	12.00		
	L-LYSINE POWDER - 4 bottles of powder	55.00	41.25		
01017	LUSTRE™ - 90 tablets	17.50	13.13		
	LUSTRE™ - 4 bottles of 90 tablets	62.00	46.50		
01028	LYCOPENE - 10 mg, 60 softgels	24.98	18.74		
00455	(MEGA) LYCOPENE EXTRACT - 15 mg, 90 softgels	35.00	26.25		
	(MEGA) LYCOPENE EXTRACT - 4 bottles of 90 softgels	120.00	90.00		
<b>M</b>					
01044	MAGNESIUM CAPS - 500 mg, 100 caps	\$9.50	\$7.13		
	MAGNESIUM CAPS - 4 bottles of 100 caps	32.00	24.00		
00502	MAGNESIUM CITRATE CAPS - 160 mg, 100 caps	9.00	6.75		
	MAGNESIUM CITRATE CAPS - 4 bottles of 100 caps	30.00	22.50		
00704	MAITAKE™ SX-FRACTION - 90 veg. tablets	49.95	37.46		
00547	MELATONIN - 300 mcg, 100 caps	5.75	4.31		
	MELATONIN - 4 bottles of 100 caps	20.00	15.00		
01083	MELATONIN CAPSULES - 500 mcg, 200 veg. caps	18.00	13.50		
	MELATONIN CAPSULES - 4 bottles of 200 veg. caps	64.00	48.00		
00329	MELATONIN CAPSULES - 1 mg, 60 caps	5.00	3.75		
	MELATONIN CAPSULES - 4 bottles of 60 caps	18.52	13.89		
00330	MELATONIN CAPSULES - 3 mg, 60 caps	8.00	6.00		
	MELATONIN CAPSULES - 4 bottles of 60 caps	27.52	20.64		
00333	MELATONIN CAPSULES - 3 mg, 60 time-release caps	10.50	7.88		
	MELATONIN CAPSULES - 4 bottles of 60 time-release caps	37.52	28.14		
00331	MELATONIN CAPSULES - 10 mg, 60 caps	28.00	21.00		
	MELATONIN CAPSULES - 4 bottles of 60 caps	96.00	72.00		
00332	MELATONIN LOZENGES - 3 mg, 60 dissolve-in-mouth lozenges	8.00	6.00		
	MELATONIN LOZENGES - 4 bottles of 60 dissolve-in-mouth lozenges	27.52	20.64		
00546	MELATONIN TIME RELEASE - 300 mcg, 100 caps	6.25	4.69		
	MELATONIN TIME RELEASE - 4 bottles of 100 caps	22.52	16.89		

SUB-TOTAL OF COLUMN 11

LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS

No.		Retail	Member Price	Qty	Total
00540	MELATONIN TIME RELEASE - 750 mcg, 60 caps	\$5.75	\$4.31		
	MELATONIN TIME RELEASE - 4 bottles of 60 caps	20.00	15.00		
01009	MEMORY UPGRADE - 600 grams powder	26.95	20.21		
01047	MENOPAUSE SOLUTIONS - 120 tablets	49.95	37.46		
00536	METHYLCOBALAMIN - 1 mg, 60 dissolve-in-mouth lozenges (vanilla)	9.95	7.46		
	METHYLCOBALAMIN - 4 bottles of 60 dissolve-in-mouth lozenges	32.00	24.00		
00537	METHYLCOBALAMIN - 5 mg, 60 dissolve-in-mouth lozenges (vanilla)	32.00	24.00		
	METHYLCOBALAMIN - 4 bottles of 60 dissolve-in-mouth lozenges	100.00	75.00		
	METHYLCOBALAMIN - 10 bottles of 60 dissolve-in-mouth lozenges	230.00	172.50		
00709	MIGRA-EEZE (BUTTERBUR) - 60 softgels	29.50	22.13		
	MIGRA-EEZE (BUTTERBUR) - 4 bottles of 60 softgels	105.32	79.00		
00623	MINERAL FORMULA FOR MEN - 100 caps	15.00	11.25		
	MINERAL FORMULA FOR MEN - 4 bottles of 100 caps	50.00	37.50		
	MINERAL FORMULA FOR MEN - 12 bottles of 100 caps	130.00	97.50		
00624	MINERAL FORMULA FOR WOMEN - 100 caps	15.00	11.25		
	MINERAL FORMULA FOR WOMEN - 4 bottles of 100 caps	50.00	37.50		
	MINERAL FORMULA FOR WOMEN - 12 bottles of 100 caps	130.00	97.50		
01315	(SUPER) MIRAFORTE w/STANDARDIZED LIGNANS - 120 caps	62.00	46.50		
	(SUPER) MIRAFORTE w/STANDARDIZED LIGNANS - 4 bottles of 120 caps	224.00	168.00		
01368	MITOCHONDRIAL ENERGY OPTIMIZER - 120 caps	86.00	64.50		
	MITOCHONDRIAL ENERGY OPTIMIZER - 4 bottles of 120 caps	312.00	234.00		
00803	MISTORAL III w/COQ10 - 2 fl oz bottle	28.00	21.00		
	MISTORAL III w/COQ10 - 4 bottles	101.32	75.99		
00065	MK-7 - 90 mcg, 60 softgels	28.00	21.00		
	MK-7 - 4 bottles of 60 softgels	100.00	75.00		
00451	MSM (METHYL-SULFONYL-METHANE) - 1000 mg, 100 caps	14.00	10.50		
	MSM (METHYL-SULFONYL-METHANE) - 4 bottles of 100 caps	47.80	35.85		
<b>N</b>					
00215	N-ACETYL CYSTEINE CAPSULES - 600 mg, 60 caps	\$14.00	\$10.50		
	N-ACETYL CYSTEINE CAPSULES - 4 bottles of 60 caps	54.00	40.50		
00168	NAPCA W/ALOE VERA - 8 fl oz bottle	10.00	7.50		
	NAPCA W/ALOE VERA - 4 bottles	36.60	27.45		
00066	NATTOKINASE - 60 softgels	24.98	18.74		
00718	NATTOKINASE (FIBRINOGEN RESIST FORMULA) - 30 caps	49.00	36.75		
	NATTOKINASE (FIBRINOGEN RESIST FORMULA) - 4 bottles of 30 caps	176.00	132.00		
00891	NATURAL APPETITE CONTROL - 90 softgels	28.00	21.00		
	NATURAL APPETITE CONTROL - 4 bottles of 90 softgels	100.80	75.60		
00984	NATURAL BP MANAGEMENT - 60 tablets	42.00	31.50		
	NATURAL BP MANAGEMENT - 4 bottles of 60 tablets	151.20	113.40		
00913	NATURAL ESOPHAGUARD - 10 softgels	19.95	14.96		
	NATURAL ESOPHAGUARD - 2 boxes of 10 softgels	38.00	28.50		
00712	NATURAL ESTROGEN w/POMEGRANATE EXTRACT - 60 caplets	38.00	28.50		
	NATURAL ESTROGEN w/POMEGRANATE EXTRACT - 4 bottles of 60 caplets	132.00	99.00		
01221	NATURAL FEMALE SUPPORT - 30 veg. caps	28.00	21.00		
	NATURAL FEMALE SUPPORT - 4 bottles of 30 veg. caps	96.00	72.00		
00698	NATURAL RELIEF 1222™ - 2 oz tube	28.00	21.00		
	NATURAL RELIEF 1222™ - 4, 2 oz tubes	100.00	75.00		
00990	NATURAL SLEEP - 3 mg, 60 caps	12.99	9.74		
	NATURAL SLEEP - 4 bottles of 60 caps	40.00	30.00		
00277	NATURAL SLEEP MELATONIN - 5 mg, 60 caps	18.00	13.50		
	NATURAL SLEEP MELATONIN - 4 bottles of 60 caps	64.00	48.00		

