

**Annual SUPER SALE Begins**

# LifeExtension®

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SPECIAL WINTER 2013-2014 EDITION

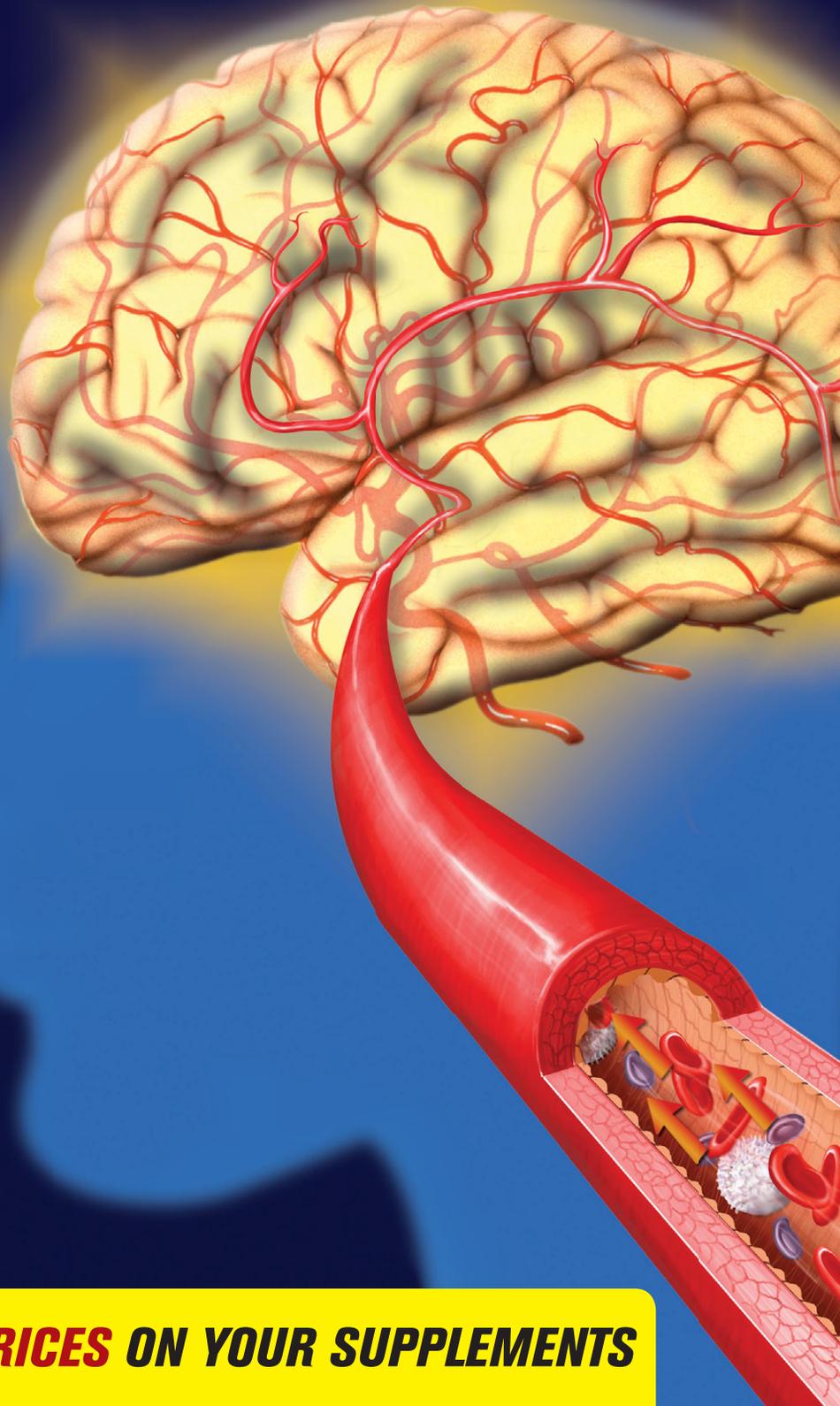
## ***Restore* Cerebral BLOOD FLOW**

***Lose Weight by  
Suppressing Your  
Hunger Hormone***

***New Sugar-free  
Chocolate***

***Vastly Improved  
Curcumin and  
Milk Thistle***

***Extinguish Fires  
of Chronic  
Inflammation***



***OBTAIN LOWEST PRICES ON YOUR SUPPLEMENTS***

# Reverse Cerebral Circulatory Deficits



Dear Member,

A critical mission of *Life Extension*<sup>®</sup> is to identify *aging* factors overlooked by conventional medicine.

We are leaders in the field of **cerebral ischemia**. Our experimental models have achieved record-breaking periods of **brain ischemia** (no blood flow) with successful resuscitation. We accomplish this by administering nutrients, hormones, and drugs that protect **brain cells** against the lethal effects of oxygen deprivation.

If you're wondering how this pertains to you, the answer is that normal *aging* causes **cerebral circulatory deficits**. This means not enough *oxygenated blood* is reaching your brain cells. A noticeable result is memory problems, depression, and loss of mental acuity. If not corrected, the outcome can degenerate into *dementia*.

A common side effect of heart-lung machine procedures is **cognitive dysfunctions** that persist long after the surgery. In an unprecedented clinical study, heart surgery patients placed on a bypass pump were given an *herbal medication* and compared to a similar group given a placebo. Three months after heart surgery, **31%** of the placebo arm had at least one *neurological deficit* compared to only **6%** of the herbal medication group.

You don't need to be hospitalized to take advantage of this brain-protecting breakthrough. It has been added to a **cognitive-enhancing** formula that *Life Extension* members already take and higher doses are available as a low-cost standalone.

## **MORE NEW FORMULATIONS THAN EVER!**

Recent discoveries enable *Life Extension* to address more **condition-specific** issues than ever before. For example, **chronic inflammation** suffered by aging individuals not only creates discomforts, but inflicts cellular damage that is at the root of most diseases. A new finding has led to a natural method to help extinguish the flames of systemic **inflammation**.

Excess **calorie consumption** is an epidemic problem, but a plant extract has been found to *suppress* the **hunger-hormone** (ghrelin) thereby *slashing appetite* while inducing meaningful **fat loss**. And a new **sugar-free chocolate** enables one to enjoy a delicious snack without the deadly **glucose spikes**.

## **ANNUAL SUPER SALE**

This is when we enlighten members to the year's most exciting discoveries. Our researchers spent countless hours meticulously reviewing scientific studies. These findings are then translated into *affordable* methods to benefit aging humans right now.

*Life Extension*<sup>®</sup> does not accept pathological aging. We fight back against the biological forces that conspire to rob us of our youth.

As has been done for the past **25 years**, we are launching our annual **Super Sale**. This enables members to access our most advanced nutrient formulas at **extra discounted prices**. You can take advantage of this once-a-year opportunity by calling **1-800-544-4440**.

For longer life,

A handwritten signature in black ink, appearing to read 'William Faloon'.

William Faloon

### 2 Restore Oxygen Flow to Your Brain

Researchers are recognizing that aging humans suffer chronic **obstructions** to their **cerebral blood flow**. This sets in motion neuronal injuries that manifest initially as **memory loss, depression, and cognitive dysfunction**. The long-term effect of cerebral **circulatory deficit** can be **stroke and Alzheimer's disease**. Find out how to reverse the suffocating impact of reduced blood flow in your **brain**.



### 15 Balance "Hunger Hormones" to Shed Body Fat

**Resistant weight gain** is often caused by hormone-induced hunger signals that lead to snacking and lack of satiety. Groundbreaking human studies demonstrate an extract from the **Italian Borlotto variety bean** regulates appetite hormones, including the major hunger hormone **ghrelin**. The result from placebo-controlled clinical trials is significant **fat loss**.



### 25 Turn "Off" Your Body's "Aging Switch"

Researchers have located an **"aging switch"** that turns on chronic diseases by releasing chemical signals that generate **chronic inflammation**. In an exciting development, scientists have uncovered two natural compounds that suppress this **"aging switch"** to put the brakes on premature senescence.



### 33 Probiotics Enhance Defenses Beyond the Colon

Imbalance of gut bacteria can do more than induce intestinal or digestive problems—it may be a catalyst for diabetes, cardiovascular disease, cancer, obesity, and respiratory infections. Two of the most studied **probiotics** have been shown to restore healthy gut bacteria, improve cell signaling, enhance immune function, and block pathways that lead to chronic conditions.



### 43 Sustainable Energy Without Stimulants

Aging humans suffer higher levels of fatigue, often complaining of **brain drain, diminished energy, and chronic exhaustion**. Two traditional Chinese medicinal ingredients have been uncovered that work deep at the **cellular level** to boost **ATP**, the body's internal energy resource. When combined, these readily available plant extracts have shown the ability to fight *all forms of fatigue*, including mental, emotional, physical, and stress without stimulants.



### 51 Bio-Enhanced Turmeric Compounds Target Multiple Inflammatory Pathways

Millions of Americans suffer from constant pain and diseases caused by chronic inflammation. Today's drugs target only a portion of the unwanted inflammatory factors. Scientists have identified three compounds (**curcumin, ginger, and turmeric oil**) that work across a broad spectrum to reduce chronic discomforts and long-term disease risk.



### 61 Enhanced Safeguards for Liver Function

Multiple studies confirm that **milk thistle** provides potent protection against liver damage and helps normalize elevated liver enzymes. Seeking to deliver more of milk thistle's liver protective compounds, formulators have developed an innovative method that transports a **10-fold greater** concentration of active **milk thistle** compounds to the liver for optimal health and function.



### 71 Defend Against Migraines

Alarming new evidence demonstrates that regular migraines may be a risk factor for many of the most crippling brain disorders, including stroke and dementia. As scientists searched for alternatives to the anti-epileptic drugs used for migraine treatment, they discovered two nutrients that effectively calm and balance the electrical storm of neurotransmitters that leads to migraines while nourishing the brain with improved blood flow to provide prevention and relief.



**Annual Super Sale begins November 18, 2013.**  
**To order, call 1-800-544-4440.**



# Broad-Spectrum Protection Against



BY ARLAN MYERSON

# BRAIN AGING

Your brain is under assault from environmental toxins, oxidant stress, inflammation, blood flow fluctuations, and excess glucose.<sup>1,2</sup> Collectively, these factors contribute to a state of neurotoxicity that accelerates brain aging resulting in neurodegenerative decline, Parkinson's, and Alzheimer's.<sup>1-4</sup>

Currently there are no medical options to halt this steady march toward mental darkness. Pharmaceutical intervention is largely palliative and cannot cure or restore lost brain function.

For thousands of years, Chinese doctors have used **gastrodin**, extracted from the root of the exotic **orchid**, *Gastrodia elata*, to treat a range of cognitive problems ranging from vertigo and headaches to paralysis and seizures.<sup>5-8</sup>

What scientists today are discovering is that **gastrodin** acts as a broad-spectrum "brain shield" that protects against various factors that cause age-related degradation of our mental processes. >

The wide ranging brain benefits of **gastrodin** were long ago identified.

What has researchers excited are new findings showing that **gastrodin** has *regenerative properties* that include rebalancing neurotransmitters, improving blood flow, decreasing memory loss, protecting brain functions during a stroke, and potentially reducing risk of Alzheimer's and Parkinsons.<sup>9-13</sup> In short, gastrodin provides unparalleled, multi-factorial brain protection in both extreme and everyday conditions.

Impressive human studies using gastrodin in hospital settings confirm its benefit in shielding the brain against neurological insults, including protecting the brain against memory loss that can occur when one undergoes open heart surgery!<sup>14</sup> In the discussion that follows, we highlight leading research showing how **gastrodin** protects against factors that conspire to deteriorate our brain.

### Neuroregeneration – Once Thought to be Impossible

Not so long ago, most scientists thought that adult brain tissue had no hope of regenerating itself. The loss of brain cells and brain function was considered *irreversible*. According to neurologists, once your brain had finished growing, the ongoing loss of brain cells was just a natural part of aging.<sup>15</sup>

But molecular science is revealing startling discoveries about the brain's ability to heal itself. What scientists have now found is that the brain can *regenerate* the neurons involved in brain remodeling (plasticity). **Plasticity** is the process by which brain cells reorganize and restructure their connections to form new memories and facilitate learning.<sup>16</sup>

Scientists in China and Singapore have made remarkable findings about how a natural orchid extract called **gastrodin** stimulates these neuro-regenerative processes. Extracts from the *Gastrodia orchid* have been shown to have a beneficial influence on up to nearly **20%** of the genes that control the brain's plasticity and regrowth. In the studies, gastrodin was shown to mobilize and activate specific aspects of the brain's regenerative activities.<sup>9,10</sup>

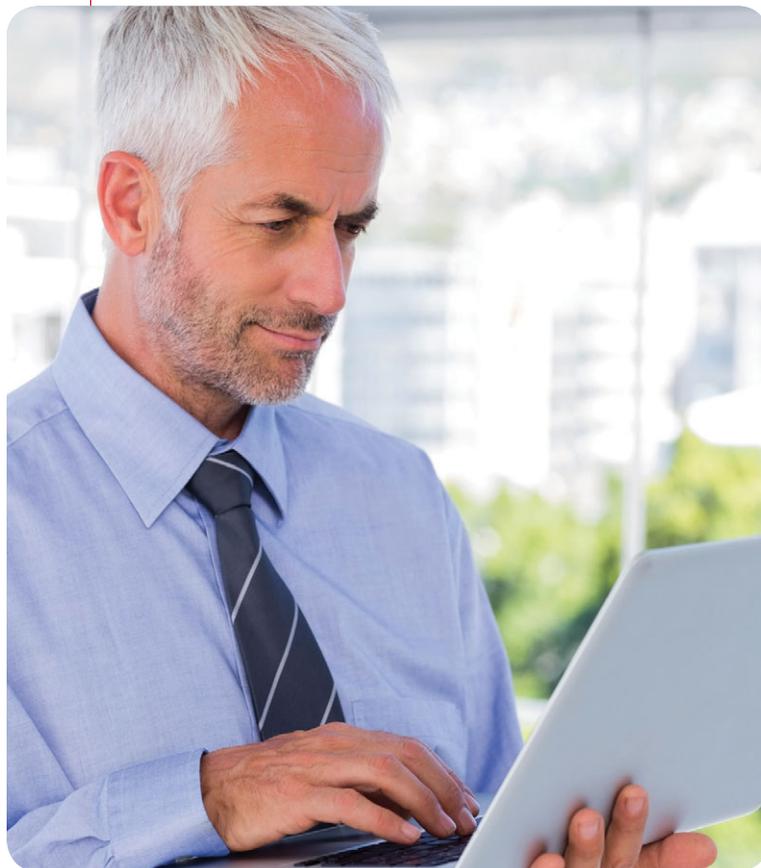
Instead of succumbing to progressive brain shrinkage with constriction of one's thoughts, feelings, and memories, brain cells have built-in natural, self-healing systems. **Gastrodin** can turn on and activate these regenerative mechanisms. This may turn out to be one of the most powerful methods ever discovered for preventing loss of brain function at any age.

### Brain Blood Flow

A major cause of brain aging and many of the problems that go along with it is a reduction in blood flow to the brain. The result is that the brain becomes starved for oxygen and fuel, producing a low-grade "suffocation."<sup>17</sup> This reduction in brain blood flow is progressive over the course of an individual's lifespan.<sup>18</sup> Reduced blood flow has been proven to be a direct cause of poor cognition and memory.<sup>17</sup> Gastrodin has repeatedly shown that it beneficially increases brain blood flow both in laboratory animals and human patients.<sup>12,19,20</sup>

In rats with experimentally-induced massive strokes, a gastrodin-based traditional preparation greatly improved blood flow when given 30 minutes after the stroke. Even at a relatively low dose, brain blood flow was restored to normal with the gastrodin-based formula.<sup>19</sup>

Human studies are just as dramatic. In a study involving **202** patients, a gastrodin-based formula improved brain blood flow in **96%** of the patients following stroke and other brain injuries.<sup>12</sup> In another study of patients with impaired circulation to the rear portions of their brains (where balance, vision, and coordination are processed), **95%** of patients given gastrodin plus *betahistine*



(a prescription medication) showed improved blood flow, while only **70%** of *betahistine* control patients showing improvement.<sup>20</sup>

Brain blood flow is also reduced by elevated blood sugar.<sup>21</sup> The result is often memory impairment and an increased risk for Alzheimer's disease. Gastrodin, in a recent lab study, improved insulin sensitivity, ridding the blood of excess glucose and reducing body fat.<sup>22</sup>

### Improved GABA Levels

While "burnout" is a popular phrase to illustrate extreme fatigue, it is a very real condition that occurs in your brain from too much stimulation. Given the multi-tasking pace of our lives, combined with the incessant information overload, most of us are suffering from an imbalance of our neurotransmitters.

Your brain is constantly working to maintain a balance between the cells that create electrical activity, and those that reduce or calm brain activity.

Brain cells modulate different neurotransmitters to excite or calm the brain. When the brain is resting or calm, it uses a neurotransmitter called *GABA*.<sup>23</sup>

Heightened brain stimulation, with its increased cellular activity, puts an enormous strain on brain tissue, whereas inhibition tends to promote rest, regeneration, and healing.

This delicate balance of neurotransmitters is of tremendous importance to healthy brain function. Too much excitatory input, or too little inhibitory input, disturbs the balance, overstresses the brain, and leads to a "burn out" of brain cells.

