

COMBAT TODAY'S OBESITY EPIDEMIC

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

October 2010

Reverse Age-Related Weight Gain

**Tight Glucose Control
Favorably Affects
Longevity Genes**

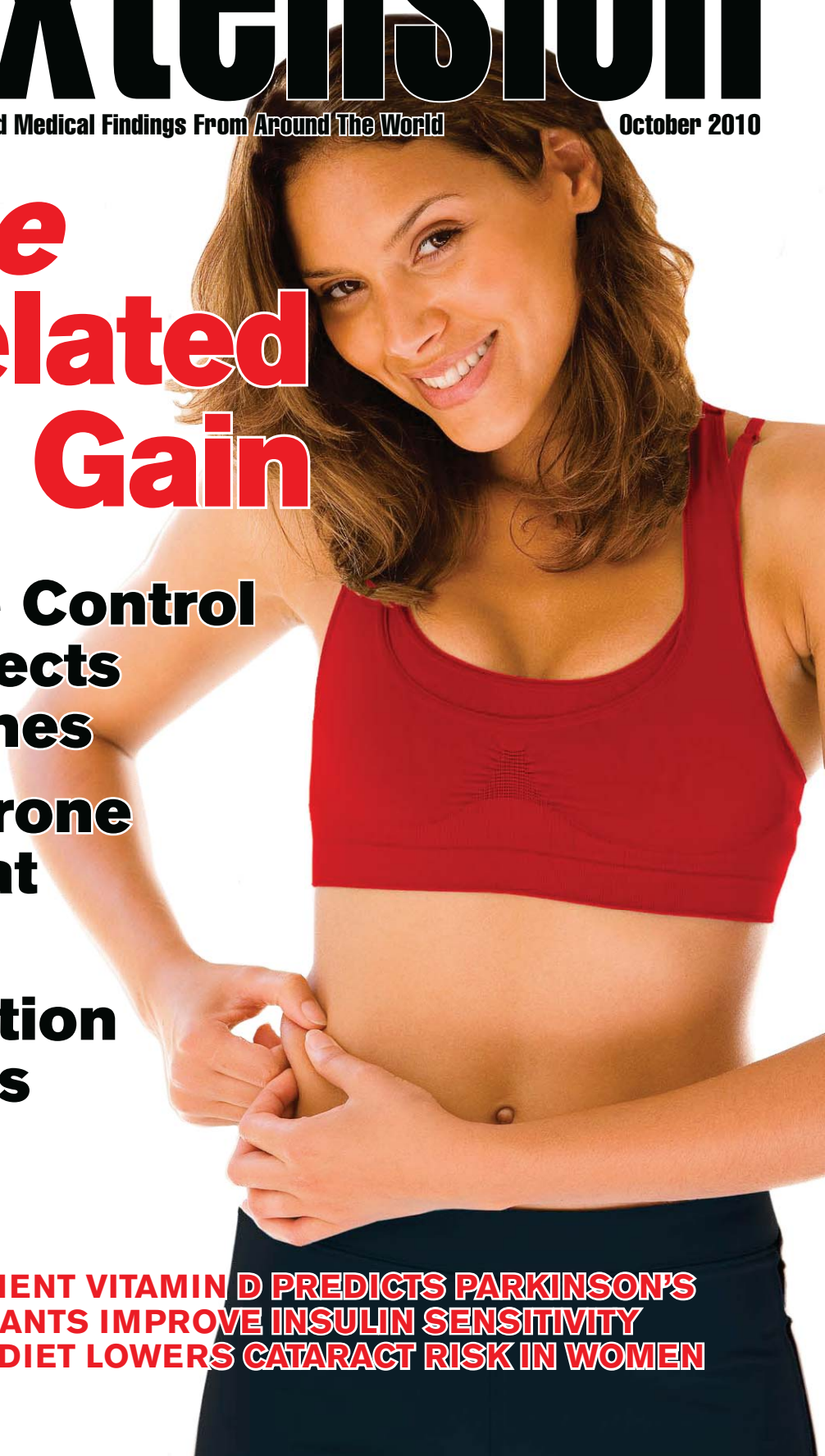
**How Testosterone
Melts Belly Fat
in Men**

**Block Absorption
of Fat Calories
Safely**



PLUS-

**INSUFFICIENT VITAMIN D PREDICTS PARKINSON'S
ANTIOXIDANTS IMPROVE INSULIN SENSITIVITY
HEALTHY DIET LOWERS CATARACT RISK IN WOMEN**



Newly Patented and Highly Absorbable CURCUMIN

How Much Curcumin Are You Absorbing?

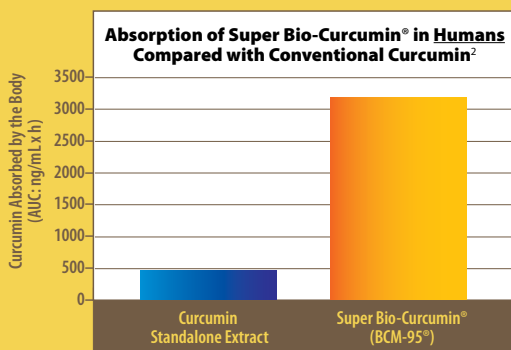


Chart 1. Super Bio-Curcumin® (BCM-95®) showed 6.9 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with conventional curcumin (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin absorbed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

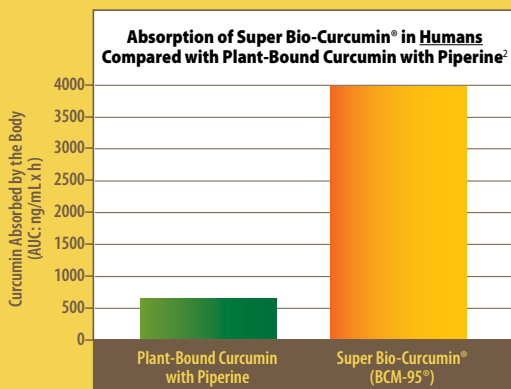


Chart 2. Super Bio-Curcumin® (BCM-95®) showed 6.3 times greater bioavailability (absorption and sustainability over 8 hours) in humans compared with plant-bound curcumin with piperine (as measured by the area under the curve [AUC] in a plot of blood levels against time, that is, the total amount of curcumin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

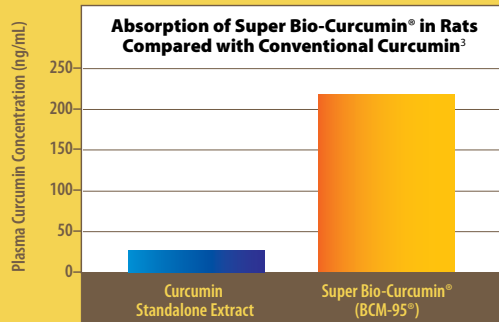


Chart 3. Bioavailability in rats fed with BCM-95® is 7.8 times higher than conventional curcumin.

On June 15, 2010, the **US Patent Office** awarded a patent on a curcumin compound that **absorbs up to seven times better** than conventional curcumin products.

This patented curcumin is what **Life Extension** members have been getting in the **Super Bio-Curcumin®** product for last several years. Not only does this novel turmeric compound provide far **greater peak blood levels**, but the curcumin remains in the blood almost **twice as long** compared with conventional supplements.

Scientists continue to be impressed with the remarkable ability of curcumin and turmeric constituents to suppress inflammatory factors and promote healthy cell division. The problem was that conventional curcumin is poorly *absorbed* into the bloodstream.

As can be seen in the remarkable studies on the left, just **one 400 mg** capsule of the **patented** turmeric compound used in **Super Bio-Curcumin®** can provide curcumin blood levels equivalent to ingesting **2,500- 2,800 mg** of commercial curcumin.

What's more, the enhanced delivery complex contained in **Super Bio-Curcumin®** provides other beneficial turmeric compounds, thus making this the most cost-effective way to supplement with this critically important nutrient.

SUPER BIO-CURCUMIN® WITH BCM-95®



Item #00407

Life Extension members have had access to this superior and now patented BCM-95® curcumin compound for many years. A bottle containing 60 **Super Bio-Curcumin® with BCM-95®** capsules retails for \$35. If a member buys four bottles, the price is reduced to just **\$24** per bottle. Each bottle will last most members two months. **Contains rice.**

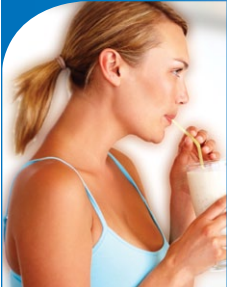
Bio-Curcumin® and **BCM-95®** are registered trademarks of Dolcas-Biotech, LLC.

References:

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

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

REPORTS



24 NOVEL STRATEGIES TO DISCARD SURPLUS BODY FAT

Your aging body can't handle excess calories the way it used to. The result? Increased body fat storage and elevated glucose, triglyceride, and cholesterol levels. The good news is that four proprietary nutrients can safely decrease appetite, impede absorption of ingested calories, and control regulators of body fat storage. Discover how the latest of these clinically validated weight-loss weapons efficiently manages the way your body processes ingested calories.



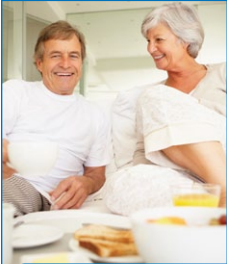
40 BLOCK ABSORPTION OF FAT CALORIES SAFELY

A landmark study reveals that for a majority of individuals, regular dieting is a *cause* of weight gain and may increase your long-term risk of chronic disease. Interventions that block uptake of killer fat calories are more effective—when used the right way. Here we detail how to benefit from *lipase*-inhibitors and *bile acid*-binders while maintaining optimal levels of fat-soluble nutrients, like vitamins E, D, and K.



50 LETHAL CYCLE OF LOW TESTOSTERONE AND OBESITY

As men age, they become trapped in a vicious cycle of low testosterone and abdominal obesity. The latest research confirms that these two conditions reinforce each other, significantly increasing risk of diabetes, atherosclerosis, and cancer. Sadly, few conventional physicians test for this vital male hormone, despite compelling evidence of testosterone therapy's power to burn off belly fat, thwart metabolic syndrome, and save men's lives.



68 GLUCOSE AND LONGEVITY GENES: A BREAKTHROUGH DISCOVERY

Life Extension® members have known for years that keeping a tight rein on fasting glucose levels is a cornerstone strategy for increasing healthy life span. Now, compelling new findings from an organization called *Living the CR Way* suggest that low fasting glucose favorably influences our longevity genes!



7 ON THE COVER

COMBATING TODAY'S OBESITY CRISIS

As a catastrophic obesity epidemic unfolds before our eyes, conventional medicine's inadequate response shocks the conscience. One third of the American population is obese—with another third overweight. This guarantees an imminent health and economic disaster as these individuals succumb to diseases requiring high-cost medical care. The best the federal government can suggest is diet, exercise, and dangerous prescription drugs. Sadly overlooked are irrefutable data showing that excess fat accumulation in aging humans is **reversible** with an aggressive multi-modal attack. Find out **27 correctable causes** that underlie age-related weight gain, along with clinically validated regimens that effectively target these factors.

DEPARTMENTS

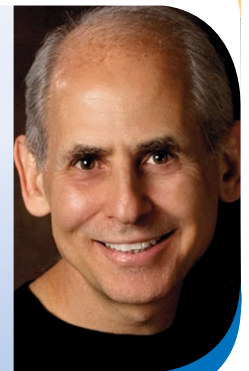


19 IN THE NEWS

US obesity rate growing at alarming pace; long-term antioxidant supplementation improves arterial health; reduced vitamin D levels linked to cognitive decline; high antioxidant diet improves insulin sensitivity; and much more.

85 PROFILE: DR. DANIEL AMEN

Dr. Daniel Amen, assistant clinical professor of psychiatry and human behavior at the University of California-Irvine School of Medicine, discusses how an integrative approach can optimize cognitive performance in aging individuals.





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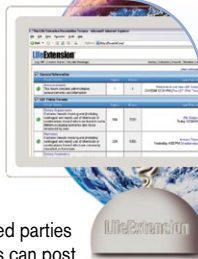
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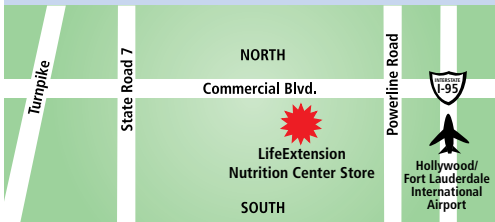
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Diminished levels of neurotransmitters and other brain compounds profoundly affect cognition and memory in aging adults. **Cognitex** was developed in **1982** to increase brain levels of **acetylcholine**—a neurotransmitter that enables neurons to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

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

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

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

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

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

FIGHT BACK AGAINST BRAIN AGING WITH COGNITEX

Just three softgels of Cognitex provide the following nutrients:

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



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

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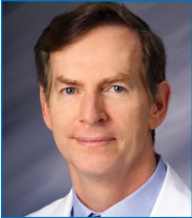
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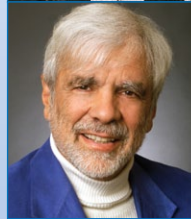
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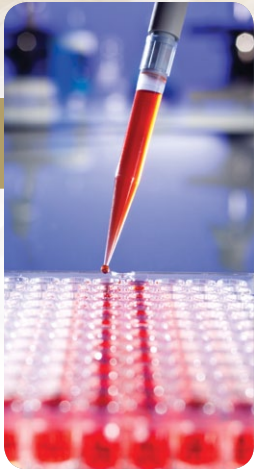


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Contains soybeans and rice.

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Aggressive Actions Needed to Avert Obesity Crisis



BY WILLIAM FALOON



The impending **medical catastrophe** caused by today's **obesity epidemic** reminds me of the **1950s**.

Back then, one scientific report after another confirmed the diseases inflicted by **cigarette smoking**. Yet it was not until **1964** that any kind of substantive step was taken to reduce tobacco consumption.¹ Even today (46 years later), smoking remains a leading cause of premature death.²

As deadly as cigarettes are, the explosive increase in the number of overweight/obese individuals is projected to create an even greater economic and health disaster.

Similar to the deferred effects of cigarette smoking, medical costs associated with obesity-related diseases are mostly postponed. This means that society has only begun to pay the enormous healthcare expenses that will accrue as overweight individuals succumb to cancer,³⁻⁶ vascular occlusion,^{7,8} kidney failure,⁹ diabetes,¹⁰ arthritis,¹¹ early senility,¹² and other illnesses.

The federal government's meager steps to combat this calamity have failed. The evidence can be seen by the fact that nearly **three times more** Americans are **obese** today compared to **1960**. A more startling statistic is that **six times more** Americans are **morbidly obese** (body mass index 40 and above) than in **1960**.¹³

AS WE SEE IT

Obese individuals (body mass index 30 and above) now comprise over **one-third** of the American population. Another **one-third** is overweight (body mass index of 25-29).¹³ The majority of Americans are thus destined to suffer higher incidences of degenerative diseases than this nation's healthcare system can afford.

As it relates to longevity, excess body fat robs victims of quality and quantity of life.¹⁴ What you will be surprised to learn is that factors that underlie age-related weight gain also preclude the optimal expression of our *longevity genes*.

This issue of *Life Extension Magazine*[®] describes validated methods aging people can use to simultaneously shed excess fat pounds, reduce disease risk, and turn on youth-promoting "longevity genes."

Doctors Fail to Recognize Obesity As a Multi-factorial Disorder

The US Department of Agriculture released data showing that Americans consumed an extra **331 calories a day in 2006** compared to **1978**.¹⁵

If that number does not sound like a lot, just look how it quickly adds up. An extra **331** calories per day equals **2,317** calories each week or **120,000** extra calories in a year. This amount of excess food intake translates into roughly **34 pounds** of stored **body fat!**

The government is using this data to explain why so many Americans suffer excess weight problems. The government only has the story partially right.

What is not recognized by conventional experts is that maturing humans lose the *metabolic capacity* to utilize even the limited



number of calories they may be ingesting. When we use the term "*metabolic capacity*," we are referring to a constellation of deleterious changes that arise during *aging* that predispose us to accumulate excess body fat.

A young person can eat a reasonable amount of food and efficiently convert these calories into energy with minimal residual fat storage. As that same person ages, they suffer a multitude of changes that impact body weight regulation such as hormone imbalance, insulin insensitivity, mitochondrial dysfunction, and decline in resting energy expenditure.¹⁶⁻¹⁹

This means that even if we don't consume a single calorie more at **45 years old** compared to our food energy consumption at **25 years old**, our aging physiology predisposes us to weight gain.

Tackling the Problem Head On

If there is one truth that has been learned over the past 30 years, it is that there is no "magic

bullet" that singlehandedly can be counted on to *reverse* age-associated weight gain. An understanding of the mechanisms involved in excess fat storage reveals why the advice to "just eat less" is doomed to fail over the long term.

Life Extension has been on a multi-decade crusade to validate effective methods of inducing fat loss. We have identified nutrients, hormones, and drugs that have demonstrated efficacy in peer-reviewed scientific publications, yet are overlooked by mainstream physicians.

We have funded millions of dollars in laboratory and clinical research to develop formulations to combat the *obesity-inducing* factors that plague the aging population.

The public still does not understand, however, that weight gain is the result of a myriad of metabolic and physiologic factors. The encouraging news is that scientifically supported methods exist to correct many of the mechanisms that predispose us to accumulate excessive body fat.

Lacking until now has been a comprehensive program that enables doctors and patients to work together to design individualized programs that not only facilitate weight loss, but also reduce *cardiovascular* risk factors such as triglycerides, glucose, LDL, and C-reactive protein.

Even more fascinating is new evidence that a proper weight loss program can enhance the expression of our *longevity genes*.²⁰ What this means is that aging humans now have a roadmap to lose unsightly body fat and slash disease risk, while adding healthy decades to their life spans.

Despite overwhelming documentation that age-associated weight gain can be *reversed*, no one has put all the pieces of the puzzle together until now.

The Life Extension® Weight Loss Guide

Life Extension has accumulated hard data about *why* Americans are getting fatter every year and *what* scientific steps can be taken to help reverse this frightening trend.

We realized, however, the urgent need to amalgamate this information into a user-friendly book that can be utilized to target the multiple *obesity factors* aging humans face.

We are pleased to announce the publication of the *Life Extension® Weight Loss Guide*, a reference book that compiles the research and clinical trials our organization has painstakingly assembled over the past three decades.

This book will sell in stores for \$29.95. As a *Life Extension®* member, we are discounting the price by **70%**, so you pay only **\$8.99**.

It is our sincere desire that the *Life Extension® Weight Loss Guide* will initiate a scientific

renaissance in the interventions that aging humans and their doctors employ to induce sustained reductions of body fat. You can order a copy of this book today by calling **1-800-544-4440**.

New Multi-Ingredient Powdered Drink Combats Several Weight Gain Inducers

For many *Life Extension* members, the use of various nutrient formulas has been an important weight management tool. While thousands have used these products with success, some have not been able to achieve results.

As part of our ongoing clinical research, we set out to produce a powdered drink mix formula incorporating several proven fat-loss agents. The objective was to help our most treatment-resistant overweight members achieve

their desired weight management goals—individuals who have previously tried innumerable weight management programs, nutrients, and pharmaceutical agents without success.

Furthermore, we wanted to test this new multi-ingredient *powdered* formula against a similar *capsule* formula to be certain that the powder formula with one new ingredient worked in treatment-resistant study subjects who previously failed to achieve their desired weight management results.

The findings were quite remarkable.

In treatment-resistant overweight study subjects, the new **Calorie Control Weight Management** *powdered* drink formula, mixed with water and consumed 15-30 minutes prior to the two largest meals of the day, generated, on average, **65% greater weight loss over 8 weeks** in comparison



AS WE SEE IT

with treatment-resistant study subjects given the capsule form. [See Figure 1 below]

In addition to achieving greater mean (average) weight loss over the eight-week study period, treatment-resistant overweight and obese study subjects also achieved greater *categorical* weight loss.

This meant that by week eight, **58%** of treatment-resistant study subjects who consumed the new Calorie Control Weight Management powdered drink formula were able to lose greater than 10 pounds as compared with only **22%** of those using the capsule formula. For the greater than 12 pounds threshold, the results were equally impressive for the new powdered formula, with **41%** of study subjects losing greater than **12 pounds** by week eight in comparison with only **11%** given the capsule formula. [See Figure 2 and 3 on next page]

These results are all the more impressive because they occurred with **treatment-resistant** individuals who struggled with excess

body weight and failed multiple past weight management programs, nutrients, and pharmaceutical interventions... yet were able to finally start achieving their weight management goals with this new Calorie Control Weight Management powdered drink formula.

Descriptions of the published scientific studies that support the ingredients in the new **Calorie Control Weight Management Formula** appear in the first article of this month's issue.

Rather than relying solely on clinical trials conducted by others, the **Life Extension Foundation**® went a step further and conducted our own open-label, randomized clinical study in treatment-resistant volunteers. Our findings support the benefits of the ingredients in the **Calorie Control Weight Management Formula**.

We now have a potent front-line weapon to be used in a comprehensive program to rid surplus fat pounds.

An Epidemic with Catastrophic Ramifications

A 120-page government report released earlier this year paints a grim picture if today's obesity epidemic is not brought under control.⁹⁶

For example, one out of every three young Americans (ages 2 to 19) is already overweight or obese. This group has not yet even encountered most of the age-related **obesity inducers** described at the end of this article, indicating that an epidemic of gargantuan proportions will soon be upon us.

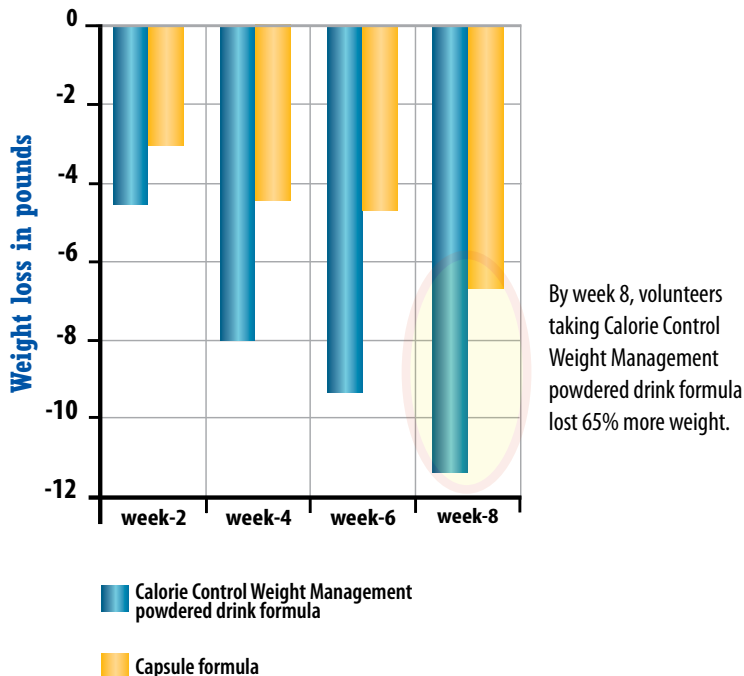
Stark examples of the costs related to obesity come from this 120-page government report. In **2006** for example, an additional **\$1,429** in medical costs was spent treating each obese adult American compared to those of normal weight. Annual losses to US businesses due to obesity were **\$12.8 billion** in absenteeism and **\$30 billion** in lost productivity.

In **1980**, there were **5.6 million** diagnosed cases of diabetes. By **2007**, this number shot up to **17.4 million**.⁹⁷ Diabetics are at substantially increased risk for virtually every degenerative disorder.

According to economists, the annual medical costs of obesity in America went from **\$78.5 billion** in **1998** to **\$147 billion** in **2008**.⁹⁸ As I stated at the beginning of this article, therapeutic costs relating to obesity are significantly delayed, meaning this nation faces staggering healthcare expenditures as the population ages and falls ill to obesity-induced diseases.

Over the last thirty years, a record number of artificial sweeteners, artificial fats, and prescription weight-loss drugs have been approved by the **FDA**. None of this has stopped the relentless surge in the number of overweight and obese Americans.

FIGURE 1: **Weight loss over time**



Don't Fall Victim to Institutional Ignorance!

As a member of the **Life Extension Foundation**, you do not have to suffer from the blatant failings of our conventional institutions.

When you turn this page, you'll see a striking graphic highlighting **27 inducers** of unwanted fat storage. The first article in this issue describes how the new **Calorie Control Weight Management Formula** attacks **12** of these **27** causes of weight gain, making it an important weapon in a comprehensive program to reduce body mass.

The article on page 50 describes the multiple beneficial effects that occur when aging men restore **free testosterone** to youthful ranges. Not only does testosterone facilitate reduction in abdominal fat, but it also reduces blood glucose levels by improving insulin sensitivity.

The article on page 68 outlines the importance of maintaining tight glucose control and reveals methods to not only lose weight, but to also turn on one's youth-promoting **longevity genes**.

Every component of **Life Extension's** weight loss protocols are supported by findings from the peer-reviewed scientific literature, yet conventional doctors and the federal government wallow in a state of ignorance as they desperately warn of an impending obesity crisis, but offer no practical approaches to avert it.

As you'll learn in this issue of **Life Extension Magazine**, age-related weight gain is **reversible** when the multiple underlying inducers of obesity are thwarted.

For longer life,



William Faloon

FIGURE 2: **Categorical weight loss (10 lbs.)**

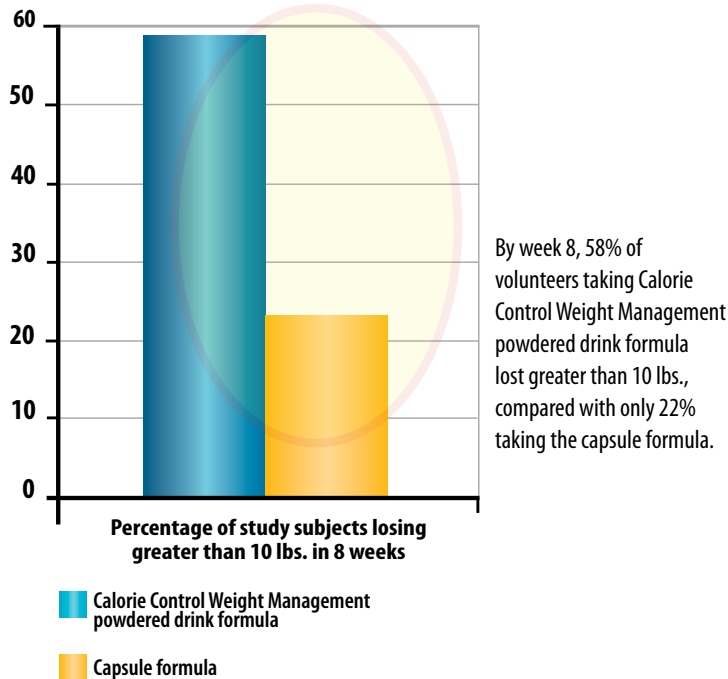
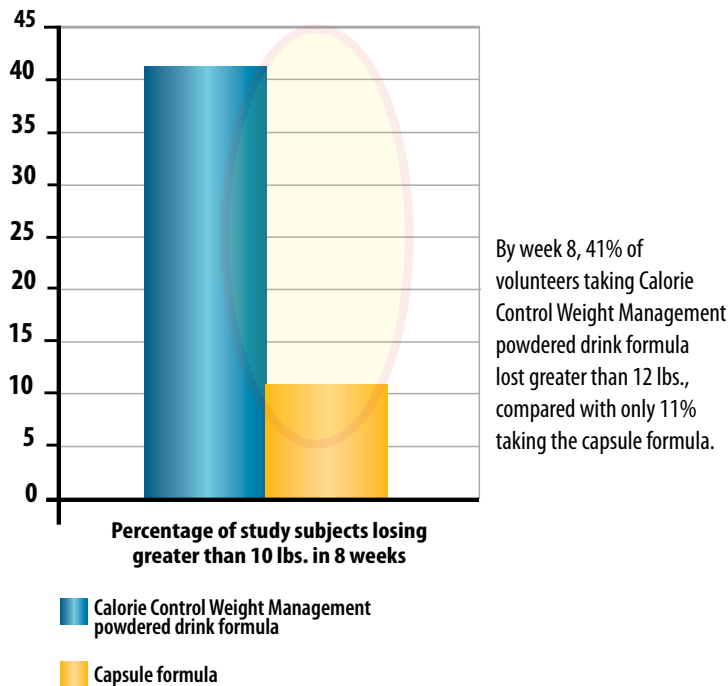


FIGURE 3: **Categorical weight loss (12 lbs.)**



The Multiple Factors Involved In Age-related Weight Gain

Many of you are familiar with a graphic we previously made titled the **17 Daggers of Arterial Disease**. The purpose of this image was to show 17 *correctable* risk factors that predispose people to heart attack.

To highlight 27 *correctable* inducers of age-associated **obesity**, we have created on the next page a new illustration that shows multiple daggers pointed at an obese torso. Any one of these obesity-inducers (daggers) can cause or contribute to surplus fat accumulation. In the real world, the cumulative effects of many of the following **obesity inducers** subjects aging individuals to uncontrolled weight gain:

1. **Loss of leptin sensitivity** (induces hunger and inhibits release of stored fat from adipocytes)²¹⁻²⁴
2. **Low adiponectin** (increases fat storage in adipocytes and inhibits insulin sensitivity)^{25,26}
3. **Excess glycerol-3 phosphate dehydrogenase** activity (facilitates conversion of glucose to stored fat—triglycerides—in adipocytes)²⁷
4. **Excess amylase** activity (digestive enzyme that enables dietary carbohydrates sugars to be rapidly absorbed)²⁸⁻³²
5. **Excess lipase** activity (enables too many dietary fats to be absorbed)^{24,33-36}
6. **Excess calorie intake** (overwhelms body's ability to use calories for energy production)³⁷⁻⁴¹
7. **Postprandial hypertriglyceridemia** (too much fat remaining in the blood long after meals)^{36,42}
8. **Postprandial hyperglycemia** (too much glucose remaining in the blood long after meals)^{26,37,43-49}
9. **Deficient resting energy expenditure** (enables fat accumulation in lieu of calorie burning)^{24,50}

10. **Elevated C-reactive protein** (binds to leptin and neutralizes leptin's anti-obesity effects in the body)⁵¹
11. **Loss of insulin sensitivity** (inhibits utilization of glucose in energy producing cells and promotes excess fat storage in adipocytes)^{26,52-54}
12. **Insufficient fiber intake** (enables rapid rise in blood glucose after meals and postprandial hyperglycemia and hyperinsulinemia)⁵⁵⁻⁶⁰
13. **Serotonin deficit** (causes carbohydrate binging)^{61,62}
14. **Testosterone deficit (men)** (contributes to abdominal obesity)⁶³⁻⁶⁵
15. **Estrogen-progesterone imbalance (women)** (contributes to fat accumulation in waist-hips)⁶⁶
16. **Thyroid deficit** (precludes efficient cellular utilization of ingested calories)⁶⁷
17. **Decreased physical activity** (worsens insulin sensitivity and slows metabolic rate)⁶⁸⁻⁷⁰
18. **Fasting hyperinsulinemia** (precludes release of stored body fat and increases appetite)⁷¹⁻⁷³
19. **Excess gluconeogenesis** (causes chronically elevated glucose levels even when fasting)^{26,74-76}
20. **Insomnia/insufficient sleep** (contributes to hunger and insulin resistance)⁷⁷⁻⁷⁹
21. **Polycystic ovary syndrome (women)** (associated with weight gain, excess testosterone blood levels, and insulin resistance)⁸⁰⁻⁸²
22. **Cortisol excess** (contributes to increased appetite, insulin resistance, and visceral obesity)^{85,86}
23. **Medications (antidepressants, antipsychotics, anti-epileptics, corticosteroids, sulfonylureas, and beta blockers)** (associated with insulin resistance and weight gain)^{85,86}

24. **Psychological dysfunction (e.g. binge eating, depression)** (abnormal emotional and psychological patterns of eating that can lead to weight gain)^{72,87,88}

25. **Insufficient vitamin D** (associated with insulin insensitivity)⁸⁹⁻⁹¹

26. **Poor dietary choices** (chronically engorges blood stream with dangerous fats and sugars—often cooked at high temperatures—that bloat adipocytes)^{92,93}

27. **Excess glucosidase** activity (digestive enzyme that facilitates conversion of ingested carbohydrates into blood glucose)^{94,95}

The new **Calorie Control Weight Management Formula** helps neutralize the first **12** on this list of **27** obesity inducers, representing an important initial step to correcting pathologic mechanisms that predispose to age-induced weight gain.