SUB-TOTAL OF COLUMN 12



# Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
<b>N</b> CONTINUED					
00987	NATURAL STRESS RELIEF - 30 veg. caps	\$28.00	\$21.00		
	NATURAL STRESS RELIEF - 4 bottles of 30 veg. caps	96.00	72.00		
01000	NEW FACE SOLUTION - 1.7 oz bottle	54.00	40.50		
	NEW FACE SOLUTION - 4 bottles of 1.7 oz	196.00	147.00		
00096	NIACIN (B-3) CAPSULES - 1000 mg, 100 caps	12.75	9.56		
	NIACIN (B-3) CAPSULES - 4 bottles of 100 caps	48.00	36.00		
00372	NIACIN (B-3) CAPSULES - 500 mg, 100 caps	7.65	5.74		
	NIACIN (B-3) CAPSULES - 4 bottles of 100 caps	26.60	19.95		
00373	NO-FLUSH NIACIN - 800 mg, 100 caps	19.00	14.25		
	NO-FLUSH NIACIN - 4 bottles of 100 caps	68.00	51.00		
01035	NUTRIM POWDER - 170 grams powder	25.95	19.46		
00523	N-ZIMES® - 270 caps	23.90	17.93		
	N-ZIMES® - 4 bottles of 270 caps	88.00	66.00		
<b>O</b>					
00104	OCTACOSANOL - 8000 mcg, 60 caps	\$17.99	\$13.49		
	OCTACOSANOL - 4 bottles of 60 caps	62.96	47.22		
01483	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 60 softgels	18.00	13.50		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 4 bottles of 60 softgels	64.00	48.00		
01482	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 120 softgels	32.00	24.00		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 4 bottles of 120 softgels	112.00	84.00		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 10 bottles of 120 softgels	249.00	186.75		
01484	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT (ENTERIC COATED) - 120 softgels	34.00	25.50		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT (ENTERIC COATED) - 4 bottles of 120 softgels	124.00	93.00		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT (ENTERIC COATED) - 10 bottles of 120 softgels	280.00	210.00		
00717	ONLY TRACE MINERALS - 90 caps	15.00	11.25		
	ONLY TRACE MINERALS - 4 bottles of 90 caps	50.00	37.50		
00915	OPTIZINC® - 30 mg, 90 veg. caps	5.95	4.46		
	OPTIZINC® - 4 bottles of 90 veg. caps	20.00	15.00		
01070	ORGANIC TOTAL BODY CLEANSE - 14-day supply	34.99	26.24		
00043	L-ORNITHINE CAPSULES - 500 mg, 100 caps	24.95	18.71		
	L-ORNITHINE CAPSULES - 4 bottles of 100 caps	80.00	60.00		
<b>P</b>					
00107	PABA CAPS - 500 mg, 100 caps	\$13.99	\$10.49		
	PABA CAPS - 4 bottles of 100 caps	49.32	36.99		
00073	PANCREATIN - 500 mg, 50 caps	11.99	8.99		
	PANCREATIN - 4 bottles of 50 caps	43.96	32.97		
00923	PEAK ATP® WITH GLYCOCARN® - 60 tablets	59.00	44.25		
	PEAK ATP® WITH GLYCOCARN® - 4 bottles of 60 tablets	224.00	168.00		
00342	PECTA-SOL - One-month supply modified citrus pectin	99.95	74.96		
	PECTA-SOL - Four-month supply modified citrus pectin	382.80	287.10		
01080	PECTA-SOL-C® MODIFIED CITRUS PECTIN - 270 veg. caps	69.95	52.46		
00872	PGX FIBER POWDER (SLIMSTYLES)® - 6.4 oz powder	22.95	17.21		
00673	(WELLBETX) PGX SOLUBLE FIBER BLEND -180 caps	34.95	26.21		
00865	PHARMAGABA™ - 60 chewable tablets	29.95	22.46		
	PHARMAGABA™ - 4 bottles of 60 chewable tablets	108.00	81.00		
00368	PHOSPHATIDYLSERINE CAPS - 100 mg, 100 caps	54.00	40.50		
	PHOSPHATIDYLSERINE CAPS - 4 bottles of 100 caps	192.00	144.00		
01050	PHOSPHOMEGA™ KRILL OIL - 60 softgels	33.95	25.46		
00614	PILL CUTTER/GRINDER	11.95	8.96		
<b>SUB-TOTAL OF COLUMN 13</b>					