Scientists commonly find an extreme neurotransmitter imbalance in people with Alzheimer's and Parkinson's diseases, in seizures, in stroke and head trauma victims, in diabetics (especially those with painful diabetic neuropathy), in people undergoing surgical anesthesia, and even in "normal" aging.<sup>24-28</sup>

**Gastrodin** helps restore the vital balance of neurotransmitters. Studies show that gastrodin increases levels of the inhibitory neurotransmitter GABA by as much as **34%**, which exerts a calming effect on the brain and counteracts the overactive brain activity.<sup>11,29,30</sup>

Pharmaceutical companies are spending huge sums on research and development of drugs to control neurotransmitter imbalance. However, their approach has been not to create balance but to simply suppress excitation. Their only drug offering, Namenda® (memantine), has had little impact on neurodegenerative diseases, and no effect on the heightened brain activity seen following low blood-flow conditions such as surgery and anesthesia.<sup>31-33</sup>



*Gastrodin elata*

### What You Need to Know

## The Neuroregenerative and Neuroprotective Power of Gastrodin

- Gastrodin can unlock your brain's own self-healing, regenerative powers.
- Gastrodin fights the main mechanisms of brain aging that are common to simple age-related memory loss, to gradual-onset disorders like Alzheimer's disease, and even to rapid-onset conditions like strokes, head trauma, and open-heart surgery "pumphead syndrome."
- Laboratory studies reveal how gastrodin re-balances disordered brain chemicals that produce too much cellular excitation and too little of the opposing calming, inhibitory effects you need to keep your brain functioning normally.
- The combination of gastrodin's neuro-regenerative and neuro-protective properties are opening new vistas in prevention of everything from "where-did-I-put-my-keys" memory deficits, to major neurodegenerative disorders, to destructive strokes.
- Even such apparently unrelated conditions like seizures, tics, migraines, and diabetic neuropathy are yielding to gastrodin's healing powers.

## Memory Loss

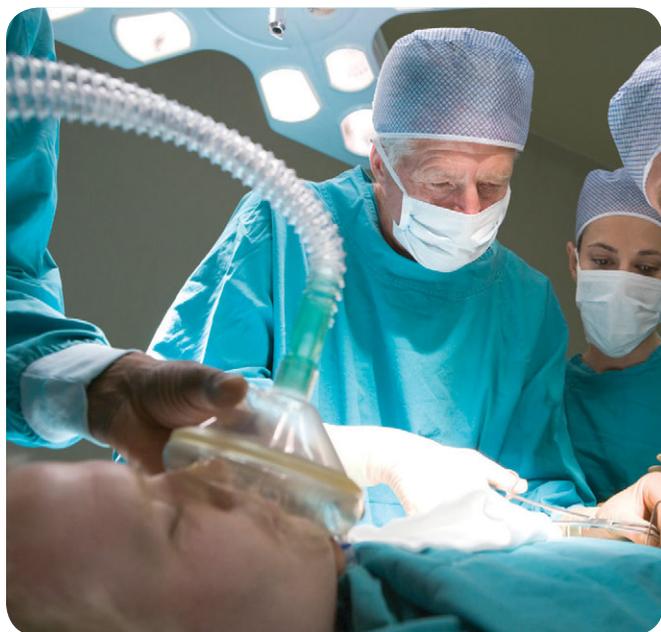
One of the greatest fears of getting older is the threat of memory loss. Not recognizing your loved ones or even remembering your name is a devastating condition. Studies show that **gastrodin** can help counteract many of the key processes that lead to memory loss.

When rats are subjected to toxic drugs that impair memory, they become confused and take longer to find their way through familiar mazes, or to rescue themselves from danger. The stress of dangerous situations also freezes up memory, just as it does in humans.

**Gastrodin** reverses those impairments, helping the bewildered animals consolidate and retrieve memories they'd already stored away.<sup>34</sup> In rats exposed to aluminum, which is thought to be a risk factor for Alzheimer's disease, similar improvements in memory preservation were obtained even without a reduction in brain aluminum levels.<sup>35</sup>

## Reducing the Cognitive Risks of Open Heart Surgery

Perhaps the most dramatic demonstration of gastrodin's ability to prevent brain aging caused by **circulatory deficit** comes from a recent human study done under the extreme stress of open heart surgery. During this operation, the patients' hearts are stopped while they are kept alive only by use of the heart-lung machine. In this procedure, blood flow to the brain is reduced as fat globules introduced by the surgical trauma causes cerebral capillary beds to occlude. Up to **55%** of patients may suffer memory loss and cognitive impairments after



bypass surgery that can last for weeks, months, or forever following surgery.<sup>36,37</sup> Surgeons refer to these cognitive deficits resulting from open heart surgery as "pumphead syndrome."<sup>37</sup>

The symptoms involved in pumphead syndrome resemble **accelerated brain aging**, complete with circulatory deficit, inflammatory changes, and increases in abnormal proteins such as those seen in neurodegenerative diseases.<sup>38</sup> The only difference is that, instead of slowly occurring over many years, these cognitive changes occur within the single hour of open heart surgery.<sup>38,39</sup>

In a human clinical trial, intensive care specialists in China injected **gastrodin** or a saline control solution in **200** patients undergoing open-heart surgery.

Prior to surgery, all of the patients tested normal on memory and cognition. After the operation they found that **42%** of patients had cognitive decline, which included substantial memory loss.<sup>14</sup>

The outcome in the gastrodin treated group of patients was very different. Only **9%** had any change at all from baseline. Even three months after surgery, **31%** of the patients who did not receive gastrodin continued to have memory difficulties. Yet only **6%** of the **gastrodin group** had residual memory problems.<sup>14</sup>

This study showed that even under the extreme conditions of open heart surgery **gastrodin** prevented rapid brain aging produced by intensive brain stress, including catastrophic loss of memory. This is the most compelling evidence yet of the clinical impact of gastrodin's multiple brain-protecting and brain-healing effects.

## Neurodegenerative Diseases

The World Health Organization estimates that neurological disease affects over a billion people worldwide and the trend is expected to continue. The WHO report states that, "**The neurological burden is expected to become an even more serious and unmanageable threat to public health.**"<sup>40</sup>

Yet despite this global escalating increase in neurodegenerative diseases, mainstream medicine is not providing much help in treating or solving this condition. Even the drugs that are currently on the market treat only symptoms rather than curing the cause of these disorders.<sup>41</sup> Unlike prescription medication, **gastrodin** has strong evidence for its effectiveness in shielding the brain from destruction during the long slide into cognitive decline and dementia.

In laboratory experiments that simulate Alzheimer's and Parkinson's disease, **gastrodin** protects the cells in the brain centers that are most vital for learning and memory.<sup>6,42-44</sup> These are the areas that quickly

degenerate under the threat of Alzheimer's disease. With gastrodin, the result is a beneficial increase in cell survival and a decrease in cell death.

Also helpful in fighting the onset of Alzheimer's, gastrodin switches on the enzymes that break down and clear away toxic **Abeta** proteins, which kill brain cells and steal memories in Alzheimer's disease. Gastrodin's housecleaning ability to eliminate toxic *Abeta* proteins may be one of the great prevention advances regarding Alzheimer's disease.<sup>8</sup>

Gastrodin has been shown to reduce general brain inflammation, a major contributor to neurodegeneration.<sup>45</sup> Animals supplemented with gastrodin have improved learning and memory compared with their peers receiving no therapy.<sup>8</sup> In the laboratory, gastrodin was proven to shift brain biochemistry away from producing the toxic *Abeta* proteins associated with Alzheimers, and towards a healthier, normal protein.<sup>8</sup>

### Stroke

Just as in patients being hooked up to the heart-lung machine during surgery, strokes involve rapid and catastrophic disruption of brain **blood flow**, an excess of excitatory brain activity, activation of destructive enzymes, and accumulation of inflammatory cytokines.<sup>46</sup> Stroke-inflicted brain damage happens in an extremely short period of time and can provide important insights into brain aging.

Gastrodin's unique ability to balance excitatory-to-inhibitory neurotransmitter levels makes it therapeutically valuable in strokes. Rats treated with gastrodin after an experimentally-induced stroke had an increase of the inhibitory neurotransmitter **GABA** by up to **34%** as well as increases in the protective amino acid **taurine** by up to **14%**.<sup>11,47</sup>

As a result, the animals given gastrodin had significantly smaller areas of brain damage and swelling; they also performed better on tests of memory and behavioral performance, compared with animals that had strokes but were not supplemented.<sup>48-50</sup>

Similarly, when brain cells in culture were exposed to low oxygen levels (similar to a stroke), they exhibited sharp rises in excitatory neurotransmitters. Pre-treatment with gastrodin prevented that rise, and the subsequent microscopic evidence of neurotoxicity.<sup>51</sup>

Gastrodin's ability to promote neuroregeneration is especially important when a stroke happens. Once metabolized in the body, gastrodin boosts production of an enzyme that restores normal structure to brain proteins damaged during stroke.<sup>13</sup> Experimental-induced strokes in animals given gastrodin were up to **55%** smaller than in untreated animals.<sup>13</sup> And pre-treatment with gastrodin reduced the rate of cell death by apoptosis following stroke.<sup>52</sup>

### Brain Regeneration



One of the most important genes influenced by gastrodin is the gene that produces *neuronal cell adhesion molecules*.<sup>9</sup> These molecules are essential to the process by which brain cells find their way to link up with others as **synapses**. One result of this activity is that new memories can form rather than be erased or forgotten.<sup>63</sup> Gastrodin also increases the activator *protein-1*, a regulator of new protein formation which results in new neuron growth and improved memory.<sup>64</sup>

In addition, gastrodin switches on the "misfolded protein response," a self-healing mechanism that recognizes and destroys the abnormal proteins involved in brain cell death in Alzheimer's, Parkinson's, and Huntington's diseases.<sup>65,66</sup>



Human studies have been performed in China using gastrodin in treatment of strokes, with great success. Given as an intravenous drug, gastrodin was effective in treating **97%** of subjects with ischemic stroke (insufficient blood flow), compared with **74%** who received conventional injections.<sup>53</sup> And, in hemorrhagic stroke (bleeding into the brain), gastrodin improved absorption of blood and swelling in **89%** of treated subjects, compared with **72%** who received conventional medications.<sup>54</sup>

### Seizures

Gastrodin has long been used in traditional Chinese medicine to prevent and treat seizures with impressive results. As a result, Western medicine is now seeking to exploit it as a source of antiepileptic drugs.<sup>55,56</sup>

Following brain injury or stroke, seizures are unfortunately a common and distressing occurrence. They are the clearest example of what happens when the brain's excitatory neurotransmitters outweigh the inhibitory ones. Rapid and uncontrolled electrical activity are hallmarks of seizure activity typically spreading to both sides of the brain in the absence of adequate inhibitory action.

In a rat model of epilepsy, treatment with gastrodin significantly reduced the frequency and time to onset of seizures; at the same time it reduced brain markers of lipid peroxidation, a side effect of prolonged seizure activity that indicates destruction of brain cell membranes.<sup>56</sup>

Mainstream medicine treats acute seizures with GABA-like drugs that increase inhibitory brain activity (drugs such as lorazepam (Ativan®), for example). Gastrodin naturally raises calming GABA levels in brain cells by decreasing levels of GABA-breakdown enzymes. Gastrodin supplementation also lowered seizure-prone animals' seizure severity scores.<sup>30</sup>

### Anxiety

According to the National Institutes of Health, over 40 million adults in America suffer from anxiety disorder.<sup>57</sup> Like seizures, anxiety is a direct result of an imbalance between excitatory and inhibitory brain cell activity, with excitatory stimuli being predominant. Drugs used to treat anxiety, therefore, are usually ones that mimic the calming, inhibitory effects of GABA, such as the benzodiazepines (Valium, oxazepam, and others.)

Gastrodin's two major breakdown compounds, found in brain cells after ingestion of gastrodin, have been shown to have powerful anti-anxiety effects in mice.<sup>58</sup> Unlike their drug counterparts, however, these gastrodin metabolites did not produce unwanted side effects such as sedation or muscle relaxant effects.



In a study involving **100** patients with neurotic anxiety, **100%** of the patients showed improvement with gastrodin therapy.<sup>59</sup> However, in the patient group treated with conventional medicine, **78%** of the patients showed improvement. Beyond just improvement, **88%** of those treated with gastrodin were clinically cured of anxiety while those taking conventional medicine showed a **32%** cure rate.<sup>59</sup>

### Migraine Headaches

The *Gastrodia* orchid from which we get gastrodin has been used for thousands of years in preventing and treating headaches in traditional Chinese medicine.<sup>60</sup> Now, in a laboratory model of the biochemical effects of migraine headaches, gastrodin has been compared to two approved anti-migraine drugs, *sumatriptan* and *flunarizine*.<sup>60</sup> Gastrodin, in a fashion similar to that of the prescription drugs, significantly reduced the expression and actions of proteins known to be involved in the pain response that occurs in migraine and other "vascular" headaches.<sup>60</sup>

### Diabetic Neuropathy

Even outside of the brain, gastrodin shows strong evidence of its "nerve shielding" effects. This is evident in studies of gastrodin and painful diabetic neuropathy, a condition in which peripheral nerves become damaged by chronic exposure to high blood **glucose** levels. We've seen that gastrodin reduces insulin resistance and speeds clearance of glucose from blood, which can help prevent neuropathy.<sup>22</sup>

But gastrodin also seems to heal nerve fibers even after diabetic neuropathy develops. Diabetic rats exhibiting pain resulting from normally non-painful stimuli, such as light touch (*allodynia*) and excessive sensitivity to minor painful stimuli (*hyperalgesia*) showed improvement in their symptoms following gastrodin administration.<sup>61</sup> In-depth studies revealed a decrease in the nerve cells' excitability, precisely what we'd expect from the gastrodin compound capable of balancing out the excitatory-to-inhibitory signaling ratio in nerve cells.<sup>61</sup> Human studies show an improvement in nerve conduction velocity and total curative rate in diabetics receiving gastrodin by injection as a drug, compared with a control group.<sup>62</sup>

### Summary

Every second, your brain is targeted by an onslaught of destructive events that cause it to age. Even so-called normal aging results in multiple damaging cascades of events that lead to memory loss, slowed learning reflexes, and can set one up for Alzheimer's and Parkinson's diseases.

Those who suffer a stroke, head injury, or undergo heart surgery can accumulate years' worth of brain aging in a few short minutes.

In recent years, scientists have made significant advances in the understanding of the mechanisms of neuro-degeneration. They've even discovered silent brain-healing systems that lie latent, awaiting activation.

**Gastrodin**, derived from a traditional Chinese medicinal orchid, can activate dormant self-healing programs hidden in the depths of your brain.

Studies show that **gastrodin** fights brain aging at multiple levels, re-balancing neurotransmitters towards a calmer less overly active state, restoring brain blood flow to more youthful levels, and preventing memory loss and other cognitive changes.

The combination of these protective and self-healing effects may help slow "natural" brain aging while reducing risk for slow-onset disorders like Alzheimer's disease. And, by similar mechanisms, gastrodin seems to slow or reverse damage done by acute events like strokes.

Gastrodin's re-balancing act also offers promise to those suffering from seizures, migraine headaches, and even painful diabetic neuropathy.

## Dosage Suggestions

A wide range of **gastrodin** doses have shown protective and supportive effects on neurovascular function, in particular in the context of neurovascular inflammation. One pre-clinical study using a well-validated model showed improved memory consolidation and retrieval in chemically impaired rats using a human equivalent dose of **50 mg** daily. This **50 mg** dose, when combined with nutrients that function via some of the same mechanisms as **gastrodin** may be sufficient to derive results in aging humans.<sup>34</sup>

Those seeking maximum benefit should consider adding **600 mg** of **gastrodin** in divided doses (**300 mg** twice daily) for thirty days. After thirty days, **300 mg** of gastrodin may be sufficient based upon the experience of gastrodin as an over-the-counter (OTC) pharmaceutical agent. As additional research continues on gastrodin, better clarification on optimal dosing for a wide range of neurovascular and neuro-inflammatory conditions should be available.

Guarding one's brain against daily wear and against potential catastrophes may now be possible with daily use of **gastrodin**. ●

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

## Brain Fitness



Your brain is constantly changing—creating new neurons and increasing the functional connections among them, known as **synapses** and **den-drites**. The level at which it performs these functions determines your brain's **fitness**, which is dependent on the inflow of nutrients and blood.

**Physical exercise** promotes brain blood flow<sup>67,68</sup> and the production of blood vessels,<sup>69</sup> brain cells,<sup>69-71</sup> and beneficial brain proteins called neurotrophins.<sup>72,73</sup> In these ways, exercise protects brain fitness and the capacity of a person to meet the various cognitive demands of life.

As a result, studies have repeatedly shown that older individuals who regularly participate in **physical exercise** are less likely to succumb to cognitive decline, mild cognitive impairment (MCI), or Alzheimer's disease.<sup>74-76</sup>

In a study of older adults diagnosed with mild cognitive impairment, scientists found that **40 to 60 minutes** of intensive aerobic exercise four days a week acted as a "potent [non-drug-induced] intervention that improves executive control processes for older women

at high risk of cognitive decline."<sup>77</sup> Another study of 1,300 people by the Mayo Clinic<sup>77</sup> concluded, "**Any** frequency of moderate exercise performed in midlife or late life was associated with [reduced odds] of MCI."<sup>78</sup>

Like physical exercise, **mental exercise**—formal education, continuing to learn, being mentally engaged in life, and practicing cognitive skills—can help prevent cognitive decline, dementia, and Alzheimer's disease.<sup>79-81</sup> Mental exercise can also improve normally functioning minds.<sup>82</sup>

Studies show that brain fitness can be improved by various cognitive activities, such as chess, bridge, or more structured computer-based workouts.<sup>83</sup> Scientists found that, compared to other computer-based activities, computerized brain-boosting exercises improved attention and memory in people over age 60.<sup>84,85</sup> Other research showed that participants aged 65 and older who performed mental training for two-and-a-half hours weekly improved their memory, reasoning, and information-processing speed—*within five weeks*.<sup>86</sup> And individuals who did crossword puzzles **four days a week** were found to have a **47% lower** risk of dementia than those who did a crossword puzzle just once a week.<sup>87</sup>

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# Sucrose-Free

# DARK CHOCOLATE



Wouldn't it be nice to enjoy **guilt-free chocolate**? With **Rich Rewards™ Dark Chocolate**, *now you can!*

The negative effects associated with eating chocolate don't come from its **cocoa** content, but from the **sugar**.

Finally, there's a new chocolate that has all of the great taste without the harmful sugar content.\*

**Rich Rewards™ Dark Chocolate** is a unique **70%** dark chocolate that is **100%** sweetened with nature's own sweetener—**xylitol**.

