

ARE YOU **ABSORBING** ENOUGH VITAMIN B12?

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LifeExtension®

The ULTIMATE Source For New Health And Medical Findings From Around The World

January 2010

Shockingly Low Vitamin D Levels in Life Extension Members!

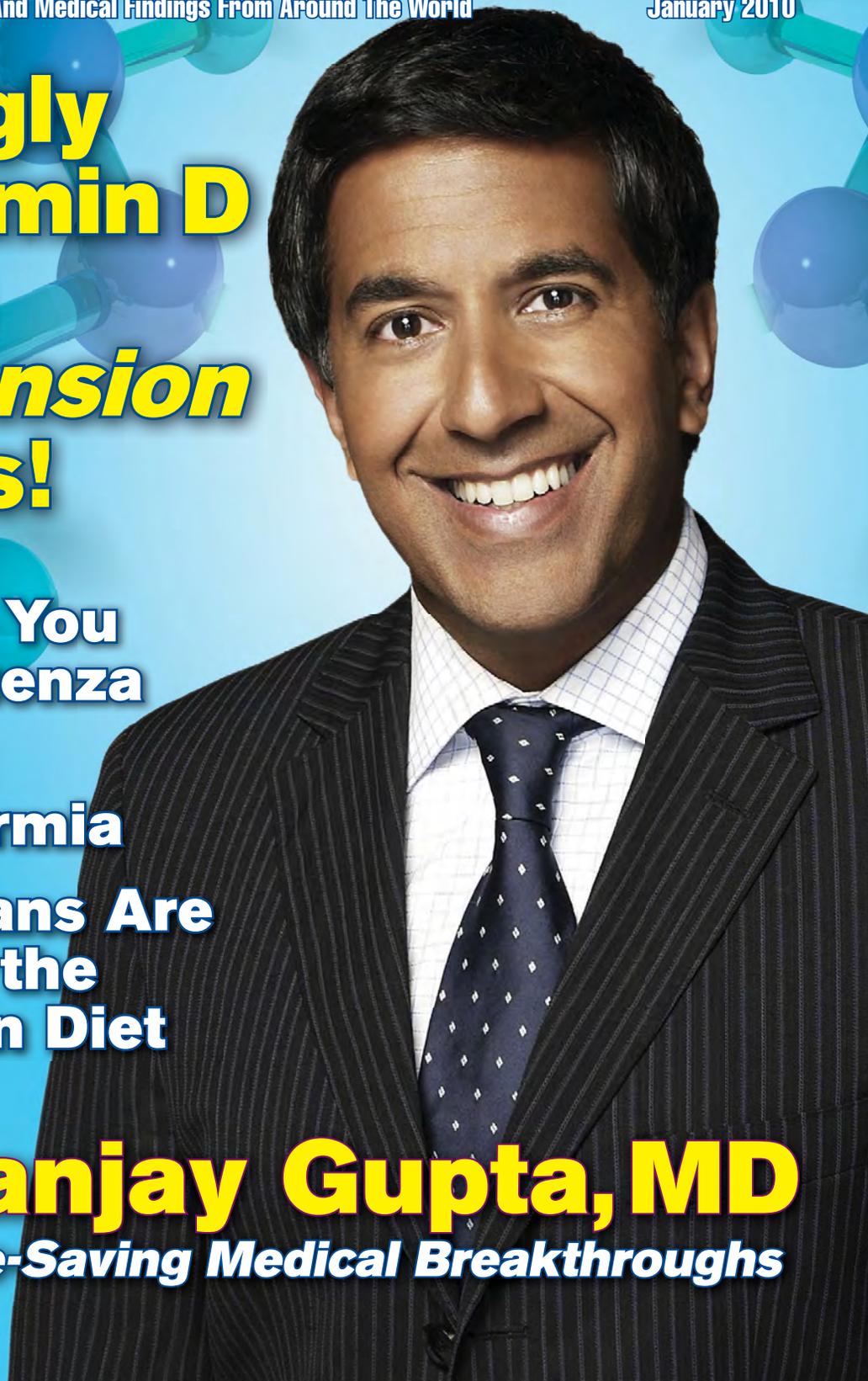
**What to Do If You
Contract Influenza**

**Saving Lives
with Hypothermia**

**What Americans Are
Missing from the
Mediterranean Diet**



Sanjay Gupta, MD
Life-Saving Medical Breakthroughs



SUPER SALE

At the end of each year, prices are discounted on all products offered by the Life Extension Foundation Buyers Club. The annual **SUPER SALE** enables members to obtain premium grade supplements at prices substantially **below** what commercial companies charge.

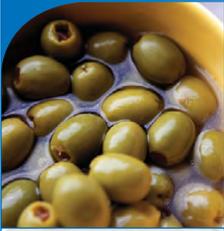
When members buy products from the **Life Extension Foundation Buyers Club**, they know that the **quality** of the products are backed by the organization's commitment to achieving an indefinitely extended life span. What follows are a few examples of the **savings** members enjoy during the **SUPER SALE**.

	Retail	Member SUPER SALE Discount Price Per Bottle
Super Omega-3 EPA/DHA with Sesame Lignans & Olive Fruit Extract 120 softgels Super-refined EPA/DHA fish oil plus sesame lignans and more potent olive fruit extract. #01482	\$32	\$16.81 <i>(10-bottle purchase)</i>
Optimized Resveratrol with Pterostilbene 250 mg, 60 veg. capsules High potency <i>trans</i> -resveratrol with quercetin, plus pterostilbene to support DNA "longevity genes." #01409	\$46	\$27.90 <i>(four-bottle purchase)</i>
Vitamin D3 with 1000 IU of Sea Iodine 60 capsules Combining 5000 IU of vitamin D3 and 1000 IU of iodine into one capsule make taking these two nutrients economical and convenient. #01372	\$14	\$8.44 <i>(four-bottle purchase)</i>
Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™ 100 mg, 60 softgels Now with shilajit, an organic compound shown to double levels of CoQ10 in the mitochondria. #01426	\$62	\$35.10 <i>(10-bottle purchase)</i>
Ultra Natural Prostate Formula* 60 softgels Now with more potent Saw Palmetto to support normal urinary flow and help support healthy prostate function. #01475 <small>*Not available for export</small>	\$38	\$21.60 <i>(12-bottle purchase)</i>
Bone Restore 150 capsules High-potency bone protection formula with Fruitex B® OsteoBoron®. #00811 <small>Fruitex B® and OsteoBoron® are registered trademarks of VDF Pharmaceuticals, Inc. US patent #5,962,049.</small>	\$22.50	\$13.16 <i>(four-bottle purchase)</i>
Super Booster with Advanced K2 Complex 60 softgels Critical, oil-based nutrients including gamma-tocopherol, sesame lignans, lycopene, lutein, ginkgo, chlorophyllin, selenium, and both forms of vitamin K2. #01380	\$42	\$25.65 <i>(four-bottle purchase)</i>
Super Zeaxanthin with Lutein & Meso-Zeaxanthin plus Astaxanthin 60 softgels Zeaxanthin, lutein, meso-zeaxanthin to support macular density, and astaxanthin to reduce eye fatigue. #01286	\$42	\$25.65 <i>(four-bottle purchase)</i>

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 **SUPER SALE** extends to **February 1, 2010**. Members traditionally take advantage of the **SUPER SALE** to stock up on a year's supply of their favorite supplements. To place your order, **call 1-800-544-4440** or visit **www.lef.org** (**SUPER SALE** pricing available only to members in the US, Canada, and England.)

REPORTS



26 WHAT ESSENTIAL COMPONENT OF THE MEDITERRANEAN DIET DO MOST AMERICANS LACK?

People who follow a Mediterranean-type diet have sharply lower degenerative disease risks. While Americans try to eat healthier food, most still lack one essential protective component of the Mediterranean diet.



36 HOW TO COMBAT INFLUENZA INFECTION

While a debate rages about the flu vaccine, a glaring omission from the medical establishment is what one should do if influenza or common cold symptoms manifest. The missing piece (overlooked by so many) is the urgent need to initiate immediate treatment with specific nutrients, hormones, and antiviral drugs. In this eye-opening report, William Faloon reveals his personal attack regimen to combat infectious disease.



52 PHYTONUTRIENTS: POWERFUL DISEASE DEFENSE

Often called superfoods, phytonutrients have emerged as a frontline defense against a vast array of age-related diseases. Chia has been proven to be a potent cancer and disease fighter. Other phytonutrients, from spirulina to mushrooms, support the body's immune function to resist infectious disease and cancer.



62 HOW HYPOTHERMIA SAVES LIVES

In *Cheating Death: The Doctors and Medical Miracles That Are Saving Lives Against All Odds*, Dr. Sanjay Gupta presents promising clinical applications for *therapeutic hypothermia*—a way to extend life and buy precious time during acute medical crises by substantially lowering body temperature.



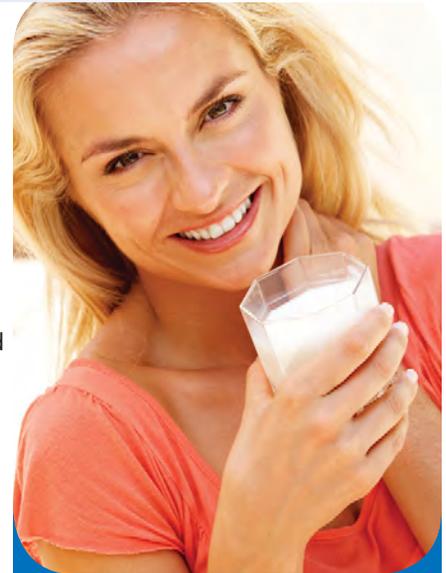
74 AN INTERVIEW WITH SANJAY GUPTA, MD

Dr. Sanjay Gupta talks to *Life Extension Magazine*® about the remarkable insights that went into the writing of *Cheating Death*. He also discusses the current state of research into conditions normally considered *irreversible* by conventional medicine.



82 ARE YOU ABSORBING ENOUGH VITAMIN B12?

The body's ability to absorb vitamin B12 gradually declines with age, leading to cognitive impairment and other health problems. A novel absorption technology has been shown to boost peak blood levels **10 times** better than conventional B12 therapy alone.



7 ON THE COVER

AS WE SEE IT

STARTLING FINDINGS ABOUT VITAMIN D BLOOD LEVELS IN LIFE EXTENSION MEMBERS

Inadequate vitamin D intake is linked to virtually every age-related disorder including **cancer, vascular disease, and chronic inflammation.**

People with higher **vitamin D** levels contract substantially fewer **viral** infections. An analysis of over 13,000 vitamin D **blood tests** reveals that most **Life Extension** members are not taking enough of this critical nutrient.

DEPARTMENTS



17 IN THE NEWS

How vitamin C protects the skin; reduced premenopausal vitamin D levels predict hypertension; tea catechins promote fat loss in overweight individuals; green tea drinkers less depressed; and more.



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LARGEST SELECTION OF VITAMIN D SUPPLEMENTS

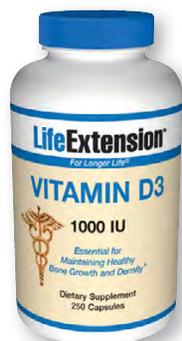
More studies have been published over the past four years supporting the health benefits of **vitamin D** than possibly any other compound.

The good news for consumers is that vitamin D is a very **low cost** supplement.

The objective of taking a vitamin D supplement is to achieve **25-hydroxyvitamin D** blood levels of **50 ng/mL** (and higher).

Life Extension's® exclusive analysis of over 13,000 **vitamin D** blood tests reveals that the minimum intake for most aging people should be around **7,000 IU** a day. Some individuals need **10,000 IU** of vitamin D daily.

You can choose the right dose of **vitamin D3** for you from the large selection of vitamin D3 supplements below. Remember to factor in that you may be getting **1,000-3,000 IU** of vitamin D in multi-nutrient formulas you already take.

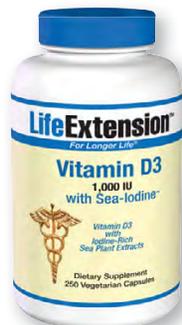


■ **Vitamin D3 1,000 IU • 250 capsules**

Retail: \$12.50

Four bottle Member/Super Sale Price: \$7.59

Commercial companies offered only **400 IU** vitamin D products when Life Extension long ago introduced this **1,000 IU** version. For most people, this 1000 IU potency is *insufficient* to attain optimal vitamin D blood levels. For smaller individuals who obtain **2,000-3,000 IU** in their multi-nutrient formulas (and children), this potency of vitamin D may be suitable. **Item# 00251**

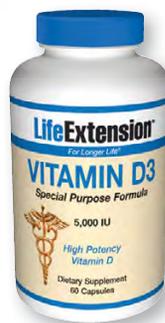


■ **Vitamin D3 1,000 IU with 1,000 IU of Sea-Iodine • 250 capsules**

Retail: \$22

Four bottle Member/Super Sale Price: \$13.50

Most people do not ingest enough vitamin D and iodine, especially those seeking to reduce their salt intake. Combining **vitamin D3** and **iodine** into one capsule makes taking these two nutrients economical and convenient. **Item# 01371**

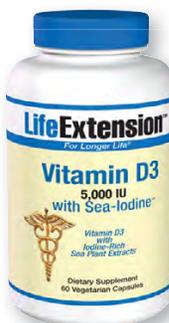


■ **Vitamin D3 5,000 IU • 60 capsules**

Retail: \$11

Four bottle Member/Super Sale Price: \$6.68

For those obtaining **1,000-3,000 IU** of vitamin D in their multi-nutrient formulas, this **5,000 IU** potency is what most need to *achieve* optimal vitamin D blood levels. **Item# 00713**

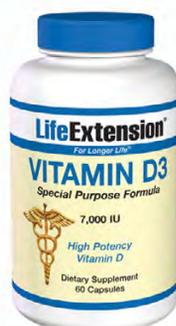


■ **Vitamin D3 5,000 IU with 1,000 IU of Sea-Iodine • 60 vegetarian capsules**

Retail: \$14

Four bottle Member/Super Sale Price: \$8.44

Most people do not ingest enough vitamin D and iodine, especially those seeking to reduce their salt intake. Combining **5,000 IU** of **vitamin D3** and **1,000 IU** of **iodine** into one capsule make taking these two nutrients economical and convenient. **Item# 01372**



■ **Vitamin D3 7,000 IU • 60 capsules**

Retail: \$14

Four bottle Member/Super Sale Price: \$8.51

Some individuals (such as those weighing more than 180 pounds) may require higher potencies of vitamin D. When combined with **1,000-3,000 IU** obtained from multi-nutrient formulas, this **7,000 IU vitamin D3** capsule should enable these individuals to attain **25-hydroxyvitamin D** blood levels above the desired range of **50 ng/mL**. **Item# 01418**



■ **Vitamin D3 Liquid Emulsion 2,000 IU • 1 ounce**

Retail: \$28

Four bottle Member/Super Sale Price: \$16.88

For those rare individuals who have difficulty absorbing enough vitamin D3 from powdered capsules, this liquid emulsion of vitamin D can be used. **Item# 00864**

To order any of these high-potency vitamin D3 supplements at low Super Sale prices, call 1-800-544-4440 or visit www.LifeExtension.com

CAUTION: Individuals consuming more than 2,000 IU/day of vitamin D (from diet and supplements) should periodically obtain a serum 25-hydroxyvitamin D measurement. Do not exceed 10,000 IU per day unless recommended by your doctor. Vitamin D supplementation is not recommended for individuals with hypercalcemia (high blood calcium levels). People with kidney disease, certain medical conditions (such as hyperparathyroidism or sarcoidosis), and those who use cardiac glycosides (digoxin) or thiazide diuretics should consult a physician before using supplemental vitamin D.

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.

Gustavo Tovar Baez, MD, operates the Life Extension Clinic in Caracas, Venezuela. He is the first physician in Caracas to specialize in anti-aging medicine.

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Stephen Strum, MD, is a medical oncologist specializing in the treatment of prostate cancer. He is co-founder and past medical director of the Prostate Cancer Research Institute. Currently, he directs a practice for prostate cancer patients in Ashland, OR.

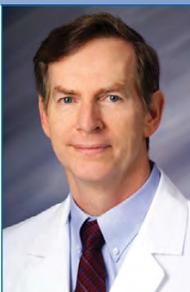
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John Boik, PhD, is the author of two books on cancer therapy, *Cancer and Natural Medicine* (1996) and *Natural Compounds in Cancer Therapy* (2001). He obtained his doctorate at the University of Texas Graduate School of Biomedical Sciences with research at the MD Anderson Cancer Center, focusing on screening models to identify promising new anticancer drugs. He is currently a post doctoral fellow at Stanford University Department of Statistics.



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Steven B. Harris, MD, is president and director of research at Critical Care Research, a company that grew out of 21st Century Medicine in Rancho Cucamonga, CA. Dr. Harris participates in groundbreaking hypothermia, cryothermia, and ischemia research. His research interests include antioxidant and dietary-restriction effects in animals and humans.



Stanley W. Jacob, MD, is Gerlinger Distinguished Professor, Department of Surgery, Oregon Health and Science University. He has authored 175 scientific articles and 15 books, and holds 3 patents, including the initial patent on the therapeutic implications of dimethyl sulfoxide (DMSO).



Richard Kratz, MD, DSci, is clinical professor of ophthalmology at the University of California, Irvine, and the University of Southern California (Los Angeles). Dr. Kratz pioneered the cataract-removal technique called phacoemulsification and developed intraocular lenses to replace the crystalline lens. He is currently involved in projects relating to glaucoma, cataract extraction, and facilitating eyesight for the totally blind.



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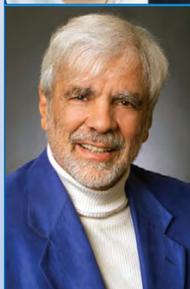
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Jonathan V. Wright, MD, is medical director of the Tahoma Clinic in Renton, WA. He received his MD from the University of Michigan and has taught natural biochemical medical treatments since 1983. Dr. Wright pioneered the use of bioidentical estrogens 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.

The Latest Advance in

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.

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

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.²

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.^{3,4}
2. Facilitating more efficient *delivery* of **CoQ10** into the **mitochondria**, resulting in greater cellular energy output.⁵⁻⁹

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.⁵⁻⁹

PrimaVie® is a registered trademark of Natreon, Inc.
Kaneka QH® is a registered trademark of Kaneka Corporation.

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The **new** 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.^{2,4,5} What's more, Life Extension has added this novel ingredient to its **CoQ10** formulations without increasing the price! So you get a more effective **CoQ10** at the same cost!

The retail price for 60 100-mg softgels of **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** is \$62. If a member buys four bottles during **Super Sale**, the price is reduced to **\$37.80** per bottle. **Item #01426**

The retail price for 100 50-mg softgels of **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** is \$58. If a member buys four bottles during **Super Sale**, the price is reduced to **\$35.78** per bottle. **Item #01425**

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



Item #01426

Item #01425

Startling Findings About Vitamin D Levels in Life Extension® Members



BY WILLIAM FALOON



No other nutrient, drug, or hormone has gained more scientific credibility than **vitamin D**.

Insufficient vitamin D is linked to virtually every age-related disorder including **cancer**,¹⁻¹¹ **vascular disease**,¹²⁻¹⁷ and **chronic inflammation**.^{2,18-23} Adults (and children) with higher **vitamin D** levels contract substantially fewer cold, flu, and other **viral infections**.²⁴⁻²⁶

Specific biological mechanisms have been identified to explain how vitamin D protects against so many human ailments.²⁷⁻³¹

More than **13,000 Life Extension®** members have had their **vitamin D** level checked using our convenient **blood testing** service. The results from these tests represent a goldmine of never-before-published data about achieved vitamin D blood levels in a large group of dedicated supplement users.

Our findings will shock many in the medical community who think that supplementing with less than **1,000 IU** a day of vitamin D is adequate. To the contrary, even **Life Extension®**'s previous aggressive dosing suggestions are probably too low to ensure *optimal* vitamin D status.

In another surprising revelation, scientists have discovered that high-dose **vitamin A** antagonizes the beneficial action of **vitamin D** in the body.³²⁻³⁴ This finding might explain why certain studies of people using commercial multivitamins (that contain too much **vitamin A** and woefully inadequate **vitamin D**) have failed to yield expected health benefits.

This article will present startling findings we have uncovered about vitamin D levels in our members' blood, as well as newly published data about how much vitamin D (and vitamin A) aging people really need.

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Combating Winter Infections

As daylight hours grow colder and shorter, incidence of the common cold, flu, and respiratory infections spikes upwards. Scientists have identified reduced vitamin D levels in winter months as a prime suspect for this increase in infectious disease cases.

Vitamin D from all sources (sunlight, sun lamps, or supplements) reduces the incidence of respiratory infections.^{24,26} Dutch children with the least sun exposure are twice as likely to develop a cough and three times more likely to develop a runny nose compared with children with the most sun exposure.³⁵

When Russian athletes were given sun lamps to stimulate vitamin D synthesis in the body, there were **50% fewer** respiratory infections and far fewer days of absence.³⁶

Children with the lowest vitamin D serum levels are **11 times more** likely to develop respiratory infection.³⁷ When 60,000 IU per week of **vitamin D** was administered (for six weeks) to children with frequent respiratory infections, the result was a **complete disappearance** of such infections in the following six months.³⁸

In a controlled trial of African women, a low dose (800 IU a day) of vitamin D resulted in a **three-fold reduction** in cold and flu symptoms compared to those given placebo.^{39,40}

Influenza kills around 36,000 Americans each year.⁴¹ Ensuring *optimal* vitamin D status, as will be described shortly, could slash influenza incidence and mortality.

How Vitamin D Boosts Immune Function and Suppresses Inflammation

Flu viruses (including swine flu, or H1N1) can induce a massive inflammatory response capable of killing the victim. In other words, it is not the virus that kills, but the body's *hyper-reaction* to the virus—in the form of uncontrolled over-production of *pro-inflammatory cytokines*. Vitamin D down-regulates the expression of pro-inflammatory cytokines such as *tumor necrosis factor-alpha*.⁴²

As people age, they often over-express these same destructive *pro-inflammatory cytokines*. The result is chronic low-level inflammation that damages aging arteries, joints, and neurons.⁴³⁻⁴⁷ By down-regulating excess *pro-inflammatory cytokine* production, **vitamin D** could save the lives of those stricken with acute influenza, or the dozens of inflammatory diseases that afflict millions of aging Americans each year.

Antimicrobial peptides are components of the immune system that protect against bacterial, fungal, and viral infections. Secreted by immune cells throughout the body, **antimicrobial peptides** damage the *outer lipid membrane*

of infectious agents (including influenza viruses), rendering them vulnerable to eradication.

Recent studies confirm that **vitamin D** dramatically upregulates the expression of these **antimicrobial peptides** in immune cells.⁴⁸ We now have a definitive *biological mechanism* to explain why vitamin D confers such dramatic protection against common winter illnesses.

What Are Minimum Vitamin D Blood Levels?

When blood is tested to assess vitamin D status, what is actually measured is the metabolically active **25-hydroxyvitamin D** form of the vitamin in the serum.



When irrefutable data emerged about vitamin D's role in preventing disease, experts initially recommended a minimum target blood level of **30 ng/mL** of *25-hydroxyvitamin D*.

In recognition of findings showing reduced incidences of disease in those with higher vitamin D levels, the standard laboratory **reference range** for *25-hydroxyvitamin D* was raised to **32-100 ng/mL**.

Based on recent and conclusive published studies, **Life Extension®**'s new minimum target level for *optimal* disease prevention is **over 50 ng/mL** of *25-hydroxyvitamin D*.⁴⁹⁻⁵⁴

As you will read next, **85.7%** of those utilizing our blood testing service have **less** than **50 ng/mL** of *25-hydroxyvitamin D*. While this may seem disconcerting, studies show that **50-78%**⁵⁵⁻⁵⁸ of the general population has **less** than **30 ng/mL** of *25-hydroxyvitamin D*, placing them at high risk for a host of degenerative diseases.

In fact, a startling **36%**⁵⁵⁻⁵⁹ of the general population has *25-hydroxyvitamin D* levels **below 20 ng/mL**, which may represent the world's *leading* cause of unnecessary disease and death.

Results from Life Extension®'s Vitamin D Tests

The **Life Extension Foundation®** analyzed results from 13,892 blood tests in members who had their blood levels of vitamin D (*25-hydroxyvitamin D*) evaluated from March 24, 2008 to September 27, 2009 (about 18 months).

The most disappointing finding was that **38%** of test results for *25-hydroxyvitamin D* were **less** than or equal to **30 ng/mL** (the previous minimum threshold). In addition, **69%** of test results were **less** than or equal to **40 ng/mL**, and **85%** of test results were **less** than or equal to **50 ng/mL**.

Life Extension®'s new minimum target level for *optimal* disease prevention is **50 ng/mL** of **25-hydroxyvitamin D**—and most members have **less** than this amount in their blood.

Figures 1 and 2 below show the startling percentages of supplement users with **less** than optimal vitamin D blood levels. Considering these people were probably taking at least **800-1,000 IU** of vitamin D daily, this widespread deficiency

uncovers an urgent need for serious supplement users to **increase** their vitamin D intake. No blood test result revealed vitamin D to be excessively high in any individual.

The Foundation also analyzed vitamin D test results in members who purchased 5,000 IU vitamin D supplements and subsequently obtained a *25-hydroxyvitamin D* blood test within three to nine months of product purchase.

These test results revealed markedly **higher** *25-hydroxyvitamin D* levels. Specifically, *25-hydroxyvitamin D* levels were nearly **30% greater!** (Figure 3) Interestingly, even many of these individuals did not achieve optimal status of **over 50 ng/mL** of *25-hydroxyvitamin D*, indicating the need for some people to take more than 5-6,000 IU a day of vitamin D.

The test results revealed quite a bit of individual variability, with many more older people testing out at the **lower** ranges of *25-hydroxyvitamin D*. Specifically, of the test results that showed *25-hydroxyvitamin D* levels less than **30 ng/mL**, more than **double** were observed in **Life Extension®** members older than age 55 years, compared with younger members. (Figure 4) This

Figure 1. Quintiles of 25-hydroxyvitamin D levels in 13,892 blood tests from Life Extension members

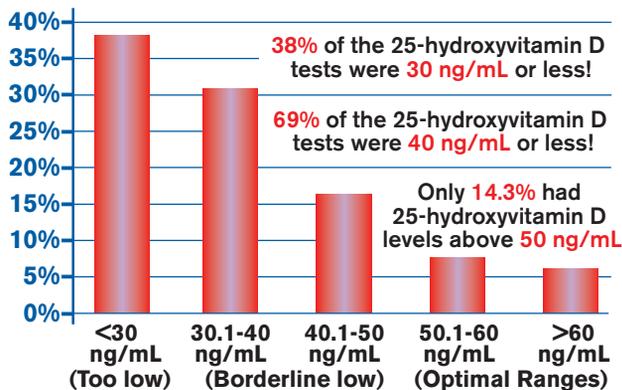
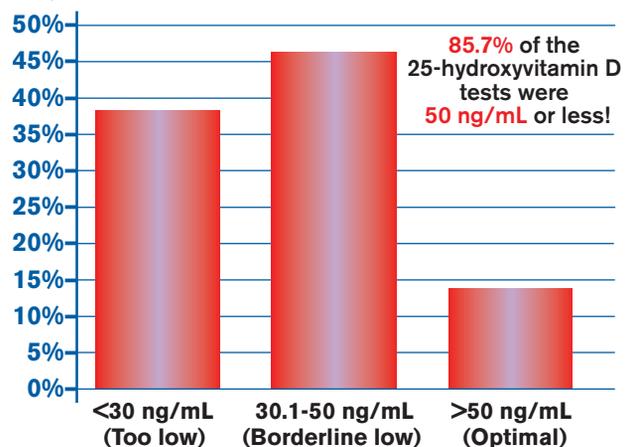


Figure 2. 25-hydroxyvitamin D levels in 13,892 blood tests from Life Extension members



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Figure 3. 25-hydroxyvitamin D status blood tests from Life Extension members stratified by vitamin D supplementation

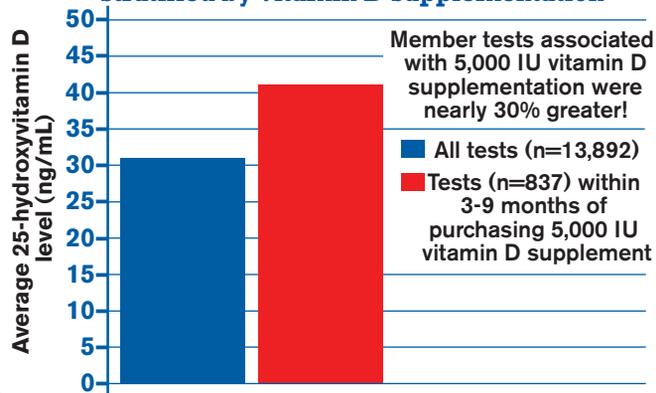
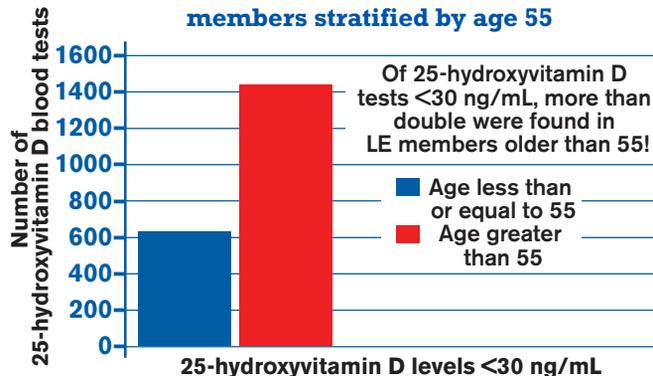


Figure 4. Inadequate 25-hydroxyvitamin D levels in blood tests from Life Extension members stratified by age 55



is consistent with the published literature showing that as people age, they convert less vitamin D in their skin from sunlight.^{60,61} We were not able to evaluate *body mass index*, which is another determinant of vitamin D requirement. Heavier people require more vitamin D than thinner individuals.

How Much Vitamin D Do You Need?

John Cannell, MD, is the president of *The Vitamin D Council*, a non-profit group that advocates higher vitamin D intake. According to a letter written to us by Dr. Cannell, adults need to take **5,000 IU** a day of vitamin D to put the vast majority of them (**97.5%**) above the **50 ng/mL** level.

Dr. Cannell supplied us with published papers arguing that optimal doses for adults are between **4,600** and **10,000 IU**, with persuasive evidence that **10,000 IU** a day of supplemental vitamin D is not toxic.⁶²⁻⁶⁸

To answer the question as to *exactly* how much **vitamin D3** an individual needs requires a **blood test**. Members can obtain this test for **\$47** by calling **1-800-208-3444**.

Since our analysis uncovered **85%** of blood test results are far below **50 ng/mL**, it appears that virtually all members should supplement with **5,000** to **8,000 IU** of vitamin D3 each day—especially in winter months!

Fears of vitamin D toxicity have caused health-conscious people to limit their vitamin D3 intake to only a few thousand IU (international units) a day. This amount is clearly inadequate to optimally protect against disease, based on recently published studies.^{52,64,69-72}

Those with a rare disorder called *sarcoidosis*, severe renal impairment, primary hyperparathyroidism, or any condition resulting in an elevated calcium level in the blood should consult with their physician before taking vitamin D supplements. A low-cost *blood chemistry test* easily rules out elevated blood calcium. The member price for a comprehensive CBC/chemistry test is only \$35.





Excess Vitamin A Can Thwart Vitamin D

Most aging people take a **multi-vitamin** supplement. In some cases, these commercial supplements may be doing more harm than good.

Preformed vitamin A is active **retinol** as opposed to **beta-carotene** that can convert to **retinol** in the body. We reviewed **14** popular multivitamin formulas and found the average amount of **preformed vitamin A** to be **4,395 IU**, while the average **vitamin D** content was only **407 IU**.

The problem with this potency ratio is that in the presence of **excess preformed vitamin A**, the **beneficial** effects of **vitamin D** can be neutralized.⁷³

The first hint of this problem occurred when a group of doctors reviewed historical medical records on the use of **cod liver oil** to prevent respiratory infections. In the **1930s**, two large controlled studies showed that cod liver oil **reduced** incidence of common colds by **50%** and respiratory infections by **30%** in adults.⁷⁴⁻⁷⁷

A study published in year **2004** showed that cod liver oil and a multivitamin slightly reduced mean number of respiratory infections in children, but the total number of doctor visits for these infections

was slightly **higher** in the cod liver oil/multivitamin group (68 versus 61).⁷⁸ The **1930s** study demonstrated far superior benefits with cod liver oil.⁷⁴⁻⁷⁷

One difference between these studies is that cod liver oil in the **1930s** study had **more vitamin D**. The other issue is that children in the **2004** study received **3,500 IU** of **preformed vitamin A** (not beta-carotene) and **only 700 IU** of vitamin D.

Given what we now know, a more appropriate dose should have been **500-1,000 IU** of **vitamin A** (instead of **3,500 IU** used in the 2004 study) and **2,000-3,000 IU** of **vitamin D3** (as opposed to **700 IU** used in the 2004 study).

Vitamins A and D compete for each other's **function** in the body. **Preformed vitamin A**, found in excess amount in many commercial supplements, can thwart **vitamin D's** protective effects.⁷³ This is **not** an issue with **beta-carotene**, as it converts to **vitamin A** in the body only on demand.

Consumption of **excess preformed vitamin A**, as found in commercial multivitamins and modern cod liver oil, may cause bone toxicity in those with **inadequate vitamin D** status. One study showed that women with the highest intake of **preformed vitamin A** had **2.1 times** more hip fractures.^{79,80} A meta-analysis found that people who took **preformed vitamin A** supplements had a **16%** increase in overall mortality,⁸¹ perhaps through **antagonism** of **vitamin D**.

When **vitamin A supplements** are given to children with **low** vitamin A status, the children have far fewer infections.⁸² When children hospitalized with pneumonia were given higher doses of **preformed vitamin A**, however, it worsened the clinical course, suggesting that

the vitamin should not be given unless there is clinical evidence of deficiency (or concurrent measles infection).⁸³

While vitamin A is critical in regulating cellular proliferation, and thus helping to protect against malignant diseases, when taken in excess amounts, **preformed vitamin A** can suppress the even more important **anti-cancer effects** of vitamin D.^{33,34,39}

Modern day cod liver oil contains **4,000** to **10,000 IU** of preformed vitamin A, and only **400** to **1,200 IU** of vitamin D. The adverse ratio (i.e., too much preformed vitamin A and insufficient vitamin D) is true for most multivitamin supplements.

As mentioned earlier, **Life Extension®** conducted a survey of popular multivitamins and found the average amount of **preformed vitamin A** to be **4,395 IU**, with **vitamin D** averaging only **407 IU**. Published studies confirm that **400 IU** of **vitamin D** a day, even if taken by itself, is **not** enough to protect against age-related



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disease.^{52,64,66,71,72,84} In the presence of **excess preformed vitamin A**, as is found in commercial multivitamins today, the effects of the small amount of **vitamin D** they contain may be nullified.

Our Blood Test Analysis Corroborates This

Most Foundation members take the **Two-Per-Day** or **Life Extension Mix** multi-nutrient formulas.

The amount of **vitamin D** contained in the daily dose of each of these formulas has been **1,000 IU**. Based on our many years of recommendations, members often take **1,000 to 6,000 IU** of additional vitamin D. Yet blood test readings from this group found **38%** had *insufficient* levels according to conventional medicine standards,



and **85%** were below the *optimal* minimal level of **50 ng/mL** of *25-hydroxyvitamin D*.

There was no **preformed vitamin A** in the **Two-Per-Day** formula and only **2,300 IU** of **preformed vitamin A** in **Life Extension Mix**.

Those who rely on commercial multivitamins may be obtaining too much **preformed vitamin A** (**4,395 IU/day** on average) and not enough **vitamin D** (**407 IU/day** on average). We fear that consumers learn of the favorable data about vitamin D and erroneously believe they are taking enough of it because they see it on the label of their multivitamin.

In response to what I have written so far, I hope commercial companies will increase the **vitamin D** and reduce the excess preformed vitamin A in their multivitamin products. I also anticipate in response to this article, that consumers will increase their vitamin D intake. A number of chronic disorders are potentially reversible if vitamin D status is optimized,⁸⁵⁻⁹⁵ and vitamin D3 is a low-cost dietary supplement sold virtually everywhere.

Changes We Are Making Based On This Data

Based upon our *extensive research*, we believe that most people require **5,000 IU to 10,000 IU** of supplemental **vitamin D** each day to achieve optimal blood level status. The need for **preformed vitamin A**, on the other hand, is only **500-1,000 IU** each day.

We are reducing the relatively low amount (**2,300 IU**) of **preformed vitamin A** in the daily dose of **Life Extension Mix** to **500 IU**. We are adding **500 IU** of **preformed vitamin A** to the daily dose of **Two-Per-Day** to make sure that



even those who don't adequately convert beta-carotene to vitamin A (retinol) will have a sufficient amount.

We are *increasing* the daily dose of vitamin D3 in our multi-nutrient formulas to **2,000 IU**. I need to emphasize, however, that almost everyone will need additional vitamin D based on our extensive analysis of members' blood tests. We believe people should strive for precise individualized dosing to achieve a blood level greater than **50 ng/mL**.

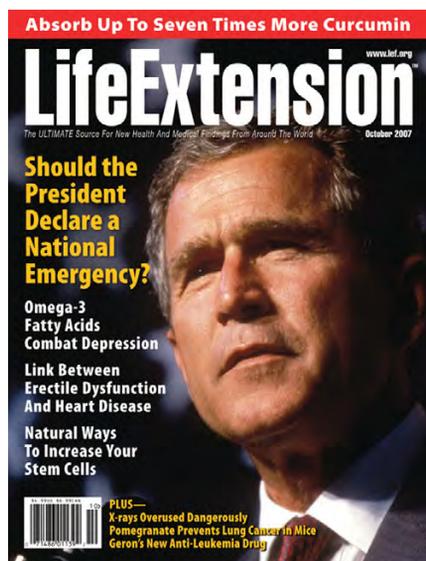
We are introducing a low-cost **7,000 IU** vitamin D capsule to make it easy for those who take one of our multivitamins, plus our mineral formulas (that contain **1,000 IU** of vitamin D) to supplement with the upper limit of vitamin D. Not every one will need to take this **7,000 IU** vitamin D capsule, but if your *25-hydroxyvitamin D* blood test result is under 50 ng/mL, please consider higher doses.

You may also need higher dosing if you weigh more than **180 pounds**, if you don't spend a lot of time in the sun, and if you are over age **55**. As we have previously published, all of these factors conspire to deprive your body of optimal vitamin D status.

Millions of Needless Deaths

The cover story of the September 2007 *Life Extension Magazine*® was titled “**Should the President Declare a National Emergency?**” This issue was designed to alert the nation’s leaders to the fact that the health care crisis could be averted if the President gave a televised speech urging all Americans to consume more vitamin D. The President at the time ignored my plea.

Exactly one year ago, I wrote an article titled “**Millions of Needless Deaths**” that provided unassailable documentation that millions of Americans were suffering and dying because they were not ingesting enough vitamin D. Despite hand delivering this article to every Congressional office, the federal government did nothing. The government also disregarded my offer to donate **50,000 bottles** containing **365 capsules** each of **1,000 IU** of vitamin D3 to the indigent in exchange for the President recommending that all Americans consume more vitamin D.



The federal government thinks it can resolve today’s health care cost crisis by raising taxes and providing universal substandard sick care. I can tell you from my over 30 years of designing individualized “outside the box” approaches to saving lives, that a bureaucratic “one-size fits all” medical mandate will not work. The federal government’s so-called “health” care initiatives, which are really “disease” care dictates, are economically and scientifically unsound.

While new data indicates that “disease care” costs could be cut in half if all Americans achieved a **50 ng/mL** vitamin D blood level, most textbooks do not view a person as vitamin D deficient until their blood levels drop below **12 ng/mL**. The epidemic of medical ignorance continues unabated, while the country wrestles with a seemingly impossible-to-resolve disease-care cost crisis.

Don’t Be A Victim

Vitamin D is so inexpensive that almost all Americans can afford *optimal* dose supplementation. The government could save hundreds of billions of dollars in Medicare/Medicaid outlays by simply *giving* vitamin D supplements to those who cannot afford it.⁹⁶ This common sense approach, however, is not being considered by bureaucrats who instead want to take your **tax dollars** to cover medical costs caused by widespread vitamin D insufficiency.