SEPTEMBER 2010

No.		Retail	Member Price	Qty	Total
00561	POLICOSANOL - 10 mg, 60 tablets	\$24.00	\$18.00		
	POLICOSANOL - 6 bottles of 60 tablets	108.00	81.00		
00994	(SUPER) POLYPHENOL EXTRACTS WITH COCOAGOLD™ - 30 veg. caps	24.00	18.00		
	(SUPER) POLYPHENOL EXTRACTS WITH COCOAGOLD™ - 4 bottles of 30 veg. caps	84.00	63.00		
01423	(FULL-SPECTRUM) POMEGRANATE™ - 30 softgels	24.00	18.00		
	(FULL-SPECTRUM) POMEGRANATE™ - 4 bottles of 30 softgels	84.00	63.00		
00956	POMEGRANATE EXTRACT - 30 veg. caps	19.50	14.63		
	POMEGRANATE EXTRACT - 4 bottles of 30 veg. caps	70.20	52.64		
01256	POMEGRANATE EXTRACT w/ COCOAGOLD™ - 30 veg. caps	24.00	18.00		
	POMEGRANATE EXTRACT w/ COCOAGOLD™ - 4 bottles of 30 veg. caps	84.00	63.00		
00957	POMEGRANATE JUICE CONCENTRATE - 16 oz. liquid	25.95	19.46		
	POMEGRANATE JUICE CONCENTRATE - 4 bottles of 16 oz liquid	96.00	72.00		
00577	POTASSIUM IODIDE - 1 box, 14 tablets	6.95	5.21		
	POTASSIUM IODIDE - 4 boxes, 14 tablets	21.00	15.75		
00302	PREGNENOLONE CAPSULES - 50 mg, 100 caps	24.00	18.00		
	PREGNENOLONE CAPSULES - 4 bottles of 100 caps	76.00	57.00		
00700	PREGNENOLONE CAPSULES - 100 mg, 100 caps	26.00	19.50		
	PREGNENOLONE CAPSULES - 4 bottles of 100 caps	90.00	67.50		
*01373	PRELOX® NATURAL SEX FOR MEN® - 60 tablets	50.00	37.50		
	PRELOX® NATURAL SEX FOR MEN® - 4 bottles of 60 tablets	180.00	135.00		
00571	PRIMAL DEFENSE® - 900 mg, 90 caplets	49.95	37.46		
	PRIMAL DEFENSE® - 4 bottles of 90 caplets	194.00	145.50		
01019	PRIMAL DEFENSE® - 180 caplets	78.95	59.21		
00525	PROBOOST THYMIC PROTEIN A™ - 4 mcg, 30 packets	72.00	54.00		
	PROBOOST THYMIC PROTEIN A™ - 4 boxes	280.00	210.00		
00869	PRO FEM CREAM - 2 oz jar, Progesterone Cream	26.00	19.50		
	PRO FEM CREAM - 4, 2 oz jars, Progesterone Cream	96.00	72.00		
01020	PROGREENS® - 15 stick pack	22.50	16.88		
01072	PRO M INTERNAL DEODORIZER - 500 mg, 100 veg. caps	28.00	21.00		
	PRO M INTERNAL DEODORIZER - 4 bottles of 100 veg. caps	100.00	75.00		
*01495	(ULTRA NAT) PROSTATE FORMULA W/ 5-LOXIN® STAND. LIGNANS-60 softgels	38.00	28.50		
	(ULTRA NAT) PROSTATE FORMULA W/ 5-LOXIN® STAND. LIGNANS-4 bot of 60 softgels	140.00	105.00		
	(ULTRA NAT) PROSTATE FORMULA W/ 5-LOXIN® STAND. LIGNANS-12 bot of 60 softgels	384.00	288.00		
01092	(ENHANCED LIFE EXTENSION) PROTEIN (VANILLA) - 1 kg. of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (VANILLA) - 4 bot of powder	144.00	108.00		
01093	(ENHANCED LIFE EXTENSION) PROTEIN (CHOCOLATE) - 1 kg of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (CHOCOLATE) - 4 bot of powder	144.00	108.00		
01094	(ENHANCED LIFE EXTENSION) PROTEIN (NATURAL) - 1 kg of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (NATURAL) - 4 bot of powder	144.00	108.00		
01095	(ENHANCED LIFE EXTENSION) PROTEIN (BERRY) - 1 kg of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (BERRY) - 4 bot of powder	144.00	108.00		
00290	(DESIGNER WHEY) PROTEIN - Vanilla 2 lbs of powder	42.49	31.87		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Vanilla powder	154.00	115.50		
00282	(DESIGNER WHEY) PROTEIN - Chocolate 2 lbs of powder	42.49	31.87		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Chocolate powder	154.00	115.50		
00283	(DESIGNER WHEY) PROTEIN - Natural 2 lbs of powder	42.49	31.87		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Natural powder	154.00	115.50		
01056	PURE-GAR® - 200 caps	24.95	18.71		
	PURE-GAR® - 4 bottles of 200 caps	84.00	63.00		
01209	(WATER-SOLUBLE) PUMPKIN SEED EXTRACT - 60 veg. caps	20.00	15.00		
	(WATER-SOLUBLE) PUMPKIN SEED EXTRACT - 4 bottles 60 veg. caps	72.00	54.00		
01210	(WATER-SOLUBLE) PUMPKIN SEED EXT w/SOY ISOFLAVONES - 60 veg. caps	22.00	16.50		
	(WATER-SOLUBLE) PUMPKIN SEED EXT w/SOY ISOFLAVONES - 4 bottles 60 veg.	80.00	60.00		
01031	PYCNOGENOL® - 60 veg. caps	86.95	65.21		
<b>SUB-TOTAL OF COLUMN 14</b>					

\* Product cannot be sold outside the USA.

LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS

No.		Retail	Member Price	Qty	Total
01207	<b>PYRIDOXAMINE CAPS</b> - 50 mg, 60 veg. caps	\$22.00	\$16.50		
	<b>PYRIDOXAMINE CAPS</b> - 4 bottles of 60 veg. caps	79.20	59.40		
<b>Q, R</b>					
01309	<b>(OPTIMIZED) QUERCETIN</b> - 250 mg, 60 veg. caps	\$18.00	\$13.50		
	<b>(OPTIMIZED) QUERCETIN</b> - 4 bottles of 60 veg. caps	68.00	51.00		
01030	<b>RED YEAST RICE</b> (Bluebonnet)- 600 mg, 60 veg. caps	16.95	12.71		
00979	<b>RED YEAST RICE</b> (Nature's Plus)- 600 mg, 60 veg. caps	23.20	17.40		
00060	<b>RED YEAST RICE EXTENDED RELEASE</b> (Nature's Plus)- 30 veg. tablets	20.55	15.41		
00605	<b>REGIMINT®</b> - 60 enteric-coated caps	19.95	14.96		
	<b>REGIMINT®</b> - 4 bottles of 60 caps	74.68	56.01		
00448	<b>REJUVENEX® BODY LOTION</b> - 6 oz tube	24.00	18.00		
	<b>REJUVENEX® BODY LOTION</b> - 4 tubes	79.20	59.40		
	<b>REJUVENEX® BODY LOTION</b> - 8 tubes	136.00	102.00		
00918	<b>REJUVENEX® FACTOR</b> - 1.7 oz Airless pump bottle	65.00	48.75		
	<b>REJUVENEX® FACTOR</b> - 2 bottles	120.00	90.00		
	<b>REJUVENEX® FACTOR</b> - 4 bottles	220.00	165.00		
	<b>REJUVENEX® FACTOR</b> - 8 bottles	399.28	299.46		
01220	<b>(ULTRA) REJUVENEX®</b> - 2 oz jar	52.00	39.00		
	<b>(ULTRA) REJUVENEX®</b> - 2 jars	96.00	72.00		
	<b>(ULTRA) REJUVENEX®</b> - 4 jars	176.00	132.00		
	<b>(ULTRA) REJUVENEX®</b> - 8 jars	319.44	239.38		
00676	<b>(ULTRA) REJUVENIGHT (DREAM CREAM)</b> - 2 oz jar	39.95	29.96		
	<b>(ULTRA) REJUVENIGHT (DREAM CREAM)</b> - 4 jars	144.00	108.00		
00706	<b>(ULTRA) REJUVENIGHT w/PROGESTERONE</b> - 2 oz jar	42.00	31.50		
	<b>(ULTRA) REJUVENIGHT w/PROGESTERONE</b> - 4 jars	152.00	114.00		
01413	<b>RESVERATROL w/PTEROSTILBENE</b> - 20 mg, 60 veg. caps	24.00	18.00		
	<b>RESVERATROL w/PTEROSTILBENE</b> - 4 bottles of 60 veg. caps	88.00	66.00		
01410	<b>RESVERATROL w/PTEROSTILBENE</b> - 100 mg, 60 veg. caps	36.00	27.00		
	<b>RESVERATROL w/PTEROSTILBENE</b> - 4 bottles of 60 veg. caps	128.00	96.00		
01430	<b>(OPTIMIZED) RESVERATROL w/SYNERGISTIC GRAPE-BERRY ACTIVES</b> - 250 mg, 60 veg. caps	46.00	34.50		
	<b>(OPTIMIZED) RESVERATROL w/SYNERGISTIC GRAPE-BERRY ACTIVES</b> - 4 bottles of 60 veg. caps	165.32	124.00		
00889	<b>RHODIOLA EXTRACT</b> - 250 mg, 60 veg. caps	11.75	8.81		
	<b>RHODIOLA EXTRACT</b> - 4 bottles of 60 veg. caps	42.32	31.74		
00972	<b>(D) RIBOSE POWDER</b> - 150 grams of powder	27.50	20.63		
	<b>(D) RIBOSE POWDER</b> - 4 jars of 150 grams	99.00	74.25		
01473	<b>(D) RIBOSE CAPS</b> - 100 veg. tabs	32.00	24.00		
	<b>(D) RIBOSE CAPS</b> - 4 bottles of 100 veg. tabs	112.00	84.00		
01208	<b>(SUPER) R-LIPOIC ACID</b> - 300 mg, 60 veg. caps	49.00	36.75		
	<b>(SUPER) R-LIPOIC ACID</b> - 4 bottles of 60 veg. caps	180.00	135.00		
00070	<b>RNA CAPSULES</b> - 500 mg, 100 caps	17.95	13.46		
	<b>RNA CAPSULES</b> - 4 bottles of 100 caps	64.64	48.48		
00917	<b>ROSMARINIC ACID EXTRACT</b> - 60 veg. caps	59.00	44.25		
	<b>ROSMARINIC ACID EXTRACT</b> - 4 bottles of 60 veg. caps	212.00	159.00		
<b>S</b>					
01082	<b>(JARROW) SACCHOROMYCES BOULARDII + MOS</b> - 30 veg. caps	\$9.95	\$7.46		
01067	<b>(JARROW) SACCHOROMYCES BOULARDII + MOS</b> - 90 veg. caps	21.95	16.46		
01432	<b>(OPTIMIZED) SAFFRON w/SATIEREAL</b> - 60 veg. caps	36.00	27.00		
	<b>(OPTIMIZED) SAFFRON w/SATIEREAL</b> - 4 bottles of 60 veg. caps	128.00	96.00		
**00573	<b>SAMBU GUARD</b> - 175 ml	17.49	13.99		
00358	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 200 mg, 20 enteric coated tablets	18.95	14.21		
	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 8 boxes of 20 enteric coated tablets	132.80	99.60		
00453	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 200 mg, 50 enteric coated tablets	45.00	33.75		
	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 4 bottles of 50 enteric coated tablets	156.00	117.00		