The **Life Extension® Weight Loss Guide** provides a comprehensive roadmap that overweight and obese humans can follow to circumvent other **obesity inducers** to not only shed body fat, but also add quality years to their life span.

For example, men with low **free testosterone** levels may find it impossible to lose significant inches off their abdomen. In women, **excess testosterone** has the opposite effect and can create abdominal obesity. Fortunately there are low-cost medications that can safely increase free testosterone in men and decrease it in women. These are all fully described in the **Life Extension® Weight Loss Guide** book available at the member discount price of **\$8.99** by calling **1-800-544-4440**.

27 Correctable Obesity-Inducers

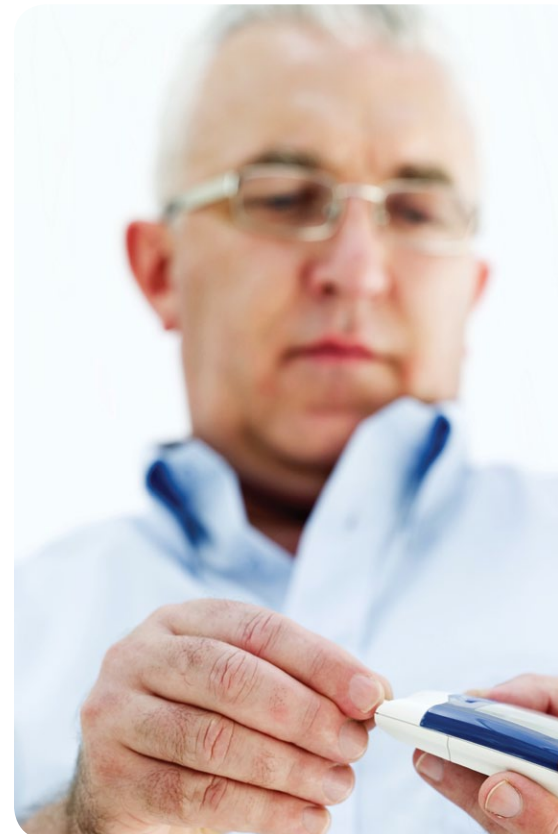


This image depicts daggers aimed at an obese torso. Any one of these obesity-inducers (daggers) can cause or contribute to surplus fat accumulation. The cumulative effects of these *obesity inducers* subjects aging individuals to uncontrolled weight gain.

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Natural Support for Cellular Energy Production

Optimized Carnitine with GlycoCarn[®]

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

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

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

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

Acetyl-L-carnitine arginate has an added molecule of arginine that enables it to augment the effects of acetyl-L-carnitine, promoting the growth of neurites that facilitate communication among nerve cells in the brain.²

GlycoCarn[®] is a patented form of **glycine propionyl-L-carnitine** that quickly penetrates into heart, endothelial, and muscle cells, with effects that range from protecting heart muscle from lack of blood flow to combating muscle fatigue by increasing muscle energy stores of glycogen.³

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

Acetyl-L-Carnitine HCl	800 mg
ArginoCarn[®] Acetyl-L-Carnitine Arginate Di-HCl	300 mg
GlycoCarn[®] Glycine Propionyl-L-Carnitine HCl	300 mg

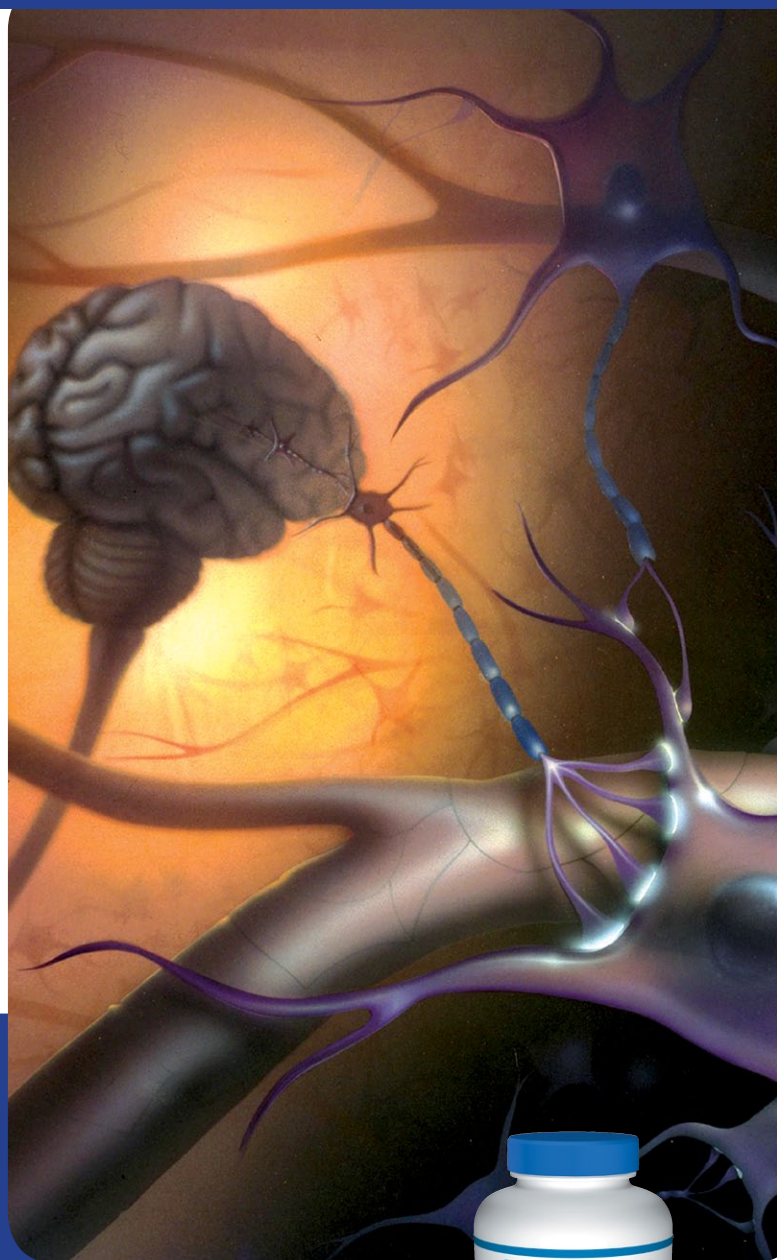
A bottle of 60 vegetarian capsules of **Optimized Carnitine with GlycoCarn[®]** retails for \$29. If a member buys four bottles, the price is reduced to only **\$19.58 per bottle**.

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GlycoCarn[®] and ArginoCarn[®] are registered trademarks of Sigma-tau HealthScience, Inc., and are protected by US patent Nos. 6,703,042 B1 and 6,245,378 B1.

*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.



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Ease Joint Discomfort With **ARTHRO-IMMUNE** JOINT SUPPORT



*Effectively
Combat Inflammation*

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, the price is reduced to only **\$20.25 per bottle**.

One capsule provides:

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

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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.

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

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IN THE NEWS

US Obesity Growing at an Alarming Rate

As this issue of *Life Extension Magazine*[®] was being prepared to go to press, a new report was published stating that US obesity is growing “faster than anyone imagined.”*

One of the more staggering statistics revealed in the report is that the number of states where 30% of the population is obese tripled between 2007 and 2009, going from three states to nine. Dr. Thomas Frieden, the head of the Centers for Disease Control and Prevention (CDC) told reporters that “less than a decade ago, in 2000, not a single state had an obesity prevalence of 30% or higher.”

Even more disappointing is that health officials had recently set a goal to slash the obesity rate by 15% or more. Rather than achieving that goal, the opposite has happened, and 2.4 million adults have been added to the swelling ranks of the obese population.

Obesity, which is defined as having a body mass index over 30 (calculated by dividing a person’s weight in kilograms by their height in squared meters), puts people at greater risk for severe health problems.

In addition, there is a tremendous economic cost, as medical expenditures associated with the condition are estimated to be around \$147 billion annually.

Bill Dietz, director of the CDC’s division of nutrition, physical activity, and obesity, said in a news conference that “the availability and consumption of high calorie foods along with a more sedentary lifestyle has led to the epidemic.”

—Jon Finkel

* http://www.google.com/hostednews/afp/articleALeq5jyrH3EZViU3bxF_9CvfkW-KIqK0A. Accessed August 5, 2010.





Panel Advocates Action Plan to Avert Aging Tsunami

A panel of luminaries in the field of gerontology convened to urge the translation of findings in the field of aging into therapeutic agents that can benefit the world's growing population of older people. Their report was published in *Science Translational Medicine*.*

In order to prevent a global aging crisis caused by a greater proportion of older individuals and the resulting increases in medical costs and social challenges, the panel advocates the collaboration of a number of countries in an initiative to translate laboratory findings on aging into agents that will improve older men and women's lives.

"In the case of late-life intervention in human age-related degeneration, what we can be certain of today is that a policy of aging as usual will lead to enormous humanitarian, social and financial costs," the authors conclude. "To realize any chance of success, the drive to tackle biological aging head-on must begin now."

Editor's note: The Life Extension Foundation has been urging such an effort since the early 1980s.

—D. Dye

* *Sci Transl Med.* 2010 July14; 2(40):40cm21.

Reduced Vitamin D Levels Linked to Cognitive Decline

A study published in the *Archives of Internal Medicine* found a greater risk of cognitive decline in older individuals with vitamin D insufficiency compared to those with sufficient levels.*

Researchers analyzed data from more than 850 men and women who participated in the InCHIANTI study from 1998 to 2006. The team found that subjects who were severely deficient in vitamin D upon enrollment were 60% more likely to experience significant cognitive decline as well as 31% likelier to develop reductions in mental flexibility compared to those with sufficient levels. "This is the first study to identify a clear link between low vitamin D levels and cognitive decline," announced lead researcher Dr. David J. Llewellyn of the University of Exeter. "Previous research has been cross-sectional but we have now been able to demonstrate a connection between having low levels of vitamin D and going on to develop cognitive problems."

Editor's note: The authors observe that "supplements are inexpensive and safe and have already been shown to reduce the risk of falls, fractures and death."

—D. Dye

* *Arch Intern Med.* 2010;170(13):1135-41.

Low Vitamin D Levels Can Predict Parkinson's Disease

A recent issue of the *Archives of Neurology* reported the finding of a correlation between reduced blood levels of vitamin D and an increased risk of developing Parkinson's disease.*

The study included 3,173 participants in the Mini-Finland Health Survey who were free of Parkinson's disease between 1978 and 1980. Over the 29 year follow-up period, 50 subjects were diagnosed with Parkinson's disease. Those whose serum vitamin D levels were among the top 25% of the subjects had one-third the adjusted risk of developing Parkinson's disease than that of subjects whose vitamin D levels were among the lowest fourth.

The investigation is the first longitudinal study to demonstrate an association between insufficient vitamin D levels and the subsequent development of Parkinson's disease.

"In intervention trials focusing on effects of vitamin D supplements, the incidence of Parkinson disease merits follow up," the authors conclude.

Editor's note: Although the exact mechanisms by which vitamin D helps protect against Parkinson's disease are not understood, the vitamin has shown neuroprotective effects via antioxidative mechanisms, immunomodulation, enhanced nerve conduction, and other means.

—D. Dye

* *Arch Neurol.* 2010;67(7): 808-11.



Many Risks Associated with Acid-Suppressing Medications

Proton pump inhibitors (PPIs), a common type of medication that suppresses acid in the stomach, have been linked to several risks in studies published in the *Archives of Internal Medicine*.^{*} The studies, and accompanied editorials, are part of the journal's new series, "Less is More," which highlights areas where measures of health are worse when patients receive more health services.

In the studies, researchers found that PPIs were associated with increased risk of fractures in postmenopausal women and an increase in *Clostridium difficile* infection (a cause of severe diarrhea). They also found that high-dose PPIs do not appear to be associated with reduced rates of additional bleeding, surgical intervention or death in patients with bleeding ulcers when compared with regular PPI therapy.

"What is important is that 60-70% of persons taking proton pump inhibitors don't need these medications," Mitchell Katz, MD, Director of Health for the San Francisco Department of Public Health told *Life Extension*. "Were it an issue of cost alone, it would not be so serious a problem. But the articles published in the *Archives of Internal Medicine* demonstrate that in addition to an increased risk of pneumonia, a well known side effect of PPIs, these medications are also associated with other side effects including bone fractures and *C. difficile* diarrhea. While it is true that all medications have side effects, there is no level of side effects that is acceptable when you don't actually need the medication."

—Marc Ellman, MD

^{*} *Arch Intern Med*. 2010 May 10;170[9]:747-48, 765-71, 751-58, 772-78, 784-90, 779-83, 749-50.

Long-Term Antioxidant Supplementation Improves Arterial Health

An article in *Nutrition and Metabolism* reports the outcome of a trial which found that supplementing with four antioxidants improved arterial elasticity and HDL cholesterol while reducing hemoglobin A1c in men and women at risk of cardiovascular disease.^{*}

Reuven Zimlichman and colleagues enrolled 70 patients who had at least two of the following risk factors: high blood pressure, diabetes, low HDL cholesterol, or cigarette smoking. Participants were randomized to daily supplementation with vitamin C, vitamin E, selenium and coenzyme Q10, or a placebo for 6 months.

HDL-cholesterol increased and blood pressure and HbA1c were reduced compared to baseline levels among those who received antioxidants while remaining unchanged in those who received a placebo. Arterial elasticity also improved in the antioxidant-supplemented group.

"The findings of the present study justify investigating the overall clinical impact of antioxidant treatment in patients with multiple cardiovascular risk factors," Dr. Zimlichman concluded.

Editor's note: Life Extension members have been taking these nutrients for years, if not decades.

—D. Dye

^{*} <http://www.nutritionandmetabolism.com/content/7/1/55>. Accessed July 22, 2010.



High Antioxidant Diet Improves Insulin Sensitivity

The Endocrine Society's 92nd Annual Meeting was the site of a presentation of the results of a study involving adults with metabolic syndrome which found an improvement in insulin resistance among participants who received a diet enriched with antioxidant nutrients.^{*}

The study included 16 men and 13 women aged 18 to 66 years with insulin resistance and obesity. All participants received 1,500 calories per day for three months. Half of the participants' diets contained fruits and vegetables that provide high amounts of antioxidant nutrients. The subjects were further divided into groups that received or did not receive 1,000 milligrams per day of the drug metformin, which improves insulin sensitivity in patients with type 2 diabetes.

While all participants experienced similar decreases in body mass index, only those that received the antioxidant-enriched diet had significant reductions in insulin resistance, with the greatest benefits observed in those who also received metformin.

Editor's note: The ability of antioxidants to help reduce oxidative stress may help protect against a number of conditions, including metabolic syndrome.

—D. Dye

^{*} Endocrine Society's 92nd Annual Meeting. June 19-22, 2010.





New Research Contributes to the Understanding of How I3C Blocks Cancer Cells

An article published online in the journal *Cancer Prevention Research* clarifies the role of indole-3-carbinol (I3C), a compound metabolized from broccoli and Brussels sprouts, in preventing several types of cancer.*

Xianghong Zou and colleagues at Ohio State University describe the results of experiments with three human breast cancer cell lines which determined that I3C destroys Cdc25A, a molecule essential for cell division and proliferation. In another experiment, Dr. Zou's team tested the effect of oral I3C supplementation in mice implanted with breast cancer tumors and found a 65% average reduction in tumor size.

"I3C can have striking effects on cancer cells, and a better understanding of this mechanism may lead to the use of this dietary supplement as an effective and safe strategy for treating a variety of cancers and other human diseases associated with the overexpression of Cdc25A," Dr. Zou concluded.

Editor's note: Cdc25A is also increased in prostate, liver, esophagus, endometrial and colon cancer; in non-Hodgkin lymphoma, and in Alzheimer's and other diseases.

—D. Dye

* <http://cancerpreventionresearch.aacrjournals.org/content/early/2010/06/24/1940-6207.CAPR-09-0213.abstract>. Accessed July 22, 2010.

Healthy Diet Lowers Cataract Risk in Women

Women who eat healthier have a lower chance of developing nuclear cataracts, according to new results from the Women's Health Initiative Observational Study.* Nuclear cataracts are the most common type of cataract for which surgery is performed in the United States.

Julie Mares, PhD, of the University of Wisconsin in Madison, and colleagues followed nearly 2,000 women aged 55 to 86 and compared their answers on a food questionnaire to their development of nuclear cataracts. Higher food scores went to those participants who ate more grains, vegetables, fruit, milk, meat, beans, fish, and eggs. Lower scores were given to those who consumed more total fat, saturated fat, cholesterol, and sodium.

The researchers found that being above the 20th percentile for diet scores that reflect adherence to the US dietary guidelines at the time of the study (1995), had a 37% lower risk for nuclear cataracts after adjusting for other nondietary risk factors.

"In conclusion, this study adds to the body of literature suggesting that healthy diets are associated with lower risk for cataract," the authors concluded. "Diet was the strongest risk factor related to reduced risk of nuclear cataract in this sample of postmenopausal women. Smoking and obesity were also contributors. Lifestyle improvements that include healthy diets, smoking cessation, and avoiding obesity may substantively lower the need for an economic burden of cataract surgery in aging American women."

—Marc Ellman, MD

* *Arch Ophthalmol*. 2010 Jun;128(6):738-49.

Meta-Analysis Confirms that Eating Nuts Lowers Cholesterol

A meta-analysis of 25 previously published studies confirmed the positive effects of eating nuts on blood lipids.* The studies encompassed more than 500 participants in seven countries. All the studies compared a control group to a group assigned to consume nuts and none of the participants were taking cholesterol-lowering medications.

Combining the findings, the researchers found that eating an average of 2.3 ounces of nuts daily (67 g, about 1/3 cup) produced the following results: total blood cholesterol was lower by 5.1%, LDL ("bad") cholesterol was lower by 7.4%, the LDL/HDL ("bad to good") cholesterol ratio was lower by 8.3%, and the total cholesterol/HDL ratio was lower by 5.6%. In those participants with higher than normal blood triglycerides (greater than 150 mg/dL), nut consumption reduced triglyceride levels by 10.2%.

"The effects of nut consumption were dose related, and different types of nuts had similar effects on blood lipid levels," the authors wrote. "Increasing the consumption of nuts as part of an otherwise prudent diet can be expected to favorably affect blood lipid levels (at least in the short term) and have the potential to lower coronary heart disease risk."

—Marc Ellman, MD

* *Arch Intern Med*. 2010 May 10;170(9):821-7.

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Broccoli Super Concentrate [standardized to 4% glucosinolates (16 mg)]	400 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

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*, *carosolic 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, the price is reduced to only **\$16.50 per bottle**.

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, the price is reduced to only **\$22.20 per bottle**. Contains yeast and corn.

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To order Triple Action Cruciferous Vegetable Extract, call 1-800-544-4440 or visit www.LifeExtension.com

REVERSE Age-Related WEIGHT GAIN



BY WILLIAM FALOON

Our aging body cannot handle the same number of calories it did in youth.

This is evidenced not only by excess body fat storage, but also higher glucose, triglyceride, and cholesterol levels seen in maturing individuals.

A consistent finding in the scientific literature reveals that compounds that induce weight loss also facilitate beneficial reductions in blood glucose, triglycerides, and cholesterol.

These studies provide a strong rationale for controlling the **consumption** and **absorption** of excess calories by taking the proper supplements before the two heaviest meals of the day.

An agent of particular interest in this category is called **propolmannan**. By maintaining its viscous structure throughout the digestive tract, **propolmannan** can decrease appetite and help impede the absorption of ingested calories.^{1,2}

What does this translate into as far as weight loss? In placebo-controlled human studies, those taking propolmannan before meals lost **5.5 to 7.92 pounds** after eight weeks without changing their diets. The placebo groups in these studies showed no significant weight loss. The propolmannan groups also showed reductions in blood lipid/glucose levels.^{1,3}

We understand that most aging people today need to shed more than seven

pounds of body fat. That is why propolmannan has been included in a new powder mix that contains three additional ingredients that have demonstrated **weight loss** effects of **8 to 30 pounds** in controlled human trials, along with substantial reductions in **waist circumferences**.⁴⁻⁶

In the **propolmannan** studies, human subjects were told not to change their usual diet (no restrictive diet or exhaustive exercise)—and they still lost weight. **Life Extension®**, on the other hand, advocates aging individuals follow dietary patterns aimed at reducing overall calorie intake.

In a pilot trial on overweight individuals who had failed all other weight loss programs, those who took a low dose of **propolmannan** combined with three other ingredients in a powder mix before meals lost on average almost **12 pounds** after eight weeks.

If you are seeking to lose weight, identify a program you can adhere to over the long term. By taking compounds before meals that decrease appetite, impede **absorption** of carbohydrates-lipids and control regulators of body fat storage, the benefits of a calorie-control program can be substantially augmented.

This article describes the human clinical research conducted on four proprietary nutrients that resulted in significant reductions in weight and abdominal fat. > >



For years, nutrition scientists experimented with different types of dietary fibers that absorb many times their own weight.

The problem with these fibers is that they contain *enzymes* used by the original, living plant for its own well being. During digestion, these *enzymes* cause the fiber sponge to break apart and lose its ability to mop up excess calories. The result is that excess calories readily absorb into the bloodstream and too often convert to surplus body fat stores.^{1,2}

So while these fibers provide some benefit of early satiety, they do not always maintain their structure long enough to remain intact in the stomach and small intestines.

A proprietary process has been developed that removes these *enzymes* so that the absorbent fiber sponges do not break down in the digestive tract.⁷⁻¹¹ This enables this specialized fiber to block some excess calories from being absorbed until they are eliminated from the body.

The Role of Bile Acids in Dietary Fat Absorption

Bile acids are excreted from the liver into the small intestine where they facilitate the *absorption* of dietary fats into the bloodstream. The absorption of dietary fats is dependent on *bile acids* and the *lipase* enzyme.

An intact soluble fiber binds to *bile acids* in the small intestine, thus helping to impede *absorption* of dietary fats (while simultaneously reducing serum LDL and cholesterol).

Specially processed, **propolmannan** is a polysaccharide fiber derived from a plant that grows only in the remote mountains of Northern Japan. Propolmannan is patented in 33 countries as a purified fiber that does not break down in the digestive tract.

Published studies reveal propolmannan's ability to not only increase the amount of bile acids in the feces, but also reduce the rate of carbohydrate absorption and the subsequent glucose/insulin spike in the blood. When propolmannan is taken before meals, consistent and significant reductions in blood triglyceride, LDL, and cholesterol are observed.²

Some people might think that by reducing the body's dietary load, propolmannan by itself would induce substantial weight reduction. Unfortunately, our aging bodies do not convert calories into energy production the same way we did in youth. We instead have a biological propensity to store even the reduced numbers of calories we may be ingesting. That is why while propolmannan can help impede the consumption and *absorption* of ingested calories, in practical terms it represents only one important component of a comprehensive weight management program.

Scientific Studies Backing Propolmannan

There are so many questionable weight loss products claiming “miraculous” results that overweight people might view propolmannan by itself as being inferior because it does not make fat people thin.

The reality is that when used in conjunction with a healthful diet and lifestyle, propolmannan can *accelerate* weight loss and in the process, help normalize excess levels of lipids and glucose in the blood.

propolmannan lost an average of **5.5 pounds** after eight weeks, compared to no significant weight change in the placebo group.¹

In a similar study where subjects were allowed to eat anything they wanted, those taking **propolmannan** lost **7.92 pounds** compared to no significant weight changes in the placebo arm of the study.³ (See chart 2 below.)

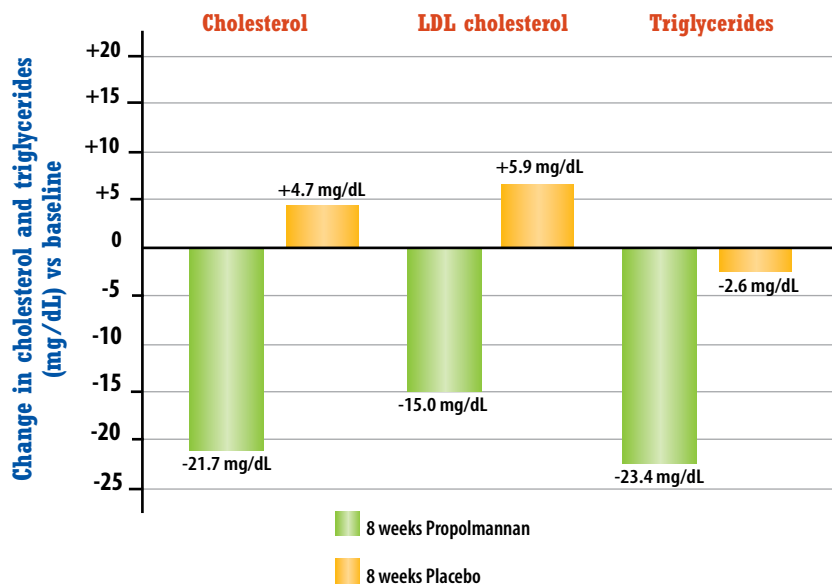
These and other studies document that humans taking propolmannan experience weight loss and improvements in blood lipids compared to those taking placebo.^{3,13,14}

One challenge is getting overweight and obese individuals into the habit of taking calorie-blocking agents like propolmannan before most meals. When one understands the urgent need to protect their body against the lethal effects of excess calorie intake, the argument for taking low-cost supplements like propolmannan become much more compelling.

Propolmannan is one component of a new metabolic management powder drink mix designed to be taken before the two heaviest meals of the day.

CHART 1

Cholesterol and triglycerides improvement after 8 weeks of propolmannan supplementation 3 times a day¹



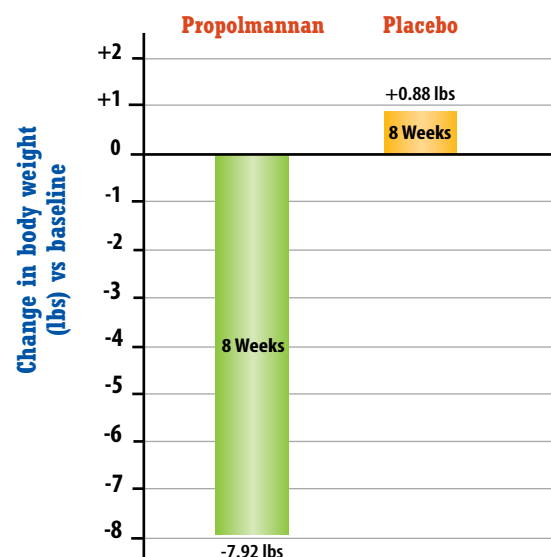
In a clinical study conducted on young obese individuals, subjects were not asked to make any changes in their diet except for the addition of 1 gram of propolmannan before each of the day’s three meals. After eight weeks, subjects lost an average of **9.44 pounds**. The placebo group only lost an average of **1.69 pounds**. The propolmannan group also whittled their waists by more than an inch.¹²

In a second study, adults taking **propolmannan** experienced significant reductions in blood lipid levels. Propolmannan-supplemented individuals dropped **cholesterol** by **21.7** (mg/dL), **triglycerides** by **23.4** (mg/dL) and **LDL** by **15.0** (mg/dL). In the placebo group, cholesterol and LDL increased while triglycerides showed only a small decline.¹ (See chart 1 above.)

In this adult study where participants were not asked to alter their eating habits, those taking

CHART 2

Weight loss in adults after 8 weeks of propolmannan supplementation 2 times a day³



Propolmannan

- A pharmaceutical grade dietary fiber made from a tuberous plant, *Amorphophallus japonica*, has an extraordinary ability to absorb ingested fats and carbohydrates and block their digestion.
- Propolmannan is many times more effective than typical glucomannan products made from Konjac, a tuber of the same species used in propolmannan.
- Propolmannan can also diminish appetite, improve blood lipids, and reduce inflammation.
- In numerous clinical studies, even without caloric restriction or other dietary changes, propolmannan has been shown to produce almost eight pounds of weight loss in adults after 8 weeks.
- Propolmannan has been shown to be safe and effective for young adults, adults, and seniors.
- Propolmannan should be taken before a meal.



Neutralize Your Carbohydrate-absorbing Enzyme

In response to eating a large meal, people gain fat pounds because of the rapid rise in blood glucose and the subsequent insulin spike. This elevation in blood glucose contributes to the synthesis of fat on our bodies (and triglycerides in our blood).

Large meals overload the bloodstream with calories and later cause a rebound increase in appetite when blood sugar levels plummet in response to excess release of insulin. One way of impeding this after-meal glucose-insulin surge is to take nutrients before meals that neutralize a carbohydrate-degrading enzyme called *alpha-amylase*.

UCLA School of Medicine researchers have successfully used extracts from the white kidney bean (*Phaseolus vulgaris*) to target *alpha-amylase*. In a study of 30 obese adults, half took either a placebo or *Phaseolus vulgaris* extract. After eight weeks, those taking the *Phaseolus vulgaris* extract lost 3.8 pounds in weight, and more importantly 1.5 inches of abdominal fat.¹⁷

The group taking the *Phaseolus vulgaris* also had a three-fold reduction in triglyceride levels compared

What Differentiates Propolmannan from Glucomannan

Konjac glucomannan is a similar plant to *propolmannan*. They both are of the *Amorphophallus* genus that is used in Asian cuisine to thicken sauces, make fruit jellies, and to create konyaku, a stretchy noodle that is popular in Japan.¹⁵ Konjac glucomannan, however, does not yield the extraordinarily high quality material that makes propolmannan so effective.

Many health claims have been made for Konjac glucomannan. But only by starting with the superior propolmannan of *A. japonica* and completely removing its catabolic enzymes does the resulting highly soluble and highly viscous fiber in propolmannan gain the ability to remain intact in the digestive tract, where it can form a sponge that binds to bile acids and impedes dietary fat absorption.^{7-11,16}

This sponge function not only decreases appetite, but delays the emptying of food from the stomach into the small intestines, slowing down the influx of carbohydrates and fats into the bloodstream. This slower rate of gastric emptying helps keep blood sugar levels more stable than the typical sharp peaks after carbohydrate foods are eaten.²

As you will read on page 68 of this issue, reducing postprandial (after-meal) glucose spikes promotes the beneficial expression of **longevity genes** observed in organisms that are calorie restricted.

with the placebo recipients, which helps corroborate the role of weight loss and simultaneous reduction in artery-clogging triglyceride levels.¹⁷

A more impressive human study of *Phaseolus vulgaris* showed that those who consumed the most carbohydrates lost the most weight. In this study, subjects who supplemented with *Phaseolus vulgaris* and consuming the highest levels of dietary starch lost **8.7 pounds** compared with only **1.7 pounds** in the control group in only four weeks. Even more impressive was the **3.3 inches** of belly fat lost in the *Phaseolus vulgaris* group versus only **1.3 inches** in the controls.⁵

In a double-blind study on 60 overweight volunteers, half the study participants received *Phaseolus vulgaris* while the other half were given a placebo.