## The Benefits of Nature's Sweetener

**Xylitol** is a natural sweetener derived from fibrous plant materials.<sup>1</sup> It's present in small amounts of various fruits and vegetables—and your body even makes considerable amounts of xylitol on its own!<sup>1</sup>

Xylitol is classified as a low glycemic carbohydrate, but unlike many carbs, this natural sweetener does not cause rapid rises in blood glucose.<sup>2</sup> The caloric impact of xylitol is typically about **40%** lower than other carbohydrates. In addition, xylitol may reduce the risk of tooth decay, making it a healthy addition to any diet.<sup>2</sup>

## Better Ingredients, Better Product

**Rich Rewards™ Dark Chocolate** is made using only USDA organic certified cocoa butter and organic cocoa liquor.

With the quality ingredients of **Rich Rewards™ Dark Chocolate**, sweetened by nature's own healthy sweetener, **xylitol**, you can finally enjoy **guilt-free chocolate**—and all of the sweet benefits that go along with it.

- 100% Natural
- Low glycemic
- Vegan
- Gluten free
- Lactose free
- Kosher

## A NEW GUILT-FREE HEALTHY TREAT!



**Ingredients:** organic cocoa liquor, xylitol, organic cocoa butter, organic soy lecithin, natural vanilla flavor, rice flour. Contains soybeans. Contains no fructose or sucrose.

The retail price for a bag containing 15 pieces of **Rich Rewards™ Dark Chocolate** is \$15. If a member buys four bags during **Super Sale**, the price is reduced to just **\$8.75** per bag. \* *Not a low calorie food*

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To order **Rich Rewards™ Dark Chocolate**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

# BRAIN SHIELD™



## SUPPORT for COGNITIVE FUNCTION with AGING

Your brain is under constant onslaught from environmental and stress-related challenges, as well as normal aging processes.<sup>1,2</sup>

Fortunately, our brain cells have built-in, **self-healing** systems that provide natural defenses against these ongoing threats.<sup>3</sup> Even more remarkable, molecular science is revealing that the human brain has the capacity to **preserve** the neurons involved in brain remodeling (*plasticity*).<sup>3</sup>

Scientists in China and Singapore have found that **gastrodin**, a compound typically derived from a traditional Chinese orchid (*Gastrodia elata*), provides powerful support for the brain's normal defenses and regenerative mechanisms.<sup>4,7</sup>

To make these benefits available to members, **Life Extension®** introduces **Brain Shield™**, providing **300 mg** of **gastrodin** in each capsule for *maximum* brain support.

### MULTI-FACTORIAL BENEFITS!

Recent studies confirm that the **gastrodin** in **Brain Shield™** is one of the most powerful compounds for supporting healthy brain function *at any age!* **Gastrodin** works by the following mechanisms:

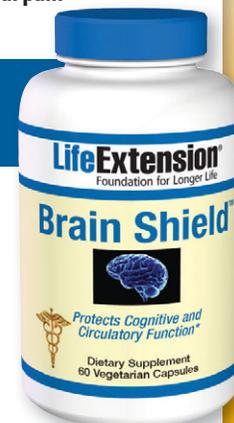
- To retain normal function, the aging brain relies on adequate **blood flow** to get sufficient oxygen and fuel.<sup>8</sup> It has been repeatedly shown that formulas containing **gastrodin** beneficially support normal, healthy levels of brain blood flow in both animals and in humans.<sup>6,7</sup>
- The body maintains a delicate balance of **neurotransmitters**, such as GABA, which is of tremendous importance to healthy brain function. Studies show that alone or in combination the active compounds in **gastrodin** help maintain healthy levels of vital neurotransmitters in those whose levels are already within the normal range.<sup>9-11</sup>

- With aging, short-term **memory** function is often impaired. Studies show that **gastrodin** and its active constituents help support the healthy body's normal defenses against the mild memory problems associated with aging.<sup>12</sup>
- Scientists have shown that the breakdown metabolites of **gastrodin** help provide support against the normal stress and tension of daily life.<sup>13,14</sup>
- And **Brain Shield™** helps alleviate the occasional **cranial pain** associated with daily life.<sup>15</sup>

**Brain Shield™ supports healthy cognitive and circulatory function in aging individuals.**

Those seeking maximum benefit should start with one **300 mg** capsule of **Brain Shield™** taken twice daily.<sup>16</sup> After thirty days, one **Brain Shield™** (gastrodin) capsule daily may be sufficient based upon the experience of gastrodin as an over-the-counter (OTC) pharmaceutical agent. Those taking Cognitex® are obtaining **50 mg** of gastrodin in the daily dose along with complimentary nutrients. As additional research continues on gastrodin, better clarification on optimal dosing for a wide range of neurovascular and neuro-inflammatory conditions should be available.

A bottle of 60 **300 mg** vegetarian capsules of **Brain Shield™** retails for \$33. If a member buys four bottles during **Super Sale**, the price is reduced to **\$20.25** per bottle.



Item # 01802

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To order **Life Extension® Brain Shield™**, call **1-800-544-4440** or visit [www.LifeExtension.com](http://www.LifeExtension.com)

THE NEW...

# COGNITEX

Brain decline affects all aging humans. Scientific studies demonstrate more **youthful** cognition and memory in response to the proper nutrients. **Cognitex**® provides the following **brain boosting** ingredients in one advanced formula:

The Ultimate Protection  
for your Brain—  
now with **Gastrodin/Brain Shield™**

**Gastrodin** acts as a “brain shield,” calming brain cells and helping to protect against oxidant, inflammatory, and excitatory damage. **Gastrodin’s** multiple modes of action work together with other nutrients to improve circulation and shield the brain from age-related insults.

**Alpha-glycerol phosphoryl choline** boosts levels of **acetylcholine**; a neurotransmitter that enables brain cells to communicate. **Acetylcholine** is intimately involved in memory and learning. Acetylcholine levels markedly decline as humans age past 30.

**Vinpocetine** enhances circulation, oxygenation, electrical conductivity of brain cells, and helps protect against cerebral hypoperfusion.

**Pregnenolone** is a hormone involved in synchronization of brain cells that declines in normal aging brains.

**Hops** and **rosemary** have all shown to help suppress inflammatory cytokines.

**Wild blueberry extract** has been shown to inhibit oxidative and inflammatory changes in brain cells believed to be involved in memory decline.

The ability of **phosphatidylserine** (PS) to improve cognitive skills has been extensively studied. PS exerts significant benefit for cognition, especially those functions that tend to decline with age, including memory, learning, vocabulary skills, and concentration.

**Ashwagandha** **inhibits** an enzyme (acetylcholinesterase) that breaks down **acetylcholine** in the brain.

**Grape seed extract** improves blood vessel tone and elasticity, thus boosting cerebral oxygen flow.

**Uridine-5’-monophosphate** is a compound naturally found in the milk of nursing mothers and is essential to humans when brains are the youngest. UMP also supports superior cognitive function in aging adults.



ITEM # 01897

## MOST ADVANCED NEUROLOGICAL FORMULA AT NEW LOWER PRICES

The ingredients in **Cognitex**® sell for a small fortune in **Europe** where they are commonly prescribed. You can obtain them all at a fraction of this cost in the comprehensive **Cognitex**® nutrient formula for the brain.

A wide range of **gastrodin** doses have shown protective and supportive effects on neurovascular function, in particular in the context of neurovascular inflammation. One pre-clinical study using a well-validated model showed improved memory consolidation and retrieval in chemically impaired rats using a human equivalent dose of **50 mg** daily. This **50 mg** dose, when combined with nutrients that function via some of the same mechanisms as **gastrodin** may be sufficient to derive results in aging humans.\* **Gastrodin** is also available in **300 mg** capsules.

The retail price for 90 softgels of **Cognitex**® with **Brain Shield™** is \$62 (Item# 01897). If a member buys four bottles during **Super Sale**, the price per bottle is **\$35.78**. If eight bottles are purchased during **Super Sale**, the cost per bottle drops to **\$33.75**. **Cognitex**® is also available without pregnenolone at a slightly lower price. **Contains soy.**

\*J Ethnopharmacol. 1997;56:45-54.

References for most can be found at: [http://www.lef.org/magazine/mag2007/feb2007\\_report\\_cognitex\\_03.htm](http://www.lef.org/magazine/mag2007/feb2007_report_cognitex_03.htm)

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## Just three softgels of Cognitex® provide the following nutrients:

Alpha-Glycerol Phosphoryl Choline (A-GPC)	600 mg
Phosphatidylserine (from Sharp-PS®)	100 mg
Brain Shield™ (Gastrodin)	50 mg
Vinpocetine	20 mg
Grape Seed Extract	150 mg
Wild Blueberry Extract (Vaccinium angustifolium)	150 mg
Sensoril® Ashwagandha Extract (Withania somnifera)	125 mg
Uridine-5'-Monophosphate (disodium)	50 mg
Proprietary NeuroProtection Complex Blend Perluxan® Hops Extract (Humulus lupulus) Rosemary (Rosmarinus officinalis) Extract	125 mg
Pregnenolone	50 mg

To order **Cognitex**® with **Brain Shield™**,  
call **1-800-544-4440** or visit **www.LifeExtension.com**

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# Balancing Appetite Hormones to Reduce Hunger and Lose Weight

BY MICHAEL DOWNEY

Groundbreaking human studies demonstrate that a proprietary extract of the **Italian Borlotto variety bean** modulates several appetite hormones, including **ghrelin**.<sup>1-5</sup> Controlling hunger and satiety hormones can block hunger and increase feelings of fullness, ultimately promoting weight loss.<sup>1,3</sup>

In addition to regulating hunger hormones, this **Italian Borlotto variety bean extract** helps neutralize the **alpha-amylase** enzyme that converts dietary carbohydrates into sugars.<sup>2</sup> This slows down and limits the **absorption** of glucose from the intestine.<sup>2</sup>

By safely rebalancing **hunger hormones** like **ghrelin**, this unique **Italian Borlotto variety bean extract** helps promote healthy **weight reduction** by reducing nagging feelings of hunger and the desire to overeat, while limiting glucose absorption.<sup>2</sup> >

## How Hunger Hormones Contribute to Obesity

Your body produces certain hormones whose job it is to tell your brain that you're hungry—and when you're full. As your stomach and intestines fill up with a meal, they secrete "*satiety hormones*" that tell your brain to shut off the desire to continue to eat.<sup>6,7</sup>

When your stomach is empty, your body produces the hormone *ghrelin*, which tells your brain it's hungry.<sup>6</sup> *Ghrelin* acts on the same brain pathways that produce rewards from other pleasurable experiences, such as recreational drugs and sex.<sup>8</sup>

When *ghrelin* is over-activated, it induces **food cravings** *even when we've eaten enough food*. This is why some people feel "addicted" to eating—they are food addicts in the same ways that others become dependent on drugs or gambling.<sup>8,9</sup>

The irony is that the more obese a person becomes, the less sensitive they are to the "on/off" signals sent by their *appetite-regulating hormones*.<sup>10</sup> This leads to increased food intake despite what should be normal "stop" signals. In fact, many obese individuals who diet and lose weight experience a *ghrelin* level increase, which triggers more hunger feelings, less "full" feelings—and worse, provides the brain with a feeling of reward when they eat.<sup>10,11</sup>

No wonder it's so hard to lose weight and keep it off!

## A Healthy Approach to Weight Loss

Instead of shifting your focus from one fad diet to the next, a better approach to weight loss is to focus on rebalancing appetite and satiety hormones. By lowering ghrelin to reduce appetite and restoring sensitivity to satiety-inducing hormones, you'll experience reduced hunger—and reduced psychological reward for consuming excess calories.

That's what makes **Italian Borlotto variety bean extracts** such powerful weight loss promoters. These bean extracts have been shown to suppress *ghrelin* while promoting hormones that produce feelings of fullness.<sup>1-5</sup> This in turn *reduces food intake*, body weight, accumulation of blood lipids-glucose, and the impulse that drives eating.<sup>12</sup> *Ghrelin* suppression may also reduce the inappropriate addiction-like reward response when excess calories are consumed.<sup>8</sup>

Supplementation with a proprietary **Italian Borlotto variety bean extract** has produced impressive **weight loss** effects.<sup>2</sup>

In **2013**, researchers compared the effects of eating a meal of **Italian Borlotto beans** (not the extract) to a meal of white wheat bread containing the same amount of available starch.<sup>5</sup>



Compared to the control meal, the bean meal resulted in decreased levels of the appetite-promoting hormone *ghrelin* and reduced hunger. Additionally, the people eating the **beans** had **15% lower** glucose and **16% lower** insulin levels.<sup>5</sup> (Insulin levels are too high in most aging humans, which contributes to health problems and unwanted body fat storage.<sup>13</sup>)

Based on these results, the scientists reasoned that a concentrated and standardized **Italian Borlotto variety bean extract** should produce a much more potent effect.

## Benefits for Healthy Weight Individuals

In a randomized, double-blind, placebo-controlled study, 12 healthy, non-overweight volunteers took either a placebo or **100 milligrams** of **Italian Borlotto variety bean extract** with a standardized meal after a 12-hour overnight fast.<sup>1</sup> The study subjects then ate a normal meal.

Within three hours, the **bean extract** group experienced significantly lower levels of the appetite-stimulating hormone *ghrelin* compared to the placebo group. Even more importantly, the group had less of a desire to eat and more of a feeling of fullness.<sup>1</sup>

And in the **bean extract** group, the increase in blood sugar was **41% lower** than the placebo group 30 minutes after the meal. Between 45 and 120 minutes after the meal, the increase in **insulin** was **26% lower**.<sup>1</sup> These are important factors not only for weight management, but also for slashing risk of a number of degenerative and potentially fatal diseases.<sup>14-19</sup>

### **Lose Nearly 10 pounds in 12 weeks... Without diet or exercise!**

Next, researchers investigated the weight-loss effects of **Italian Borlotto variety of bean extract** on overweight individuals.<sup>2</sup> In a not-yet published study, 60 overweight participants with a body-mass index (BMI) between **25** and **30** took **200 milligrams** of extract daily or received no treatment. No dietary changes were requested of the individual participants.

At the end of **12 weeks**, the group receiving the **Italian Borlotto variety bean extract** showed the following improvements:<sup>2</sup>

1. **Reduction** in total body weight of **8.8 pounds** versus **0.2 pounds** in the placebo group.
2. **Reduction** of almost **2.5 inches** in waist circumference versus **0.6 inches** in the placebo group.
3. **Reduction** in appetite levels from baseline values. The placebo group showed *no* improvement.
4. **Increase** in satiety from baseline. The placebo group showed *no* improvement.

No significant adverse events or side effects were reported in the study.<sup>2</sup>

### **Inhibiting Carbohydrate Absorption**

Appetite hormones aren't the only factor undermining your weight loss attempts. Today's carb-heavy Western diet can foil even the best efforts to maintain healthy levels of body weight.

Excess blood glucose leads to increased insulin—which contributes to greater difficulty burning stored body fat as fuel.<sup>20</sup> It also causes the body to store more excess carbohydrate calories as fat. The result of rapid sugar absorption is high-risk, after-meal glucose surges and increased disease risk.<sup>14-19</sup>

In addition to its ability to rebalance *appetite hormones*, **Italian Borlotto variety bean extract** also impedes **alpha-amylase**, the enzyme that breaks down dietary starch that convert into simple sugars that are rapidly absorbed in the small intestine.<sup>2,3,8</sup>

## **NEW! Italian Borlotto Variety Bean Extract**



Italian Borlotto bean extracts have been used to suppress **alpha-amylase**.<sup>2,3</sup>

These extracts provide specific constituents (phytoagglutinins) that suppress **ghrelin** and promote satiety hormones **CCK** (cholecystokinin), **GLP1** (glucagon-like peptide-1), and **PYY** (peptide YY) to help keep food cravings and hunger under control.<sup>1-5</sup>

This **new Italian Borlotto variety bean extract** also provides the constituent responsible for **alpha-amylase** inhibition.<sup>2</sup>

The **Italian Borlotto variety bean extract** is obtained from a selected species of beans characterized by a specific ratio between **amylase-inhibiting** and satiety-inducing factors. It is then highly purified and standardized to maximize efficacy for optimal appetite hormone balance using a low dose (**100 mg twice a day**).<sup>2</sup>

By suppressing **ghrelin**, promoting **CCK**, **GLP1**, **PYY**, and inhibiting **amylase**, this new Italian Borlotto variety extract makes long-term **weight loss** compliance and success more attainable.<sup>1-5</sup>



**Borlotto bean**

By inhibiting **alpha-amylase**, **Italian Borlotto variety bean extract** impedes the breaking down of starches and slows the rate at which free sugars are absorbed, thereby blunting glucose spikes.<sup>8</sup> This provides a practical approach to help lower glucose levels, improve age-related markers of health, and regain glycemic control.

### Summary

When your appetite hormones are out of whack, they can sabotage even the best efforts to lose weight. Clinical studies demonstrate that a proprietary extract from the **Italian Borlotto bean** is a safe, effective nutritional supplement that modulates appetite by effectively blocking hunger while increasing feelings of fullness.<sup>2</sup>

**Italian Borlotto variety bean** extracts help neutralize the enzyme (alpha-amylase) that converts carbohydrate into sugar.<sup>2,3</sup> This impedes the after-meal **glucose** surge that has been implicated in increased risks of a number of chronic, degenerative conditions.<sup>14-19</sup>

Based on clinical trial data, this new **Italian Borlotto variety bean extract** can help in achieving healthy body weight and optimizing glucose control, thereby reducing disease risks, improving appearance, and boosting longevity! ●

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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# VASCULAR BENEFITS OF A Mediterranean Diet

## VALIDATED IN HUGE NEW STUDY

A large, rigorous study published in the *New England Journal of Medicine* confirmed the health benefits of those who switch to a **Mediterranean diet** rich in **omega-3 fish oil** as well as protective nutrients called polyphenols found in **olive oil**, fruits, vegetables, nuts like walnuts, and wine.<sup>1</sup> The study ended early because the benefits were so overwhelming, with startling benefits for vascular health, that it was considered unethical to continue to deprive the control group.<sup>1</sup>

In addition to the health-promoting benefits of vegetables and fruits with their abundance of polyphenol nutrients, the Mediterranean Diet group took at least **4 tablespoons** of polyphenol-rich extra-virgin **olive oil** a day.<sup>1</sup>

### LIFE EXTENSION® MEMBERS LONG AGO BENEFITED

Starting in **2005**, Life Extension members began taking a supplement (**Super Omega-3**) that provided potent concentrations of **fish oil** and **olive polyphenols** like hydroxytyrosol and oleuropein. This supplement also provided standardized **sesame lignans** to support the beneficial effect of omega-3 fatty acids in the body.<sup>2</sup>

Olive oil contains polyphenol nutrients that have demonstrated wide-ranging health benefits.<sup>3-5</sup> The recommended twice daily dose of **Super Omega-3** supplies a similar polyphenol content to that found in **4 to 6 tablespoons of olive oil**.