As a **Life Extension**® member, you don’t have to suffer the agonies and premature mortality associated with inadequate vitamin D. We have rapidly cut through the red tape to uncover and provide hard hitting data to enable your vitamin D status to be optimized.

Our analyses of over **13,000** vitamin D blood tests reveal that most of you are not ingesting enough vitamin D3. If you are relying on our multi-nutrient supplements, these will provide more vitamin D than others, but they still do not provide most of you with enough vitamin D.

With winter upon us, I suggest that all members consider taking **5,000 IU** of **vitamin D3** each day in addition to what they obtain in their multivitamins. Overweight and certain elderly individuals may need **7,000 IU** of vitamin D3 in addition to what they get in their multivitamins.

The many members who have already had their blood tested for vitamin D (25-hydroxyvitamin D) should review their numbers to see if they need to increase their vitamin D intake to achieve a reading greater than **50 ng/mL**. According to our records, more than **85%** of you are not ingesting enough! If you can’t find your blood test result, just call **1-800-208-3444** and we will send you a copy.

Remember to avoid supplements with excess levels of **pre-formed vitamin A** (greater than 1,000 IU to 2,300 IU). Commit to having a blood test (CBC/chemistry and 25-hydroxyvitamin D) within the next two months to evaluate your vitamin D status and to make sure your blood calcium and kidney function indicators are in normal ranges.

These simple approaches could spare you the agonies of the *multiple* degenerative diseases that plague the majority of the elderly.

Making A Difference!

As greater numbers of Americans realize the absurdities of governmental health care programs,

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they are joining the **Life Extension Foundation®** to avoid becoming personal victims of these bureaucratic failures.

I want to thank **Life Extension®** members for purchasing most of their supplements from our Buyers Club. We use these sales to fund critical research projects aimed at eliminating needless disease and death. We also support a campaign to reform incompetent government policies that deprive Americans of life-saving medical therapies.

Just once a year, we discount the price of every product we offer. During our annual **Super Sale**, members stock up on our most advanced formulations and enjoy considerable savings.

Every day we hear from grateful members who successfully follow our novel health-promoting suggestions. By relentlessly tearing down the walls of medical ignorance, we are making substantial positive differences in the lives of many human beings. I am enormously grateful to be part of this unprecedented endeavor to eliminate these underlying causes of illness and mortality throughout the world.

For longer life,



William Faloon

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Ultra Natural PROSTATE FORMULA

**With Even More Potent
Saw Palmetto Extract**

**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.

Recently added to the formula are *standardized lignans* from flax and the Norway spruce trees. These lignans convert to **enterolactone** in the intestine 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.^{1,3}

The **eight other** active ingredients in **Ultra Natural Prostate Formula** are:

- **Saw palmetto extract.** A number of normal biological events in aging men affect prostate function and structure. Saw palmetto has been shown to interfere with DHT activity in the prostate, inhibit the alpha-adrenergic receptor activity (to support normal urinary flow), and help control inflammatory actions in the prostate gland.^{10,11} A new DeepExtract™ extraction technology ensures the most desirable and complete bioactive profile of saw palmetto available.
- **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.⁴⁻⁸
- **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 the excess estrogen levels.⁹
- **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.¹²
- **Beta-sitosterol.** The most biologically active constituent of pygeum is beta-sitosterol. Beta-sitosterol from other plant sources is included in this prostate support formula.¹³
- **Cernitin®.** This European pollen extract has been shown to relax smooth muscle tone of the urethra, counteract DHT, and help regulate inflammatory reactions.¹⁴⁻¹⁸
- **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.^{19,20}
- **Lycopene.** This carotenoid associated with tomato's red color helps maintain healthy DNA gene function in prostate cells.²¹⁻²⁵



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

USPlus® Saw Palmetto 320 mg (Co ₂ DeepExtract™)	Phytosterol Complex 678 mg (standardized to 26.6% beta-sitosterol)
Nettle root extract 240 mg (<i>Urtica dioica</i>)	Boron 3 mg (from citrate, glycinate, and aspartate)
Pygeum extract 100 mg (11.7% pygeum sterols)	Cernitin® 252 mg
5-LOXIN® 70 mg	HMRlignan™ 20.15 mg
Lycopene extract 10 mg	Norway Spruce and ActiFlax™ Flax Lignan extract

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.

The retail price for 60 softgels of this standardized extract formula is \$38. If a member buys four bottles during **Super Sale**, the price is reduced to **\$23.63** per bottle. If a one-year supply is purchased, the cost drops to only **\$21.60** per bottle.

Not available for export.

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To order Ultra Natural Prostate Formula, call 1-800-544-4440 or visit www.LifeExtension.com

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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.

Brand New!

RESVERATROL PLUS PTEROSTILBENE IN ONE FORMULA!

In 2003, the Life Extension Foundation® introduced a purified **resveratrol** supplement that was later documented to favorably alter some of the changes in gene expression that cause us to age.

On **January 25, 2009**, CBS News **60 Minutes** featured an in-depth report on the multiple benefits that resveratrol may confer in slowing and even reversing certain aspects of aging.

What differentiates **Life Extension®'s** resveratrol: It provides 100% **standardized trans-resveratrol** plus a full spectrum of natural compounds from the grape that have demonstrated remarkable biological properties. Most products currently on the market contain varying quantities of **trans-** and **cis-resveratrol**, and fail to provide enough **trans-resveratrol** for optimal results. In addition, **Life Extension** has added **pterostilbene**, which researchers have found works in a **synergistic** fashion with resveratrol to activate one's "longevity genes."

Research funded by Life Extension has shown that a combination of low-dose (20 mg) **resveratrol** plus **grapeseed extract** induced many of the favorable **gene expression** changes seen in **calorie-restricted** animals. Other studies, however, have indicated that **higher doses** may be needed to obtain all of resveratrol's positive benefits including:

- **Improved Insulin Sensitivity**
- **Enhanced Mitochondrial Function**
- **Reduced Expression of Inflammatory Factors**
- **Protection Against the Toxic Effects of a High-Fat Diet**

Life Extension has meticulously evaluated published studies on **resveratrol** and **pterostilbene** to establish doses people might need to take to duplicate these remarkable laboratory findings. The results of Life Extension's analysis yield a wide range of potentially effective doses of resveratrol and pterostilbene.

Highest Potency Resveratrol

The resveratrol *potency* you choose may be based on your current state of health and/or your desire to personally reach the upper limits of a healthy human life span. Life Extension offers a wide range of standardized **trans-resveratrol** potencies in combination with **pterostilbene** (which also favorably alters gene expression), **quercetin**, and other grape phytonutrients.

Optimized Resveratrol with Pterostilbene provides the highest dosage of **trans-resveratrol** as well as a broad array of grape polyphenols, quercetin

All these Resveratrol Products are fortified with Pterostilbene!

(See each product description for amount of pterostilbene.)



Item #01413

Resveratrol with Pterostilbene

Provides **20 mg** of **trans-resveratrol** plus 120 mg of quercetin to facilitate resveratrol absorption. Pterostilbene content (125 mcg) equivalent to over **5 cups** of blueberries. Recommended dosage is 1 capsule daily with or without food. 60 vegetarian capsules

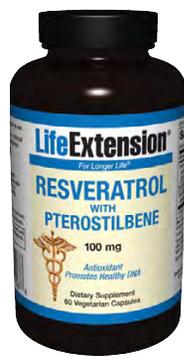
Retail Price: \$24

FOUR-BOTTLE SUPER SALE MEMBER PRICE:

>> \$14.85 PER BOTTLE

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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.



Item #01410

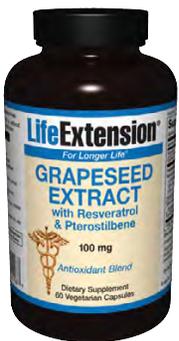
Resveratrol with Pterostilbene

Provides **100 mg** of *trans*-resveratrol plus 120 mg of quercetin to facilitate resveratrol absorption. Pterostilbene content (250 mcg) equivalent to over **10 cups of blueberries**. Recommended dosage is 1 capsule daily with or without food. 60 vegetarian capsules

Retail Price: \$36

FOUR-BOTTLE SUPER SALE MEMBER PRICE:

>> \$21.60 PER BOTTLE



Item #01411

GrapeSeed Extract with Resveratrol & Pterostilbene

Provides **20 mg** of *trans*-resveratrol plus 100 mg of grapeseed extract. Pterostilbene content (125 mcg) equivalent to over **5 cups of blueberries**. Recommended dosage is 1 capsule daily with or without food. 60 vegetarian capsules

Retail Price: \$36

FOUR-BOTTLE SUPER SALE MEMBER PRICE:

>> \$22.95 PER BOTTLE



Item #01409

Optimized Resveratrol with Pterostilbene

Provides **250 mg** of *trans*-resveratrol, 85 mg of grape plant polyphenols plus quercetin. Pterostilbene content (500 mcg) equivalent to over **20 cups of blueberries**. Recommended dosage is 1 capsule daily with or without food. 60 vegetarian capsules

Retail Price: \$46

FOUR-BOTTLE SUPER SALE MEMBER PRICE:

>> \$27.90 PER BOTTLE

To order these **Resveratrol products**, call **1-800-544-4440** or visit **www.LifeExtension.com**

PROTECT EYE HEALTH AND FIGHT TIRED EYES

By absorbing blue-light, the **macula** protects delicate **photo-receptor cells** in the retina 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,¹ 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 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.



Item #01286

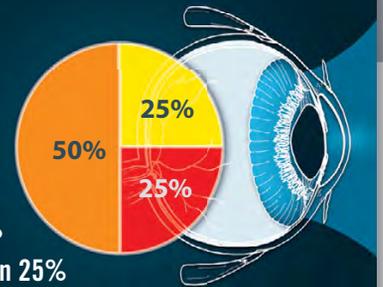
Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin contains a potent dose of **astaxanthin**, a carotenoid found in a red algae called *Haematococcus pluvialis*. Studies show that taking **astaxanthin** with other carotenoids protects against free-radical induced DNA damage, repairs UVA-irradiated cells, and inhibits inflammatory cell infiltration.²⁻⁵ Astaxanthin also helps support vascular health within the eye and improves visual acuity.⁴ Its fat-soluble nature offers protection to sensitive cells inside the eye.⁶

With its special combination of ingredients that targets eyestrain and protects visual acuity, **Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus 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 during **Super Sale**, the price is reduced to just **\$25.65** per bottle.



- Lutein 50%
- Zeaxanthin 25%
- Meso-zeaxanthin 25%



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

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

To order Super Zeaxanthin with Lutein & Meso-zeaxanthin Plus Astaxanthin, call 1-800-544-4440 or visit www.LifeExtension.com

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IN THE NEWS

The September Phenomenon

A report published in the *Canadian Medical Association Journal* revealed the results of a study conducted by researchers in Greece which found a significant reduction in mortality in several countries during the late summer months of August and September compared with the remainder of the year.*



Researchers at the Alfa Institute of Biomedical Sciences examined mortality statistics for 11 countries for up to 57 years. For the five Mediterranean countries included in the study, September had the lowest average daily mortality. August emerged as the month with the lowest mortality for Sweden, Canada and the United States. Although only two years of data were available for Japan, mortality was lowest in July. For Australia and New Zealand, average mortality was lowest in March and February (summer months in the southern hemisphere).

“Greater exposure to sunlight leads to increased synthesis of vitamin D, which may have beneficial effects for cardiovascular disease, renal failure, certain malignant diseases, autoimmune disorders and infections, including influenza,” they write.

—Dayna Dye

* *Can Med Assoc J.* 2009 Oct 13;181(8).

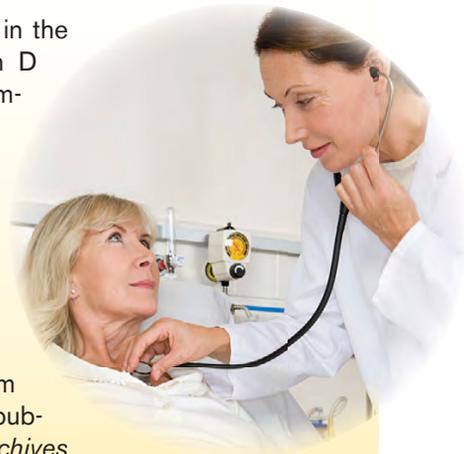
Higher Vitamin D Levels Associated with Increased Survival among Women Over a Six-Year Period

Researchers from Johns Hopkins University School of Medicine and other centers report in the journal *Nutrition Research* the finding of a lower risk of death over 72 months of follow-up for older women with high serum vitamin D levels.

Richard D. Semba and his associates analyzed data from participants in the Women’s Health and Aging studies I and II. For their study, the researchers selected 714 women in their seventies who had their serum 25-hydroxyvitamin D levels measured upon enrollment.

Only **8%** of women in the top quartile of vitamin D serum status died compared to **19.2%** in the lowest quartile. Stated differently, those with the higher vitamin D serum levels were almost **2.5 times less** likely to die over the six-year study period.*

The findings confirm those of two analyses published last year in the *Archives of Internal Medicine*.



—Dayna Dye

* *Nutr Res.* 2009 Aug;29(8):525-608.



How Vitamin C Protects the Skin

Research conducted at the University of Leicester in England contributes to the understanding of the mechanisms involved in vitamin C's ability to help heal and protect the skin.* The vitamin is a cofactor for the synthesis of collagen, the predominant protein in skin.

Tiago Duarte and his associates previously reported the discovery of the upregulation of DNA repair in vitamin C supplement users. The current research examined gene expression and DNA damage and repair in human skin cells known as dermal fibroblasts (which play a role in wound healing) that were exposed to a derivative of vitamin C.

In addition to vitamin C's ability to scavenge free radicals, Dr. Duarte's team uncovered additional mechanisms for the vitamin in repairing the skin and protecting it from further damage. "The results demonstrated that vitamin C may improve wound healing by stimulating quiescent fibroblasts to divide and by promoting their migration into the wounded area," Dr. Duarte explained.

—Dayna Dye

* *Free Radic Biol Med.* 2009 Jan 1;46(1):78-87.

Reduced Premenopausal Vitamin D Levels Predict Hypertension

The American Heart Association's 63rd High Blood Pressure Research Conference was the site of a presentation concerning the finding that low vitamin D levels prior to menopause are associated with an increased risk of elevated systolic blood pressure 15 years later.*

For their research, Flojaune C. Griffin, MPH, and colleagues evaluated data from 559 women enrolled in the Michigan Bone Health and Metabolism Study. While just 6% of the participants had systolic hypertension at the beginning of the study, 19% had been diagnosed by 2007 and an additional 6% had undiagnosed systolic hypertension. Women who had deficient levels of vitamin D in 1993 had a three times greater risk of developing systolic hypertension by 2007 than women with normal levels.

"This study differs from others because we are looking over the course of 15 years, a longer follow-up than many studies," stated Griffin.

—Dayna Dye



* American Heart Association's 63rd High Blood Pressure Research Conference.

Premature Death Risk Factor Analysis Points to Inflammation

An article published in the *Journal of Gerontology: Medical Sciences* reported the results of a study of men and women aged 65 and older which revealed risk factors associated with dying over a 13 year average period.*

Researchers evaluated data from 5,888 participants in the Cardiovascular Health Study Cohort. Median survival time was over 80 years for male participants and 87 years for women. Age, smoking status, pulmonary function, weight, cognitive function, heart failure history, heart disease history, self-reported health status, the apoE E4 allele, and most cardiovascular measures were associated with all-cause mortality over follow-up. Other than age, the risk factor most consistently associated with death across all causes was interleukin-6, a marker of immune function dysregulation which is elevated during chronic inflammation. "In terms of prevention, this study suggests that approaches that target cardiovascular disease and inflammation have the greatest potential to increase longevity," the authors conclude.

—Dayna Dye

* *J Gerontol: Med Sci.* 2009 Sep 1.





Tea Catechins Promote Fat Loss in Overweight Individuals

An article appearing in the journal *Obesity* reported the findings of Chinese researchers of improvements in weight and body composition in men and women who consumed green tea that contained high amounts of catechins.*

Researchers at Fudan University in China divided 182 moderately overweight Chinese men and women to receive beverages containing varying amounts of catechins for 90 days. By the end of the study, total body fat and body fat percentage were lower in the group that received the highest amount of catechins compared to the control group. In the highest catechin group, intra-abdominal fat area and weight were lower, and waist circumference averaged 1.9 centimeters less than those who received the control beverage.

"In this latest research, green tea providing significant catechin levels helped promote weight loss and positively affected body shape," lead researcher Dr. Niels Boon concluded.

- Dayna Dye

* *Obesity*. 2009 Aug 13.

High Folate Intake Associated with Lower Incidence of Hearing Loss in Men

The 2009 American Academy of Otolaryngology-Head and Neck Surgery Foundation Annual Meeting & OTO EXPO, held this year in San Diego, was the site of a presentation of research conducted at Brigham and Women's Hospital in Boston which found a protective effect for the B vitamin folate against the development of hearing loss in older men.*

For their research, Josef Shargorodsky, MD and his colleagues analyzed data from 26,273 male dentists, optometrists, osteopaths, pharmacists, podiatrists, and veterinarians who were 40-75 years of age upon enrollment in the Health Professionals Follow-Up Study in 1986. Health and dietary questionnaires completed every two years were analyzed for the intake levels of several vitamins, including folate. Questionnaires completed in 2004 obtained information on hearing loss diagnosed since the beginning of the study.

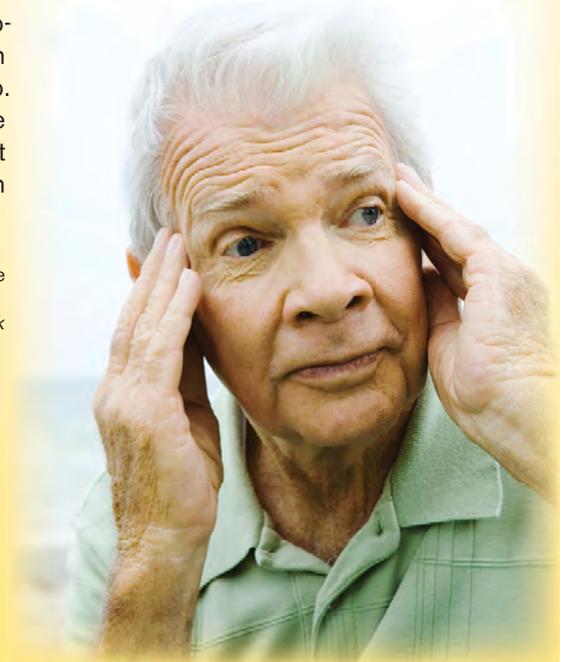
Over the course of the follow-up, 3,559 men developed hearing loss. Although no association was noted between the condition and other vitamin intake, men over 60 whose intake of folate from food and supplements was among the highest 20% of participants had a 21% reduction in the risk of developing hearing loss compared with those in the lowest fifth. The intake of alcohol, which can impede the bioavailability of folate, did not impact the relationship observed between folate intake and hearing loss, however, men whose alcohol intake was highest had a reduced risk of hearing loss with greater vitamin B12 intake.

The investigation is the first large epidemiologic study to prospectively examine the relation between diet and hearing loss. "The association between folate intake and incident hearing loss in our cohort is consistent with previous data showing that folic acid supplementation slowed the decline in low frequency hearing in older adults," the authors write.

"A possible explanation for the impact of age on the relation between folate intake and hearing loss is the increased prevalence of folate malabsorption and folate depletion in the older age group. Higher folic acid intake may be necessary to meet the optimal folate needs in this age group."

-Dayna Dye

* *Otolaryngology-Head and Neck Surgery*. 2009 Oct 5;141(3):P95.





Poison Control Statistics Prove Supplements' Safety

According to the most recent statistics available from the US National Poison Data System, there was not even one death caused by a vitamin or dietary mineral in 2007. The 132-page annual report of the American Association of Poison Control Centers published in the journal *Clinical Toxicology* shows zero deaths from multiple vitamins; zero deaths from any of the B vitamins; zero deaths from vitamins A, C, D, or E; and zero deaths from any other vitamin.*

Furthermore, there were zero deaths in 2007 from any dietary mineral supplement. This means there were no fatalities from calcium, chromium, zinc, colloidal silver, selenium, iron, or multi-mineral supplements. Sixty-one poison centers provide coast-to-coast data for the US National Poison Data System, which is then reviewed by 29 medical and clinical toxicologists. In 2007, NPDS reported 1,597 fatalities from drugs and other ingested materials. Not one death was due to a vitamin or dietary mineral supplement.

—Jon Finkel

* *Clin Toxicol.* 2008 Dec;46(10):927-1057.

Protective Effect Found for Ginkgo Against Radiation Damage

A report published in the October 11, 2009 issue of the *International Journal of Low Radiation* added evidence to a protective effect for *Ginkgo biloba* against radiation damage. *Ginkgo biloba* is a tree species whose leaves have been used for centuries in Chinese medicine. Ginkgo leaf extract contains antioxidant compounds called ginkgolides and bilobalides which help scavenge free radicals that attack nearly all components of the cell, including DNA.*

In their article, Chang-Mo Kang of the Korea Institute of Radiological and Medical Sciences in Taegu and colleagues describe their use of an assay for radiation-induced programmed cell death (apoptosis) to evaluate the protective effect of ginkgo extract against radiation exposure that occurs during accidents or occupational overexposure. In one experiment, white blood cells from human donors aged 18 to 50 were treated with one of four concentrations of ginkgo extract or a 9% saline solution before being exposed to gamma rays.

The researchers found a significant dose-dependent reduction in apoptotic cells among those treated with ginkgo. While radiation-induced apoptosis occurred in nearly one third of irradiated cells not treated with ginkgo, the number declined to 5% or less in cells treated with the highest concentration of the herb.

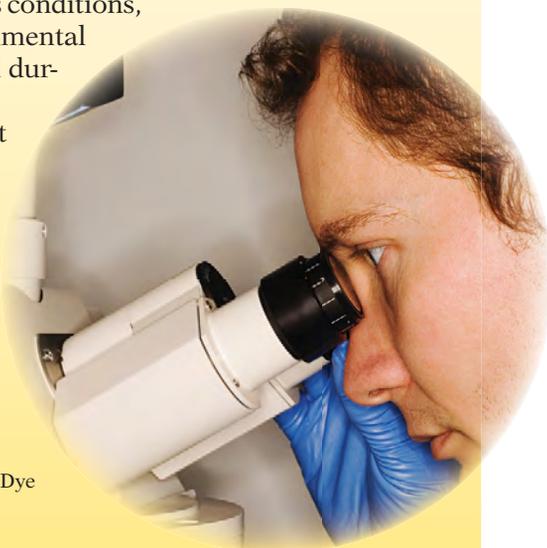
In another experiment, mice were treated with ginkgo extract or saline before and after receiving whole body ionizing radiation. Mice that did not undergo radiation served as controls. Examination of the animals' spleens found that treatment with ginkgo maintained organ size comparable with that of animals that did not receive radiation, while spleens in irradiated animals that did not receive ginkgo were significantly smaller.

In their discussion of the findings, the authors note that cell-damaging free radicals and reactive oxygen species can be generated in excess under numerous conditions, including exposure to environmental chemicals, specific drugs, and during normal aging.

"These results indicate that the radioprotective effects of ginkgo extracts administered prior to radiation are due to the OH radical scavenging activity," the authors write. "Therefore, ginkgo extract should be useful for the protection of radiosensitive organs against free radicals."

—Dayna Dye

* *Int J Low Rad.* 2009 Oct 11;6(3).



Ease Joint Discomfort With Arthro-Immune Joint Support

Effectively
Combat Inflammation



One capsule provides:

BCM-95® Bio-Curcumin® Extract	250 mg
PARACTIN® Andrographis Extract.....	150 mg

Inflammatory conditions debilitate millions of adults, resulting in *restricted mobility* and *reduced strength*. **Inflamed joints** can lead to *extensive damage* to surrounding connective tissues, which causes the hands, feet, and arms to become painful, swollen and stiff.

While conventional methods can produce side effects, **Arthro-Immune Joint Support** from Life Extension® combines two clinically proven plant extracts into one powerful formula to help those suffering from inflammation.

Andrographis paniculata has received acclaim for its beneficial effect on inflammation.¹ A Chilean study involved 60 adults who took either 150 mg **andrographis extract** a day or a placebo. Those taking the extract showed *dramatic improvement* of several outcomes, **including fewer numbers of tender and/or swollen joints**. For joints that remained tender and/or swollen, the intensity was lessened.²

Curcumin is a compound that is universally recognized for its impressive *antioxidant* and *fluid-regulating* properties. In an as-yet-unpublished double-blind clinical trial, an enhanced absorbing curcumin was shown to have a beneficial effect on inflammation.³

Life Extension's **Arthro-Immune Joint Support** contains **PARACTIN® Andrographis extract**, which has been used in clinical, animal and *in vitro* studies that have demonstrated

its efficacy in *combating* inflammation. It also contains **BCM-95® Bio-Curcumin®**, which is considered the *gold standard curcumin*, with bioavailability *far superior* to that of most curcumin extracts.

Life Extension's **Arthro-Immune Joint Support** provides scientifically validated plant extracts that have been shown to have significant salutary effects on tender or swollen joints. **Just one** capsule a day provides a potent serving of **PARACTIN®** and **BCM-95® Bio-Curcumin®**. A bottle of 60 capsules retails for \$30. When a member buys four bottles during **Super Sale**, the price is reduced to only **\$18.23 per bottle**.

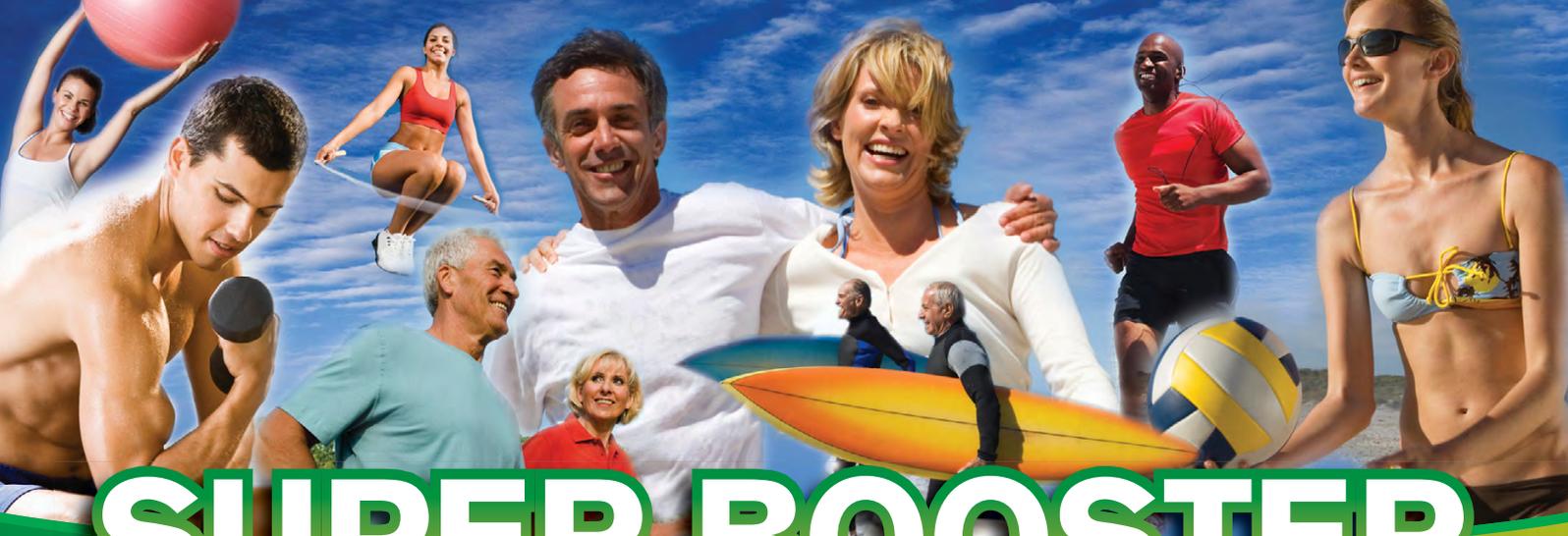
CAUTION: Do not take if you have gallbladder problems or gallstones. If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your health care provider before taking this product.

BCM-95® and Bio-Curcumin® are registered trademarks of Dolcas-Biotech, LLC. PARACTIN® is a registered trademark of HP Ingredients.

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To order **Arthro-Immune Joint Support**,
call **1-800-544-4440**
or visit **www.LifeExtension.com**



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** has been upgraded to provide higher doses of the most effective form of **vitamin K** known as **menaquinone-7**. 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 also 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,

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
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

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 now provides more **MK-7** than ever before — 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 during **Super Sale**, the price is reduced to just **\$25.65** 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.



Item #01380

To order
Super Booster, call
1-800-544-4440
 or visit
www.LifeExtension.com

Caution: Those individuals currently taking anticoagulants such as Coumadin® (warfarin) should consult their personal physician before taking supplemental vitamin K.

Lyc-O-Mato® is a registered trademark of LycORed Natural Products Limited.

Achieve Multiple Health Benefits From Highly Absorbable Curcumin

How Much Curcumin Are You Absorbing?

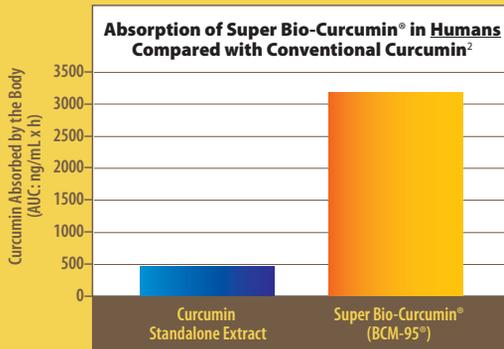


Chart 1. Super Bio-Curcumin® (BCM-95®) showed 6.9 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with conventional curcumin (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin absorbed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

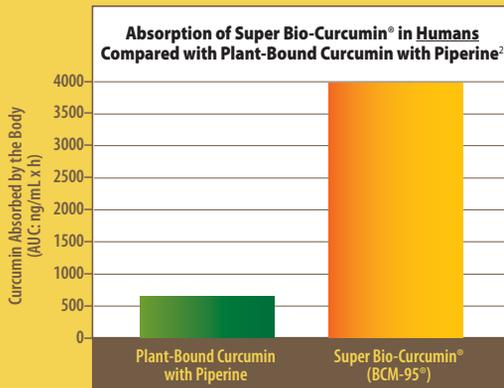


Chart 2. Super Bio-Curcumin® (BCM-95®) showed 6.3 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with plant-bound curcumin with piperine (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin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

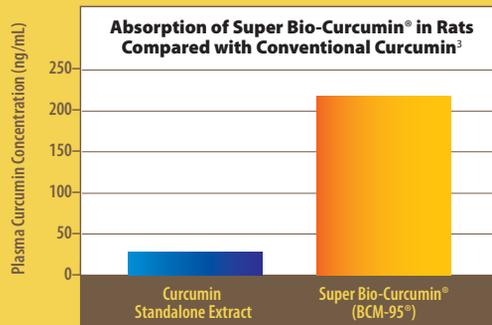


Chart 3. Bioavailability in rats fed with BCM-95® is 7.8 times higher than conventional curcumin.

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.^{1,2}

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 during **Super Sale**, the price is reduced to just **\$17.89** per bottle. Each bottle will last most members two months.

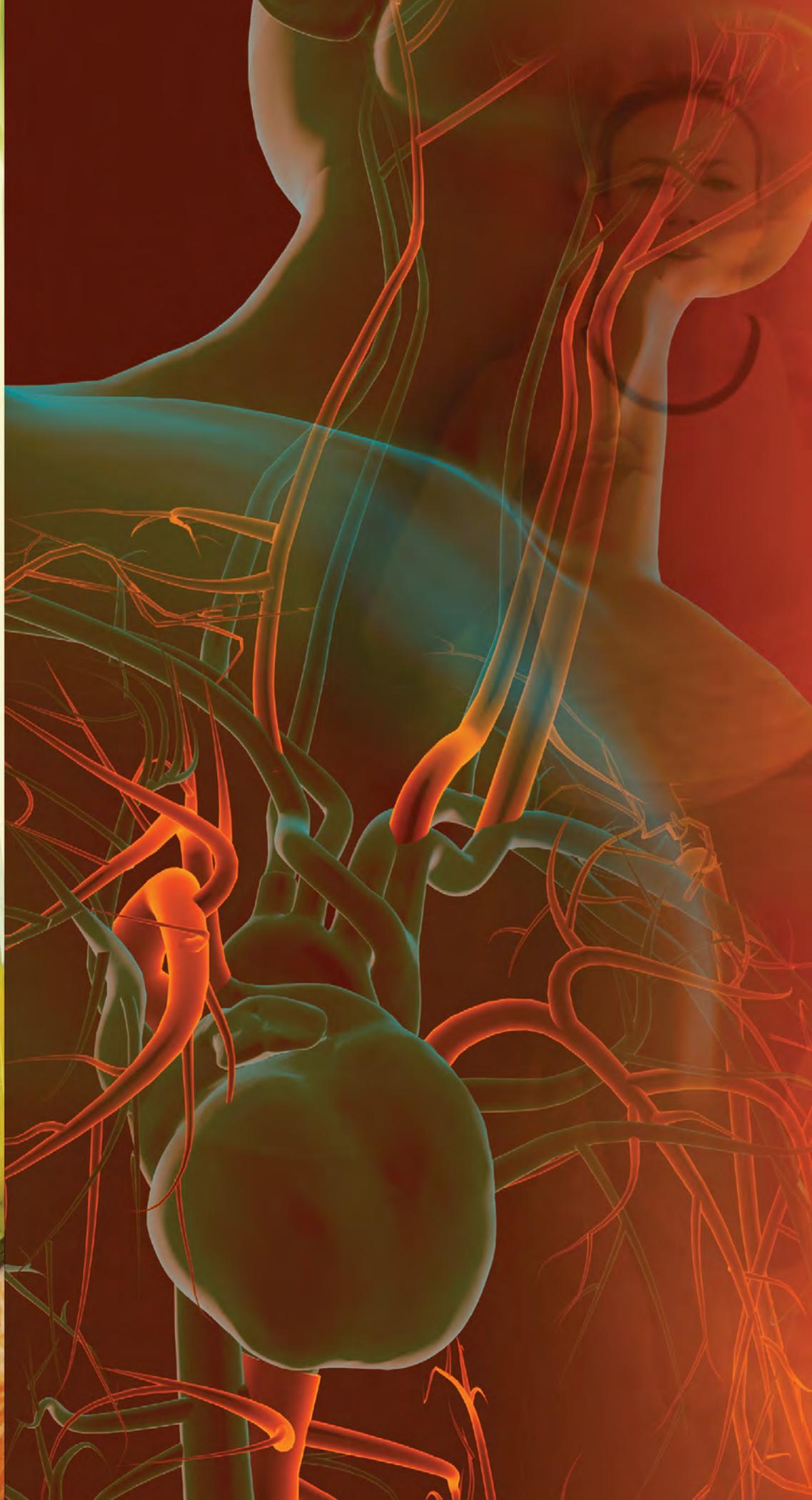
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To order Super Bio-Curcumin® with BCM-95®, call 1-800-544-4440 or visit www.LifeExtension.com

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BY DALE KIEFER

The *Secret* Behind the Mediterranean Diet

The Mediterranean diet is one of the healthiest ways to eat on the planet. It's rich in fiber, fruits-vegetables, and heart-healthy omega-3 fatty acids.

You may be surprised to learn, however, that many of its benefits emanate from just one of its components: **olive oil**.^{1,2} Emerging scientific evidence suggests that along with other foods found in the Mediterranean diet, specific olive oil compounds—**olive oil polyphenols**—enhance the diet's health-promoting effects.

For thousands of years, people in Mediterranean countries have eaten a diet rich in fresh fruits and vegetables, whole grains,

nuts and legumes, fish, wine, olive oil, and lean meat. The benefits of this approach are well-documented. They range from a reduction in **cardiovascular disease** risk to lower incidence of **neurological disorders, cancer**, and even **age-related bone loss**.³⁻¹⁵

Recent clinical studies indicate that these benefits result from the *combined* effect of the **polyphenols** such as **hydroxytyrosol** found in **olive oil**, in conjunction with **omega-3** from fish, **resveratrol** from red wine, beta-sitosterols abundant in plant foods, and other constituent compounds of the Mediterranean diet.¹⁶ >>



The Power of Olive Oil Polyphenols Revealed

Experts have long assumed that the *monounsaturated fat* content in olive oil is responsible for most of its health benefits. But a growing body of evidence suggests that the collective effects of *olive oil polyphenols* are just as important.

In 2007, Spanish researchers published a review of multiple clinical trials looking at various aspects of olive oil **polyphenolic** compounds' effect on health. The reviewers noted that monounsaturated fat alone could **not** account for all the observed benefits.

"Perhaps a high oleic acid intake is not the sole primary [agent] responsible for the healthy properties of olive oil," the authors wrote. If this were the case, any rich source of monounsaturated fats, such as non-virgin olive oil, or rapeseed/canola oil, would provide the same benefits as extra virgin olive oil, they argued.¹⁷

Another large study indicated that **polyphenols** are the nutritional "secret weapons" in olive oil. This large, multicenter clinical trial involving 200 subjects from five European countries, examined the effects of daily olive oil consumption on oxidative damage.¹⁸

Three different kinds of olive oil were used, each with increasing concentrations of polyphenols.¹⁸ Participants were randomly given about 0.84 fluid ounces of one of the olive oils each day for three weeks.

Investigators found that **all** the olive oils increased beneficial **high-density lipoprotein (HDL)** levels. All three also decreased **plasma triglycerides**.¹⁸

Consumption of medium- and high-phenolic-content olive oil favorably influenced the total cholesterol/HDL ratio and *reduced* levels of **oxidized low-density lipoprotein (LDL)**.¹⁸ "The greatest effects on increasing HDL-cholesterol levels and decreasing lipid oxidative damage were observed after [consumption of] **high-phenolic olive oil**," researchers noted.¹⁹ This led them to conclude that the polyphenols, rather than monounsaturated fat alone, are responsible for olive oil's multiple benefits.

Olive Oil Works with Omega-3 to Prevent Atherosclerosis

Many of the anti-inflammatory and cardioprotective benefits of the Mediterranean diet come from the omega-3s from fish and other seafood in the Mediterranean diet. However, recent scientific evidence showed that when consumed in combination, omega-3 fatty acids and olive oil polyphenols confer greater benefits than either nutrient alone.²⁰⁻²⁴

In July 2009, scientists presented data regarding atherosclerosis prevention in a preclinical model of atherosclerotic disease. Norwegian researchers used a blend of marine omega-3 fatty acids and extra virgin olive oil and the progression of atherosclerotic lesions was subsequently assessed.²³

Research also indicates that the combination of **omega-3** fatty acids with **olive oil polyphenols** offers enhanced benefits, beyond those provided by either nutrient alone.

Lesion formation was reduced by **54%** in the aorta and **61%** in the aortic arch of the female animals studied. Among males, significant reductions in lesion sizes were observed solely in the thoracic and abdominal aortas.²³

“This effect seemed to be [independent of] lipid metabolism and platelet aggregation,” they concluded. “Hence, dietary supplementation of such an oil mixture may be valuable in the prevention of atherosclerotic vascular diseases.”²³

Heart Health Benefits Comparable to Aspirin

Physicians routinely recommend that patients at risk for **cardiovascular disease** take low-dose aspirin because of its anti-clotting and anti-inflammatory action, which reduces the risk of a heart attack or ischemic stroke. Olive oil polyphenols may work just as well.^{25,26}

A recent study demonstrated that olive oil polyphenols decrease the “stickiness” of blood platelets as effectively as aspirin, lowering the risk of clotting.²⁶ The olive oil polyphenol **hydroxytyrosol acetate** inhibits synthesis of the body’s natural clotting factor, according to the *British Journal of Nutrition*.²⁶

A clinical trial performed on healthy male volunteers revealed similar findings. Subjects consumed olive leaf extract *before* submitting blood samples for analysis. Tests revealed a significant dose-dependent reduction in platelet activity with olive extract.²⁵

Dietary olive oil polyphenols have also been shown to significantly lower experimentally-induced inflammation.²⁷ Laboratory rats fed a diet rich in olive polyphenols have shown markedly diminished indicators of inflammation, compared to rats fed olive oil with no polyphenols.