Both groups were placed on a 2,000–2,200/day-calorie diet. After only 30 days, those taking *Phaseolus vulgaris* lost **6.5 pounds** of weight and **1.2 inches** in waist size compared with 0.8 pounds and 0.2 inches in the placebo group.¹⁸

As we age, it becomes increasingly difficult to keep the belly fat off. At the same time, we are challenged to keep blood glucose levels in optimal ranges (which are around **80 mg/dL**). The exploding rates of type 2 diabetes and obesity are a testament to the *dual problem* of weight gain caused by the absorption of too many simple carbohydrate calories.

It makes sense for those seeking to lose weight to take *Phaseolus vulgaris*, which is why it is contained in a new powder mix designed to be taken before the two largest meals of the day.

Take Control of Your Fat-regulating Factors

Fat cells (called *adipocytes*) secrete **leptin**, a hormone that tells your brain you've eaten enough. Leptin also facilitates the breakdown of stored (triglyceride) fat in our adipocytes.^{19,20}

Overweight people have *higher* blood levels of leptin, indicating their cells have become *resistant* to the leptin that enables thin people to not put on so many fat pounds.²¹⁻²³

Irvingia gabonensis is a West African plant extract that has been shown to help support *leptin sensitivity* in overweight people. When study subjects take Irvingia, their leptin levels drop, indicating that their cells are picking up the leptin and utilizing its

In a double-blind study on 60 overweight volunteers, those taking *Phaseolus vulgaris* lost 6.5 pounds of weight and 1.2 inches in waist size compared with 0.8 pounds and 0.2 inches in the placebo group.

beneficial fat-regulating properties. Study subjects taking Irvingia report consuming fewer calories, which makes sense, based on the enhanced **leptin sensitivity** brought about by this plant extract.⁶

Researchers know that more than *leptin sensitivity* is involved in Irvingia's weight loss abilities. It turns out that Irvingia also has **alpha-amylase-inhibiting** properties²⁴ similar to *Phaseolus vulgaris*. Inhibiting amylase helps slow the rate of carbohydrate absorption, thus reducing the caloric impact of starchy-sugary foods.

Scientific data suggests that *Irvingia* also helps support healthy **adiponectin** levels.⁶ Adiponectin is a hormone that helps maintain *insulin sensitivity* of energy-producing cells. Large fat cells found on overweight people produce less adiponectin. These means these individuals need to be concerned about maintaining enough adiponectin to support *insulin sensitivity*, something normally lost as we age.

The majority of body fat consists of *triglycerides* that are stored in our fat cells. A reason that weight loss and triglyceride reduction go hand-in-hand is that triglycerides make up the bulk of our fat storage. We get triglycerides directly from the fat we eat and also from conversion of excess glucose in our blood to triglycerides that is stored in fat cells.

Glucose is converted to triglycerides storage in fat cells by an enzyme called **glycerol-3-phosphate dehydrogenase**. *Irvingia* inhibits *glycerol-3-phosphate*



How Green Tea Enhanced Effects of Reduced Calorie Intake

When we eat less, our metabolism slows down, which causes our body to go into a fat conservation mode. By consuming this **green tea phytosome** and reducing calorie ingestion and/or absorption, your **basal metabolic rate** is increased, so **more fat pounds** are lost than if you only consumed fewer calories.²⁶

dehydrogenase, thus reducing the amount of ingested sugars that are converted to body fat.²⁵

So **Irvingia** functions to reduce stored body fat by:

1. Up-regulating the expression of **adiponectin**, thereby improving insulin sensitivity.⁶
2. Restoring the dual weight control effects of **leptin**.⁶
3. Inhibiting the **glycerol-3-phosphate dehydrogenase**, thereby reducing fatty acid storage in fat cells.²⁵
4. Inhibiting **alpha-amylase**, thus reducing the amount of ingested starches that will be absorbed as glucose.^{6,24,25}

The most impressive published study on *Irvingia* demonstrated beneficial effects on leptin blood levels, followed by a weight loss of over **20 pounds** on average in 10 weeks. This kind of impressive result, however, has not consistently been shown in those who take *Irvingia* by itself.⁶

Irvingia is included in the new powdered drink mix formula to better enable people to control critical **fat regulators** (*leptin*, *adiponectin*, and *glycerol-3-phosphate dehydrogenase*) while also further inhibiting the *amylase* enzyme.

Triple the Weight Loss Effects of Calorie Reduction

As we age, we lose the ability to efficiently burn ingested food as energy. The result of excess calorie intake is unwanted body fat stores.

The encouraging news is that a proprietary green tea delivery system has been documented to substantially enhance the weight loss effects of eating healthier—while also trimming belly fat.

Green tea's weight loss benefits are attributed to **polyphenol** compounds that increase metabolic energy expenditure and calorie burning. The problem is getting a sufficient amount of green tea's polyphenols **absorbed** into the blood.

A group of researchers created a proprietary **green tea phytosome** that increased the capacity of polyphenols to be absorbed into the blood.

In a human study using this **green tea phytosome**, the weight-loss effects were greater than for any other compound we have ever observed. This study involved 100 overweight subjects. Half received the **green tea phytosome**. Both groups were placed on reduced calorie diets of approximately 1,850 calories/day for men and 1,350 calories/day for women. This is not a starvation diet (especially for the men).⁴

After three months on the reduced calorie diet the control group lost **9.9 pounds**. The group taking the **green tea phytosome**, however, lost **30.1 pounds**. This was triple the weight loss seen in the control group who did not receive the **green tea phytosome**.⁴

There was a 10% reduction in the abdominal fat pad in the **green tea phytosome** group compared with only 5% reduction in the control group. Male participants showed a 14% reduction in abdominal circumference compared with 7% reduction in the control group.⁴

This study confirmed that people can lose weight (9.9 pounds) by eating fewer calories. But when this **green tea phytosome** was added, the amount of weight shed **tripled**—while **twice as much** abdominal fat disappeared.⁴

The remarkable effect of this proprietary green tea compound to remove **30.1 pounds** of weight is attributed to its ability to *increase resting metabolic rate* while reducing the absorption of dietary fats.⁴ This **green tea phytosome** is thus an ideal nutrient to take with other compounds that reduce the rate of calorie absorption such as propolmannan and *Phaseolus vulgaris*.

If you are seriously seeking to shed excess body fat, it makes sense to avail yourself to the weight loss-amplifying effects of this **proprietary green tea phytosome**.

Rationale of Combining Four Ingredients into One Powdered Drink Mix

A new powdered drink mix provides the following nutrients at similar doses used in human clinical weight loss studies:

1. Propolmannan
2. *Phaseolus vulgaris*
3. Irvingia
4. Green Tea phytosome

The rationale for selecting this particular combination is to enable overweight and obese individuals to modestly decrease their caloric intake without hunger (by enhancing leptin sensitivity) and reduce the amount of dietary fats and carbohydrates that are absorbed (using propolmannan and *Phaseolus vulgaris*). This then sets the stage for the remarkable benefits of the **green tea phytosome** to function in tandem with the reduced calorie burden to facilitate optimal weight loss, especially in the abdominal region.

To test this hypothesis, we took a group of overweight people who had failed all previous attempts to lose weight. These treatment-resistant individuals took a scoop of a powdered drink mixed with water



15-30 minutes before meals. After eight weeks, they lost an average of almost **12 pounds**.

It would appear that continued use of this powdered drink mix before meals, along with taking individualized steps to address one's obesity-inducers, will result in a sustained reduction of body fat mass.

For those who visit our **Life Extension Nutrition Center** in Fort Lauderdale, Florida, we have a scuba diver weight belt that weighs 12 pounds. When a customer trivializes **12 pounds** of weight loss in eight weeks, we let them walk around for 60 seconds wearing this weight belt. They quickly realize how heavy twelve pounds is and how much better they will feel after they shed this much body fat.

Summary

Aging humans seldom understand the magnitude of excess calories ingested each day. They too often think they are only eating a little more than they should.

The reality is that most of us consume far more food than our body can utilize for energy production. The result is an accumulation of unsightly fat masses that unleash deadly pro-inflammatory cytokines along with an inability to maintain glucose control and healthy blood lipid levels.

With the advent of nutritional compounds that impede dietary fat and carbohydrate absorption, manage regulators of fat storage like leptin, and boost resting metabolic rate—aging humans can realistically expect to start shedding excess pounds and inches in a safe and sustainable manner.

The challenge for all of us is to remember that excess calories are poison. We can either avoid the poison by drastically reducing our calorie intake, or take the nutrients described in this article before large meals to mitigate the effects of ingested calories, i.e., how many are *absorbed* and how many of the excess calories that make it into your bloodstream convert to body fat.

We suspect dedicated health enthusiasts will consider a little of both, meaning eating a little less and blunting the effects of the excess by taking the appropriate nutrients before most meals. ●

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

When Good Metabolisms Go Bad

Obesity and type 2 diabetes have reached epidemic proportions. The simple explanation is to blame our increasingly sedentary lifestyles, nutrient depleted, highly processed foods, and a culture that often proclaims that bigger is always better—including the size of food portions. But the harsh reality is that as we age, we are unable to efficiently convert ingested calories into energy production for a variety of reasons.

Obesity is a cause of many serious health problems. Adipose tissue broadcasts highly inflammatory immune substances such as interleukin-6 and interleukin-1-beta that in turn increase **C-reactive protein** blood levels.

Chronically elevated levels of inflammation are associated with increased risk of cardiovascular disease,²⁷ arthritis and connective tissue disorders,²⁸ and fatigue and pain.

Obesity and inflammation often go hand in hand. Conversely, reducing weight with sensible approaches sets in motion a positive spiral of reduced inflammation and a spectrum of associated health benefits.



Caution: The remarkable fat-binding properties of propolmannan have one downside. Critical fat soluble nutrients like omega-3s, gamma tocopherol, along with vitamins D and K may not be fully absorbed. We suggest taking these fat-soluble nutrients at a different time of the day than propolmannan-containing supplements. Members typically obtain their gamma E and vitamin K in the **Super Booster** formula, along with a 5,000 IU **vitamin D3** capsule and four softgels daily of **Super Omega-3**. For those who don't use the Super Booster, we have formulated a new **Essential Fat-Soluble Nutrients** formula that contains in one softgel:

Vitamin D	7,000 IU
Vitamin K2 (as long-acting MK-7)	100 mcg
Gamma tocopherol	210 mg
DHA (from fish oil)	500 mg

This one softgel enables members to eliminate use of separate products. Three to four of **Super Omega-3** should still be taken to obtain optimal levels of critical EPA/DHA fatty acids. A more complete description of the new **Essential Fat-Soluble Nutrients** appears later in this issue. ●

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FULL-SPECTRUM POMEGRANATE

Endothelial Defense™ with Full-Spectrum Pomegranate

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

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

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

Scientific Studies Reveal These Additional Vascular Benefits...

1. Pomegranate Supports Healthy Blood Flow

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

2. SOD Protects Against Nitric Oxide Degradation

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

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

A bottle containing 60 softgels of **Endothelial Defense™ with Full-Spectrum Pomegranate™** retails for \$58. If a member buys four bottles, the price is reduced to just **\$39** per bottle. Contains soybeans, tree nuts, and wheat. Contains gluten.

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

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



Item #01498

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

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**To Order Endothelial Defense™ with Full-Spectrum Pomegranate™,
call 1-800-544-4440 or visit www.LifeExtension.com**

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.



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.

	% 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%

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, the price is reduced to only **\$21** a box!

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



(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



Excess Calories Are Deadly!

Urgent Need to Eat Less and Impede Food Absorption

A rational review of the scientific literature strongly suggests that healthy life span may be greatly extended if we reduce the **calorie burden** our body is exposed to each day.¹

While eating even a little less is helpful, most of us can benefit enormously if we consume supplements before meals that impede calorie absorption and favorably influence internal regulators of fat storage.

For instance, **carbohydrates** consumed without **calorie inhibitors** quickly pass from the stomach into the small intestine where they rapidly absorb into the blood. This causes a *surge* in blood glucose-insulin that adversely impacts our health.² When gastric emptying into the small intestine is delayed (by certain calorie inhibitors), the rise in glucose-insulin is more gradual and carries fewer risks.

Inhibiting the *amylase* digestive enzyme that breaks down carbohydrates also blunts the effects of excess calorie intake—while augmenting programs designed to shed fat pounds.³

When a meal is ingested, **bile acids** and the **lipase** enzyme are released into the digestive tract where they facilitate the breakdown and absorption of ingested **fats**. Compounds that bind to *bile acids* and/or neutralize *lipase* can impede the absorption of triglyceride-rich dietary fats.^{4,5} Some of these compounds also inhibit absorption through the intestinal wall by forming a viscous barrier around ingested foods.

Few people are aware of how many deadly excess calories they consume each day. Their bloodstreams are chronically bloated with glucose, insulin, and triglycerides long after a meal is eaten.^{6,7} This occurs not only because they absorbed too many calories, but because their internal regulators of fat storage are impaired as a consequence of aging. These individuals don't understand why they keep gaining weight even as they try to cut down on calorie intake and exercise more.

New Calorie Control Weight Management Formula

In response to mounting evidence that age-associated fat accumulation results from the loss of metabolic capacity to utilize ingested calories, a powdered drink mix has been designed with the following ingredients:

LuraLean® (propolmannan)– This proprietary fiber has been developed to swell in the stomach after ingestion with water to help reduce calorie consumption. **Propolmannan** binds to **bile acids** in the small intestine and helps transport them out of the body.⁸ These bile acids otherwise facilitate the digestion and assimilation of **dietary fat** into the bloodstream. LuraLean® propolmannan also slows the rapid emptying of ingested food into the small intestine, thereby reducing the surge of **glucose** entering the bloodstream.

The reason LuraLean® works better than other fibers is that its own enzymes have been removed, thus sparing it from degradation in the digestive tract.⁹⁻¹⁴ This enables LuraLean® to form a stable viscous barrier to help impede calorie absorption and maintain its sponge-like activity throughout the digestive tract. In placebo-controlled studies, LuraLean® (propolmannan) has induced moderate weight loss along with significant reductions in fasting lipid and post-meal glucose/insulin levels.^{15,16}

White Kidney Bean (*Phaseolus vulgaris*) – The *amylase* digestive enzyme breaks down carbohydrates that are then absorbed into the bloodstream as glucose. *Phaseolus vulgaris* inhibits *amylase* and has produced significant weight loss and abdominal fat reductions.^{3,17,18}

Irvingia gabonensis – Like white kidney bean, Irvingia has amylase-inhibiting properties.¹⁹ It also favorably regulates: **Leptin** to decrease appetite and facilitate triglyceride removal from adipocytes; **Adiponectin** to facilitate insulin sensitivity²⁰ and **Glycerol-3-phosphate dehydrogenase** to inhibit glucose from converting to triglyceride fat in adipocytes.²¹ Irvingia has demonstrated favorable weight loss results in placebo-controlled trials.²⁰

Green Tea Phytosome – Aging results in a slowdown of *resting energy expenditure*. This means more calories we eat convert to stored body fat instead of being utilized for energy production. This proprietary **green tea phytosome** has been shown to absorb much better into the bloodstream than conventional green tea and induce **30.1 pounds** of weight loss when combined with a reduced calorie diet.²² Green tea polyphenols boost **resting metabolic rate**²³ and help impede the **lipase** enzyme used to facilitate dietary fat breakdown.⁵

One scoop of the new **Calorie Control Weight Management** powdered drink mix should be taken about 30 minutes before the two heaviest meals of the day with eight ounces of water.

Critical Importance of Taking **Calorie Control Weight Management Formula** Before Heavy Meals

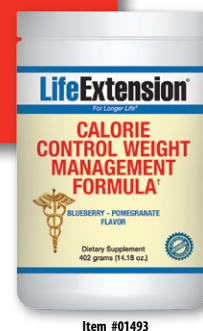
Americans live in a state of denial as it relates to the lethal effects of excess calorie ingestion. As a result, most have not yet accepted that they need to inhibit the *absorption* and *effects* of excess calories before the two heaviest meals of the day. Excess calories kill us in four different ways:

1. Even when we try to eat healthy, it is impossible to avoid mutagens that damage **genes** needed for healthy cell division.^{24,25} By reducing the total number of food particles that make it into our bloodstream, we reduce our overall systemic exposure to mutagens.
2. Excess calories cause our bloodstream to be consistently loaded with triglycerides, glucose, and insulin.^{6,7} This creates oxidative and inflammatory reactions that can preclude us from maintaining healthy **vascular** (endothelial) function and **glycemic** control.
3. Excess calories contribute to increased body **fat** storage, which can lead to **systemic inflammation** by means of pro-inflammatory factors produced by engorged fat cells.²⁶
4. Genes that control how long we will live are influenced by blood glucose levels.²⁷ By reducing the amount of **glucose** that surges into our bloodstream, we can more favorably control many of our **longevity genes**.

Once we accept the danger that each surplus calorie poses to our aging body, it becomes easy to understand the need to impede the absorption and effects of ingested foods by taking the **Calorie Control Weight Management** formula before the two heaviest meals of the day.

The new **Calorie Control Weight Management Formula** contains a **double-dose** of propolmannan (LuraLean®) used in the pilot trial of treatment-resistant individuals who shed almost **12 pounds** after eight weeks. Each scoop of **Calorie Control Weight Management Formula** provides:

Propolmannan (LuraLean®)	2,000 mg
White Kidney Bean (<i>Phaseolus</i>)	445 mg
Irvingia gabonensis	150 mg
Green Tea Phytosome	150 mg



The retail price for a one month (60-serving) supply of **Calorie Control Weight Management** is \$56. If a member buys four bottles (a four month supply), the price is reduced to only **\$36** a bottle. This is the lowest price the four proprietary ingredients contained in this great-tasting powder formula has ever sold for!

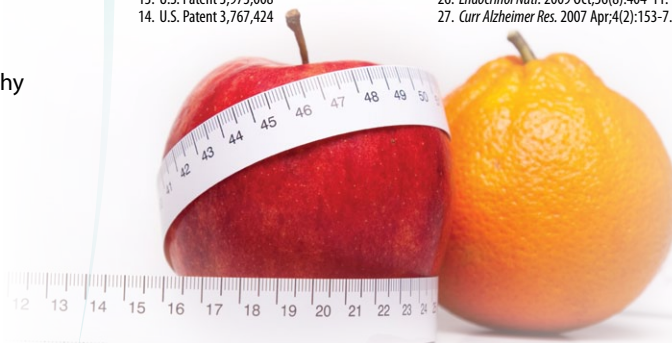
Contains soybeans, tree nuts and corn.

To order Calorie Control Weight Management Formula today, call 1-800-544-4440 or visit www.LifeExtension.com/Calorie-Control

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

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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.



Heart Healthy

SUPER omega-3 EPA/DHA

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

A Comprehensive Essential Fatty Acid Formula

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

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

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

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

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



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

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

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

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

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

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

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

BLOCK

Absorption of **Fat Calories**

SAFELY



Of all the available strategies to induce long-term weight loss and combat obesity, dieting may be the least effective. Even worse, regular dieting has been shown to be a strong predictor of future weight *gain* and increased risk of chronic disease.¹

In the most rigorous and comprehensive analysis of dieting outcomes to date, a groundbreaking UCLA study revealed that a majority of dieters not only regain lost weight after dieting—they put on even more weight.¹ The researchers also found evidence to suggest that *repeatedly* losing and gaining weight (so-called “yo-yo” dieting) is linked to increased risk of cardiovascular disease, stroke, diabetes, and altered immune function.²

Fortunately, there are safe, effective interventions to help reduce fat uptake while gradually lowering your overall calorie burden.

One of these is a drug that blocks the absorption of ingested fats by inhibiting **lipase**, the enzyme that breaks down dietary fat in the intestine. The lipase inhibitor **orlistat** (brand name Xenical® and alli®) has been clinically proven to block fat absorption in the digestive tract.³⁻⁵ **Life Extension**® has advocated a 60- to 90-day course of orlistat to limit one’s exposure to fat calories while gradually making the necessary

dietary changes and other modifications to facilitate optimal weight loss. **Green tea extracts** also help block **lipase** activity, though not as potently as orlistat.

Another strategy that may be used with orlistat/green tea or by itself is to consume a special fiber called **propolmannan** before heavy meals. **Propolmannan** binds **bile acids** in the small intestine that would otherwise help facilitate dietary fat absorption into the bloodstream. When taken before meals, **propolmannan** forms a viscous sponge that can help further reduce the impact of excess calories.

When taking drugs or nutrients that impede fat absorption, it is important to ensure that you continue to absorb vital **fat-soluble** nutrients such as vitamin D, vitamin K, vitamin E and the omega-3s. Since fat normally shuttles these nutrients into the bloodstream, you should make sure to take these nutrients at the time of day that ensures maximum absorption.

Here we detail how orlistat works to diminish your exposure to killer fat calories. You will also learn how it decreases your body’s absorption of the fat-soluble vitamins D, E, and K. We will then show how to maintain optimal intake of these key nutrients while obtaining the benefit of lipase inhibitors. > >



How Orlistat Works

To absorb fats, your body needs to break them down in the intestinal tract. It does so partially by the action of an **enzyme** produced in the pancreas that converts triglycerides in ingested dietary fats to monoglycerides and free fatty acids. The name of this enzyme that breaks down fat is **lipase**.

Once acted on by **lipase**, ingested fat molecules are transported via the bloodstream to the membranes of adipose or muscle cells, bringing calories and health risks with them. As a lipase **inhibitor**, orlistat reduces fat absorption by as much as **30%**.⁵

This has two important effects. Of course, the unabsorbed fat eventually passes out of the body. Just as importantly, if you don't cut back on the amount of fat you eat, the lack of absorption will produce some very unpleasant side effects, such as bloating, diarrhea, and even fecal soiling. The result, to quote the manufacturer, is that orlistat "helps your head learn healthy habits that stick... to teach your body a new, healthier way of eating."⁶ In other words, you become **conditioned** to eat less fat so you'll stay comfortable. The ultimate objective is to provide an incentive to ingest fewer fat calories.

Orlistat is effective. A two-year European study found a mean decrease in body weight of **10.2%** in the orlistat group compared to 6.1% in the placebo group at 1 year.⁵ And 9.3% of the orlistat group lost

more than **20%** of their initial weight, versus **2.1%** of the placebo group. But there's a downside.

All that fat the body didn't absorb? It carried with it essential vitamins that can only dissolve in fat—the fat-soluble vitamins A, D, E, and K. Clinical trials show that orlistat may induce malabsorption of fat-soluble vitamins to varying degrees, often resulting in the need to supplement patients to maintain normal blood levels.⁷⁻¹¹ In fact, orlistat can reduce absorption of vitamin E by as much as **60%**.¹¹ This has led to expert recommendations that people taking orlistat should **supplement** with fat-soluble vitamins.^{8,12} That's true even if they are already taking a daily multivitamin.¹³

Vitamin D

Vitamin D was long associated only with calcium absorption and bone health, and indeed it is vital in those areas. In fact, existing recommended daily amounts of vitamin D were developed originally to help sustain adequate levels of calcium in blood and bone. In recent years, however, we've learned that vitamin D has essential effects throughout the body.^{14,15} In fact, vitamin D receptors are found in most body tissues, indicating the fundamental importance of this vitamin.¹⁶

For instance, vitamin D has profound neurocognitive effects. Insufficient vitamin D levels are associated with low mood and poorer cognitive performance in adults.^{17,18} Older adults in particular are at risk for cognitive impairment when they lack sufficient vitamin D.¹⁹ And low vitamin D levels are associated with frailty among older adults as well.²⁰ On the other hand, there's supportive evidence that adequate vitamin D levels may help prevent Alzheimer's disease and other devastating forms of cognitive decline.²¹

A recent discovery is that vitamin D has profound impact on the immune system.²² Vitamin D insufficiency is associated with increased vulnerability to influenza, and many studies show that supplementing with vitamin D helps prevent the flu.^{23,24} Experts now strongly recommend testing and treating for vitamin D deficiency as part of a swine flu prevention strategy.²⁵



Astonishingly, because of antiquated reference values for how much vitamin D we should take, a tremendous number of American adults are already vitamin D deficient or insufficient when blood levels are checked. Obese people—the very people who take orlistat—are even more likely to be deficient in vitamin D.²⁶ Daily multivitamins don't provide nearly enough vitamin D to sustain healthy levels. Experts recommend **2,000-7,000 IU vitamin D per day** to maintain year-round adequate levels between **40-70 ng per mL**.²⁷

Vitamin E

Vitamin E is the primary fat-soluble antioxidant in mammals, making it essential in preventing oxidative damage to lipid-rich cell membranes.²⁸ As a result, vitamin E can prevent or mitigate oxidant-related diseases such as atherosclerosis, strokes, and many cancers.^{29,30} But vitamin E is now known to have many other health-giving properties as well, including intra- and inter-cellular signaling and regulation of gene expression.³¹⁻³³ In fact, people with lifelong generous dietary vitamin E intakes enjoy substantial reductions in their risk of chronic disease.³⁴ Tragically, more than 90% of Americans do not consume the recommended dietary amounts of 15 mg/day (22.5 IU/day).³⁴ Decreased absorption resulting from orlistat use will only exacerbate the risk.³⁵ And the effects are immediate and profound.

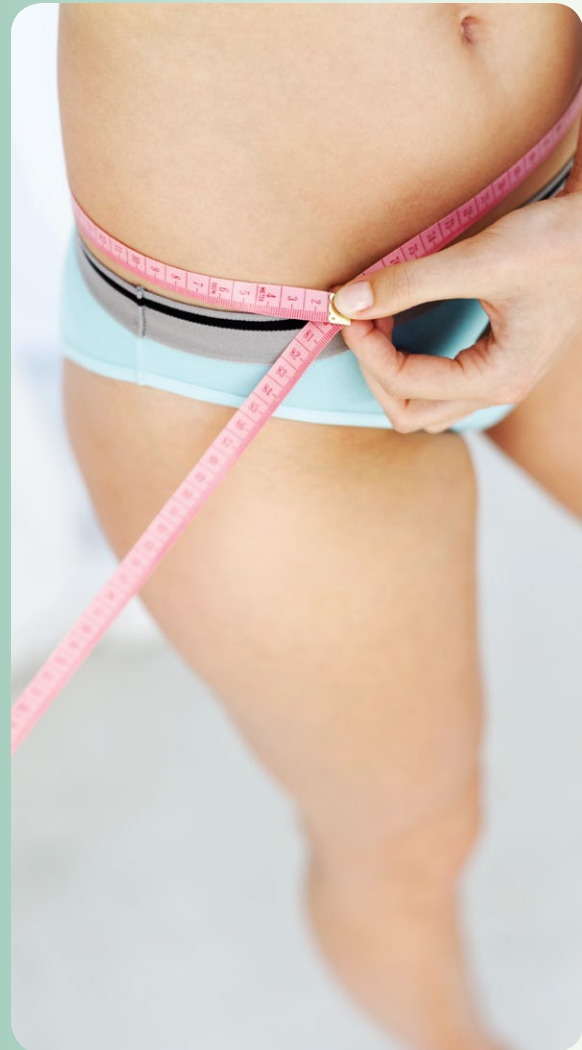
Lung, kidney, and colon tissue are all vulnerable to vitamin E depletion, predisposing to diseases in those organs.³⁶⁻³⁹ Low plasma concentrations of the gamma-tocopherol form of vitamin E are associated with increased rates of cardiovascular disease.^{40,41}

Advancing age itself causes an increase in protein oxidation in memory-related brain regions—one of many reasons our memories begin to weaken with time.⁴² Vitamin E can prevent such changes in laboratory studies of older animals.^{42,43} In fact, people with high plasma levels of vitamin E were found in 2010 to have reduced incidence of Alzheimer's disease.⁴⁴

Finally, vitamin E, particularly in the form of gamma-tocopherol, is a powerful inducer of apoptosis (programmed cell death) in cancer cells.⁴⁵ Gamma-tocopherol-rich supplements inhibit colon, prostate, mammary, and lung tumorigenesis in animal models, making them attractive as chemoprevention agents.⁴⁶

Which Vitamin E Are You Taking?

“Vitamin E” is a catch-all term for a group of 8 related molecules called tocopherols and tocotrienols.⁴⁷ Alpha-tocopherol is the form that has received most of the attention, but recent data suggest that



What You Need to Know

Essential Fat-Soluble Nutrients

- Dieting is both ineffective for long-term weight loss as well as being dangerous.
- Repeated dieting is a risk factor for cardiovascular disease, stroke, diabetes, and altered immune function.
- The lipase inhibitor orlistat effectively blocks the body's ability to absorb fat. Since it decreases absorption of key fat-soluble vitamins, it is of paramount importance to concurrently supplement with fat-soluble vitamins including D, E, and K while using orlistat.

gamma-tocopherol may have greater health benefits.^{40,48} Gamma-tocopherol has potent anti-inflammatory and antioxidant properties, and in fact is more effective at scavenging free radicals and nitrogen species than the more common alpha form.^{49,50} Supplementation with alpha-tocopherol decreases tissue concentrations of gamma-tocopherol. Fortunately, supplementation with gamma-tocopherol increases concentrations of both alpha- and gamma-tocopherols.⁴⁰ Regardless of the form, impaired fat absorption resulting from orlistat use depletes the body of vitamin E, making supplementation vital.

Vitamin K

Vitamin K was first discovered for its role in the blood coagulation system. Overt deficiencies in vitamin K produce dangerous bleeding disorders. More recently we've learned that vitamin K (like D and E) has a host of other critical functions that are less obvious but no less dangerous. Vitamin K is a crucial factor for enzymes that modify important structural proteins throughout the body.^{51,52} That makes vitamin K essential for functions in addition to blood

clotting, such as bone development, cellular signaling, and growth control, including cancers.^{52,53} But large segments of the adult population already don't get adequate vitamin K to support those critical processes.^{53,54} Further depletion of vitamin K by orlistat, therefore, puts you in danger of losing essential vitamin K-dependent functions.¹⁰

Of greatest concern is that vitamin K deficiency (or depletion) is associated *both* with blood vessel calcification *and* with osteoporosis.⁵⁵ That's because vitamins D and K interact in a delicate ballet to determine where calcium winds up in your body.⁵⁶ At the right levels, it goes into bone, preventing osteoporosis. But with deficiency of vitamin K, the opposite happens. Calcium leaves bone, instead becoming deposited in arterial walls.⁵⁶ Indeed, normal cells in the vessel wall transform into bone-forming cells—essentially turning your arteries into bone!^{57,58} Meanwhile, in

People with high plasma levels of vitamin E were found in 2010 to have reduced incidence of Alzheimer's disease.



bone tissue the effects of vitamin K depletion are the opposite—low K levels are associated with calcium loss, lower bone mass and increased fracture risk.⁵⁹

Fortunately, supplementation with the proper form of vitamin K can help prevent consequences of vitamin K depletion. A supplement containing both vitamins D and K had a beneficial effect on the elasticity of arterial walls.⁶⁰ And in people who already have coronary arterial calcification, vitamin K supplementation can prevent progression of the disease.⁶¹ Indeed, high intake of vitamin K2 (menaquinone) is associated with lower overall risk of death from coronary heart disease.⁶²

Vitamin supplementation with menaquinone (K2) is also protective against osteoporosis and fractures.^{62,63} It helps reduce blood levels of bone-resorption markers and increases markers of bone formation.⁶⁴ Vitamin K supplementation also enhances overall bone metabolism in active women⁶⁵ and improves bone geometry and strength in postmenopausal women.⁶⁶

Summary

A groundbreaking study conclusively demonstrated that dieting is not only ineffective; it can also be dangerous. Repeated dieting is a risk factor for cardiovascular disease, stroke, diabetes, and altered immune function.