SUB-TOTAL OF COLUMN 15

No.		Retail	Member Price	Qty	Total
00557	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 400 mg, 20 enteric coated tablets	\$35.00	\$26.25		
	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 6 boxes of 20 enteric coated tablets	168.00	126.00		
01055	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 400 mg, 50 tablets	78.00	58.50		
	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 4 bottles of 50 tablets	280.00	210.00		
01043	<b>SEA-IODINE™</b> - 1000 mcg, 60 veg. caps	8.00	6.00		
	<b>SEA-IODINE™</b> - 4 bottles of 60 veg. caps	28.80	21.60		
00046	<b>SELENIUM</b> - 2 oz dropper bottle	9.45	7.09		
	<b>SELENIUM</b> - 4 bottles of 2 oz bottle	36.00	27.00		
00567	<b>SE-METHYLSelenocysteine</b> - 200 mcg, 100 caps	12.00	9.00		
	<b>SE-METHYLSelenocysteine</b> - 4 bottles of 100 caps	44.00	33.00		
00318	<b>SERRAFLAZYME</b> - 100 tablets	18.00	13.50		
	<b>SERRAFLAZYME</b> - 4 bottles of 100 tablets	64.00	48.00		
00284	<b>SHARK LIVER OIL (NORWEGIAN)</b> - 1000 mg, 30 softgels	18.00	13.50		
	<b>SHARK LIVER OIL (NORWEGIAN)</b> - 4 bottles of 30 softgels	64.00	48.00		
00184	<b>SILYMARIN</b> - 100 mg, 50 caps	9.25	6.94		
	<b>SILYMARIN</b> - 4 bottles of 50 caps	33.00	24.75		
00702	<b>(MEGA) SILYMARIN WITH ISOSILYBIN B</b> - 100 caps	42.00	31.50		
	<b>(MEGA) SILYMARIN WITH ISOSILYBIN B</b> - 4 bottles of 100 caps	152.00	114.00		
00872	<b>SLIMSTYLES PGX®</b> - 6.4 oz powder	22.95	17.21		
00961	<b>SODZYME® W/GLISODIN® AND WOLFBERRY</b> - 90 veg. caps	28.00	21.00		
	<b>SODZYME® W/GLISODIN® AND WOLFBERRY</b> - 4 bottles of 90 veg. caps	96.00	72.00		
00657	<b>SOLARSHIELD SUNGLASSES</b> - 1 pair smoke color	12.99	9.74		
	<b>SOLARSHIELD SUNGLASSES</b> - 2 pair smoke color	23.00	17.25		
01097	<b>(ULTRA) SOY EXTRACT</b> - 150 veg. caps	87.00	65.25		
	<b>(ULTRA) SOY EXTRACT</b> - 4 bottles of 150 veg. caps	312.00	234.00		
00304	<b>SOY POWER POWDER</b> - 300 grams of powder	31.50	23.63		
	<b>SOY POWER POWDER</b> - 4 bottles of powder	114.00	85.50		
00286	<b>SOY PROTEIN POWDER</b> (concentrated soy protein) - 16 oz of powder	12.00	9.00		
	<b>SOY PROTEIN POWDER</b> - 4 bottles of powder	42.50	31.87		
00432	<b>STEVIA EXTRACT</b> - 100 packets, 1 gram each	9.95	7.46		
	<b>STEVIA EXTRACT</b> - 4 boxes of 100 packets	36.00	27.00		
00351	<b>ST. JOHN'S WORT EXTRACT</b> - 300 mg, 60 caps	10.98	8.24		
	<b>ST. JOHN'S WORT EXTRACT</b> - 4 bottles of 60 caps	40.00	30.00		
00327	<b>ST. JOHN'S WORT EXTRACT (PLANETARY)</b> - 600 mg, 60 tablets	16.75	12.56		
	<b>ST. JOHN'S WORT EXTRACT (PLANETARY)</b> - 4 bottles of 60 tablets	55.40	41.55		
00971	<b>SUN PROTECTION SPRAY w/BETA GLUCAN</b> - SPF30 - 6 oz bottle	14.95	11.21		
	<b>SUN PROTECTION SPRAY w/BETA GLUCAN</b> - SPF30 - 4 bottles, 6 oz	54.00	40.50		
00747	<b>(OVERXCAST POLARIZED) SUNGLASSES</b> - gray color, large	27.00	20.25		
	<b>(OVERXCAST POLARIZED) SUNGLASSES</b> - 2 pairs, gray color	42.00	31.50		
00748	<b>(OVERXCAST POLARIZED) SUNGLASSES</b> - gray color, medium	27.00	20.25		
	<b>(OVERXCAST POLARIZED) SUNGLASSES</b> - 2 pairs, gray color	42.00	31.50		
00758	<b>SUPER ABSORBABLE SOY ISOFLAVONES</b> - 60 caps	28.00	21.00		
	<b>SUPER ABSORBABLE SOY ISOFLAVONES</b> - 4 bottles of 60 caps	100.00	75.00		
01408	<b>SUPER SAW PALMETTO/NETTLE ROOT w/BETA-SITOSTEROL</b>	28.00	21.00		
	60 softgels				
	<b>SUPER SAW PALMETTO/NETTLE ROOT w/BETA-SITOSTEROL</b>	104.00	78.00		
	4 bottles of 60 softgels				
	<b>SUPER SAW PALMETTO/NETTLE ROOT w/BETA-SITOSTEROL</b>	288.00	216.00		
	One-year supply				
01407	<b>SUPER SAW PALMETTO w/BETA-SITOSTEROL</b> - 30 softgels	15.00	11.25		
	<b>SUPER SAW PALMETTO w/BETA-SITOSTEROL</b> - 12 bottles of 30 softgels	144.00	108.00		