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**CAUTION:** If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your healthcare provider before taking this product.

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

### SUPER OMEGA-3 WITH SESAME LIGNANS AND OLIVE FRUIT EXTRACT

To ensure the purest, most stable, and easy-to-tolerate fish oil, **Super Omega-3 EPA-DHA** is *molecularly distilled*. It enjoys the highest **5-star rating** for **purity, quality, and concentration** from the renowned **International Fish Oil Standards** program.<sup>6</sup> The **sesame lignans** not only direct the omega-3s toward more effective pathways in the body, but guard the delicate fish oil from oxidation.<sup>2,7</sup>

A bottle containing 120 softgels of **Super Omega-3 EPA/DHA with Sesame Lignans and Olive Fruit Extract** retails for \$32. If a member buys four bottles during **Super Sale**, the price is reduced to **\$18.90** per bottle. If **10 bottles** are purchased during **Super Sale**, the cost is **\$16.81** per bottle. (Item #01482)

The daily dose (four regular size softgels) of Super Omega-3 EPA/DHA with Sesame Lignans & Olive Fruit Extract provides:

EPA (eicosapentaenoic acid)	1,400 mg
DHA (docosahexaenoic acid)	1,000 mg
Olive (fruit and leaf) Extract [std. to 6.5% polyphenols (39 mg), 1.73% hydroxytyrosol/tyrosol (10.4 mg), 0.5% verbascoside/oleuropein (3 mg)]	600 mg
Sesame Seed Lignan Extract	20 mg



Item #01482

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

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# NEXT-GENERATION CoQ10

## Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™

Since Life Extension® introduced CoQ10 in 1983, our scientists have continued to develop increased potency and absorbability.

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

Combining CoQ10 and shilajit produced a **56%** increase in energy production in the **brain**, and in muscle there was a **144%** increase in energy production.<sup>2</sup>

The primary reason people take CoQ10 supplements is to help **restore** youthful energy levels.

**Shilajit** boosts CoQ10's beneficial effects by stabilizing CoQ10 in the superior **ubiquinol** form, which *prolongs* its action at the cellular level.<sup>3,4</sup> Additionally, **shilajit** facilitates the more efficient *delivery* of CoQ10 into the mitochondria, which results in enhanced cellular energy.<sup>5-9</sup>

Shilajit helps the mitochondria convert fats and sugars into the body's main source of energy, ATP (adenosine triphosphate).<sup>5-9</sup>

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



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

**Item # 01426**



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

**Item # 01425**



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**Item # 01431**

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# NATURAL APPETITE CONTROL

## WITHOUT STIMULANTS

Excess **calorie consumption** has become epidemic in the United States. The invariable result is more overweight Americans and a litany of associated health problems.

A crucial component of a longevity or weight loss program is reducing portion size and the quantity of ingested calories.

A natural supplement has been developed to help *tame hunger* and *promote satiety* so more people can adhere to lower-calorie diets.

### The Body's Appetite Hormones

Hunger and satiety are controlled by hormones.<sup>1</sup>

**Advanced Natural Appetite Suppress** contains a **Italian Borlotto variety bean** extract that helps support normal levels of the gut hormones that control appetite and satiety.<sup>2,3</sup> The result is reduced desire for food and less food intake.<sup>3,4</sup>

The stomach hormone **ghrelin** produces feelings of hunger, while the hormones **cholecystokinin (CCK)**, **glucagon-like peptide-1 (GLP1)**, and **peptide YY (PYY)** produce feelings of food satisfaction and fullness.<sup>1,5</sup>

**Advanced Natural Appetite Suppress** provides a potent dose of a novel Italian Borlotto variety bean extract. Studies show this proprietary extract helps the body modulate levels of **ghrelin** and the satiety hormones **CCK**, **GLP1**, and **PYY**.<sup>2,3,6,7</sup> This helps reduce food intake and supports normal, healthy levels of hunger and fullness.<sup>4,8</sup>

This extract also modulates **alpha-amylase**, the enzyme that converts dietary starch into simple sugars.<sup>3</sup> This can affect the rate at which free sugars are absorbed from the digestive tract into the blood stream.<sup>3,4,8</sup>

### Remarkable Clinical Research

In a recent human trial in which all overweight participants avoided making intentional dietary or exercise changes, those taking this **Italian Borlotto variety bean** extract lost **9 pounds** on average in 12 weeks—**versus only one-third of a pound** in those taking placebo!<sup>8</sup>

The supplemented subjects also lost **2.5 inches** in waist size—a **4.2 times greater reduction** than the placebo subjects.<sup>8</sup>

The supplemented participants had reduced appetite levels and increased satiety, and no significant side effects were reported.<sup>8</sup>

**Advanced Natural Appetite Suppress** contains the identical *Italian Borlotto variety bean extract* used in this study.

The suggested twice daily dosage of one (1) vegetarian capsule of **Advanced Natural Appetite Suppress** provides:

**European (Italian Borlotto variety) white kidney bean extract 200 mg**

A bottle of 60 vegetarian capsules of the new **Advanced Natural Appetite Suppress** retails for \$38. If a member buys four bottles during **Super Sale**, the price is reduced to **\$22.95** per bottle.

Beanblock® is a registered trademark of Indena S.p.A

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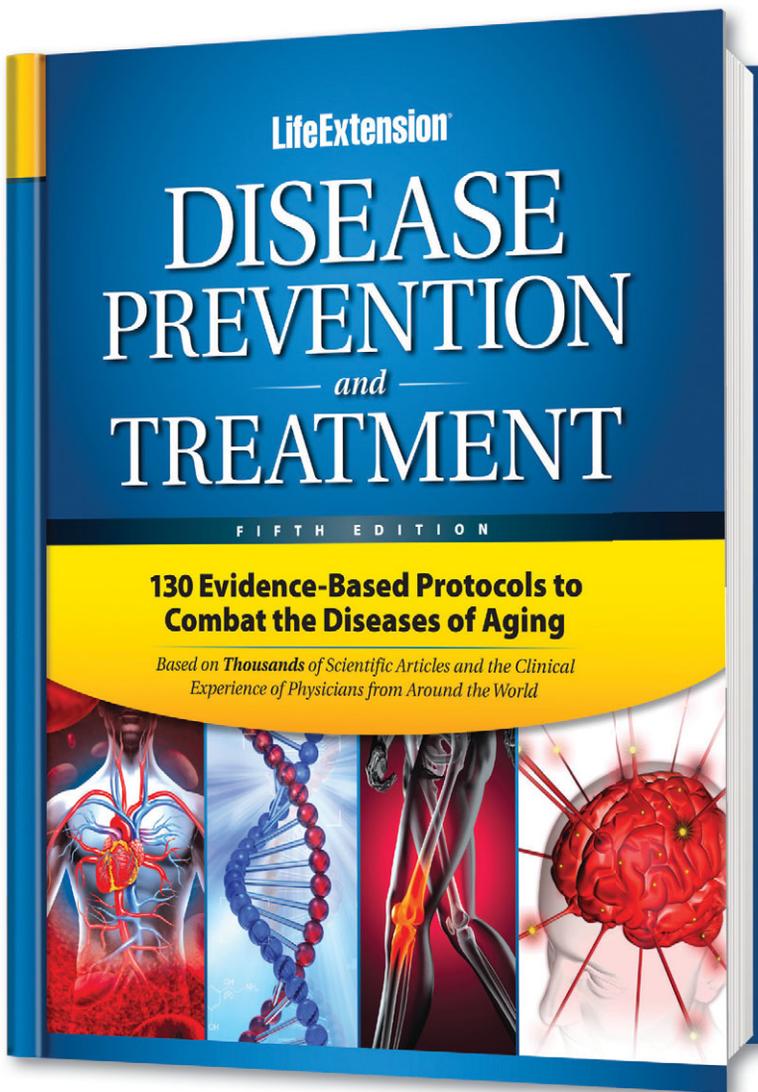


Item #01807

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

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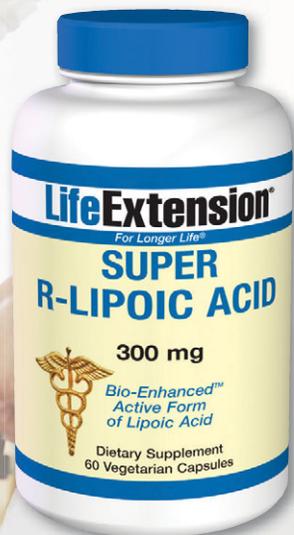
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**CAUTION:** Because this product may lower blood glucose, consult your healthcare provider before taking this product if you are taking glucose lowering medication. Bio-Enhanced® is a registered trademark of Geronova Research, Inc.

# Turn Off Your Body's Aging "Switch"

BY MORRIS EAGLETON

In an important scientific advance, researchers have uncovered a biochemical "switch" that turns on many of the chronic diseases of aging.

The name of this newly identified "switch" is **HMGB1**, which stands for "**High Mobility Group Box-1**".

**HMGB1** turns on the release of chemical signals called **cytokines** that generate inflammation in your body.<sup>1</sup>

The more **chronic inflammation** you have, the more rapidly your body ages. The tragic consequence of higher levels of **inflammation** is the acceleration of chronic diseases that cause premature death and disability.<sup>1,2</sup>

Once scientists uncovered the switch that "turns on" chronic inflammation, they began looking for a safe and effective means of "turning off" that switch.

Researchers have found two natural ingredients that can directly control **HMGB1**, thus reducing the body's exposure to **chronic inflammation**, and ultimately protecting against inflammation-induced disorders.<sup>3,4</sup>



### How HMGB1 Triggers Inflammation

The molecule **HMGB1** is responsible for initiating acute inflammation, which is a helpful reaction when your body is under attack by germs, or following an injury.<sup>5,6</sup> Unfortunately, when a cell is damaged, its contents of HMGB1 leak out, leading to *chronic* inflammation.<sup>5,6</sup>

When HMGB1 leaks out, it acts as a “danger signal” that triggers the release of chemical signaling molecules (called cytokines) that call in more white blood cells, which release still more cytokines, in a vicious cycle.<sup>1,5,6</sup>

At its worst, this activity can result in a massive, systemic release of cytokines that can shut down your body’s entire system.<sup>7,8</sup> The deadly SARS outbreak of 2003 is an example of a *cytokine storm*, where it appears victims died as a result of the body’s overreaction to the SARS virus and not the virus itself.<sup>9-11</sup>

Fortunately, a true cytokine storm is rare. But the cumulative effects that result from HMGB1 slowly leaking from our aging cells are all too common.<sup>6</sup>

### Reverse Chronic Inflammation!

Laboratory experiments have demonstrated that putting the brakes on **HMGB1** is a powerful means of slowing and reversing the processes involved in inflammation.<sup>3,4</sup> In fact, scientists are examining the role of HMGB1 in the body and are using experimental

models to begin making strides in the fight against inflammation in asthma, rheumatoid arthritis, diabetes, multiple sclerosis, and inflammatory bowel diseases.<sup>12-20</sup>

Big Pharma is frantically working to create treatments that target HMGB1, but at this point no anti-HMGB1 drug is anywhere near market-ready.<sup>21</sup>

The good news is that two natural substances, **mung bean** and an extract from **green tea**, have been found to suppress HMGB1—providing anti-inflammatory power.<sup>3,4</sup> And best of all, they’re available in an oral form.

### Dual Protection Against Chronic Inflammation

**Mung bean** and **green tea** extract combat inflammation by interfering at several different points in the cascade of events that leads to HMGB1 release from stressed or damaged cells.<sup>3,4,22-25</sup> Most of today’s anti-inflammatory drugs only work on a single target point of inflammation.<sup>26</sup>

Nearly all of the mung bean’s HMGB1-lowering action is found in the **seed coat** of the bean.<sup>4</sup> When fed to rats before or after exposure to heat stress, **mung bean seed coat** extract reduced blood markers of excessive oxidant stress, while also strengthening the body’s natural antioxidant defense system.<sup>27</sup>

When cells are exposed to bacterial toxins, **EGCG** (the major beneficial component in green tea) reduces HMGB1 release from cells in direct proportion to the dose.<sup>3</sup> Importantly, EGCG has been found to drive down HMGB1 release even when given **2 to 6** hours *after* exposure of cells to the toxin.<sup>3,24</sup>

### Dramatic Studies Show Increased Life Span!

Three recent studies demonstrate the dramatic life-saving ability of **mung bean seed coat** and **EGCG** from green tea leaf.<sup>3,4,24</sup>

They all involve **sepsis**, a condition involving HMGB1 that kills hundreds of thousands of Americans every year in hospital intensive care units, despite modern antibiotics and life-saving technology.<sup>28</sup> (Sepsis is an illness in which the body has a severe, systemic inflammatory response to infection.<sup>22</sup>)

In sepsis, HMGB1 triggers an outpouring of **cytokines**. It is this resulting inflammation—and *not the infecting germ*—that ultimately kills the patient.<sup>1,29,30</sup> Once those cytokines are on the loose, it’s typically too late to fight back with anti-cytokine therapies.<sup>31-33</sup>

With this in mind, researchers chose to study **mung bean seed coat** extract and **EGCG** from green tea leaf extract, based on their known anti-HMGB1 activities.

The researchers first induced sepsis in laboratory mice, dooming them to almost certain death without intervention.<sup>3,4,24</sup>

In one experiment, the mice orally received either EGCG, found in green tea, or a saline control at **24, 48, and 72 hours** after the induction of sepsis.<sup>24</sup> By **day 2**, **44%** of the **control** mice survived, while **89%** of the EGCG group remained alive. By **day 5**, only **16%** of the control group survived, while **44%** of the EGCG group survived for the duration of the study.<sup>24</sup>

Next, the researchers studied **mung bean seed coat extract**.<sup>4</sup> Using the same experimental design as in the previous study, the mice were given the extract or a saline control the day after induction of sepsis. By **day 2**, only **53%** of control mice survived, while **82%** of those mice supplemented with mung bean coat remained alive. By **day 4**, only **29%** of the control group survived, while **70%** of the mung bean group remained alive.<sup>4</sup>

It's impossible to overstate the significance of these results. For the first time ever, septic shock was significantly prevented, and animals were rescued from an otherwise likely death, **using a simple, natural, oral treatment**. The secret to these results was the sharp drop in HMGB1 levels induced by both EGCG and mung bean seed coat extract.<sup>3,4,24</sup>



Mung bean

## Slow Down the Aging Process

These studies demonstrate just how powerfully these two natural ingredients work even in the direst of situations. Fortunately, most of us will never have to deal with sepsis or the out-of-control inflammation that it can produce. But all of us face the dangers imposed by **chronic inflammation**.

Both **EGCG** and **mung bean seed coat** extract can powerfully suppress HMGB1, reducing levels of total-body chronic inflammation.<sup>3,4,24</sup>

Reduced chronic inflammation can translate to longer and substantially healthier lives. In this way, mung bean seed coat extract and EGCG can slow down damaging aging processes and potentially prolong your life.

## Summary

Chronic inflammation accelerates aging and is an underlying factor in many of the diseases associated with aging.<sup>1,2,34</sup> Scientists have discovered a way to inhibit **HMGB1**, the molecule that "turns on" the release of **inflammatory cytokines**.<sup>3-6,24</sup>

**Mung beans** and **green tea** have been in use for thousands of years in traditional Chinese medicine.<sup>3,4</sup> They both contain powerful substances that inhibit **HMGB1**. Lab studies have proven that these substances are highly effective at "turning off" the HMGB1 switch that induces chronic inflammation.<sup>3,4,24</sup>

**Mung bean seed coat extract** and **EGCG** are available in oral form, making their combined **HMGB1-blocking** effect convenient to take by mouth. ●

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

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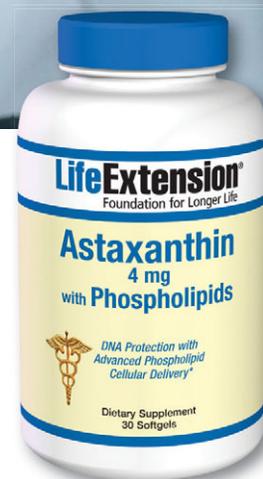
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Vitamin B1	75 mg	1.5 mg
Vitamin B2	50 mg	1.7 mg
Vitamin B6	75 mg	3 mg
Vitamin B12 (as methylcobalamin)	300 mcg	25 mcg
Niacin (as niacinamide)	50 mg	20 mg
Pantothenic acid	100 mg	10 mg
Vitamin E	100 IU (natural)	50 IU (synthetic)
Natural Folate	400 mcg	400 mcg (synthetic)
Zinc	30 mg	11 mg
Selenium	200 mcg	55 mcg
Lutein	5,000 mcg	250 mcg
Lycopene	2,000 mcg	300 mcg
Biotin	300 mcg	30 mcg
Boron	3,000 mcg	150 mcg
Chromium	200 mcg	45 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 (as beta-carotene)	4,500 IU	1,000 IU
Vitamin A (preformed)	500 IU	1,500 IU
Choline (as bitartrate)	20 mg	(none)
Inositol	50 mg	(none)
Calcium	12 mg	220 mg
Alpha Lipoic Acid	25 mg	(none)
Natural Mixed Tocopherols (providing gamma, delta, alpha, and beta tocopherols)	20 mg	(none)

Commercial "one-a-day" supplements provide very low potencies.

The chart to the left reveals how much more potent **Two-Per-Day** is compared to the leading commercial multi-vitamin.