Animals with adjuvant **arthritis**, a model of chronic inflammation, *also* fared better on a diet rich in polyphenols compared to those on diets without them. Olive oil polyphenols have even been shown to augment the effects of the anti-inflammatory drug **indomethacin** in pre-clinical models.²⁷

Natural Cancer Prevention

While epidemiologic and observational studies have long indicated the Mediterranean diet is protective against cancer,^{1,28,29} recent laboratory studies have demonstrated specific mechanisms and pathways by which olive oil constituents *inhibit* a variety of cancers at multiple stages.³⁰⁻³⁶

One mechanism involves suppression of **fatty acid synthase**, an enzyme that helps convert carbohydrates to fat in the human body. Natural compounds have been shown to induce *anti-cancer* effects by suppressing fatty acid synthase.³⁰

Olive Oil

- The synergistic effects of **olive oil polyphenols** are an overlooked source of many of the Mediterranean diet’s health benefits.
- Olive oil polyphenols **combined with omega-3s** may prevent heart disease more effectively than either class of compounds alone.
- Specific polyphenolic compounds found in olive oil, including **hydroxytyrosol acetate, oleuropein, hydroxytyrosol,** and **tyrosol** act synergistically to produce numerous favorable effects, from reduced heart disease and cancer risk to prevention of bone loss and diabetes.



Diabetes Prevention with Olive Oil Polyphenols

In the summer of 2009, Italian researchers published a study suggesting that olive oil polyphenols may slow or *prevent* the progression of **type 2 diabetes**.⁴³

They focused on **amylin**, a pancreatic hormone that normally works in concert with insulin to regulate blood sugar levels. However, in its abnormal form—called a **toxic peptide aggregate**—amylin *destroys* the cells in the pancreas responsible for making insulin.

Since **oleuropein** is the primary phenolic component of olive oil, the Italian team focused on oleuropein's effects on amylin aggregation and toxicity. In laboratory experiments, researchers found that **oleuropein**, when present during the formation of the toxic amylin aggregate, consistently prevented it from destroying insulin-producing cells.⁴³

Since olive oil polyphenols have been suggested to possess biological activities that may explain the health-promoting effects of the Mediterranean diet, researchers examined the effects of olive polyphenols on fatty acid synthase production in cancerous breast tissue. Extra virgin olive oil polyphenols, lignans, flavonoids, and secoiridoids were found to drastically suppress fatty acid synthase protein expression in breast cancer cells.³⁰ These findings provided **direct evidence** of a cancer-protective effect from olive oil polyphenols, offering a previously unrecognized mechanism for olive oil-related cancer preventive effects.

British researchers have also reported potent anti-cancer activity by olive polyphenols. Working with an olive oil extract containing the polyphenols **hydroxytyrosol**, **tyrosol**, and various **secoiridoid** derivatives, including **oleuropein**, investigators examined the effects of the extract on human colon cancer cells growing in culture.³⁷

The extract was found to *inhibit* cancer cell proliferation. Olive oil polyphenols were shown to *disrupt* a chemical process that ordinarily results in increased **cyclooxygenase-2** (COX-2) expression. COX-2, a target of common anti-inflammatory drugs,



is known to be involved in the promotion of a variety of cancers.^{38,39} “Our data suggest that olive oil polyphenols may exert chemopreventive effects in the large intestine by interacting with signaling pathways responsible for colorectal cancer development,” the researchers concluded.³⁷

Another laboratory study, conducted in Ireland, addressed the ability of colon cancer cells to metastasize, or spread.³² Investigators examined the activity of individual olive oil polyphenols against the invasiveness of human colon cancer cells using a standardized assay. “**Phenols from virgin olive oil have the ability to inhibit invasion of colon cancer cells**,” researchers concluded. Furthermore, the natural olive compounds inhibited cancer cell invasion “**at different levels of the invasion cascade**.”

Another recent laboratory study concluded that an extract of Greek olives, administered at varying concentrations, was significantly effective at *suppressing* proliferation of **gastric cancer cells**.³³ At the greatest concentrations, the olive polyphenol extract significantly induced **apoptosis**, or programmed cell death. All concentrations of the extract reduced inflammation-related protein production by the cancer cells. The researchers concluded, “The extract exhibits gastric cancer preventive efficacy by limiting cell proliferation, inducing cell death and suppressing inflammation in [stomach cancer] cells.”

Previous research has also shown that olive polyphenols exhibit antibiotic activity against *Helicobacter pylori*, the bacterium now known to be responsible for the great majority of cases of ulcer and implicated in the development of gastric cancer. In laboratory experiments, Spanish researchers demonstrated that olive polyphenols exerted strong anti-bacterial activity

against **eight** different strains of the problematic bacteria, including three that are resistant to antibiotics commonly used against them.⁴⁰

Potential Protection for Aging Bones

Olive oil polyphenols may help protect aging bones from becoming fragile. A recent pre-clinical model of post-menopausal bone loss found that olive polyphenols protect against bone loss. Rats fed a steady diet of olive polyphenols *avoided* the bone loss that those deprived of them experienced. “Polyphenol consumption seems to be an interesting way to prevent bone loss,” concluded researchers.⁵ In earlier work, the same team of French researchers found that olive oil and its primary polyphenol *oleuropein* can prevent inflammation-induced loss of bone mineralization (*osteopenia*)—a prelude to full-blown osteoporosis—in rats that had undergone removal of the ovaries.⁴¹

Summary

Extra virgin olive oil is unique among plant-derived oils in that it provides both heart-healthy monounsaturated/polyunsaturated fats and a significant amount of bioactive antioxidant, anti-inflammatory **polyphenols**. Described as “the most genuine component of the Mediterranean diet,”⁴² olive oil is now



emerging as a critical component of a healthy diet. Research has demonstrated or suggested that olive oil polyphenols play an important role in protecting humans from heart disease, cancer, and age-related bone loss. These effects are due in part to *synergistic* activity among various natural polyphenols,¹⁶ which reduce inflammation and decrease oxidative stress, among other beneficial activities.

Research also indicates that the combination of **omega-3 fatty acids** with **olive oil polyphenols** offers enhanced benefits, beyond those provided by either nutrient alone.²⁰⁻²³ ●

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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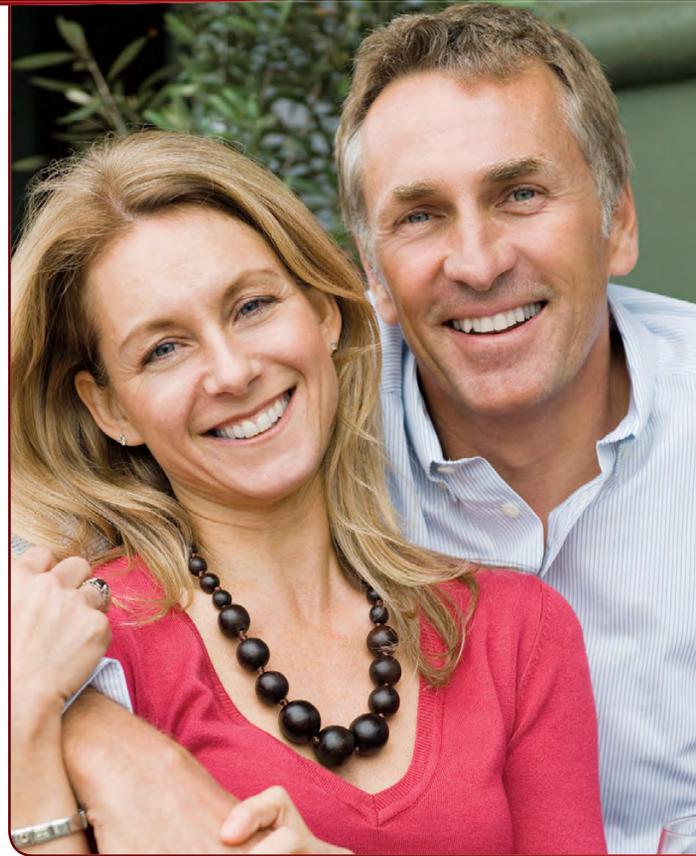
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Aging is Characterized by Inflammation, Glycation, and Mitochondrial Decay

The loss of cellular vitality is caused by a number of factors, including **mitochondrial problems, glycation, and free-radical reactions**. Life Extension® members have access to a state-of-the-art nutritional formula called **MITOCHONDRIAL ENERGY OPTIMIZER** that helps protect delicate cellular structures and enables cells to perform life-sustaining metabolic processes.

MITOCHONDRIAL ENERGY OPTIMIZER is designed to counteract age-related structural and functional changes by providing the following unique ingredients:

- **CARNOSINE** As humans age, proteins in their bodies become **irreversibly damaged** by **glycation** reactions. *Glycation* is the cross-linking of proteins and sugar to form **non-functioning** structures (Advanced Glycation End-Products or “AGEs”) in the body, which can lead to alterations of normal cell function. **Carnosine** is not only a powerful **anti-glycating** agent, but it also protects **neurons** against reactive and cytotoxic protein carbonyl species associated with normal aging.¹⁻⁵
- **LUTEOLIN** Systemic inflammation is involved in most undesirable consequences of aging. Culprits behind **chronic inflammatory** reactions are pro-inflammatory **cytokines**, such as **interleukin-1** and **tumor necrosis factor alpha**. *Luteolin* is a super-potent plant extract that has been shown to modulate these dangerous inflammatory cytokines.⁶⁻¹¹
- **BENFOTIAMINE** Effectively modulates multiple destructive biochemical pathways, including AGEs’ formation pathway, which are induced by higher than desirable blood glucose levels. Human mortality studies indicate that *ideal* fasting glucose levels are between **74–85 mg/dL**. Yet many aging people have fasting glucose above **90 mg/dL**, which is less than optimal.¹²⁻¹⁴ Benfotiamine protects endothelial cell integrity from the effects of high glucose levels. In addition, benfotiamine exhibits direct antioxidative capacity and prevents induction of DNA damage.¹⁵
- **PYRIDOXAL 5'-PHOSPHATE** Aging results in the formation of **advanced glycation end-products** throughout the body. **Pyridoxal 5'-phosphate** is the active form of vitamin B6 that has been shown to protect against both lipid and protein **glycation** reactions.¹⁶⁻¹⁹
- **R-LIPOIC ACID** Destructive free-radical activity in the **mitochondria** plays a major role in the loss of cellular vitality. A **microencapsulated Bio-Enhanced® R-lipoic acid** facilitates youthful **mitochondrial energy output** while guarding against **free radicals**. Two forms of lipoic acid are sold on the supplement market, but **R-lipoic acid** is far more potent.²⁰⁻²³
- **ACETYL-L-CARNITINE ARGINATE** The amino acid L-carnitine is required to transport fats into the **mitochondria** to be burned for cellular energy. **Acetyl-L-carnitine arginate** is a patented form of carnitine that also **supports neurites** in the brain.²⁴



Taking all of the individual ingredients in the **Mitochondrial Energy Optimizer** separately would be prohibitively expensive, but Life Extension® members obtain this comprehensive formula at substantial savings.

A bottle of **Mitochondrial Energy Optimizer** containing **120 capsules** retails for \$86. If a member buys four bottles during **Super Sale**, the price is reduced to **\$52.65** per bottle.

Just four capsules of the Mitochondrial Energy Optimizer provide:

Carnosine.....	1000 mg
Acetyl-L-carnitine arginate DiHCl	700 mg
Bio-Enhanced® R-Lipoic acid	150 mg (microencapsulated)
Benfotiamine	150 mg
Pyridoxal 5'-Phosphate	100 mg
Luteolin.....	8 mg



ITEM #01368

Bio-Enhanced® is a registered trademark of GeroNova Research, Inc.

To order Mitochondrial Energy Optimizer, call **1-800-544-4440** or visit **www.LifeExtension.com**

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RejuveneX[®] FACTOR

Expertly Formulated With Advanced Anti-Aging Ingredients

RejuveneX[®] Factor incorporates nutrients with proven therapeutic value, resulting in more noticeable skin firmness and elasticity, smoother skin tone, and vibrant texture and volume:

- **POMEGRANATE** demonstrates some of the most potent antioxidant properties of any plant.¹
- **MATRIXYL™ 3000** restores youthful tone and texture by nourishing collagen and reducing sagginess.
- **CERAMIDE-2**, together with Ceraphyl[®] NGA, helps prevent dehydration even when the moisture level in your skin diminishes with age.²
- **GRAPE SEED EXTRACT** contains powerful phenolic compounds that help promote the elasticity, flexibility, youthfulness, and health of your skin.³

RejuveneX[®] Factor is formulated with the QuSome[®] advanced efficacy delivery system that enables these ingredients to penetrate the skin's lower layers for greater nourishment and extended protection.

More Active Ingredients Than Other Anti-Aging Skin Creams

With 25 active ingredients, RejuveneX[®] Factor is the world's most nutritionally complete skin care formula. RejuveneX[®] Factor contains multiple antioxidants and other ingredients that have been scientifically documented to keep skin youthful, including:

- **GREEN AND WHITE TEA EXTRACTS** help keep your skin looking youthful by providing protection against oxidative stress.

Matrixyl™ 3000 is a trademark of Sederma, Inc.
Ceraphyl[®] is a registered trademark of International Specialty Products. QuSome[®] is a registered trademark and patented by Biozone Laboratories, Inc.

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2. *Arch Dermatol Res.* 2005 May;296(11):514-21.
3. *J Med Food.* 2003;6(4):291-9.
4. *Carcinogenesis.* 2003 May;24(5):927-36.

These antioxidants help combat the visible aging effects associated with glycation—reducing visible signs of aging by as much as 75%.⁴

- **VITAMIN C** in ascorbyl phosphate form quenches skin-damaging free radicals and nourishes the skin's collagen strands.
- **HYALURONIC ACID** to help the skin retain moisture.
- **ALPHA-LIPOIC ACID**, a potent and versatile antioxidant that helps reduce the appearance of premature wrinkling of the skin and improve skin texture.
- **BETA-GLUCAN**, which has been shown to penetrate deep into the skin and deliver significant skin benefits as a long-lasting, film-forming moisturizer, is essential to retaining youthful-looking skin. Beta-glucan's ability to penetrate the epidermis to reach the dermis (the layer where wrinkles form) makes this ingredient essential for any skin care regimen. It has also been shown to increase skin firmness and nourish collagen.
- **VITAMIN A** improves the appearance of wrinkles associated with natural aging.
- **VITAMIN E** in both alpha and gamma tocopherol forms helps protect against environmentally induced oxidation in the skin's outer layer.
- **RNA** (ribonucleic acid) is critical for healthy skin rejuvenation.

A 1.7-fl.-oz. (50-mL) pump of RejuveneX[®] Factor retails for \$65. If a Life Extension[®] member buys four bottles during Super Sale, the price is reduced to just \$37.13 per bottle.



RejuveneX[®] is formulated with ingredients shown to dramatically improve the appearance of dry, creased, or damaged skin.

To order RejuveneX[®] Factor, call 1-800-544-4440, or visit www.LifeExtension.com



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.¹⁻⁹

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.¹⁰

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.

New 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.¹¹⁻¹⁴ Research shows that a combination of olive oil and fish oil supplements helps with inflammation better than a placebo or fish oil alone.¹⁵ Therefore, Super Omega-3 provides the equivalent polyphenol content of **6 ounces of Extra Virgin Olive Oil**.

Super Omega-3 provides a new, higher concentration **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.

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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go-3 EPA/DHA

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 during **Super Sale**, the price is reduced to **\$18.90 per bottle**. If **10 bottles** are purchased during **Super Sale**, the price per bottle is reduced to only **\$16.81**. **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 during **Super Sale**, the price is reduced to **\$20.93 per bottle**. If **10 bottles** are purchased during **Super Sale**, the price per bottle is reduced to only **\$18.90**. **Item# 01484**

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**

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

Important note: If you are taking anticoagulant drugs, use this product only under the supervision of your physician. Blood tests that measure clotting can be used to ensure these nutrients are not reducing the clotting factors in your blood to abnormal levels.

Upgraded Formula!

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

EPA Pure+™ Extract	1400 mg
(eicosapentaenoic acid)	
DHA Pure+™ Extract	1000 mg
(docosahexaenoic acid)	
Olive Fruit Extract	600 mg
[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)]	
Sesame seed lignan extract	20 mg



Item #01482

Item #01484



What To Do If You CONTRACT INFLUENZA

Including H1N1 (Swine) Flu or the Common Cold

BY WILLIAM FALON

With daily news reports warning of a swine flu pandemic, members have besieged our health advisors with questions about what they should do to protect themselves against the **H1N1** (swine flu) virus.

The good news is that **Life Extension**® members obtain a considerable amount of immune support via the supplements they already use, especially those taking high-dose **vitamin D**.

An important question, however, is what one should do if they develop symptoms of a viral infection? As the days grow colder, the risks of contracting common flu and cold viruses increase. Each year, flu virus infections kill around **36,000** Americans and cause miseries for millions.¹ An outbreak of the swine flu virus is expected this winter.

While certain supplements (and drugs) purport to shorten the duration of a viral infection, most of them fail to provide significant relief. Over the past 28 years, Life Extension® personnel have experimented with various *nutrients*, *hormones*, and *drugs* in order to minimize the impact of the common cold and typical flu viruses.

In this article, I will reveal what has worked for me personally to ward off common cold/flu viruses and what has been validated in the scientific literature to be effective.

I will also elaborate on some aggressive **prescription drug** strategies to consider in the event that you contract a severe form of swine flu or other type of influenza. > >

Don't Wait for Full-Blown Illness to Manifest

People often wait until they are very sick before seeking influenza treatment. This delay can preclude rapid eradication of the infectious agent. In some cases, treatment delay can be lethal.

I have found enormous personal benefit by taking aggressive actions upon the onset of the very first cold-flu symptom. I respond to a mild symptom the way some people do after they have suffered days of agonizing flu virus miseries. My strategy is to not let the virus gain a foothold in my cells. Up until now, my approach has apparently succeeded inasmuch as I have not suffered more than a day of significant cold-flu illness since **January 1983**.

I am going to reveal my personal program in the following paragraphs, but the key point I want to emphasize is to immediately address the very first symptom of a cold-flu viral infection like it is the most lethal agent you have ever encountered. I analogize this approach to dropping a nuclear bomb when conventional weapons might be adequate. While some people wait until full-blown viral symptoms manifest, I don't have a choice. Life Extension® is a 24-hour/day operation with no room for down time. I don't have the luxury of calling in sick just because a virus has invaded my body.

If you were to contract swine flu (H1N1) or other influenza types, it is especially critical that you immediately initiate the antiviral *drug therapies* I will discuss later in this letter. Antiviral drugs can be effective, but only when they are initiated within 24-48 hours of the manifestation of symptoms.

Unleashing the Nuclear Bomb

I typically work an intense schedule with frequent exposure to sick people, yet I have gone **27 years** without suffering a serious cold-flu viral infection.

While it would be convenient to credit the supplements I take every day, the fact is that I follow an aggressive protocol as soon as I feel that a viral infection may be taking hold. Scientific studies substantiate the individual components of what I do, but there have been no clinical trials to support the use of this entire protocol. I'll discuss some of the research that supports my rationale later, but here are the *drugs, nutrients, and hormones* I take as soon as the first symptom of common cold or flu manifests:

1. CIMETIDINE in the dose of 800 mg (and higher) each day. This drug is sold over-the-counter in pharmacies to combat heartburn, but its beneficial

side effect is to boost immune function by reducing T-suppressor cells, thereby keeping the immune system in a hyperactive state.² While sold over-the-counter, it would still be wise to read the package insert in case this drug is contraindicated for you. For most people, cimetidine provides a powerful immune system stimulation that is particularly effective against certain viruses.

2. HIGH-ALLICIN GARLIC in the dose of 9,000 mg once or twice a day. This potent form of garlic will cause painful stomach-esophageal burning if you don't eat food right afterward. The intake of 9,000 mg of this kind of garlic will cause you to reek of a strong sulfur odor, but saturating the body with this pungent garlic is the objective. Garlic has shown direct virus-killing effects in a number of published studies.^{3,4}

3. DHEA in the dose of 200-400 mg early in the day. This is much higher than normal,⁵ but DHEA has shown some unique benefits in boosting one's ability to mount a stronger immune response and also protecting against dangerous inflammatory cytokine responses that sometimes occur in response to viral infections.

4. LACTOFERRIN in the dose of 1,200 mg a day. This natural constituent of mothers' milk boosts natural killer cell activity and can kill certain viruses.⁶

5. ZINC LOZENGES in the dose of two 24 mg lozenges every two waking hours. Please be aware that this is a very high dose of zinc and is considered toxic if taken over the long term.^{7,8} You should **only** do this for a few days. Zinc has shown a direct effect of inhibiting the ability of cold viruses to latch onto your cells.⁶

6. MELATONIN at bedtime in the high dose of 10-50 mg (ordinarily, melatonin is taken at levels of just 1-3 mg per evening). Melatonin induces a powerful immune response and this high dose can facilitate the deep sleep one often needs to fend off an infection. This dose of melatonin will make you extremely tired, so please only take this before bedtime and do not operate any machinery or vehicles after ingestion.⁹

7. AGED GARLIC EXTRACT in the dose of 3,600 mg a day. There are unique immune-boosting compounds in aged garlic that work differently than those found in high-allylicin garlic.¹⁰

It is important to note that I take the above doses in addition to the supplements I use every day. My

personal program closely resembles the **Top Ten** most important *nutrients, hormones and drugs* Life Extension® recommends to its members plus 5,000 IU of **vitamin D3** each day.¹¹ (Refer to www.lef.org/vitamins-supplements/Top10 for the current Top Ten list.)

Garlic's Unsung Benefits

With all the high-tech advances occurring in medicine, garlic would appear to be a relic of the past. Yet the scientific literature documents that garlic has powerful effects against certain viruses.

For instance, a study tested one capsule daily of an allicin-containing **garlic** supplement from November thru February on a group of 146 volunteers.¹² Half the group received the garlic while the unfortunate other half got a placebo. The garlic group suffered **63% fewer** common cold infections compared to the placebo group. Even more significant, those in the garlic group who did catch a cold suffered symptoms for an average of only **1.52 days** compared to **5.01 days** for the placebo group. This placebo-controlled study corroborates the benefits I have personally derived by taking much higher doses of high-allicin garlic as soon as cold symptoms are present.

The conclusion of the doctors who conducted this garlic study was, "**An allicin-containing supplement can prevent attack by the common cold virus.**" Considering the number of people afflicted with a common cold each year, you would think this would have been the lead news story of the day. Instead, this study remains buried in a scientific journal, while the medical establishment still states "**there is no cure for the common cold.**"

Ribavirin is a prescription drug that has potent antiviral effects.¹³⁻²⁶ Yet a Chinese study showed that at least in the test tube, *garlic* is more effective than *ribavirin* in inhibiting viruses that attack the intestinal track.²⁷ Life Extension® has recommended *ribavirin* to treat various viral infections since year **1983**, but in this particular study, **garlic** was shown to be superior.

A number of published studies indicate that both high-allicin garlic and aged garlic support healthy immune function while exerting antiviral effects.²⁸⁻³⁴ Low-cost garlic may be nature's most powerful weapon against certain viruses.

Cimetidine's Life-Saving Side Effect

A little-known side effect of the heartburn drug *cimetidine* is that it inhibits the production of **T-suppressor cells**.² In doing so, it boosts immune function by preventing the immune system from turning itself down.



What You Need to Know

How to Combat H1N1 Swine Flu

- During the winter months, the risk of contracting a cold or flu increases.
- With the threat of a swine flu pandemic, people are more concerned than ever about how to protect themselves and their families.
- Many nutrients and drugs can help prevent viral infections and hasten their resolution when they do occur.
- Nutraceuticals that may protect against flu include vitamin D, garlic (both aged and non-aged forms), dehydroepiandrosterone (DHEA), lactoferrin, zinc lozenges, and melatonin.
- Pharmaceuticals that can help combat flu include cimetidine, Tamiflu®, Relenza®, ribavirin, and amantadine.
- Individuals who suspect they may have the flu should take action as soon as possible to fight the viral infection. Antiviral medications are typically only effective if initiated within the first 24-48 hours of the onset of symptoms.



Cimetidine has shown other immune-modulating effects such as increasing natural killer cell activity and boosting levels of natural immune stimulants *interleukin-2* and *gamma interferon*.³⁵⁻³⁸ Human studies demonstrate cimetidine's efficacy against herpes and viral warts.^{35,39-42}

Since cimetidine is safe for most people,⁴³ taking 800-1,000 mg at night (or 200 mg three times a day and then 400 mg at night) seems like an effective way to temporarily turn up the immune system. Cimetidine in 200 mg tablets can be purchased over the counter at pharmacies. The directions in the over-the-counter package insert say that up to 800 mg a day is safe, but some published studies where cimetidine is administered as an antiviral agent have used up to 1000 mg a day.⁴⁴

Mother's Milk

It is well known that infants obtain protection against certain infections from components contained in mother's milk. One such component is *lactoferrin*, which has well-documented immune-potentiating effects.⁴⁵⁻⁴⁷

Lactoferrin may stimulate macrophages, which in turn may help to induce cell-mediated immunity.⁴⁸

Although many of the studies are on animals, lactoferrin is naturally present in many mucous membrane secretions in the human, suggesting an innate human antimicrobial function.^{6,49}

A study showed that lactoferrin inhibits viral infection by interfering with the ability of certain viruses to bind to cell receptor sites.⁴⁶

Immune-Boosting Hormones

Dehydroepiandrosterone (DHEA) and its metabolites have demonstrated powerful immune-enhancing and antiviral effects.⁵⁰⁻⁵⁴ The administration of 50 mg a day of DHEA to elderly men resulted in the following immune enhancements compared to placebo:⁵⁵

- Increase of **35%** in the number of monocyte immune cells
- Increase of **29%** in the number of B immune cells
- Increase of **62%** in B-cell activity
- Increase of **40%** in T-cell activity
- Increase of **50%** in interleukin-2
- Increase of **22% to 37%** in natural killer cell number
- Increase of **45%** in natural killer cell activity.

One reason that influenza can be so lethal to aging people is that their immune systems are weakened. A deficiency in DHEA appears to be partially responsible for the age-related decline in immune function.⁵⁶ One study showed that a metabolite of DHEA augmented activation of T-helper cells and protected mice from a lethal influenza virus infection.⁵⁴

Melatonin has broad spectrum immune-enhancing effects and has been specifically shown to decrease viral load and prevent death in mice infected with certain viruses. The conclusion of one melatonin study was:

"The immunomodulatory, antioxidant, and neuroprotective effects of melatonin suggest that this indole must be considered as an additional therapeutic alternative to fight viral diseases."⁵⁷

Another study examined the immune function benefits of melatonin and found that melatonin activated interleukin-2 and gamma interferon, the body's natural hormone-like agents that facilitate T-helper cell production.⁵⁸

Taking high-dose **DHEA** in the morning (200-400 mg) and high-dose **melatonin** (10-50 mg) before bedtime would appear to be logical approaches to follow when battling a viral infection.

Preventing Cold Viruses From Lodging in Your Body

A number of published studies show that if zinc lozenges are taken within 24 hours of the onset of common cold symptoms, the severity and duration of cold miseries are significantly diminished.⁵⁹⁻⁶²

Rhinoviruses are the medical term to define viruses that typically cause the common cold. Rhinoviruses attach to cell receptor sites in sinus and throat tissues, become lodged in nose-throat cells, and then replicate out of control.⁶³ By binding to the same cell receptor sites as do cold viruses, zinc inhibits the ability of rhinoviruses to take hold in the body.

A meta-analysis of all the published literature on zinc lozenges was conducted in 2004 and the conclusion of the report was:

“Clinical trial data support the value of zinc in reducing the duration and severity of symptoms of the common cold when administered within 24 hours of the onset of common cold symptoms. Additional clinical and laboratory evaluations are warranted to further define the role of ionic zinc for the prevention and treatment of the common cold and to elucidate the biochemical mechanisms through which zinc exerts its symptom-relieving effects.”⁵⁹

The key here is to suck on two 24-mg zinc lozenges at the very first symptom of a cold and continue doing this every two waking hours. Once rhinoviruses bind to their receptor sites in the nasal tissues and begin replicating, zinc lozenges lose their efficacy. Considering how inexpensive zinc lozenges are, it makes sense to keep them in the medicine cabinet so that they are immediately available if cold symptoms manifest.

One caveat to remember is that chronic use of zinc in doses over 300 mg a day may suppress immune function.⁶⁴ If one were to suck on two zinc lozenges every two hours over the course of a day, the amount of total zinc intake can easily exceed 300 mg/day. This does not appear to be a problem in the short term, but if you start taking zinc lozenges and your cold miseries do not subside, you would be better off ceasing it after a few days. Remember that less than 100 mg a day of zinc can improve immune function, whereas long-term use above 300 mg a day concerns some doctors.

Dealing With Lethal Influenza Infections

Be it the swine flu or a typical influenza virus, one should not take any flu virus infection lightly.

Way back in 2003, Life Extension® advised its members to take the prescription antiviral drug **Tamiflu**® if flu symptoms developed. A complete description of Tamiflu® can be found in the *Influenza* chapter of the *Disease Prevention and Treatment* (Life Extension Media, 2003) book or it can be accessed online at www.lef.org/flu.

Tamiflu® may be especially effective when initiated within 24-48 hours of contracting influenza or swine flu virus. Government health agencies stocked up on Tamiflu® a few years ago and rationed it when the *avian flu* raised concern. There is no longer a shortage and it should be available in most pharmacies as long as you have a prescription. Another antiviral drug called **Relenza**® may also be considered if you contract severe flu symptoms.

Ribavirin is a broad-spectrum antiviral drug. Life Extension® discovered its unique benefits in 1983 by giving it to cats that contracted feline leukemia, a viral disease. Ribavirin proved highly effective in curing feline leukemia in our limited use of it, yet no studies have been published to validate our serendipitous finding. Since 1983, Life Extension® scientists have personally taken ribavirin when flu symptoms occur, and it has proven highly effective on an anecdotal basis.



Tamiflu® is safer than ribavirin, and ribavirin should only be considered in cases of severe viral infection that do not respond to conventional therapies.

The Life Extension Foundation® waged a multi-decade war against the FDA to get ribavirin approved in the United States. The FDA finally capitulated and approved ribavirin as an adjuvant treatment for hepatitis C.

A concern with using ribavirin is that it has been shown to cause anemia in some people.⁶⁵ This always puzzled us at Life Extension®, since we were not hearing of our members encountering an anemia problem in response to ribavirin. A recent study may have solved the mystery as to why our members did not suffer ribavirin-induced anemia. It turns out that ribavirin induces anemia at least partially by causing excess free radical damage to red blood cells.⁶⁶ Since Life Extension® members typically take loads of antioxidants, they were unwittingly protecting themselves against ribavirin/free radical-induced anemia.

Whether ribavirin has efficacy against swine flu is unknown at this time, though ribavirin's mechanism of action against common influenza viruses indicates it might produce additive benefits to either *Tamiflu*® or *Relenza*®. If you are severely stricken with influenza that is not responsive to any other treatment, ask your doctor to consider prescribing 400 mg of ribavirin to be taken three times a day until viral symptoms subside.

Vitamin D Boosts Immune Function and Suppresses Inflammation

Flu viruses (including swine flu) can induce a massive inflammatory response that can kill the victim in rare cases. In many cases, it is not the virus that kills, but the body's *hyper-reaction* to the virus—in the form of uncontrolled over-production of *pro-inflammatory cytokines*. Vitamin D downregulates the expression of pro-inflammatory cytokines such as *tumor necrosis factor-alpha*.⁶⁷

By downregulating excess *pro-inflammatory cytokine* production, **vitamin D** could save the lives of those stricken with acute flu viruses. Some other cytokine-suppressing agents include *fish oil*,⁶⁸⁻⁸⁵ *green tea*,⁸⁵⁻⁹¹ *borage oil*,⁹²⁻⁹⁴ *curcumin*,⁹⁵⁻¹⁰⁷ and *flavonoids*.¹⁰⁸⁻¹¹⁷

Severe swine flu infection sometimes causes dangerous *Staphylococcus* bacterial infections to occur in the lungs.¹¹⁸ In addition to the proper antibiotics, **vitamin D** may also help combat concomitant staph infections. Here's how:



Curcumin.

Antimicrobial peptides are components of the immune system that protect against bacterial, fungal, and viral infections. Secreted by immune cells throughout the body, **antimicrobial peptides** damage the *outer lipid membrane* of infectious agents (including influenza viruses), rendering them vulnerable to eradication.

Vitamin D upregulates the expression of these **antimicrobial peptides** in immune cells,¹¹⁹ providing a definitive *biological mechanism* to explain why vitamin D confers such dramatic protection against common winter illnesses. Those who contract concomitant bacterial infections with swine flu should also be prescribed antibiotic drugs.

Symptoms of Swine Flu

According to the Centers for Disease Control (CDC), symptoms of swine flu infections, like seasonal flu infections, can include:¹²⁰

- fever, which is usually high, but unlike seasonal flu, is sometimes absent
- cough
- runny nose or stuffy nose
- sore throat
- body aches
- headache
- chills
- fatigue or tiredness, which can be extreme
- diarrhea and vomiting, but more commonly seen than with seasonal flu

For most people, swine flu symptoms will abate within a few days and not cause a serious problem. A tiny minority of victims, however, develop life-threatening pulmonary infections that require ICU hospital care. (Pregnant women are at increased risk of complications from flu; pregnant women with suspected or confirmed H1N1 influenza infection warrant close observation, according to the World Health Organization.)

Here are the **warning signs** that should signal to anyone with swine flu to seek medical care urgently.¹²⁰

In children:

- Fast breathing or trouble breathing
- Bluish skin color
- Not drinking enough fluids
- Not waking up or not interacting
- Being so irritable that the child does not want to be held
- Flu-like symptoms improve but then return with fever and worse cough
- Fever with a rash

In adults:

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting

Quadruple Antiviral Drug Therapy

If one develops common influenza or the swine flu, it would make sense to immediately initiate *Tamiflu*[®] (oseltamivir) antiviral drug therapy in the normal dose of 75 mg twice a day (for five continuous days). In treating severe swine flu infections, ask your doctor to consider prescribing as high as double the recommended dose of *Tamiflu*[®], which would be 150 mg twice a day, and to do this for five continuous days.

Life Extension[®] members were informed about *Tamiflu*[®] in June 2003. Now that the media has made H1N1 (swine) flu headline news stories, *Tamiflu*[®] has become a household word. In reaction to the avian flu scare in 2005, there was a shortage of *Tamiflu*[®]. We reminded members back then that another antiviral drug called *Relenza*[®] (zanamivir) is available and may have certain advantages over *Tamiflu*[®].

Relenza[®] functions by the same antiviral mechanism as *Tamiflu*[®]. The advantage of *Relenza*[®] is that it is administered as an inhalant and delivered directly into the lungs. Since the H1N1 (swine) virus inflicts its lethal effects primarily in the lungs, *Relenza*[®] might

be more effective than *Tamiflu*[®] in combating H1N1-induced pneumonia.

The problem with using only *Relenza*[®] is that swine flu rapidly can progress to a systemic illness. While *Relenza*[®] does exert some systemic effects, it might be best suited to eradicate swine flu viral replication in the lungs. Thus, one would still want the additional systemic antiviral benefits of *Tamiflu*[®].

Relenza[®] and *Tamiflu*[®] interfere with viral infections by blocking the active site of the influenza viral enzyme called *neuraminidase*. Drugs that inhibit *neuraminidase* cause influenza viruses to aggregate at the body's cell surface and reduce the number of viruses released from infected cells. Since *Relenza*[®] and *Tamiflu*[®] are both *neuraminidase inhibitors*, doctors often believe that a person should only take one of these drugs (i.e., *Relenza*[®] or *Tamiflu*[®]) when treating swine or other influenza viral infections.

Those seriously infected with swine flu may ask their doctors to consider 75 mg twice a day of oral *Tamiflu*[®], along with the inhaled dose of 5 mg of *Relenza*[®] twice a day. *Relenza*[®] and *Tamiflu*[®] have both been used at higher doses without apparent toxicity.

As with most currently available antiviral drugs, treatment with *Relenza*[®] or *Tamiflu*[®] should start in the first 48 hours after the onset of symptoms. (Refer to the attached addendum before initiating *Relenza*[®] therapy.)

The drug *ribavirin* inhibits viruses via mechanisms that are different than those of *Tamiflu*[®] and *Relenza*[®].



One of these mechanisms is to disrupt viral RNA synthesis, causing viruses to self-destruct. Ribavirin is available as a 200 mg oral capsule and in inhalant form. If one contracts a severe case of swine flu, it would appear logical to ingest 800-1,200 mg a day of ribavirin in oral capsule form, in addition to Tamiflu® and/or Relenza®.

If you are in a hospital setting, it might be appropriate to find a lung specialist (pulmonologist) who will *consider* prescribing and then administering ribavirin in an aerosolized liquid spray via a nebulizer. By inhaling ribavirin, it may be possible to adequately inhibit viral replication in the lungs. You may need to find a cooperative pediatrician to arrange this because *aerosolized ribavirin* is only approved to treat infants and small children with severe forms of pneumonia. Your doctor will have to calculate a higher dose of aerosolized ribavirin based on your weight and clinical condition.

I use the term “consider” when asking a doctor to prescribe aerosolized ribavirin since there are no studies in which inhaled Relenza® and aerosolized inhaled ribavirin have been used together. There is always a possibility of adverse interactions between these two inhaled drugs. On the flip side, if you are stricken with a severe case of swine flu, your doctor should be more willing to consider unproven therapies that have a logical basis of efficacy.

Amantadine is a drug approved by the FDA to treat influenza A. This drug functions by inhibiting the activity of the *M2 protein* in a way that precludes the influenza virus from replicating once it is inside a cell. As with other antiviral drugs, treatment should be initiated within 48 hours. When amantadine is administered later in the course of a viral infection, it is virtually useless as the body is already overwhelmed with viral particles.

Amantadine was extensively given to chickens over the past decades to treat avian flu. Chickens have since developed a resistance to this drug. That does not mean, however, that amantadine might not be effective in a human who contracted the swine or other forms of influenza. Since amantadine works via mechanisms that are different than Tamiflu®/Relenza® and ribavirin, it might be logical to add 100 mg a twice a day of *amantadine* in addition to *ribavirin* and *Relenza®* and *Tamiflu®*. (If you are over age 65, the recommended dose of amantadine is 100 mg a day or less.)

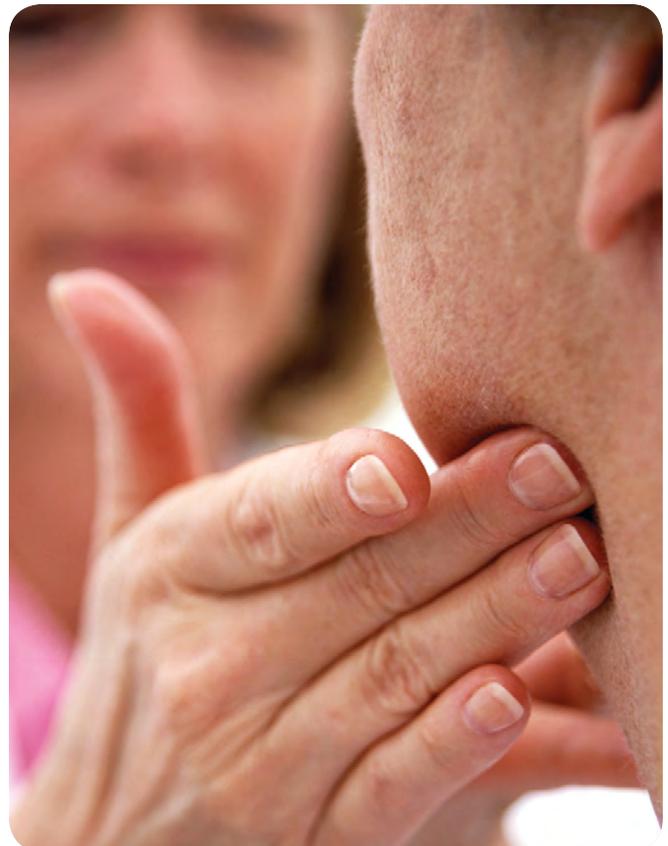
One concern with amantadine is that influenza viruses often develop rapid resistance to amantadine. In a swine influenza pandemic, amantadine might rapidly become ineffective. That does not mean, however, that those who contracted the first human transmitted cases of swine flu might not benefit from amantadine.

Obtaining Physician Cooperation

My fear is that as the current swine flu pandemic progresses, people will needlessly die because of physician ignorance. I know that persuading your physician to prescribe quadruple antiviral drug therapy, in the event severe influenza manifests, will be a challenge.