\*\* These products are not 25% off retail price.

SUB-TOTAL OF COLUMN 16



# Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
<b>S</b> CONTINUED					
00578	<b>SUPER SELENIUM COMPLEX</b> - 200 mcg, 100 caps	\$12.00	\$9.00		
	<b>SUPER SELENIUM COMPLEX</b> - 4 bottles of 100 caps	40.00	30.00		
	<b>SUPER SELENIUM COMPLEX</b> - 12 bottles of 100 caps	108.00	81.00		
00674	<b>SYTRINOL™</b> - 60 softgels	32.00	24.00		
	<b>SYTRINOL™</b> - 4 bottles of 60 softgels	112.00	84.00		
<b>T</b>					
	<b>TAL•SHI™ COSMETICS</b> • For information please call 1-800-544-4440 or visit www.lifeextension.com				
01062	<b>TART CHERRY (FRUIT ADVANTAGE)</b> - 600 mg, 60 caps	\$18.95	\$14.21		
00199	<b>TAURINE CAPSULES</b> - 1000 mg, 50 caps	8.95	6.71		
	<b>TAURINE CAPSULES</b> - 4 bottles of 50 caps	32.00	24.00		
00133	<b>TAURINE POWDER</b> - 300 grams, powder	20.00	15.00		
	<b>TAURINE POWDER</b> - 4 bottles of powder	67.52	50.64		
01304	<b>THEAFLAVIN STANDARDIZED EXTRACT</b> - 30 veg. caps	18.00	13.50		
	<b>THEAFLAVIN STANDARDIZED EXTRACT</b> - 4 bottles of 30 veg. caps	64.00	48.00		
00555	<b>(L) THEANINE</b> - 100 mg, 60 caps	24.00	18.00		
	<b>(L) THEANINE</b> - 4 bottles of 60 caps	82.00	61.50		
*01038	<b>THERALAC</b> - 30 caps	44.95	33.71		
00224	<b>THYMIC IMMUNE FACTORS</b> - 100 caps	18.00	13.50		
	<b>THYMIC IMMUNE FACTORS</b> - 4 bottles of 100 caps	56.00	42.00		
00668	<b>(METABOLIC ADVANTAGE) THYROID FORMULA</b> - 100 caps	17.95	13.46		
00349	<b>TMG</b> - 50 grams of powder	14.00	10.50		
	<b>TMG</b> - 4 bottles of powder	44.00	33.00		
00359	<b>TMG TABLETS</b> - 500 mg, 180 tablets	18.00	13.50		
	<b>TMG TABLETS</b> - 4 bottles of 180 tablets	62.00	46.50		
00366	<b>TOCOTRIENOLS</b> - 50 mg, 60 softgel caps	39.95	29.96		
	<b>TOCOTRIENOLS</b> - 4 bottles of 60 softgel caps	144.00	108.00		
00781	<b>TOCOTRIENOLS WITH SESAME LIGNANS</b> - 60 softgels	38.00	28.50		
	<b>TOCOTRIENOLS WITH SESAME LIGNANS</b> - 4 bottles of 60 softgels	144.00	108.00		
01400	<b>(SUPER-ABSORBABLE) TOCOTRIENOLS</b> - 60 softgels	30.00	22.50		
	<b>(SUPER-ABSORBABLE) TOCOTRIENOLS</b> - 4 bottles of 60 softgels	112.00	84.00		
01274	<b>TOTAL SUN PROTECTION CREAM W/BETAGLUCANS &amp; PHOTO-AGING RECOVERY COMPLEX</b> - SPF 30, 4 oz Tube	28.00	21.00		
	<b>TOTAL SUN PROTECTION CREAM W/BETAGLUCANS &amp; PHOTO-AGING RECOVERY COMPLEX</b> - 4-4 oz Tubes	100.80	75.60		
01468	<b>TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT</b> - 60 veg. caps	24.00	18.00		
	<b>TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT</b> - 4 bot 60 veg. caps	88.00	66.00		
01469	<b>TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT W/RESVERATROL</b> - 60 veg. caps	32.00	24.00		
	<b>TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT w/RESVERATROL</b> - 4 bottles	118.40	88.80		
01046	<b>TRIPLE ACTION UNDER EYE REJUVENATOR</b> - 0.5 oz pump	24.00	18.00		
	<b>TRIPLE ACTION UNDER EYE REJUVENATOR</b> - 4 boxes	88.00	66.00		
00866	<b>TRYPTOPURE® L-TRYPTOPHAN</b> - 500 mg, 90 veg. caps	38.00	28.50		
	<b>TRYPTOPURE® L-TRYPTOPHAN</b> - 4 bottles of 90 veg. caps	136.00	102.00		
01202	<b>(OPTIMIZED) TRYPTOPURE® PLUS</b> - 90 veg. caps	40.00	30.00		
	<b>(OPTIMIZED) TRYPTOPURE® PLUS</b> - 4 bottles of 90 veg. caps	144.00	108.00		
00326	<b>L-TYROSINE TABLETS</b> - 500 mg, 100 tablets	12.50	9.38		
	<b>L-TYROSINE TABLETS</b> - 4 bottles of 100 tablets	45.68	34.26		
<b>U</b>					
* 00310	<b>UDO'S CHOICE®</b> - 17 oz liquid (omega fatty acids)	\$27.49	\$21.99		
* 00311	<b>UDO'S CHOICE®</b> - 1000 mg, 180 caps	33.79	27.03		
* 00322	<b>UDO'S CHOICE® WHOLESOME FAST FOOD</b> - 1 lb bottle	27.49	21.99		
01061	<b>ULTIMATE FLORA ADVANCED IMMUNITY</b> - 30 caps	29.99	22.49		