Life Extension recommends that in lieu of dieting, an effort should be made to adjust one's food intake to *gradually* reduce the number of calories ingested each day.

The lipase inhibitor *orlistat* and the special fiber propylmannan can help facilitate the effects of a modestly reduced fat calorie diet by helping to impede absorption of some fat calories.

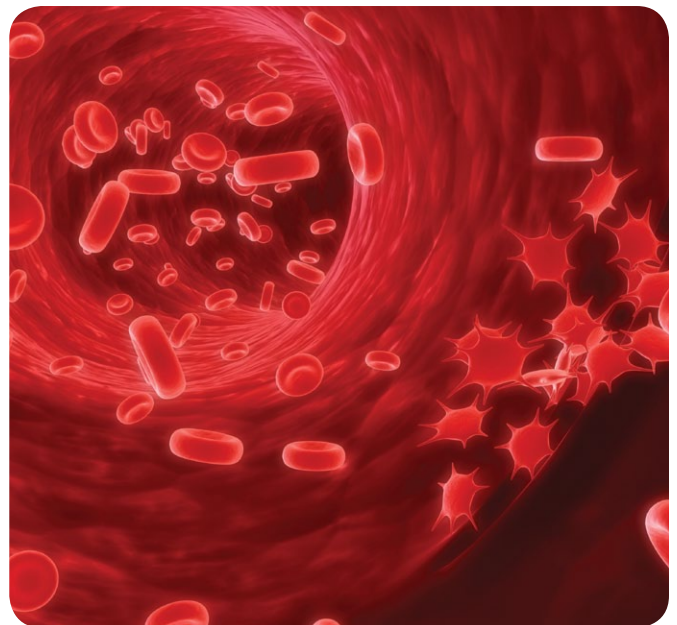
Since impeding dietary fats can also reduce **absorption** of fat-soluble nutrients (including vital **omega-3** fatty acids), you should adjust your supplement regimen to make sure you take these nutrients at a time of the day furthest removed from your last dose of *orlistat* and/or propylmannan. ●

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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THE ULTIMATE TWO-PER-DAY TABLET

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

SAMPLE INGREDIENT COMPARISON	LIFE EXTENSION TWO PER -DAY	CENTRUM*
Vitamin C	500 mg	60 mg
Vitamin D	2,000 IU	400 IU
Vitamin B1	75 mg	1.5 mg
Vitamin B2	50 mg	1.7 mg
Vitamin B6	75 mg	2 mg
Vitamin B12	300 mcg	6 mcg
Niacin (as niacinamide)	50 mg	20 mg
Pantothenic acid	100 mg	10 mg
Vitamin E	200 IU (natural)	30 IU (synthetic)
Natural Folate	400 mcg	400 mcg
Zinc	30 mg	11 mg
Selenium	200 mcg	55 mcg
Lutein	5 mg	(none)*
Lycopene	2 mg	(none)*
Biotin	300 mcg	30 mcg
Boron	3 mg	75 mcg
Chromium	200 mcg	35 mcg
Molybdenum	100 mcg	45 mcg
Magnesium	100 mg	50 mg
Manganese	2 mg	2.3 mg
Iodine	150 mcg	150 mcg
Potassium	25 mg	80 mg
Vitamin A (preformed)	500 IU	1,015 IU
Vitamin A (as beta-carotene)	4,500 IU	2,485 IU
Choline Bitartrate	20 mg	(none)
Inositol	50 mg	(none)
PABA	30 mg	(none)
Calcium	12 mg	200 mg

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

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

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



Item #01515

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

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

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

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

Contains soybeans, rice, and corn.

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

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

To order **Life Extension Two-Per-Day Tablets**,
call 1-800-544-4440 or visit www.LifeExtension.com

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.

alli®

The FDA-Approved WEIGHT-LOSS DRUG

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

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

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



Item #46925



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

WHY YOU SHOULD TRY ORLISTAT FOR 60-90 DAYS

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

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

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

WHERE TO BUY ORLISTAT

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

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

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

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

alli[®] is a registered trademark of GlaxoSmithKline.

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

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

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

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

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

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



Item #01428

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2. *Metab Syndr Relat Disord.* 2005 Summer;3(2):122-9.
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**To order Essential Fat-Soluble Nutrients,
call 1-800-544-4440 or visit www.LifeExtension.com**





BY JULIUS GOEPP, MD

Low Testosterone Promotes Abdominal Obesity in Aging Men

As men age, many become trapped in a vicious cycle that leads to life-threatening abdominal obesity.

No matter how much they exercise or how little they eat, these men are unable to shed this excess weight that accumulates in their belly. Published studies have shown that low testosterone and obesity reinforce each other, trapping men in a spiral of weight gain and hormonal imbalance.¹⁻⁵

In spite of this widespread threat to men's health, most physicians do not test for testosterone levels in their obese male patients. If they did, millions of men could be protected against the scourge of metabolic syndrome, type 2 diabetes, high blood pressure, atherosclerosis, and cancer.

If you happen to be one of these plagued men, please have your testosterone blood levels measured and share the results with your doctor.

This article describes the science linking testosterone insufficiency to weight gain and its deadly cousin, the metabolic syndrome. You'll learn how testosterone determines body composition and fat accumulation. You'll read why experts now recommend testosterone testing for most men of middle age and beyond. And you'll see compelling evidence for the role of testosterone therapy as a means of promoting weight loss. > >

Testosterone Rules

Throughout our lives, sex hormones controls how we look, feel, and even think. Studies in the past few years show that low testosterone levels are strongly correlated with obesity and the metabolic syndrome in men.¹ In fact, there's now compelling evidence that low testosterone levels are not only markers for developing the metabolic syndrome, but that they are likely to be part of the cause.^{2,3}

Those findings have led experts to strongly recommend testosterone blood testing in most older men, and especially those with type 2 diabetes or the metabolic syndrome.^{1,4,5} And many are recommending supplemental testosterone as a way of fending off obesity, insulin resistance, and the other components of the metabolic syndrome.⁶⁻⁸ Let's examine these findings and recommendations carefully, to help men decide if testing and testosterone treatment might be right for them.



Reversing a Longstanding Relationship

It's long been clear that obesity and the metabolic syndrome are linked to low testosterone levels; the question has been which is cause and which is effect.⁹ The traditional view was that obesity came first, and that low testosterone was simply the result. That makes sense, because fat tissue is an extremely active hormonal modulator, particularly for testosterone and estrogen. An enzyme in fat tissue known as *aromatase* converts testosterone into estradiol, the major estrogen in humans. Excess *aromatase* activity decreases testosterone and increases estrogen levels, resulting in a host of deleterious body changes for men.^{10,11} Low serum testosterone concentrations are closely correlated with high body mass index (BMI), along with elevated ratios of body fat to lean mass.^{12,13}

But we're learning that this is only half of the story. Abundant evidence developed over the past few years now shows that, while obesity does cause low testosterone, ***low testosterone causes obesity***. Indeed, low testosterone levels may be among the earliest detectable signs that a man is undergoing the bodily changes that will later become apparent as obesity and the metabolic syndrome.²

An early clue was provided by studies of men undergoing testosterone-lowering androgen deprivation therapies for prostate cancer. Reducing men's testosterone levels decreased insulin sensitivity and increased body fat mass.¹⁴ In one study, more than 50% of men undergoing long-term androgen deprivation therapy developed the metabolic syndrome, manifested in particular by increased abdominal obesity and elevated blood sugar.¹⁵ And men who have lost their testicles to cancer generally develop increased BMI and are at elevated risk for the metabolic syndrome.¹⁶

Conversely, men who receive testosterone replacement therapy for hypogonadism (diminished testosterone production) experience slower progression from metabolic syndrome to diabetes or cardiovascular disease.¹⁷ In those men, testosterone has beneficial effects on insulin regulation, lipid profiles, and blood pressure.¹⁷ And in healthy aging men, higher natural testosterone levels are associated with higher insulin sensitivity and a reduced risk of developing the metabolic syndrome.¹⁸

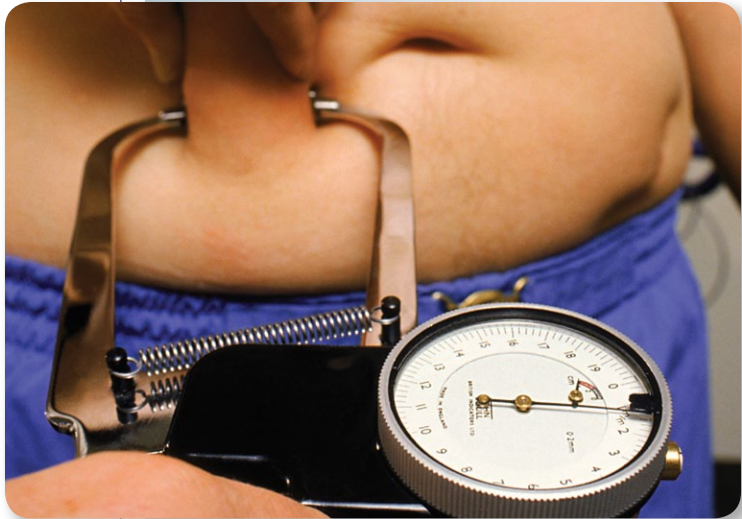
Declining Testosterone Levels— Why We Find It So Hard to Lose Weight

Beginning in middle age, men's testosterone levels begin a steady decline, culminating in the so-called "andropause," a state defined as partial androgen deficiency.^{19,20} On the same time-scale, men begin to gain weight as fat, and to lose lean muscle mass. It's now abundantly clear that these two parallel processes are related—that is, the decline in testosterone levels is a direct cause of middle-aged men's "battle of the bulge."²¹ That's a literal statement: age-associated testosterone decline is closely associated with deposition of deep abdominal fat, a component of the metabolic syndrome.²²

But how does testosterone affect obesity and metabolism? In fact, testosterone, like most hormones, has multiple target tissues, and a correspondingly large and diverse set of effects. We now understand, for example, that testosterone plays a vital role in how our bodies balance glucose, insulin, and fat metabolism.²³ One mechanism is its powerful stimulation of insulin sensitivity in men, which can have a major impact when levels fall.²⁴ In fact, experts now recognize low testosterone levels as an independent risk factor for insulin resistance ("pre-diabetes"), type 2 diabetes itself, and the full-blown metabolic syndrome with all of its consequences.²⁵⁻²⁸

Declining testosterone levels are also closely linked to a steady rise in markers of inflammation such as C-reactive protein (CRP).²⁹ Inflammation plays a critical role in development of obesity and many of its related conditions such as atherosclerosis and cancer. And inflammation is also intimately involved in insulin resistance and type 2 diabetes.²⁹ At the same time, the fat deposited as a result of a testosterone deficiency pumps out increasing levels of inflammatory cytokines. That fuels the cycle of inflammation, insulin resistance, and cardiovascular disease that constitutes the metabolic syndrome.³⁰

Together, these findings demonstrate the intimate relationships between testosterone and a host of chronic conditions. Indeed, current thinking is that many of the typical ailments of older men, such as atherosclerosis, hypertension, diabetes, lower urinary tract symptoms, and erectile dysfunction are not in fact separate and distinct entities.²³ Rather, they are seen as being integrally related through their dependence on testosterone levels. That's a radical shift in the way we should be thinking about men's health!



Testosterone and Obesity

- Obesity causes men's testosterone levels to drop, as aromatase in adipose tissue converts testosterone to estrogen.
- New evidence demonstrates that the opposite is also true: falling testosterone levels predict (and cause) development of obesity and the metabolic syndrome.
- Testosterone has a powerful impact on many features of metabolism, most notably glucose, insulin, and fat regulation.
- The decline in testosterone levels with age may explain why so many men at or beyond middle age have trouble shedding weight even through diet and exercise.
- Experts are now calling for checking testosterone levels regularly as the best early indicator of risk for the metabolic syndrome.
- Careful testosterone replacement therapy has proven effective in reducing body weight, fat content, and insulin resistance.
- All men, not only those already overweight or obese, should have regular testosterone checks.

Testosterone Levels—Early Warning of Impending Disaster

The association of declining testosterone levels with obesity, the metabolic syndrome, and cardiovascular disease is so strong that many experts now recommend checking testosterone levels to provide early warning of the metabolic syndrome.¹

Testosterone deficiency has been found to be a significant and independent risk factor for metabolic syndrome, even in non-obese older men.³¹ It causes not only increased fat mass, but also triggers elevations in fasting insulin levels, a late marker of developing metabolic syndrome.^{7,32}

The association of low testosterone levels with metabolic syndrome is independent of age—that is, even younger men with low testosterone are immediately at increased risk for the syndrome.³³ Somewhat surprisingly, the association is also independent of BMI, pointing to testosterone’s multiple effects on regulation of glucose, insulin, and lipid metabolism.³⁴ It has recently been proposed, in fact, that low testosterone levels be included in the very definition of the metabolic syndrome, because of the consistency with which it occurs.³⁵

There’s a growing body of evidence suggesting that careful testosterone replacement therapy is protective against many features of the metabolic syndrome and can enhance blood sugar control.



There’s an obvious implication here. Subtle deficiencies in testosterone may be present long before obesity and other more obvious manifestations of the metabolic syndrome become evident.³⁴ That makes it vital for all men, not just the overweight or obese, to have testosterone levels checked regularly by a reliable laboratory. Be sure that both **total testosterone** and **free testosterone** are ordered—both have been associated with metabolic syndrome.³⁵

When having your blood tested for total and free testosterone, make sure you also order tests for **PSA** to rule out existing prostate cancer, **estradiol** to determine whether you need to take an aromatase inhibiting drug in case estrogen levels are too high, and a **CBC/chemistry** test to measure liver function and blood cell counts. All of these tests are included in the new **Male Weight Loss Blood Test Panel** described at the end of this article.

Restoring Healthy Testosterone Levels

What should you do if your testosterone level comes back low? There’s a growing body of evidence suggesting that careful testosterone replacement therapy is protective against many features of the metabolic syndrome and can enhance blood sugar control.³⁶ Given early enough, testosterone therapy may slow or even halt the progression from early metabolic syndrome to diabetes or cardiovascular disease.¹⁷ In one study of diabetic men with low testosterone, oral treatment improved their glucose control and decreased their abdominal obesity. A beneficial side effect was reduction in erectile dysfunction.⁶ Other placebo-controlled studies have shown decreases in whole body, total, and subcutaneous abdominal fat mass, accompanied by increases in lean body mass, as a result of testosterone therapy.⁸

Of course it’s important to check and to follow testosterone levels when considering treatment. Achieving testosterone levels within the existing reference ranges may not be sufficient to combat obesity and metabolic syndrome. Some testosterone-dependent biological functions require higher levels than others, and those thresholds differ among men.³⁷

Finally, a word about testosterone therapy and the risk of prostate cancer. For decades we believed (and some still do) that higher serum testosterone concentrations contribute to the risk of prostate cancer. More recently, considerable data have emerged suggesting a more complex picture, and indicating that in fact



testosterone therapy may not be nearly as risky as once assumed.³⁸ In fact, according to Dr. Abraham Morgentaler of Harvard's Beth Israel Deaconess Medical Center, "One of the more interesting changes over the last several years has been the growing acceptance of the use of testosterone therapy in men with a prior history of prostate cancer, with early data indicating minimal risk of cancer recurrence or progression."³⁸ Other experts in the field agree that the risks of testosterone therapy are often exaggerated and should not outweigh the benefits of treatment.²¹

Indeed, Dr. Morgentaler goes on to note, new evidence suggests that it is not high, but low serum testosterone that is responsible for many features of prostate cancer risk.³⁸ Since we now know that low testosterone causes obesity, and we further know that obesity is a risk factor for cancer,^{39,40} there is certainly a logical basis for the idea that low testosterone is indirectly a cancer risk factor.

Summary

Testosterone and body fat content have an intricate and bidirectional relationship. Excess body fat causes low testosterone, but low testosterone also causes excess body fat. Testosterone regulates many facets of energy balance, with an especially powerful impact on glucose, insulin, and fat metabolism. The deadly results of low testosterone therefore exceed simply causing obesity. Low testosterone also dramatically raises men's risk for the metabolic syndrome, a

major health threat for anyone at or beyond middle age. Experts now recommend regular testing for any man at risk for low testosterone, including aging men.¹ If your testosterone levels prove to be low, you should consider testosterone treatment in consultation with a physician.

To order the new **Male Life Extension Weight Loss Blood Test Panel** at the special introductory price of only \$249, call **1-800-208-3444** or log on to www.lef.org.blood. A description of the many important tests included in the **Male Life Extension Weight Loss Blood Test Panel** can be found on page 80 of this issue. ●

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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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.

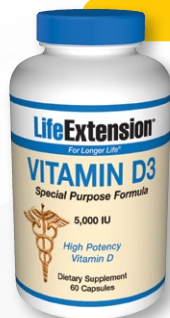
The good news for consumers is that vitamin D is a very **low cost** supplement.

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.

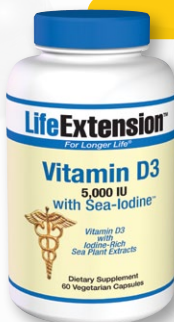
Vitamin D3 5,000 IU • 60 capsules



Retail: \$11
Four bottle Member Price: \$7.43

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**
Please refer to website for allergen information.

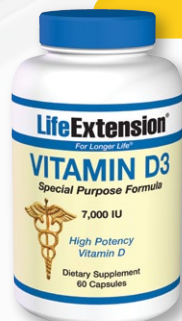
Vitamin D3 5,000 IU with Sea-Iodine*



60 vegetarian capsules
Retail: \$14
Four bottle Member Price: \$9.38

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 mcg** of **iodine** into one capsule makes taking these two nutrients economical and convenient. **Item# 01372**
Please refer to website for allergen information.

Vitamin D3 7,000 IU • 60 capsules



Retail: \$14
Four bottle Member Price: \$9.45

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**
Please refer to website for allergen information.

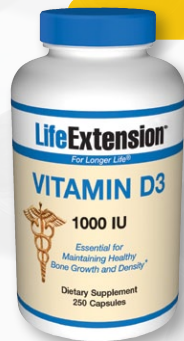
Vitamin D3 Liquid Emulsion 2,000 IU • 1 ounce



Retail: \$28
Four bottle Member Price: \$18.75

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**

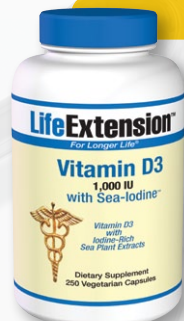
Vitamin D3 1,000 IU • 250 capsules



Retail: \$12.50
Four bottle Member Price: \$8.44

Commercial companies offered only **400 IU** vitamin D products when Life Extension long ago introduced this **1,000 IU** version. For most people, this **1,000 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**
Please refer to website for allergen information.

Vitamin D3 1,000 IU with Sea-Iodine*



250 vegetarian capsules
Retail: \$22
Four bottle Member Price: \$15

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**
Please refer to website for allergen information.

To order any of these high-potency vitamin D3 supplements, 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.

* If you have a **thyroid condition** or are taking **antithyroid medications**, do not use without consulting your healthcare practitioner.



Does Your Pharmacy Care if You Live or Die?

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

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

Our Independent Thinking

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

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

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

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

Tailored Services

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

Simvastatin 40-mg (90 Tablets)

CVS Price \$154.99	Life Extension Rx Price \$21.23*	% Saved 86%
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Glyburide 5-mg (90 Tablets)

CVS Price \$33.59	Life Extension Rx Price \$13.06*	% Saved 61%
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* Prices as of August 15, 2010. Prices subject to change.

Saving Your Money & Your Health

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

**Super Low Prices
on Compounded Prescription Drugs**

LifeExtensionRx™
The right prescription for savings

Call 1-877-877-9700
today to fill a new prescription or
to transfer an existing one.

To find out how you may benefit by transferring your prescriptions, call **1-877-877-9700**.

Life Extension Pharmacy, Inc. is a licensed pharmacy based in Fort Lauderdale, FL. A portion of prescription proceeds goes to the Life Extension Foundation, a nonprofit organization.

**SUPPORTS HEALTHY
TESTOSTERONE LEVELS—NATURALLY
WITH STANDARDIZED LIGNANS**



SUPER MIRAFORTE

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

If you're over 40, odds are you're already starting to feel the debilitating effects of low testosterone. Research shows that by the time they are 60 years old, men typically produce **60% less** testosterone than they did at age 20.¹ With this drastic reduction comes several well-documented problems—from the blues and cognitive impairment to reduced sex drive and abdominal weight gain. Normal testosterone has been associated with maintaining a healthy cardiovascular system.²

RESTORING HEALTH AND SEXUAL VIGOR

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

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

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

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

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



Item #01315

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

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

Bioperine® is a registered trademark of Sabinsa Corp.
HMRlignan™ is a trademark used under sublicense from Linnea SA.

**To order Super MiraForte with
Standardized Lignans, call 1-800-544-4440
or visit www.LifeExtension.com**

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.

Super Ubiquinol CoQ10 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

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

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}

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

The retail price for 100 50-mg softgels of **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** is **\$58**. If a member buys four bottles, the price is reduced to **\$39.75** per bottle. **Item #01425**

The retail price for 30 200-mg softgels of **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™** is **\$62**. If a member buys four bottles, the price is just reduced to **\$42** per bottle. **Item #01431**



Item #01426



Item #01425



Item #01431

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

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.

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 a standardized extract providing a 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®	120 mg
Epimedium sagittatum Extract (aerial parts) [providing 60 mg icariin]	

A 60-tablet bottle of **Life Extension® Prelox® Natural Sex for Men**® retails for \$50. If a member buys four bottles, the price is reduced to just **\$33.75 per bottle**. Contains corn.

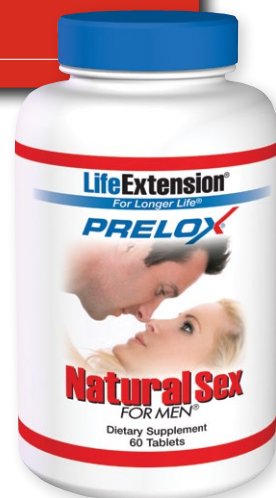
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CAUTION: If you have significant liver disease, please consult with your healthcare practitioner before using this product.

Prelox® and Pycnogenol® are registered trademarks of Horphag Research Ltd. Prelox® is protected by U.S. patent #6,565,851B2. Pycnogenol® is protected by U.S. patents #5,720,956 and #6,372,266 and other international patents. Cannot be sold outside the USA.

To order Prelox® Natural Sex For Men®, call 1-800-544-4440 or visit www.LifeExtension.com



Item# 01373

Why Do “Magic Bullet” WEIGHT LOSS Efforts Ultimately Fail?

As we age, our bodies are programmed to accumulate excess body fat. There is no single cause. On the contrary, multiple **obesity factors** predispose us to this age-induced weight gain.

The encouraging news is that *proven* methods exist to correct these obesity-inducers. You will not find them, however, in a single pill.

For example, drugs that block dietary **fat absorption** are approved by the FDA to facilitate weight loss. Using this fat-blocking method alone will not meet the expectations of most overweight individuals. One reason is that excess **carbohydrate absorption** will lead to the same **fat accumulation** as does overconsumption of **dietary fats**.

On the flip side, drugs or nutrients that block the rate of **carbohydrate absorption** may not induce profound weight loss if too many **dietary fats** wind up in the bloodstream.

People fail to accept that as they grow older, they lack the **metabolic capacity** to efficiently *convert* ingested calories into energy. These metabolic deficits are increasingly being referred to as “postprandial disorders.” The term *postprandial* means **after-meal** and the disorders they refer to are too many **fats** and **sugars** remaining in the bloodstream long after meals are eaten. Overweight individuals today suffer chronically high blood levels of fat remnants and glucose that may frustrate the best laid-out weight-loss program.

One might think that by merely eating less, blood fat (triglycerides) and sugar (glucose) levels will drop low enough to prompt weight reduction. The sad fact is that many overweight individuals are so severely compromised on a metabolic and hormonal basis that sustained fat loss *cannot* be achieved unless **corrective actions** are first taken. An imbalance of leptin, insulin, thyroid, and/or sex steroid hormones, for example, may inhibit the desired release of stored body fat, even in response to calorie restriction.

As we age, there is a progressive and extensive decline in *resting energy expenditure*. This reduction in **basal metabolic rate** is another reason that people accumulate more body fat even though they may be eating less than they used to. In fact, your body’s basal metabolic rate decreases by about 2% per decade after age 40. For a man age 40 years who weighs 156 pounds, this means that during the year following his 50th birthday, he is predisposed to gain an extra **3.5 pounds of body fat** from the age-related reduction in metabolic rate *alone!*¹ Metabolic enhancers by themselves, however, are not enough to compensate for the *other* obesity-inducers plaguing aging adults.

NINE PILLARS OF SUCCESSFUL WEIGHT LOSS

When it comes to *weight loss*, mainstream medicine has recommended “diet and exercise” for so long that this phrase has become more of a cliché than any kind of momentous discovery. The science you will read next reveals why aging people need to do a lot more than reduce calorie intake and increase physical activity if they are going to lose and keep off excess body fat.

The **Life Extension® Weight Loss Guide** is the first book to uncover all age-related obesity factors and provide practical solutions to correct them. The following **Nine Pillars to Successful Weight Loss** comprises a portion of the comprehensive program revealed in the **Life Extension® Weight Loss Guide**:

1 PILLAR NUMBER 1: RESTORE INSULIN SENSITIVITY

Aging causes our muscle cells to become resistant to **insulin**. The result is that insulin is less *efficient* at helping the cells in our muscles and liver to store glucose, with the result being **chronically elevated blood glucose levels that convert to body fat**. The **Life Extension® Weight Loss Guide** outlines an all-inclusive program to re-establish youthful *insulin sensitivity*.

2 PILLAR NUMBER 2: RESTORE ADIPOCYTE (FAT-CELL) SIGNALING

Adipocytes are fat cells, and the adipocyte is the primary site for fat storage. Adipocytes of obese individuals are bloated with *triglycerides*—the form that most fat exists in the body. Fat storage and release is tightly regulated by adipocyte **command signals**. The **Life Extension® Weight Loss Guide** will teach you how to harness adipose *command signals* (such as **leptin**, **adiponectin** and **glycerol-3-phosphate dehydrogenase**) that are crucial for aging individuals to achieve youthful cell signaling so critical for fat metabolism.

3 PILLAR NUMBER 3: ACHIEVE YOUTHFUL HORMONE BALANCE

The high failure rate of dieting is partially attributable to the alteration in *hormone* levels that occurs as part of normal aging. For instance, a large percentage of men today suffer from abdominal obesity—the most dangerous kind of body fat. It is often difficult, if not impossible, for aging men to lose inches off their waistline if they are deficient in *free testosterone*. Women likewise suffer hormone imbalances that preclude fat reduction. The **Life Extension® Weight Loss Guide** provides a complete program to help restore all hormones involved in metabolism and body fat deposition to youthful ranges.

4 PILLAR NUMBER 4: CONTROL RATE OF CARBOHYDRATE ABSORPTION

When excessive amounts of dietary carbohydrate are absorbed into the bloodstream, a **surge** in blood glucose results. Too much glucose causes *excessive* increases in insulin. This **surplus** insulin is associated with *rebound hunger* as blood glucose levels fall too low in response to insulin overload. Excess insulin also **interferes** with the release of body fat stores. The **Life Extension® Weight Loss Guide** recommends specific nutrients and approved

medications that when taken before meals dramatically reduce the surge of glucose into the bloodstream from excess amounts of dietary carbohydrate.

5 PILLAR NUMBER 5: BALANCE BRAIN SEROTONIN LEVELS

When the brain has balanced levels of the hormone **serotonin**, satiety normally occurs. A serotonin *deficiency* has been associated with the **carbohydrate binging** that contributes to the accumulation of excess body fat. The **Life Extension® Weight Loss Guide** provides natural methods to balance brain serotonin as well as other *satiety-enhancing factors* in the brain.

6 PILLAR NUMBER 6: RESTORE RESTING ENERGY EXPENDITURE RATE

It is often challenging for aging humans to lose significant body fat stores even when following a low-calorie diet. Long-term weight loss requires increasing *resting energy expenditure*, and the **Life Extension® Weight Loss Guide** outlines *non-stimulating* methods to safely accomplish this.

7 PILLAR NUMBER 7: INHIBITING LIPASE AND BINDING BILE ACIDS

Dietary fats are broken down for absorption into your bloodstream by the bile acids released by the liver into the small intestine and the enzyme *lipase*. Inhibiting *lipase* and binding bile acids results in fewer fat calories being absorbed and thus reduces the amount of fat stored in your adipocytes (fat cells). The **Life Extension® Weight Loss Guide** reveals nutrients and drugs that inhibit lipase and bind to bile in order to reduce the amount of fat absorbed from ingested calories.

8 PILLAR NUMBER 8: INCREASE PHYSICAL ACTIVITY

In addition to using up stored fat calories, exercise induces beneficial changes at the cellular level that contribute to weight control. It improves insulin sensitivity and mimics the effects of certain anti-diabetic drugs which can have a favorable impact on fat distribution.

Reference:

1. <http://www.fao.org/docrep/003/AA040E/AA040E06.htm>

9 PILLAR NUMBER 9: EAT TO LIVE A LONG & HEALTHY LIFE

Aging individuals have the choice of ingesting foods that are known to promote weight gain (and cause horrendous diseases) or selecting healthier foods that facilitate weight loss. The **Life Extension® Weight Loss Guide** reveals little known scientific facts that can easily enable you to alter your diet. For instance, the ingestion of foods cooked at high temperatures (over 250 degrees Fahrenheit) **accelerates the aging process** while foods cooked at lower temperatures have been shown to facilitate weight loss. So just changing how your foods are prepared could help you shed body fat and, at the same time, protect against age-related disease.