Amantadine is considered worthless by most doctors because they have seen it fail most of the time. As I stated earlier, antiviral drug therapy should be initiated within **48 hours** of the symptoms manifesting. Doctors are used to seeing patients only after they have suffered with flu symptoms for many days after the onset of symptoms. When doctors prescribe amantadine to these advanced influenza patients, it usually fails, just like Tamiflu® will fail if it is not quickly prescribed. Few doctors have any experience with either oral or inhaled ribavirin and will therefore be reluctant to prescribe it.

My objective is to not allow any member of the **Life Extension Foundation®** to succumb to influenza because of physician inflexibility. If you are a Life Extension® member and contract severe influenza, please call us so that one of our doctors can attempt to persuade your physician to implement the aggressive treatments described in this article.



Keeping You Informed

The *US Centers for Disease Control & Prevention* indicate that anywhere from 5% to 20% of the U.S. population contracts influenza each year, an average of about 36,000 people per year in the United States die from influenza, and more than 200,000 will be admitted to the hospital as a result of influenza.¹²¹

I have written this article based on numerous inquiries made by Foundation members. There are additional strategies that may be considered to combat common cold-flu infections, but I wanted to convey what I do personally when confronted with a virus.

The fact that the recommendations made at the beginning of this article have worked for me does not mean they will work for you. There is a scientific rationale, however, to using cimetidine, garlic, and other readily available and inexpensive agents when confronted with a viral illness. The FDA, of course, does not approve any of these approaches.

If one contracts an influenza virus, the immediate initiation of aggressive antiviral (and anti-cytokine) therapies is paramount. Whether or not you actually contract swine flu, it makes sense to initiate aggressive actions if you contract flu-like symptoms. Early treatment of common cold or typical flu viruses can result in rapid eradication of the virus from your body.

As a Life Extension® member, please be assured that we are committed to providing you and your doctor with scientifically backed information to most logically combat influenza viruses.

Caution: If you are taking any medications or have serious health problems, you must first consult with your own health care professional before following this strategy. Those with certain hormone-sensitive cancers, for example, may not want to take DHEA. This article is for informational purposes only and not intended as a substitute for advice from your physician or other health care professional. There are side effects to all of the drugs discussed in this letter, making it crucial that you have a knowledgeable health professional overseeing your treatment. ●

ANTIVIRAL DRUG ADDENDUM

The FDA approved Relenza® (zanamivir)¹²³ is an antiviral drug for persons aged seven years and older for the treatment of uncomplicated influenza virus. This product is approved to treat type A and B influenza, the two types most responsible for flu epidemics. Clinical studies show that for the drug to be effective, patients needed to start treatment within two days of

the onset of symptoms. The drug seemed to be less effective in patients whose symptoms weren't severe or didn't include a fever. Relenza® is a powder (5 mg) that is inhaled twice a day for five days from a breath-activated plastic device called a Diskhaler®. Patients should get instruction from a healthcare practitioner in the proper use of the Diskhaler®, including a demonstration when possible. Relenza® has not been shown to be effective, and may carry risk, in patients with severe asthma or a lung condition called chronic obstructive pulmonary disease. Some patients with mild or moderate asthma experienced bronchospasm (marked by shortness of breath) after using Relenza®. When treating influenza, a seven-day course of Relenza® may be considered.

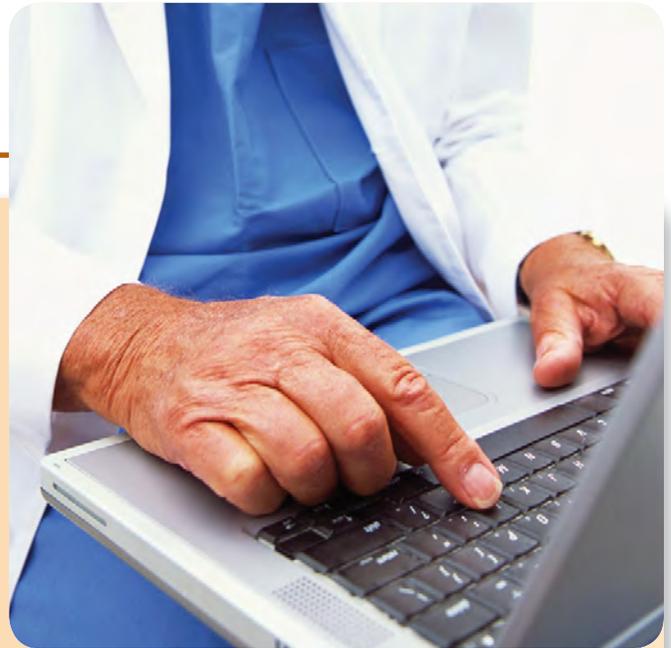
Some patients have had bronchospasm (wheezing) or serious breathing problems when they used Relenza®. Many but not all of these patients had previous asthma or chronic obstructive pulmonary disease. Relenza® has not been shown to shorten the duration of influenza in people with these diseases. Because of the risk of side effects and because it has not been shown to help them, Relenza® is not generally recommended for people with chronic respiratory disease. Anyone who develops bronchospasm-worsening respiratory symptoms such as wheezing and shortness of breath should stop taking the drug and call their healthcare provider. Patients with underlying respiratory disease should have a fast-acting inhaled bronchodilator available when taking Relenza®.

Ribavirin is "probably a teratogen," so women even remotely likely to become pregnant should be very careful when using it.

Ribavirin stays in the body up to six months after a course (it builds up in red cells and doesn't leave the body until all of them have been replaced), so women should be aware that its reproductive dangers will last that long as well.

There are warnings about all the drugs mentioned in this article that should be reviewed before any individual considers using them.

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



FDA WARNS ABOUT FRAUDULENT H1N1 SUPPLEMENTS

Public fear about the H1N1 swine flu virus has resulted in unscrupulous companies offering products that lack rigorous study to document efficacy against H1N1 infections. Everything described in this article is substantiated in the peer-reviewed scientific literature for probable antiviral efficacy. Nothing described in this article is proprietary to Life Extension®, meaning you can obtain everything suggested in this article in health food stores and/or pharmacies. Here is the FDA's latest consumer warning:

FDA NEWS RELEASE For Immediate Release: Oct. 19, 2009

FDA, FTC ISSUE JOINT WARNING LETTER TO WEB SITE OFFERING FRAUDULENT H1N1 FLU SUPPLEMENTS¹²²

AGENCIES CONTINUE EFFORT TO PROTECT PUBLIC HEALTH FROM ILLEGAL WEB ACTIVITY

On October 15, 2009, the US Food and Drug Administration (FDA) and the Federal Trade Commission (FTC) issued a joint warning letter to a Web site marketing fraudulent supplements that claim to help prevent the spread of the 2009 H1N1 influenza virus.

The warning letter, the first to be issued jointly by the agencies, advises the owners of the site that they must discontinue the fraudulent marketing of their product or face legal action. The letter further advises the owners of the site that they have 48 hours to give the agencies a plan to discontinue their fraudulent marketing.

The FDA and the FTC remind consumers to be cautious of promotions or Internet sites offering products for sale that claim to diagnose, prevent, mitigate, treat or cure the 2009 H1N1 influenza virus. Fraudulent H1N1 influenza products come in many varieties, including dietary supplements, as well as products purporting to be drugs, medical devices or vaccines. Since May 2009, the FDA has warned more than 75 Web sites to stop the sale of more than 135 products with fraudulent H1N1 influenza virus claims.

"Products that are offered for sale with claims to diagnose, prevent, mitigate, treat or cure the 2009 H1N1 influenza virus must be carefully evaluated," said Commissioner of Food and Drugs Margaret A. Hamburg, MD. "Unless these products are proven to be safe and effective for the claims that are made, it is not known whether they will prevent the transmission of the virus or offer effective remedies against infection. Furthermore, they can make matters worse by providing consumers with a false sense of protection."

The FDA and the FTC also warn consumers to take extreme care when buying products over the Internet that claim to diagnose, prevent, treat or cure the H1N1 influenza virus because, in addition to being fraudulent, they could be dangerous.

In collaboration with the FTC, the FDA will continue to work aggressively to identify, investigate and take regulatory action against individuals or businesses that wrongfully promote purported 2009 H1N1 influenza products.

This will include taking joint action, when appropriate, such as the issuance of last Thursday's warning letter. Additional legal action could include an injunction or issuance of an administrative order by the FTC or seizure of products, an injunction or criminal prosecution by the FDA.

"The FDA continues to consider the sale and promotion of fraudulent H1N1 influenza products to be a possible threat to the public health and in violation of the Federal Food Drug and Cosmetic Act," said Michael Chappell, acting associate commissioner for regulatory affairs. "The FDA has an aggressive surveillance program to detect fraudulent H1N1-related products and will take prompt action to stop the marketing of fraudulent H1N1 influenza products and will hold those who are responsible for doing so accountable."

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SUPERCHARGED ASCORBIC ACID!

Vitamin C Tabs *with Dihydroquercetin*

Since it was first isolated nearly 80 years ago, **vitamin C** has been deemed essential for life and for maintaining optimal health and well-being. Its potent antioxidant properties and critical role in facilitating essential biochemical reactions throughout the body have made **vitamin C** the world's most widely consumed nutritional supplement.

Because humans do not manufacture **vitamin C** internally, it must be obtained through dietary sources or supplements. Few people realize, however, that **vitamin C** is a *water-soluble* nutrient that is quickly oxidized and excreted by the body,¹ which limits its efficacy. Until now, those seeking to capture **vitamin C**'s optimal health benefits have had no choice but to consume it several times throughout the day.

Fortunately, a *flavonoid* antioxidant known as **dihydroquercetin** functions as a **vitamin C** "supercharger." Studies demonstrate that *dihydroquercetin* acts to inhibit the oxidation of **vitamin C**, thereby helping to maintain its concentration and to recycle **vitamin C** throughout the body.^{2,3} This synergistic relationship between *dihydroquercetin* and **vitamin C** greatly enhances the efficacy of both molecules in the body's organs and tissues.

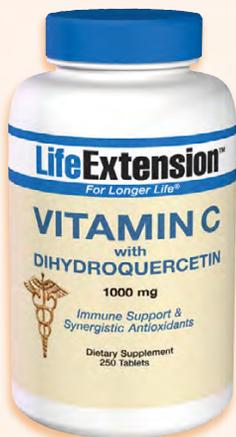
Vitamin C with Dihydroquercetin was formulated for those seeking to obtain optimal efficacy and antioxidant protection from their vitamin C supplement. The suggested daily dose of one tablet of this formula supplies **1000 mg** of **vitamin C** (as ascorbic acid), along with **10 mg** of

Dihydroquercetin-3-rhamnoside, a highly bioavailable form of dihydroquercetin derived from grape leaf extract.

A bottle containing 250 tablets of **Vitamin C with Dihydroquercetin** retails for \$25.50. If a member buys four bottles during **Super Sale**, the price is reduced to just **\$15.69 per bottle**.

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ITEM #00927



**To order VITAMIN C with Dihydroquercetin,
call 1-800-544-4440 or visit 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.

Life Extension Mix™

Tablets, Capsules, or Powder...Your Choice!

Consumers take dietary supplements to obtain concentrated doses of some of the beneficial nutrients found in fruits and vegetables. Commercial multivitamins, however, do not provide all the vital plant components that scientists have found are needed to maintain good health.

Life Extension Mix™ is formulated based on findings showing that consuming lots of **fruits and vegetables** dramatically **lowers the risk** of health problems. Life Extension Mix™ provides concentrations of the **fruit and vegetable extracts** that researchers have found protect against a wide variety of cellular insults.

Life Extension Mix™ has been upgraded to provide **pterostilbene**, more **iodine** and more **vitamin D3** at no additional cost. Life Extension Mix™ is available in tablet, capsule, and powder forms, with or without copper, and with or without extra niacin.



Item #
01455



Item #
01454



Item #
01456

LIFE EXTENSION MIX™ 315 TABLETS

	RETAIL PRICE EACH BOTTLE	SUPER SALE MEMBER PRICE EACH BOTTLE
1 BOTTLE	\$98	\$66.15
4 BOTTLES	\$86	\$58.05
10 BOTTLES	\$69.50	\$46.91

The regular 94-ingredient caplet version of Life Extension Mix used by most members contains 73 mg of niacin and 1 mg of copper. There is an extra-niacin version that provides 345 mg of niacin at no additional charge. Niacin is used to help maintain healthy cholesterol, triglyceride and fibrinogen levels in those within normal ranges. Some people find the niacin "flush" unpleasant. Those with underlying liver disease sometimes cannot tolerate any niacin (or beta-carotene). Either one of these versions can be obtained without copper. The suggested dose is 9 tablets per day in divided doses with meals.

LIFE EXTENSION MIX™ 490 CAPSULES

	RETAIL PRICE EACH BOTTLE	SUPER SALE MEMBER PRICE EACH BOTTLE
1 BOTTLE	\$110	\$74.25
4 BOTTLES	\$98	\$66.15
10 BOTTLES	\$85	\$57.38

The encapsulated version of Life Extension Mix used by many members provides 1 mg of copper. These capsules are also available without copper. The suggested dosage is 14 capsules per day in divided doses with meals. Capsules are easier to swallow for some people than tablets.

LIFE EXTENSION MIX™ 14.81 Oz POWDER

	RETAIL PRICE EACH BOTTLE	SUPER SALE MEMBER PRICE EACH BOTTLE
1 BOTTLE	\$98	\$66.15
4 BOTTLES	\$86	\$58.05
10 BOTTLES	\$72	\$48.60

The powder version of Life Extension Mix contains 1 mg of copper. This powder version is also available without copper. The suggested dose is three scoops per day in divided doses with meals. Because there are so many different ingredients, the powder can be difficult for some people to easily mix. Some people use a blender to combine the Life Extension Mix™ powder with whey protein and other powdered supplements.

To order your supply of LIFE EXTENSION MIX™ during Super Sale, call 1-800-544-4440 or visit www.LifeExtension.com/SuperSale

The Upgraded

LIFE EXTENSION MIX™

315 tablets
Item #01455

490 capsules
Item #01454

14.81 oz powder
Item #01456



Scientists have identified multiple mechanisms by which **green tea** extract helps protect against LDL oxidation, neuronal oxidation, and a host of other structural and functional age-related changes. LIFE EXTENSION MIX™ provides more green tea extract than found in commercial formulations.

Broccoli is one of the vegetables best documented to protect healthy DNA. The broccoli concentrate in LIFE EXTENSION MIX™ is standardized to provide **sulforaphane** and other **glucosinolates**, compounds responsible for broccoli's protective benefits.

Olive polyphenols help protect against LDL oxidation, quench free radicals, and stabilize cell membranes. LIFE EXTENSION MIX™ contains a potent olive extract that provides the best-documented polyphenol called **hydroxytyrosol** in an amount equivalent to drinking one ounce of virgin olive oil a day.

Luteolin is a flavonoid found in **parsley, artichoke, basil, celery**, and other foods. It has shown the ability to help protect against DNA oxidative damage. When measured against 27 other citrus flavonoids, **luteolin** showed one of the most beneficial effects at maintaining healthy DNA. **Luteolin** also suppresses excess levels of **interleukin-6** and **interleukin-1b**. LIFE EXTENSION MIX™ contains a standardized dose of **8 mg** of luteolin.

Lycopene is the red carotenoid in **tomatoes** that supports a healthy prostate and helps promote healthy lipid profiles for those already within a normal range.

Lutein is found in **spinach** and **collard greens** and has been shown to help maintain **eye macula pigment** structure.

D-glucarate is found in **grapefruit, apples, oranges, broccoli**, and **Brussels sprouts**. D-glucarate supports a detoxification process that helps to remove DNA toxins.

Pomegranate may be the most effective plant to help maintain optimal endothelial function. This pomegranate extract is standardized to provide the punicalagins and other polyphenols found in up to 2.6 ounces of pomegranate juice.

Sesame lignans increase tissue levels of **vitamin E** and **gamma tocopherol**, and inhibit the formation of an inflammatory precursor called arachidonic acid.

Wild blueberry extract, concentrated and standardized to help maintain optimal neuronal function.

Cocoa polyphenols offer the cardiovascular benefits of cocoa without fat or calories and contain the same amount of polyphenols as a ¼ serving (about 0.5 ounces) of a dark chocolate bar.

Pterostilbene is a compound naturally found in blueberries and grapes that has been shown to have beneficial, anti-aging effects on gene expression and to promote healthy cognitive function.

Pyridoxal 5'-phosphate helps protect against glycation reactions, a toxic process in which sugars bind to lipids and proteins to form non-functional structures in the body.

9 tablets, 14 capsules, or three scoops of powder provide:

Vegetable-Fruit Complex

Green tea extract (<i>decaf.</i>) (98% polyphenols/45% EGCG)	325 mg
Broccoli sprout concentrate	525 mg
<i>(providing sulforaphane, glucosinolates, D-3T, and PEITC)</i>	
Olive juice extract (6% hydroxytyrosol, 3% oleuropein)	12.5 mg
Grapeseed extract (Leucoselect®)	25 mg
<i>(95% proanthocyanidins)</i>	
Grape (<i>vitis vinifera</i>) extract (BioVin®)	25 mg
<i>[Std. to 95% proanthocyanidins (23.75mg)]</i>	
Ginger extract (5% gingerols)	200 mg
Luteolin (Pureolin™)	8 mg
Lycopene (tomato extract)	3 mg
Lutein complex (marigold)	33.3 mg
<i>(15 mg lutein/465 mcg zeaxanthin)</i>	
Milk thistle extract (85% silymarin)	100 mg
Bromelain	15 mg
Calcium D-Glucarate	200 mg
Citrus Bioflavonoids	200 mg
<i>[Standardized to 50% total flavonoids (100mg)]</i>	
Acerola extract 4:1	300 mg
Bilberry (25% anthocyanidins)	30 mg
Pomegranate (30% punicalagins) (POMELLA®)	85 mg
Sesame seed lignan extract	10 mg
Berry-fruit blend	200 mg
<i>(blackberry, blueberry, cranberry, elderberry, persimmon, plum, and cherry)</i>	
Wild Blueberry (<i>Vaccinium angustifolium</i>)	150 mg
<i>130:1 Std. anthocyanin extract (fruit)</i>	
Cocoa Extract (CocoaGold™)	67 mg
<i>(45% polyphenols/30 mg standardized cocoa polyphenols)</i>	
<i>trans</i> -Pterostilbene (from pure Pterospa™ pterostilbene)	0.5 mg

Water-Soluble Vitamins and Enzymatic Activators

Vitamin C	2000 mg
<i>as: ascorbic acid, calcium, magnesium & niacinamide, ascorbate, ascorbyl palmitate, acerola extract</i>	
Folate (as folic acid)	800 mcg
Biotin	3000 mcg
Trimethylglycine (TMG)	100 mg
Vitamin B1 (thiamine HCl)	125 mg
Vitamin B2 (riboflavin)	50 mg
Supplying: Riboflavin 5-phosphate	2 mg
Vitamin B3 (niacinamide and niacinamide ascorbate)	117 mg
Vitamin B3 (niacin)	73 mg
Vitamin B5 (D-calcium pantothenate)	600 mg
Pantethine	5 mg
Vitamin B6 (pyridoxine HCl)	5 mg
Pyridoxal 5'-phosphate (vitamin B6)	100 mg
Vitamin B12 (cyanocobalamin)	250 mcg
Vitamin B12 (hydroxycobalamin)	250 mcg
Vitamin B12 (ion exchange resin)	100 mcg
PABA (<i>para</i> -aminobenzoic acid)	200 mg

The Most Complete Multivitamin Available Today — Now with Pterostilbene!

Published scientific studies document that people who eat the most fruits and vegetables have much lower incidences of health problems. Few people, however, consistently eat enough plant foods to protect against common age-related decline,¹⁻³ and commercial multivitamins do not provide all of the vital plant components needed to maintain good health.

Life Extension Mix™ has been upgraded to include **pterostilbene**, a compound naturally found in blueberries and grapes that has been

shown to have beneficial, anti-aging effects on gene expression and to promote healthy cognitive function.

The new Life Extension Mix™ now contains double the amount of **vitamin D**, more of the essential trace element **iodine** to promote optimal thyroid function, and less preformed retinol vitamin A. During **Super Sale**, the full daily dose of **Life Extension Mix** can be obtained for as little as **\$1.34** per day.

Fat-Soluble Vitamins

Vitamin A (as 90% Betatene® <i>D. salina</i> natural beta-carotene and 10% acetate)	5000 IU
Vitamin D3 (cholecalciferol)	2000 IU
Ascorbyl palmitate (fat-soluble vitamin C)	250 mg
Vitamin E (natural D-alpha tocopheryl succinate)	400 IU

Amino Acid Complex

N-acetyl-L-cysteine	600 mg
Taurine	200 mg

Mineral Complex

Selenium (from Se-methyl L-selenocysteine).....	100 mcg
Selenium (from L-selenomethionine—SelenoPure®)	50 mcg
Selenium (from sodium selenate).....	50 mcg
Zinc (methionate) (OptiZinc®)	20 mg
Zinc (succinate)	15 mg
Boron (as boron citrate/aspartate/glycinate).....	3 mg
Calcium	218 mg
Copper (as copper bisglycinate chelate)	1 mg
Chromium (as Chromium 454™ bio-organic yeast extract matrix)	500 mcg
Potassium chloride (37.4 mg elemental).....	71.3 mg
Molybdenum (sodium molybdate)	125 mcg
Manganese (gluconate).....	1 mg
Iodine (potassium iodide).....	150 mcg
Magnesium oxide (335.96 mg elemental)	560 mg
Magnesium citrate (35.28 mg elemental)	261.3 mg
Magnesium glycinate (11.74 mg elemental)	100 mg
Magnesium taurinate (7.83 mg elemental).....	100 mg
Magnesium arginate (5.87 mg elemental).....	100 mg
Magnesium ascorbate (3.40 mg elemental).....	58.1 mg

Cholinergic Complex

Choline (from bitartrate).....	120 mg
Phosphatidylcholine (from soy)	150 mg
Inositol.....	250 mg

Double the amount of **vitamin D3** is included to further help maintain healthy bone density and protect healthy DNA.

LIFE EXTENSION MIX™ contains only the expensive dry powder form of **vitamin E**. This natural form of vitamin E (succinate) has been shown to promote healthy DNA better than other forms.

N-acetyl-L-cysteine suppresses free radicals inside the cells and maintains healthy glutathione levels. **Taurine** may protect against free radicals between cells and supports eye health.

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.

Zinc is often poorly absorbed, but LIFE EXTENSION MIX™ provides two of the most bioavailable forms of zinc.

Boron is not only needed to maintain healthy bone density but may also help promote healthy prostate cell development.

LIFE EXTENSION MIX™ provides a high amount of **chromium** to help maintain arterial wall structure and already normal glucose levels.

The amount of **iodine** has been doubled for healthy **thyroid** function.

Magnesium helps protect arteries and heart valves, and supports heart and brain cells. LIFE EXTENSION MIX™ provides high potencies of six different forms of magnesium to fully saturate the body with this lifesaving mineral.

Maintaining high levels of **acetylcholine** in the brain helps support cognitive function and memory.

CAUTION: The high-niacin version of Life Extension Mix provides 862 mg in the daily dose, of which 345 mg is the form of niacin that can cause temporary flushing, itching or gastric disturbances. Liver function testing is recommended when niacin is taken in excess of 500 mg daily. Those with gout or liver diseases should avoid taking high doses of niacin. Consult with your doctor before using this product if you are taking anticoagulant medications. Individuals consuming more than 2,000 IU/day of vitamin D (from diet and supplements) should obtain a serum 25-hydroxy vitamin D measurement. Vitamin D supplementation is not recommended for individuals with hypercalcemia (high blood calcium levels).

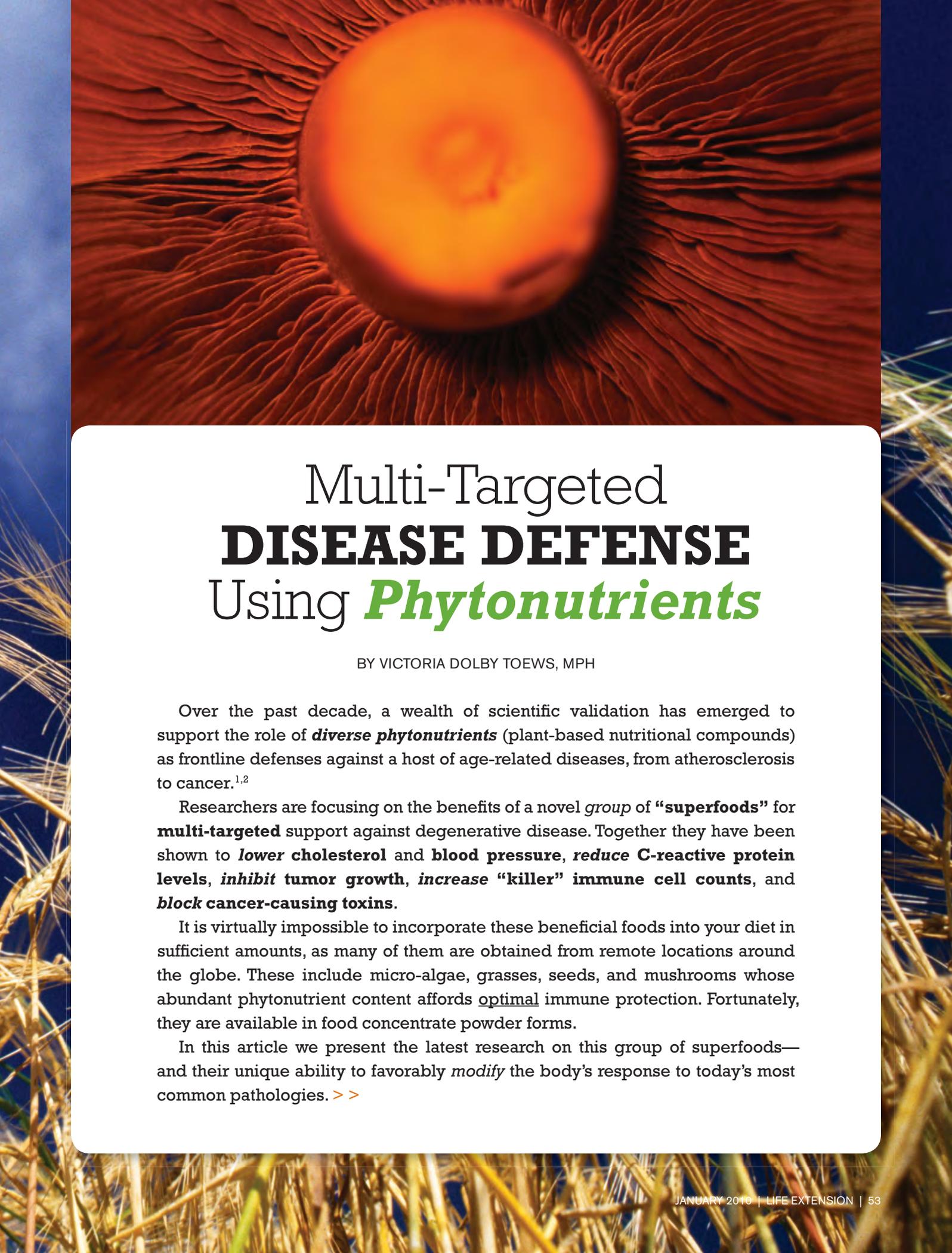
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Multi-Targeted **DISEASE DEFENSE** Using *Phytonutrients*

BY VICTORIA DOLBY TOEWS, MPH

Over the past decade, a wealth of scientific validation has emerged to support the role of ***diverse phytonutrients*** (plant-based nutritional compounds) as frontline defenses against a host of age-related diseases, from atherosclerosis to cancer.^{1,2}

Researchers are focusing on the benefits of a novel *group* of “**superfoods**” for **multi-targeted** support against degenerative disease. Together they have been shown to **lower cholesterol** and **blood pressure**, **reduce C-reactive protein levels**, **inhibit tumor growth**, **increase “killer” immune cell counts**, and **block cancer-causing toxins**.

It is virtually impossible to incorporate these beneficial foods into your diet in sufficient amounts, as many of them are obtained from remote locations around the globe. These include micro-algae, grasses, seeds, and mushrooms whose abundant phytonutrient content affords optimal immune protection. Fortunately, they are available in food concentrate powder forms.

In this article we present the latest research on this group of superfoods—and their unique ability to favorably *modify* the body’s response to today’s most common pathologies. > >



Chia (*Salvia columbariae*).
Flowering inflorescences.

A “Perfect” Food

Chia is often referred to as “Nature’s perfect food.” It is a desert plant native to Central America whose edible seeds have a pleasing, nutty flavor. A relative of the mint family, the chia plant’s seeds were a staple in the ancient Aztec diet.

Modern scientific analysis has revealed chia to be a remarkably well-rounded nutritional source, providing **protein, fiber, essential fatty acids** (especially **omega-3**), **antioxidants**, and **magnesium**.

A substantial body of research documents chia’s power to prevent a host of diseases, from weight gain and cardiovascular disorders to cancer.

Fifty-seven million Americans are currently pre-diabetic, according to some estimates.³ Their blood sugar has reached abnormally high levels that fall just short of diagnosis for type 2 diabetes. Pre-clinical research suggests that chia supplementation can prevent the **insulin resistance** that leads to diabetes. In animals fed a sugar-rich diet, chia has also been shown to favorably *modify* blood lipid changes.⁴

Diabetes and its associated risk factors greatly *increase* cardiovascular disease risk. For those with type 2 diabetes, **conventional medications** and **lifestyle changes** alone often fail to significantly reduce

heart disease risk. Cutting-edge research indicates that chia supplementation can provide *enhanced* protection.

Vladimir Vuksan, PhD, of the Risk Factor Modification Center at the *University of Toronto* has devoted significant resources to the study of chia’s beneficial effects on diabetics at risk for cardiovascular disease.

In Vuksan’s most recent clinical trial, 20 adults with type 2 diabetes took supplements of either chia or wheat bran daily for three months.⁵ By the end of the study period, the chia group saw significant improvement across a range of disease markers, including **blood pressure, lipid profiles**, and **inflammatory** and **clotting** factors.

Systolic blood pressure in the chia group dropped by 6 points, while the wheat bran group’s blood pressure was unchanged. **C-reactive protein** and clotting factors were also markedly reduced compared to the wheat bran group.

Chia has shown additional promise in cancer prevention. In a pre-clinical study involving breast cancer models, researchers found that dietary chia resulted in **smaller tumors** and **fewer metastasized tumors**.⁶ Chia was found to *inhibit* both the overall growth and spread of cancer.

The Lifeblood of the Plant Kingdom

The term “green foods” refers to plants rich in *chlorophyll*. This category includes the edible microalgae **spirulina** and **chlorella**, and cereal grasses, including **barley grass** and **wheatgrass**. A growing body of research indicates that “green” phytonutrients constitute a formidable defense against a broad spectrum of clinical pathologies, from cancer and diabetes to hepatitis and HIV.

While beneficial in their own right, green foods’ **high chlorophyll content** accounts for much of their nutritional value. Chlorophyll is the pigment that gives plants and algae their green color and plays a central role in converting light into energy. Because its molecular structure bears a striking resemblance to *hemoglobin*—the iron transport in red blood cells that delivers oxygen in all mammals—chlorophyll has been called the “lifeblood of the plant kingdom.”

Chlorophyll *binds* with several known and suspected carcinogens, including the *polycyclic aromatic hydrocarbons* in tobacco smoke, *heterocyclic amines* in meat, and *aflatoxin-B1*, preventing these carcinogens from reaching areas of the body where they would otherwise contribute to cancer development.⁷⁻⁹

In animal models, aflatoxin-related liver cancer is *inhibited* in the presence of chlorophyll.¹⁰ In humans, supplementation with **chlorophyllin**—a water-soluble derivative of chlorophyll—significantly *reduces* urinary levels of a compound that indicates liver cancer risk.¹¹

Spirulina and Chlorella

Cultivated around the world, *spirulina* is *also* considered by some to be nature’s richest and most complete source of vital nutrients. It contains **protein**, **B vitamins**, **minerals**, **essential fatty acids**, and **antioxidants** in abundance. Its antioxidant, antibacterial, antiviral, anticancer, anti-inflammatory, and anti-diabetic effects have been documented in clinical studies.^{12,13} It also acts as a *prebiotic*, encouraging the growth of healthy gut bacteria.

Spirulina may play a significant role in preventing cardiovascular diseases. In a recent human trial, it lowered blood pressure and favorably *altered* blood lipid levels, particularly **triglycerides** and **low-density lipoprotein (LDL)**.¹⁴ According to double-blind, placebo-controlled research, spirulina can serve as an effective treatment for **allergic rhinitis** (hay fever), improving symptoms of nasal discharge, sneezing, nasal congestion, and itching.¹⁵

Disease Defense Using Phytonutrients

- A wealth of data shows that the **phytonutrients** in certain superfoods may help to prevent some of the most common degenerative *and* infectious diseases.
- **Chia seeds** are a rich source of nutrients such as protein, antioxidants, essential fatty acids, fiber, and vitamins and minerals. Research on chia shows that it may reduce the risk of diabetes, cardiovascular disease, and cancer.
- **Green foods**, such as chlorella, spirulina, and grasses are excellent sources of chlorophyll, and provide other nutrients.
- **Mushrooms** such as **maitake**, **shiitake**, and **cordyceps** serve as **biological response modifiers**, which mean they support the body’s immune function to resist infectious disease and cancer.



Spirulina, blue-green algae.

Spirulina shows promise as a tonic for the liver. A recent study of 60 people with various liver disorders revealed that it can protect the liver and *prevent* the progression of **hepatitis** into **cirrhosis**.¹⁶

Daily supplementation with **chlorella** has been shown to lower blood pressure, reduce cholesterol levels, accelerate wound healing, boost immunity, and improve quality of life for individuals suffering from **fibromyalgia**.^{17,18} There is also evidence that chlorella can help prevent **peptic ulcers**.¹⁹

Cereal Grasses

Barley grass has been shown to **lower cholesterol levels** and reduce several risk factors for cardiovascular disease in multiple studies.^{20,21} The same effect has been observed in individuals at higher risk for heart disease, including diabetics.²²

Barley grass is particularly rich in fiber; when compared to other whole grains in animal models, it provides superior support for healthy bowel movements. Clinical research also confirms that barley *increases* fecal bulk, resulting in an overall improvement to **digestive health**.²³

Wheatgrass is an effective treatment for **ulcerative colitis**.²⁴ It has also been investigated for thalassemia (a group of genetic blood disorders) and found to reduce the need for blood transfusions.²⁵

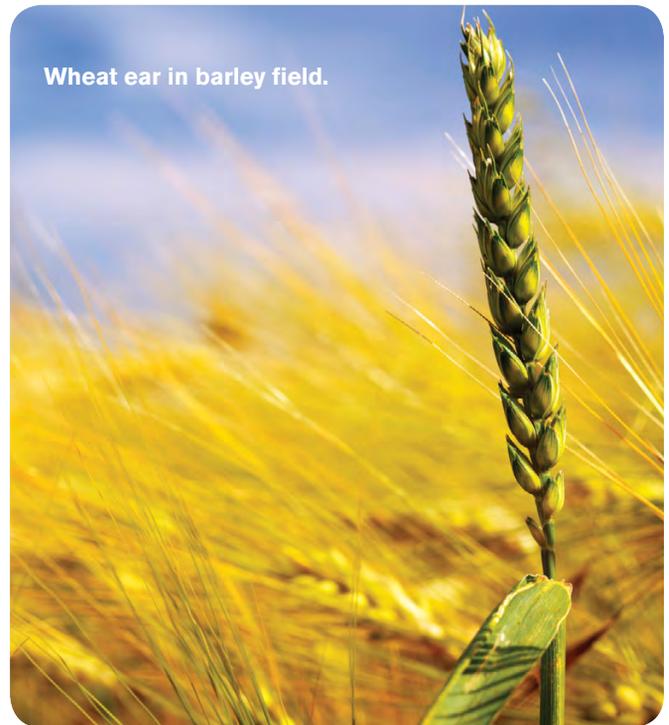
Individuals undergoing chemotherapy may also derive significant benefits from wheatgrass. **Myelotoxicity** (bone marrow suppression) is a potentially life-threatening side effect of **chemotherapy** that results in low production of white and red blood cells.²⁶ A pilot study with breast cancer patients found that wheatgrass juice prevents myelotoxicity when used during chemotherapy treatment.

Mushrooms Enhance Immune Defense

Several species of mushroom have been found to provide **powerful immune support**, including the popular edibles **maitake** (also known as **Hen of the Woods**) and **shiitake**, along with **cordyceps**, a staple of traditional Tibetan medicine.²⁷⁻²⁹

There is ample evidence to suggest that the specific phytonutrients in these mushrooms *optimize* the immune response to cancer and pathogenic microorganisms—including **HIV**.

Chief among these are **beta glucan** and other **polysaccharides**. These natural compounds stimulate a system-wide immune response—activating **macrophages**, **interferon**, **T cells**, and **natural**



killer cells—to prevent the proliferation and spread of cancer cells.³⁰ Beta glucan also reinforces the body's resistance to infectious disease by increasing the activity of **phagocytes** (specialized immune cells that engulf and destroy germs).³¹ In animal models, it has also been shown to boost resistance to viral infections.³²

One pre-clinical study assessing the anti-tumor effects of numerous mushrooms further revealed that mushroom polysaccharides are **biological response modifiers**, meaning they *inhibit* the growth of cancer cells by activating and reinforcing the immune function of the host.³³

As with other medicinal mushrooms, maitake is a rich source of immune-boosting polysaccharides. A polysaccharide unique to maitake, called **D-fraction**, stimulates immune cells that fight off cancerous cells. Research suggests that maitake may help inhibit tumors that are already growing *and* prevent growth of new cancers.³⁴

In one long-term trial involving 35 HIV-positive patients, 20 patients taking maitake showed a significant increase in CD4+ counts, the immune cells HIV normally destroys. After a year of maitake supplementation, **85%** reported an increase in well being.³⁵

LEM (*Lentinus edodes* mycelium), the *vegetative* component of the shiitake mushroom, also effectively combats HIV and other viruses. It strongly *enhances* the immune system and counteracts tumor growth.³⁶⁻³⁸ Shiitake also promotes cardiovascular health by preventing platelet aggregation.³⁹

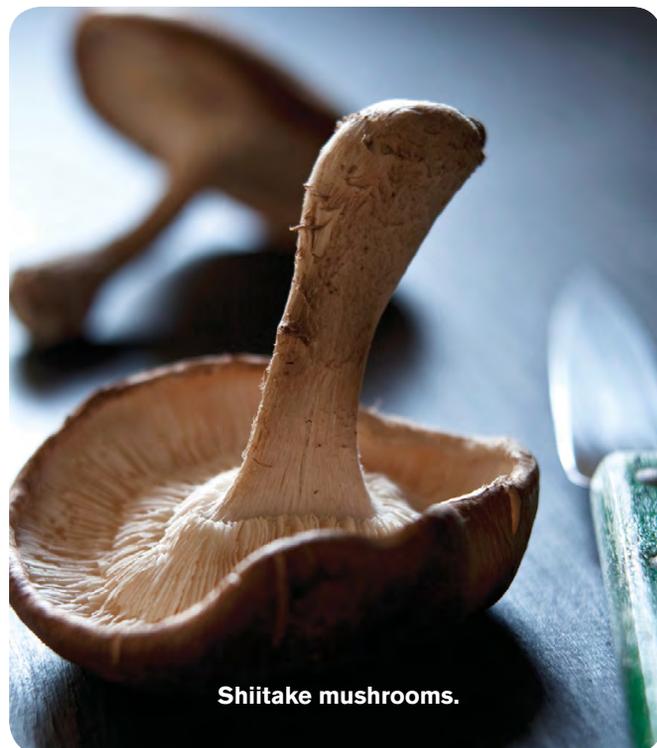
Another shiitake extract, **active hexose correlated compound (AHCC)**, increases the activity of natural killer cells. Natural killer cells target and eliminate tumor cells and a wide variety of infectious agents. AHCC even shows promise for fighting the flu.⁴⁰

Traditional Tibetan and Chinese Medicine have relied on cordyceps for centuries as a general health tonic and immune booster. It can be harvested in the wild, although commercially cultivated cordyceps fungus is now available as a dietary supplement.

Several compounds in cordyceps (including **cordycepin** and polysaccharides) enhance immune function, inhibit tumor growth, lower blood sugar, and ease inflammation.⁴¹⁻⁴⁴ Cordyceps has also been studied as a potential treatment for asthma.

A group of 60 adults with moderate persistent asthma used standard asthma medications during a two-month study period, while half of the group also supplemented with cordyceps capsules daily.⁴⁵ Cordyceps lessened airway inflammation in the supplemented individuals, as well as reversed airway remodeling (undesirable structural changes that can happen in difficult asthma cases).