Compared to "one-a-day" products, **Life Extension® Two-Per-Day** contains up to **50 times more** potency! This **Two-Per-Day** formula is available in tablet or capsule form.

Commercial supplements often contain the cheapest form of nutrients that fail to provide optimal benefits. For example, the 50 IU of synthetic vitamin E contained in **Centrum® Silver® Adults 50+** may provide relatively little vitamin E to the bloodstream compared to the 100 IU of natural vitamin E in **Two-Per-Day**.

**Two-Per-Day** provides the three most effective forms of **selenium** which are sodium selenite, L-selenomethionine, and Se-methyl L-selenocysteine, plus **alpha lipoic acid**.

\*



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\* The new two-per-day provides a small amount of gamma tocopherol as part of natural mixed tocopherols which includes natural vitamin E.



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Contains soybeans. Due to the source of the kelp, this product may contain fish and shellfish.

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Acting together, these mung bean and green tea compounds help regulate levels, among those within the normal range, of a protein molecule known as **HMGB1**.<sup>4-6</sup> This molecule is responsible for controlling the signaling compounds known as **cytokines** that generate inflammation.<sup>8,9</sup>

Also, mung bean seed coat extract has been shown to support the body's natural antioxidant defense system.<sup>7</sup>

The result of this beneficial modulatory support is a **healthy and balanced inflammatory response**—which is particularly important as we age.

**Life Extension® Cytokine Suppress™ with EGCG** supports healthy inflammatory levels.<sup>4-6,8,9</sup>

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<b>Cytokine Suppress™ mung bean extract</b> (coat) [providing 24 mg vitexin, 24 mg isovitexin]	<b>240 mg</b>
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**Item# 01804**

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### • POMEGRANATE

- Specifically concentrates in prostate tissue<sup>3</sup>
- Supports healthy *apoptosis*, your body's system of removing senescent cells when needed<sup>4-6</sup>
- Promotes healthy levels of inflammatory response, inhibits androgen receptor expression, and inhibits abnormal cell migration.<sup>5,7,8</sup>



### • GREEN TEA

- *EGCG*, a green tea *catechin*, specifically concentrates in prostate tissue where it regulates *PSA (prostate specific antigen)* production to maintain healthy PSA levels<sup>9,10</sup>
- Helps modulate genetic expression and activity of *androgen receptors*<sup>11</sup>
- Supports body's natural defenses against oxidation.<sup>12</sup>



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- Promotes a healthy level of inflammatory response, chiefly due to its main component, *curcumin*<sup>13</sup>
- Helps modulate cell signaling mechanisms, inhibiting abnormal cell adhesion and migration.<sup>14</sup>
- Promotes healthy cell proliferation and apoptosis.<sup>15</sup>



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- Helps regulate enzymes (*phase II detoxifying enzymes*) in gut and liver tissue that helps render harmful dietary molecules harmless<sup>16</sup>
- Helps promote healthy PSA levels<sup>17</sup>
- Supports regulation of cell growth and transcription factors and normal production of apoptosis-inducing proteins<sup>18,19</sup>



The novel and scientifically validated blend of food in **Pomi-T™** represents the **next generation** of targeted support for the aging prostate!

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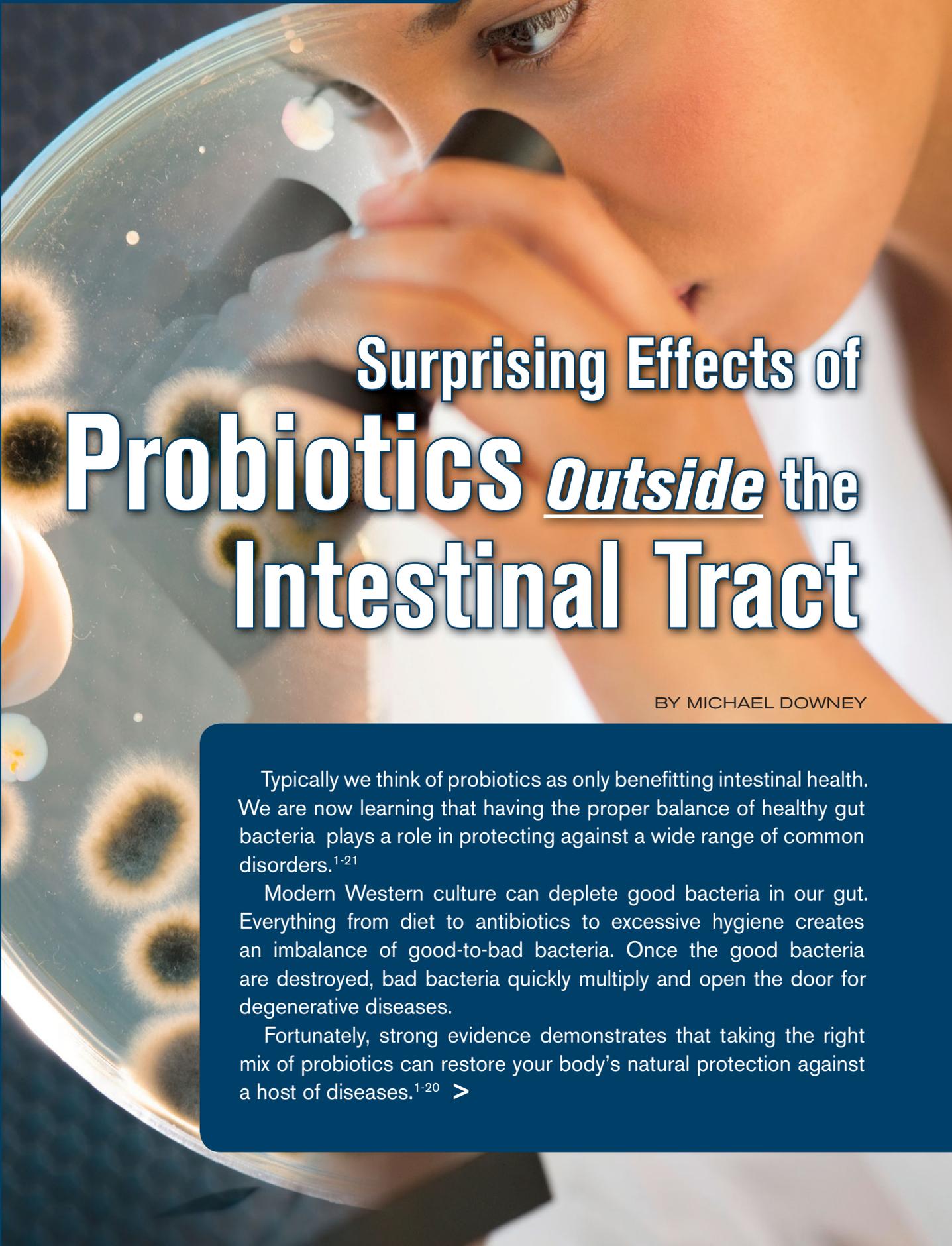
Pomi-T™ Super Foods Proprietary Blend	960 mg
Broccoli (florets and stalks) powder, Turmeric (root) powder Pomegranate (whole fruit) powder, and Green Tea (leaf) extract 5:1	

A bottle of 60 vegetarian capsules of **Pomi-T™** retails for \$33.33. Members of the Life Extension Foundation pay only **\$22.50** per bottle during **Super Sale**.

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# Surprising Effects of Probiotics *Outside* the Intestinal Tract

BY MICHAEL DOWNEY

Typically we think of probiotics as only benefitting intestinal health. We are now learning that having the proper balance of healthy gut bacteria plays a role in protecting against a wide range of common disorders.<sup>1-21</sup>

Modern Western culture can deplete good bacteria in our gut. Everything from diet to antibiotics to excessive hygiene creates an imbalance of good-to-bad bacteria. Once the good bacteria are destroyed, bad bacteria quickly multiply and open the door for degenerative diseases.

Fortunately, strong evidence demonstrates that taking the right mix of probiotics can restore your body's natural protection against a host of diseases.<sup>1-20</sup> >

## How Intestinal Imbalance Affects the Entire Body

So why is it that an imbalance in gut bacteria affects areas of the body outside of the intestines?

The answer lies in the fact that the intestinal tract contains more chemical detection and signaling molecules than *any other organ*—molecules that affect many aspects of health.<sup>22</sup>

Your intestinal bacteria produce proteins that have a powerful influence on these chemical detectors—and as with any influence, this one can be positive or negative.<sup>23</sup> Over time, an imbalance in the ratio of good-to-bad bacteria activates these many detectors in *negative* ways that can trigger the development of a host of diseases in *many* body areas—not just those associated with the gut.

Fortunately, using probiotic supplements to restore a healthy balance to your gut bacteria can *reverse* these disruptions to intestine-based signaling mechanisms. This in turn reverses the negative influence that triggers the development of chronic disease.<sup>24</sup>



## Total Body Benefits

It has long been known that good gut bacteria have a number of beneficial effects on intestinal health.<sup>22</sup> For example, *Lactobacillus* and *Bifidobacteria*, two of the most studied types of beneficial bacterial, have been shown to improve both diarrhea and constipation, while reducing symptoms of abdominal bloating.<sup>25-27</sup> Probiotic supplements that increase levels of these beneficial bacteria have helped improve both the quality of life and symptom scores of patients with irritable bowel syndrome (IBS) and ulcerative colitis, as well as those of generally healthy people.<sup>26,28-30</sup>

But compelling new evidence indicates that good bacteria also play a beneficial role outside the digestive tract as well.<sup>1-20</sup> Scientific studies have demonstrated that different species of *Lactobacillus* (*Lactobacillus acidophilus*, *Lactobacillus rhamnosus*, and *Lactobacillus paracasei*) increase HDL,<sup>31</sup> improve metabolic syndrome,<sup>31</sup> and reduce markers of inflammation, respectively.<sup>31</sup>

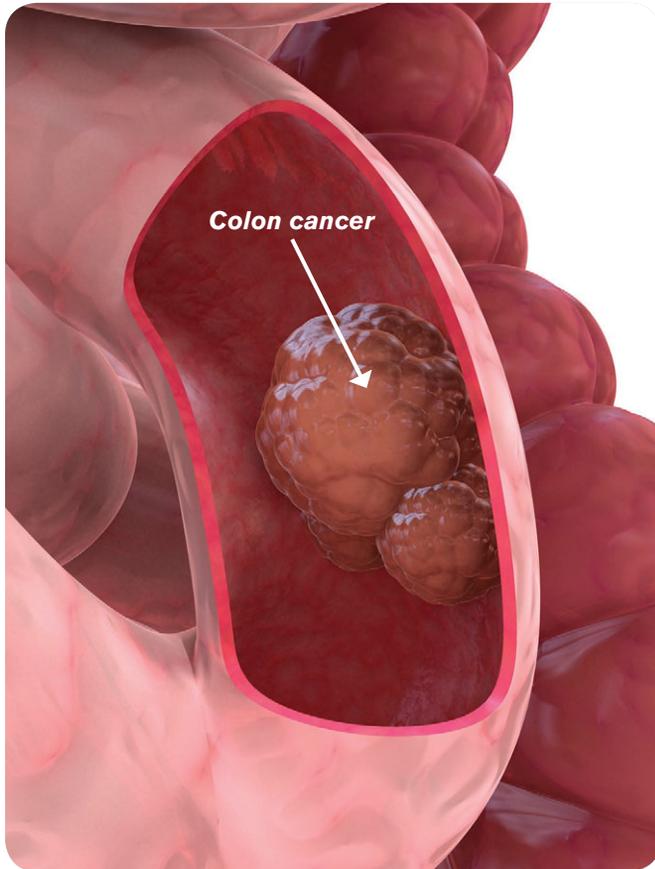
In addition, different *Bifidobacterium* species (*Bifidobacterium lactis*, *Bifidobacterium bifidum*, and *Bifidobacterium longum*) improve blood sugar control,<sup>32</sup> decrease liver inflammation,<sup>31</sup> and reduce DNA damage that can trigger malignant cell development,<sup>33</sup> respectively.

## Probiotics Protect Against Chronic Diseases

Numerous studies have confirmed that taking a probiotic supplement to restore the balance of gut bacteria helps protect against a number of specific diseases, including diabetes, cardiovascular disease, and respiratory infections.<sup>34</sup>

Studies have shown that probiotics containing *Lactobacillus* and *Bifidobacteria* help improve diabetes and metabolic syndrome. In fact, both animal studies and human clinical trials have demonstrated improvement in insulin resistance and reduction in blood sugar concentrations.<sup>32,35,36</sup> After just 6 weeks of consuming a probiotic yogurt containing *Lactobacillus acidophilus* and *Bifidobacterium lactis*, type II diabetics significantly improved fasting glucose and hemoglobin A1c (a measure of blood sugar control).<sup>32</sup>

Animal and human studies have demonstrated that probiotics improve cardiovascular disease factors as well, including decreasing total cholesterol and LDL while boosting artery-cleansing HDL.<sup>35,37-44</sup> Supplements of beneficial bacteria have been shown to reduce cholesterol absorption and the inflammation of fat stores.<sup>45,46</sup> These changes contribute to a significant decrease in the formation of inflammatory, cholesterol-laden plaques observed in early atherosclerosis.<sup>45,47,48</sup>



In addition, studies have shown that probiotics can suppress respiratory infections such as the common cold and the flu—especially if you begin supplementing prior to cold and flu season. Studies show that people who supplemented with different strains of *Bifidobacteria* or *Lactobacillus* for 3 to 6 months ahead of the winter cold and flu season reduced the duration of symptoms by an average of one to two (or even more) days, with a similarly impressive reduction in symptom severity.<sup>49,50</sup>

Regular use of probiotics has been found to reduce colonization of the nose by potentially pathogenic bacteria by **19%**.<sup>51</sup> This effect could save the lives of those who are older, or who have diabetes, or who have undergone a major operation—all of whom have a higher risk of being overwhelmed by bacterial infection.

### The Powerful Role of Probiotics in Cancer

Probiotics have been found to be incredibly potent against one deadly disease in particular: **cancer**. The risk of cancer, especially in the colon, can be reduced through the use of probiotics.<sup>52</sup> Supplementation with *Lactobacillus acidophilus* and *Bifidobacterium longum* significantly decreases the

DNA damage that can trigger malignant cell development.<sup>33</sup> Replenishing beneficial bacteria with supplements has been found to boost natural antioxidant and detoxification enzymes that prevent the activation of potential dietary carcinogens.<sup>52,53</sup>

Patients with colon cancer and those with precancerous polyps had sharply reduced proliferation of abnormal colon cells and a significant decline in harmful *Clostridium* bacteria when supplemented with *synbiotics* (probiotic bacteria combined with *prebiotics*, which are substances that feed or promote the accompanying bacteria).<sup>54</sup>

In addition, scientists have demonstrated that probiotic organisms switch-on protective signaling mechanisms that play a role in preventing cancer, including:

- *Suppressing* bacteria that convert harmless pro-carcinogen molecules into carcinogens.<sup>55,56</sup>
- *Binding* to potential carcinogens, promoting their excretion.<sup>55</sup>
- *Down-regulating* an enzyme that converts harmless molecules into carcinogens.<sup>55</sup>
- *Stimulating* expression of liver enzymes that detoxify carcinogens.<sup>55</sup>
- *Boosting* populations of cells that seek out and destroy cancers.<sup>56-58</sup>
- *Upregulating* inflammatory cytokines during an acute stage of cancer or other threat.<sup>56,59</sup>
- *Suppressing* the inflammatory response as the cancer or infection threat fades.<sup>56,59</sup>

### Probiotics Help Reverse Obesity

An association between antibiotic overuse and obesity has been demonstrated, which can be *reversed* with appropriate probiotic supplementation.<sup>60</sup> Studies of probiotic supplementation on both research animals and humans showed a significant reduction in body weight and body mass index (BMI).<sup>35,37-44</sup> In one study, probiotic supplements were given to mothers prenatally (meaning from about five months before, and until one month after, birth), and excessive weight gain was subsequently reduced in the mothers—and in their children from birth right through to 10 years of age!<sup>61,62</sup>

### Factors Behind Gut Imbalance

There are a number of factors that contribute to a dangerous imbalance of gut bacteria. The excessive use of *antibiotics* disrupts the optimum proportions of gut bacteria; excessive *hygiene* has drastically



reduced our ability to naturally acquire certain key bacteria from our environment;<sup>63</sup> and a number of **modern medical treatments** such as artificial ventilation, tubes and catheters, and frequent pharmaceutical use, are known to severely impair the proper balance of gut bacteria.<sup>64</sup>

The **Western diet**—high in animal proteins and fats, sugars, and refined carbohydrates—causes a rise in undesirable bacteria. Even the modern use of **infant formula** instead of breast milk has interfered with mankind's long history of transferring bacterial diversity from mother to child.<sup>63,65</sup> Recent findings suggest that even **aging** itself disrupts the bacterial makeup of the gut.<sup>66-68</sup>

Although good bacteria can be found in small amounts in food, changing the entire ratio of gut bacteria requires substantial and consistent dosing with supplements providing potent levels of bacteria to enable their survival.

Also, while many supplements provide just **one** type of bacteria—the most popular being *Lactobacillus*—the combination of two different types delivers better odds of reversing the negative effects of **dysbacteriosis**, a condition where healthy gut bacteria are killed off leaving an imbalance between good and bacteria. *Bifidobacterium* is another potent bacterium that strongly supports microflora.

## Summary

Scientists have shown that a prolonged imbalance in intestinal bacteria can do more than induce intestinal or digestive problems—it can trigger numerous chronic diseases *outside* the intestine!

The link between imbalanced intestinal bacteria and today's most prevalent diseases is clear. However, today's diet, lifestyle, medical practices, and other factors tend to disrupt gut bacterial balance.