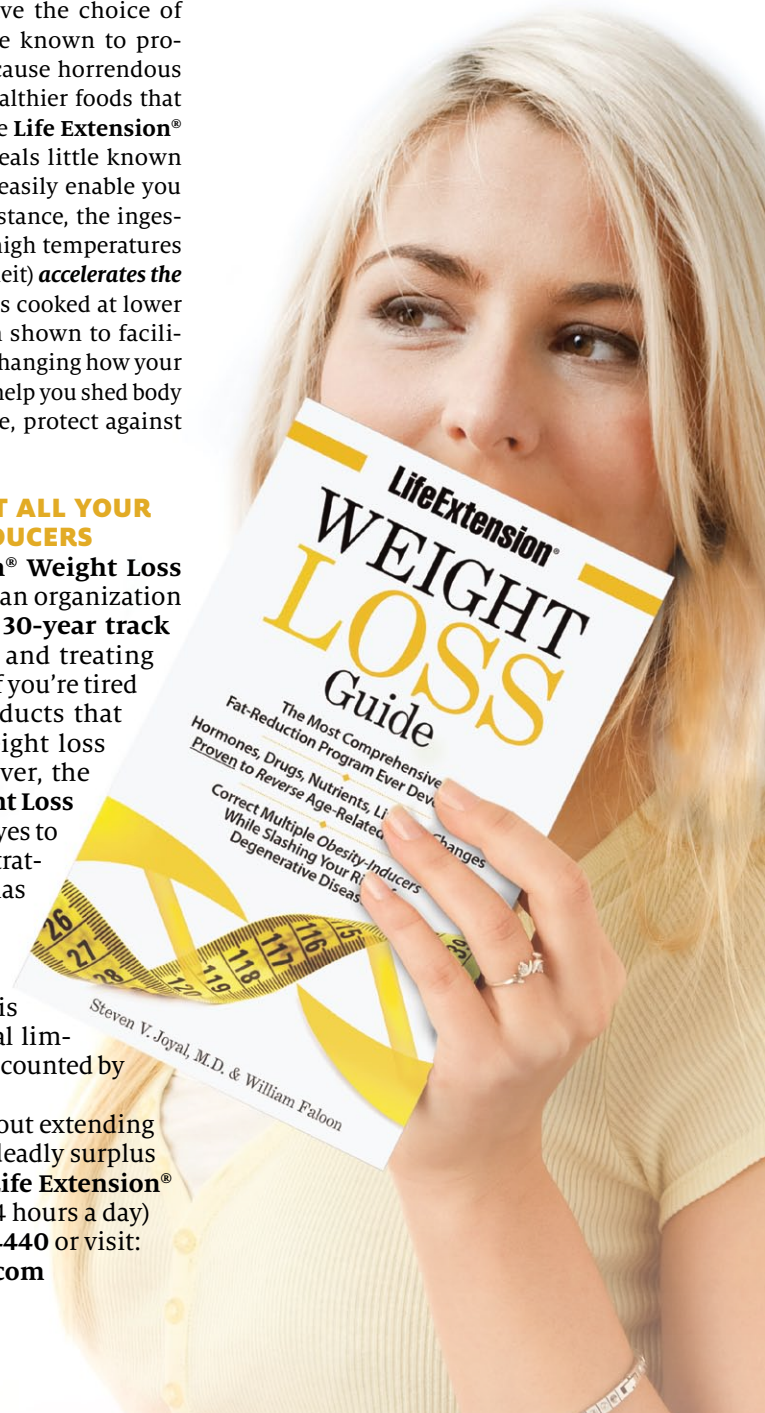
HOW TO COMBAT ALL YOUR OBESITY-INDUCERS

The **Life Extension® Weight Loss Guide** is published by an organization with an unparalleled **30-year track record** of preventing and treating the diseases of aging. If you're tired of seeing ads for products that claim miraculous weight loss effects that don't deliver, the **Life Extension® Weight Loss Guide** will open your eyes to scientific weight loss strategies that no one else has ever tied together.

The cover price of the **Life Extension® Weight Loss Guide** is \$29.95, but as a special limited offer, it is being discounted by **70%** to only **\$8.99**.

If you are serious about extending your life by shedding deadly surplus fat pounds, order the **Life Extension® Weight Loss Guide** (24 hours a day) by calling **1-800-544-4440** or visit: www.LifeExtension.com

LifeExtension®
For Longer Life®



To order the **Life Extension® Weight Loss Guide** today for only **\$8.99**
call **1-800-544-4440** (24 hours)

To order by mail, send a check for \$11.99 (includes \$3.00 shipping and handling) to:
Life Extension, 1100 West Commercial Blvd., Fort Lauderdale, FL 33309

ENHANCED

ULTRA NATURAL PROSTATE FORMULA

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

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

Included in the formula is a standardized European pumpkin seed oil extract rich in **delta-7 sterols** and **fatty acids** to support a healthy prostate.¹ A supercritical CO₂ extraction technology supplies optimal amounts of these key phytonutrients to *complement* the fatty acid composition of saw palmetto. It is sourced from a unique variety of pumpkin cultivated specifically to yield **higher ratios** of these compounds than pumpkins grown for commercial use.

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

- **Saw palmetto extract.** A number of normal biological events in aging men affect the prostate gland. Saw palmetto has been shown to interfere with DHT activity in the prostate, inhibit alpha-adrenergic receptor activity (to support normal urinary flow), and help control inflammatory actions in the prostate gland.²⁻⁴ A novel DeepExtract™ extraction technology ensures the most desirable and complete profile of saw palmetto available.
- **HMRlignan™** Norway spruce and **ActiFlax™** flax lignan extracts. Standardized *lignans* from Norway spruce and flax seeds convert to **enterolactone** that is then absorbed into the bloodstream where it provides significant biological effects. **Enterolactone** has demonstrated anti-estrogen and anti-DHT effects that are of particular importance for the aging prostate gland.⁵⁻⁷
- **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.⁸⁻¹⁰



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

Now with More Potent Saw Palmetto and Pumpkin Seed Oil Extracts

- **Nettle root extract** (*Urtica dioica*). Testosterone converts to estrogen at higher rates as men age. Prostate cells are sensitive to estrogen's growth stimulatory effects. Nettle root helps support prostate cells against excess estrogen levels.¹¹
- **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 also 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.¹⁴⁻¹⁷
- **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.^{18,19}
- **Lycopene**. This carotenoid, associated with the tomato's red color, helps maintain healthy DNA gene function in prostate cells.²⁰⁻²⁴

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

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

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

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



Item #01495

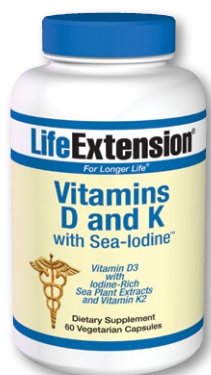
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**To order
Ultra Natural Prostate Formula,
call 1-800-544-4440 or
visit www.LifeExtension.com**

Two Critical Fat-Soluble Nutrients Deficient in Food Sources



Item #01472

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

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

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

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

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

Vitamins D and K with Sea-Iodine™

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

To order the new **Vitamins D and K with Sea-Iodine™**, call 1-800-544-4440 or visit www.LifeExtension.com

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

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

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

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

Contains rice and corn. Due to the source of the kelp, this product may contain fish and crustacean shellfish. For product cautions visit www.LifeExtension.com

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REDUCE YOUR CALORIE INTAKE
WITHOUT GOING HUNGRY!

Natural APPETITE CONTROL

A plant extract discovered in Europe has been found to suppress appetite without stimulatory effects. Extracted from the nuts of the Korean pine (*Pinus koraiensis*), **pinolenic acid** stimulates the release of two of the body's most powerful hunger-suppressing hormones: CCK (cholecystokinin) and GLP-1 (glucagon-like peptide-1).¹ This sends a feeling of satiety or "fullness" to the brain, decreasing the desire to eat and helping to control excessive calorie intake.*

Life Extension's **Natural Appetite Control** formula was developed for adults seeking to lower their calorie intake and maintain a successful, long-term weight management program. Each softgel of **Natural Appetite Control** provides 1000 mg of a standardized extract of Korean pine nuts containing the highest concentration of pinolenic acid found in any pine nut species.

The recommended daily dose of this all-natural, vegetable-based formula is three softgels taken 30-60 minutes before the meal with the highest caloric content. To reduce snacking, three softgels may be taken between meals.

The best time to take this product may be in the evening, to reduce food intake before bedtime.

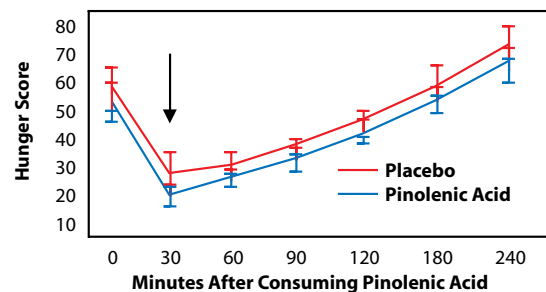
A bottle of 90 softgels of **Natural Appetite Control** retails for \$28. If a member orders four bottles, the price is reduced to **\$18.90** per bottle.



Item # 00891



Hunger Score: Desire to Eat Is Less
30 Minutes After Consuming Pinolenic Acid



References

1. American Chemical Society National Meeting & Exposition, Atlanta, GA, March 26-30, 2006.

Natural Appetite Control should be used in conjunction with a healthy diet and exercise program. Results may vary.
Contains soybeans and tree nuts (pine).

To order Natural Appetite Control, 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.



Critical Need to **Control Fasting and After-Meal Glucose Levels**

We at **Life Extension**[®] have a unique mission. We strive to keep our members alive and in good health for an indefinite time period.

Enough data has accumulated over the past decade for us to make a firm recommendation that all Life Extension[®] members take aggressive steps to suppress their **fasting glucose** levels to around **80** (mg/dL) of blood.

This suggestion is not new, as we long ago published findings from scientific studies revealing that mainstream medicine was accepting dangerously **high** levels of **fasting glucose** as being “normal.”

What is different now are compelling arguments from an organization called **Living the CR Way** stating that keeping tight control over glucose not only protects against common diseases, but also favorably influences **genes** that control our rate of aging.

So far in this issue of **Life Extension Magazine**[®], you have learned about nutritional and pharmaceutical approaches that have been shown to suppress blood glucose levels. These include a new **Calorie Control Weight Management** nutrient powder that should be taken before the two largest meals of the day.

This article describes the scientific rationale for keeping **fasting glucose** levels at around **80** mg/dL (or lower) and **postprandial (after meal) glucose** levels that increase no more than **40** mg/dL before dropping back to fasting ranges in the **80s**.

The section after describes how you can adopt a lower calorie diet that can be followed for a lifetime to achieve optimal glucose control. > >



Lethal Consequences of Excess Glucose

Blood glucose levels play a crucial role in determining how long you will live. High blood glucose, either fasting or postprandial (after the meal) is a risk factor for diabetes, heart disease, cancer, and Alzheimer's disease as well as increased mortality. In fact, high glucose levels are such a threat to public health that San Francisco has declared a "Soda-free Summer"—realizing that sugar-loaded sodas fuel glucose levels, helping to cause the diabetes epidemic that plagues the city. Other areas of the country are considering similar measures.

The dangers of high glucose are so strongly supported by research findings that the International Diabetes Federation has issued a warning to non-diabetics that postprandial (after meal) glucose above 140 mg/dL is a significant risk factor¹ for many diseases including:

- Damage to the retina
- Increased intima-media thickness of the carotid artery
- Oxidative stress
- Increased inflammation
- Endothelial dysfunction
- Decreased myocardial blood flow
- Increased cancer risk

The **Living The CR Way** program recommends keeping a tight rein on postprandial glucose—aiming to keep meals from raising blood glucose more than 40 mg/dL. This often results in postprandial blood glucose of 120 mg/dL or less.

Keeping Glucose Low Essential for Optimal Health

If high glucose is a risk factor, could keeping glucose low provide benefits? Yes! Keeping glucose low is important for everyone who cares about their health. It is also a cornerstone of calorie restriction—now proven to produce profound benefits in humans.²⁻⁶ Glucose is the preferred fuel for cellular metabolism, but when calories are limited by a healthful and nutrient-dense diet whose components have low GI (glycemic index) rankings, glucose levels fall as blood sugar is used up quickly for the body's countless processes. Indeed, the fasting glucose levels of the cohort of serious, long-term calorie restrictors participating in the studies at Washington University Medical School were well-controlled between 74 and 88 mg/dL.⁷

Calorie restrictors should aim for fasting glucose levels in the 80s or below.⁸ When glucose falls into the 80s or below, profound physiological changes take place. The body shifts gears—burning fat and protein

for energy. A beneficial regulator controlling this metabolic switch is AMPK (AMP-activated protein kinase), an enzyme that regulates glucose and lipid metabolism. Its actions include facilitation of glucose transport into muscle cells, protection against ischemic heart disease, and decreasing the liver's production of glucose, cholesterol, and triglycerides. AMPK also powers the beneficial actions of the popular diabetes drug, metformin.⁹

When a cell's energy state diminishes, AMPK becomes active¹⁰ and works in concert with the fuel-sensing gene, SIRT,¹¹ which plays a role in the longevity and related benefits of calorie restriction, including reduced inflammation and better mitochondrial function.

"Keeping glucose low enough to activate the beneficial effects of CR is important for everyone, whether they consider themselves calorie-restricted or not," says Paul McGlothlin,¹² Vice President for Research of the CR Society Intl. and co-author of *The CR Way* book that many Life Extension members already have.

Activation of AMPK and its partner SIRT1 causes the fat-forming genetic complex PPAR-gamma (peroxisome proliferator-activated receptor-gamma) to be blocked,¹³ and the body to shift from fat storage to fat burning.

This is great news for anyone who wants to lose weight: the pounds burn away quickly when the fat-forming genes have been blocked. This also benefits cardiovascular health: fat that otherwise might end up as artery plaque is simply burned for fuel.

The next article describes aggressive ways to implement a personal calorie restriction program. ●

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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Calorie Restriction Can Be Easy!

Making the World's Most Healthful Diet User-friendly

BY PAUL MCGLOTHIN AND MEREDITH AVERILL

Life Extension Magazine® often includes articles about calorie restriction (CR) and with good reason: LEF members want to know more when they learn that CR might help them live longer and protect against the chronic diseases that kill or reduce the quality of life for too many people—cancer, diabetes, and heart and Alzheimer's disease.

But what is calorie restriction really? Media descriptions vary. One famous reporter declared that to be calorie-restricted people must limit calories by 20% to 40% and remain thin for life—thus concluding that CR would be too difficult for most people. In reality, human CR is very different from the low-calorie regimens imposed on laboratory animals, on which many media stories are based. Humans have choices. We are free to adopt a CR regimen that works for our lives and temperaments. While some may limit calories by 20% or 30%, others may choose to just dip their toes in with a 5% reduction to get some benefits.¹

Still, many people are unable to stick to a CR diet or, for that matter, any diet. Emotional challenges get in the way. Consider this scenario:

It's the middle of the night and feelings of hunger awaken you. How will you handle it? Without thinking, many people simply eat something and try to go back to sleep. Yet, you want to lose a few pounds: Only a couple of days ago, you made a resolution to go on a diet. You promised yourself that this time you would stick with it. And you've been doing fairly well.

So you try to go back to sleep, but your mind wanders until you begin to focus on that delicious piece of chocolate layer cake in the refrigerator. Chocolate is one of your favorite flavors. You picture thick, rich, moist devil's food, layered with chocolate frosting, sprinkled with generous bits of chocolate for bites of intense flavor. *It would taste so good.* Then you begin to think: *Life was hard this week and I deserve a reward for all I had to put up with. The cake will make me feel better.*

So you find yourself getting out of bed, going to the refrigerator, taking the cake and putting it on a plate. You eagerly anticipate the sensual pleasure of choco-

late. You warm some milk and sit in your favorite chair, slowly savoring each bite, feeling a glow of satisfaction while saying to yourself, *One time won't matter: I'll lose the extra calories with exercise later today.* But you don't. In a few days you have worked your way back to your old eating habits and have actually gained a pound or two.

Does this sound familiar?

Millions of people start diets only to find that after a few days, they can't continue with them, even if they have serious health issues from being overweight.

Why are they so easily tempted by cake and other comfort foods that entice them away from their diet? Do they have less will power than others? Science says *no*. Research shows that anxiety and stress activate internal biochemistry that results in food cravings,^{2,3} ultimately making people turn to food for comfort—whether they are hungry or not.

But what if you could gain control of the areas of the brain that regulate your feelings—replacing negative, self-limiting thoughts with positive ones? This is the revolutionary approach of *The CR Way to Happy Dieting*, a way of eating and living that empowers users with happiness biochemistry. This makes dieting easy and fun. Rather than focusing on how many calories to cut, *The CR Way to Happy Dieting* starts with emotional health by encouraging use of a “Happiness Gauge” to evaluate how you feel most of the time.

Then users begin a unique, scientifically validated approach to increasing happiness by following six easy “Steps to Happiness.” Meal plans are specially formulated to help people increase critical mood modulators, proven to control eating habits. As users implement the meal plans, they are encouraged to revisit the happiness gauge, continuing to work on the steps until their self evaluation is positive and optimistic.

The meal plans are laden with delicious recipes and food combinations that help users customize their own CR Way plan. For those who don't have time to fix food, the “CR Way to Fast Foods” meal plan presents only dishes that can be prepared in five minutes or less.

Serotonin for Dietary Control

The first step to increasing happiness biochemistry focuses on serotonin, a neurotransmitter that works within the *arcuate nucleus* of the brain's hypothalamus to regulate food intake.

Understanding how food choices can increase serotonin may make the difference between dietary success and failure because serotonin generates signals that control mood, appetite, and satiety. In cases like the dieter described on the previous page who gives in to a tempting piece of chocolate cake, serotonin levels may determine whether the cake will be eaten or easily forgotten.

Low levels of serotonin are linked to eating disorders and depression. Higher serotonin levels help us resist foods we don't need, even when delicious temptations are readily available. Serious serotonin-signaling malfunction can drive people to anorexia or obesity.

Serotonin is inextricably linked to brain levels of its amino acid precursor, tryptophan. Knowing this motivates many health-conscious individuals who want increased serotonin levels to eat turkey, milk, or other foods that are high in tryptophan. Yet high protein-rich foods do not facilitate tryptophan's absorption into the brain where it increases serotonin levels because competing amino acids in foods like turkey and dairy products block tryptophan absorption. John D. Fernstrom and Richard Wurtman explain in their milestone study at MIT.

When even larger elevations of plasma tryptophan are produced by the ingestion of protein-containing diets, **brain tryptophan and serotonin do not change**. The main determinant of brain tryptophan and serotonin concentrations does not appear to be plasma tryptophan alone, but the ratio of this amino acid to other plasma neutral amino acids (that is, tyrosine, phenylalanine, leucine, isoleucine, and valine) that compete with it for uptake into the brain.⁴

The consumption of carbohydrates, on the other hand, causes brain tryptophan to rise. The reason is that the high amount of insulin released in response to carbohydrate ingestion accelerates the serum removal of valine, leucine, and isoleucine that compete against tryptophan for transport into the brain.^{5,6} In fact, high carbohydrate meals that provoke serotonin increase are unmistakable: The relaxation and sense of calm that follow are quite noticeable.

Healthy serotonin levels are so important to dietary success that *The CR Way to Happy Dieting* includes a filmed demonstration of how to prepare an easy serotonin-provoking recipe. Appropriately named

Calorie Restriction Made Easy

- Restricting calorie intake while maintaining good nutritional status is the best-documented method to prevent disease and lengthen healthy life span.
- Unfortunately, calorie restriction (CR) is difficult for many individuals to successfully implement.
- Now, Paul McGlothlin and Meredith Averill, co-authors of *The CR Way*, have introduced a new program to help individuals successfully and easily reap the life-enhancing benefits of CR.
- Keeping fasting blood glucose levels at or below 80 mg/dL is crucial to protect against common diseases and favorably influence the expression of aging-related genes.



“Relaxation Soup,” it takes less than two minutes to fix. The recipe includes an option to further increase the relaxation effect, depending upon how you feel and how you like to enjoy your soup.

This filmed demonstration introduces the recipe section where *The CR Way* recipes are listed according to their serotonin effect. Recipes, as well as daily meal plans designed to increase serotonin levels, are provided.

Neuropeptide Y: Opposite of Serotonin?

Neuropeptide Y (NPY) is another major regulator of dietary intake. It stimulates appetite while serotonin helps you stop eating by letting you know that you are getting full. When people eat meals that are high in sugar and fat—often in response to stress, NPY secretion increases.⁷ It also sends powerful signals that increase food consumption. So sugary and high-fat foods, which stimulate NPY, perpetuate a cycle of desire that motivates eating more and more.



Neuropeptide Y also initiates the formation of new fat cells in the abdomen. Research shows that increasing fat accumulation in this area elevates risk for heart disease, diabetes, and cancer. In a study at Georgetown University Medical Center, mice actually developed potbellies from increased NPY stimulation.⁸

Neuropeptide Y can be controlled in part by healthful food selections, and *The CR Way to Happy Dieting* can help. The recipe section includes nutritious recipes that contain healthful amounts of fat and sugar, found in foods naturally. But the meal plans go much further: By increasing serotonin they help protect the dieter from bouts of stress—reducing the desire to reach for sweets for comfort.

Dietary Control from the Command Center

To provide further help for dealing with stressful situations, the sixth “Step to Happiness” activates the brain’s frontal cortex. This part of the brain issues the executive orders that organize eating behaviors. Here the left prefrontal cortex is a key player. A recent study shows that when this area is activated, dietary restraint (a research term for controlling what you eat) is easier.⁹

Out of this knowledge the important Happiness Step 6 evolved, “Centering Meditation.” This section features a live podcast, which we encourage dieters to listen to and practice for ten to fifteen minutes every day. The “Centering Meditation” was influenced by centuries-old Tibetan meditation traditions that research has shown to be highly effective in activating the left prefrontal cortex.¹⁰

Activation of the left prefrontal cortex is associated with optimism while activation of the right prefrontal cortex coincides with depression. The need to help users master this important step to dietary control mandated that *The CR Way to Happy Dieting* be a multimedia presentation that includes videos and podcasts. For example, soft, reassuring music accompanies the guided “Centering Meditation” to facilitate entering a relaxed, contemplative state.

Certainly, life’s challenges tempt us to seek comfort from food. And if the food and the amount are healthful, that is okay. If you understand how to eat and live to increase your emotional well-being, you will lose weight if you need to and you will keep it off. Most important, your life will be happier, healthier, and more productive.

Take the Guesswork Out of Your Diet

We are known worldwide for our extraordinary health, achieved by following *The CR Way*. We attribute much of what we have accomplished to tracking our dietary intake with NutriBase software, the most accurate and full-featured nutrition and fitness software we've found. It is widely used by people who want precision and accuracy—including professionals in the business of health and fitness.

We originally became aware of NutriBase when we needed software to use for the CR Society's "Effects of CR on Humans" pilot study that preceded the "Long-term Effects of CR on Humans" studies¹¹ at Washington University in Saint Louis School of Medicine. Out of all its competitors NutriBase was chosen to be used in the pilot study. Since then we have worked with NutriBase to create the NutriBase CR Way Edition. This groundbreaking software downloads to a home computer, giving dieters tools to immediately take control of their health.

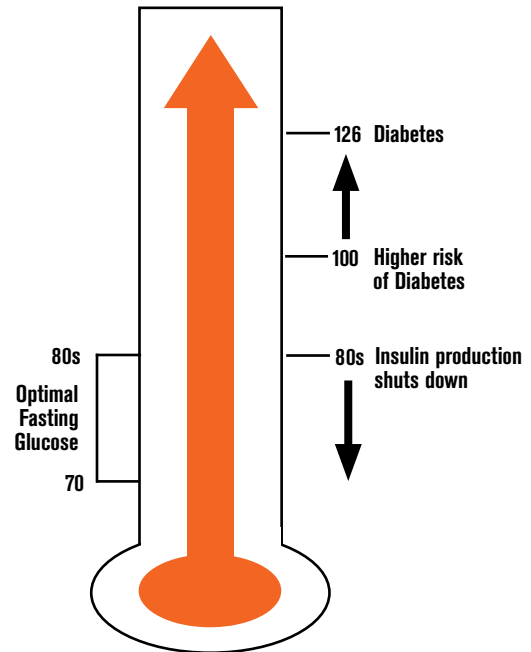
If you need to lose weight, you can enter your weight-loss goals into the NutriBase CR Way Edition and it will calculate a healthful number of pounds to lose each week, along with the appropriate calorie intake to achieve your goal. The software comes loaded with meal plans that improve mood, empowering you to leave unhealthful comfort foods behind.

The NutriBase CR Way Edition's extensive tracking capabilities eliminate guesswork that leads to unhealthful outcomes. It makes tracking easy—weight as well as calorie and nutrient intake, including fatty acids and phytochemicals. You can also track exercise, glucose levels, heart health, and even mood.

Glucose Control for Longevity

The unparalleled glucose-tracking capabilities of the software were included especially for those who hope to activate energy-sensitive longevity genes. Glucose is such an important fuel for cellular energy production that when fasting levels fall to the 80 mg/dL range (normal reference range: 60-99 mg/dL) or below, cells switch from energy storage mode to energy production. The switch includes a shift from production of insulin, the hormone of plenty, with cellular uptake of glucose, to production of glucagon, the energy-stabilizing hormone. Along with glucagon, other energy-producing biochemistry is activated, including cell signals that are at the root of calorie restriction benefits.¹²⁻¹⁴ So just by using a glucometer and tracking how high glucose rises after meals, LEF members can get a sense of how well their age-slowng systems are working!

AGING ACCELERATES



Glucose Levels (mg/dL) - Aging Indicator

Excerpted from Paul McGlothlin and Meredith Averill. *The CR Way: Using the Secrets of Calorie Restriction for a Longer, Healthier Life*, New York, NY: HarperCollins; 2008 and *GlucoseTracking*, Food Log, **NutriBase CR Way Edition** software, <http://tinyurl.com/NutriBaseCRWayEditionSoftware>.



By using a glucometer to test the glucose effects of their foods and meals, users fine tune their choices to keep glucose levels low.

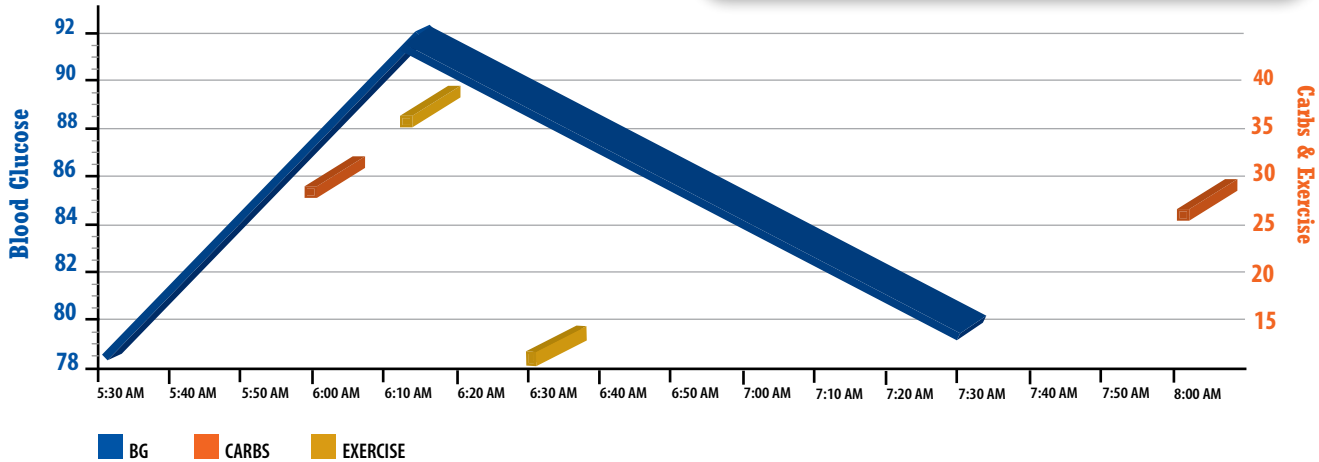
Time-stamping glucose measurements, as well as carbohydrate intake and exercise, is another helpful capability of the software. This feature allows accurate charting of dietary intake and exercise effects on

blood glucose levels, giving users deep insights into their glucose status and perhaps the real effectiveness of their age-slowng regimen. This slide, taken from a presentation by *The CR Way* co-author Paul McGlothlin,¹⁵ illustrates the software's precise tracking capabilities:



TUESDAY, JANUARY 26, 2010

- 5:30 AM 78 mg/dL
- 6:00 AM Tease, Carbs: 31 g (Sugar 5 g; Fiber 4 g), CPF: 63-11-26
- 6:15 AM 92 mg/dL, After 45 minutes
- 6:15 AM Rowing machine, moderate intensity, 7 minutes, 43 calories
- 6:30 AM Calisthenics, 5 minutes, 14 calories
- 7:30 AM 80 mg/dL, After 15 minutes exercise
- 8:00 AM Breakfast, Carbs: 28 g (Sugar 7 g; Fiber 24 g), CPF: 31-23-46



DAILY SUMMARY

HIGHEST BG	LOWEST BG	AVERAGE BG	BELOW 60	ABOVE 200	% IN (70-140)
92	78	83	0	0	100%

From: **GlucoseTracking**, Food Log, *NutriBase CR Way Edition* software, <http://tinyurl.com/NutriBaseCRWayEditionSoftware>.

The International Diabetes Federation names high glucose a risk factor not only for diabetes, but also for heart disease, cancer, atherosclerosis, macular degeneration, and a number of other dangerous health problems.¹⁶

Conversely, keeping glucose low can improve memory; protect against cancer, diabetes, and heart, kidney, and Alzheimer's disease; as well as activate longevity biochemistry associated with extended life span.¹⁷

Many people who are serious about healthy life extension do not have access to laboratories that perform expensive genetic testing. By tracking the glucose effects of meals and exercise, one can get a good sense of how genes are being activated.

Support Includes Friendly, Live Technical Assistance

The NutriBase CR Way Edition software is now part of the benefits for Longevity-Level Members of **Living The CR Way**, the program for people who want to use proven science to slow or even reverse age-related decline. Unique content includes—

- Documented techniques for losing weight safely and easily in the HAPPY DIETING pages
- Verified activities to improve your brain power in the GETTING SMARTER section

- Illustrations of the beneficial whole-body changes that start in the cells in the **LONG, HEALTHY LIFE** pages
- Nutritious recipes that taste like “made in heaven” in the **DELICIOUS FOOD** segment
- Strategies that improve mood and manage stress in the **HAPPIER YOU** pages
- Sound advice for prevention of diabetes, cancer and heart, kidney, and Alzheimer’s diseases in the **PROTECTION FROM DISEASE** section
- Description of the rigorous research behind the CR Way of life in **The SCIENCE BEHIND THE BENEFITS** segment
- Demonstrations of how to become a happy, healthy centenarian in **THE LONGEVITY GUIDE**
- Lifestyle and diet coaching for people who want to perform at their best—in **THE CR WAY TO OPTIMAL PERFORMANCE**

Teleconferences!

CR experts, Paul McGlothlin and Meredith Averill, lead live discussions and answer your questions. To find out about joining **Living The CR Way** and obtaining all these benefits, turn to the next page. ●

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



Meredith Averill and Paul McGlothlin are co-authors of *The CR Way* (HarperCollins, 2008), they lead The CR Way Longevity Center.

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ADVANCED DIETARY TRACKING SOFTWARE

CR Way—Optimal Health

Enjoy life fully, with the best chance of extending your life to the coming era when most disease has been eradicated and much longer life is the norm.

Benefits of joining the CR Way

The CR Way to Happy Dieting

All the tools you need to start, stick with, and enjoy low-calorie living: videos, podcasts, meal plans, and delicious recipes.

The CR Way to Peak Performance

Your diet and lifestyle coach for performing at your best.

Getting Smarter

A blueprint for improving your brain power

Long, Healthy Life

An introduction to the beneficial cellular changes that are the basis of the CR Way™.

A Happier You

Strategies that relieve stress and increase happiness.

Protection from Disease

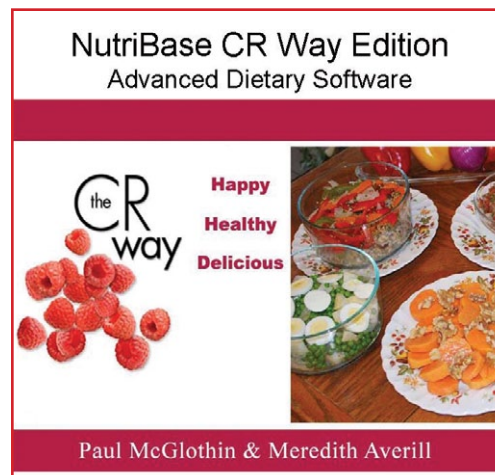
Help for preventing or fighting cancer; diabetes; as well as heart, kidney, and Alzheimer's diseases.

Science Behind the Benefits

Description of the solid science, backing the benefits.

The Longevity Guide

Pointers to becoming a centenarian.