Additional research suggests a promising role for cordyceps for improving renal function in kidney transplant patients, treating cancers at numerous sites by inducing death of cancer cells, lessening the chances of developing **lupus**, and reducing the risk of atherosclerosis.⁴⁶⁻⁵⁰



Shiitake mushrooms.

Summary

A wealth of scientific research shows that phytonutrients offer multi-targeted defense against a host of age-related diseases. Superfoods are rich in these compounds. The latest clinical studies show that chia, spirulina, chlorella, and various mushroom species may reduce the risk of heart disease, cancer, diabetes, infectious disease, and a variety of immune disorders. ●

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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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!¹

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 stress²—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.³

To order Natural Stress Relief
with Lemon Balm and L-Theanine,
call 1-800-544-4440 or visit
www.lifeextension.com



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LEMON BALM

+

L-THEANINE

=

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 during **Super Sale**, the price of this potent stress-relieving formula is reduced to just **\$16.20** 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.

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.



NEW TRIPLE ACTION CRUCIFEROUS Vegetable Extract with Apigenin



ITEM #01468



ITEM #01469

Scientists have identified specific extracts from *cruciferous vegetables*—such as broccoli, cauliflower, cabbage and Brussels sprouts—that help maintain healthy hormone levels. Maintaining optimal hormone balance is essential to any anti-aging strategy. **Triple Action Cruciferous Vegetable Extract** combines these plant extracts into the most comprehensive food-based, plant compilation for cell protection yet.

I3C (indole-3-carbinol) and **DIM (di-indolyl-methane)** favorably modulate estrogen metabolism and induce liver detoxification enzymes to help neutralize potentially harmful estrogen metabolites and xenoestrogens (potentially toxic, estrogen-like environmental chemicals).¹⁻⁴

Extracts of **broccoli**, **watercress**, and **rosemary** provide *glucosinolates*, *isothiocyanates*, *carosic acid*, and *carosol*—bioactive compounds that have a multitude of favorable effects on estrogen metabolism and cell division.⁵⁻⁸ **Apigenin**, a powerful plant flavonoid found in plants such as **parsley** and **celery**, is also added to the formula to boost cell protection,⁹ while 25 mg of a natural source of benzyl isothiocyanate (BITC), are included to maintain cell health.¹⁰

For those weighing less than 160 pounds, just one capsule a day provides optimal potencies. Those weighing over 160 pounds should consider taking two capsules a day. A 60-capsule bottle of **Triple Action Cruciferous Vegetable Extract** retails for \$24. If a member buys four bottles during **Super Sale**, the price is reduced to only **\$14.85 per bottle**.

The new Triple Action Cruciferous Vegetable Extract provides the following concentrates in just one capsule:

Broccoli Super Concentrate	400 mg
[standardized to 4% glucosinolates (16 mg)]	
Watercress 4:1 extract	50 mg
Indole-3-Carbinol (I3C)	80 mg
Rosemary Extract	50 mg
Cat's Claw Extract	50 mg
Cabbage Extract	25 mg
DIM (di-indolyl-methane)	14 mg
Apigenin	25 mg

Those who want to obtain the benefits of **resveratrol** can order **Triple Action Cruciferous Vegetable Extract with Resveratrol**. Each capsule provides **20 mg** of **resveratrol** in addition to the **vegetable extracts** and retails for \$32 per 60-capsule bottle. When a member buys four bottles during **Super Sale**, the price is reduced to only **\$19.98 per bottle**.

Caution: May interfere with oral contraceptives. If pregnant or intending to become pregnant, do not use this product. Do not use if taking antacids, H2-receptor blockers (e.g., Zantac®), or proton-pump inhibitors (e.g., Nexium®), as these drugs may impede the conversion of I3C to active metabolites.

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BONE RESTORE

for Lifelong Bone Health

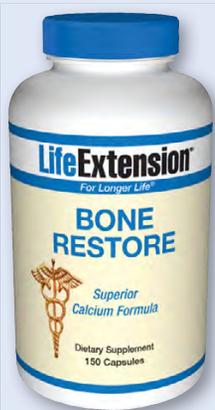
Maintaining strong, healthy bones is a cornerstone to successful aging. Unfortunately, even supplement users often fail to consume enough **calcium, vitamin D**, and other nutrients shown to help maintain healthy bones.

New research on **vitamin D** has led an increasing number of experts to advise men and women to consume **1000 IU** (and higher) of vitamin D each day to help maintain bone density.

The daily dose of **Bone Restore** provides **1200 elemental milligrams** of highly absorbable **calcium**, plus **1000 IU** of **vitamin D3**.

Bone Restore also contains ample **magnesium**, along with nutrients that enable calcium and magnesium to be incorporated in the bone matrix.

In addition, **Bone Restore** delivers a patented form of **boron** that is identical to natural plant forms found in food. Considered more bioavailable than other forms of boron, **FruiteX B® OsteoBoron®** supports healthy joints and bone.



Item #00811

Bone Restore comes in fast-release capsules, making the minerals and other nutrients immediately available for absorption.

The retail price for 150 capsules of **Bone Restore** is \$22.50. If a member buys four bottles during **Super Sale**, the price is reduced to just **\$13.16** per bottle.



Just five capsules of **Bone Restore** provide:

Highly-Absorbable Calcium	1200 mg
(from dicalcium malate, bis-glycinate, and fructoborate)	
Vitamin D3	1000 IU
Magnesium	340 mg
Boron	3 mg
(calcium fructoborate as patented FruiteX B® OsteoBoron®)	
Zinc	2 mg
Manganese	1 mg
Silicon	5 mg

FruiteX B® and OsteoBoron® are registered trademarks of VDF Futureceuticals, Inc., U.S. Patent No. 5,962,049.

To order **Bone Restore**, call **1-800-544-4440** or visit **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.



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.

The new **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 the new **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.¹
- **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*.^{2,3}
- **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.

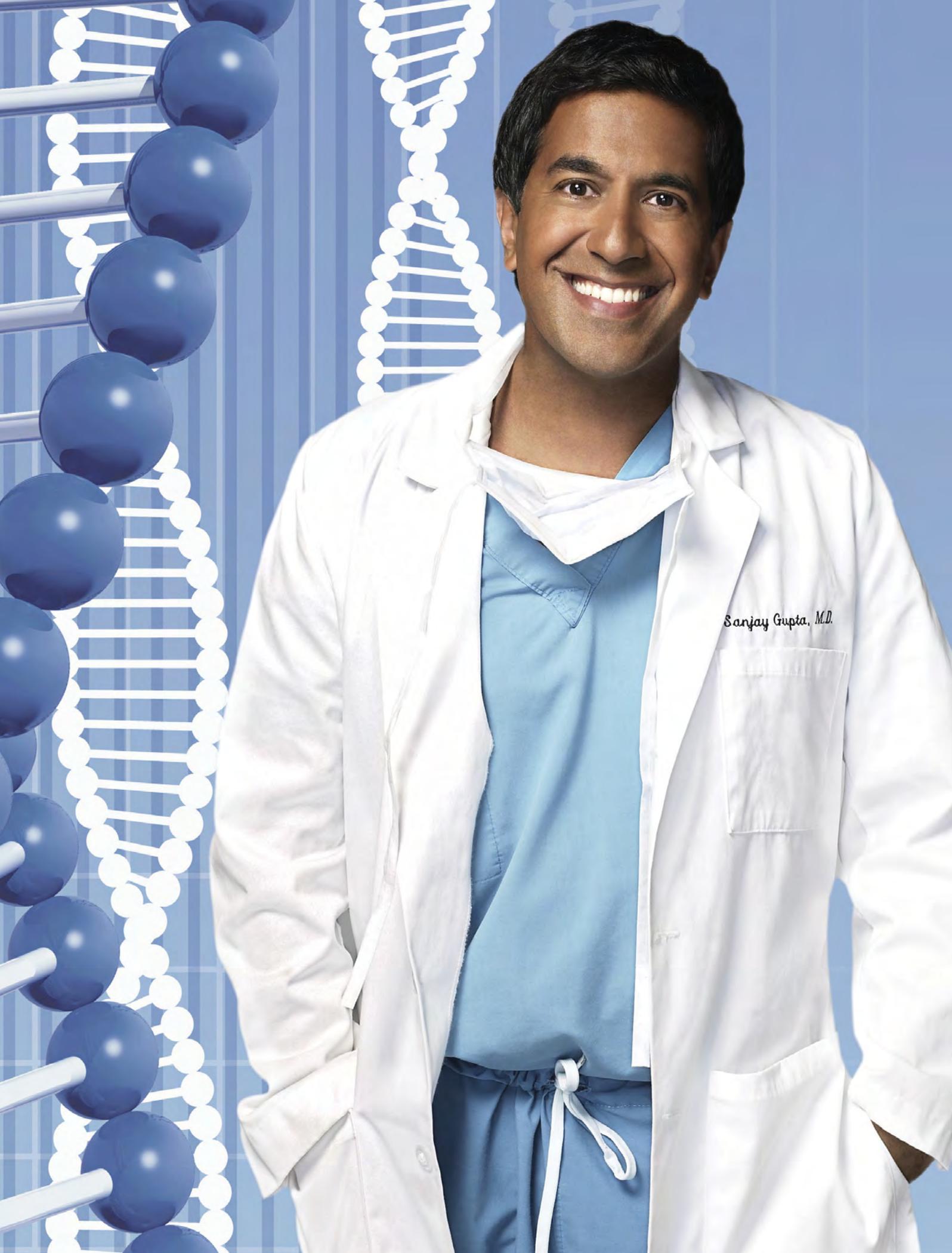
Each scoop of **Life Extension's Vital Greens Mix** provides a daily dose of nutrient-dense foods and herbal extracts. The retail price of a 30-serving jar of this organic superfood is \$48. When a member buys four jars during **Super Sale**, the price is reduced to only **\$29.70 per bottle**.

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

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2. *CMAJ*. 2003 Jul 22;169(2):111-7.

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Sanjay Gupta, M.D.

Cheating Death

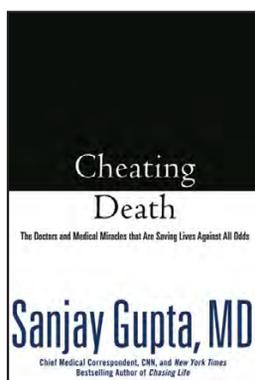
THE DOCTORS AND MEDICAL MIRACLES THAT ARE SAVING LIVES AGAINST ALL ODDS

BY SANJAY GUPTA, MD

Let me let you in on a little secret: When the heart stops beating, it's not the end. As it turns out, "life and death" is not a black and white issue. There is a gray zone—a faint no man's land where you are neither truly dead nor actually alive. In order to control it, in order to cheat death, we have to first, better understand it.

We're used to thinking about dying in stark terms. Dead or alive. You're here and then you're gone. In our imagination, this is how the moment of death plays out: the villain, or hero, or soldier, gasping last words, stretching out a hand... until his eyes roll back in his head and we know it's all over. Or the cancer patient, surrounded by family. A light flickers behind her eyes, then goes out. You've read it in a thousand stories, seen it in a thousand movies, a hundred episodes of "ER." The alarm sounds. The monitor flatlines. Time of death, 2:15.

It only takes a few minutes for life to slip away. Without a heartbeat, circulation slows to a halt. Blood is no longer flowing in your brain, or any other organ. It takes



just a couple minutes before everything goes dim, and now you're blissfully unaware of the catastrophe unfolding inside your body. Starved of blood, the first organ to suffer is the brain, which in happier times consumes about 20 percent of all the oxygen the body takes in, even though it constitutes just two percent of

our body mass. After just ten seconds without oxygen, the brain's function slows. Without oxygen or signals from the brain, other organs soon break down as well. Our diaphragm muscles no longer contract and release, to bring in air. The kidneys stop filtering blood. At the same time, an elaborate chain of chemical reactions triggers a breakdown in cells throughout the body.

This is the process of dying. Whether because of a car accident, a blockage in an artery or a tumor somewhere in your body, it is generally understood that when the heart stops beating, life has ended. I have seen this play out more times than I care to remember. >>



As a doctor, I can assure you that when the heart stops beating, it's not the end. Death is not a single event but a process that may be interrupted, even reversed. And here's the exciting part: at any point during this process, the course of what seems inevitable can be changed.

It's been said that life is a terminal condition, that nothing lasts forever, and the minute we're born we start the long process of our end. I think everyone, at one point or another, has probably wondered: does it really have to be that way?

Therapeutic hypothermia was first used in the 1940s and 50s, when pioneering heart surgeons like Walt Lillehei started using hypothermia to extend their time in the operating room. Prior to the 1940s, most open heart surgeries were thought to be impossible, because anything more than a very simple repair could not be completed in the few minutes that the heart might survive without oxygen. By chilling a patient's blood, Lillehei found that he could buy precious minutes. A heart that only lasted 10 minutes at room temperature, could survive an hour when it was cooled to 20 degrees.

There's no easy answer as to how or why hypothermia really works. The first person I thought to ask was Dr. Lance Becker, an emergency physician and researcher who runs the Center for Resuscitation Science at the University of Pennsylvania Hospital.

Becker says the hypothermia procedure is still mysterious. "We're pretty sure it doesn't work on just one mechanism. I've looked at 20 or 30 ideas [in the lab] that have been postulated, but the truth is, nobody knows," just why or how it helps.

What does seem clear is that as a medical therapy, hypothermia is a way to buy time. I explain it this way: chest compressions and artificial respiration provide oxygen that the body needs, but hypothermia sort of slows the body down. That in turn reduces the need for oxygen, so the body can last longer on what's already there.

Studies show that every one-degree (Celsius) drop in body temperature will lower cellular metabolism by roughly five to seven percent. Becker's best guess is that this reduced metabolism also slows the chemical reactions that are triggered by oxygen deprivation and which prove so damaging to cells. There's no doubt this is complicated. Hibernation is a good example of cold going hand in hand with lower metabolism; mammals who hibernate can survive, even thrive, for long periods at far below their usual body temperature. In these animals, cold doesn't just slow metabolism the way it thickens a jar of molasses. Rather, it triggers a whole set of biochemical changes.

Hibernation seems to be caused by different factors, depending on the animal, but cold weather is a common trigger. Take ground squirrels. For ground

squirrels, as soon as temperatures dip below freezing on a regular basis, the animals go into a near-complete torpor. Their heart rate, usually around 200 beats per minute, slows to less than 10. The squirrel's body temperature will drop from a warm-blooded 37 degrees to just one or two degrees above the outside temperature. They stay in that state, using just a bare minimum of energy, for at least six months.

True, humans aren't squirrels, but believe it or not, we have some of the same adaptive ability. For example, immersion in cold water triggers something called the diving reflex, or Vagal reflex. You could think of it as throwing the body into a state of semi-hibernation. Blood flow to the extremities nearly shuts off completely. The heart and brain use as little as a tenth of the oxygen they normally require. Survival time is stretched out.

Dr. Stephan Mayer, too, knew those statistics well. Mayer is a crusader for therapeutic hypothermia, fretting over the doctors who are reluctant to use it as a treatment, and the medical organizations, who in his view, don't do enough to promote it. Mayer first encountered hypothermia in a very different context, on the grounds of an ancient mental hospital in Westchester County, New York. In October of 1986, Mayer was a third-year medical student, and he spent most of that month looking after young men who had basically fallen apart under the strain of their freshman year in college. "Depression, bipolar disorder, borderline personality disorder—they were all these young guys who had gone off from home for the first time, and just decompensated under the pressure."

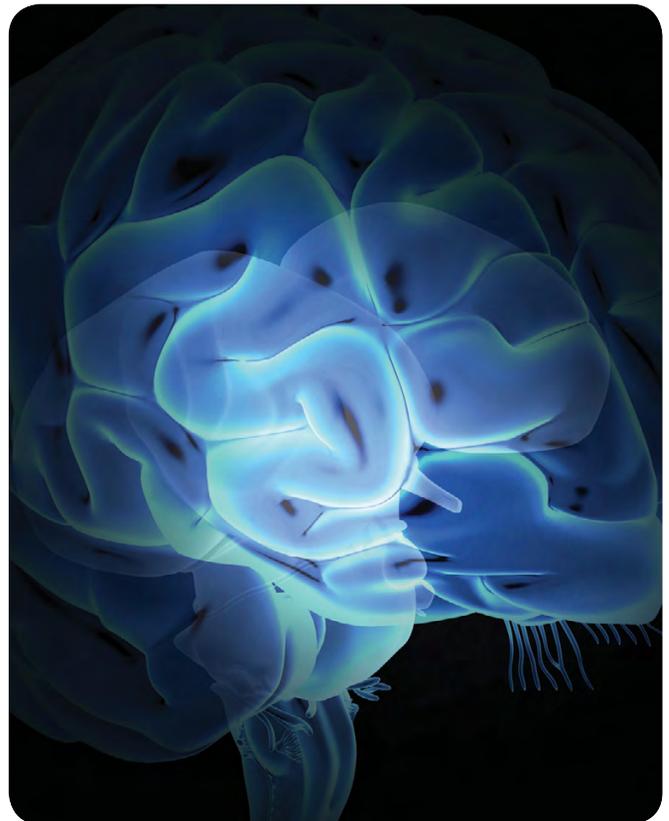
One night, a young man came into the unit in a straitjacket, clearly in the midst of a complete breakdown. "He was in this psychotic rage," says Mayer. "We were giving him doses, mega doses, of thorazine, haldol, you name it, and it wasn't touching him at all. He just kept going. And then someone said, 'Get the cold sheets!' And I'm like, 'what's that?'"

Next thing he knew, says Mayer, he was helping more than a dozen doctors and orderlies to hold down the unruly patient, while someone else soaked the sheets in ice water and rolled up the patient like a caterpillar in his cocoon. "It was amazing. He immediately calmed down. It worked like nothing else. It was right away. [The young man] said something like, 'oh, I think I feel okay now.'"

Curious, Mayer asked around and learned that cold sheets had been widely used in psychiatric hospitals in the early 20th century. The practice had widely been abandoned, but not by the elderly psychiatrist who ran the institution where Mayer spent that eventful fall. Mayer knew he didn't really understand what he had witnessed, but something about it left a deep imprint.

"I never saw it again, but I was very impressed that something natural, and so simple, could have such an impact. It was like his brain was boiling with rage, and they just cooled it down. I thought that for such a natural intervention, it was very powerful." That little lesson would one day set the template for his life's crusade.

As Mayer embarked on his very first hypothermia study, he wanted to see if therapeutic cooling might reduce the swelling from brain injury, reduce the damage, or both. "Decades ago, the only use of hypothermia was in selected, super-high-risk neurology and cardiology surgeries, where they needed to completely stop circulation for an extended period of time," says Mayer. This was the legacy of the pioneering heart surgeons. In those early years, hypothermia developed an ominous reputation. While it made daring surgeries possible, patients suffered enough side effects to give doctors serious pause. Patients who were cooled below 80 degrees were prone to developing heart arrhythmias. They were also prone to strokes and other types of internal bleeding, since blood that's chilled doesn't clot as well. Most of those early cardiac patients would get better in the short term, but then eventually died of pneumonia. The problem was in the 1940s, there were no artificial ventilators, so comatose patients had to breathe on their own and their lungs often filled with



various secretions. On top of that, hypothermia tends to suppress the immune system, so these patients would develop fatal infections.

But even then, there were hints and clues that it might be done safely. For example, a few years later surgeons at the University of Minnesota reported cooling a 51-year-old female cancer patient to just 48 degrees for her surgery, and re-warming her with no apparent problems. Other experimenters, working with monkeys, also reported good results using extreme low temperatures, and there were even reports of physicians using hypothermia, successfully, in the treatment of cardiac arrest patients.

But by the 1990s, hypothermia was still out of favor due to safety concerns. Mayer and a few other doctors decided it was time for a fresh look. Mayer suspected that the real problem in the 1950s lay not with the cooling itself, but with the follow up care and nascent level of life support equipment. He and other doctors felt that some of the pitfalls could be avoided. For one thing, they wouldn't be cooling people to such an extreme degree—they hoped to get results by cooling to around 90 degrees, not 60 or 70. Just as important, in the modern critical care setting they could do much better preventing and treating complications like pneumo-

nia. When the results came back for the pilot study, they were solid—the patients did no worse—and he published them in tandem with a group of German researchers who had done a similar experiment with another 42 patients.

The field of neuroscience, long seen as one where doctors could do little for their patients, was finally shifting, and so was that line between life and death.

As is usually the case in medical discovery, our best new research is built on existing research. For example, one of the early articles in Mayer's journal was about a discovery that took place when I was still a resident. The FDA approved the use of a drug called Tissue Plasminogen Activator, or tPA, to treat patients with strokes.

In one type of stroke, blood flow to part or all of the brain is cut off by a clot. Without blood flow, that portion of the brain dies. tPA is a great tool, because it can almost immediately break open the clot and restore blood flow to the brain. The problem is, it needs to be given very quickly—within three hours of the start

Hibernation is a good example of cold going hand in hand with lower metabolism; mammals who hibernate can survive, even thrive, for long periods at far below their usual body temperature... it triggers a whole set of biochemical changes.



of symptoms—for it to help. For this reason, it's estimated that fewer than five percent of stroke patients actually receive this vitally important drug. Enter the Ice Doctor.

A handful of neurologists—Mayer included—thought that hypothermia could be a vital addition to the arsenal. They started experimenting—on the theory that hypothermia would reduce the brain's need for oxygen during the crucial first days of recovery, and so reduce the permanent damage. This would reduce the damage caused by lack of oxygen and perhaps extend the window of effectiveness for other therapies, like tPA. Unlike the early cardiac surgeons, Mayer and these other Ice Doctors used a mild form of hypothermia, generally cooling the body by five to ten degrees.

No doubt, Mayer had cold on the brain, and in 2000 he got more encouragement. A European research team, led by the Austrian cardiologist Fritz Sterz, reported that chilling patients by about seven degrees Fahrenheit was enough to sharply improve the outcome in patients who suffered a life threatening cardiac arrest. Think about that. Think about the number of times we hear, "He or she died of a heart attack." All



the technology, in the world's best hospitals, could only do so much. But take away seven degrees Fahrenheit... When he was describing all this to me, it seemed counterintuitive that a neurologist would dedicate himself to changing cardiac care around the country. But, the Ice Doctor was hooked.

The thing was, Mayer couldn't start cooling cardiac patients on his own, simply because he thought it was a good idea. Just because an article gets published, doesn't mean it will become accepted practice. That's doubly true if the work is published overseas and even truer in a field like cardiac care, which is so strictly bound by rules and guidelines. In the U.S., no one was doing it. But in Europe, its use continued to grow, and a decade later—medicine moves slowly—there was more ammunition for people like Mayer, and for other devotees like the UPenn team led by Lance Becker.

Once again, it came from Fritz Sterz' group in Austria, this time under the heading of the Hypothermia After Cardiac Arrest Study Group. The Austrians, led by Dr. Michael Holzer and Sterz, reported in the *New England Journal of Medicine* that they had cooled 136 cardiac arrest patients; 55 percent emerged from the hospital with healthy brain function. In a control group of 137 patients—cardiac arrest victims who were *not* cooled—just 39 percent got better. It wasn't a large study, but it was a strong result published in a major U.S. medical journal. Mayer thought it would be decisive, a triumphant breakthrough, for doctors

like him who thought that hypothermia should be the standard treatment.

But that's not how it worked out. With such common and deadly illnesses as heart attacks and stroke, physicians are loathe to experiment—they stick closely to protocol. This is especially true in the United States, where the fear of lawsuits makes doctors especially unwilling to deviate from what might be called the accepted standard of care. For three years after the publication of Fritz Sterz' groundbreaking European study, a handful of American doctors fumed as the AHA refused to update its guidelines to require cooling as a treatment for cardiac arrest.

Stephan Mayer was especially steamed. In his view, as long as hypothermia was not considered "standard of care," hospitals could rationalize not doing it. After all, if the AHA didn't think it was absolutely necessary, many would ignore it. In 2005, its guidelines for treating cardiac arrest were re-written, as they are every five years, and they did list therapeutic hypothermia as a *recommended* treatment—but still not that elusive standard of care.

To shift that line, once and for all, would take a decision from the Food and Drug Administration. In 2004, an FDA panel that makes recommendations on medical devices gathered to discuss the evidence for hypothermia, and whether companies could specifically market cooling systems for the treatment of cardiac arrest patients. The European study was touted,



along with a second study from Australia, which also showed that cooling helped survival. On the other side of the world, Mads Gilbert was certainly smiling as he followed the developments.

But things didn't go as Gilbert and Mayer, among many expected. An influential FDA representative was not swayed by the evidence of a benefit from hypothermia. Dr. Julie Swain, a prominent cardiologist, laid into the two studies. She argued that they were too small to suggest a real benefit, and pointed to studies of hypothermia in other groups of patient—heart attack victims, and people who suffered head injuries—as showing no benefit at all. What's more, she said, patients in those other studies suffered higher rates of side effects like shock and bleeding.

According to Lance Becker, who was at the meeting as an expert consultant, the mood in the room was tense. Becker tried to persuade the panel that hypothermia was worth the risk. Of course the studies were relatively small, he argued, since most cardiac arrest patients die before they even reach the hospital. He pushed on, saying that the two studies, together, provided more evidence of benefit than existed for many other, more accepted therapies. Another consultant, Dr. Joseph Ornato from Virginia Commonwealth University, backed Becker, saying the European and Australian studies were well-designed, and that it would be wrong—and extremely difficult—to wait for larger studies.

But the enthusiasm had gone out of the room. A third consultant, Dr. John Somberg from Cornell, was

blunt. "Forget about their being in the *New England Journal*. I just do not believe these two studies meet any FDA advisory standard of approval." Somberg, who was a former member of the FDA committee making the decision, went on to compare the two studies to a poorly balanced stack of cards. In the end, his opinion carried the day. Despite the efforts of doctors like Stephan Mayer, hypothermia would not become standard of care. The Ice Doctors had lost this battle.

Reached by phone four years later, Swain still hadn't changed her mind. She told us that even at modest temperature levels the benefits of hypothermia do not outweigh the risks.

You may be wondering why I included this losing battle by the Ice Doctors. Well, herein lays one of the great challenges of medicine. When does an experimental treatment become a standard tool in the doctor's bag? Move too slowly, and you're holding back a treatment that could save thousands of lives. Move too quickly, and you might miss side effects. Look what happened in the case of Vioxx. The FDA approved Vioxx as an anti-arthritis medication, only to take it off the market five years later, when it became apparent that the drug was linked to heart problems. The FDA says Vioxx probably caused more than 88,000 heart attacks, in all. Maybe they all could have been avoided if the FDA had waited for more evidence before agreeing that the drug was safe.

Of course, critics like Swain and Somberg say the research on hypothermia is thin, and considering the potential risks, not enough to justify its widespread use. But there are major hurdles to actually doing more studies. In a true *Catch-22*, in 2008 the National Institutes of Health rejected a proposed study at Duke that would have tested therapeutic cooling against a non-cooling regimen, on the grounds that it wouldn't be ethical to withhold cooling. If you think it's confusing—you're right. You've got the FDA saying it's wrong to cool cardiac arrest patients because we don't know if it works, the AHA saying it's probably a good idea to use the treatment and the NIH saying the evidence is so strong, it's unethical NOT to cool them.

Whatever the reason, hospitals and doctors in the United States have been slow to adopt the treatment. Medivance, which makes the most widely used therapeutic cooling pads, says that just a few hundred U.S. hospitals—of nearly 6,000 total—have even installed the necessary equipment. This sluggish response is especially bewildering, considering the lifesaving success that's taken place in institutions that do adapt the use of cooling. Just one example: after making hypothermia a standard protocol, in 2005, the University of Richmond Hospital reported that the death rate for cardiac arrest patients was cut in half.

I was incredulous that this lifesaving treatment could be ignored by so many. As I described it to my friends and colleagues, they thought it was outrageous. What was the reason? Raina Merchant, a physician and researcher at the Center for Resuscitation Science, tried to explain. Merchant has conducted a number of studies and surveys, talking to hospitals and doctors about their use of hypothermia and other therapies. She is 31 years old, an accomplished physician, but she looks almost like an undergraduate—petite, with studious glasses. She was dressed in a neat black dress. She is African-American, which stands out in the world of leading emergency physicians and cardiologists. I started right into it: why don't more doctors use hypothermia, when the evidence seems to show it's a lifesaver? "At first, we used to think it was because it wasn't in the guidelines. But now, since 2005, we have that." By this Merchant was talking about the modest recommendation from the American Heart Association. You might think it costs too much, but according to Merchant, that's not the problem either.

When I take non-physicians to an ICU and show them the hypothermia equipment, they are always a bit surprised. I think they imagine futuristic ice tubs with bluish solutions coursing through the patient's blood stream. The truth is, hypothermia is not especially high-tech. Doctors either pump cool saline or fresh water through a patient's veins, or wrap cold solution-filled pads around the torso and extremities. Picture the opposite of a hot water bottle.

To be fair, the box used to cool and pump the iced slurry solution costs about \$25,000. But even if \$25,000 sounds like a lot of money, compared to therapies like dialysis, it's cheap. Cost-benefit studies showed it would actually save money. Merchant told me, "If you cool even one patient and avoid complications, you save more than the cost of dozens of boxes. It's cheaper to cool, than not to cool." And even the box isn't absolutely necessary. Ice bags will do the trick, although it's harder to control the temperature. According to Lance Becker, for years heart surgeons in Russia would pack a patient's chest cavity with ice until it was cold enough to stop the heart. Fritz Sterz, the Austrian anesthesiologist who pioneered the use of hypothermia in Europe, tells of a case where he used bags of frozen vegetables from a grocery freezer to cool a patient who had collapsed in a grocery aisle.

In other words, it is a recommended, rather cost-effective therapy. I had to ask: "What am I missing here?" In Merchant's view, the biggest hurdle to widespread use of hypothermia is a psychological one. Her colleague in the Upenn emergency department, Dr. Ben Abella, explained. "It's a paradigm shift," he told me. "We're using this for people whose eyes are yellow,

they're not moving, and you're telling doctors to cool these people for 24 hours—then warm them up for a day, then take them to the cath lab. You're doing all these things for people who look dead, sound dead and act dead. It's asking a lot."

It may be that lack of hope leads to inertia and apathy, but as I dug deeper, I found even more reasons therapeutic hypothermia has been slow to catch on. Here's one that will probably make you angry: using hypothermia might be inexpensive and effective, but it isn't nearly as simple as rolling out a new miracle drug. In this case, being inexpensive is not necessarily an asset, but a potential liability. For example, let's say you've invented this new medication. You run studies comparing the new pill to a placebo, publish the results, and then—assuming it works—you send the sales team to tell physicians about it. If they're convinced, they start writing prescriptions. There is no doubt money to be made.

By contrast, a single doctor, as compared to a big company, no matter how motivated, can't just start writing prescriptions for hypothermia. He or she has to convince a hospital to buy the equipment; it might not be terribly expensive as medical equipment goes, but it's enough that a purchasing committee needs to get involved. And it gets even more complicated. A cardiac arrest patient is as likely to be treated as a neurology patient as a cardiology patient, and in either case he or she almost certainly starts in the emergency department. All three of those departments have to not only agree that hypothermia is useful; they have to agree on where to get the money to buy the gear. Then they have to figure out a protocol for identifying patients who would be helped by the treatment—and train people to do it properly. This would be hard enough in a single hospital department; with two or three departments involved it can be a bit like herding cats. Even a good idea, without the millions of dollars that are often backing a new drug, have a hard time getting off the ground. There is a sometimes ugly underbelly of medical progress, and this is just one example of it.

On the UPenn website, Becker and his colleagues have posted the hypothermia protocols from more than two dozen medical centers. There's no special qualification; someone just has to be willing to email the institution's guidelines. Since setting up the website, the Center for Resuscitation Science has received thousands of emails from hospitals who want to set up their own hypothermia programs. The hope is that by making the details easily and publically available, they'll inspire others to start—and take away the excuse that it's all too complicated.

You see, what Raina Merchant found is that the

most common reason that hospitals start using hypothermia is when there's a doctor, or even a nurse, who knows about hypothermia and talks it up among their colleagues. If there's no local champion, no one gets cooled. Like a lot of things in medicine, it boils down to word of mouth. The squeaky wheel. Simply put, despite all the technology and years of studies, hypothermia still needs champions like Stephen Mayer.

In early 2009, the New York Fire Department started a bold new experiment, cooling cardiac arrest patients in the field. "The plan is to make therapeutic hypothermia the first thing out of the bag, right after defibrillation," says FDNY Medical Director John Freese. "Once we get the breathing tube and an IV placed, we'll just give everyone two liters of cooled saline."²⁷

In preparation, Freese has had to identify which hospitals are able to efficiently cool patients coming in from the field. After all, it would make no sense to cool a cardiac arrest victim in their home, only to let them warm up 30 minutes later when they reach the hospital. The process has not been tension-free. There was shouting at one meeting, when the head of a major hospital group said he didn't want to publicly compare survival rates at different hospitals—it might embarrass someone. Still, similar efforts are underway in Arizona, Wisconsin and Seattle.

Lance Becker insists that doubters are missing the forest for the trees, that whatever side effects exist are minimal in contrast to the life preserving power of cold. "No matter which direction you go, whether you're conservative or aggressive, we know it will save people's lives. How many lives have lost, because we delayed implementing this for a year or two? I have to think that we've lost lives, because we've failed to move aggressively."

The practice of medicine is changing constantly. The innovation isn't always for the better—ask one of the women who took thalidomide in the 1960s, to ward off morning sickness. And innovation is never easy—most of the first heart transplant patients died within hours or days. But the next round of transplants went better, and then better, and today thousands of heart transplant patients live rich lives because of the bold pioneers of the 50s and 60s, and their brave subjects. What I have learned is that this cycle: desperation, desperate measure, apparent miracle, insight, common practice—shifts the line in the sand. That's how medicine moves forward.

From the book, *Cheating Death: The Doctors and Medical Miracles that Are Saving Lives Against All Odds* by Sanjay Gupta, MD. Copyright © 2008 by Sanjay Gupta, MD. Reprinted by permission of Grand Central Publishing, New York, NY. All rights reserved.

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EDITOR'S NOTE: Why Life Extension Supports Hypothermia Research

Lowering the body temperature of certain patients by just a few degrees can save countless lives, yet few hospitals take the initiative to implement hypothermia procedures that were long ago described in scientific literature.

The **Life Extension Foundation**[®] directly funds the most aggressive hypothermia research program in the world at its **Critical Care Medicine** laboratories. During these hypothermia experiments, we get to put to the test unique combinations of potent **antioxidants** against some of the most challenging *in vivo* **free radical environments** in the world.

That's because when blood flow is halted and then restarted (as we do in our hypothermia studies), *catastrophic* free radical damage occurs (due to reperfusion injury) in the absence of *intensive* antioxidant protection. This hands-on knowledge enables us to design the most potent antioxidant nutrient formulas, to help prevent our members from requiring hospitalization in the first place.

In this excerpt from *Cheating Death*, CNN medical correspondent Sanjay Gupta, MD explains in lengthy detail the incredible benefits of properly administered hypothermia in the clinical setting.



How Potent Is Your SAME?

Most consumers are unaware that the SAME molecule has two forms. One form is the **SS** isomer (known as the **active** isomer) and the other is the **RS** isomer (known as the **inactive** isomer).

Accepted potency levels of SAME require a minimum of **70% SS (active)** isomer content. Life Extension®'s SAME consistently tests at **73%** or higher for SS (active) isomer content and **27%** or less of the RS (inactive) isomer.

Cheap forms of SAME circulating in the United States contain **47%** or less of the SS (active) isomer and **51%** or more of the RS (inactive) isomer. These low-grade products are **33% less potent** than Life Extension's SAME according to scientific guidelines.

The table at the right shows the isomer ratios of Life Extension's SAME compared to other raw materials that are flooding the American marketplace.

SAME at Discount Prices!

Life Extension remains vigilant about ensuring that members are provided with the highest-quality SAME. A box of 20 **400-mg** SAME tablets retails for \$35. When a member buys six boxes during **Super Sale**, the price is reduced to only **\$18.90** a box!

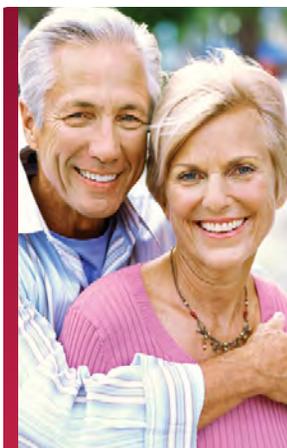
To order your supply of SAME,
call **1-800-544-4440**
or visit www.lifeextension.com

	% of SS (ACTIVE) Isomer	% of RS (INACTIVE) Isomer	% SS Isomer Content/ REQUIRED
Minimum Requirements	70%	(not established)	100%
Life Extension's SAME (Italian origin)	73.39%	26.61 %	104.8%
Company A SAME (Italian origin)	65.45%	34.54 %	93.5%
Company B SAME (Italian origin)	62.03%	37.97%	88.6%
Company C SAME (Indian origin)	47.77%	51.55%	68.2%
Company D SAME (Indian origin)	46.40%	53.60%	66.3%



(Data contained in this table are based on HPLC analysis performed on commonly imported SAME raw materials that are incorporated in SAME supplements sold in the United States.)

ITEM #00557



Discount Prices For Premium-Quality Products

Life Extension® members are longevity enthusiasts, willing to take extraordinary steps to stave off disease, aging, and death. When members buy products from the **Life Extension Foundation Buyers Club**, they are assured of receiving the highest quality products based on the latest scientific studies that demonstrate benefits.

The **large discounts** available to Foundation members enable them to purchase **premium-quality** supplements at prices substantially below those charged by commercial companies.

Here are some examples of **savings** members enjoy during the annual **SUPER SALE**:

	<u>Our Low Retail Price</u>	<u>SUPER SALE Member-Volume Discount Price Per Bottle</u>
Optimized Resveratrol with Pterostilbene 250 mg, 60 vegetarian capsules, Item #01409 High potency <i>trans</i> -resveratrol with quercetin, plus pterostilbene to support DNA “longevity genes”	\$46.00	\$27.90 (four-bottle purchase)
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Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™ 100 mg, 60 softgels, Item #01426 Now with shilajit, an organic compound shown to double levels of CoQ10 in the mitochondria	\$62.00	\$35.10 (ten-bottle purchase)
Optimized Irvingia with Phase 3™ Calorie Control Complex* 120 vegetarian capsules, Item #01492 Combats age-related fat accumulation via eight distinct mechanisms	\$78.00	\$48.60 (four-bottle purchase)
Super Omega-3 EPA/DHA with Sesame Lignans & Olive Fruit Extract 120 softgels, Item #01482 Super-refined EPA/DHA fish oil plus sesame lignans and more potent olive fruit extract	\$32.00	\$16.81 (ten-bottle purchase)
Ultra Natural Prostate Formula , 60 softgels, Item #01475 Now with more potent Saw Palmetto to support normal urinary flow and help support healthy prostate function	\$38.00	\$21.60 (twelve-bottle purchase)
Prelox® Natural Sex for Men® , 60 tablets, Item #01373 Supports healthy endothelial function and blood flow for maximum male performance	\$50.00	\$29.90 (four-bottle purchase)
DHEA (Dehydroepiandrosterone) , 25 mg, 100 capsules, Item #00335 Anti-aging benefits for overall health	\$15.00	\$8.44 (four-bottle purchase)
Arthro-Immune Joint Support , 60 vegetarian capsules, Item #01404 Combines two clinically proven plant extracts to support healthy joint structure and function	\$30.00	\$18.23 (four-bottle purchase)
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Mitochondrial Energy Optimizer , 120 capsules, Item #01368 To maintain healthy cellular function and protein structural integrity	\$86.00	\$52.65 (four-bottle purchase)

To order call toll-free 1-800-544-4440

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.