**SUB-TOTAL OF COLUMN 17**

SEPTEMBER 2010

No.		Retail	Member Price	Qty	Total
<b>V</b>					
00213	<b>VANADYL SULFATE</b> - 7.5 mg, 100 tablets	\$15.00	\$11.25		
	<b>VANADYL SULFATE</b> - 4 bottles of 100 tablets	50.00	37.50		
00252	<b>VELVET DEER ANTLER</b> - 250 mg, 30 caps	36.00	27.00		
	<b>VELVET DEER ANTLER</b> - 4 bottles of 30 caps	136.00	102.00		
00408	<b>VENOTONE</b> - 60 caps	18.95	14.21		
	<b>VENOTONE</b> - 4 bottles of 60 caps	64.00	48.00		
00427	<b>VINPOCETINE</b> - 5 mg, 100 tablets	18.00	13.50		
	<b>VINPOCETINE</b> - 4 bottles of 100 tablets	56.00	42.00		
01033	<b>VISION OPTIMIZER</b> - 90 caps	29.95	22.46		
01098	<b>VITAL GREENS MIX</b> - 319.5 grams of powder	48.00	36.00		
	<b>VITAL GREENS MIX</b> - 4 jars of powder	176.00	132.00		
00091	<b>VITAMIN B1 CAPS</b> - 500 mg, 100 caps	16.99	12.74		
	<b>VITAMIN B1 CAPS</b> - 4 bottles of 100 caps	60.68	45.51		
00093	<b>VITAMIN B2 CAPS</b> - 100 mg, 100 caps	12.99	9.74		
	<b>VITAMIN B2 CAPS</b> - 4 bottles of 100 caps	47.52	35.64		
00096	<b>VITAMIN B3 (NIACIN)</b> - 1000 mg, 100 caps	12.75	9.56		
	<b>VITAMIN B3 (NIACIN)</b> - 4 bottles of 100 caps	48.00	36.00		
00372	<b>VITAMIN B3 (NIACIN)</b> - 500 mg, 100 caps	7.65	5.74		
	<b>VITAMIN B3 (NIACIN)</b> - 4 bottles of 100 caps	26.60	19.95		
00098	<b>VITAMIN B5 CAPS</b> - 500 mg, 100 caps (Pantothenic Acid)	10.50	7.88		
	<b>VITAMIN B5 CAPS</b> - 4 bottles of 100 caps	37.52	28.14		
00556	<b>VITAMIN B6 CAPS</b> - 250 mg, 100 caps	12.50	9.38		
	<b>VITAMIN B6 CAPS</b> - 4 bottles of 100 caps	44.00	33.00		
00361	<b>VITAMIN B12 TABLETS</b> - 500 mcg, 100 dissolve-in-mouth tablets	8.75	6.56		
	<b>VITAMIN B12 TABLETS</b> - 4 bottles of 100 dissolve-in-mouth tablets	29.00	21.75		
00927	<b>VITAMIN C WITH DIHYDROQUERCETIN</b> - 1000 mg, 250 tablets	25.50	19.13		
	<b>VITAMIN C WITH DIHYDROQUERCETIN</b> - 4 bottles of 250 tablets	93.00	69.75		
00084	<b>(BUFFERED) VITAMIN C POWDER</b> - 454.6 grams of powder	23.95	17.96		
	<b>(BUFFERED) VITAMIN C POWDER</b> - 4 bottles of powder	88.00	66.00		
00864	<b>VITAMIN D</b> - 2000 IU, 1 fl oz	28.00	21.00		
	<b>VITAMIN D</b> - 4 bottles of 1 fl oz	100.00	75.00		
00251	<b>VITAMIN D3 CAPS</b> - 1000 IU, 250 caps	12.50	9.38		
	<b>VITAMIN D3 CAPS</b> - 4 bottles of 250 caps	45.00	33.75		
00713	<b>VITAMIN D3 CAPS</b> - 5000 IU, 60 caps	11.00	8.25		
	<b>VITAMIN D3 CAPS</b> - 4 bottles of 60 caps	39.60	29.70		
01418	<b>VITAMIN D3 CAPS</b> - 7000 IU, 60 caps	14.00	10.50		
	<b>VITAMIN D3 CAPS</b> - 4 bottles of 60 caps	50.40	37.80		
01371	<b>VITAMIN D3 w/SEA-IODINE</b> - 1000 IU, 250 veg. caps	22.00	16.50		
	<b>VITAMIN D3 w/SEA-IODINE</b> - 4 bottles of 250 veg. caps	80.00	60.00		
01372	<b>VITAMIN D3 w/SEA-IODINE</b> - 5000 IU, 60 veg. caps	14.00	10.50		
	<b>VITAMIN D3 w/SEA-IODINE</b> - 4 bottles of 60 veg. caps	50.00	37.50		
01472	<b>VITAMINS D AND K w/SEA-IODINE™</b> - 60 veg. caps	24.00	18.00		
	<b>VITAMINS D AND K w/SEA-IODINE™</b> - 4 bottles of 60 veg. caps	88.00	66.00		
00063	<b>VITAMIN E CAPS (NATURAL)</b> - 400 IU, 100 caps	18.75	14.06		
	<b>VITAMIN E CAPS (NATURAL)</b> - 4 bottles of 100 caps	69.00	51.75		
	<b>VITAMIN E CAPS (NATURAL)</b> - 10 bottles of 100 caps	150.00	112.50		
01225	<b>(LOW-DOSE) VITAMIN K2 (MK-7)</b> - 45 mcg, 90 softgels	18.00	13.50		
	<b>(LOW-DOSE) VITAMIN K2 (MK-7)</b> - 4 bottles of 90 softgels	64.00	48.00		

\* These products are not 25% off retail price.

\*\* Due to license restrictions, this product is not for sale to Canada.

**SUB-TOTAL OF COLUMN 18**

**LIFE EXTENSION MEMBERS RECEIVE 25% OFF THE RETAIL PRICE OF ALL PRODUCTS**

No.		Retail	Member Price	Qty	Total
<b>Z</b>					
00986	(SUPER) ZEAXANTHIN W/LUTEIN & MESO-ZEAXANTHIN - 60 softgels	\$22.00	\$16.50		
	(SUPER) ZEAXANTHIN W/LUTEIN & MESO-ZEAXANTHIN - 4 bottles	79.20	59.40		
01286	(SUPER) ZEAXANTHIN W/LUTEIN & MESO-ZEAXANTHIN PLUS ASTAXANTHIN	42.00	31.50		
	(SUPER) ZEAXANTHIN W/LUTEIN & MESO-ZEAXANTHIN PLUS ASTAXANTHIN - 4 bottles of 60 softgels	152.00	114.00		
00061	ZINC LOZENGES WITH VITAMIN C - 75 lozenges	9.50	7.13		
	ZINC LOZENGES WITH VITAMIN C - 4 bottles of 75 lozenges	27.00	20.25		
01051	ZYFLAMEND - 120 softgels	60.95	45.71		
01029	ZYFLAMEND EASYCAPS - 180 caps	31.95	23.96		
<b>SUB-TOTAL OF COLUMN 19</b>					

## GIVE THE GIFT of HEALTH, with a LIFE EXTENSION GIFT CARD!



**GIVE THE LIFE-ENHANCING BENEFITS OF LIFE EXTENSION WITH A GIFT OF \$10, \$25, \$50 OR \$100**

**To order a Life Extension Gift Card for someone special, call 1-800-544-4440.**



## HOW TO JOIN THE LIFE EXTENSION FOUNDATION®

As a member of the Life Extension Foundation®, you have the opportunity to participate in a great scientific endeavor. We are the world's premier organization dedicated to stopping and reversing aging.