NutriBase CR Way Edition software

The world's most advanced diet and lifestyle manager, the NutriBase CR Way Edition software is included in the CR Way – Optimal Health program. You can use the software to help activate your longevity biochemistry as well as improve your heart health, prevent or fight major diseases, lower blood sugar, manage exercise, make it easy to lose weight, and even improve your mood. The software comes preloaded with CR Way™ recipes and more than 90 suggestions of delicious foods to choose.

As part of the CR Way mission to truly help people, new members are invited to training sessions, showing how to make maximum use of this versatile tracking system.

Technical support is available to answer questions when they arise.

Live Teleconferences with CR Way authors, Paul McGlothlin & Meredith Averill

CR Way teleconferences help you optimize your most precious asset: your health. You will join friends who, like you, are passionate about being as healthy and happy as possible for as long as possible and who want answers, based on science and clinical testing – not guesswork.

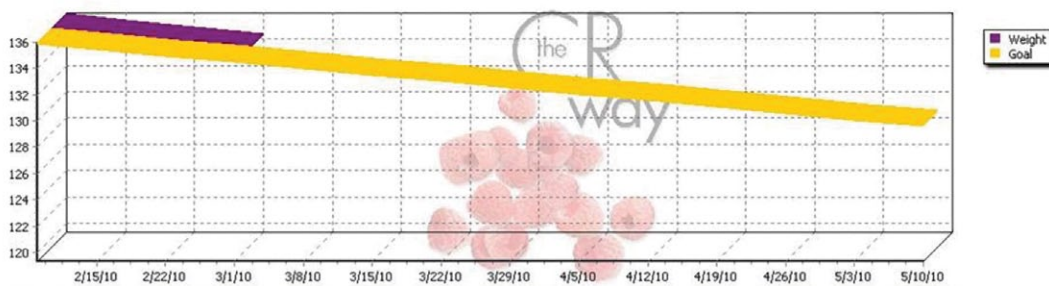
You get to ask the questions that matter to you. Paul & Meredith –leaders of calorie restriction research and world famous for creating the CR Way™, a new standard for healthy living, based on the science of calorie restriction—lead the discussion, and everyone comes out ahead. All teleconferences are conducted in a thoughtful, caring, and supportive way so that participants feel free to express themselves.

If you've priced top-level software packages, teleconferences with experts, electronic diet guides, and membership Web sites—you may guess that the CR Way—Optimal Health program costs thousands of dollars per year. Instead, we welcome you to get it all for **\$195**.

CR Way Advanced Dietary Tracking Software Motivates Users



Weight vs. Goal graph



The CR Way™

To order your first years CR WAY-OPTIMAL HEALTH PROGRAM call **1-800-544-4440** or visit www.LifeExtension.com/CR

LifeExtension **Weight Loss** Blood Test Panel



What “Obesity Factors” Are Keeping You from Losing Weight?

The underlying causes of weight gain vary considerably amongst individuals. Unless the **obesity factors** responsible for your weight problem are identified, you’re literally “shooting in the dark” when attempting to shed excess **fat** pounds. Proper **blood testing** can uncover the specific factors responsible for your unwanted weight gain, so that corrective actions can be taken.

The New Life Extension® Weight Loss Blood Test Panel

Many people have tried to follow low-calorie diets without achieving meaningful reductions in **body fat**. One reason for these failures is **hormone** imbalances that can preclude significant weight loss if not corrected.

For example, if you have *insufficient* levels of **T3** (the active **thyroid** hormone), your cellular metabolism may be too slow to *burn off* stored fat. In response to eating less, your body responds by further *inhibiting* **T3** production, thus making it even more challenging to rid surplus fat pounds. By measuring **TSH** (thyroid-stimulating hormone), **free T4**, and **free T3** blood levels, your doctor can *optimize* your thyroid hormone status to the *youthful* ranges when you were much thinner. Thyroid hormone deficits are especially prevalent in **women**.

Abdominal weight gain is epidemic in aging **men**. Low free testosterone is a common culprit. In women, **abdominal fat** accumulation may be caused by an **estrogen** imbalance and/or excess **free testosterone** (the opposite of men). In both sexes, low DHEA hormone can contribute to excess belly fat. By measuring blood levels of **hormones** involved in fat metabolism, one can restore their hormonal profile to youthful ranges that existed when you were at normal body weight.

The **Life Extension Weight Loss Blood Test Panel** analyzes these hormones (along with other obesity factors) so that you and your doctor have the data to properly restore them to optimal ranges.

Correcting Metabolic Imbalances

Aging results in a reduction in *insulin sensitivity* that contributes to our bloodstreams being chronically bloated with excess **glucose**, **insulin**, and **triglycerides**. One might assume that cutting calories would correct

this problem, yet many overweight people lack the **metabolic capacity** to remove excess glucose, triglycerides, and other obesity factors from their blood. It is particularly challenging to lose significant weight while one’s bloodstream is chronically overloaded with fat inducing compounds.

Of particular interest is the measurement of **fasting insulin**. Elevated levels of fasting insulin suggest that you are insulin resistant, and your pancreas is secreting more insulin to drive glucose into your cells. Since burning stored body fat is difficult in the presence of high levels of insulin, most people will find it difficult to lose weight when insulin levels are elevated. The combination of elevated fasting and elevated blood glucose level places you at much higher risk for metabolic syndrome and type 2 diabetes mellitus.

The **Life Extension Weight Loss Blood Test Panel** analyzes a host of metabolic parameters that may be blocking your ability to shed body fat. Once identified, proven methods exist that you (and/or your doctor) can implement to purge your bloodstream of these dangerous **obesity factors**.

Suppressing Chronic Inflammation

Heavy people have startlingly high levels of **C-reactive protein**, which is a blood marker of chronic inflammation. **C-reactive protein** contributes to obesity by binding to the **leptin** hormone. **Leptin** signals **satiety** (thereby reducing hunger) and promotes the breakdown of **body fat** through the process of lipolysis. Suppressing elevated **C-reactive protein** is an essential element in a scientific weight loss and longevity program.

The **Life Extension Weight Loss Blood Test Panel** analyzes **C-reactive protein** levels. If elevated, proven methods exist to reduce **C-reactive protein** to safer ranges.

The Male Weight Loss Panel

To identify *obesity factors* in the blood responsible for weight gain in **men** (especially in the abdomen) and age-related disease risks, the **Life Extension Male Weight Loss Panel** includes measurements of:

- Free testosterone
- Total testosterone
- Estradiol (a potent estrogen)
- DHEA
- TSH (thyroid-stimulating hormone)
- Free T4
- Free T3 (the metabolically active thyroid hormone)
- Insulin
- Glucose
- Triglycerides
- Total Cholesterol
- LDL (low-density lipoprotein)
- HDL (high-density lipoprotein)
- C-reactive protein
- Liver function
- Kidney function
- Complete blood cell counts
- PSA (prostate-specific antigen)
- And numerous other markers of disease risk.

The Female Weight Loss Panel

To identify *obesity factors* in the blood responsible for weight gain in **women** (and age-related disease risks), the **Life Extension Female Weight Loss Panel** includes measurements of:

- Estradiol (a potent estrogen)
- Progesterone
- TSH (thyroid-stimulating hormone)
- Free T4
- Free T3 (the metabolically active thyroid hormone)
- Free testosterone
- Total testosterone
- DHEA
- Insulin
- Glucose
- Triglycerides
- Total Cholesterol
- LDL (low-density lipoprotein)
- HDL (high-density lipoprotein)
- C-reactive protein
- Liver function
- Kidney function
- Complete blood cell counts
- And numerous other markers of disease risk.

The Lowest-Cost Blood Tests

Restoring a youthful hormonal and metabolic profile is a critical component of a comprehensive weight loss program, especially when it comes to shedding **abdominal fat**.

One reason that blood tests are not used more frequently to assist with weight loss is the high price. It can cost over \$1,000 to measure an individual's **obesity factors** at commercial labs. Fortunately, the every-day low member price for the **new Life Extension Weight Loss Blood Test Panel** is \$299. If you order by October 29, 2010, the cost of this comprehensive panel is discounted to just **\$249**.

How to Order

To obtain the comprehensive **Male** or **Female Weight Loss Blood Test Panels** at these discounted prices, call **1-800-208-3444** to order your requisition forms (or log on to www.lef.org/bloodfat). Then, at your convenience, you can visit a blood-drawing facility in your area. The results will be mailed to you shortly thereafter. Life Extension Health Advisors are available to help you understand your test results at no charge.

Note: residents of NY, NJ, and RI will receive a blood draw kit due to state law, and an additional local draw fee may be incurred.

SUPER BOOSTER

with the most effective form of Vitamin K2, Gamma Tocopherol, Ginkgo, and much more!

Despite abundant scientific validation, many people still do not take vital nutrients because they don't want to swallow so many pills. This problem has been solved with a one-per-day softgel that includes multiple health-promoting nutrients in just one supplement.

The **Life Extension® Super Booster** contains critical oil-based nutrients that cannot be incorporated into dry-powder based formulas like the **Life Extension Mix™**. The **Super Booster** provides the most effective form of **vitamin K** known as **menaquinone-7** along with other forms of this critical nutrient. Just one Super Booster softgel provides:

- **Gamma Tocopherol** If one consumes only alpha tocopherol, the critically important gamma tocopherol is displaced from cells within the body. While alpha tocopherol vitamin E inhibits lipid peroxidation, the gamma tocopherol form quenches the dangerous peroxynitrite free radical. It is especially important for those who take vitamin E supplements to make sure they consume at least 200 mg a day of gamma tocopherol.

- **Sesame Lignans** Sesame lignans augment the antioxidant effects of both alpha- and gamma-tocopherol. In a human study conducted at Life Extension, gamma tocopherol plus sesame lignans was 25% more effective in suppressing measurements of free-radical damage than gamma tocopherol and tocotrienols.

- **Vitamin K2** **Vitamin K1** from dietary plant sources is poorly absorbed and only a small fraction gets into the bloodstream. **Vitamin K2** is absorbed much more efficiently. Scientific studies show **K2** provides superior benefits for the bones, arteries, and other tissues. The **MK-4** form of vitamin K2 is the most rapidly absorbed and is now routinely

used in Japan to maintain healthy bone density. **MK-4**, however, only remains active in the blood for a few hours. The **MK-7** form of K2, on the other hand, remains bioavailable to the human body over a sustained **24-hour period**. Super Booster provides a potent dose of **MK-7** to keep calcium in the bone and out of the arteries.

- **Lycopene** Evidence suggests that people who ingest the carotenoid lycopene enjoy healthier prostate function. Lycopene also helps guard against LDL oxidation.

- **Lutein** The carotenoid lutein helps maintain healthy cell division, supports the macula of the eye, and protects the endothelial lining of the arteries.

- **Ginkgo** Hundreds of studies substantiate the multifaceted effects of *Ginkgo biloba* in promoting healthy circulatory and neurological function.

- **Chlorophyllin** Scientific studies indicate that chlorophyllin may protect against environmentally induced damage to DNA.

- **Selenium** Some scientific evidence suggests that consumption of selenium may reduce the risk of certain forms of cancer. However, the FDA has determined that this evidence is limited and not conclusive. Selenium's effects in boosting glutathione are well-established.

A bottle of 60 Super Booster softgels retails for \$42. If a member buys four bottles, the price is reduced to just **\$28.50** per bottle.

The **Super Booster** saves consumers **huge dollars** by combining a wide variety of costly nutrients into one daily softgel. If you add up the price of the individual ingredients contained in the **Super Booster**, you would spend **two to three times more** for this potency if taken separately.

Just one softgel of Super Booster supplies:

Gamma tocopherol	230 mg
Ginkgo extract	120 mg
Chlorophyllin	100 mg
Vitamin K2 (as menaquinone-7)	100 mcg
Vitamin K2 (as menaquinone-4)	1000 mcg
Vitamin K1	1000 mcg
Sesame lignans	20 mg
Lycopene	10 mg
Lutein	2 mg
Se-methylselenocysteine	67 mcg
L-Selenomethionine	67 mcg
Sodium selenite	67 mcg
Vitamin B12	300 mcg
Vitamin C	90 mg
Ascorbyl palmitate	50 mg
Zinc	10 mg
Mixed tocopherols	130 mg



Item #01380

Contains soybeans, peanuts, and sesame.

Caution: If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your healthcare provider before taking this product. Individuals with in-born errors of copper metabolism (e.g. Wilson's disease) should avoid daily, chronic use of this product.

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

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

Quit Eating More Than You Want To!

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

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

An Ancient Solution to a Modern Problem

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

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

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

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

Feel Better About Food Again

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

The same can happen for you.

No more "grazing."

No more midnight "kitchen raids."

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

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

References

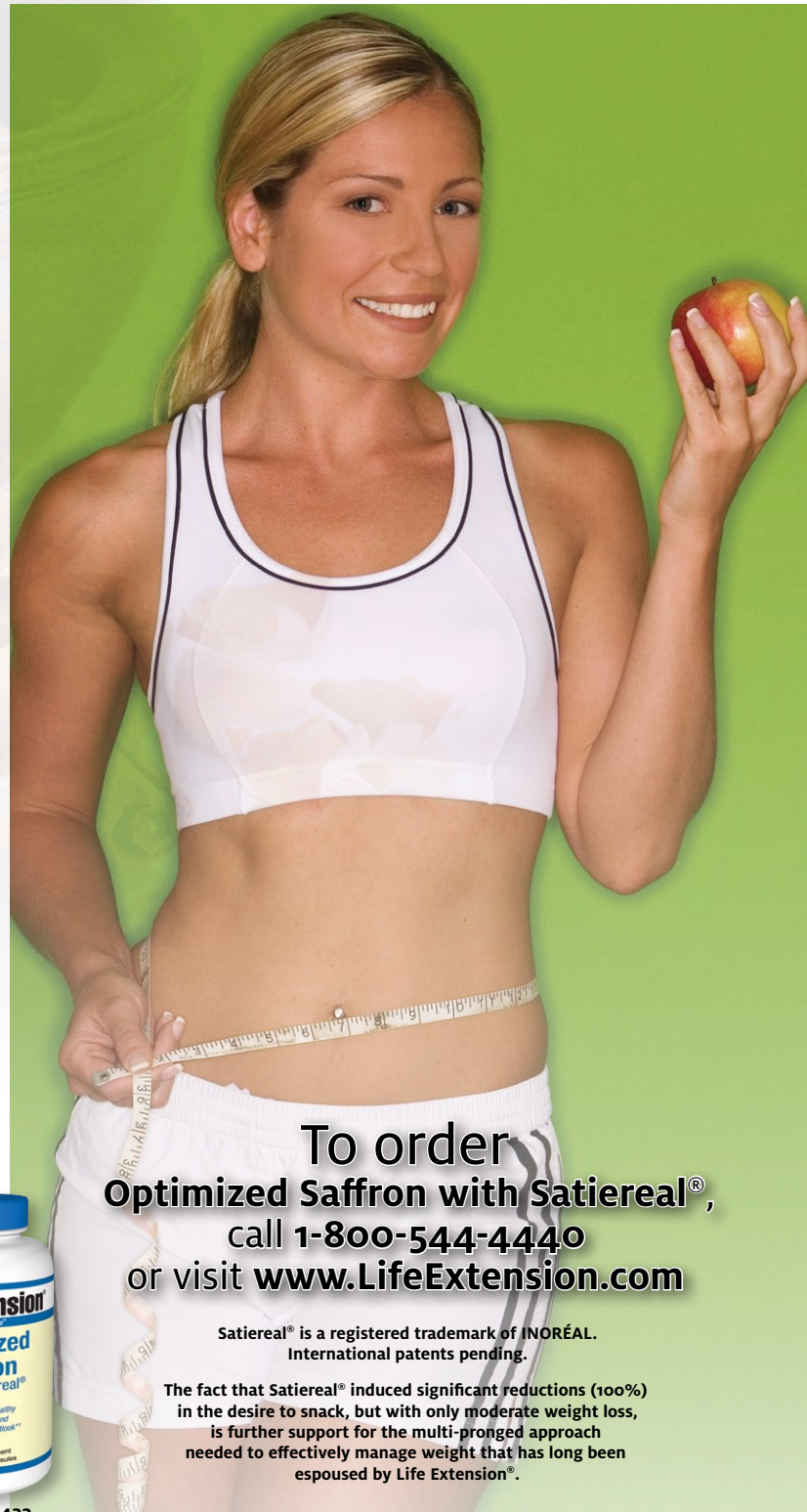
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Item #01432

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

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



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The fact that Satiereal[®] induced significant reductions (100%)
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needed to effectively manage weight that has long been
espoused by Life Extension[®].

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| ✓ Blood Testing | ✓ Self-Experimentation | ✓ Sleep |
| ✓ Finding a Life Extension Doctor | ✓ Standards of Information Quality | ✓ Mood |
| | | ✓ Enhancement & Brain Function |

Speakers

Impressive results in anti-aging research mean that one day we may greatly extend human lifespan – but most of these treatments won't be widely available for many years.

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



Esther Dyson
Keynote



Peter Thiel
Keynote



Terry Grossman



Gregory Benford



Greg Fahy



Raymond McCauley



Sonia Arrison



Patri Friedman



Larry Smarr



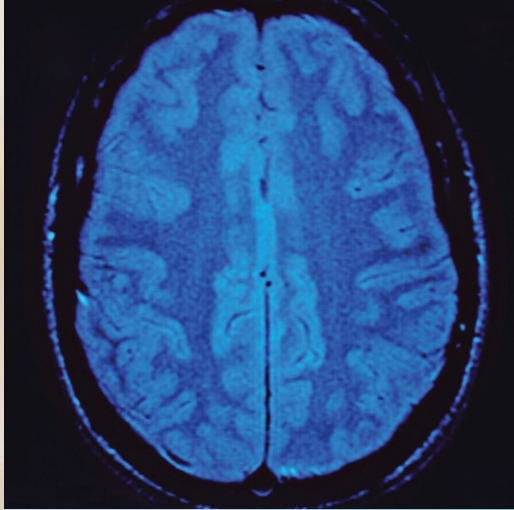
Matt Bell

Plus: Steven Fowkes, Christine Peterson, Melanie Swan

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- **Expert speakers:** Professional researchers and advisors working in anti-aging, life extension, and longevity-related fields.
- **Implementor speakers:** Early adopters who are ahead of the curve in implementing new techniques and can tell us how to do this as easily and cheaply as possible.
- **Participants:** While some attendees will be new to life extension, early indications are that this audience may be the most highly informed group ever gathered to compare personal action for longevity.



WELLNESS PROFILE

BY STEPHEN LAIFER

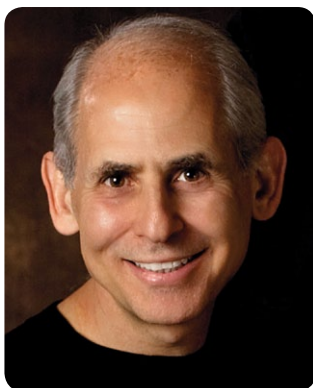
Integrated Medicine Optimizes Brain Function—Naturally

We have long known that certain foods affect the chemical balance of our brain, and thus our mood. Dr. Daniel Amen, an assistant clinical professor of psychiatry and human behavior at the University of California, Irvine School of Medicine, takes this a step further. Amen maintains that incorporating specific natural nutritional supplements into our diets can help support cognitive health.

Amen certainly has the credentials and experience to make such a claim: a physician, child and adult psychiatrist, brain imaging specialist, and bestselling author, Amen is also the medical director of Amen Clinics, Inc. (ACI), with facilities in four cities across the country. ACI, boasting the world's largest database of functional brain scans related to psychiatric medicine, is a leader in applying brain imaging science to clinical practice.

At Irvine, Amen teaches medical students and psychiatric residents about using brain imaging in clinical practice. Images, he explains, are obtained through a technique called single photon emission computed tomography (SPECT), a nuclear medicine imaging technique using gamma

rays. Similar to conventional nuclear medicine planar imaging, SPECT is able to provide true three-dimensional information, which Amen says has helped him reliably identify seven different types of anxiety and depression, six types of Attention Deficit Disorder (ADD), and five types of obesity.



Dr. Daniel Amen

Amen teaches medical students and psychiatric residents about using brain imaging in clinical practice.

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Imaging Clarity for Better Treatment

Amen maintains more than 60,000 brain scan images at his clinics. He says they have given him a clearer picture of what happens inside the brain when things aren't quite as they should be. "SPECT examines blood flow and activity patterns," says Amen. "Unlike other scans, it focuses on brain function, as opposed to anatomy or structure." Two images are typically taken, one at rest and one during a concentration exercise. "Scans reveal in distinct colors areas of the brain that work well, areas of the brain that do not work hard enough, which can lead to cognitive disorders, and areas of the brain that work too hard."

Through his research, Amen has learned that most psychiatric illnesses are not single or simple disorders. "I believe we hurt people by putting them automatically into certain categories and trying to treat accordingly," he elaborates. "Take, for example, depression. Most doctors who prescribe natural supplements would recommend St. John's Wort. But it's not that simple. You need to know exactly what type of depression you're dealing with." Amen says that if everyone was simply given St. John's Wort, it would certainly show improvements in depressive symptoms for some patients—but others would only get worse. You have to tailor any supplements to an individual person's brain, and not just assume that one treatment fits all."

Amen says that this has been a major component of his work. In his imaging experience, the catch-all category of obesity has been revealed to be five different categories, each with respective treatments including natural

supplements that need to be tailored to the specific type of problem. In addition to exercise, a compulsive overeater could be prescribed serotonin boosters like 5-HTP (5-hydroxytryptophan) to control appetite, and inositol extract to regulate mood. Inositol is required for the proper function of several brain neurotransmitters including serotonin and acetylcholine; reduction of inositol levels in the cerebrospinal fluid have been shown to be low in patients with depression. For an *impulsive* overeater, however, treatment would comprise totally different supplements: dopamine boosters like green tea and L-tyrosine, an amino acid utilized by the body to synthesize protein and increase plasma neurotransmitter levels (particularly dopamine and norepinephrine). In addition, increased protein intake and exercise would be indicated. Overeaters and anxious overeaters, similarly, would have a supplement regimen tailored to their specific type of disorder.

Supplemental Treatment

As with obesity, once a specific disorder diagnosis is determined, Amen will employ nutritional supplements as the first line of defense in order to help put things right again. "We are heavily focused on natural ways to heal the brain," he says. Following brain scans, Amen adopts specific approaches for several major categories of disorders:

ADD/ADHD: "Once again," he emphasizes, "you have to know the exact type of ADD the person has. Should they have a kind of ADD that is associated with low brain activity, then they would receive a stimulant like Ritalin®." From a supplement standpoint, Amen might prescribe green tea,

L-tyrosine, or rhodiola, which has been shown in studies to alleviate stress and symptoms of mild depression. "These supplements have been shown to boost blood flow," he adds. On the other hand, if a patient has over-focused ADD, where certain parts of their brain are low in activity while other parts are high, Amen might use a combination of green tea and a serotonin booster such as 5-HTP.

All disorders, incidentally, are treated with omega-3 fatty acid supplements in addition to the recommended disorder-specific supplement. Clinical evidence shows that omega-3s (e.g., fish oil or flaxseed oil supplements) play a crucial role in brain function as well as normal growth and development. Studies also suggest possible benefit for people suffering from depression, bipolar disorder, schizophrenia, and ADHD (attention deficit/hyperactivity disorder).

Anxiety and depression: This also depends on the type. In addition to omega-3 supplements, Amen would recommend optimizing vitamin D levels. "Low levels



of vitamin D have been associated with physical maladies like rickets, bone disorders or heart disease, but it's also an important factor in brain imbalances like depression and memory issues," he explains. "If I hope to get my patients stable, vitamin D is something I need to make sure is tested and regulated through supplementation as and when necessary." Amen believes typical recommended levels of vitamin D are too low. "The normal range in lab tests is less than what I've found to be ideal in terms of benefits," he says. "I like to keep vitamin D levels in my patients between 50 and 100 nanograms per milliliter."

OCD: In any compulsive anxiety disorder, serotonin boosters (i.e., 5-HTP or St. John's Wort) are the primary indicated supplements, in addition to omega-3 fatty acids, adds Amen. Research has suggested that OCD results from a brain imbalance of the neurotransmitter serotonin. These studies have shown that OCD patients tend to have lower levels of serotonin, supported by evidence that drugs which increase serotonin output reduce symptoms of OCD.

Alzheimer's Disease and memory loss: Amen believes boosting acetylcholine (ACh) can help with brain repair. During the course of the normal aging process, concentrations of ACh tend to decrease, resulting in sporadic lapses of short-term memory. Normal, non-debilitating decline in memory, referred to as age-associated memory impairment, is distinct from Alzheimer's disease, a serious brain disorder in which levels of ACh can drop by as much as 90%. Supplements such as choline or DMAE (or dimethylaminoethanol, a natural precursor for choline that crosses readily into the

brain, thereby helping to make acetylcholine) have been shown to produce improvements in brain-wave patterns in parts of the brain that play a pivotal role in memory and attention span. DMAE has, incidentally, also been adopted as a possible alternative to Ritalin® in the treatment of ADD-afflicted children, demonstrated in studies to provide similar benefits without the typical side effects.

Substance abuse: As with overeaters, Amen first provides the by-now-familiar qualifier: "Supplementation largely depends on the type of substance abuse problem. In cases of compulsive addiction, serotonin and 5-HTP may help." For impulsive addicts, Amen maintains that dopamine and L-tyrosine are more beneficial. Anxiety-related addictions benefit from GABA (gamma-aminobutyric acid, the chief inhibitory neurotransmitter in the mammalian central nervous system). GABA plays a role in regulating neuronal excitability throughout the nervous system. Supplements that increase the available amount of GABA typically have relaxing, anti-anxiety and anti-convulsive effects. Depressive addicts, says Amen, will usually show improvement after taking SAME (S-adenosylmethionine). SAME supplements are the synthetic form of a molecule produced naturally in the body from the amino acid methionine and adenosine triphosphate, an energy-producing compound found in all cells in the body. SAME may enhance the effect of mood-boosting brain chemicals like serotonin and dopamine by regulating their breakdown or by speeding production of the receptor molecules they attach to. SAME may also make existing receptors more responsive.



Daily Fix

Of course, not everyone suffers from the above-mentioned disorders. Amen firmly believes there are steps people can and should take every day to help ensure our brains remain in optimum condition. "It starts with a good healthy balanced diet, exercise, and omega 3s," he explains. "Also, take care to avoid anything that might cause trauma or toxicity to the brain." Examples of these are overuse of household chemicals.

New learning, he says, a factor that is often overlooked, is also crucial to good brain health. "The brain is like a muscle in that the more it learns, the more it can learn. Too many people, when they finish school, never think about the need to work out their brains." A healthy brain workout, he says, is not simply doing crossword puzzles. "That works a specific part of your brain only. You want to work out *many* parts of your brain. Just doing word puzzles is like doing right bicep curls and nothing else, then thinking you're done with your workout." Amen cites *Life Extension Magazine*® as an appropriate example: "Life Extension is always giving people the latest

WELLNESS PROFILE

scientific information or providing a different spin on something they thought they knew. When you read the magazine it stretches your neurons, because now you're storing more information and exercising the storage and memory parts of your brain." He adds that activities like dancing help to work the back part of the brain, while juggling exercises a specific brain area known to be associated with Alzheimer's disease. "Decorating a room or taking on an interior design project is also beneficial to the right side of a brain," he says. Good brain fitness, in other words, is more akin to cross-training at the gym: exercising in a variety of ways helps improve overall performance.

In terms of daily supplements for the healthy brain, Amen says that while a lot depends on age, he nevertheless advises all his patients to take a good multivitamin. "More than 60% of us do not eat five servings of fruit or vegetables every day," he points out. "Beyond that, get your vitamin D level checked and optimized, and jack up your omega-3 level, since low levels are associated with all sorts of bad things."



Amen, meanwhile, continues to spread the word about making positive changes in brain chemistry. In February of this year, Harmony Books published Amen's latest book, *Change Your Brain, Change Your Body: Use Your Brain to Get and Keep the Body You Have Always Wanted*. Exploring the idea that when our brains aren't functioning properly, that dysfunction manifests itself in our physical bodies, Amen takes readers inside the brain to demonstrate ways in which we can harness its power to create a healthier body. From a tighter stomach and younger-looking skin to boosting energy levels and preventing colds, Amen explains eighteen approaches and solutions to better mind/body health. Amen, a *New York Times* bestselling author, has also written and produced four recent successful fundraising shows for public television, raising more than 30 million dollars, and appeared on a show in 1999 called *The Truth About Drinking*, on alcohol education for teenagers, which won an Emmy Award for Best Educational Television Show. ●

"YES, WE CAN... THINK OUTSIDE THE BOX" The Next Generation

Daniel G. Amen, MD will be the keynote speaker at the upcoming "Yes, We Can... Think Outside the Box" conference discussing the implementation of the Next Generation of Scientific Medical Innovation.

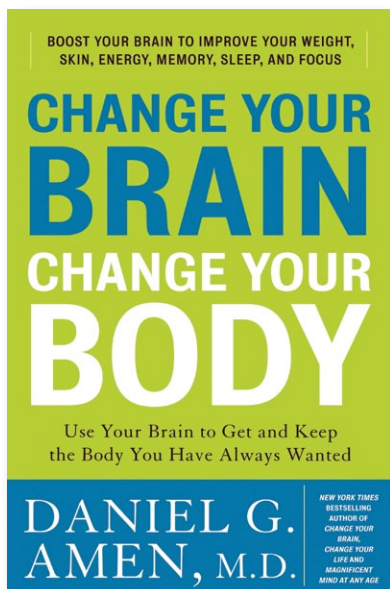
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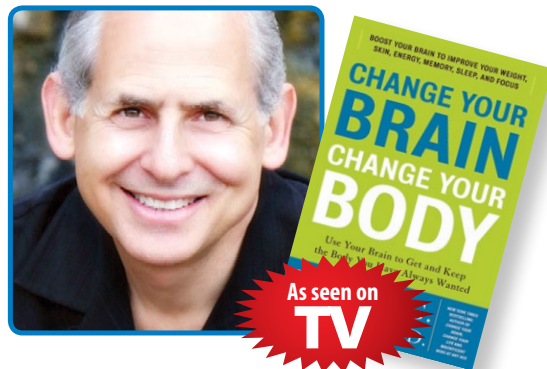
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Q: & A:



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[®] 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

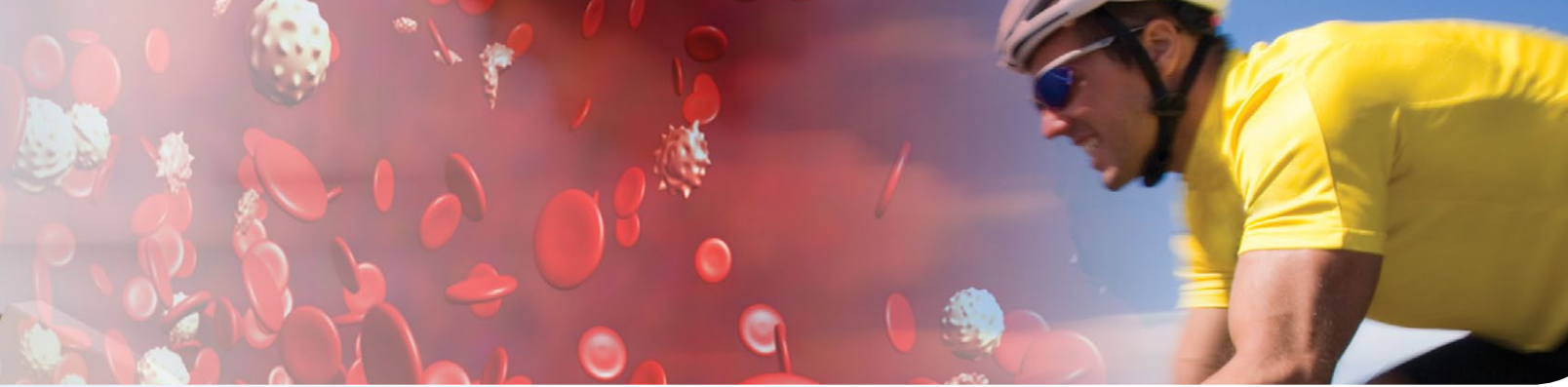
The second study cited was conducted by the same research team. The effects of DHEA-replacement therapy or a placebo on abdominal fat were investigated for the first time in 56 DHEA-deficient elderly men and women who did not exercise regularly. Using the same DHEA-dosing regimen as in the previous study, 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.