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

	<u>Our Low Retail Price</u>	<u>SUPER SALE Member-Volume Discount Price Per Bottle</u>
Life Extension Mix™, 315 tablets, Item #01455 High-potency multi-nutrient formula now with twice as much Vitamin D and iodine, plus pterostilbene to favorably regulate gene expression	\$98.00	\$46.91 (ten-bottle purchase)
Super R-Lipoic Acid, 300 mg, 60 vegetarian capsules, Item #01208 Double the efficacy of ordinary alpha-lipoic acid ... supplies 210 mg of stabilized R-lipoic acid	\$49.00	\$29.90 (four-bottle purchase)
Optimized TryptoPure® Plus, 90 vegetarian capsules, Item #01202 For natural support of healthy serotonin levels in the brain	\$40.00	\$24.30 (four-bottle purchase)
Cognitex with Pregnenolone & NeuroProtection Complex 90 softgels, Item #00922 Sharp-PS® GOLD PS-DHA, vinpocetine, phosphatidylserine, glyceryl-phosphoryl-choline, pregnenolone and uridine for optimal brain function (also available without pregnenolone)	\$74.00	\$43.20 (twelve-bottle purchase)
Eligen® B12, 30 100 mcg vegetarian tablets, Item #01403 Delivers a peak concentration of B12 into the bloodstream within 30 minutes	\$28.00	\$16.88 (four-bottle purchase)
Acetyl-L-Carnitine Arginate, 100 capsules, Item #00788 Patented form of carnitine to support healthy neurite growth for optimal brain health	\$59.00	\$34.42 (four-bottle purchase)
Triple Action Cruciferous Vegetable Extract 60 vegetarian capsules, Item #01468 Comprehensive cruciferous plant extract formulation, now with apigenin , for optimal cellular health	\$24.00	\$14.85 (four-bottle purchase)
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Bone Restore, 150 capsules, Item #00811 High-potency bone protection formula with FruiteX B® OsteoBoron®	\$22.50	\$13.16 (four-bottle purchase)
Vital Greens Mix, 309 grams powder, Item #01098 An organic blend of whole plant foods, this green "super food" provides protein, fiber, vitamins, minerals, and mushroom extracts	\$48.00	\$29.70 (four-bottle purchase)
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Super MiraForte with Standardized Lignans, 120 capsules, Item #01315 Supports healthy testosterone levels in men	\$62.00	\$37.80 (four-bottle purchase)
SAME, 400 mg, 20 tablets, Item #00557 S-adenosyl-methionine from Europe in double-strength potency	\$35.00	\$18.90 (six-box purchase)
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Super Booster Softgels with Advanced K2 Complex 60 softgels, Item #01380 Critical, oil-based nutrients including gamma-tocopherol, sesame lignans, lycopene, lutein, ginkgo, chlorophyllin, selenium and both forms of vitamin K2	\$42.00	\$25.65 (four-bottle purchase)
Advanced Lipid Control, 60 vegetarian capsules, Item #01308 With theaflavins for arterial health and Indian gooseberry extract to help maintain a healthy lipid profile	\$30.00	\$18.23 (four-bottle purchase)

Order online at www.LifeExtension.com/SuperSale

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.

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

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A CONVERSATION WITH

Sanjay Gupta, MD

INTERVIEWED BY PHILIP SMITH

On the front lines of medicine as a practicing neurosurgeon and chief medical correspondent for CNN, Sanjay Gupta, MD reports on innovative medical breakthroughs that promise to save lives.

In researching his book titled *Cheating Death* (Wellness Central, 2009), Dr. Gupta examines medical practices that were once deemed as science fiction, but are now becoming reality.

In this candid interview, Dr. Gupta explores the frontiers of clinical medical practice where courageous doctors are reviving those who most in the medical establishment consider to be permanently “dead.”

It is gratifying to read Dr. Gupta’s descriptions about some of the death-defying cooling and resuscitation technologies that the Life Extension Foundation® long ago pioneered. > >



Dr. Sanjay Gupta on location in Kuwait.

LE: In your new book, *Cheating Death*, you report on medical innovations that promise to extend our lives. Many of these ideas, such as hypothermia and suspended animation, were thought to be solely in the realm of science fiction. However all this is changing and we seem to be on the cusp of a new paradigm of emergency medicine.

SG: You're absolutely right. If you look back just twenty years ago many of these applications were considered to be completely crazy, such as hypothermia during cardiac operations for transplantation. When I was working on my previous book, *Chasing Life*, I thought a lot about the science of life extension and that got me thinking that we really don't know how to define death. This is the key concept on life extension—when is death absolutely final and what is reversible? Every day we are learning a lot more in terms of how we can cheat death in cases of cardiac arrest. Twenty five years ago a heart attack was a more certain death sentence than it is today. Our concepts of when a person is salvageable are changing rapidly.

LE: Your chapter on hypothermia is particularly fascinating. What was so surprising was the establishment's resistance to the very simple, inexpensive and

life-saving concept of simply cooling down the body to preserve its functions during trauma.

SG: I was really surprised as well and had no idea of the political ramifications of what I was writing. I've been overwhelmed by e-mails from people who are involved with this on both sides of the issue. The application of hypothermia is so simple that it's almost unbelievable. If you look at your chance of surviving cardiac arrest as you're walking down the streets of your neighborhood and nobody helps you, they are about 2 to 3%. Now, if somebody helps and let's say calls 911, it goes up to around 10%. But if someone does simple chest compression and you add hypothermia, you can get a 700-800% increase in survival! There should be no argument on this.

LE: Those are extraordinary statistics. There should be a national initiative to educate people on how easy it is to save lives.

SG: Absolutely, I completely agree. In New York City, paramedics are being trained with these techniques. In several cities in Arizona paramedics not only have defibrillators and their bag of meds but more importantly, they have ice chests full of cool saline so they can immediately start the hypothermic process in the field.

LE: The idea that more lives can be saved by a simple technology employing ice is very exciting. Throughout the book as you explore medical innovation you also come up against the conservatism of medicine. Sadly, it seems that people come into the ER with a poor prognosis and many times the doctor responds that the patient is in a catastrophic situation and any life-saving measure such as hypothermia isn't going to work, so why bother?

SG: This does happen. My reporting was not meant to indict the medical establishment in any way. My intention was to highlight an important premise which is that some of our greatest medical innovations have occurred when everyone said, "That's not a fixable situation, I can't save that person, can't help that person," and then someone just says, "You know what, let's just try this."

LE: This is the basis of medical invention.

SG: Chemotherapy was that way for Hodgkin's lymphoma. This idea of giving a radical drug that would essentially take someone's basic ingredients, or cells, to the point of death, only to hopefully select out the most deadly of all and leave the other ones to survive, was unheard of. But then it worked. Transplantation had to undergo a similar revision in thinking. And I think we're going to look back at some of these

medical advances and say, “That’s how we learn. That’s how medical knowledge is furthered in some way.”

LE: In the book you discuss a patient who was in a coma for 19 years, and against all medical textbook knowledge grew new brain connections.

SG: Right. And this is my world. I’m a neurosurgeon and I was taught in medical school that there are two types of cells in the body that never regenerate: neurons and cardiac cells (cardiac myoblasts). We now know that to not be true. You can form new cells, and not only can you do it in the brain, but we’re now getting a lot of evidence that you can also do it in the spinal cord as well. Imagine what the profound ramifications of this information will be? But going back to the patient that grew new brain cells, most doctors would say, “This guy had a terrible brain injury with no chance of recovery,” yet he did. So they label him an outlier. What I tried to do in this book with reports on various remarkable patients was to try to figure out the millions of microdecisions that were made that somehow let this person live when no one thought they would, or have function when no one thought they would.

LE: What were some of the most fascinating cases you came across?

SG: In the book I report on a patient diagnosed with glioblastoma. The vast majority of people in the neurooncology world will say, “Glioblastoma? Gee, I’m sorry to tell you that the average survival is 14 months, we haven’t made any progress, get your affairs together.” That’s the mantra that you hear way too often. And then you have a place like Duke, where they say, “There is hope, and based on that, we are going to never make you a DNR (do not resuscitate), we are always going to keep trying, we will throw the kitchen sink at you.” And do they have patients that die? Absolutely. But they have a higher subset of patients who live longer as a result of that. It is a different way of thinking from most of the medical establishment.

LE: It would seem that it is a fundamental responsibility of the medical profession to keep pushing the envelope, because that’s how knowledge progresses. If they don’t we are going to stay stuck in medicine from the last century.

SG: I obviously agree with you and it’s part of the reason I decided to write this book. There is a standard



Dr. Sanjay Gupta and Dr. Anna Bagenholm in Tromso, Norway, on location during shooting of *Another Day: Cheating Death*. Bagenholm has the distinction of surviving one of the most extreme cases of hypothermia known. An emergency medical physician now herself, doctors are learning from her clinical recovery.



Dr. Sanjay Gupta on location in Tromsø, Norway for the program, *Another Day: Cheating Death*.

of care in a lot of hospitals, you have a certain diagnosis, therefore you're going to do x, y, and z. And that's just how it's done. And again, that's not to begrudge that system, or indict it in any way, but medicine is as much of an art as it is a science, and I think that when people decide that they're going to keep someone cold after being submerged in ice for 90 minutes in Norway, or they decide they're going to cool somebody who's transferred over from a different hospital, that sort of treatment is what I would want, what I would want for my family. How do we make that more the norm so that more people can cheat death in that manner? Working on this book was very tough. My goal was not to criticize the medical establishment but rather to show what is possible and where sort of we're headed.

LE: The most important impression one gets from the book is "here are some fantastic possibilities that are saving lives, let's implement them on a wider scale."

SG: Absolutely. What the book emphasizes is that some of these techniques are ready now. We don't have to wait to invent this life-saving technology. One of the reasons that I started the book with the CCR

(cardiocerebral resuscitation), as opposed to CPR, was because I thought it was an empowering chapter for the average person. I have kids now, so I took a child's CPR class again, because God forbid something happened to my kid and I didn't know what to do. I'm a doctor, so I'm at a little bit of an advantage, but everyone can be refreshed in terms of this information. If the average person sees someone go down in front of them, would they know what to do? We know that if you do something, the person's chances of survival skyrocket. Let's start the movement today; we could save so many lives.

LE: In the book, you mention monoclonal antibodies that the FDA has approved for colon cancer but not brain cancer. There is a large population of terminal patients that are waiting for FDA approval of certain medicines. However, this process is cumbersome and can take years. Currently, there is a great deal of debate over the compassionate use of various medications.

SG: For example, glioblastoma is such a deadly diagnosis that places like Duke are getting a bit of leeway. One example is that there is a vaccine trial that was originally reserved only for people with recurrent glioblastomas. They couldn't use it for a first diagnosis. And now they can use it as part of an initial diagnosis treatment. So you're starting to see some improvement overall in the ability to use these drugs where nothing else seems to be working.

Also, Duke has been able to employ a more global and immediate treatment philosophy. The idea in medicine is that let's try one medicine at a time so that we know what works because if you try several things at once, who knows what worked? Which medicine provided the benefit? The problem with that is that in the meantime, someone may not survive.

LE: Recently, we reported on an interesting study about the use of progesterone for head trauma. You were involved in that study.

SG: Women seem to tolerate head injuries better than men, especially young women. So the question is why? Why do women, why do female animals, tend to do better? And that's what sort of got us interested in the idea of female hormones as possibly being the mechanism here. It's fascinating. It's not standard practice, it's gone through Phase II clinical trials, so Phase I is safety, Phase II is efficacy, and Phase III is really how does it compare to what is already out there. It passed through the first two clinical trials. The big concern really is that adding the female hormone progesterone can increase someone's risk of clotting. Now in someone who's a trauma patient, that may not be a bad thing. There are still details to be worked out such

as perhaps they should also be on low dose heparin if they are on a progesterone; if they are, what's the likelihood of that increasing their chance of having an intracranial bleed and issues like that?

LE: It is this type of research and the research in your book that makes one realize that there are vast new possibilities out there to extend life and cheat death.

SG: Absolutely. For example, suspended animation, which is the bedrock of science fiction, actually presents some interesting possibilities. Right now, you're breathing 21% oxygen, but if you drop it to 2%, you're going to die. But if you drop it to .00002%, you'll likely live. And to me, that shatters some of our most preconceived notions about physiology. At the end of the day, oxygen is necessary for the death pathways to actually occur. If there's no oxygen, the death pathways can't occur. So if you're poisoned with carbon monoxide, you will likely die because you have no oxygen and no fuel for your cells. When there is no oxygen your cells essentially starve themselves.

But if you could provide a fuel and some sort of substance, like hydrogen sulfide or carbon monoxide, you could be suspended. I could put you into a state of complete hibernation, where you're not breathing but your heart, if it's pumping, is pumping at an almost undetectable rate, but you're completely alive. If you're in critical condition and I can suspend you for a day or a week, as a physician I have so many more options available to me.

LE: Buying time seems to be the key.

SG: Every life-saving technology in *Cheating Death* is about time. Doctors always say, "If I only had a few more minutes, if I only had a few more hours, a few more days, I could have saved that person." But right now, we don't have that time. But if you can suspend a patient, you have the greatest tool of all in your medical bag—time. And what I'm describing is not that far off. It's being done in animals right now, I saw it with my own eyes and now they've got primate funding for primate trials, and after that, they're going to have human clinical trials.

LE: Obviously, our readers all want to cheat death. Are there any lessons to pass on or is our fate all in the hands of the doctors?

SG: Well, I think the cardiocerebral resuscitation technique is something that you could go out and learn today. Or even some sort of cardiac resuscitation as it is still the leading cause of death in this country for men and women. Another important thing is to find out what the local hospitals in your area are capable

of. People assume that all hospitals are the same, that there is a certain standard of care. This is not the case. For example, I did call the hospitals in the area to see which ones offered hypothermia. Not all of them do.

So I think there's a lot of self-empowerment, self-knowledge, that people can start to do by just doing their homework, finding out what's available to them. A lot of the case histories in my book have to do with people who simply took control of their care and when necessary went to doctor after doctor until they found one that was willing to treat them in an innovative fashion.

Medicine is as much of an art as a science and you're going to hear different things from different people, second opinions are a good idea, and being as educated as you possibly can be, I think, is in the end going to be your strongest asset. ●

The cover price of *Cheating Death* is **\$24.99**, but Life Extension® members pay only **\$17.49** a copy. To order a copy of *Cheating Death*, call **1-800-544-4440**.



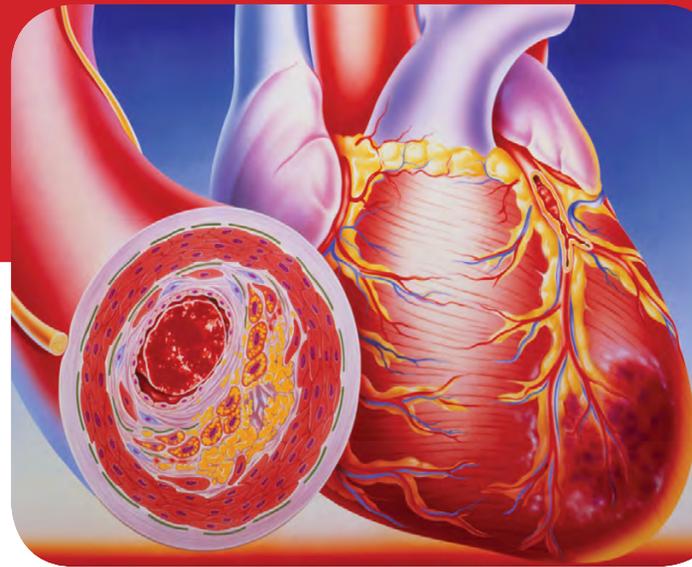
Dr. Sanjay Gupta and CNN team up with KABOOM! charity organization to build a playground in New Orleans, Louisiana.

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The *endothelium* is the inner lining of blood vessels that regulates arterial health. The reason for so many of today's circulatory problems is the breakdown of *endothelial function* and *structure*.

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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.¹

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Endothelial function can be evaluated by using a sensitive ultrasound test to assess blood flow velocity. In a controlled human study, arterial blood flow **improved by 37%** following ingestion of standardized *cocoa polyphenols* and this persisted about **eight hours**. This same study showed a **36% decrease** in undesirable platelet activation in the *cocoa polyphenol* groups.³ The *cocoa polyphenols* appear to exert their beneficial effect by enhancing endothelial *nitric oxide*. The age-related depletion of *nitric oxide* is considered a major impediment to healthy arterial blood flow. A standardized cocoa polyphenol extract is the second active component of **Endothelial Defense™** formula.

3 SOD Protects Against Nitric Oxide Degradation

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Studies show that damaging carotid artery thickness increases by 0.04 mm every 10 years. However, the recent study with **GliSODin®** suggests that **2.8 years** of supplementation may turn back the clock on **10 years** of age-related damage due to carotid artery wall thickening.⁸ The third ingredient of **Endothelial Defense™** formula is the patented **GliSODin®** in the identical dose used in the successful human study.

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- Superoxide Dismutase/Gliadin Complex (GliSODin®)500 mg**
[SOD (Superoxide Dismutase) Enzyme Activity = 500 IU]
- Pomegranate (*Punica granatum*) Extract (fruit)400 mg**
[standardized to 30% Punicalagins (120 mg)]
- Pomegranate (*Punica granatum*) 5:1 Extract (fruit)100 mg**
- CocoaGold™ Cocoa (*Theobroma cacao L.*) Extract (bean)112 mg**
[standardized to 45% polyphenols (50 mg)]

To order Endothelial Defense™ with GliSODin® & CocoaGold™, call 1-800-544-4440 or visit www.lifeextension.com

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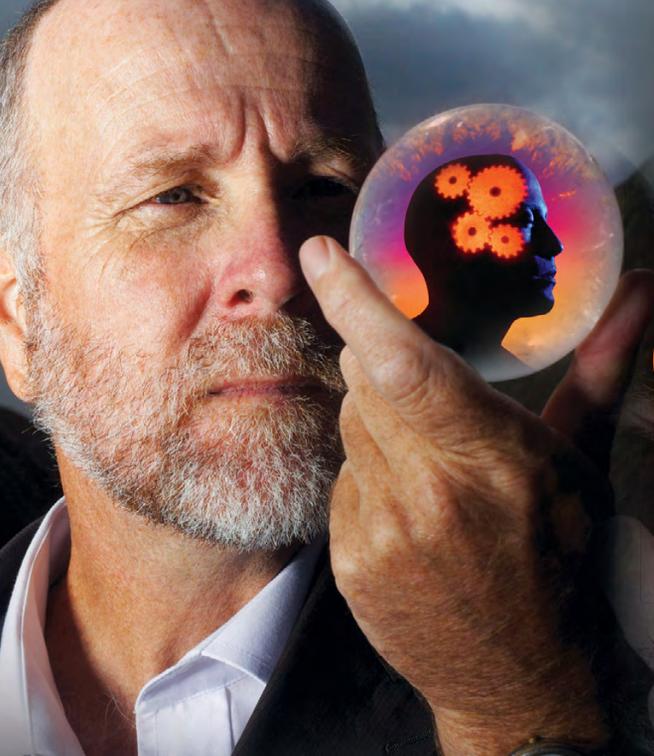
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The retail price of 60 vegetarian capsules of **Endothelial Defense™ with GliSODin® & CocoaGold™** is \$54. If a member buys four bottles during **Super Sale**, the price is reduced to just **\$32.40** per bottle.



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- **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 during **Super Sale**, the price per bottle is reduced to just **\$44.96** and **\$43.20**, respectively.

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

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Just three softgels of Cognitex provide the following nutrients:

Alpha-Glyceryl Phosphoryl Choline (A-GPC)	600 mg
Phosphatidylserine-DHA (PS-DHA)	100 mg
[Sharp-PS® GOLD Conjugated Phosphatidylserine-DHA]	
Pregnenolone	50 mg
Vinpocetine	20 mg
Phospholipid-Grape Seed Extract	150 mg
Wild Blueberry	150 mg
(Vaccinium angustifolium) 130:1 Extract	
Sensoril® Ashwagandha Extract	125 mg
(Withania somnifera)	
Uridine-5'-Monophosphate (disodium)	50 mg
Proprietary NeuroProtection Complex Blend	125 mg
Perlunan® Hops Extract (<i>Humulus lupulus</i>)	
Ginger (<i>Zingiber officinale</i>) Extract	
Rosemary (<i>Rosmarinus officinalis</i>) Extract	



Item #00921



Item #00922

To order Cognitex, call 1-800-544-4440 or visit 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.



Are You Getting Enough **Vitamin B12?**

BY BINA SINGH

A hidden nutritional deficit may be responsible for an array of *preventable* age-related diseases. Fortunately, an advance in absorption technology offers a practical solution.

Researchers estimate that up to **40%** of Americans have low levels of vitamin B12 (*cobalamin*),¹ while more than **20%** of people over 65 suffer from severe **B12 deficiency**.² Since the symptoms of low B12 can be subtle,³ sub-optimal B12 often goes *undetected*, leaving many millions more at risk. Furthermore, the widespread use of a common medication used to reduce stomach acid secretion may *magnify* the risk of B12 deficiency, yet few are aware of this danger.

The implications of these findings for the public health are profound. B12 deficiency has been strongly linked to **depression, cognitive impairment, and age-related dementia**.^{4,5} Clinical research indicates that even *mild* B12 deficiency may be correlated with **Alzheimer's disease**.^{6,7} Owing to its critical role in the breakdown of **homocysteine**, B12 *also* acts as a primary safeguard against a host of serious chronic diseases, from **heart disease** and **stroke** to **rheumatoid arthritis**.^{8,9} >>

While getting more B12 through diet would seem to be the clear solution, it is a problematic one. The body's ability to digest B12 from food sources declines with age, even in healthy individuals.³ B12 also possesses the largest and most complex molecular structure of all the vitamins, making it difficult to absorb and maintain in the blood.

Until recently, the best strategies for maintaining healthy B12 status with advancing age have been using a sublingual **methylcobalamin** B12 tablet daily, or costly, inconvenient, and often painful injections.

In a technological breakthrough, scientists have developed an **innovative delivery system** that optimizes B12 oral bioavailability and boosts peak levels of B12 in the blood an astonishing **10 times better** than conventional B12 supplementation alone!

A Stealth Process

B12 is an essential vitamin—the body cannot make it on its own. It is abundant in animal products, including meat, milk, and eggs. It is critical to the formation of **myelin**, the protective material that encases every neuron in the body. In addition to assisting the metabolism of **homocysteine**, B12 also plays a key role in the synthesis of **red blood cells** and **DNA**.

Scientists have only recently designated one of the principal *causes* of B12 deficiency with advancing age—**food-cobalamin malabsorption syndrome**.³ It results from a gradual, age-related loss of function in the lining of the gastrointestinal (GI) tract that governs the release of a digestive compound known as **intrinsic factor**.

In the absence of *intrinsic factor*, the body's ability to absorb vital B12 from food is compromised. Instead of actively transporting B12 into the blood, the body must rely on **passive diffusion** through the intestinal wall, resulting in sub-optimal B12 absorption and lower B12 levels.

Use of **proton pump inhibitors** can also lead to B12 deficiency. Of particular concern are the commonly prescribed drugs **Prilosec**® (omeprazole), **Prevacid**® (lansoprazole), **Aciphex**® (rabeprazole), **Protonix**® (pantoprazole), **Nexium**® (esomeprazole), and **Zegarid**®, a rapid release *form* of omeprazole.^{1,10} These drugs reduce levels of stomach acid necessary to separate B12 from the food proteins to which it is bound.

Infection with ***H. pylori***³—the bacterium responsible for peptic ulcers and cancer—can inflame the stomach lining, impairing adequate production of the digestive acids responsible for releasing B12 from food. In adults **over the age of 50**, a

thinning of the stomach lining (called **atrophic gastritis**) can further *reduce* acid secretion and limit B12 levels.¹¹ This environment encourages the overgrowth of **bacteria that compete for B12** in the gastrointestinal tract and further decrease B12 levels in the blood.¹

The onset of B12 deficiency is a *stealth* process whose symptoms can take years to surface—but may emerge relatively early in life, with varying degrees of severity. They range from numbness and tingling in the extremities caused by nerve damage (**neuropathy**) to **anemia**, fatigue, weakness, confusion, vision problems, and memory loss.¹²

The *high* oral dosing with conventional B12 supplements required for optimal cobalamin status has been established in several studies,¹³⁻¹⁸ even among healthy elderly adults with mild B12 deficiency.¹⁷ Yet relatively *few* Americans receive B12 therapy each year, with approximately five million taking tablets and an equal number receiving injections,¹⁹ out of the estimated 123 million Americans with low levels of B12.

Limited awareness of low B12's *prevalence* is partly to blame for these disappointing statistics—but they also reflect the problem of *compliance*. Repeated B12 injections can be painful, inconvenient, and costly.

Cyanocobalamin vs. Methylcobalamin

Cyanocobalamin is the form of B12 found most commonly found in conventional nutritional supplements. **Methylcobalamin** is one of two bioactive forms of B12 in the body (the other bioactive form of B12 is **adenosylcobalamin**). Bioactive forms of B12 are responsible for the metabolism of homocysteine (using *methylcobalamin*) as well as the metabolism of methylmalonic acid (using *adenosylcobalamin*).

Conventional oral supplementation of cyanocobalamin is plagued by limited bioavailability. In addition, cyanocobalamin needs to be converted into bioactive B12 forms in the body, and there is evidence that with advancing age the ability to convert cyanocobalamin to bioactive B12 decreases. As opposed to supplementation with the conventional cyanocobalamin form of B12, supplementation with **methylcobalamin** is advantageous.

Recent advancements with novel, innovative formulation technology offer dramatically enhanced oral bioavailability with cyanocobalamin. The science is young, and over the next few years, exciting new research will help determine the relative benefits of highly bioavailable forms of cyanocobalamin and bioactive methylcobalamin.

They can also lead to **scarring** and **complications** at the injection site. On the other hand, many people simply find it too difficult to take the number of B12 supplements they need every day, regardless of their symptoms.

Cutting-Edge B12 Technology

Impressive results from a set of promising clinical trials suggest that a breakthrough oral delivery system called **Eligen**^{®20,21} may render these problems obsolete—and enable *millions* of Americans to ward off the very real dangers of B12 deficiency.

Compared to conventional B12 supplements, Eligen[®] B12 has been shown to dramatically *speed* the absorption of the large, complex B12 molecule into the blood at **lower doses** and maintain optimal B12 levels significantly *longer* in the body.

B12 is absorbed by the GI tract in two ways—through **active transport** and **passive diffusion**. A healthy digestive system will rely mainly on active transport as the body's primary means of *obtaining* B12 from dietary sources. If active transport is **impaired**—as is the case in most aging individuals—passive diffusion takes over, but **only 1-2% of an oral dose** can be *absorbed* in this way.¹²

Eligen[®] technology utilizes a special molecular “carrier” known as **SNAC** (sodium N-[8-(2-hydroxybenzoyl)amino]caprylate).²⁰ A relatively small amino acid, SNAC boosts B12 absorption by shuttling the large, complex B12 molecule through the GI tract lining and *into* the blood. This technology delivers B12 orally without altering its chemical form or biological integrity.

Impressive Clinical Results

Preliminary human and animal studies reveal that when combined with Eligen[®], B12's bioavailability far *exceeds* that of oral B12 alone. In one yet-to-be-published study,²² researchers randomized 20 healthy men and compared Eligen[®] B12's performance against standard B12 therapies.

The results were dramatic. First, B12 was **rapidly absorbed** from the digestive system with Eligen[®] compared to conventional B12 alone. B12 concentrations in the blood reached their peak within just **30 minutes** among those who took Eligen[®] B12—compared to **6.8 hours** for the standard B12 tablet. This translated to a **90% reduction** in the time to reach peak concentration for Eligen[®] B12, compared with the commercial 5 mg dose. (Figure 1 on the next page)

Are You B12-Deficient?

- Up to 40% of Americans have low levels of vitamin B12 and more than 20% of people over 65 suffer from severe B12 deficiency—and the symptoms of low B12 often go undetected.
- B12 deficiency has been strongly linked to a variety of age-related diseases, including cognitive impairment and Alzheimer's disease. B12 serves as a frontline defense against many age-related conditions, from arthritis to heart disease.
- The body's ability to absorb dietary B12 declines steadily with age. Widely used drugs to reduce stomach acid may also block B12 absorption.
- Until recently, the best strategies for maintaining healthy B12 status with advancing age have been high daily doses of oral B12 or costly, inconvenient, and often painful injections.
- A breakthrough formulation technology known as Eligen[®] **optimizes** B12 oral bioavailability and boosts peak levels of B12 in the blood **10 times better** than conventional B12 supplementation therapy.
- You should have your B12 levels checked. Optimal B12 levels should be greater than **400 pg/mL**.



Figure 1. Comparison of absorption of Eligen® B12 versus commercial B12. Eligen® B12 achieved peak blood levels in only 30 minutes, compared to 6.8 hours for commercial B12.

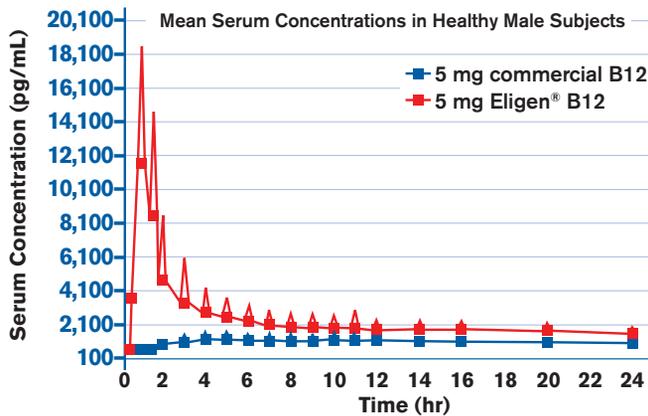


Figure 2. Average peak blood levels of Eligen® B12 were more than 10 times higher than peak blood levelsof commercial B12

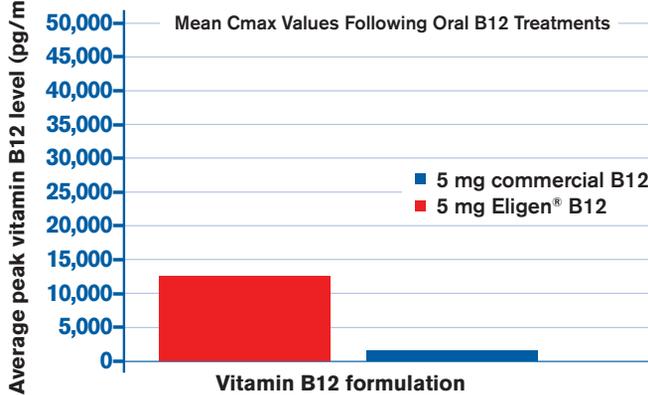
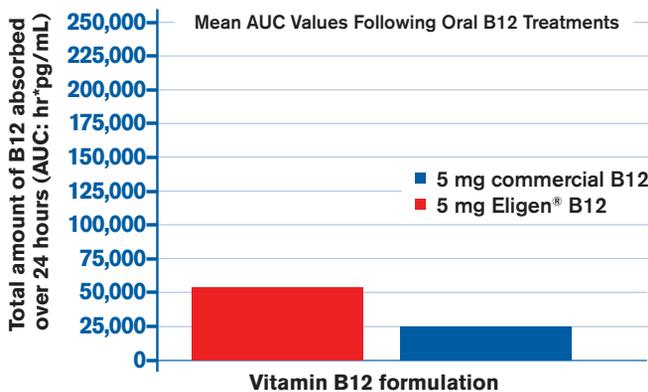


Figure 3. More than twice as much Eligen® B12 was absorbed over a 24-hour period compared with commercial B12



Second, at their peak, mean B12 blood levels were more than **10 times higher** for Eligen® B12 than B12 alone. This is an *unprecedented* level of absorption for a B12 supplement. (Figure 2)

Third, the researchers found that over the entire 24-hour study period, more than **double** the total amount of B12 was absorbed with Eligen® B12 compared with the standard B12 tablet.

In other words, there was a **dramatic improvement** in bioavailability with Eligen® B12 compared with conventional B12. (Figure 3) Eligen® B12 was also well tolerated with no reports of any adverse effects.

What This Means for You

Have your B12 levels checked regularly.^{1,23,24} While deficiency can be indentified with a simple blood test, many doctors don't suspect it and often test for better known diseases first.

Patients are considered B12 deficient if they have serum levels of less than **100 pg/mL**; *optimal* serum B12 levels should be greater than **400 pg/mL**.²⁵

B12 deficiency should be suspected in *all* individuals with **unexplained anemia** and/or **neurological symptoms**, as well as the elderly and patients with chronic intestinal disorders,²⁶ such as **Crohn's disease**.²⁷ Problems with mood may also be a symptom, as B12 deficiency has been linked with **depression** in aging individuals.

The good news is that even the most frightening symptoms of B12 deficiency can very often be **reversed**. For instance, **cognitive impairment** in B12 deficiency neurological syndromes²³ and **Alzheimer's dementia** have been shown to respond to B12 therapy in numerous studies.^{1,28}

Summary

Researchers estimate that up to **40%** of Americans have low levels of vitamin B12, and **more than 20% of people over 65** suffer from severe B12 *deficiency*. It is common with advancing age and often difficult to detect. Widely used drugs to reduce stomach acid can amplify the risk. B12 deficiency can have severe health consequences if left untreated, from **cognitive impairment** to **heart disease**. Many people require high oral doses of B12 or injections, which can be expensive and painful. A breakthrough formulation technology known as Eligen® B12 *optimizes* oral bioavailability and boosts peak levels of B12 in the blood **10 times better** than conventional B12 supplementation alone. ●

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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B12, Folic Acid, and Homocysteine

High homocysteine is linked to virtually every serious health condition, including heart disease, stroke, migraines, rheumatoid arthritis, dementia, osteoporosis, birth defects, macular degeneration, and certain types of cancer.³¹⁻³⁶ While adequate amounts of folate are required to keep homocysteine levels in check, B12 plays an equally critical role. The functions of folic acid and vitamin B12 go hand-in-hand, and any supplement regimen should include both to ensure their *synergistic* health benefit.



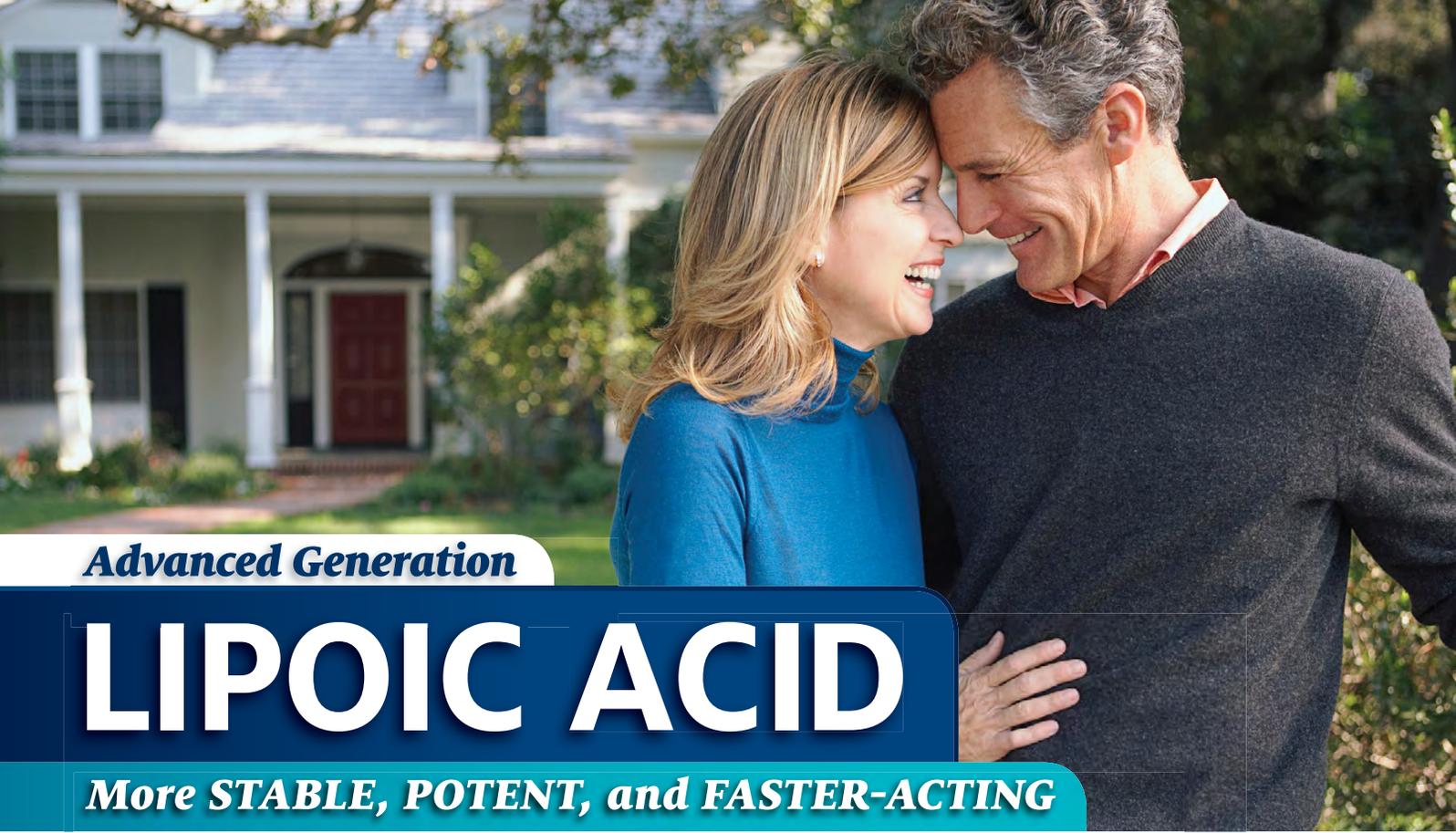
The Many Dangers of Undetected B12 Deficiency

People over 55 need to pay particularly close attention to ensure adequate B12 status. The problem is that according to the latest research, **the cut-off for B12 deficiency is too low.**^{24,29,30} Risk of damage to the brain and nervous system, along with metabolic abnormalities, can occur *before* most doctors are likely to consider B12 concentrations deficient.^{29,30}

A study published in the journal *Neurology* in 2008 underscores the danger.²⁹ One hundred seven healthy adults aged 61 to 87 years without cognitive impairment underwent annual MRI scans, cognitive evaluations, and clinical examination for five years. Blood was tested for vitamin B12, homocysteine, and folate at the study's onset. At the end of the study, subjects whose B12 levels were in the lowest one-third were found to be at **six times greater risk of brain deterioration** than those whose levels were in the top two-thirds.

None of the subjects in the lowest intake category were even *identified* as B12-deficient. The authors of the study concluded that "**vitamin B12 deficiency is a public health problem, especially among the elderly**," and that "**early treatment of low B12 status may prevent further brain volume loss.**"

Other researchers studying this phenomenon have also concluded that the elderly in particular should "maintain a good, rather than just adequate, vitamin B12 status." According to a recent update on the diagnosis and treatment of B12 deficiency, "the major diagnostic challenge concerns patients who develop subtle vitamin B12 deficiency often without the presence of anemia. **It is difficult to diagnose these patients, but at the same time important to do so since neurological manifestations may be irreversible if treatment is initiated too late.**"²⁶



Advanced Generation

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More STABLE, POTENT, and FASTER-ACTING



Dedicated research and development has produced a form of **R-lipoic acid** that is being hailed as the “next-generation” antioxidant powerhouse.

Life Extension’s **Super R-Lipoic Acid** has demonstrated superior bioavailability, stability, and potency for a variety of health benefits. This breakthrough converts the biologically active “R” form of lipoic acid to sodium-R-lipoic acid, which in a recent human study achieved **10–30 times** higher peak blood levels than pure R-lipoic acid.¹

Not only does this lipoic acid formulation reach higher peak blood levels,² it also achieves them sooner, up to **12 times** faster than R-lipoic acid, ensuring rapid uptake from the plasma into the tissues.¹ A recent study showed that oral ingestion of **Super R-Lipoic Acid** reached peak plasma concentrations within just **10–20 minutes** of supplementation.²

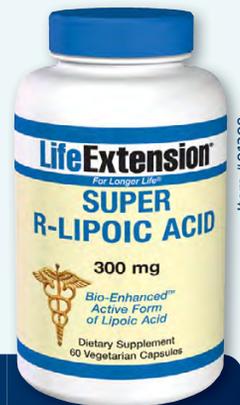
What’s more, unlike other forms of lipoic acid, **Super R-Lipoic Acid** is more stable in the body. The increased stability of this enhanced formulation is the reason for its greater absorption and bioavailability compared with R-lipoic acid.



POWERFUL ANTIOXIDANT PROTECTION

The superior antioxidant effects of **R-lipoic acid** are already well known for supporting healthy mitochondrial function. **Super R-Lipoic Acid** provides more potent benefits for preserving youthful cellular energy levels.

A bottle of **Super R-Lipoic Acid** containing 60 capsules retails for \$49. If a member buys four bottles during **Super Sale**, the cost is only **\$29.90 per bottle**. Each capsule contains **300 mg** of stabilized, Bio-Enhanced® **sodium-R-lipoic acid** supplying **210 mg** of **R-lipoic acid**.