Our 30-year track record shows that we have been five to ten years ahead of conventional and alternative medicine in making new life-saving therapies available to our members.

When you join the Life Extension Foundation®, we update you on the latest published medical research by sending you FREE books. Our most impressive publication is the 1,666-page *Disease Prevention and Treatment* protocol book that contains novel therapies to treat 133 common diseases of aging. *Disease Prevention and Treatment* is the only book that combines conventional and alternative therapies in order to implement a treatment regimen for fighting the multiple processes involved in degenerative disease.

Each month, Life Extension Foundation® members receive a magazine packed with the latest medical findings from around the world. Members also can call a toll-free phone number to talk to our knowledgeable health advisors about their health issues.

**If your number one priority is good health and a long life, please join our not-for-profit organization.**

### Four Easy Ways to Join

1. Call toll-free 1-800-544-4440 2. Go to [www.lef.org](http://www.lef.org) 3. Fax back to 1-866-728-1050 4. Mail to: Life Extension Foundation® • PO Box 407198 Ft. Lauderdale, FL 33340-7198 • Local Number: 954-766-8433

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I want to contribute to your research efforts to extend the healthy human life span. Enclosed is my first year's membership donation of \$75 to join the most elite group of longevity enthusiasts in the world. (Canadians add \$7, all others outside the U.S. add \$35) Item code: MEMB1. Call for multiple year membership rates.

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☐ Check enclosed \*(payable to Life Extension Foundation®)

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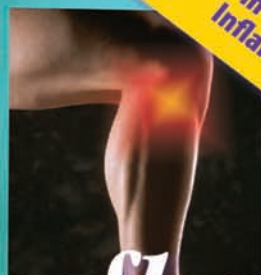


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The #1-Selling<sup>‡</sup> Herbal Formula for  
Healthy Inflammation Response\*

NEWCHAPTER

The #1 Selling Herbal  
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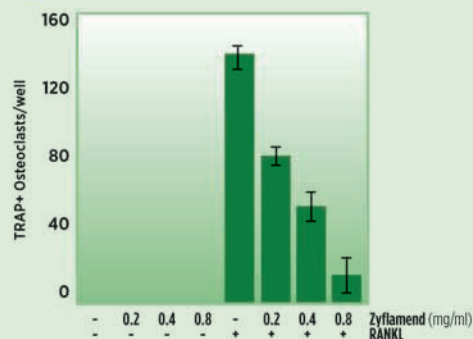
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Clinically Tested  
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## Inflammation and Bone Strength

Emerging clinical and molecular evidence suggests that inflammation exerts a significant effect on bone metabolism by stimulating production of RANKL (Receptor Activator for Nuclear Factor  $\kappa$  B Ligand), a molecule which activates the production of osteoclasts, cells responsible for the breakdown of bone.

### Zyflamend® Modulates RANKL\*



REFERENCE  
Aggarwal et al. Nutr Cancer. 2007; 57(1): 78-87.

#### Zyflamend

120 Softgel Capsules

Item 01051

Retail Price: ~~\$66.95~~

**Our Price: \$45.71**

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Mention Code: PIH001P

NEWCHAPTER®



# Theralac® vs other probiotics.

Others

**Theralac®**



Contrast and **compare Theralac®** to the other probiotics on the market today, and you will **easily see the difference.**



## Maximum protection.

Probiotics are live organisms that need protection in the package.

- ▶ Protected by **totally inert packaging**, Theralac can be shipped and held for short periods at room temperature. Refrigerate on arrival.



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Very large numbers of probiotic bacteria are needed for fast results.

- ▶ **30 billion CFU** guaranteed at expiration, **NOT** at time of manufacture.
- ▶ Formulated at **double strength**, results posted online by lot number.



## Delivery.

Probiotic bacteria must arrive alive deep in the GI tract.

- ▶ Theralac's **patented protection delivers** all the probiotics through the stomach and provides protection from bile.



## Stimulate.

Prebiotics nourish probiotics in the GI tract.

- ▶ **Lactostim®** is a unique **prebiotic** that rapidly activates probiotics.
- ▶ Lactostim is made from oleic acid and sunflower lecithin (Patent Pending).



## Value.

Get the most for your money

- ▶ Only **two capsules per week** are needed for maintenance.
- ▶ Theralac has the **lowest cost per week** for 60 billion probiotic bacteria.

Call **Life Extension now** to order Theralac and feel the benefits. Theralac is protected by US patents, 7,122,370 and 7,229,818.

**Theralac® 30 capsules**

Retail price: **\$44.95**

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



# Harmful Toxins are Everywhere.

# Natural Support is Here.

Trust 100% Organic Total Body Cleanse for  
Powerful Protection in an Increasingly Toxic World



3-Part, 14-Day Formula  
Item # 01070  
Retail Price: \$34.99  
Member Price: \$26.24

## Organic Total Body Cleanse™

- 100% Organic Whole Herbs and Fiber
- Comprehensive Total-Body Internal Cleanse
- Supports the Body's Natural Detoxification Processes\*
- Promotes Optimal Health and Bowel Regularity\*
- No Fillers, Binders or Added Ingredients



## Grave New World: The Truth about Toxins

Today the human body is exposed to more harmful toxins than ever before. With over 80,000 chemicals currently in use and 1,000 more introduced every year, we have become inundated with dangerous chemicals and pollutants now found in the air we breathe, the food and water we consume, and even in the countless products we rely on each day to make our lives more convenient. In North America alone, more than 6 billion pounds of pollutants are released annually into the environment.

In addition to the overwhelming number of chemical and environmental contaminants, the Standard American Diet (SAD) is lacking substantially in dietary fiber, which is necessary to help absorb toxins in the colon and eliminate them through regular, healthy bowel movements. If undigested food is allowed to remain in the colon due to sluggish bowel function, it will ferment and release toxins into the bloodstream, which in turn can contribute to a state of poor health and disease.

## The Importance of Herbal Cleansing and Detoxification

As toxins accumulate in our cells and tissues, they can contribute to health problems such as fatigue, poor digestion, headaches, weight gain, skin problems and more. And although the human body is equipped with its own natural detoxification system made up of the liver, lungs, lymphatic system, kidneys, skin, blood and bowel (colon), those vital elimination channels can become overwhelmed by the sheer number of toxins that surround us today.

For centuries cultures across the world have relied on herbal cleansing as a means to help purge stored toxins from the body and enhance energy and well being. In fact, nearly every recorded culture has, in some form or another, relied upon the natural cleansing power of herbs—including eliminative herbs that have laxative, diuretic, choleric, diaphoretic (sweat-inducing) and blood-purifying properties—to help remove unwelcome toxins.

Through herbal cleansing, we can safely and effectively help support the body's natural processes to remove excess waste and promote the growth of good bacteria in the intestines that work to restore balance to the body. An effective cleansing program will combine proven herbs and nutraceuticals plus hydrating minerals to help absorb and eliminate toxins, while at the same time replenishing needed nutrients to help establish and maintain a foundation of superior digestion and health.