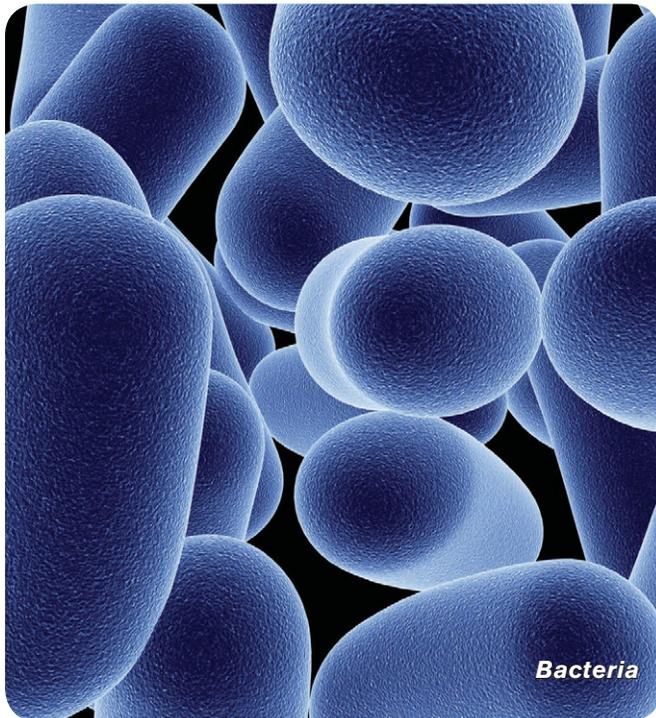
Fortunately, supplementing with key bacterial strains counters these destructive influences—restoring your body's natural, *intestine-based* protection against a host of *non-intestinal* diseases! ●

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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ADVANCED

Item # 01430



# Resveratrol Formula

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

Since then, we have identified additional compounds that simulate calorie restriction's ability to trigger youthful **gene expression**—the process by which genes transmit signals that slow certain aspects of aging.

Compelling evidence reveals that certain compounds found in berries, such as **pterostilbene** and **fisetin**, possess potent "longevity gene" activators that work in synergy with **resveratrol**. For example, **fisetin** (found in strawberries) has been shown to **stabilize** resveratrol in the body by shielding it from metabolic breakdown,<sup>1-10</sup> thus extending its beneficial effects.

**CAUTION:** If you are taking anti-coagulant or anti-platelet medications or have a bleeding disorder, consult your healthcare provider before taking this product.

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## High-Potency Resveratrol with Synergistic Activators

Life Extension® members gain access to standardized **trans-resveratrol** combined with botanical extracts that favorably influence longevity gene expression. Unlike many commercial formulas, Life Extension standardizes to **trans-resveratrol**, which researchers contend is the most active constituent.

A bottle containing 60 vegetarian capsules of **Optimized Resveratrol with Synergistic Grape-Berry Actives** retails for \$46. If a member buys four bottles during **Super Sale**, the price is reduced to **\$27.90** per bottle. The suggested dose of one capsule a day provides:

The suggested dose of one capsule a day provides:

Trans-Resveratrol	250 mg
Grape-Berry Actives	85 mg
Quercetin	60 mg
Trans-Pterostilbene	0.5 mg
Fisetin	10 mg

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

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

# NEW Winter Wellness™

## Primes Immune Response at Super LOW Cost

Every **winter**, human immune systems are overworked as they provide essential defense against **seasonal** challenges—*especially the immune systems of the elderly and very young.*<sup>1-4</sup>

A crucial part of this protection comes from the immune system's production of new antibodies when the **new** winter season's pathogens are first introduced, which boosts the body's preparedness for upcoming challenges during peak winter outbreaks.<sup>5</sup>

In a remarkable discovery, the amino acids in **Winter Wellness™** have been shown to *work together* to **prime** the immune system to optimize immune responsiveness.<sup>4,6-8</sup>

Taken daily, they support the host immune system's primary defenders by enhancing the function of key immune cells to generate antibodies and naturally *prime* readiness—especially when taken at least **two weeks prior** to the first pre-season exposure to the winter's new antigen challenges.<sup>4,6,7</sup>

### Optimized Immune Responsiveness to New Winter Challenges

**L-theanine** is a distinctive amino acid typically found almost exclusively in tea leaves.<sup>8</sup> **L-cystine** is an amino acid synthesized by the body from the cysteine molecules found in many plant and animal food sources.<sup>9</sup> Scientists have found that L-theanine and L-cystine have potent, complementary effects on immune responsiveness.<sup>6,7</sup>

Now combined in the next-generation, immune-supporting product **Winter Wellness™**, L-theanine and L-cystine promote the natural enhancement in responsiveness that follows pre-season **antigen-exposure** by:

- Helping to enhance *gamma delta T cells*, ensuring an optimum state of readiness to respond through secretion of *interleukin-2*—a powerful immune regulator.<sup>6</sup>
- Supporting the release of immune system proteins that coordinate interactions between *T cells* and *antibodies*—further promoting immune responsiveness.<sup>10</sup>
- Contributing to the synthesis of *glutathione*—a potent endogenous antioxidant—that has a marked effect on immune function.<sup>4,11</sup>

Scientific data supports that when these potent amino acids are used **together**, they support an enhanced post-exposure immune response.<sup>4,6-8</sup>

### Clinically Validated Antibody Support

A double-blind, placebo-controlled clinical trial on humans found that the two amino acids in **Winter Wellness™** significantly promoted antigen responsiveness.<sup>6</sup>

A group of nursing home residents over age 65 were co-administered **280 milligrams** of *L-theanine* and **700 milligrams** of *L-cystine* once daily for 14 days. After controlled exposure to several new winter antigens on the 15<sup>th</sup> day, the scientists found that for certain groups, supplementation resulted in an increased rate of **seroconversion**—the point at which the immune system first develops **antibody protection** against a microorganism as a *result* of new antigen exposure.<sup>6</sup>

**Winter Wellness™** powerfully *primes* the immune system against seasonal winter challenges.

The suggested daily dosage of two capsules of **Life Extension® Winter Wellness™**, or as recommended by a healthcare practitioner, provides:

L-Cystine	700 mg
L-Theanine	280 mg

### Low-Cost Ingredients

A bottle of 60 capsules of **Life Extension® Winter Wellness™** retails for \$15. If a member buys four bottles during **Super Sale**, the price is reduced to **\$8.78** per bottle.

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Item# 01739

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# Probiotic Liquid Vegetarian Capsules

## The Most Advanced Probiotic Available

While people use **probiotics** for intestinal health, compelling new evidence indicates that they have a broad-spectrum of health benefits.<sup>1-6</sup>

Scientists are finding that not having the proper balance of good-to-bad bacteria can wreak havoc throughout the body.<sup>7-11</sup>

**FlorAssist™** offers a new way to help maintain the proper balance of intestinal flora.

### Why Don't Probiotics Always Work?

One of the complications many commercial probiotics face is their inability to overcome hurdles in the digestive tract before hitting their target area— an aspect that can greatly limit their beneficial effects.<sup>12</sup>

**FlorAssist™ Probiotic Liquid Vegetarian Capsules** utilize a "**dual encapsulation**" technology to combat the shortcomings of many commercial probiotics, delivering unprecedented amounts of live bacterial colonies to where your body needs them.

### FlorAssist™ Probiotic Liquid Vegetarian Capsules...

- Contain probiotic strains that are **acid resistant**, protecting them from stomach acid that can destroy the viability of the strains;
- Have **dual encapsulation technology**, keeping the capsule intact longer, and ensuring that the probiotic reaches the small intestine,
- Provide a **high CFU†** (Colony Forming Units) of 15 billion per capsule!

### Dual Encapsulation Probiotic



### Choosing the *Right* Probiotic for You

While many supplements provide just **one** type of bacteria, taking a probiotic with **multiple** varieties of good bacteria can help better fight off bad bacteria.<sup>13</sup>

### FlorAssist™ Probiotic Liquid Vegetarian Capsules

provides a proprietary blend of **six** bacterial strains! Each FlorAssist™ dual capsule contains 15 Billion CFU (Colony Forming Units)† consisting of:

- *Lactobacillus acidophilus* LA-14
- *Bifidobacterium lactis* BL-04
- *Lactobacillus paracasei* LPC-37
- *Lactobacillus rhamnosus* LR-32
- *Bifidobacterium bifidum/lactis* BB-02
- *Bifidobacterium longum* BL-05

These **potent strains** of probiotic bacteria adhere to the soft lining of the intestinal tract, help maintain a healthy surface, and support the digestive system.

The retail price for a bottle containing 30 capsules of **FlorAssist™ Probiotic Liquid Vegetarian Capsules** is \$33. If a member buys four bottles during **Super Sale**, the price is reduced to just **\$20.25** per bottle.

†Colony Forming Units.

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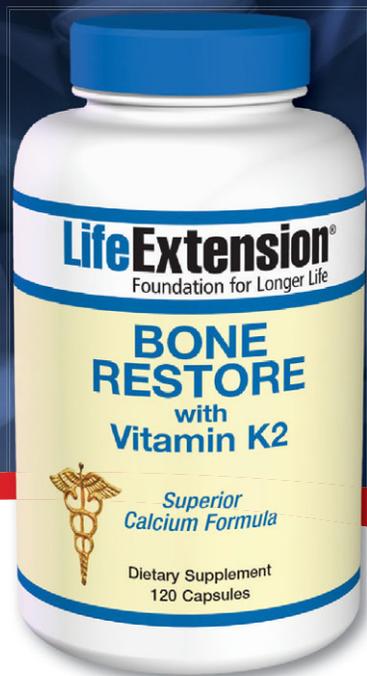


To order FlorAssist™ Probiotic Liquid Vegetarian Capsules, call 1-800-544-4440, or visit [www.LifeExtension.com](http://www.LifeExtension.com)

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

# BONE RESTORE

WITH VITAMIN K2



Item #01727

**Bone Restore** combines critical **bone boosting** nutrients into one **superior formula**.

**Bone Restore** includes highly **absorbable** forms of **calcium** and **boron**, along with **vitamin D3**, **magnesium**, **zinc**, **manganese**, and **silicon**. **Bone Restore** is available with or without **vitamin K2** (MK-7).

**Bone Restore** now contains **300 mg** of **magnesium**.

The retail price for 120 capsules of **Bone Restore** is \$24. If a member buys four bottles during **Super Sale**, the price is reduced to **\$14.85** per bottle. (Item# 01727)

The same **Bone Restore** formula without vitamin K2 (MK-7) is available as well. The retail price for 120 capsules is \$22. If a member buys four bottles during **Super Sale**, the price is reduced to **\$12.83** per bottle. (Item# 01726)

**Note:** Those who take **Super Booster** or **Super K** usually do not need additional vitamin K2. They should order **Bone Restore** without vitamin K2. Those taking the anti-coagulant drug **Coumadin**® (warfarin) should use **BONE RESTORE** without vitamin K2.

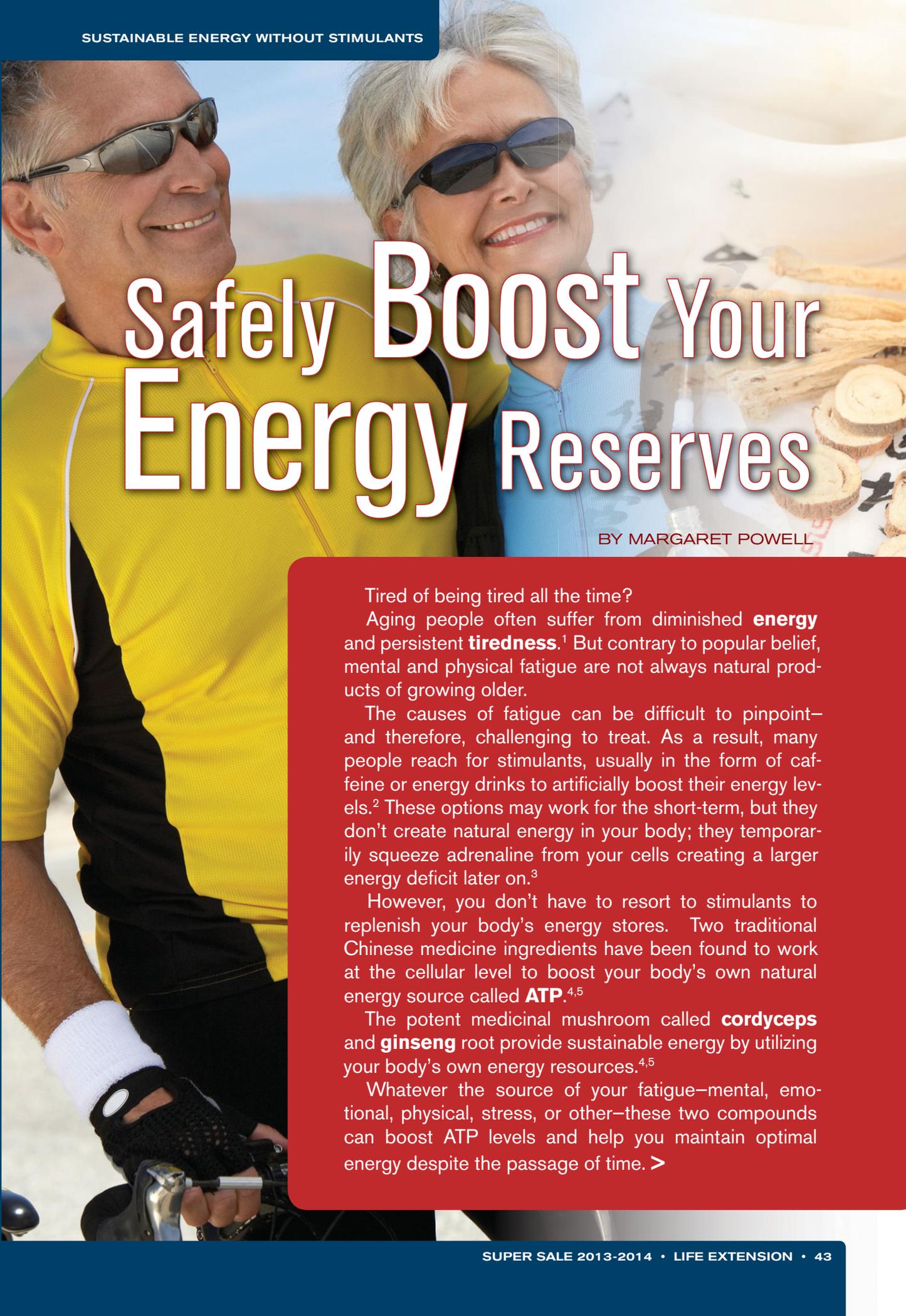
#### Just four capsules of Bone Restore provide:

<b>Highly Absorbable Calcium</b> (as DimaCal® dicalcium malate, TRAACS® calcium bisglycinate chelate, calcium fructoborate)	<b>700 mg</b>
<b>Vitamin D3</b>	<b>1,000 IU</b>
<b>Vitamin K2</b> (as menaquinone-7)	<b>200 mcg</b>
<b>Magnesium</b> (as magnesium oxide)	<b>300 mg</b>
<b>Boron</b> (calcium fructoborate as patented FruiteX B® OsteoBoron®)	<b>3 mg</b>
<b>Zinc</b> (as zinc amino acid chelate)	<b>2 mg</b>
<b>Manganese</b> (as amino acid chelate)	<b>1 mg</b>
<b>Silicon</b> (from horsetail extract)	<b>5 mg</b>

FruiteX B® and OsteoBoron® are registered trademarks of VDF Futureceuticals, Inc. U.S. patent #5,962,049.  
DimaCal® and TRAACS® are registered trademarks of Albion Laboratories, Inc. Malate is covered by U.S. Patent 6,706,904 and patents pending.

**To order Bone Restore, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)**

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



# Safely Boost Your Energy Reserves

BY MARGARET POWELL

Tired of being tired all the time?

Aging people often suffer from diminished **energy** and persistent **tiredness**.<sup>1</sup> But contrary to popular belief, mental and physical fatigue are not always natural products of growing older.

The causes of fatigue can be difficult to pinpoint—and therefore, challenging to treat. As a result, many people reach for stimulants, usually in the form of caffeine or energy drinks to artificially boost their energy levels.<sup>2</sup> These options may work for the short-term, but they don't create natural energy in your body; they temporarily squeeze adrenaline from your cells creating a larger energy deficit later on.<sup>3</sup>

However, you don't have to resort to stimulants to replenish your body's energy stores. Two traditional Chinese medicine ingredients have been found to work at the cellular level to boost your body's own natural energy source called **ATP**.<sup>4,5</sup>

The potent medicinal mushroom called **cordyceps** and **ginseng** root provide sustainable energy by utilizing your body's own energy resources.<sup>4,5</sup>

Whatever the source of your fatigue—mental, emotional, physical, stress, or other—these two compounds can boost ATP levels and help you maintain optimal energy despite the passage of time. >

## Recharge Your Body's Batteries

Your body is loaded with cells that contain mitochondria that make the vital energy molecule known as ATP.<sup>6</sup> Think of ATP as the tiny “batteries” that our bodies use to store and move energy.

Fatigue and exhaustion are the direct result of insufficient ATP.<sup>7</sup> Over time, our lack of energy is not simply due to “aging” but rather an indication that we are running low on ATP.<sup>8</sup>

The good news is that you can restore youthful ATP levels throughout your body with a pair of time-tested natural ingredients. The medicinal mushroom *Cordyceps sinensis* and the root of the **ginseng plant** (*Panax ginseng*) have been proven to boost energy by ramping up ATP production.<sup>4,5</sup>

In addition to increasing ATP production, **cordyceps** enhances our ability to burn fuel more efficiently and store its energy as ATP, and **ginseng** supports ATP production at the much higher levels possible when oxygen is available, as in a long-distance run or a prolonged, mentally challenging task.<sup>9,10</sup>



Ginseng

## Nature's Energy Boosters

*Cordyceps sinensis* is considered one of the most valuable medicinal mushrooms in China due to its rarity and valuable health benefits. In traditional Chinese medicine, cordyceps has been used for everything from cancer prevention to metabolic modulation and energy production.<sup>11,12</sup> Now, science has uncovered how cordyceps enhances energy levels in three ways:

1. **By raising ATP levels**, even under stressful conditions that would typically produce fatigue. For example, in animals with iron deficiency anemia (a common cause of fatigue in humans), cordyceps boosted ATP levels and blood flow.<sup>4</sup>
2. **By lowering levels of lactic acid**, the substance that produces fatigue in overstressed muscles.<sup>9</sup> This has direct bearing on exercise capacity. Studies show that when mice are supplemented with cordyceps, they can increase swimming time by **20%** to as much as **94%**.<sup>9,13,14</sup>
3. **By increasing insulin sensitivity**,<sup>15,16</sup> the more sensitive your cells are to insulin, the faster and more completely they take up sugar from your blood. In the short-term, this gives your cells access to more energy, and in the long-term, this lowers your risk of diabetes, heart disease, and other chronic conditions.