Item #01208

To order **Super R-Lipoic Acid**, call **1-800-544-4440** or visit **www.LifeExtension.com**

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No More “Tired” Eyes!

Bags, dark circles, and fine lines under the eyes—they don’t just come after a night of tossing and turning. They can also be telltale signs of aging. The good news is there are safe, effective, *natural* ways to keep that gleam in your eye.

A Powerful Blend to Restore Natural Radiance

Life Extension® introduces **Triple Action Under Eye Rejuvenator Cream**, a next-generation skincare formula for radiant, beautiful eyes—at any age. It brings together a unique blend of patented ingredients that works in **three ways** to get rid of that “too-tired” look:

- **Helps prevent “puffiness.”** The delicate areas below the eyes are particularly sensitive to the ravages of time. **Eyeliss™** is a combination of active amino acids and **phytonutrients** (plant-based compounds) that increase **firmness** and **elasticity** to offset the appearance of swelling. In a clinical trial of women aged 40 to 60, **70%** reported a significant reduction in under-eye “puffiness.”¹
- **Fights dark circles.** Darkness in the hollows of the eyes can turn from an occasional embarrassment to a *daily* problem. **Haloxyl™** supplies special proteins and flavonoids that give the skin a light, vibrant look that lasts all day, whether you’re rested or not. In a double-blind clinical trial, more than **72%** of women who had serious dark circles and used **Haloxyl™** saw an obvious visible reduction in the dark color under their eyes.²
- **Tightens and tones skin.** **Sesaflash™** is a patented combination of active molecular compounds, including hydrolyzed protein from **sesame**. It instantly and visibly firms and tones away fine lines under and around the eyes. After just one minute, **100%** of trial participants using **Sesaflash™** experienced an immediate tightening effect that *masked* fine lines and wrinkles.³

To order **Triple Action Under Eye Rejuvenator** call **1-800-544-4440** or visit **www.lifeextension.com**

Enhanced Natural Protection

To enhance the powerfully enlivening results of this unique blend, **Triple Action Under Eye Rejuvenator** provides **more than 10 additional ingredients** widely recognized for their natural rejuvenating effect on the skin.

These include **hyaluronic acid** to hydrate and nourish the **collagen** and **elastin** around your eyes. **Vitamin K** and **Arnica montana flower extract** to give your skin a rosy glow. **Cucumber** as a cooling agent and mild astringent. **Sunflower seed oil** to soften and protect. **Olive oil extract** to moisturize. **Elderflower extract** to lighten and brighten under-eye skin tone

With **Triple Action Under Eye Rejuvenator** you’ll look refreshed and vibrant, day in and day out—*naturally*.

A 0.5 oz pump containing **Triple Action Under Eye Rejuvenator** retails for **\$24**. If a member buys four pumps during **Super Sale**, the price is reduced to just **\$14.85** per pump.

Item# 01046

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The Neurologically Active Form of VITAMIN B12



Methylcobalamin is the form of **vitamin B12** active in the **central** and **peripheral nervous system**. The liver may not convert the common form of vitamin B12 (cyanocobalamin) into adequate amounts of **methylcobalamin** needed for proper **neuronal functioning**.

Methylcobalamin has been shown to protect against glutamate-induced "excitotoxic" neuronal damage. For fastest absorption and utilization, hold lozenge in mouth until completely dissolved and then swallow.

The **Life Extension Foundation® Buyers Club** imports pharmaceutical-grade **methylcobalamin**, the neurologically active form of vitamin B12, at remarkably low prices. Methylcobalamin lozenges come in a **good-tasting vanilla flavor**.



ITEM # 00536



ITEM # 00537

Methylcobalamin 1 mg dissolve-in-mouth lozenges

	Retail Price	Super Sale Member Price
60 lozenges	\$9.95	\$6.72
Four bottles	\$32	\$5.40 each

Methylcobalamin 5 mg dissolve-in-mouth lozenges

	Retail Price	Super Sale Member Price
60 lozenges	\$ 32	\$21.60
Four bottles	\$100	\$16.88 each
Ten bottles	\$230	\$15.53 each

To order vanilla-flavored methylcobalamin lozenges at these **SUPER-LOW** prices, call 1-800-544-4440 or visit www.lifeextension.com

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ADVANCED TECHNOLOGY PROVIDES **ULTRA FAST**

B12

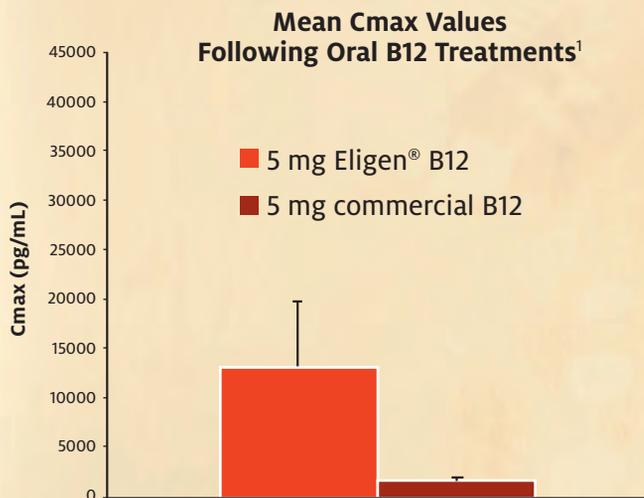
ABSORPTION

Insufficient levels of the essential *vitamin B12* in the body can lead to *transitory memory loss, weakness, and fatigue*. These **debilitating** symptoms become more common as people age due to difficulties absorbing the vitamin from food. Those at risk for a deficiency often endure **inconvenient injections** to increase their blood concentration of vitamin B12.

Eligen® B12 is designed to overcome these hurdles with a patented **rapid absorption** system that delivers a peak concentration of B12 into the bloodstream *within just 30 minutes* — a *staggering* improvement over the **6.8 hour** absorption time of standard B12 tablets.¹ This enhanced bioavailability ensures optimum B12 blood levels.

HOW IT WORKS

Using cutting-edge technology, **Eligen® B12** utilizes a special carrier known as SNAC (sodium N-[8-(2-hydroxybenzoyl) amino] caprylate) to **facilitate the delivery** of B12 molecules through passive transport. The carrier *changes* the permeability and fluidity of the gastric epithelium, making it more permeable for vitamin B12, leading to **incredibly higher absorption rates**.



Those who want to obtain the benefits of B12 in this highly absorbable form can order **Eligen® B12**. Each tablet contains 100 mcg of vitamin B12 and retails for \$28 per 30-tablet bottle. When a member buys four bottles during **Super Sale**, the price is reduced to only **\$16.88**.

To order **Eligen® B12**, call **1-800-544-4440**
or visit **www.LifeExtension.com**



Item #01403

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Prices subject to change without notice.

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High Performance Supplement
Supports Thicker, Healthier

Hair



Item #01400

The adult scalp **loses** about **100 hairs every day**. Starting at the age of 40, hair follicles *shrink*, causing hair to grow back *thinner*, or worse, *not at all*. This *devastating* hair loss is experienced by *half* the population. While the prevention and treatment is complex, using a supplement with *tocotrienols* can be pivotal in addressing the various physiological mechanisms that lead to thinning hair.¹

Super Absorbable Tocotrienols combats the underlying causes of hair loss, supporting otherwise healthy hair follicles that genetic disposition, advancing age, high concentrations of DHT (the male hormone dihydrotestosterone), and sebum build-up may cause to weaken, degrade or shrink. **Super Absorbable Tocotrienols**, a natural, orally administered, bio-enhanced tocotrienol complex, can be taken to support *youthful hair thickness* and *growth*.

The Most Absorbable Tocotrienol Supplement Available Today

Through a revolutionary, patented delivery system, **Super Absorbable Tocotrienols** ensures optimal absorption²⁻⁷ and efficiently delivers the benefits of a unique proprietary complex of *phytonutrients* (squalene, phytosterols and trace

amounts of mixed carotene) naturally extracted together with tocotrienols to support youthful hair growth, hair health and hair density. In a study involving 30 volunteers who took tocotrienol supplements for eight months, nearly all the subjects showed significant improvement in hair thickness and density.¹

Those who want to obtain the benefits of this *potent* hair formula can order **Life Extension®'s Super Absorbable Tocotrienols**. The recommended dosage is one softgel taken two times daily with food. The retail price for a bottle of **Super Absorbable Tocotrienols** containing 60 softgels is \$30, but if a member buys four bottles during **Super Sale**, the price is reduced to **\$18.90 per bottle**.

To order **Super Absorbable Tocotrienols**,
call **1-800-544-4440**
or visit **www.LifeExtension.com**

Reference:

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2. Antioxid Redox Signal. 2006 May-Jun;8(5-6):1059-68.
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5. J. of Pharmacy and Pharmacology. 2003;55:53-58.
6. Intl. J. of Pharmaceutics. 2004;(281); 67-78.
7. US Patent No:US 6,596,306.

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.

Discover the European “Secret” to **Youthful, Healthy Legs**

Combat Unsightly Veins with This High-Potency Extract

30 YEARS OF CLINICAL EVIDENCE BRINGS LONG-AWAITED RELIEF

It is estimated that *half* of all women in the United States will develop unsightly veins by age 50.¹ While dermatologists often suggest surgery to correct this “age-related” issue, European women have enjoyed access to a **natural solution for 30 years!**

Life Extension® offers American women the same extract *without* a prescription. No more compression bandages or stockings. Instead, experience the same beautifying effects European women have been raving about for three decades—**naturally!**

Derived from the sweet orange, **European Leg Solution featuring Certified Diosmin 95** contains a plant-based nutrient called *diosmin* and is available in a vegetarian tablet.

MICRONIZED FOR GREATER EFFECTIVENESS

In order to derive any significant benefit, bioactive diosmin extract **must be able to reach veins directly.**

Life Extension®’s proprietary extract undergoes a complex, highly refined process called **micronization**. It yields the only *form* of diosmin clinically proven to support healthy vascular function in the legs.^{1,2}

This scientifically controlled, multi-phase technique *radically reduces* the size of the standard diosmin particles contained in each tablet, from **37 microns** to less than **2 microns**. The result is an optimally bioavailable standardized extract. This ensures rapid, efficient delivery of diosmin to the bloodstream, enabling enhanced *penetration* of the delicate inner lining of the veins.

As with so many “age-related” conditions, *inflammation*³ is the chief culprit behind the presence of unsightly veins. Inflammatory responses are *precipitated* by the interaction between white blood cells and the endothelial lining.

Life Extension’s **European Leg Solution featuring Certified Diosmin 95** offers effective protection **by disrupting this inflammatory response.**

THE PREFERRED TREATMENT AMONG EUROPEAN WOMEN FOR BEAUTIFUL LEGS IS HERE

Life Extension’s **European Leg Solution featuring Certified Diosmin 95** provides the same pharmaceutical grade extract used by millions throughout Europe. The retail price for a bottle containing 30 600-mg vegetarian tablets is \$20. If a member buys 4 bottles during **Super Sale**, the cost is only **\$12.15** per bottle.

Item #01042



Six Ways Life Extension’s European Leg Solution featuring Certified Diosmin 95 Works for You

1. Maintains healthy blood flow through your capillaries—the most *fragile* of your blood vessels.
2. Maintains tone and elasticity of your veins—the key to sustained vascular health.
3. Eases the effects of circulating cytokines that promote inflammation.
4. Safeguards collagen and elastin against oxidative damage.
5. Enjoys an outstanding safety record.
6. Produces results in just **1–2 weeks**, with a single **600 mg** tablet taken each morning.²

*Product not for sale outside the United States.

To order European Leg Solution featuring Certified Diosmin 95,
call 1-800-544-4440 or visit www.LifeExtension.com

References: 1. <http://www.womenshealth.gov/faq/varicose-spider-veins.cfm>. 2. *Angiology*. 2003 Jul-Aug;54 Suppl 1:533-44.
3. *Eur J Vasc Endovasc Surg* 2004;28:484-93.

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This product is not intended to diagnose, treat, cure, or prevent any disease.





Blood 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.
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

- COMPREHENSIVE PANELS**

○ MALE LIFE EXTENSION PANEL (LC322582) \$269
 CBC/Chemistry Profile
 DHEA-S
 PSA (prostate-specific antigen)
 Homocysteine
 C-Reactive Protein (high-sensitivity)
 Free Testosterone
 Total Testosterone
 Estradiol
- MALE HORMONE ADD-ON PANEL (LCADDM) \$160**
Pregnenolone, Dihydrotestosterone (DHT), and TSH
 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 the thyroid, a testosterone metabolite that can affect the prostate, and the mother hormone that acts as a precursor to all other hormones.
- LIFE EXTENSION MALE WEIGHT LOSS PANEL (LCWLM) \$324**
 CBC/Chemistry Profile, DHEA-S, Free Testosterone, Total Testosterone, Estradiol, PSA, C-Reactive Protein, Homocysteine, TSH, Free T4, Free T3
- FEMALE LIFE EXTENSION PANEL (LC32535) \$269**
 CBC/Chemistry Profile
 DHEA-S
 Estradiol (an estrogen)
 Homocysteine
 C-Reactive Protein (high-sensitivity)
 Progesterone
 Free Testosterone
 Total Testosterone
- FEMALE HORMONE ADD-ON PANEL (LCADDF) \$130**
Pregnenolone, Total Estrogens, and TSH
 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 the thyroid, total estrogen status, and the mother hormone that acts as a precursor to all other hormones.
- LIFE EXTENSION FEMALE WEIGHT LOSS PANEL (LCWLF) \$324**
 CBC/Chemistry Profile, DHEA-S, Free Testosterone, Total Testosterone, Estradiol, Progesterone, C-Reactive Protein, Homocysteine, TSH, Free T4, Free T3
- LIFE EXTENSION THYROID PANEL (LC304131) \$75**
 TSH, T4, Free T3, Free T4.
- MALE HORMONE RE-TEST PROFILE (LCRTM) \$275**
 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.
- FEMALE HORMONE RE-TEST PROFILE (LCRTF) \$250**
 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.
- DR. LICHTEN COMPREHENSIVE MALE PANEL (LICHTEN01M) \$668**
MALE LIFE EXTENSION PANEL PLUS:
 IGF-1, FSH, LH, TSH, T4 free, Cortisol, Fasting Insulin, Sex Hormone Binding Globulin, and Hemoglobin A1C.
- DR. LICHTEN COMPREHENSIVE FEMALE PANEL (LICHTEN01F) \$668**
FEMALE LIFE EXTENSION PANEL PLUS:
 IGF-1, FSH, LH, TSH, T4 free, Cortisol, Fasting Insulin, Sex Hormone Binding Globulin, and Hemoglobin A1C.
- THE CBC/CHEMISTRY PROFILE (LC381822) OVER 40 PARAMETERS TESTED \$35**
CARDIOVASCULAR RISK PROFILE
 Total Cholesterol Cholesterol/HDL Ratio
 HDL Cholesterol Estimated CHD Risk
 LDL Cholesterol Glucose
 Triglycerides Iron
LIVER FUNCTION PANEL
 AST (SGOT) Total Bilirubin
 ALT (SGPT) Alkaline Phosphatase
 LDH
KIDNEY FUNCTION PANEL
 BUN BUN/Creatinine Ratio
 Creatinine Uric Acid
BLOOD PROTEIN LEVELS
 Total Protein Globulin
 Albumin Albumin/Globulin Ratio
BLOOD COUNT/RED AND WHITE BLOOD CELL PROFILE
 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
BLOOD MINERAL PANEL
 Calcium Sodium
 Potassium Chloride
 Phosphorus Iron
- NOTE: CBC/Chemistry profile is included in the Male and Female Life Extension panels.**
- 24-HOUR URINARY PROFILES ^{NEW}**

○ URINARY COMPLUS PANEL (LCM4080) \$472.50
 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.
- URINARY COMPREHENSIVE PANEL (LCM4001) \$360**
 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.
- URINARY ADRENAL PROFILE (LCM4000) \$315**
 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.
- URINARY ESTROGEN PROFILE (LCM4061) \$281.25**
 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.

* 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.



MOST POPULAR SINGLE TESTS

Life Extension Member Pricing

HORMONES

- CORTISOL (LC004051)** \$39
This test is to measure adrenal function.
- ADRENOCORTICOTROPIC HORMONE (ACTH)* (LC004440)** **NEW**
\$91
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)** **NEW**
\$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)** \$185
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)** **NEW**
\$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)** **NEW**
\$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.

ORDER LIFESAVING BLOOD TESTS FROM VIRTUALLY ANYWHERE IN THE US!

TERMS AND CONDITIONS

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

MEMBER NO.

Male Female

Name

Date of Birth (required) / /

Address

City

State

Zip

Phone

Credit Card No.

Expiration Date /

Mail your order form to:

LifeExtension
NATIONAL DIAGNOSTICS, INC.

1100 West Commercial Blvd.,
Ft. Lauderdale, FL 33309

Phone your order to: 1-800-208-3444

Fax your order to: 1-866-728-1050

For non-member pricing call 1-800-208-3444

Products

AMINO ACIDS

Acetyl-L-Carnitine
Acetyl-L-Carnitine-Arginate
Branched Chain Amino Acids
D, L-Phenylalanine Capsules
GABA Powder
Glycine Capsules
Glycine Powder
Arginine Capsules
L-Arginine Free Base Powder
Arginine/L-Ornithine Capsules
L-Carnitine Capsules
L-Carnitine Powder
L-Cysteine Capsules
L-Glutathione, L-Cysteine & C
L-Glutamine Capsules
L-Glutamine Powder
L-Lysine Capsules
L-Lysine Powder
L-Methionine Powder
L-Tyrosine Powder
L-Tyrosine Tablets
Mega L-Glutathione Capsules
N-Acetyl-Cysteine Capsules
Optimized Carnitine with GlycoCarn®
PharmaGABA
Super Carnosine Capsules
Taurine Capsules
Tryptopure® Tryptophan
(Optimized) Tryptopure® Plus

BONE & JOINT HEALTH

ArthroMax™ with Theaflavins
Bone-Up™
Bone Restore™
Bone Strength Formula w/KoAct™
Chondroitin Sulfate
Chondrox
Fast Acting Joint Formula
Glucosamine Chondroitin Capsules

BRAIN HEALTH

Acetyl-L-Carnitine
Acetyl-L-Carnitine-Arginate
CDP Choline Capsules
Cognitex with NeuroProtection Complex
Cognitex with Pregnenolone &
NeuroProtection Complex
DMAE
DMAE-Ginkgo
DMAE Powder (37% DMAE)
Ginkgo Biloba Certified Extract™
Huperzine A
Lecithin with B5 and BHA
Lecithin Granules
Methylcobalamin Lozenges
Optimized Ashwagandha Extract
Phosphatidylserine Capsules
Rhodiola Extract
Super Ginkgo Extract
Vinpocetine

DIGESTIVE

Agave Digestive-Immune Support
Bromelain Powder
Carnosoothe w/PicroProtect
Digest RC™
Enhanced Super Digestive Enzymes
(also available with Probiotics)
Florastor
Intact Digest
Life Flora™
Natural EsophaGuard
NutraFlora (FOS) Powder
N-Zimes™
Pancreatin
Papain Powder
Primal Defense
Regimint™

DURK AND SANDY PRODUCTS

Blast™
Dual-C
Inner Power™
Memory Upgrade

EYE CARE

Bilberry Extract
Blackcurrant Freeze Dried Extract
Brite Eyes III
Lutein Plus Powder
Overxcast Polarized Sunglasses
Solarshield Sunglasses
Super Zeaxanthin with Lutein &
Meso-Zeaxanthin
(Plus Astaxanthin also available)
Vision Optimizer

FIBER

Apple Pectin Powder
Chitosan
Enhanced Fiber Food Powder
Hi-Lignan® Nutri-Flax®
SlimStyles® PGX
WellBetX PGX® Soluble Fiber Blend

HAIR CARE

Dr. Proctor's Advanced Hair Formula
Dr. Proctor's Shampoo
Healthy Hair Spray
Life Extension Shampoo and Conditioner
Super-Absorbable Tocotrienols

HEART HEALTH

Advanced Lipid Control
D-Ribose Capsules
D-Ribose Powder
Endothelial Defense
Enhanced CoQ10 with Brewer's Yeast
Fibrinogen Resist
Forskolin
Homocysteine Resist
Low Dose Aspirin (Enteric Coated)
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 with Enhanced
Mitochondrial™ Support
Sytrinol™
Theaflavin Standardized Extract
TMG Powder
TMG Tablets
Vascular Protect

HERBAL/PHYTO PRODUCTS

Artichoke Leaf Extract
Astaxanthin
Berry Complete
Blackcurrant Juice Concentrate
Blueberry Extract
Blueberry Extract w/Pomegranate
and CocoaGold™
Butterbur Extract w/Standardized
Rosmarinic Acid
Calcium D-Glucarate
Chloroplex
Cilantro Herbal Extract
Citrus Bioflavonoid
CocoaGold™
Grapeseed Extract with Resveratrol &
Pterostilbene
Green Tea Leaves
Hesperidin Complex Powder
Huperzine A with Natural Vitamin E
Kyolic® Garlic Formula 105
Kyolic® Reserve
Lycopene
Mega Green Tea Extract
Mega Green Tea Extract (Decaffeinated)
Mega Lycopene
Mega Silymarin with Isosilybin B
Nutrim
Optimized Ashwagandha Extract
Phyto-Food
Pomegranate Extract
Pomegranate Extract with CocoaGold™
Pomegranate Juice Concentrate
ProGreens®
Pure-Gar™

Pycnogenol
Optimized Quercetin
Resveratrol with Pterostilbene
Rhodiola Extract
Rosmarinic Acid Extract
Rutin Powder
Silibinin Plus
Silymarin
SODzyme™ with GliSODin®
Stevia Extract
Super Bio-Curcumin®
Super Curcumin with Bioperine®
Super Polyphenol Extracts w/CocoaGold™
Super Ginkgo Extract
Triple Action Cruciferous Vegetable Extract
Venotone
Whole Grape Extract

HORMONES

7-Keto® DHEA
DHEA
DHEA Complete
GH Pituitary Support Day Formula
GH Pituitary Support Night Formula
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
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
Vitamin C with Dihydroquercetin
Zinc Lozenges with Vitamin C

INFLAMMATORY REACTIONS

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

LIVER HEALTH

Branch Chain Amino Acids
HepatoPro
Mega Silymarin with Isosilybin B
N-Acetyl Cysteine
SAME
Silibinin Plus
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
ChronoForte with Luteolin
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
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 Powder
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®
Cran-Max
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
DHEA Skin Creme
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 Mask
Hyaluronic Facial Moisturizer
Hydroderm®
Lavilin Underarm Deodorant
Life Extension Sun Protection Spray
Lifting & Tightening Complex
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 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
CocoaGold w/Beta Glucan
Coriolus Versicolor Super Strength
Enhanced Cinsulin® w/Glucose Management Proprietary Blend
EDTA
(European Leg Solution) Diosmin95
Fem Dophilus
GlucoFit™
Lustre™
Maitake SX-Fraction™
Menopause Solutions
Migra-eeze™
Natural Female Support
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
Ascorbyl Palmitate Powder
B1
B2
B12
Beta-Carotene
Biotin Capsules
Biotin Powder
Buffered Vitamin C Powder
Calcium Ascorbate Powder
Complete B Complex
Eligen® B12
Folic Acid + B12
Folic Acid powder
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
PABA Powder
Super Ascorbate C Capsules
Super Ascorbate C Powder
Super K w/Advanced K2 Complex
Tocotrienols w/Sesame Lignans
Vitamin B1 Powder
Vitamin B2 Powder
Vitamin B3 (Niacin) Capsules
Vitamin B5 Powder
Vitamin B6
Vitamin B12 Powder
Vitamin C
Vitamin D
Vitamin D3
Vitamin D3 w/Sea-Iodine™
Vitamin E Succinate
Vitamin K1

WEIGHT MANAGEMENT

Alli® Refill Pack
Belly Slim & Tone
Chitosan
CitriChrome
7-Keto DHEA
DHEA Complete
Enhanced Fiber Food
Fucoxanthin Slim™
HCA
Integra-Lean® Irvingia
Optimized Irvingia w/Phase 3™ Calorie Control Complex
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

SUPER SALE SAVINGS ON ALL PRODUCTS
To order call: 1-954-766-8433 or 1-800-544-4440

No.		Retail	Member Price	Qty	Total
A					
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	49.98	37.49		
	AHCC - 4 bottles of 30 caps	180.00	135.00		
46925	ALLI® REFILL PACK - 60 mg, 120 caps	69.95	58.00		
00261	ALL-IN-ONE WEIGHT LOSS FORMULA - 300 caps	59.95	44.96		
	ALL-IN-ONE WEIGHT LOSS FORMULA - 2 bottles of 300 caps	110.00	82.50		
	ALL-IN-ONE WEIGHT LOSS FORMULA - 4 bottles of 300 caps	174.00	130.50		
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		
00802	ANTI-ALCOHOL ANTIOXIDANTS W/HEPATOPRO - 100 caps	18.70	14.03		
	ANTI-ALCOHOL ANTIOXIDANTS W/HEPATOPRO - 4 bottles of 100 caps	68.00	51.00		
00105	APPLE PECTIN POWDER - 8 oz bottle 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	18.50	13.88		
	(L)-ARGININE FREE-FORM POWDER - 4 bottles of powder	67.00	50.25		
00040	(L)-ARGININE HCL - 1 kilogram of powder	118.00	88.50		
	(L)-ARGININE HCL - 4 bottles of powder	432.00	324.00		
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	24.95	18.71		
	(SUPER) ASCORBATE C POWDER - 4 bottles of powder	92.52	69.39		
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		
00083	ASCORBYL PALMITATE POWDER - 100 grams of powder	32.00	24.00		
	ASCORBYL PALMITATE POWDER - 4 bottles of powder	120.00	90.00		
00888	(OPTIMIZED) ASHWAGANDHA EXTRACT - 60 veg. caps	10.00	7.50		
	(OPTIMIZED) ASHWAGANDHA EXTRACT - 4 bottles of 60 veg. caps	36.00	27.00		
00892	(LOW DOSE) ASPIRIN ENTERIC COATED - 81 mg, 500 tablets	10.00	7.50		
	(LOW DOSE) ASPIRIN ENTERIC COATED - 4 bottles of 500 tablets	36.00	27.00		
00708	ASTAXANTHIN - 2 mg, 30 softgels	9.98	7.49		

SUB-TOTAL OF COLUMN 1

No.		Retail	Member Price	Qty	Total
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		
00664	BETA-CAROTENE - 25,000 IU, 100 softgels	10.50	7.88		
	BETA-CAROTENE - 4 bottles of 100 softgels	38.00	28.50		
00088	BETA-CAROTENE POWDER - 100 grams of powder	27.00	20.25		
	BETA-CAROTENE POWDER - 4 bottles of powder	100.00	75.00		
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

OFFER ENDS FEBRUARY 1, 2010
To order online visit www.lifeextension.com/SuperSale

Buyers Club Order Form

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		
C					
00146	CALCIUM ASCORBATE POWDER - 300 grams of powder	\$24.00	\$18.00		
	CALCIUM ASCORBATE POWDER - 4 bottles of powder	88.00	66.00		
00058	CALCIUM CARBONATE POWDER - 1 kilogram of powder	13.95	10.46		
	CALCIUM CARBONATE POWDER - 4 bottles of powder	52.00	39.00		
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		
00149	CALCIUM/MAGNESIUM POWDER - 1 kilogram of powder	21.00	15.75		
	CALCIUM/MAGNESIUM POWDER - 4 bottles of powder	75.00	56.25		
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		
00051	L-CARNITINE POWDER - 100 grams of powder	85.00	63.75		
	L-CARNITINE POWDER - 4 bottles of powder	295.00	221.25		
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		
00216	CHITOSAN - 250 mg, 180 caps	28.00	21.00		
	CHITOSAN - 4 bottles of 180 caps	100.00	75.00		
	CHITOSAN - 10 bottles of 180 caps	230.00	172.50		
00369	CHITOSAN - 500 mg, 180 caps	55.00	41.25		
	CHITOSAN - 4 bottles of 180 caps	200.00	150.00		
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		
01045	CHLOROPLEX - 100 caps	28.00	21.00		
	CHLOROPLEX - 4 bottles of 100 caps	98.00	73.50		
	CHLOROPLEX - 12 bottles of 100 caps	256.00	192.00		
00142	CHOLINE BITARTRATE - 300 grams of powder	17.75	13.31		
	CHOLINE BITARTRATE - 4 bottles of powder	64.00	48.00		
00541	CHOLINE CHLORIDE - 16 oz liquid	14.95	11.21		
	CHOLINE CHLORIDE - 4 bottles of 16 oz liquid	56.00	42.00		

SUB-TOTAL OF COLUMN 3

No.		Retail	Member Price	Qty	Total
00364	CHONDROITIN SULFATE - 400 mg, 60 tablets	\$19.95	\$14.96		
	CHONDROITIN SULFATE - 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		
00680	CHRONOFORTE WITH LUTEOLIN - 180 caps	96.00	72.00		
	CHRONOFORTE WITH LUTEOLIN - 4 bottles of 180 caps	354.00	265.50		
00551	CILANTRO HERBAL EXTRACT - 1 oz	12.00	9.00		
	CILANTRO HERBAL EXTRACT - 4 bottles of 1oz	44.00	33.00		
01267	(ENHANCED) CINSULIN® w/GLUCOSE MGMT PROP BLEND - 90 veg. caps	32.00	24.00		
	(ENHANCED) CINSULIN® w/GLUCOSE MGMT PROP BLEND - 4 bottles of 90 veg. caps	120.00	90.00		
00223	CITRICHROME - 90 caps	22.95	17.21		
	CITRICHROME - 4 bottles of 90 caps	80.00	60.00		
00069	CITRUS BIOFLAVONOID - 100 caps	14.95	11.21		
	CITRUS BIOFLAVONOID - 4 bottles of 100 caps	56.00	42.00		
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		
00819	(SUPER) CLA BLEND w/GUARANA & SESAME -120 softgels	42.00	31.50		
	(SUPER) CLA BLEND w/GUARANA & SESAME - 4 bits of 120 softgels	153.32	114.99		
00863	COCOAGOLD™ - 130 mg, 60 veg. caps	12.50	9.38		
	COCOAGOLD™ - 4 bottles of 60 veg. caps	44.00	33.00		
01285	COCOAGOLD™ w/BETA-GLUCAN POWDER - 180 grams	20.00	15.00		
	COCOAGOLD™ w/BETA-GLUCAN POWDER - 4 jars of 180 grams	72.00	54.00		
00050	COD LIVER OIL - 12 fl oz (355 ml) (Emulsified)	9.50	7.13		
	COD LIVER OIL - 4 bottles of 12 fl oz (355 ml)	32.00	24.00		
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 bits of 90 softgels	266.40	199.80		
	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 12 bits 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		
01325	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	28.50	21.38		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 4 bottles of 60 softgels	99.00	74.25		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 10 bottles of 60 softgels	230.00	172.50		
00950	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 100 mg, 100 softgels	73.00	54.75		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 4 bottles of 100 softgels	260.00	195.00		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 10 bottles of 100 softgels	620.00	465.00		

SUB-TOTAL OF COLUMN 4

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

DEDUCT AN **ADDITIONAL 10%** ON ALL PRODUCTS DURING SUPER SALE

JANUARY 2010

Buyers Club Order Form

SUPER SALE SAVINGS ON ALL PRODUCTS
To order call: 1-954-766-8433 or 1-800-544-4440

No.		Retail	Member Price	Qty	Total
C CONTINUED					
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		
01053	CORIOLUS VERSICOLOR SUPER STRENGTH - 600 mg, 150 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		
80133	COSMESIS ANTI-OXIDANT FACIAL MIST - 2 oz bottle	29.95	22.46		
	COSMESIS ANTI-OXIDANT FACIAL MIST - 2-2 oz bottles	56.90	42.68		
80132	COSMESIS ANTI-OXIDANT FACIAL MIST - 4 oz bottle	39.95	29.96		
	COSMESIS ANTI-OXIDANT FACIAL MIST - 2-4 oz bottles	76.00	57.00		
80127	COSMESIS ANTI-OXIDANT REJUVENATING FOOT CREAM - 2 oz jar	39.95	29.96		
	COSMESIS ANTI-OXIDANT REJUVENATING FOOT CREAM - 2-2 oz jar	76.00	57.00		
80128	COSMESIS ANTI-OXIDANT REJUVENATING FOOT SCRUB - 2 oz jar	52.95	39.71		
	COSMESIS ANTI-OXIDANT REJUVENATING FOOT SCRUB - 2-2 oz jar	93.20	69.90		
80117	COSMESIS ANTI-OXIDANT REJUVENATING HAND CREAM - 2 oz jar	59.00	44.25		
	COSMESIS ANTI-OXIDANT REJUVENATING HAND CREAM - 2-2 oz jars	106.00	79.50		
80121	COSMESIS ANTI-OXIDANT REJUVENATING HAND SCRUB - 2 oz jar	52.95	39.71		
	COSMESIS ANTI-OXIDANT 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		
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		
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		

SUB-TOTAL OF COLUMN 5

No.		Retail	Member Price	Qty	Total
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		
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 bottle	79.95	59.96		
	COSMESIS VITAMIN C SERUM - 2-1 oz bottles	140.72	105.54		
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		
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		
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		
00126	CYSTEINE ANHYDROUS POWDER - 300 grams of powder	28.50	21.38		
	CYSTEINE ANHYDROUS POWDER - 4 bottles of powder	105.00	78.75		
00064	(L) CYSTEINE CAPSULES - 500 mg, 60 caps	15.95	11.96		
	(L) CYSTEINE CAPSULES - 4 bottles of 60 caps	56.00	42.00		
D					
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		

SUB-TOTAL OF COLUMN 6

OFFER ENDS FEBRUARY 1, 2010
 To order online visit www.lifeextension.com/SuperSale

Buyers Club Order Form

No.		Retail	Member Price	Qty	Total
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		
00883	DHEA - 100 mg, 60 caps	22.50	16.88		
	DHEA - 4 bottles of 60 caps	76.00	57.00		
01058	DHEA SKIN CREME - 1.7 oz pump	29.99	22.49		
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		
00114	DILAURYL THIODIPROPIONATE POWDER - 100 grams of powder	22.00	16.50		
	DILAURYL THIODIPROPIONATE POWDER - 4 bottles of powder	80.00	60.00		
*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		
00033	D,L-PHENYLALANINE PLUS POWDER - 100 grams of powder	26.00	19.50		
	D,L-PHENYLALANINE PLUS POWDER - 4 bottles of powder	86.00	64.50		
00257	DMAE BITARTRATE - 150 mg, 200 caps	14.00	10.50		
	DMAE BITARTRATE - 4 bottles of 200 caps	42.00	31.50		
00022	DMAE POWDER (37% DMAE) - 100 grams of powder	24.00	18.00		
	DMAE POWDER (37% DMAE) - 4 bottles of powder	80.00	60.00		
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		
E					
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		
01297	ENDOTHELIAL DEFENSE™ w/GLISODIN® and COCOAGOLD™ - 60 veg. caps	54.00	40.50		
	ENDOTHELIAL DEFENSE™ w/GLISODIN® AND COCOAGOLD™ - 4 bottles of 60 veg. caps	192.00	144.00		
00625	(MEGA) EPA/DHA - 120 softgels	19.95	14.96		
	(MEGA) EPA/DHA - 4 bottles of 120 softgels	72.00	54.00		

* 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 7

No.		Retail	Member Price	Qty	Total
F					
†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		
*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		
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		
01307	(ENHANCED) FIBER FOOD POWDER - 453 grams of powder	34.00	25.50		
	(ENHANCED) FIBER FOOD POWDER - 4 jars of powder	120.00	90.00		
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® - 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		
00148	FOLIC ACID POWDER - 30 grams of powder	16.00	12.00		
	FOLIC ACID POWDER - 4 bottles of powder	55.00	41.25		
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		
G					
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		
00612	GELATIN CAPSULES - Set of 1000 empty caps size "0"	15.00	11.25		
	GELATIN CAPSULES - 4 Sets	56.00	42.00		
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		

SUB-TOTAL OF COLUMN 8

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

DEDUCT AN **ADDITIONAL 10%** ON ALL PRODUCTS DURING SUPER SALE

JANUARY 2010

Buyers Club Order Form

SUPER SALE SAVINGS ON ALL PRODUCTS
To order call: 1-954-766-8433 or 1-800-544-4440

No.		Retail	Member Price	Qty	Total
G CONTINUED					
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		
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		
00203	GREEN TEA LEAVES - 300 grams of powder	15.00	11.25		
	GREEN TEA LEAVES - 4 bottles of powder	50.00	37.50		
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		
H					
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	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		
00138	HESPERIDIN COMPLEX POWDER - 300 grams of powder	19.00	14.25		
	HESPERIDIN COMPLEX POWDER - 4 bottles of powder	65.00	48.75		
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		
I					
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		
01004	INNERPOWER™ W/SWEET STEVIA - Tropical Flavor Powder	44.00	33.00		
00155	INOSINE CAPSULES - 500 mg, 60 caps	22.95	17.21		
	INOSINE CAPSULES - 4 bottles of 60 caps	84.00	63.00		
00140	INOSINE POWDER - 100 grams of powder	52.00	39.00		
	INOSINE POWDER - 4 bottles of powder	180.00	135.00		
00109	INOSITOL CAPSULES - 500 mg, 100 caps	13.50	10.13		
	INOSITOL CAPSULES - 4 bottles of 100 caps	50.00	37.50		
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	29.95	22.46		
	INTACT™ DIGEST - 4 - 8 fl oz bottles	112.00	84.00		

SUB-TOTAL OF COLUMN 9

No.		Retail	Member Price	Qty	Total
01292	INTEGRA-LEAN® IRVINGIA - 150 mg, 60 veg. caps	\$56.00	\$42.00		
	INTEGRA-LEAN® IRVINGIA - 4 bottles of 60 veg. caps	192.00	144.00		
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	78.00	58.50		
	CALORIE CONTROL COMPLEX				
	(OPTIMIZED) IRVINGIA W/PHASE 3™ - 4 bottles of 120 veg. caps	288.00	216.00		
J, K					
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		
L					
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		

SUB-TOTAL OF COLUMN 10

OFFER ENDS FEBRUARY 1, 2010
 To order online visit www.lifeextension.com/SuperSale

Buyers Club Order Form

No.		Retail	Member Price	Qty	Total
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		
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	17.00	12.75		
	LUSTRE™ - 4 bottles of 90 tablets	61.00	45.75		
01014	LUTEIN PLUS - 150 grams of powder	25.00	18.75		
	LUTEIN PLUS - 4 bottles of powder	88.00	66.00		
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		
M					
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		
00057	MAGNESIUM OXIDE POWDER - 1 kilogram of powder	14.00	10.50		
	MAGNESIUM OXIDE POWDER - 4 bottles of powder	52.52	39.39		
00704	MAITAKE™ SX-FRACTION - 90 tablets	49.95	37.46		
00048	(SUPER) MAX EPA - 12 oz liquid concentrate	18.50	13.88		
	(SUPER) MAX EPA - 4 bottles of concentrate	66.00	49.50		
00547	MELATONIN - 300 mcg, 100 caps	5.75	4.31		
	MELATONIN - 4 bottles of 100 caps	20.00	15.00		
00328	MELATONIN CAPSULES - 500 mcg, 200 caps	16.00	12.00		
	MELATONIN CAPSULES - 4 bottles of 200 caps	56.00	42.00		
00329	MELATONIN CAPSULES - 1 mg, 60 caps	5.00	3.75		
	MELATONIN CAPSULES - 4 bottles of 60 caps	18.52	13.89		

SUB-TOTAL OF COLUMN 11

No.		Retail	Member Price	Qty	Total
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		
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		
00130	L-METHIONINE POWDER - 100 grams of powder	22.00	16.50		
	L-METHIONINE POWDER - 4 bottles of powder	75.00	56.25		
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		
N					
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	9.50	7.13		
	NAPCA W/ALOE VERA - 4 bottles	35.00	26.25		
00066	NATTOKINASE - 60 softgels	34.98	26.24		
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		

SUB-TOTAL OF COLUMN 12

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

DEDUCT AN **ADDITIONAL 10%** ON ALL PRODUCTS DURING SUPER SALE

JANUARY 2010

Buyers Club Order Form

SUPER SALE SAVINGS ON ALL PRODUCTS
To order call: 1-954-766-8433 or 1-800-544-4440