**To order DHEA call 1-800-544-4440
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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, the price is reduced to just **\$7.50 per bottle**. Contains rice.



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, the price is reduced to just **\$9.38 per bottle**. Contains rice.



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, the price is reduced to just **\$8.81 per bottle**. Contains corn.



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, the price is reduced to just **\$10.50 per bottle**. Contains rice.



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, the price is reduced to only **\$27 per bottle**. Contains rice.

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, the price is reduced to only **\$32.40 per bottle**. Contains rice.



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, the price is reduced to just **\$14.25 per bottle**. Contains rice.

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.

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.

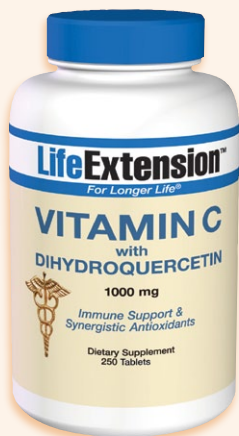
Vitamin C with Dihydroquercetin was formulated for those seeking to obtain optimal efficacy and antioxidant protection from their vitamin C supplement. The suggested daily dose of one tablet of this formula supplies **1,000 mg** of **vitamin C** (as ascorbic acid), along with **10 mg** of

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, the price is reduced to just **\$17.44 per bottle**. Contains corn.

References:

1. *PLoS Med.* 2005 Sep;2(9):e307; author reply e309.
2. *Am J Clin Nutr.* 1988 Sep;48(3):601-4.
3. *J Food Tech.* 1969;4:255-67.



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.



Vital Greens Plant Foods In a Convenient Powder Blend

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

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

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

- **Chia**, a rich source of protein, fiber, vitamins, minerals, and alpha-linolenic acid (an omega-3 precursor). Recent research at the University of Toronto has shown that regular **chia** intake may help maintain healthy **blood pressure** and **C-reactive protein** levels, both of which are well-known markers of cardiovascular disease.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, the price is reduced to only **\$33 per jar**.

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

REFERENCES:

1. *Diabetes Care*. 2007 Nov;30(11):2804-10.
2. *CMAJ*. 2003 Jul 22;169(2):111-7.

3. *Altern Ther Health Med*. 2001 May-Jun;7(3):79-91.

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

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



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 WEIGHT LOSS PANEL (LCWLM) **\$249 LIMITED TIME OFFER!**
 CBC/Chemistry Profile DHEA-S
 PSA (prostate-specific antigen)
 Insulin
 C-Reactive Protein (high sensitivity)
 Free Testosterone Total Testosterone
 Estradiol TSH
 Free T3 Free T4
- FEMALE WEIGHT LOSS PANEL (LCWLF)** **\$249 LIMITED TIME OFFER!**
 CBC/Chemistry Profile DHEA-S
 Progesterone Insulin
 C-Reactive Protein (high sensitivity)
 Free Testosterone Total Testosterone
 Estradiol TSH
 Free T3 Free T4
- 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
 TSH for thyroid function
- MALE HORMONE ADD-ON PANEL (LCADDM) Pregnenolone and Dihydrotestosterone (DHT)** **\$155**
 To provide an even more in-depth analysis of a man's hormone status, Life Extension has created this panel as an addition to the Male Life Extension Panel. This panel provides valuable information about a testosterone metabolite that can affect the prostate, and the mother hormone that acts as a precursor to all other hormones.
- FEMALE LIFE EXTENSION PANEL (LC322535)** **\$269**
 CBC/Chemistry Profile
 DHEA-S
 Estradiol
 Homocysteine
 C-Reactive Protein (high-sensitivity)
 Progesterone
 Free Testosterone
 Total Testosterone
 TSH for thyroid function
- FEMALE HORMONE ADD-ON PANEL (LCADDF) Pregnenolone and Total Estrogens** **\$125**
 To provide an even more in-depth analysis of a woman's hormone status, Life Extension has created this panel as an addition to the Female Life Extension Panel. This panel provides valuable information about total estrogen status, and the mother hormone that acts as a precursor to all other hormones.
- LIFE EXTENSION THYROID PANEL (LC304131)** **\$75**
 TSH, T4, Free T3, Free T4.
- OMEGA SCORE™™™ (LCOMEGA)** **\$131.25**
 Provides valuable information on your risk of developing heart disease, sudden heart attack, and cardiac death. The Omega Score™™™ also includes your AA:EPA ratio, allowing you to determine and track a major factor in total body inflammation.
- 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.
- 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 and Weight Loss Panels.
- 24-HOUR URINARY PROFILES**

○ URINARY COMPLUS PANEL (LCM408) **\$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.

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



MOST POPULAR SINGLE TESTS

Life Extension Member Pricing

HORMONES

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

CARDIAC RISK

- Lp-PLA2 (PLAC TEST)* (LC141275)** \$125
This test is used to aid in predicting risk for coronary heart disease, and ischemic stroke associated with atherosclerosis. Lp-PLA2 is a cardiovascular risk factor that provides unique information about the stability of the plaque inside your arteries.
- C-REACTIVE PROTEIN (HIGH-SENSITIVITY) (LC120766)** \$42
Measures inflammation factors in arteries. Recent studies indicate that C-reactive protein may be the most accurate risk factor for predicting heart attack and stroke.
- APOLIPOPROTEIN ASSESSMENT - (APO A1 + APO B + RATIO) (LC216010)** \$55
This ratio correlates with risk of coronary artery disease and is useful in the presence of borderline elevations of cholesterol.
- FIBRINOGEN* (LC001610)** \$31
High levels of this blood-clotting factor increase the risk of heart attack and stroke.
- HOMOCYSTEINE (LC706994)** \$64
Can indicate if you are likely to have a heart attack or stroke. Even if you take folic acid, you still may have dangerously high levels of this artery-clotting metabolic debris that can be lowered with high doses of TMG and vitamin B6.
- VAP™ TEST (LC804500) (UPDATED)** \$90
NEW LOW PRICE
The VAP cholesterol test provides a more comprehensive coronary heart disease (CHD) risk assessment than the conventional lipid profile. Direct measurements, not estimations, are provided for total cholesterol, LDL, HDL, VLDL, and cholesterol subclasses.
- MALE HEALTH**
- PSA (PROSTATE-SPECIFIC ANTIGEN) (LC010322)** \$31
Can provide an early warning sign for prostate disorders and possible cancer.
- FREE-PSA (INCLUDES TOTAL PSA)* (LC480780)** \$61
Recommended to determine if an elevated PSA is indicative of prostate cancer.
- GENERAL HEALTH**
- CELIAC DISEASE ANTIBODY SCREEN (LC334971)** \$99
This test measures deamidated gliadin IgA, tissue transglutaminase IgA, and serum IgA.
- VITAMIN D (25OH) (LC081950)** \$47
This test is used to rule out vitamin D deficiency as a cause of bone disease. It can also be used to identify hypercalcemia.
- VITAMIN C* (LC001479)** \$47
Levels of vitamin C are used to measure nutritional status.
- FOOD SAFE ALLERGY TEST (LCM73001)** \$174
This test measures delayed (IgG) food allergies for 45 common foods.

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

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

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 prices
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-Cysteine Capsules
L-Glutathione, L-Cysteine & C
L-Glutamine Capsules
L-Glutamine Powder
L-Lysine Capsules
L-Lysine 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
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
N-Zimes™
Pancreatin
Primal Defense
Regimint™
Saccharomyces Boulardii+mos

DURK AND SANDY PRODUCTS

Blast™
Dual-C
Inner Power™
Memory Upgrade

EYE CARE

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

FIBER

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

HAIR CARE

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

HEART HEALTH

Advanced Lipid Control
Cho-Less
D-Ribose Capsules
D-Ribose Powder
Endothelial Defense™ with
Full-Spectrum Pomegranate™
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
Super Ubiquinol CoQ10 with Enhanced
Mitochondrial™ Support
Sytrinol™
Theaflavin Standardized Extract
TMG Powder
TMG Tablets

HERBAL/PHYTO PRODUCTS

Artichoke Leaf Extract
Astaxanthin
Berry Complete
Blackcurrant Juice Concentrate
Blueberry Extract
Butterbur Extract w/Standardized
Rosmarinic Acid
Calcium D-Glucarate
Cilantro Herbal Extract
Citrus Bioflavonoid
CocoaGold™ Cocoa Polyphenols
Enhanced Berry Complete with RZD™ Acai
Grapeseed Extract with Resveratrol &
Pterostilbene
Huperzine A with Natural Vitamin E
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
Pomegranate Extract
(Full-Spectrum) Pomegranate™
Pomegranate Juice Concentrate
ProGreens®
Pure-Gar™
Pycnogenol
Optimized Quercetin
Resveratrol with Synergistic Grape-Berry Actives

Rhodiola Extract
Rosmarinic Acid Extract
Silymarin
SODzyme™ with GliSODin®
Stevia Extract
Super Bio-Curcumin®
Super Curcumin with Bioperine®
Super Ginkgo Extract
Super Polyphenols
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
i26 Hyperimmune Egg
Immune Protect with PARACTIN®
Lactoferrin
Maitake SX-Fraction
Norwegian Shark Liver Oil
Primal Defense™
ProBoost™ Thymic Protein A
Pure Gar™
Sambu® Guard
Theralac Capsules
Thymic Immune Factors
Ultimate Flora Advanced Immunity
Vitamin C with Dihydroquercetin
Zinc Lozenges with Vitamin C

INFLAMMATORY REACTIONS

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

LIVER HEALTH

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

MINERALS

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

MISCELLANEOUS

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

MITOCHONDRIAL SUPPORT

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

MOOD RELIEF

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

MOUTH CARE

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

MULTIVITAMIN

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

PET CARE

Life Extension Cat Mix
Life Extension Dog Mix

PROSTATE & URINARY HEALTH

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

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

SKIN CARE

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

SOY

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

SPECIAL PURPOSE FORMULA

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

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

SPORTS PERFORMANCE

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

VITAMINS

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

WEIGHT MANAGEMENT

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

Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

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

* These products are not 25% off retail price.

SUB-TOTAL OF COLUMN 1

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		
01406	(ENHANCED) BERRY COMPLETE w/RZD™ ACAI - 60 veg. caps	29.00	21.75		
	(ENHANCED) BERRY COMPLETE w/RZD™ ACAI - 4 bottles of veg. caps	104.00	78.00		
00664	BETA-CAROTENE - 25,000 IU, 100 softgels	10.98	8.24		
	BETA-CAROTENE - 4 bottles of 100 softgels	39.32	29.49		
00653	BETTERWOMAN -40 caps	40.00	30.00		
	BETTERWOMAN - 4 bottles of 40 caps	152.00	114.00		
01073	BILBERRY EXTRACT - 100 mg, 100 veg. caps	28.00	21.00		
	BILBERRY EXTRACT - 4 bottles of 100 veg. 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

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					
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		
01493	CALORIE CONTROL WEIGHT MANAGEMENT FORMULA BLUEBERRY-POMEGRANATE FLAVOR - 402 grams powder	56.00	42.00		
	CALORIE CONTROL WEIGHT MANAGEMENT FORMULA BLUEBERRY-POMEGRANATE FLAVOR - 4 bottles of 402 grams powder	192.00	144.00		
	CALORIE CONTROL WEIGHT MANAGEMENT FORMULA BLUEBERRY-POMEGRANATE FLAVOR - 8 bottles of 402 grams powder	352.00	264.00		
00118	CAPSULE FILLER MACHINE FOR "00" CAPSULES	12.00	9.00		
	CAPSULE FILLER MACHINE FOR "00" CAPSULES - 4 machines	45.00	33.75		
00613	CAPSULE FILLER MACHINE FOR "0" CAPSULES	12.00	9.00		
	CAPSULE FILLER MACHINE FOR "0" CAPSULES - 4 machines	45.00	33.75		
00916	(OPTIMIZED) CARNITINE w/GLYCOCARN® - 60 veg. caps	29.00	21.75		
	(OPTIMIZED) CARNITINE w/GLYCOCARN® - 4 bottles of 60 veg. caps	104.40	78.30		
01041	L-CARNITINE CAPSULES - 500 mg, 30 caps	15.00	11.25		
	L-CARNITINE CAPSULES - 4 bottles of 30 caps	52.80	39.60		
01258	CARNOOOTHE w/PICROPROTECT™ - 60 veg. caps	29.95	22.46		
	CARNOOOTHE w/PICROPROTECT™ - 4 bottles of 60 veg. caps	108.00	81.00		
01287	(SUPER) CARNOSINE CAPS - 500 mg, 90 caps	66.00	49.50		
	(SUPER) CARNOSINE CAPS - 4 bottles of 90 caps	240.00	180.00		
01011	CELLULITE SUPPRESS™ FORMULA - 6 fl. oz	58.00	43.50		
	CELLULITE SUPPRESS™ FORMULA - 4-6oz bottles	208.00	156.00		
00390	CDP CHOLINE CAPS - 250 mg, 60 caps	36.00	27.00		
	CDP CHOLINE CAPS - 4 bottles of 60 caps	136.00	102.00		
00998	CELL SENSOR-EMF DETECTION/MEASUREMENT METER	39.95	29.95		
01370	CHILDREN'S FORMULA MIX - 100 chewable tablets	18.00	13.50		
	CHILDREN'S FORMULA MIX - 4 bottles of 100 chewable tablets	64.00	48.00		
00550	CHLORELLA - 500 mg, 200 tablets	23.50	17.63		
	CHLORELLA - 4 bottles of 200 tablets	84.00	63.00		
01048	CHLOROPHYLLIN w/ZINC - 100 mg, 100 caps	24.00	18.00		
	CHLOROPHYLLIN w/ZINC - 4 bottles of 100 caps	80.00	60.00		
*01359	CHO-LESS - 90 capsules	32.50	24.38		
00541	CHOLINE CHLORIDE - 16 oz liquid	14.95	11.21		
	CHOLINE CHLORIDE - 4 bottles of 16 oz liquid	56.00	42.00		
00364	CHONDROITIN SULFATE CONCENTRATE - 400 mg, 60 tablets	19.95	14.96		
	CHONDROITIN SULFATE CONCENTRATE - 4 bottles of 60 tablets	72.00	54.00		
00169	CHROMIUM - 200 mcg polynicotinate, 365 caps	28.00	21.00		
	CHROMIUM - 4 bottles of 365 caps	104.00	78.00		
01071	CHROMIUM ULTRA - 100 veg. caps	24.00	18.00		
	CHROMIUM ULTRA - 4 bottles of 100 veg. caps	84.00	63.00		
00551	CILANTRO HERBAL EXTRACT - 1 oz	12.00	9.00		
	CILANTRO HERBAL EXTRACT - 4 bottles of 1oz	44.00	33.00		
01267	(ENHANCED) CINSULIN® 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		

* Not for sale to wholesalers or retail stores.

SUB-TOTAL OF COLUMN 3

No.		Retail	Member Price	Qty	Total
00069	CITRUS BIOFLAVONOID - 100 caps	\$15.99	\$11.99		
	CITRUS BIOFLAVONOID - 4 bottles of 100 caps	59.28	44.46		
00818	(SUPER) CLA BLEND w/SESAME LIGNANS - 1000 mg, 120 softgels	36.00	27.00		
	(SUPER) CLA BLEND w/SESAME LIGNANS - 4 bottles of 120 softgels	132.00	99.00		
	(SUPER) CLA BLEND w/SESAME LIGNANS - 10 bottles, 120 softgels	263.30	197.48		
00819	(SUPER) CLA BLEND w/GUARANA & SESAME - 120 softgels	42.00	31.50		
	(SUPER) CLA BLEND w/GUARANA & SESAME - 4 btl of 120 softgels	153.32	114.99		
00863	COCOAGOLD™ COCOA POLYPHENOLS - 130 mg, 60 veg. caps	12.50	9.38		
	COCOAGOLD™ COCOA POLYPHENOLS - 4 bottles of 60 veg. caps	44.00	33.00		
00050	COD LIVER OIL - 12 fl oz (355 ml) (Emulsified)	14.58	10.94		
	COD LIVER OIL - 4 bottles of 12 fl oz (355 ml)	49.08	36.81		
00293	COD LIVER OIL - 100 softgels (Emulsified)	9.95	7.46		
	COD LIVER OIL - 4 bottles of 100 softgels	37.52	28.14		
00922	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 90 softgels	74.00	55.50		
	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 4 btl of 90 softgels	266.40	199.80		
	COGNITEX w/PREGNENOLONE & NEUROPROTECTION COMPLEX - 12 btl of 90 softgels	768.00	576.00		
00921	COGNITEX w/o PREGNENOLONE w/NEUROPROTECTION COMPLEX - 90 softgels	72.00	54.00		
	COGNITEX w/o PREGNENOLONE w/NEUROPROTECTION COMPLEX - 4 bottles of 90 softgels	256.00	192.00		
	COGNITEX w/o PREGNENOLONE w/NEUROPROTECTION COMPLEX - 12 bottles of 90 softgels	744.00	558.00		
00110	COMPLETE B-COMPLEX - 180 caps	21.50	16.13		
	COMPLETE B-COMPLEX - 4 bottles of 180 caps	72.00	54.00		
01374	COMPREHENSIVE NUTRIENT PACK - 30-day supply	189.00	141.75		
	COMPREHENSIVE NUTRIENT PACK - 120-day supply	684.00	513.00		
00119	COPPER CAPSULES - 2 mg, 100 caps	8.95	6.71		
	COPPER CAPSULES - 4 bottles of 100 caps	32.36	24.27		
00949	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 50 mg, 60 softgels	25.00	18.75		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 4 bottles of 60 softgels	88.00	66.00		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 10 bottles of 60 softgels	200.00	150.00		
00950	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 100 mg, 100 softgels	66.00	49.50		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 4 bottles of 100 softgels	240.00	180.00		
	(SUPER ABSORBABLE) COQ10™ w/ d-LIMONENE - 10 bottles of 100 softgels	560.00	420.00		
01226	(SUPER UBIQUINOL) COQ10 - 100 mg, 60 softgels	56.00	42.00		
	(SUPER UBIQUINOL) COQ10 - 4 bot of 60 softgels	208.00	156.00		
	(SUPER UBIQUINOL) COQ10 - 10 bot of 60 softgels	480.00	360.00		
01426	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 100 mg, 60 softgels	62.00	46.50		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 4 bot of 60 softgels	224.00	168.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 10 bot of 60 softgels	520.00	390.00		
01425	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 50 mg, 100 softgels	58.00	43.50		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 4 bot of 100 softgels	212.00	159.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 10 bot of 100 softgels	500.00	375.00		
01427	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 50 mg, 30 softgels	20.00	15.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 4 bot of 30 softgels	72.00	54.00		
01431	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 200 mg, 30 softgels	62.00	46.50		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 4 bot of 30 softgels	224.00	168.00		
	(SUPER UBIQUINOL) COQ10 w/ENH MITOCHONDRIAL SUPPORT™ - 10 bot of 30 softgels	520.00	390.00		
01053	CORIOLUS VERSICOLOR SUPER STRENGTH - 600 mg, 150 veg. caps	99.95	74.96		
00857	COROMEGA CHILD BRAIN & BODY - (Lemon Lime) 30 packets	25.00	18.75		
	COROMEGA CHILD BRAIN & BODY - (Lemon Lime) 4 boxes of 30 packets	90.00	67.00		
80118	COSMESIS ANTI-AGING MASK - 2 oz bottle	66.60	49.95		
	COSMESIS ANTI-AGING MASK - 2-2 oz bottles	117.22	87.92		

SUB-TOTAL OF COLUMN 4

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

SUB-TOTAL OF COLUMN 5

No.		Retail	Member Price	Qty	Total
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	79.95	59.96		
	COSMESIS VITAMIN C SERUM - 2 bottles of 1 oz	140.72	105.54		
80136	COSMESIS VITAMIN D LOTION - 4 oz	29.95	22.46		
	COSMESIS VITAMIN D LOTION - 2 bottles of 4 oz	56.00	42.00		
80102	COSMESIS VITAMIN K HEALING CREAM - 1 oz	74.95	56.21		
	COSMESIS VITAMIN K HEALING CREAM - 2 bottles of 1 oz	131.92	98.94		
00862	CRAN-MAX® - 500 mg, 60 veg. caps	17.50	13.13		
	CRAN-MAX® - 4 bottles of 60 veg. caps	60.00	45.00		
01424	(OPTIMIZED) CRAN-MAX® with UTIROSE™ - 60 veg. caps	18.00	13.50		
	(OPTIMIZED) CRAN-MAX® with UTIROSE™ - 4 bottles of 60 veg. caps	64.00	48.00		
00609	CREATINE CAPS MICRONIZED - 120 caps	10.95	8.21		
	CREATINE CAPS MICRONIZED - 4 bottles of 120 caps	37.00	27.75		
00610	CREATINE POWDER MICRONIZED - 500 grams of powder	29.00	21.75		
	CREATINE POWDER MICRONIZED - 4 bottles of powder	106.52	79.89		
01096	CREATINE-WHEY-GLUTAMINE POWDER - 1 kg vanilla	45.00	33.75		
	CREATINE-WHEY-GLUTAMINE POWDER - 4 bottles of powder	168.00	126.00		
01429	CR MIMETIC LONGEVITY FORMULA - 60 veg. caps	39.00	29.25		
	CR MIMETIC LONGEVITY FORMULA - 4 bottles of 60 veg. caps	144.00	108.00		
00912	(SUPER) CURCUMIN W/BIOPERINE® - 800 mg, 60 caps	26.00	19.50		
	(SUPER) CURCUMIN W/BIOPERINE® - 4 bottles of 60 caps	96.00	72.00		
00407	(SUPER BIO) CURCUMIN® - 400 mg, 60 veg. caps	35.00	26.25		
	(SUPER BIO) CURCUMIN® - 4 bottles of 60 veg. caps	128.00	96.00		
00064	(L) CYSTEINE CAPSULES - 500 mg, 60 caps	18.95	14.21		
	(L) CYSTEINE CAPSULES - 4 bottles of 60 caps	65.24	48.93		

D

01063	DERMA-VITS™ - 90 caps	\$14.99	\$11.24		
01313	DERMA WHEY- 400 mg, 60 caps	65.00	48.75		
	DERMA WHEY- 4 bottles of 60 caps	236.00	177.00		
00856	(BARLEAN'S KID'S) DHA (Fruit Punch Flavor) - 8 fl. oz	22.00	16.50		
	(BARLEAN'S KID'S) DHA (Fruit Punch Flavor) - 4 bottles of 8 fl. oz	80.00	60.00		
00995	DHA 240 - 240 mg, 60 softgels	19.00	14.25		
	DHA 240 - 4 bottles of 60 softgels	68.00	51.00		
00658	7-KETO® DHEA METABOLITE - 25 mg, 100 caps	28.00	21.00		
	7-KETO® DHEA METABOLITE - 4 bottles of 100 caps	96.00	72.00		
01271	7-KETO® DHEA METABOLITE - 100 mg, 60 veg. caps	40.00	30.00		
	7-KETO® DHEA METABOLITE - 4 bottles of 60 veg. caps	144.00	108.00		
00607	DHEA - 25 mg dissolve in mouth 100 tablets pharmaceutical-grade	14.00	10.50		
	DHEA - 4 bottles of 100 tablets pharmaceutical-grade	47.00	35.25		
01250	DHEA COMPLETE - 60 veg. caps	48.00	36.00		
	DHEA COMPLETE - 4 bottles of 60 veg. caps	172.80	129.60		
00335	DHEA - 25 mg, 100 caps	15.00	11.25		
	DHEA - 4 bottles of 100 caps	50.00	37.50		
00454	DHEA - 15 mg, 100 caps	12.00	9.00		
	DHEA - 4 bottles of 100 caps	40.00	30.00		

SUB-TOTAL OF COLUMN 6

No.		Retail	Member Price	Qty	Total
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		
01358	DIGEST RC - 30 tablets	19.95	14.96		
	DIGEST RC - 4 boxes of 30 tablets	68.00	51.00		
01272	(ENHANCED SUPER) DIGESTIVE ENZYMES - 100 veg. caps	18.95	14.21		
	(ENHANCED SUPER) DIGESTIVE ENZYMES - 4 bottles of 100 veg. caps	64.00	48.00		
01273	(ENHANCED SUPER) DIGESTIVE ENZYMES w/PROBIOTICS - 100 veg. caps	24.00	18.00		
	(ENHANCED SUPER) DIGESTIVE ENZYMES w/PROBIOTICS - 4 bottles of 100 veg. caps	88.00	66.00		
*01042	(EUROPEAN LEG SOLUTION) DIOSMIN95 - 600 mg, 30 veg. tabs	20.00	15.00		
	(EUROPEAN LEG SOLUTION) DIOSMIN95 - 4 bottles of 30 veg. tabs	72.00	54.00		
00034	D,L-PHENYLALANINE CAPSULES - 500 mg, 100 caps	18.75	14.06		
	D,L-PHENYLALANINE CAPSULES - 4 bottles of 100 caps	64.00	48.00		
00257	DMAE BITARTRATE - 150 mg, 200 caps	14.00	10.50		
	DMAE BITARTRATE - 4 bottles of 200 caps	42.00	31.50		
00197	DMAE-GINKGO CAPSULES - 100 caps	36.00	27.00		
	DMAE-GINKGO CAPSULES - 4 bottles of 100 caps	120.00	90.00		
	DMAE-GINKGO CAPSULES - 8 bottles of 100 caps	220.00	165.00		
00059	DMG - 125 mg dimethylglycine, 60 tablets	18.50	13.88		
	DMG - 4 boxes of 60 tablets	68.00	51.00		
01052	DNA PROTECTION FORMULA - 60 veg. caps	28.00	21.00		
	DNA PROTECTION FORMULA - 4 bottles of 60 veg. caps	100.80	75.60		
00321	DR. PROCTOR'S ADVANCED HAIR FORMULA - 2 oz	39.95	29.96		
	DR. PROCTOR'S ADVANCED HAIR FORMULA - 4 bottles	128.00	96.00		
00320	DR. PROCTOR'S HAIR FORMULA SHAMPOO - 8 oz bottle	24.95	18.71		
	DR. PROCTOR'S HAIR FORMULA SHAMPOO - 4 bottles	88.00	66.00		
00376	DR. TUNG'S TONGUE CLEANER	8.45	6.34		
	DR. TUNG'S TONGUE CLEANERS - 4 quantity	32.20	24.15		
00899	DUAL-ACTION MICRODERMABRASION ADV. EXFOLIATE - 2.4 net oz jar	39.95	29.96		
	DUAL-ACTION MICRODERMABRASION ADV. EXFOLIATE - 4 jars of 2.4 net oz	155.80	116.85		
00240	DUAL-C - 90 caps	12.00	9.00		
	DUAL-C - 4 bottles of 90 caps	42.00	31.50		
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		
00048	(EMULSIFIED SUPER TWIN) EPA/DHA - 12 fl. oz.	22.45	16.84		
01498	ENDOTHELIAL DEFENSE™ w/FULL-SPECTRUM POMEGRANATE™ - 60 softgels	58.00	43.50		
	ENDOTHELIAL DEFENSE™ w/FULL-SPECTRUM POMEGRANATE™ - 4 bottles of 60 softgels	208.00	156.00		
00997	ENDOTHELIAL DEFENSE™ w/GLISODIN® - 60 veg. caps	52.00	39.00		
	ENDOTHELIAL DEFENSE™ w/GLISODIN® - 4 bottles of 60 veg. caps	184.00	138.00		
00625	(MEGA) EPA/DHA - 120 softgels	19.95	14.96		
	(MEGA) EPA/DHA - 4 bottles of 120 softgels	72.00	54.00		
01428	ESSENTIAL FAT-SOLUBLE NUTRIENTS - 30 softgels	28.00	21.00		
	ESSENTIAL FAT-SOLUBLE NUTRIENTS - 4 bottles of 30 softgels	100.00	75.00		
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		
01064	FEMMENESSENCE MACAPAUSE® - 120 veg. caps	34.99	26.24		
*01311	(ENHANCED) FERNBLOCK® w/SENDARA™ - 30 veg. caps	39.00	29.25		
	(ENHANCED) FERNBLOCK® w/SENDARA™ - 4 bottles of 30 veg. caps	140.00	105.00		

SUB-TOTAL OF COLUMN 7

No.		Retail	Member Price	Qty	Total
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		
00718	FIBRINOGEN RESIST FORMULA (NATTOKINASE) - 30 veg. caps	49.00	36.75		
	FIBRINOGEN RESIST FORMULA (NATTOKINASE) - 4 bottles of 30 caps	176.00	132.00		
00873	FLAXSEED POWDER (HI-LIGNAN NUTRI-FLAX) - 16 oz powder	9.95	7.46		
01200	FLORASTOR® - 250 mg, 50 caps	55.15	41.36		
01312	(OPTIMIZED) FOLATE (5-METHYLTETRAHYDROFOLATE) - 100 veg. caps	28.00	21.00		
	(OPTIMIZED) FOLATE (5-METHYLTETRAHYDROFOLATE) - 4 bottles of 100 veg. caps	100.00	75.00		
00347	FOLIC ACID + B12 CAPSULES - 200 caps	10.50	7.88		
	FOLIC ACID + B12 CAPSULES - 4 bottles of 200 caps	38.00	28.50		
00300	FORSKOLIN - 10 mg, 60 caps of elemental forskolin	15.00	11.25		
	FORSKOLIN - 4 bottles of 60 caps of elemental forskolin	50.00	37.50		
00993	FUCOXANTHIN-SLIM™ - 90 softgels	44.00	33.00		
	FUCOXANTHIN-SLIM™ - 4 bottles of 90 softgels	156.00	117.00		
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		
00117	GELATIN CAPSULES - Set of 1000 empty caps size "00"	19.00	14.25		
	GELATIN CAPSULES - 4 Sets	72.00	54.00		
01301	GH PITUITARY SUPPORT DAY FORMULA - 120 vegetarian tabs	48.00	36.00		
	GH PITUITARY SUPPORT DAY FORMULA - 4 bottles of 120 veg. tabs	176.00	132.00		
01302	GH PITUITARY SUPPORT NIGHT FORMULA - 120 veg. caps	25.00	18.75		
	GH PITUITARY SUPPORT NIGHT FORMULA - 4 bottles of 120 veg. caps	90.00	67.50		
00778	GINKGO BILOBA CERTIFIED EXTRACT™ - 120 mg, 365 caps	46.00	34.50		
	GINKGO BILOBA CERTIFIED EXTRACT™ - 2 bottles of 365 caps	87.00	65.25		
00504	(SUPER) GINKGO EXTRACT - 120 mg, 100 caps	29.00	21.75		
	(SUPER) GINKGO EXTRACT - 4 bottles of 100 caps	106.00	79.50		
01032	(PANAX RED) GINSENG - 60 veg. caps	29.99	22.49		
00756	(MEGA) GLA WITH SESAME LIGNANS - 60 softgels	19.50	14.63		
	(MEGA) GLA WITH SESAME LIGNANS - 4 bottles of 60 softgels	72.00	54.00		
00345	(L) GLUTAMINE CAPSULES - 500 mg, 100 caps	14.95	11.21		
	(L) GLUTAMINE CAPSULES - 4 bottles of 100 caps	54.00	40.50		
00141	(L)-GLUTAMINE POWDER - 100 grams of powder	19.00	14.25		
	(L)-GLUTAMINE POWDER - 4 bottles of powder	67.52	50.64		
00522	GLUCOSAMINE/CHONDROITIN CAPSULES - 100 caps	38.00	28.50		
	GLUCOSAMINE/CHONDROITIN CAPSULES - 4 bottles of 100 caps	128.00	96.00		
00512	GLUCOFIT™ (COROSOLIC ACID) - 100 softgels	28.00	21.00		
	GLUCOFIT™ (COROSOLIC ACID) - 4 bottles of 100 softgels	100.00	75.00		
00113	GLUTATHIONE, C & CYSTEINE - 750 mg, 100 caps	18.00	13.50		
	GLUTATHIONE, C & CYSTEINE - 4 bottles of 100 caps	64.00	48.00		
00314	(MEGA) L-GLUTATHIONE - 250 mg, 60 caps	35.95	26.96		
	(MEGA) L-GLUTATHIONE - 4 bottles of 60 caps	129.44	97.08		

* 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.