*Panax ginseng* is an important *adaptogenic* herb that has long been used to boost energy and reduce feelings of fatigue and exhaustion.<sup>17-20</sup> Now, studies show that ginseng produces these effects by increasing ATP production in the mitochondria.<sup>5,21</sup> Ginseng also activates multiple enzymes in the so-called *tricarboxylic acid cycle* (or Krebs cycle), enabling mitochondria to extract maximum energy (in the form of ATP) from their glucose fuel in the presence of oxygen.<sup>10</sup>

As a result of their ability to enhance the body's own energy production, studies have demonstrated the ability of cordyceps and *Panax ginseng* to enhance physical and mental energy.<sup>4,5,9,13,14,17-19</sup> As you'll soon read, scientists have developed a method to enable far more ginseng to be absorbed into your bloodstream than ever before!

## Boost Your Physical Energy

In an impressive human study, 20 healthy adults age 50-75 years were supplemented with **333 mg** of cordyceps extract three times a day for **12 weeks**, or a placebo.<sup>22</sup> At the beginning and conclusion of the



study each participant performed exercise testing on a stationary bicycle to maximal levels. By the end of the study period, the subjects taking cordyceps had a **10.5%** improvement in the time until they experienced muscle fatigue, and their ability to work out until they were “out of breath” increased by **8.5%**.<sup>22</sup> The placebo patients not taking cordyceps showed a worsening of both fatigue and ventilation status.

Along with cordyceps, ginseng has been found to enhance physical energy as well. In the laboratory, rats treated with a single dose of energy-boosting ginseng increased the time they could run on a treadmill by **132%**. After **7 days** they had increased by **179%**.<sup>23</sup> Multiple studies now confirm that ginseng used alone or in combination prolongs aerobic exercise endurance of even untrained rats and mice.<sup>20,24-26</sup>

### Restore Your Mental Energy

People with depression often lack the energy to do anything. In this case, the fatigue is mental rather than physical, yet just as debilitating. In fact, recent studies have confirmed that in people suffering from major depression, their brain levels of ATP are low—direct confirmation of that “blah” feeling and lack of motivation that so many people with depression report.<sup>27-29</sup> By restoring ATP levels, the brain is able to function at a higher level.<sup>27</sup>

Among other mental benefits, ginseng produces improvements in levels of the calming neurotransmitter GABA.<sup>30</sup> Unlike prescription drugs like Valium® and Xanax®, which alleviate anxiety by fooling your body into thinking it has more GABA, ginseng increases levels of your body’s own GABA, producing a more natural sense of calmness and healthier sleep.<sup>30,31</sup>

One study found that a single **200 mg** dose of a standardized ginseng extract significantly reduced mental fatigue while improving cognitive performance on mental arithmetic tasks in a group of healthy volunteers.<sup>32</sup>

In a subsequent study, researchers gave healthy volunteers either **200 mg** of ginseng extract, or a placebo, immediately followed first by a series of cognitively demanding tasks. Thirty minutes later they gave the volunteers either **25 grams** (nearly an ounce) of glucose or a placebo.<sup>33</sup> As to be expected, both ginseng and glucose improved performance on arithmetic and reduced feelings of fatigue. However, because ginseng lowered blood sugar, while the glucose raised it, the researchers concluded that ginseng was vastly superior to sugar as an energy-boosting supplement.

And in still another study, healthy young adults taking **400 mg/day** of a standardized ginseng extract for **8 days** improved working memory and feelings of calmness, compared with placebo recipients.<sup>34</sup>



### Enhanced Absorption— For Even Better Results

Ginseng has numerous health benefits, but it is poorly absorbed from the digestive tract in its native form. Most forms of ginseng require fermentation in the human intestine before they can be absorbed.<sup>35-37</sup>

Now, scientific innovation has brought us an advanced formulation of ginseng that naturally ferments premium *Panax ginseng*, a process which has been shown to increase absorption of the active compounds of ginseng (*ginsenosides*) by more than **15-fold**.<sup>38</sup>

Innovative research demonstrates the utility of fermenting premium ginseng in customized fermenters.<sup>39</sup> Studies in humans reveal that, compared with standard ginseng extracts, the **GS15-4** form of fermented ginseng extract is absorbed **15.5** times as much in 24 hours, achieves a **27-fold** higher peak concentration in blood, and reaches that peak in roughly a quarter of the time (**3.29** vs. **12.04** hours).<sup>38</sup>

### Summary

Low energy levels and fatigue plague millions of Americans, especially as we age.<sup>1,40</sup> While fatigue has many different physical and mental causes, it ultimately comes down to insufficient levels of ATP, the tiny molecular batteries our bodies use to store and transport energy.<sup>7,40</sup>

Mainstream medicine and popular culture have conspired to produce a toxic response to fatigue in the form of stimulant drugs or caffeine/sugar combinations that have potentially addictive, and even fatal, adverse effects.<sup>41</sup>

Both **cordyceps** and **ginseng** have hundreds of years' worth of proven energy-boosting benefits without addictive or toxic potential.<sup>11,12,17-20</sup> Both supplements are now known to act by raising ATP levels, making more energy available to brain, muscle, and other vital organs, restoring more youthful energy levels.<sup>4,5</sup> ●

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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# COMPREHENSIVE VITAMIN K FORMULA



Item # 01724

There are **three forms** of **vitamin K** that the human body can utilize to promote **arterial health and bone support**.<sup>1-8</sup>

Life Extension®'s **Super K with Advanced K2 Complex** provides the *dynamic trio* of vitamin K forms in **one softgel**, including **vitamin K1**, **vitamin K2 (MK-4)**, and **vitamin K2 (MK-7)**.

**VITAMIN K1** is the form of vitamin K that is found in green vegetables. **K1** is tightly bound to plant fiber, so only a fraction is *absorbed* into the bloodstream. Supplementation ensures ample **K1** blood levels.

**VITAMIN K2** is usually found in meats, dairy, and egg yolks. Since you may be avoiding these foods for health reasons, ingesting a **K2** supplement is *essential*. **MK-4** is the most *rapidly absorbed* form of **K2**, and **MK-7** boasts a very *long half-life* in the body, making both forms the *perfect complement* to any **vitamin K** regimen.<sup>9</sup>

To order  
**Super K with Advanced K2 Complex**  
or **Super Booster**, call **1-800-544-4440** or  
visit **www.LifeExtension.com**

## Super K formula provides in just one daily softgel:

Vitamin K2 (MK-7)	200 mcg
Vitamin K2 (MK-4)	1000 mcg
Vitamin K1	1000 mcg

The retail price for a bottle containing **90 softgels** is \$30. If a member buys four bottles during **Super Sale**, the price is reduced to **\$18.23 per bottle**. Since each bottle lasts for three months, members pay as little as **\$6.08** a month for this high-potency blend of all three active forms of vitamin K during the Super Sale.

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

### Warning to Coumadin® (warfarin) Drug Users

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

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Stimulant-Free Natural Energy

# ASIAN ENERGY BOOST

Most people rely on stimulants, particularly caffeine, to boost sagging energy levels during the day.<sup>1</sup> The result is often a roller coaster of intense energy followed by deep lulls that can lead to further exhaustion. But there is a better way. For sustained vigor, the secret is to boost the body's own energy source, **ATP (adenosine triphosphate)**.

**Asian Energy Boost** is specifically designed to provide all-natural support for cellular and physical energy levels to help you stay alert without negative effects, such as crashing or uncomfortable jitters.

## Support for Energy Homeostasis

Your body's natural mechanism of **homeostasis** maintains normal balance during daily challenges, helping you remain energized and focused—*when properly supported*. Ongoing stress, however, means your body seldom gets time to restore your natural equilibrium.

For individuals seeking optimum homeostasis and sustainable energy, **Asian Energy Boost** combines the potent Asian mushroom **Cordyceps sinensis** and a specially fermented form of the **Panax ginseng** root. Combined, they deliver potent energy support.

## Cordyceps sinensis

One of the most valued medicinal mushrooms in China, **Cordyceps sinensis** has been revered traditionally for its multiple benefits, including support for energy and endurance.<sup>2,3</sup> Studies show that the **Cordyceps** in **Asian Energy Boost** supports energy levels by promoting healthy levels of ATP<sup>3,4</sup>—the energy currency used throughout the body.

**Cordyceps** also supports healthy insulin sensitivity in those already within normal range,<sup>5,6</sup> allowing your cells to efficiently take up sugar from your blood to enable stable energy output.

In one study, healthy adults age 50-75 took **333 milligrams** of Cordyceps extract **three times daily** for 12 weeks. These study subjects were able to perform a stationary bicycle exercise at maximal levels for over **10% longer** before muscle fatigue could be scientifically detected.<sup>7</sup>

## Panax ginseng

**Panax ginseng** is an important adaptogenic herb that can improve our ability to manage stress.<sup>8,9</sup> Recognized as one of the most beneficial ginsengs available, it is the species traditionally used in China and Asia. For enhanced potency, **Asian Energy Boost** uses **Panax ginseng** that has been naturally fermented, a process shown to **increase absorption** of the active compound—Compound K (*Ginsenosides metabolite*)—by over **15-fold**.<sup>10</sup>

Evidence indicates that ginseng supports **ATP production** in the **mitochondria**.<sup>11,12</sup> Studies have shown that this extract promotes both physical *and* mental energy, including cognitive performance.<sup>13-18</sup>

## Complementary Effects

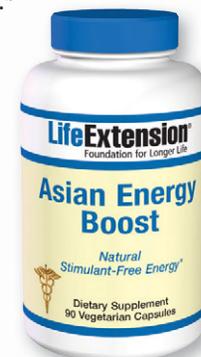
The **Cordyceps** and fermented **Panax ginseng** in **Asian Energy Boost** work in a **complementary** fashion to help maintain ATP levels and your body's energy stores.

**Cordyceps** extract supports ATP production when oxygen availability is insufficient.<sup>3</sup> **Panax ginseng** supports ATP production at the much higher levels possible when more sufficient oxygen is available—such as a challenging but prolonged task.<sup>19</sup>

The suggested daily dosage of three vegetarian capsules of **Asian Energy Boost** provides:

<b>Cordyceps (<i>Paecilomyces hepiali</i>) extract (mycelia)</b>	<b>1,000 mg</b>
[providing 70 mg cordycepic acid]	
<b>GS15-4™ Fermented Asian ginseng extract (root)</b>	<b>165 mg</b>

A bottle of 90 vegetarian capsules of **Life Extension® Asian Energy Boost** retails for \$24. If a member buys four bottles during **Super Sale**, the price is reduced to **\$14.85** per bottle. Contains soybeans.



Item #01805

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**Asian Energy Boost**,  
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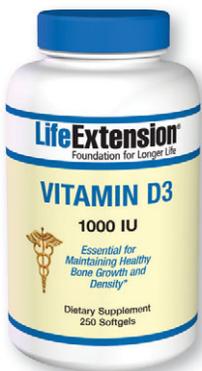
# D<sub>3</sub>

## VITAMIN D<sub>3</sub> SOFTGELS FOR SUPERIOR ABSORPTION

Study after study confirms the vital importance of maintaining optimal levels of **vitamin D**. Research often indicates that a blood level between **50–80 ng/mL** of **25-hydroxyvitamin D** is ideal. Because people have individual requirements, Life Extension® has created a large selection of **vitamin D** supplements to ensure that you achieve your **vitamin D<sub>3</sub>** goals.

Keep in mind that you may already be getting **1,000-3,000 IU** of vitamin D in your multi-nutrient formulas.

Vitamin D is now available in superior absorbing softgels. A recent study demonstrated that the use of one **5,000 IU** vitamin D softgel daily resulted in a near **30% increase** in vitamin D levels in just **60 days**.



### VITAMIN D<sub>3</sub> 1,000 IU 250 softgels

Retail: \$12.50

**Four-bottle Member Price  
during Super Sale: \$7.59 ea.**

Commercial companies offered only **400 IU** vitamin D products when Life Extension long ago introduced a **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 # 01751**

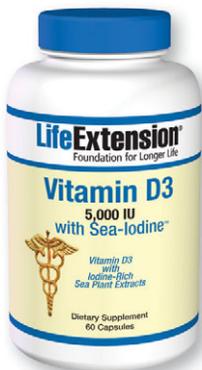


### VITAMIN D<sub>3</sub> 5,000 IU 60 softgels

Retail: \$11

**Four-bottle Member Price  
during Super Sale: \$6.68 ea.**

For those already obtaining **1,000-3,000 IU** of vitamin D in their multi-nutrient formulas, this **5,000 IU** potency is what many need to *achieve* optimal vitamin D blood levels. **Item # 01713**



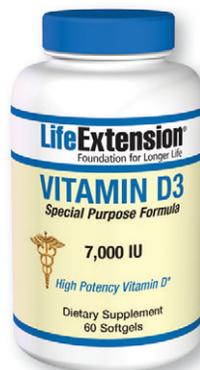
### VITAMIN D<sub>3</sub> 5,000 IU WITH SEA-IODINE™\* 60 capsules (non-softgel)

Retail: \$14

**Four-bottle Member Price  
during Super Sale: \$8.44 ea.**

Most people do not ingest enough vitamin D and iodine, especially those seeking to reduce their salt intake. Combining **5,000 IU** of **vitamin D<sub>3</sub>** and **1,000 mcg** of iodine into one capsule makes taking these two nutrients economical and convenient.

*Due to the source of kelp, this product may contain fish and shellfish.* **Item # 01573**

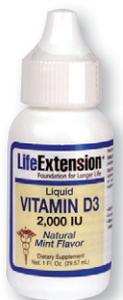


### VITAMIN D<sub>3</sub> 7,000 IU 60 softgels

Retail: \$14

**Four-bottle Member Price  
during Super Sale: \$8.51 ea.**

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 D<sub>3</sub>** softgel should enable these individuals to attain **25-hydroxyvitamin D** blood levels above the desired range of **50 ng/mL**. **Item # 01718**



### VITAMIN D<sub>3</sub> LIQUID 2,000 IU (Natural mint flavor)

1 ounce

Retail: \$28

**Four-bottle Member Price  
during Super Sale: \$16.88 ea.**

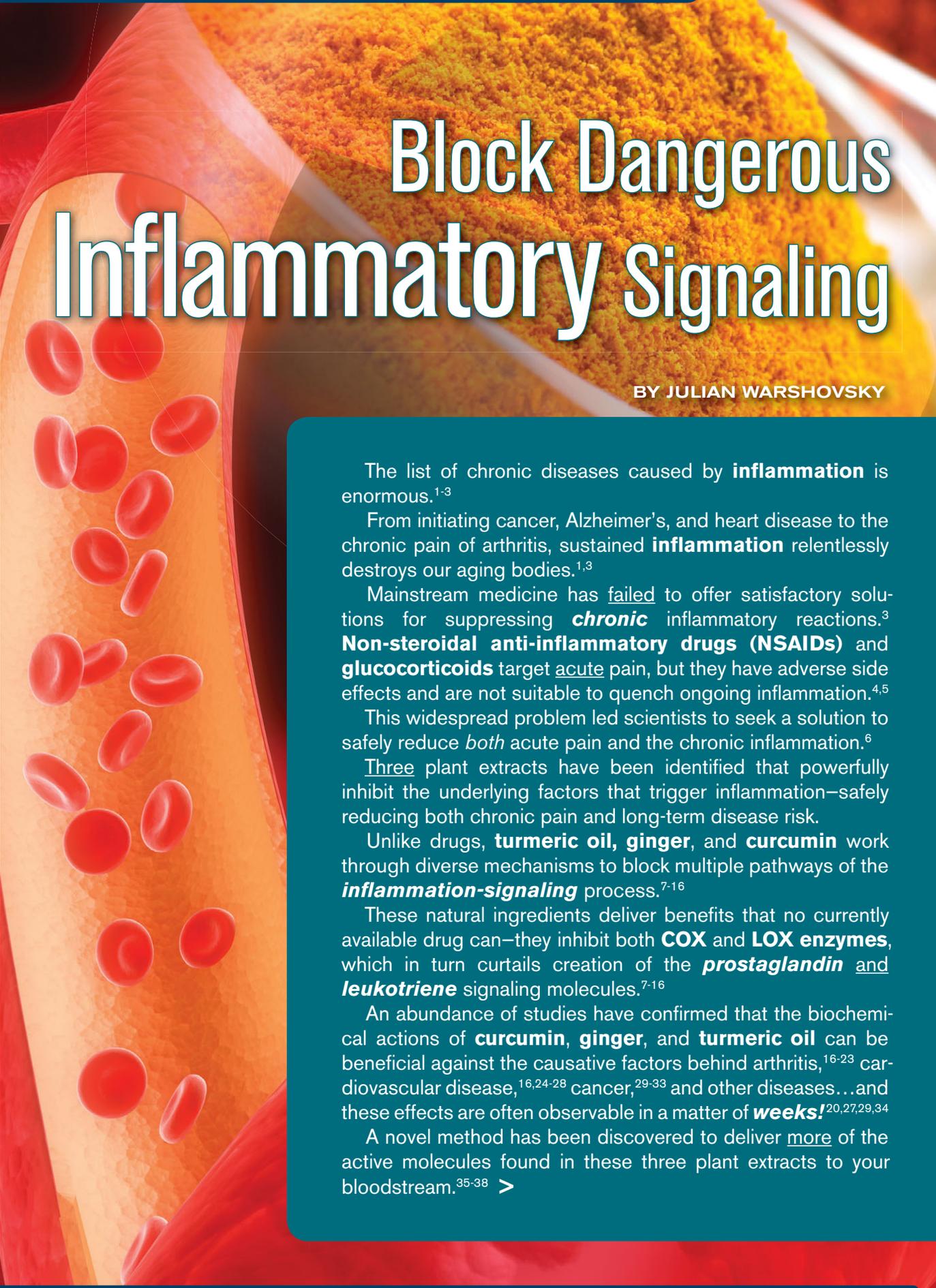
For those rare individuals who have difficulty absorbing enough vitamin D<sub>3</sub> from softgels, this liquid of vitamin D can be used. **Item # 01732**

Also available without mint. (Item# 00864)

**To order any of these high-potency  
vitamin D<sub>3</sub> supplements, call 1-800-544-4440  
or visit [www.LifeExtension.com](http://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-hydroxy-vitamin D measurement. Do not exceed 10,000 IU per day unless recommended by your doctor. Vitamin D supplementation is not recommended for individuals with high blood calcium levels.