## Why Organic Total Body Cleanse?

Organic Total Body Cleanse is a comprehensive 3-part cleansing program formulated by natural detoxification expert Brenda Watson to promote optimal health in an increasingly toxic world. Unlike many other products that begin with good ingredients but then add unnecessary chemicals and fillers that can inhibit your body's natural detoxification functions, Organic Total Body Cleanse contains only 100% organic herbs and fiber to ensure that everything you are putting in your body will only enhance the cleansing process and not work against it.

**Part 1:** Includes whole herbs such as burdock root, milk thistle, kelp and turmeric root, which have been used traditionally to help cleanse the liver, lungs, lymphatic system, kidneys, skin and blood. Dandelion root helps to stimulate the liver to release toxins in bile to then be eliminated by the colon\*

**Part 2:** Oat bran, flax and acacia fiber add bulk to the stool and help eliminate waste through regular, healthy bowel movements.\* Fiber also helps to curb appetite for healthy weight management.\*

**Part 3:** Rhubarb root is used to stimulate healthy bowel contractions, while slippery elm and marshmallow help to soothe and comfort the bowel to ease elimination.\* Fennel seed helps to relieve occasional gas and bloating.\*

Order Organic Total Body Cleanse at 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

\*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.



# SUPER BOOSTER

with the most effective form of Vitamin K2, Gamma Tocopherol, Ginkgo, and much more!

Despite abundant scientific validation, many people still do not take vital nutrients because they don't want to swallow so many pills. This problem has been solved with a one-per-day softgel that includes multiple health-promoting nutrients in just one supplement.

The **Life Extension® Super Booster** contains critical oil-based nutrients that cannot be incorporated into dry-powder based formulas like the **Life Extension Mix™**. The **Super Booster** provides the most effective form of **vitamin K** known as **menaquinone-7** along with other forms of this critical nutrient. Just one **Super Booster** softgel provides:

- **Gamma Tocopherol** If one consumes only alpha tocopherol, the critically important gamma tocopherol is displaced from cells within the body. While alpha tocopherol vitamin E inhibits lipid peroxidation, the gamma tocopherol form quenches the dangerous peroxynitrite free radical. It is especially important for those who take vitamin E supplements to make sure they consume at least 200 mg a day of gamma tocopherol.

- **Sesame Lignans** Sesame lignans augment the antioxidant effects of both alpha- and gamma-tocopherol. In a human study conducted at Life Extension, gamma tocopherol plus sesame lignans was 25% more effective in suppressing measurements of free-radical damage than gamma tocopherol and tocotrienols.

- **Vitamin K2** **Vitamin K1** from dietary plant sources is poorly absorbed and only a small fraction gets into the bloodstream. **Vitamin K2** is absorbed much more efficiently. Scientific studies show **K2** provides superior benefits for the bones, arteries, and other tissues. The **MK-4** form of vitamin K2 is the most rapidly absorbed and is now routinely

used in Japan to maintain healthy bone density. **MK-4**, however, only remains active in the blood for a few hours. The **MK-7** form of K2, on the other hand, remains bioavailable to the human body over a sustained **24-hour period**. Super Booster provides a potent dose of **MK-7** to keep calcium in the bone and out of the arteries.

- **Lycopene** Evidence suggests that people who ingest the carotenoid lycopene enjoy healthier prostate function. Lycopene also helps guard against LDL oxidation.

- **Lutein** The carotenoid lutein helps maintain healthy cell division, supports the macula of the eye, and protects the endothelial lining of the arteries.

- **Ginkgo** Hundreds of studies substantiate the multifaceted effects of *Ginkgo biloba* in promoting healthy circulatory and neurological function.

- **Chlorophyllin** Scientific studies indicate that chlorophyllin may protect against environmentally induced damage to DNA.

- **Selenium** Some scientific evidence suggests that consumption of selenium may reduce the risk of certain forms of cancer. However, the FDA has determined that this evidence is limited and not conclusive. Selenium's effects in boosting glutathione are well-established.

A bottle of 60 Super Booster softgels retails for \$42. If a member buys four bottles, the price is reduced to just **\$28.50** per bottle.

The **Super Booster** saves consumers **huge dollars** by combining a wide variety of costly nutrients into one daily softgel. If you add up the price of the individual ingredients contained in the **Super Booster**, you would spend **two to three times more** for this potency if taken separately.

## Just one softgel of Super Booster supplies:

Gamma tocopherol	230 mg
Ginkgo extract	120 mg
Chlorophyllin	100 mg
Vitamin K2 (as menaquinone-7)	100 mcg
Vitamin K2 (as menaquinone-4)	1000 mcg
Vitamin K1	1000 mcg
Sesame lignans	20 mg
Lycopene	10 mg
Lutein	2 mg
Se-methylselenocysteine	67 mcg
L-Selenomethionine	67 mcg
Sodium selenite	67 mcg
Vitamin B12	300 mcg
Vitamin C	90 mg
Ascorbyl palmitate	50 mg
Zinc	10 mg
Mixed tocopherols	130 mg



Item #01380

Contains soybeans, peanuts, and sesame.

**Caution:** If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your healthcare provider before taking this product. Individuals with in-born errors of copper metabolism (e.g. Wilson's disease) should avoid daily, chronic use of this product.

Lyc-O-Mato® is a registered trademark of LycoRed Natural Products Limited.

To order Super Booster,  
call 1-800-544-4440 or  
visit [www.LifeExtension.com](http://www.LifeExtension.com)

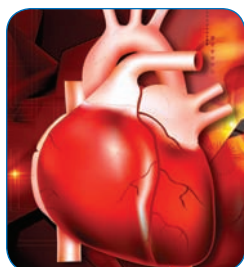




## WHAT'S INSIDE

# LifeExtension® Magazine

### **MEDIA SAYS: NO CURE FOR HEART DISEASE** (Page 7)



After Bill Clinton and Dick Cheney's heart problems re-emerged, the mainstream media and expert cardiologists proclaimed there is no cure for heart disease. Yet a wealth of cutting-edge clinical data shows arterial blockage can be reversed.

### **EXCLUSIVE INTERVIEW WITH VITAMIN D PIONEER** (Page 62)



The recent explosion of scientific interest in vitamin D is largely the result of one pioneering researcher's efforts: Dr. Michael Holick. In this exclusive interview, he discusses vitamin D's rapid ascent into mainstream awareness, along with the state of present and future research.

### **VITAL LINK BETWEEN VITAMINS D AND K** (Page 38)



While health conscious people now know the importance of maintaining optimal vitamin D status, few of them understand the vital importance of vitamin K. Together these nutrients help ward off two major diseases of aging: atherosclerosis and osteoporosis.

### **NOVEL CREAM FOR DIFFICULT SKIN LESIONS** (Page 74)



From ulcers on the hands and feet to ruptured vessels and minor traumas, many aging individuals develop unsightly wounds that take a long time to go away. A new cream containing four natural agents can help speed skin healing.

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**BOOK EXCERPT: THE VITAMIN D SOLUTION**  
**LONG-TERM VITAMIN E INTAKE LOWERS COPD RISK**  
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