† Member pricing not valid on this item.

SUB-TOTAL OF COLUMN 8

Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
G CONTINUED					
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		
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					
01074	5 HTP - 100 mg, 60 caps	\$27.95	\$20.96		
00230	HCA - 90 caps	18.00	13.50		
	HCA - 4 bottles of 90 caps	62.00	46.50		
00656	HEPATOPRO - 900 mg, 60 softgel	49.50	37.13		
	HEPATOPRO - 4 bottles of 60 softgel	188.00	141.00		
00873	HI-LIGNAN NUTRI-FLAX - 16 oz powder	9.95	7.46		
00800	HOMOCYSTEINE RESIST - 100 caps	24.00	18.00		
	HOMOCYSTEINE RESIST - 4 bottles of 100 caps	86.40	64.80		
00067	HOODIA GORDONII - 60 caps	14.00	10.50		
00627	HUPERZINE A W/NATURAL VITAMIN E - 50 mcg, 60 caps	27.95	20.96		
	HUPERZINE A W/NATURAL VITAMIN E - 4 bottles of 60 caps	96.00	72.00		
00661	HYDRODERM® - 1 oz bottle	79.95	59.96		
	HYDRODERM® - 2 - 1 oz bottles	130.66	98.00		
I					
01060	i26 HYPERIMMUNE EGG - 140 grams of powder	\$49.99	\$42.00		
01065	IDEAL BOWEL SUPPORT 299V - 30 veg. caps	21.95	16.46		
00955	IMMUNE PROTECT W/PARACTIN® - 30 veg. caps	29.50	22.13		
	IMMUNE PROTECT W/PARACTIN® - 4 bottles of 30 veg. caps	106.20	79.65		
01049	INNERPOWER™ W/SWEET STEVIA- Tropical Flavor Powder	42.00	31.50		
00155	INOSINE CAPSULES - 500 mg, 60 caps	22.95	17.21		
	INOSINE CAPSULES - 4 bottles of 60 caps	84.00	63.00		
00109	INOSITOL CAPSULES - 500 mg, 100 caps	14.99	11.24		
	INOSITOL CAPSULES - 4 bottles of 100 caps	55.16	41.37		
00410	INOSITOL CAPSULES - 1000 mg, 360 caps	48.00	36.00		
	INOSITOL CAPSULES - 4 bottles of 360 caps	175.00	131.25		
00108	INOSITOL POWDER - 100 grams of powder	18.00	13.50		
	INOSITOL POWDER - 4 bottles of powder	67.52	50.64		
01021	INTACT DIGEST™ - 8 fl oz	35.00	26.25		
	INTACT DIGEST™ - 4 - 8 fl oz bottles	132.00	99.00		
01292	INTEGRA-LEAN® IRVINGIA - 150 mg, 60 veg. caps	34.00	25.50		
	INTEGRA-LEAN® IRVINGIA - 4 bottles of 60 veg. caps	120.00	90.00		
01002	IODORAL - 180 caps	50.00	37.50		
00563	IRON PROTEIN PLUS - 300 mg, 100 caps	24.00	18.00		
	IRON PROTEIN PLUS - 4 bottles of 100 caps	88.00	66.00		
01492	(OPTIMIZED) IRVINGIA W/PHASE 3™ - 120 veg. caps	64.00	48.00		
	CALORIE CONTROL COMPLEX				
	(OPTIMIZED) IRVINGIA w/PHASE 3™ - 4 bottles of 120 veg. caps	240.00	180.00		
	CALORIE CONTROL COMPLEX				

SUB-TOTAL OF COLUMN 9

No.		Retail	Member Price	Qty	Total
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		
01538	LIFE EXTENSION MIX™ - 315 veg. tablets	98.00	73.50		
	LIFE EXTENSION MIX™ - 4 bottles of 315 veg. tablets	344.00	258.00		
	LIFE EXTENSION MIX™ - 10 bottles of 315 veg. tablets	695.00	521.25		
01555	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		
01557	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		
01554	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		
01556	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		
01565	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		
01567	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		
01564	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		
01566	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		

SUB-TOTAL OF COLUMN 10

No.		Retail	Member Price	Qty	Total
01279	LIFE EXTENSION MOUTHWASH w/POMEGRANATE - 16 oz bottle	\$18.50	\$13.88		
	LIFE EXTENSION MOUTHWASH w/POMEGRANATE - 4 -16 oz bottle	68.00	51.00		
01501	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		
01516	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		
01515	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		
01470	LURALEAN® CAPS SPECIAL PROPOLMANNAN PARTICLE SIZE - 120 veg. caps	28.00	21.00		
	LURALEAN® CAPS SPECIAL PROPOLMANNAN PARTICLE SIZE - 4 bottles of 120 veg. caps	100.00	75.00		
01017	LUSTRE™ - 90 tablets	17.50	13.13		
	LUSTRE™ - 4 bottles of 90 tablets	62.00	46.50		
01028	LYCOPENE - 10 mg, 60 softgels	24.98	18.74		
00455	(MEGA) LYCOPENE EXTRACT - 15 mg, 90 softgels	35.00	26.25		
	(MEGA) LYCOPENE EXTRACT - 4 bottles of 90 softgels	120.00	90.00		
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		
00704	MAITAKE™ SX-FRACTION - 90 veg. tablets	49.95	37.46		
00547	MELATONIN - 300 mcg, 100 caps	5.75	4.31		
	MELATONIN - 4 bottles of 100 caps	20.00	15.00		
01083	MELATONIN CAPSULES - 500 mcg, 200 veg. caps	18.00	13.50		
	MELATONIN CAPSULES - 4 bottles of 200 veg. caps	64.00	48.00		
00329	MELATONIN CAPSULES - 1 mg, 60 caps	5.00	3.75		
	MELATONIN CAPSULES - 4 bottles of 60 caps	18.52	13.89		
00330	MELATONIN CAPSULES - 3 mg, 60 caps	8.00	6.00		
	MELATONIN CAPSULES - 4 bottles of 60 caps	27.52	20.64		
01086	MELATONIN CAPSULES - 3 mg, 60 time-release veg. caps	10.50	7.88		
	MELATONIN CAPSULES - 4 bottles of 60 time-release veg. 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		
01087	MELATONIN TIME RELEASE - 300 mcg, 100 veg. caps	6.25	4.69		
	MELATONIN TIME RELEASE - 4 bottles of 100 veg. caps	22.52	16.89		

SUB-TOTAL OF COLUMN 11

No.		Retail	Member Price	Qty	Total
01088	MELATONIN TIME RELEASE - 750 mcg, 60 veg. caps	\$5.75	\$4.31		
	MELATONIN TIME RELEASE - 4 bottles of 60 veg. caps	20.00	15.00		
01009	MEMORY UPGRADE - 600 grams powder	26.95	20.21		
01047	MENOPAUSE SOLUTIONS - 120 tablets	49.95	37.46		
00536	METHYLCOBALAMIN - 1 mg, 60 dissolve-in-mouth lozenges (vanilla)	9.95	7.46		
	METHYLCOBALAMIN - 4 bottles of 60 dissolve-in-mouth lozenges	32.00	24.00		
00537	METHYLCOBALAMIN - 5 mg, 60 dissolve-in-mouth lozenges (vanilla)	32.00	24.00		
	METHYLCOBALAMIN - 4 bottles of 60 dissolve-in-mouth lozenges	100.00	75.00		
	METHYLCOBALAMIN - 10 bottles of 60 dissolve-in-mouth lozenges	230.00	172.50		
00709	MIGRA-EEZE (BUTTERBUR) - 60 softgels	29.50	22.13		
	MIGRA-EEZE (BUTTERBUR) - 4 bottles of 60 softgels	105.32	79.00		
00623	MINERAL FORMULA FOR MEN - 100 caps	15.00	11.25		
	MINERAL FORMULA FOR MEN - 4 bottles of 100 caps	50.00	37.50		
	MINERAL FORMULA FOR MEN - 12 bottles of 100 caps	130.00	97.50		
00624	MINERAL FORMULA FOR WOMEN - 100 caps	15.00	11.25		
	MINERAL FORMULA FOR WOMEN - 4 bottles of 100 caps	50.00	37.50		
	MINERAL FORMULA FOR WOMEN - 12 bottles of 100 caps	130.00	97.50		
01315	(SUPER) MIRAFORTE w/STANDARDIZED LIGNANS - 120 caps	62.00	46.50		
	(SUPER) MIRAFORTE w/STANDARDIZED LIGNANS - 4 bottles of 120 caps	224.00	168.00		
01368	MITOCHONDRIAL ENERGY OPTIMIZER - 120 caps	86.00	64.50		
	MITOCHONDRIAL ENERGY OPTIMIZER - 4 bottles of 120 caps	312.00	234.00		
00803	MISTORAL III w/COQ10 - 2 fl oz bottle	28.00	21.00		
	MISTORAL III w/COQ10 - 4 bottles	101.32	75.99		
00065	MK-7 - 90 mcg, 60 softgels	28.00	21.00		
	MK-7 - 4 bottles of 60 softgels	100.00	75.00		
00451	MSM (METHYL-SULFONYL-METHANE) - 1000 mg, 100 caps	14.00	10.50		
	MSM (METHYL-SULFONYL-METHANE) - 4 bottles of 100 caps	47.80	35.85		
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	10.00	7.50		
	NAPCA W/ALOE VERA - 4 bottles	36.60	27.45		
00066	NATTOKINASE - 60 softgels	24.98	18.74		
00718	NATTOKINASE (FIBRINOGEN RESIST FORMULA) - 30 caps	49.00	36.75		
	NATTOKINASE (FIBRINOGEN RESIST FORMULA) - 4 bottles of 30 caps	176.00	132.00		
00891	NATURAL APPETITE CONTROL - 90 softgels	28.00	21.00		
	NATURAL APPETITE CONTROL - 4 bottles of 90 softgels	100.80	75.60		
00984	NATURAL BP MANAGEMENT - 60 tablets	42.00	31.50		
	NATURAL BP MANAGEMENT - 4 bottles of 60 tablets	151.20	113.40		
00913	NATURAL ESOPHAGUARD - 10 softgels	19.95	14.96		
	NATURAL ESOPHAGUARD - 2 boxes of 10 softgels	38.00	28.50		
00712	NATURAL ESTROGEN w/POMEGRANATE EXTRACT - 60 caplets	38.00	28.50		
	NATURAL ESTROGEN w/POMEGRANATE EXTRACT - 4 bottles of 60 caplets	132.00	99.00		
01221	NATURAL FEMALE SUPPORT - 30 veg. caps	28.00	21.00		
	NATURAL FEMALE SUPPORT - 4 bottles of 30 veg. caps	96.00	72.00		
01471	NATURAL GLUCOSE ABSORPTION CONTROL - 60 veg. caps	39.00	29.25		
	NATURAL GLUCOSE ABSORPTION CONTROL - 4 bottles of 60 veg. caps	144.00	108.00		
00698	NATURAL RELIEF 1222™ - 2 oz tube	28.00	21.00		
	NATURAL RELIEF 1222™ - 4, 2 oz tubes	100.00	75.00		
01084	NATURAL SLEEP - 3 mg, 60 veg. caps	12.99	9.74		
	NATURAL SLEEP - 4 bottles of 60 veg. caps	40.00	30.00		
01085	NATURAL SLEEP MELATONIN - 5 mg, 60 veg. caps	18.00	13.50		
	NATURAL SLEEP MELATONIN - 4 bottles of 60 veg. caps	64.00	48.00		

SUB-TOTAL OF COLUMN 12

Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
N CONTINUED					
00987	NATURAL STRESS RELIEF - 30 veg. caps	\$28.00	\$21.00		
	NATURAL STRESS RELIEF - 4 bottles of 30 veg. caps	96.00	72.00		
01000	NEW FACE SOLUTION - 1.7 oz bottle	54.00	40.50		
	NEW FACE SOLUTION - 4 bottles of 1.7 oz	196.00	147.00		
00096	NIACIN (B-3) CAPSULES - 1000 mg, 100 caps	12.75	9.56		
	NIACIN (B-3) CAPSULES - 4 bottles of 100 caps	48.00	36.00		
00372	NIACIN (B-3) CAPSULES - 500 mg, 100 caps	7.65	5.74		
	NIACIN (B-3) CAPSULES - 4 bottles of 100 caps	26.60	19.95		
00373	NO-FLUSH NIACIN - 800 mg, 100 caps	19.00	14.25		
	NO-FLUSH NIACIN - 4 bottles of 100 caps	68.00	51.00		
01035	NUTRIM POWDER - 170 grams powder	25.95	19.46		
00523	N-ZIMES® - 270 caps	23.90	17.93		
	N-ZIMES® - 4 bottles of 270 caps	88.00	66.00		
O					
00104	OCTACOSANOL - 8000 mcg, 60 caps	\$17.99	\$13.49		
	OCTACOSANOL - 4 bottles of 60 caps	62.96	47.22		
01483	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 60 softgels	18.00	13.50		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 4 bottles of 60 softgels	64.00	48.00		
01482	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 120 softgels	32.00	24.00		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 4 bottles of 120 softgels	112.00	84.00		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT - 10 bottles of 120 softgels	249.00	186.75		
01484	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT (ENTERIC COATED) - 120 softgels	34.00	25.50		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT (ENTERIC COATED) - 4 bottles of 120 softgels	124.00	93.00		
	(SUPER) OMEGA 3 EPA/DHA w/SESAME LIGNANS & OLIVE FRUIT EXTRACT (ENTERIC COATED) - 10 bottles of 120 softgels	280.00	210.00		
00717	ONLY TRACE MINERALS - 90 caps	15.00	11.25		
	ONLY TRACE MINERALS - 4 bottles of 90 caps	50.00	37.50		
00915	OPTIZINC® - 30 mg, 90 veg. caps	5.95	4.46		
	OPTIZINC® - 4 bottles of 90 veg. caps	20.00	15.00		
01070	ORGANIC TOTAL BODY CLEANSE - 14-day supply	34.99	26.24		
00043	L-ORNITHINE CAPSULES - 500 mg, 100 caps	24.95	18.71		
	L-ORNITHINE CAPSULES - 4 bottles of 100 caps	80.00	60.00		
P					
00107	PABA CAPS - 500 mg, 100 caps	\$13.99	\$10.49		
	PABA CAPS - 4 bottles of 100 caps	49.32	36.99		
00073	PANCREATIN - 500 mg, 50 caps	11.99	8.99		
	PANCREATIN - 4 bottles of 50 caps	43.96	32.97		
00923	PEAK ATP® WITH GLYCOCARN® - 60 tablets	59.00	44.25		
	PEAK ATP® WITH GLYCOCARN® - 4 bottles of 60 tablets	224.00	168.00		
00342	PECTA-SOL - One-month supply modified citrus pectin	99.95	74.96		
	PECTA-SOL - Four-month supply modified citrus pectin	382.80	287.10		
01080	PECTA-SOL-C® MODIFIED CITRUS PECTIN - 270 veg. caps	69.95	52.46		
00872	PGX FIBER POWDER (SLIMSTYLES) - 6.4 oz powder	22.95	17.21		
00673	(WELLBETX) PGX SOLUBLE FIBER BLEND -180 caps	34.95	26.21		
00865	PHARMAGABA™ - 60 chewable tablets	29.95	22.46		
	PHARMAGABA™ - 4 bottles of 60 chewable tablets	108.00	81.00		
00368	PHOSPHATIDYLSERINE CAPS - 100 mg, 100 caps	54.00	40.50		
	PHOSPHATIDYLSERINE CAPS - 4 bottles of 100 caps	192.00	144.00		
01050	PHOSPHOMEGA™ KRILL OIL - 60 softgels	33.95	25.46		
00614	PILL CUTTER/GRINDER	11.95	8.96		

SUB-TOTAL OF COLUMN 13

OCTOBER 2010

No.		Retail	Member Price	Qty	Total
00561	POLICOSANOL - 10 mg, 60 tablets	\$24.00	\$18.00		
	POLICOSANOL - 6 bottles of 60 tablets	108.00	81.00		
00994	(SUPER) POLYPHENOL EXTRACTS WITH COCOAGOLD™ - 30 veg. caps	24.00	18.00		
	(SUPER) POLYPHENOL EXTRACTS WITH COCOAGOLD™ - 4 bottles of 30 veg. caps	84.00	63.00		
01423	(FULL-SPECTRUM) POMEGRANATE™ - 30 softgels	24.00	18.00		
	(FULL-SPECTRUM) POMEGRANATE™ - 4 bottles of 30 softgels	84.00	63.00		
00956	POMEGRANATE EXTRACT - 30 veg. caps	19.50	14.63		
	POMEGRANATE EXTRACT - 4 bottles of 30 veg. caps	70.20	52.64		
00957	POMEGRANATE JUICE CONCENTRATE - 16 oz. liquid	25.95	19.46		
	POMEGRANATE JUICE CONCENTRATE - 4 bottles of 16 oz liquid	96.00	72.00		
00577	POTASSIUM IODIDE - 1 box, 14 tablets	6.95	5.21		
	POTASSIUM IODIDE - 4 boxes, 14 tablets	21.00	15.75		
00302	PREGNENOLONE CAPSULES - 50 mg, 100 caps	24.00	18.00		
	PREGNENOLONE CAPSULES - 4 bottles of 100 caps	76.00	57.00		
00700	PREGNENOLONE CAPSULES - 100 mg, 100 caps	26.00	19.50		
	PREGNENOLONE CAPSULES - 4 bottles of 100 caps	90.00	67.50		
*01373	PRELOX® NATURAL SEX FOR MEN® - 60 tablets	50.00	37.50		
	PRELOX® NATURAL SEX FOR MEN® - 4 bottles of 60 tablets	180.00	135.00		
00571	PRIMAL DEFENSE® - 900 mg, 90 caplets	49.95	37.46		
	PRIMAL DEFENSE® - 4 bottles of 90 caplets	194.00	145.50		
01019	PRIMAL DEFENSE® - 180 caplets	78.95	59.21		
00525	PROBOOST THYMIC PROTEIN A™ - 4 mcg, 30 packets	72.00	54.00		
	PROBOOST THYMIC PROTEIN A™ - 4 boxes	280.00	210.00		
00869	PRO FEM CREAM - 2 oz jar, Progesterone Cream	26.00	19.50		
	PRO FEM CREAM - 4, 2 oz jars, Progesterone Cream	96.00	72.00		
01020	PROGREENS® - 15 stick pack	22.50	16.88		
01072	PRO M INTERNAL DEODORIZER - 500 mg, 100 veg. caps	28.00	21.00		
	PRO M INTERNAL DEODORIZER - 4 bottles of 100 veg. caps	100.00	75.00		
*01495	(ULTRA NAT) PROSTATE FORMULA w/ 5-LOXIN® STAND. LIGNANS -60 softgels	38.00	28.50		
	(ULTRA NAT) PROSTATE FORMULA w/ 5-LOXIN® STAND. LIGNANS -4 bot of 60 softgels	140.00	105.00		
	(ULTRA NAT) PROSTATE FORMULA w/ 5-LOXIN® STAND. LIGNANS -12 bot of 60 softgels	384.00	288.00		
01092	(ENHANCED LIFE EXTENSION) PROTEIN (VANILLA) - 1 kg. of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (VANILLA) - 4 bot of powder	144.00	108.00		
01093	(ENHANCED LIFE EXTENSION) PROTEIN (CHOCOLATE) - 1 kg of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (CHOCOLATE) - 4 bot of powder	144.00	108.00		
01094	(ENHANCED LIFE EXTENSION) PROTEIN (NATURAL) - 1 kg of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (NATURAL) - 4 bot of powder	144.00	108.00		
01095	(ENHANCED LIFE EXTENSION) PROTEIN (BERRY) - 1 kg of powder	38.00	28.50		
	(ENHANCED LIFE EXTENSION) PROTEIN (BERRY) - 4 bot of powder	144.00	108.00		
00290	(DESIGNER WHEY) PROTEIN - Vanilla 2 lbs of powder	42.49	31.87		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Vanilla powder	154.00	115.50		
00282	(DESIGNER WHEY) PROTEIN - Chocolate 2 lbs of powder	42.49	31.87		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Chocolate powder	154.00	115.50		
00283	(DESIGNER WHEY) PROTEIN - Natural 2 lbs of powder	42.49	31.87		
	(DESIGNER WHEY) PROTEIN - 4 bottles of Natural powder	154.00	115.50		
01056	PURE-GAR® - 200 caps	24.95	18.71		
	PURE-GAR® - 4 bottles of 200 caps	84.00	63.00		
01209	(WATER-SOLUBLE) PUMPKIN SEED EXTRACT - 60 veg. caps	20.00	15.00		
	(WATER-SOLUBLE) PUMPKIN SEED EXTRACT - 4 bottles 60 veg. caps	72.00	54.00		
01210	(WATER-SOLUBLE) PUMPKIN SEED EXT w/SOY ISOFLAVONES - 60 veg. caps	22.00	16.50		
	(WATER-SOLUBLE) PUMPKIN SEED EXT w/SOY ISOFLAVONES - 4 bottles 60 veg.	80.00	60.00		
01031	PYCNOGENOL® - 60 veg. caps	86.95	65.21		
01207	PYRIDOXAMINE CAPS - 50 mg, 60 veg. caps	22.00	16.50		
	PYRIDOXAMINE CAPS - 4 bottles of 60 veg. caps	79.20	59.40		

* Product cannot be sold outside the USA.

SUB-TOTAL OF COLUMN 14

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

No.		Retail	Member Price	Qty	Total
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	16.95	12.71		
00979	RED YEAST RICE (Nature's Plus)- 600 mg, 60 veg. caps	23.20	17.40		
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		
01430	(OPTIMIZED) RESVERATROL w/SYNERGISTIC GRAPE-BERRY ACTIVES - 250 mg, 60 veg. caps	46.00	34.50		
	(OPTIMIZED) RESVERATROL w/SYNERGISTIC GRAPE-BERRY ACTIVES - 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		
01473	(D) RIBOSE CAPS - 100 veg. tabs	32.00	24.00		
	(D) RIBOSE CAPS - 4 bottles of 100 veg. tabs	112.00	84.00		
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		
00917	ROSMARINIC ACID EXTRACT - 60 veg. caps	59.00	44.25		
	ROSMARINIC ACID EXTRACT - 4 bottles of 60 veg. caps	212.00	159.00		
S					
01082	(JARROW) SACCHAROMYCES BOULARDII + MOS - 30 veg. caps	\$9.95	\$7.46		
01067	(JARROW) SACCHAROMYCES BOULARDII + MOS - 90 veg. caps	21.95	16.46		
01432	(OPTIMIZED) SAFFRON w/SATIEREAL - 60 veg. caps	36.00	27.00		
	(OPTIMIZED) SAFFRON w/SATIEREAL - 4 bottles of 60 veg. caps	128.00	96.00		
*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		

SUB-TOTAL OF COLUMN 15

No.		Retail	Member Price	Qty	Total
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		
01055	SAME (S-ADENOSYL-METHIONINE) - 400 mg, 50 tablets	78.00	58.50		
	SAME (S-ADENOSYL-METHIONINE) - 4 bottles of 50 tablets	280.00	210.00		
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		
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		
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	42.00	31.50		
	(MEGA) SILYMARIN WITH ISOSILYBIN B - 4 bottles of 100 caps	152.00	114.00		
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		
01097	(ULTRA) SOY EXTRACT - 150 veg. caps	87.00	65.25		
	(ULTRA) SOY EXTRACT - 4 bottles of 150 veg. caps	312.00	234.00		
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		
00327	ST. JOHN'S WORT EXTRACT (PLANETARY) - 600 mg, 60 tablets	16.75	12.56		
	ST. JOHN'S WORT EXTRACT (PLANETARY) - 4 bottles of 60 tablets	55.40	41.55		
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	(OVERCAST POLARIZED) SUNGLASSES - gray color, large	27.00	20.25		
	(OVERCAST POLARIZED) SUNGLASSES - 2 pairs, gray color	42.00	31.50		
00748	(OVERCAST POLARIZED) SUNGLASSES - gray color, medium	27.00	20.25		
	(OVERCAST 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		

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

SUB-TOTAL OF COLUMN 16

Buyers Club Order Form

To order call: 1.954.766.8433 or 1.800.544.4440

No.		Retail	Member Price	Qty	Total
S CONTINUED					
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					
01062	TART CHERRY (FRUIT ADVANTAGE) - 600 mg, 60 caps	\$18.95	\$14.21		
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 & PHOTO-AGING RECOVERY COMPLEX - SPF 30, 4 oz Tube	28.00	21.00		
	TOTAL SUN PROTECTION CREAM W/BETAGLUCANS & PHOTO-AGING RECOVERY COMPLEX - 4-4 oz Tubes	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		
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		
00326	L-TYROSINE TABLETS - 500 mg, 100 tablets	12.50	9.38		
	L-TYROSINE TABLETS - 4 bottles of 100 tablets	45.68	34.26		
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® WHOLESOME FAST FOOD - 1 lb bottle	27.49	21.99		
01061	ULTIMATE FLORA ADVANCED IMMUNITY - 30 caps	29.99	22.49		

SUB-TOTAL OF COLUMN 17

No.		Retail	Member Price	Qty	Total
V					
00213	VANADYL SULFATE - 7.5 mg, 100 tablets	\$15.00	\$11.25		
	VANADYL SULFATE - 4 bottles of 100 tablets	50.00	37.50		
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 jars of powder	176.00	132.00		
00091	VITAMIN B1 CAPS - 500 mg, 100 caps	16.99	12.74		
	VITAMIN B1 CAPS - 4 bottles of 100 caps	60.68	45.51		
00093	VITAMIN B2 CAPS - 100 mg, 100 caps	12.99	9.74		
	VITAMIN B2 CAPS - 4 bottles of 100 caps	47.52	35.64		
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		
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		
00556	VITAMIN B6 CAPS - 250 mg, 100 caps	12.50	9.38		
	VITAMIN B6 CAPS - 4 bottles of 100 caps	44.00	33.00		
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		
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		
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		
01472	VITAMINS D AND K w/SEA-IODINE™ - 60 veg. caps	24.00	18.00		
	VITAMINS D AND K w/SEA-IODINE™ - 4 bottles of 60 veg. caps	88.00	66.00		
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		
01225	(LOW-DOSE) VITAMIN K2 (MK-7) - 45 mcg, 90 softgels	18.00	13.50		
	(LOW-DOSE) VITAMIN K2 (MK-7) - 4 bottles of 90 softgels	64.00	48.00		

* These products are not 25% off retail price.

** Due to license restrictions, this product is not for sale to Canada.

SUB-TOTAL OF COLUMN 18

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No.		Retail	Member Price	Qty	Total
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	42.00	31.50		
	(SUPER) ZEAXANTHIN W/LUTEIN & MESO-ZEAXANTHIN PLUS ASTAXANTHIN - 4 bottles of 60 softgels	152.00	114.00		
00061	ZINC LOZENGES WITH VITAMIN C - 75 lozenges	9.50	7.13		
	ZINC LOZENGES WITH VITAMIN C - 4 bottles of 75 lozenges	27.00	20.25		
01051	ZYFLAMEND - 120 softgels	60.95	45.71		
01029	ZYFLAMEND EASYCAPS - 180 caps	31.95	23.96		

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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Zyflamend® contains combinations of herbs traditionally used to promote a healthy inflammation response.* These herbs – most of which have been part of the human diet for thousands of years – are uniquely extracted to deliver the full spectrum of naturally occurring constituents.

Zyflamend is the #1-selling herbal in the U.S.† for healthy inflammation response.* It contains hundreds of bioactive constituents from ten of the most researched botanicals that promote a healthy inflammation response and provide multiple health benefits including bone health.*

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Emerging evidence suggests that inflammation exerts a significant effect on bone metabolism by stimulating production of RANKL (Receptor Activator for Nuclear Factor K B Ligand), a molecule that activates osteoclasts, the cells responsible for the breakdown of bone.

Throughout life, cells known as osteoblasts construct bone matrix and fill it with calcium. At the same time, osteoclasts work just as busily to tear down and resorb bone. This fine balance is regulated by many factors.

As our bodies age, this fine balance is lost. As the relative hormone levels shift in midlife – more drastically in women than in men – the osteoclasts gain the upper hand and bone mass begins to dwindle.

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An ideal bone health protocol would pair the necessary building blocks for bone remodeling with a formula that promotes a healthy and natural inflammation response.* Zyflamend, the patented herbal formula for a healthy inflammation response*, coupled with Bone Restore, a mineral formula designed to support healthy bone density and strength, is the comprehensive approach to total bone health.

To order Zyflamend or Bone Restore, call
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PROTECT EYE HEALTH AND FIGHT TIRED EYES

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

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

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

Fight Tired Eyes With Astaxanthin

If you're one of the more than 72 million people in America who use a computer daily at work,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.

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**



Item #01286

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

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

Astaxanthin is truly an exciting breakthrough in eye care.

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

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

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WHAT'S INSIDE

LifeExtension[®] Magazine

NOVEL METHODS TO REDUCE BODY FAT (Page 24)



Your body can't handle excess calories the way it used to. This leads to more fat pounds, elevated blood glucose, triglycerides, and cholesterol. Four clinically validated compounds can safely decrease appetite, impede absorption of calories, control fat storage—and suppress cardiac risk factors!

LOW TESTOSTERONE PROMOTES ABDOMINAL OBESITY (Page 50)



Low testosterone and obesity create a deadly cycle that can lead to metabolic syndrome, diabetes, and heart disease. Evidence shows that restoring testosterone to youthful ranges in men can help burn away abdominal fat and improve glucose control.

BLOCK ABSORPTION OF FAT CALORIES SAFELY (Page 40)



One way of shedding fat pounds is to block its absorption from the digestive tract. Discover how to safely use *bile acid*-binders and *lipase* inhibitors to shield your bloodstream from excess fat uptake.

LOW GLUCOSE 'TURNS ON' LONGEVITY GENES (Page 68)



Life Extension[®] members know the importance of maintaining low fasting glucose levels. New discoveries show that keeping fasting glucose around 80 mg/dL favorably influences longevity genes in ways analogous to calorie restriction!

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