No.		Retail	Member Price	Qty	Total
N CONTINUED					
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		
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		
01050	NKO KRILL OIL - 60 softgels	33.95	25.46		
00262	NUTRAFLORA - 500 grams of powder	46.00	34.50		
	NUTRAFLORA - 4 bottles of powder	160.00	120.00		
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		
O					
00104	OCTACOSANOL - 8000 mcg, 60 caps	\$15.75	\$11.81		
	OCTACOSANOL - 4 bottles of 60 caps	56.00	42.00		
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		
00043	L-ORNITHINE CAPSULES - 500 mg, 100 caps	24.95	18.71		
	L-ORNITHINE CAPSULES - 4 bottles of 100 caps	80.00	60.00		
P					
00107	PABA CAPS - 500 mg, 100 caps	\$10.50	\$7.88		
	PABA CAPS - 4 bottles of 100 caps	37.50	28.12		
00106	PABA POWDER - 100 grams of powder	15.00	11.25		
	PABA POWDER - 4 bottles of powder	55.00	41.25		

SUB-TOTAL OF COLUMN 13

No.		Retail	Member Price	Qty	Total
00073	PANCREATIN - 500 mg, 50 caps	\$9.75	\$7.31		
	PANCREATIN - 4 bottles of 50 caps	36.00	27.00		
00137	PAPAIN POWDER - 100 grams of powder	24.00	18.00		
	PAPAIN POWDER - 4 bottles of powder	80.00	60.00		
00923	PEAK ATP® WITH GLYCO-CARN® - 60 tablets	59.00	44.25		
	PEAK ATP® WITH GLYCO-CARN® - 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		
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		
00131	L-PHENYLALANINE POWDER - 100 grams of powder	28.00	21.00		
	L-PHENYLALANINE POWDER - 4 bottles of powder	100.00	75.00		
00368	PHOSPHATIDYLSERINE CAPS - 100 mg, 100 caps	54.00	40.50		
	PHOSPHATIDYLSERINE CAPS - 4 bottles of 100 caps	192.00	144.00		
01016	PHYTO-FOOD - 80 grams of powder	46.00	34.50		
	PHYTO-FOOD - 4 bottles of powder	172.00	129.00		
00614	PILL CUTTER/GRINDER	11.95	8.96		
00561	POLICOSANOL - 10 mg, 60 tablets	24.00	18.00		
	POLICOSANOL - 6 bottles of 60 tablets	108.00	81.00		
00994	(SUPER) POLYPHENOL EXTRACT w/ COCOAGOLD™ - 30 veg caps	24.00	18.00		
	(SUPER) POLYPHENOL EXTRACT w/ COCOAGOLD™ - 4 bottles of 30 veg. caps	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		
00396	PRO M - 500 mg, 100 caps	28.00	21.00		
	PRO M - 4 bottles of 100 caps	104.00	78.00		
*01475	(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		

SUB-TOTAL OF COLUMN 14

OFFER ENDS FEBRUARY 1, 2010
 To order online visit www.lifeextension.com/SuperSale

Buyers Club Order Form

No.		Retail	Member Price	Qty	Total
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	41.95	31.46		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Vanilla powder	152.00	114.00		
00282	(DESIGNER WHEY) PROTEIN - Chocolate 2 lbs of powder	41.95	31.46		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Chocolate powder	152.00	114.00		
00283	(DESIGNER WHEY) PROTEIN - Natural 2 lbs of powder	41.95	31.46		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Natural powder	152.00	114.00		
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	PHYCNOGENOL® - 60 veg. caps	86.95	65.21		
01207	PYRIDOXAMINE CAPS - 50 mg, 60 veg. caps	22.00	16.50		
	PYRIDOXAMINE CAPS - 4 bottles of 60 veg. caps	79.20	59.40		
Q, R					
01309	(OPTIMIZED) QUERCETIN - 250 mg, 60 veg. caps	\$18.00	\$13.50		
	(OPTIMIZED) QUERCETIN - 4 bottles of 60 veg. caps	68.00	51.00		
01030	RED YEAST RICE (Bluebonnet)- 600 mg, 60 veg. caps	15.95	11.96		
00979	RED YEAST RICE (Nature's Plus)- 600 mg, 60 veg. caps	22.75	17.06		
00060	RED YEAST RICE EXTENDED RELEASE (Nature's Plus)- 30 veg. tablets	20.55	15.41		
00605	REGIMINT® - 60 enteric-coated caps	19.95	14.96		
	REGIMINT® - 4 bottles of 60 caps	74.68	56.01		
00448	REJUVENEX® BODY LOTION - 6 oz tube	24.00	18.00		
	REJUVENEX® BODY LOTION - 4 tubes	79.20	59.40		
	REJUVENEX® BODY LOTION - 8 tubes	136.00	102.00		
00918	REJUVENEX® FACTOR - 1.7 oz Airless pump bottle	65.00	48.75		
	REJUVENEX® FACTOR - 2 bottles	120.00	90.00		
	REJUVENEX® FACTOR - 4 bottles	220.00	165.00		
	REJUVENEX® FACTOR - 8 bottles	399.28	299.46		
01220	(ULTRA) REJUVENEX® - 2 oz jar	52.00	39.00		
	(ULTRA) REJUVENEX® - 2 jars	96.00	72.00		
	(ULTRA) REJUVENEX® - 4 jars	176.00	132.00		
	(ULTRA) REJUVENEX® - 8 jars	319.44	239.38		
00676	(ULTRA) REJUVENIGHT (DREAM CREAM) - 2 oz jar	39.95	29.96		
	(ULTRA) REJUVENIGHT (DREAM CREAM) - 4 jars	144.00	108.00		
00706	(ULTRA) REJUVENIGHT w/PROGESTERONE - 2 oz jar	42.00	31.50		
	(ULTRA) REJUVENIGHT w/PROGESTERONE - 4 jars	152.00	114.00		
01413	RESVERATROL w/PTEROSTILBENE - 20 mg, 60 veg. caps	24.00	18.00		
	RESVERATROL w/PTEROSTILBENE - 4 bottles of 60 veg. caps	88.00	66.00		
01410	RESVERATROL w/PTEROSTILBENE - 100 mg, 60 veg. caps	36.00	27.00		
	RESVERATROL w/PTEROSTILBENE - 4 bottles of 60 veg. caps	128.00	96.00		
01409	(OPTIMIZED) RESVERATROL w/PTEROSTILBENE - 250 mg, 60 veg. caps	46.00	34.50		
	(OPTIMIZED) RESVERATROL w/PTEROSTILBENE - 4 bottles of 60 veg. caps	165.32	124.00		
00889	RHODIOLA EXTRACT - 250 mg, 60 veg. caps	11.75	8.81		
	RHODIOLA EXTRACT - 4 bottles of 60 veg. caps	42.32	31.74		
00972	(D) RIBOSE POWDER - 150 grams of powder	27.50	20.63		
	(D) RIBOSE POWDER - 4 jars of 150 grams	99.00	74.25		

SUB-TOTAL OF COLUMN 15

No.		Retail	Member Price	Qty	Total
00973	(D) RIBOSE CAPS - 120 veg. caps	\$32.00	\$24.00		
	(D) RIBOSE CAPS - 4 bottles of 120 veg. caps	115.20	86.40		
01208	(SUPER) R-LIPOIC ACID - 300 mg, 60 veg. caps	49.00	36.75		
	(SUPER) R-LIPOIC ACID - 4 bottles of 60 veg. caps	180.00	135.00		
00070	RNA CAPSULES - 500 mg, 100 caps	17.95	13.46		
	RNA CAPSULES - 4 bottles of 100 caps	64.64	48.48		
00143	RNA POWDER - 100 grams of powder	24.00	18.00		
	RNA POWDER - 4 bottles of powder	80.00	60.00		
00917	ROSMARINIC ACID EXTRACT - 60 veg. caps	38.00	28.50		
	ROSMARINIC ACID EXTRACT - 4 bottles of 60 veg. caps	144.00	108.00		
00139	RUTIN POWDER - 100 grams of powder	15.50	11.63		
	RUTIN POWDER - 4 bottles of powder	55.00	41.25		
S					
* 00573	SAMBU GUARD - 175 ml	\$17.49	\$13.99		
00358	SAME (S-ADENOSYL-METHIONINE) - 200 mg, 20 enteric coated tablets	18.95	14.21		
	SAME (S-ADENOSYL-METHIONINE) - 8 boxes of 20 enteric coated tablets	132.80	99.60		
00453	SAME (S-ADENOSYL-METHIONINE) - 200 mg, 50 enteric coated tablets	45.00	33.75		
	SAME (S-ADENOSYL-METHIONINE) - 4 bottles of 50 enteric coated tablets	156.00	117.00		
00557	SAME (S-ADENOSYL-METHIONINE) - 400 mg, 20 enteric coated tablets	35.00	26.25		
	SAME (S-ADENOSYL-METHIONINE) - 6 boxes of 20 enteric coated tablets	168.00	126.00		
01043	SEA-IODINE™ - 1000 mcg, 60 veg. caps	8.00	6.00		
	SEA-IODINE™ - 4 bottles of 60 veg. caps	28.80	21.60		
00046	SELENIUM - 2 oz dropper bottle	9.45	7.09		
	SELENIUM - 4 bottles of 2 oz bottle	36.00	27.00		
00567	SE-METHYLSELENOCYSTEINE - 200 mcg, 100 caps	12.00	9.00		
	SE-METHYLSELENOCYSTEINE - 4 bottles of 100 caps	44.00	33.00		
00318	SERRAFLAZYME - 100 tablets	18.00	13.50		
	SERRAFLAZYME - 4 bottles of 100 tablets	64.00	48.00		
00339	SHARK-A CARTILAGE - 750 mg, 270 caps	68.00	51.00		
	SHARK-A CARTILAGE - 4 bottles of 270 caps	255.00	191.25		
00284	SHARK LIVER OIL (NORWEGIAN) - 1000 mg, 30 softgels	18.00	13.50		
	SHARK LIVER OIL (NORWEGIAN) - 4 bottles of 30 softgels	64.00	48.00		
00503	SILIBININ PLUS - 90 veg. caps	36.00	27.00		
	SILIBININ PLUS - 4 bottles of 90 veg. caps	128.00	96.00		
00184	SILYMARIN - 100 mg, 50 caps	9.25	6.94		
	SILYMARIN - 4 bottles of 50 caps	33.00	24.75		
00702	(MEGA) SILYMARIN WITH ISOSILYBIN B - 100 caps	38.00	28.50		
	(MEGA) SILYMARIN WITH ISOSILYBIN B - 4 bottles of 100 caps	136.80	102.60		
00872	SLIMSTYLES PGX® - 6.4 oz powder	22.95	17.21		
00961	SODZYME® W/GLISODIN® AND WOLFBERRY - 90 veg. caps	28.00	21.00		
	SODZYME® W/GLISODIN® AND WOLFBERRY - 4 bottles of 90 veg. caps	96.00	72.00		
00657	SOLARSHIELD SUNGLASSES - 1 pair smoke color	12.99	9.74		
	SOLARSHIELD SUNGLASSES - 2 pair smoke color	23.00	17.25		
00785	(ULTRA) SOY EXTRACT - 675 mg, 600 caps	349.00	261.75		
	(ULTRA) SOY EXTRACT - 4 bottles of 600 caps	1260.00	945.00		
00304	SOY POWER POWDER - 300 grams of powder	31.50	23.63		
	SOY POWER POWDER - 4 bottles of powder	114.00	85.50		
00286	SOY PROTEIN POWDER (concentrated soy protein) - 16 oz of powder	12.00	9.00		
	SOY PROTEIN POWDER - 4 bottles of powder	42.50	31.87		
00432	STEVIA EXTRACT - 100 packets, 1 gram each	9.95	7.46		
	STEVIA EXTRACT - 4 boxes of 100 packets	36.00	27.00		
00351	ST. JOHN'S WORT EXTRACT - 300 mg, 60 caps	10.98	8.24		
	ST. JOHN'S WORT EXTRACT - 4 bottles of 60 caps	40.00	30.00		

SUB-TOTAL OF COLUMN 16

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

* These products are not 25% off retail price.

JANUARY 2010

DEDUCT AN **ADDITIONAL 10% ON ALL PRODUCTS DURING SUPER SALE**

Buyers Club Order Form

SUPER SALE SAVINGS ON ALL PRODUCTS
To order call: 1-954-766-8433 or 1-800-544-4440

No.		Retail	Member Price	Qty	Total
00327	ST. JOHN'S WORT EXTRACT (PLANETARY) - 600 mg, 60 tablets	\$24.95	\$18.71		
	ST. JOHN'S WORT EXTRACT (PLANETARY) - 4 bottles of 60 tablets	85.00	63.75		
00971	SUN PROTECTION SPRAY W/BETA GLUCAN - SPF30 - 6 oz bottle	14.95	11.21		
	SUN PROTECTION SPRAY W/BETA GLUCAN - SPF30 - 4 bottles, 6 oz	54.00	40.50		
00747	(OVERXCAST POLARIZED) SUNGLASSES - gray color	27.00	20.25		
	(OVERXCAST POLARIZED) SUNGLASSES - 2 pairs, gray color	42.00	31.50		
00748	(OVERXCAST POLARIZED) SUNGLASSES - gray color, medium	27.00	20.25		
	(OVERXCAST POLARIZED) SUNGLASSES - 2 pairs, gray color	42.00	31.50		
00758	SUPER ABSORBABLE SOY ISOFLAVONES - 60 caps	28.00	21.00		
	SUPER ABSORBABLE SOY ISOFLAVONES - 4 bottles of 60 caps	100.00	75.00		
01408	SUPER SAW PALMETTO/NETTLE ROOT W/BETA-SITOSTEROL 60 softgels	28.00	21.00		
	SUPER SAW PALMETTO/NETTLE ROOT W/BETA-SITOSTEROL 4 bottles of 60 softgels	104.00	78.00		
	SUPER SAW PALMETTO/NETTLE ROOT W/BETA-SITOSTEROL One-year supply	288.00	216.00		
01407	SUPER SAW PALMETTO W/BETA-SITOSTEROL - 30 softgels	15.00	11.25		
	SUPER SAW PALMETTO W/BETA-SITOSTEROL - 12 bottles of 30 softgels	144.00	108.00		
00578	SUPER SELENIUM COMPLEX - 200 mcg, 100 caps	12.00	9.00		
	SUPER SELENIUM COMPLEX - 4 bottles of 100 caps	40.00	30.00		
	SUPER SELENIUM COMPLEX - 12 bottles of 100 caps	108.00	81.00		
00674	SYTRINOL™ - 60 softgels	32.00	24.00		
	SYTRINOL™ - 4 bottles of 60 softgels	112.00	84.00		
T					
TAL • SHI™ COSMETICS • For information please call 1-800-544-4440 or visit www.lifeextension.com					
00199	TAURINE CAPSULES - 1000 mg, 50 caps	\$8.95	\$6.71		
	TAURINE CAPSULES - 4 bottles of 50 caps	32.00	24.00		
00133	TAURINE POWDER - 300 grams, powder	20.00	15.00		
	TAURINE POWDER - 4 bottles of powder	67.52	50.64		
01304	THEAFLAVIN STANDARDIZED EXTRACT - 30 veg. caps	18.00	13.50		
	THEAFLAVIN STANDARDIZED EXTRACT - 4 bottles of 30 veg. caps	64.00	48.00		
00555	(L) THEANINE - 100 mg, 60 caps	24.00	18.00		
	(L) THEANINE - 4 bottles of 60 caps	82.00	61.50		
01038	THERALAC - 30 caps	44.95	33.71		
00224	THYMIC IMMUNE FACTORS - 100 caps	18.00	13.50		
	THYMIC IMMUNE FACTORS - 4 bottles of 100 caps	56.00	42.00		
00668	(METABOLIC ADVANTAGE) THYROID FORMULA - 100 caps	17.95	13.46		
00349	TMG - 50 grams of powder	14.00	10.50		
	TMG - 4 bottles of powder	44.00	33.00		
00359	TMG TABLETS - 500 mg, 180 tablets	18.00	13.50		
	TMG TABLETS - 4 bottles of 180 tablets	62.00	46.50		
00366	TOCOTRIENOLS - 50 mg, 60 softgel caps	39.95	29.96		
	TOCOTRIENOLS - 4 bottles of 60 softgel caps	144.00	108.00		
00781	TOCOTRIENOLS WITH SESAME LIGNANS - 60 softgels	38.00	28.50		
	TOCOTRIENOLS WITH SESAME LIGNANS - 4 bottles of 60 softgels	144.00	108.00		
01400	(SUPER-ABSORBABLE) TOCOTRIENOLS - 60 softgels	30.00	22.50		
	(SUPER-ABSORBABLE) TOCOTRIENOLS - 4 bottles of 60 softgels	112.00	84.00		
01274	TOTAL SUN PROTECTION CREAM W/BETAGLUCANS - SPF 30, 4 oz Tube & PHOTO-AGING RECOVERY COMPLEX	28.00	21.00		
	TOTAL SUN PROTECTION CREAM W/BETAGLUCANS & PHOTO-AGING RECOVERY COMPLEX	100.80	75.60		
01468	TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT- 60 veg. caps	24.00	18.00		
	TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT-4 bot 60 veg. caps	88.00	66.00		
01469	TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT w/RESVERATROL -60 veg. caps	32.00	24.00		
	TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT w/RESVERATROL - 4 bottles	118.40	88.80		

SUB-TOTAL OF COLUMN 17

No.		Retail	Member Price	Qty	Total
01046	TRIPLE ACTION UNDER EYE REJUVENATOR - 0.5 oz pump	\$24.00	\$18.00		
	TRIPLE ACTION UNDER EYE REJUVENATOR - 4 boxes	88.00	66.00		
00866	TRYPTOPURE® L-TRYPTOPHAN - 500 mg, 90 veg. caps	38.00	28.50		
	TRYPTOPURE® L-TRYPTOPHAN - 4 bottles of 90 veg. caps	136.00	102.00		
01202	(OPTIMIZED) TRYPTOPURE® PLUS - 90 veg. caps	40.00	30.00		
	(OPTIMIZED) TRYPTOPURE® PLUS - 4 bottles of 90 veg. caps	144.00	108.00		
00036	L-TYROSINE POWDER - 100 grams of powder	22.50	16.88		
	L-TYROSINE POWDER - 4 bottles of powder	80.00	60.00		
00326	L-TYROSINE TABLETS - 500 mg, 100 tablets	16.98	12.74		
	L-TYROSINE TABLETS - 4 bottles of 100 tablets	62.52	46.89		
00035	L-TYROSINE PLUS POWDER - 100 grams of powder	28.00	21.00		
	L-TYROSINE PLUS POWDER - 4 bottles of powder	98.00	73.50		
U					
* 00310	UDO'S CHOICE® - 17 oz liquid (omega fatty acids)	\$27.49	\$21.99		
* 00311	UDO'S CHOICE® - 1000 mg, 180 caps	33.79	27.03		
* 00322	UDO'S CHOICE® WHOLESUME FAST FOOD - 1 lb bottle	27.49	21.99		
V					
00213	VANADYL SULFATE - 7.5 mg, 100 tablets	\$15.00	\$11.25		
	VANADYL SULFATE - 4 bottles of 100 tablets	50.00	37.50		
01018	VASCULAR PROTECT - 120 vegetarian caps	48.00	36.00		
	VASCULAR PROTECT - 4 bottles of 120 vegetarian caps	180.00	135.00		
00252	VELVET DEER ANTLER - 250 mg, 30 caps	36.00	27.00		
	VELVET DEER ANTLER - 4 bottles of 30 caps	136.00	102.00		
00408	VENOTONE - 60 caps	18.95	14.21		
	VENOTONE - 4 bottles of 60 caps	64.00	48.00		
00427	VINPOCETINE - 5 mg, 100 tablets	18.00	13.50		
	VINPOCETINE - 4 bottles of 100 tablets	56.00	42.00		
01033	VISION OPTIMIZER - 90 caps	29.95	22.46		
01098	VITAL GREENS MIX - 319.5 grams of powder	48.00	36.00		
	VITAL GREENS MIX - 4 bottles of powder	176.00	132.00		
00091	VITAMIN B1 CAPS - 500 mg, 100 caps	15.50	11.63		
	VITAMIN B1 CAPS - 4 bottles of 100 caps	56.00	42.00		
00090	VITAMIN B1 POWDER - 100 grams of powder (Thiamin)	18.00	13.50		
	VITAMIN B1 POWDER - 4 bottles of powder	67.52	50.64		
00093	VITAMIN B2 CAPS - 100 mg, 100 caps	9.50	7.13		
	VITAMIN B2 CAPS - 4 bottles of 100 caps	35.00	26.25		
00092	VITAMIN B2 POWDER - 30 grams of powder	10.50	7.88		
	VITAMIN B2 POWDER - 4 bottles of powder	37.52	28.14		
00096	VITAMIN B3 (NIACIN) - 1000 mg, 100 caps	12.75	9.56		
	VITAMIN B3 (NIACIN) - 4 bottles of 100 caps	48.00	36.00		
00372	VITAMIN B3 (NIACIN) - 500 mg, 100 caps	7.65	5.74		
	VITAMIN B3 (NIACIN) - 4 bottles of 100 caps	26.60	19.95		
00094	VITAMIN B3 POWDER - 300 grams of powder	15.00	11.25		
	VITAMIN B3 POWDER - 4 bottles of powder	56.00	42.00		
00098	VITAMIN B5 CAPS - 500 mg, 100 caps (Pantothenic Acid)	10.50	7.88		
	VITAMIN B5 CAPS - 4 bottles of 100 caps	37.52	28.14		
00097	VITAMIN B5 POWDER - 100 grams of powder	15.25	11.44		
	VITAMIN B5 POWDER - 4 bottles of powder	55.00	41.25		
00556	VITAMIN B6 CAPS - 250 mg, 100 caps	12.50	9.38		
	VITAMIN B6 CAPS - 4 bottles of 100 caps	44.00	33.00		
00099	VITAMIN B6 POWDER - 100 grams of powder	24.50	18.38		
	VITAMIN B6 POWDER - 4 bottles of powder	88.00	66.00		
00361	VITAMIN B12 TABLETS - 500 mcg, 100 dissolve-in-mouth tablets	8.75	6.56		
	VITAMIN B12 TABLETS - 4 bottles of 100 dissolve-in-mouth tablets	29.00	21.75		
00144	VITAMIN B12 POWDER - 100 grams of powder	12.00	9.00		
	VITAMIN B12 POWDER - 4 bottles of powder	42.52	31.89		

SUB-TOTAL OF COLUMN 18

JANUARY 2010

* These products are not 25% off retail price.

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DEDUCT AN ADDITIONAL 10% ON ALL PRODUCTS DURING SUPER SALE

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No.		Retail	Member Price	Qty	Total
00927	VITAMIN C WITH DIHYDROQUERCETIN - 1000 mg, 250 tablets	\$25.50	\$19.13		
	VITAMIN C WITH DIHYDROQUERCETIN - 4 bottles of 250 tablets	93.00	69.75		
00084	(BUFFERED) VITAMIN C POWDER - 454.6 grams of powder	23.95	17.96		
	(BUFFERED) VITAMIN C POWDER - 4 bottles of powder	88.00	66.00		
00864	VITAMIN D - 2000 IU, 1 fl oz	28.00	21.00		
	VITAMIN D - 4 bottles of 1 fl oz	100.00	75.00		
00251	VITAMIN D3 CAPS - 1000 IU, 250 caps	12.50	9.38		
	VITAMIN D3 CAPS - 4 bottles of 250 caps	45.00	33.75		
00713	VITAMIN D3 CAPS - 5000 IU, 60 caps	11.00	8.25		
	VITAMIN D3 CAPS - 4 bottles of 60 caps	39.60	29.70		
01418	VITAMIN D3 CAPS - 7000 IU, 60 caps	14.00	10.50		
	VITAMIN D3 CAPS - 4 bottles of 60 caps	50.40	37.80		
01371	VITAMIN D3 w/SEA-IODINE - 1000 IU, 250 veg. caps	22.00	16.50		
	VITAMIN D3 w/SEA-IODINE - 4 bottles of 250 veg. caps	80.00	60.00		
01372	VITAMIN D3 w/SEA-IODINE - 5000 IU, 60 veg. caps	14.00	10.50		
	VITAMIN D3 w/SEA-IODINE - 4 bottles of 60 veg. caps	50.00	37.50		
00063	VITAMIN E CAPS (NATURAL) - 400 IU, 100 caps	18.75	14.06		
	VITAMIN E CAPS (NATURAL) - 4 bottles of 100 caps	69.00	51.75		
	VITAMIN E CAPS (NATURAL) - 10 bottles of 100 caps	150.00	112.50		
00062	VITAMIN E POWDER (SYNTHETIC) - 300 grams of powder	28.95	21.71		
	VITAMIN E POWDER (SYNTHETIC) - 4 bottles of powder	100.00	75.00		
01225	(LOW-DOSE) VITAMIN K2 (MK-7) - 90 softgels	18.00	13.50		
	(LOW-DOSE) VITAMIN K2 (MK-7) - 4 bottles of 90 softgels	64.00	48.00		
Z					
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 - 60 softgels	42.00	31.50		
	(SUPER) ZEAXANTHIN w/LUTEIN & MESO-ZEAXANTHIN PLUS ASTAXANTHIN - 4 bottles of 60 softgels	152.00	114.00		
00152	ZINC GLUCONATE POWDER - 100 grams of powder	8.00	6.00		
	ZINC GLUCONATE POWDER - 4 bottles of powder	27.50	20.62		
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		

SUB-TOTAL OF COLUMN 19

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33600 DISEASE PREVENTION AND TREATMENT, EXPANDED FOURTH EDITION (hardcover)	2003	\$49.95	\$37.46	
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33594 THE EDGE EFFECT • by Eric Braverman, MD (paperback)	2004	\$12.95	\$9.71	
33700 ENDING AGING • by Aubrey DeGrey with Michael Rae	2007	\$28.94	\$17.75	
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33803 WHAT YOUR DOCTOR MAY NOT TELL YOU ABOUT DIABETES • by Steven V. Joyal, MD	2008	\$14.99	\$10.49	
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(Add \$7 for C.O.D. • Add \$16.00 for UPS overnight • Add \$7.00 for UPS 2nd day air • International air mail costs will be added.)				
DEDUCT AN ADDITIONAL 10% ON ALL BOOKS DURING SUPER SALE. OFFER ENDS FEBRUARY 1, 2010.				TOTAL

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WHAT DO THESE TWO **DHEA** STUDIES HAVE IN COMMON?

1 STUDY

“DHEA enhances effects of weight training on muscle mass and strength in elderly women and men”

*American Journal of Physiology
Endocrinology Metabolism*
2006 Nov;291(5):E1003-8

2 STUDY

“Effect of DHEA on abdominal fat and insulin action in elderly women and men: a randomized controlled trial”

*Journal of the American
Medical Association*
2004 Nov;292(18):2243-8

LIFE EXTENSION[®]'S **DHEA** WAS USED IN **BOTH** STUDIES!

DHEA (*dehydroepiandrosterone*) has demonstrated many benefits, including positive effects on body composition. Regrettably, our natural production of this hormone diminishes by about **80%** between the ages of 25 and 75 years.¹ This has been associated with a decrease in muscle mass and strength and an increase in abdominal girth.

In the first of the two studies sponsored in part by the National Institutes of Health, researchers sought to determine the effect of DHEA replacement in DHEA-deficient elderly individuals. They randomized 56 men and women to receive either 50 mg/day of **Life Extension's DHEA** before bedtime or a placebo. Both groups then underwent a program of resistance training for four months. At the end of the study, DHEA replacement produced a significantly greater effect in enhancing the benefits of weight training on muscle mass and strength in both men and women compared with the placebo group.¹

The second study cited was conducted by the same research team. The effects of DHEA-replacement therapy or a placebo on abdominal fat were investigated for the first time in 56 DHEA-deficient elderly men and women who did not exercise regularly. Using the same DHEA-dosing regimen as in the previous study, the researchers found that DHEA levels rose to youthful ranges in both men and women. This increase was accompanied by changes in body composition. Compared with miniscule changes in weight loss in the placebo group, women taking DHEA lost an average of **10.2%** of their visceral (intra-abdominal) fat, while men shed an average of **7.4%**. Subcutaneous fat (under the skin) losses averaged 6% in both men and women taking DHEA.²

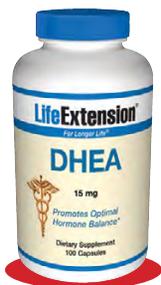
DHEA is widely available as a dietary supplement. These two studies utilized **Life Extension's DHEA** formulation to safely restore DHEA levels to youthful ranges in these elderly individuals, which helped maximize lean tissue mass,¹ maintain healthy abdominal weight,² and support insulin sensitivity.²

References:

1. *Am J Physiol Endocrinol Metab.* 2006 Nov;291(5):E1003-8.
2. *JAMA.* 2004 Nov;292(18):2243-8.

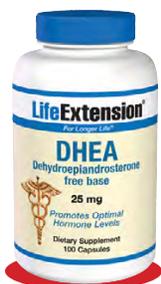


CHOOSE THE DOSE THAT'S RIGHT FOR YOU:



DHEA 15-mg, 100 Capsules, Item #00454

While published studies show the greatest benefit occurs when 50–75 mg of DHEA is consumed each day, some women only need a low dose of DHEA. Just one of these 15-mg capsules a day is all some women need to bring DHEA levels back to youthful levels. A bottle containing 100 **15-mg** capsules of **DHEA** retails for \$12; if a member orders four bottles during **Super Sale**, the price is reduced to just **\$6.75 per bottle**.



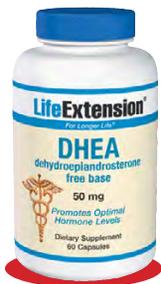
DHEA 25-mg, 100 Capsules, Item #00335

The minimum dose of DHEA for most healthy aging people is 25 mg a day, though optimal doses are 50–100 mg daily. These 25-mg capsules are a popular way to consume the precise amount of DHEA your body may need. A bottle containing 100 **25-mg** capsules of **DHEA** retails for \$15; if a member orders four bottles during **Super Sale**, the price is reduced to just **\$8.44 per bottle**.



DHEA 25-mg, 100 Dissolve-in-Mouth Tablets, Item #00607

A bottle containing 100 **25-mg** **dissolve-in-mouth** tablets of **DHEA** retails for \$14; if a member orders four bottles during **Super Sale**, the price is reduced to just **\$7.93 per bottle**.



DHEA 50-mg, 60 Capsules, Item #00882

The optimal daily dose of DHEA for most people is 50 mg. These economical 50-mg capsules enable most people to conveniently consume the optimal dose of DHEA in just one capsule. A bottle containing 60 **50-mg** capsules of **DHEA** retails for \$16; if a member orders four bottles during **Super Sale**, the price is reduced to just **\$9.45 per bottle**.

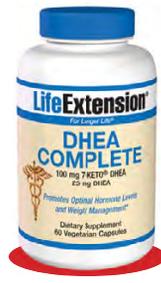
7-Keto® is a registered trademark of Humanetics Corporation. **Note:** Supplements should be taken in conjunction with a healthy diet and regular exercise program. Results may vary.



7-Keto® DHEA 100-mg, 60 vegetarian Capsules, Item #01271

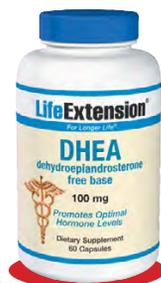
7-Keto® DHEA is a metabolite of DHEA that safely increases fat-burning enzymes in the liver. Human subjects who consumed 200 mg of 7-Keto® DHEA a day in conjunction with a diet and exercise program lost more total weight and body fat than those who took a placebo.¹ Since 7-Keto® DHEA does not convert to estrogen or testosterone in the body, it can be used by those with hormone-sensitive cancers such as breast and prostate cancer. This 7-Keto® DHEA supplement contains a potent **antioxidant blend** to protect against free radicals that might be formed in response to increased fat-burning. A bottle containing 60 **100-mg** vegetarian capsules of **7-Keto® DHEA**, along with a special antioxidant blend, retails for \$40; if a member orders four bottles during **Super Sale**, the price is reduced to only **\$24.30 per bottle**.

Reference: 1. *Curr Therap Res.* 2000;61(7):435-42.



DHEA Complete (25 mg DHEA+100 mg 7-Keto® DHEA), 60 vegetarian Capsules, Item #01250

To obtain optimal potencies of both forms of DHEA, the **DHEA Complete** formula provides **25 mg of DHEA, 100 mg of 7-Keto® DHEA**, and a potent **antioxidant blend** in each capsule. For those seeking to combine the multiple benefits of DHEA and 7-Keto® DHEA, this is the ideal single-formula supplement. A bottle containing 60 vegetarian capsules of **DHEA Complete** retails for \$48; if a member orders four bottles during **Super Sale**, the price is reduced to only **\$29.16 per bottle**.



DHEA 100-mg, 60 Capsules, Item #00883

Some people produce so little DHEA that they need to take high doses. These 100-mg capsules provide high-potency DHEA at a very low cost. A bottle containing 60 **100-mg** capsules of **DHEA** retails for \$22.50; if a member orders four bottles during **Super Sale**, the price is reduced to just **\$12.83 per bottle**.

To order DHEA call **1-800-544-4440** or visit **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.

Advanced Colon Care With **AGAVE** DIGESTIVE-IMMUNE SUPPORT

Balancing the ecosystem of the colon is crucial to whole body health. This balance depends on inhibiting **harmful bacteria** and promoting the growth of beneficial bacteria that support immune function. While *stress*, *diet* and *age* are important factors, a strong digestive system is *essential* — it accounts for 60% to 70% of our body's immunity.¹ **Life Extension®'s Agave Digestive-Immune Support** helps **beneficial bacteria proliferate** in the colon for healthy immune response.

A clinically *advanced* prebiotic blend, **Agave Digestive-Immune Support** nourishes beneficial bacteria, such as *bifidobacteria*, to *enhance* immune response and suppress growth of unwanted microorganisms. This supports the body's natural response to infection.

Among the several hundred species of bacteria, *bifidobacteria* are among the most essential to colon health. Prebiotics deliver the specific nutrients they need in an *undigested* form. This enables beneficial bacteria to flourish, providing a higher level of protection and support.

AGAVE DIGESTIVE-IMMUNE SUPPORT contains *three* complementary prebiotic ingredients:

AGAVE INULIN/FOS *Inulins* are the nutrients beneficial bacteria thrive on. The inulins in **Agave** are complex. They last longer in the digestive tract, allowing beneficial bacteria to distribute *further* into the colon.

FIBER/SUNFIBER® PARTIALLY HYDROLYZED GUAR GUM (PHGG) favorably modifies intestinal pH for more efficient *absorption* of essential nutrients, including magnesium and calcium.

SHORT-CHAIN FRUCTOOLIGOSACCHARIDES (FOS) are a preferred food source for *bifidobacteria*. FOS also increases stool bulk, supports normal bowel function, and promotes regularity.

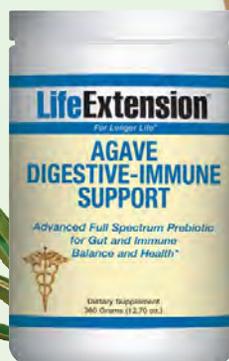
Those who want to obtain the benefits of this *digestion-enhancing* formula can order the new **Agave Digestive-Immune Support**. The **suggested dose is 1 scoop per day** mixed into 4–8 ounces of any beverage or soft food.

A jar containing **360 grams of powder** retails for \$30, but when a member buys four jars during **Super Sale**, the price is reduced to **\$18.23** per jar.

Reference:

1. *Clin Exp Immunol.* 2008 Sep;153 Suppl 1:3-6.

SunFiber® is a registered trademark of Taiyo International, Inc.



Item #01417

To order
Agave Digestive-Immune Support,
call **1-800-544-4440**
or visit **www.LifeExtension.com**

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Support Endothelial Health for MAXIMUM Sexual Performance



Overlooked in the effort to support **sexual function** in aging men is the health of the **vascular system**. Blood flow through the delicate lining of the arteries (the **endothelium**) is **essential** to sexual arousal, so it should come as no surprise that **endothelial function** is closely associated with male sexual capacity.¹

Life Extension® has discovered supportive clinical research for a scientifically validated, *natural* dietary supplement formula to promote **endothelial function** and **blood flow** to the place men need it most—for maximum performance.

The ingredients found in **Prelox® Natural Sex for Men**® have yielded compelling and highly satisfactory results in **five independent clinical studies**.²⁻⁶

Our analysis also confirms that unlike some performance enhancement supplements marketed as “natural,” **Prelox® Natural Sex for Men**® is not adulterated with trace amounts of prescription drugs.

A Powerful Synergy to Support Sexual Health

The patented blend of the following *natural* ingredients positively affects the male physiology in three ways, to provide optimal support:

1. PYCNOGENOL® (standardized French maritime pine bark extract) activates **endothelial nitric oxide synthase** (eNO-S),⁷ the enzyme required to make **nitric oxide**. Nitric oxide (NO) *relaxes* the vessels that enable efficient blood flow—the key to healthy male sexual activity and overall vascular health. Pycnogenol® further amplifies this relaxing effect by extending the amount of time nitric oxide remains in the bloodstream.

2. L-ARGININE is the biological precursor to nitric oxide synthesis in the endothelium.⁷ It interacts **synergistically** with Pycnogenol® to sustain nitric oxide levels sufficient for healthy sexual function.

3. ICARIIN—a natural plant extract used in traditional Chinese medicine—has been shown to **deactivate** the enzyme normally responsible for winding down male sexual response, further promoting sustained activity.⁸ Prelox® Natural Sex for Men® contains MedIcariin™, a standardized, proprietary form of pure, high-quality icariin.

The suggested dose of two **Prelox® Natural Sex for Men**® tablets each day provides:

PRELOX® PROPRIETARY BLEND 1440 mg

L-Arginine HCl, Aspartic Acid,
Pycnogenol® Dried French Maritime
Pine (*Pinus pinaster*) Extract (bark)

NATURAL SEX FOR MEN® 100 mg

MedIcariin™ (*Epimedium sagittatum*)
Extract (leaf) [std. to 60% icariin (60 mg)]

A 60-tablet bottle of **Life Extension® Prelox® Natural Sex for Men**® retails for \$50.00. If a member buys 4 bottles during **Super Sale**, the price is reduced to just **\$29.90 per bottle**.

References

1. *Int J Impot Res* 2008 Dec; Suppl 2:S9-14.
2. *Int J Impot Res*. 2008 Mar;20(2):173-80.
3. *Phytother Res*. 2009 Mar;23(3):297-302.
4. *J Sex Marital Ther*. 2003 May;29(3):207-13.
5. *European Bulletin of Drug Research*. 2005;13(1): 7-13.
6. *Akush Ginekol (Sofia)*. 2007;46(5):7-12.
7. Rohdewald P. Pycnogenol, French maritime pine bark extract. In: Coates P, ed. *Encyclopedia of Dietary Supplements*. New York; Marcel Dekker; 2004.
8. *Urology*. 2006 Dec;68(6):1350-4.

CAUTION: If you have diabetes and/or significant kidney or liver disease, please consult with your healthcare practitioner before using this product.



ITEM # 01373

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To order **Prelox® Natural Sex For Men**®, call **1-800-544-4440** or visit **www.lifeextension.com**

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WHAT'S INSIDE

LifeExtension[®] Magazine

DANGEROUSLY INSUFFICIENT VITAMIN D LEVELS



Inadequate vitamin D intake is linked to virtually every age-related disorder including cancer, vascular disease, and chronic inflammation. An analysis of over 13,000 vitamin D blood tests reveals that most supplement users have *insufficient* levels of this critical nutrient.

HOW TO COMBAT INFLUENZA INFECTION



The medical establishment has failed to convey a critical warning about what a person should do if they manifest influenza symptoms. In this report, *Life Extension* reveals why it is so important to initiate immediate treatment with specific nutrients, hormones, and antiviral drugs.

ARE YOU ABSORBING ENOUGH VITAMIN B12?



The body's ability to absorb vitamin B12 gradually declines with age, leading to cognitive impairment and other health problems. A novel absorption technology has been shown to boost peak blood levels **10 times** better than conventional B12 therapy alone.

SAVING LIVES WITH HYPOTHERMIA



Dr. Sanjay Gupta—neurosurgeon and CNN medical correspondent—explores pioneering techniques that enable doctors (and patients) to literally stave off death in conditions considered *irreversible* by conventional medicine.

PLUS

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HOW VITAMIN C PROTECTS THE SKIN
TEA CATECHINS PROMOTE WEIGHT LOSS IN OVERWEIGHT INDIVIDUALS
MEDITERRANEAN DIET ASSOCIATED WITH LOWER RISK OF ALZHEIMER'S DISEASE
PROTECTIVE EFFECT FOUND FOR GINKGO AGAINST RADIATION DAMAGE