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



# Block Dangerous Inflammatory Signaling

BY JULIAN WARSHOVSKY

The list of chronic diseases caused by **inflammation** is enormous.<sup>1-3</sup>

From initiating cancer, Alzheimer's, and heart disease to the chronic pain of arthritis, sustained **inflammation** relentlessly destroys our aging bodies.<sup>1,3</sup>

Mainstream medicine has failed to offer satisfactory solutions for suppressing **chronic** inflammatory reactions.<sup>3</sup> **Non-steroidal anti-inflammatory drugs (NSAIDs)** and **glucocorticoids** target acute pain, but they have adverse side effects and are not suitable to quench ongoing inflammation.<sup>4,5</sup>

This widespread problem led scientists to seek a solution to safely reduce *both* acute pain and the chronic inflammation.<sup>6</sup>

Three plant extracts have been identified that powerfully inhibit the underlying factors that trigger inflammation—safely reducing both chronic pain and long-term disease risk.

Unlike drugs, **turmeric oil**, **ginger**, and **curcumin** work through diverse mechanisms to block multiple pathways of the **inflammation-signaling** process.<sup>7-16</sup>

These natural ingredients deliver benefits that no currently available drug can—they inhibit both **COX** and **LOX enzymes**, which in turn curtails creation of the **prostaglandin** and **leukotriene** signaling molecules.<sup>7-16</sup>

An abundance of studies have confirmed that the biochemical actions of **curcumin**, **ginger**, and **turmeric oil** can be beneficial against the causative factors behind arthritis,<sup>16-23</sup> cardiovascular disease,<sup>16,24-28</sup> cancer,<sup>29-33</sup> and other diseases...and these effects are often observable in a matter of **weeks!**<sup>20,27,29,34</sup>

A novel method has been discovered to deliver more of the active molecules found in these three plant extracts to your bloodstream.<sup>35-38</sup> >



### An All-Out Assault on Chronic Inflammation

Just about every chronic disease—from arthritis, to heart disease, to diabetes, to Alzheimer’s disease—has one thing in common: destructive, unchecked **inflammation**.<sup>1-3</sup>

Chronic inflammation is often the end result of a complex “domino effect” of signaling molecules known as **prostaglandins** and **leukotrienes**.<sup>39,40</sup> The problem with most drugs is that they only inhibit **one** of the steps involved in chronic inflammation (providing only partial relief).<sup>41</sup>

For example, NSAIDs inhibit the production of prostaglandin signaling molecules by blocking enzymes known as **COX-1** and **COX-2**. But they do *not* inhibit production of *leukotriene* signaling molecules, which requires blocking the **5-LOX** enzyme.<sup>7,41</sup>

**Curcumin, turmeric oil, and ginger** work together to block **all** these signaling pathways to deliver *broad-spectrum* protection against chronic inflammation.<sup>7-16</sup>

As a result, these plant extracts have potential benefit against numerous disorders.<sup>42,43</sup>

### 2,000 Studies Can’t Be Wrong!

Inflammation is a major trigger of cancer,<sup>44</sup> the second leading cause of death in the United States.<sup>45</sup>

Your body has a natural ability to fight cancer through the activity of its own tumor-suppressing

genes.<sup>46</sup> However, over time, environmental factors such as inflammation can turn off (or “silence”) these genes, allowing cancer to take hold and spread unchecked.<sup>47,48</sup>

Over **2,000 published studies** show curcumin suppresses many cancers—including breast, prostate, liver, skin, colon, and lung cancers<sup>31,49</sup>—by interfering at *every stage* of their development, progression, and metastasis.<sup>50</sup> While anticancer drugs and cancer itself weaken the immune system, curcumin enhances it,<sup>51-55</sup> serving as an “immune-restorer.”<sup>52</sup>

### Guard Against Platelet Aggregation

Inflammation plays a key role in the development of cardiovascular disease.<sup>56</sup> Due to their action against the underlying causes of inflammation: **curcumin, ginger, and turmeric** have all been found to have powerful effects against cardiovascular disease.<sup>16,24-28</sup>

A study on ginger indicated that it could improve cardiovascular and cerebrovascular complications that occur as a result of platelet aggregation (the tendency of blood cells to clump together).<sup>24</sup> For the study, either **ginger** or **aspirin** taken daily with **10 mg** of the antihypertensive drug **nifedipine (Procardia®)** was shown to boost the drug’s anti-platelet aggregation effect in both normal and hypertensive patients.

### Outperforms Leading Arthritis Drug

The hallmarks of the most common form of arthritis (*osteoarthritis*) are inflammation and cartilage destruction. While both ginger and curcumin block inflammation—*curcumin also inhibits cartilage breakdown by the body!*<sup>57</sup>

In one study, one group of rheumatoid arthritis patients received **500 milligrams of curcumin daily**, another received **50 milligrams daily** of the NSAID drug *diclofenac*, and a third group received a combination of the two. After eight weeks, the curcumin-only group had the greatest reduction in joint pain and swelling, with no supplement-related adverse effects. By contrast, **20%** of participants in the drug-only group dropped out due to adverse effects!<sup>19</sup>

**Ginger** has also been tested against the NSAID drug *diclofenac*. Two groups of osteoarthritis patients took either ginger extract (**340 milligrams daily**) or diclofenac (**100 milligrams**) for four weeks.<sup>20</sup> Both treatments were equally as effective; however, the **drug group** experienced an increase in digestive pain (dyspepsia) and *degeneration* of their stomach mucosa.



### Reverse Cognitive Impairment

Curcumin and ginger offer great promise in the fight against cognitive decline and dementia.

In animal models of Alzheimer's, **curcumin** has been shown to cross the blood-brain barrier in order to enhance clearance of *amyloid-beta* from the brain (the accumulation of which is strongly associated with Alzheimer's).<sup>58</sup>

One impressive study demonstrated ginger's ability to defend against—and possibly even reverse—middle-aged cognitive impairment.<sup>59</sup> For the study, 60 healthy middle-aged women took **400 or 800 milligrams** of ginger extract or placebo **daily**. After two months, the ginger participants showed significantly enhanced memory and brain activity consistent with boosted cognitive capability.

As beneficial as these ingredients are on their own, they're even more powerful together. Scientists have **combined** curcumin and ginger extracts with turmeric oil in a novel formulation that also delivers a distinct advantage: *it naturally enhances absorption.*

### Enhanced Formula Provides Better Absorption!

**Turmeric oil** is obtained from the potent liquid remaining after curcumin extraction.<sup>60,61</sup> Aside from turmeric oil's own strong anti-inflammatory and antioxidant effects, research revealed that its rich content of compounds called **aromatic turmerones** produces a **significant enhancement** of curcumin levels *inside* the cell compared to normal curcumin.<sup>38</sup> This formulation also contains **phospholipids**, a type of emulsifying molecule that enhances absorption of poorly soluble active compounds.<sup>62</sup>

### Summary

**Chronic inflammation** eventually leads to serious diseases such as cancer.<sup>1-3</sup> Drugs that target *acute* inflammation are not suitable for long-term use and can cause substantial side effects.<sup>3-5</sup>

In a significant breakthrough, **ginger, curcumin, and turmeric oil** have been found to block chronic inflammation at every stage of the process, safely inhibiting long-term disease risk.<sup>7-16</sup>

Multiple studies demonstrate that these three extracts combat an array of disorders, including cancer, cardiovascular disease, and arthritis.<sup>16-33</sup>

These three extracts have been combined in a groundbreaking formulation that greatly boosts absorption! ●

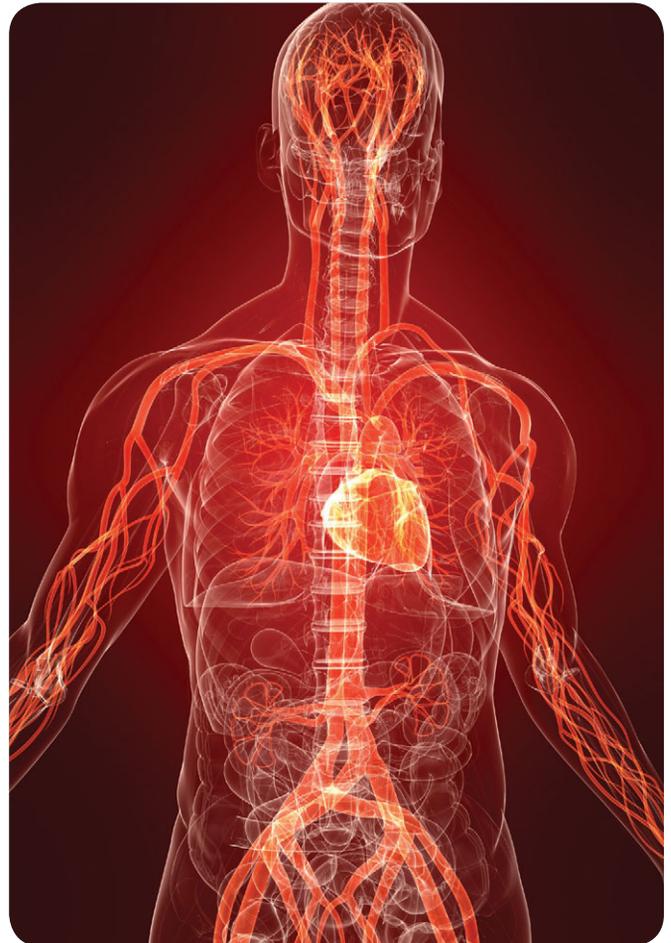


If you have any questions on the scientific content of this article, please call a Life Extension® Health Advisor at 1-866-864-3027.

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# GREEN TEA EXTRACT

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

The good news for consumers is that they can obtain **high-potency** standardized green tea extract capsules at a fraction of the original price.

The Life Extension Foundation Buyers Club offers **98% green tea extracts** in either a **lightly caffeinated** or **decaffeinated** form. These **98%** extracts are standardized to provide high potencies of critical **EGCG**, the most important **polyphenol** found in green tea.

These highly concentrated **Mega Green Tea Extract Caps** contain **725 mg** of either **lightly caffeinated** or **decaffeinated 98% standardized** green tea extracts. The retail price for **100 vegetarian capsules** of **Mega Green Tea Extract** is **\$30**.

If a member buys four bottles of **725 mg Mega Green Tea Extract** capsules during **Super Sale**, the price is reduced to **\$18.90 per bottle**. Most people take just one capsule daily.



Item # 00953

Item # 00954

To order Mega Green Tea Extract,  
call 1-800-544-4440 or  
visit [www.LifeExtension.com](http://www.LifeExtension.com)

# How Much Curcumin Are You Absorbing?



**Curcumin** is an active compound derived from the Indian spice **turmeric**. It has been widely acclaimed for its diverse health-promoting effects on nearly every organ system in the body,<sup>1-6</sup> including its support for the body's natural inflammatory response system.<sup>7</sup> But most curcumin is neither *absorbed* well nor retained well in the blood—posing a challenge to those who wish to maximize its benefits.<sup>8</sup>

**Life Extension**® took the lead in resolving this issue several years ago by introducing **Super Bio-Curcumin**® containing **BCM-95**®, a patented, *bioenhanced* preparation of curcumin that has been shown to reach up to **7 times higher concentration** in the blood than standard curcumin.<sup>8</sup>

Now, an exciting **next generation** curcumin formula has become available! The **new Advanced Bio-Curcumin**® with **Ginger & Turmerones** provides additional compounds that **further** boost absorption of curcumin's highly beneficial phytonutrients!<sup>9,10</sup>

## UNRIVALED POTENCY AND ABSORBABILITY

In addition to **BCM-95**®, this **new curcumin** formula contains:

- 1. Turmerones:** After curcumin is extracted from turmeric, what remains is **turmeric oil** rich in compounds called **turmerones**.<sup>11,12</sup> Combining **BCM-95**® with a high content of **turmerones** provides health consumers with more beneficial **turmeric** compounds that further multiply absorption.<sup>9</sup> Scientists have shown that these potent **turmerones** not only support curcumin absorption, but significantly increase the amount of curcumin **inside** the cell as well!<sup>9</sup>
- 2. Ginger:** Curcumin and **ginger** are close botanical relatives. Research demonstrates that they have overlapping and complementary health benefits,<sup>13</sup> and scientists are focusing on the therapeutic effects of *combining* these two plants.<sup>14,15</sup> **Advanced Bio-Curcumin**® with **Ginger & Turmerones** provides a supercritical extract of ginger standardized to the greatest concentration of ginger compounds—including beneficial gingerols and shogaols.
- 3. Phospholipids:** This new curcumin formula also contains **phospholipids**, a type of emulsifying molecule known to greatly enhance absorption of poorly soluble active compounds.<sup>10</sup>

The powerfully enhanced bioavailability and potency of **Advanced Bio-Curcumin**® with **Ginger & Turmerones** is superior to conventional curcumin supplements. This product represents the most powerful and cost-effective way to supplement with—and receive the full benefits of—this very critical nutrient.

The suggested daily dosage of one softgel of **Advanced Bio-Curcumin**® with **Ginger & Turmerones** provides:

<b>Turmeric Phospholipid Blend</b>	<b>630 mg</b>
BCM-95® Bio-Curcumin Turmeric 25:1 extract (rhizome) [total curcuminoids complex with essential oils (380 mg)], Turmeric oil (rhizome) [providing 60 mg total turmerones], Phospholipids	
<b>Ginger CO<sub>2</sub> extract (root)</b>	<b>200 mg</b>
[providing 60 mg gingerols]	

Each softgel of **Advanced Bio-Curcumin**® with **Ginger & Turmerones** provides **400 mg** of **BCM-95**® **Super Bio-Curcumin** plus an array of turmerones and phospholipids.

A bottle of 30 softgels of **Advanced Bio-Curcumin**® with **Ginger & Turmerones** retails for \$30. If a member buys four bottles during **Super Sale**, the price is reduced to **\$18.23** per bottle. Contains soybeans.

To order **Life Extension**® **Advanced Bio-Curcumin**® with **Ginger & Turmerones**, call **1-800-544-4440** or visit **www.LifeExtension.com**



Item# 01808

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

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

Here are some examples of savings members enjoy during the annual Super Sale:

	Our Low Retail Price	<b>SUPER SALE</b> Member-Volume Discount Price Per Bottle
<b>Super Omega-3 EPA/DHA with Sesame Lignans &amp; Olive Fruit Extract</b> <b>120 softgels, Item # 01482</b> Super purified EPA/DHA fish oil plus sesame lignans and potent olive (fruit and leaf) extract to provide critical omega-3 fatty acids and essential components of the Mediterranean diet.	\$32	<b>\$16.81</b> (ten-bottle purchase)
<b>Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™</b> <b>100 mg, 60 softgels, Item # 01426</b> The superior ubiquinol form of CoQ10 plus a natural compound (shilajit) shown to double mitochondrial CoQ10 levels.	\$62	<b>\$35.10</b> (ten-bottle purchase)
<b>Life Extension Mix™ • 315 tablets, Item # 01855</b> High-potency multi-nutrient formula now with the bioactive methylcobalamin form of B-12 and Wild Maqui extract to provide a boost of powerful delphinidin anthocyanins.	\$98	<b>\$46.91</b> (ten-bottle purchase)
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<b>Ultra Natural Prostate</b> <b>60 softgels, Item # 01895</b> Comprehensive support for an aging prostate gland utilizing botanical extracts plus boron and now with ThymoQ™ Phospholipid Complex for enhanced absorption.	\$38	<b>\$21.60</b> (twelve-bottle purchase)
<b>Super Zeaxanthin with Lutein, Meso-Zeaxanthin, and C3G</b> <b>60 softgels, Item # 01685</b> Supports night vision and macular density.	\$22	<b>\$13.37</b> (four-bottle purchase)
<b>Super K with Advanced K2 Complex • 90 softgels, Item # 01724</b> More potent formula includes 200 mcg of long-acting MK-7 form of vitamin K2 plus 1,000 mcg of K1 and 1,000 mcg of the MK-4 form of vitamin K2.	\$30	<b>\$18.23</b> (four-bottle purchase)
<b>PQQ Caps with BioPQQ® • 10 mg, 30 vegetarian capsules, Item # 01500</b> Promotes mitochondrial biogenesis (generation of new mitochondria) in aging cells.	\$24	<b>\$14.85</b> (four-bottle purchase)
<b>DHEA (Dehydroepiandrosterone) • 25 mg, 100 capsules, Item # 00335</b> A hormone that declines with aging, benefits overall health.	\$18	<b>\$10.13</b> (four-bottle purchase)
<b>Mitochondrial Energy Optimizer with BioPQQ® • 120 capsules, Item # 01768</b> To maintain healthy cellular function, protein structural integrity, and mitochondrial biogenesis.	\$94	<b>\$56.70</b> (four-bottle purchase)
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- **GINKGO** Hundreds of studies substantiate the multifaceted effects of *Ginkgo biloba* in promoting healthy circulatory and neurological function.



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- **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.

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

## JUST ONE SOFTGEL OF SUPER BOOSTER SUPPLIES:

Vitamin K2 (as menaquinone-7)	200 mcg	Gamma Tocopherol	197.45-296.25 mg
Vitamin K2 (as menaquinone-4)	1000 mcg	Lycopene	10 mg
Vitamin K1 (as phytonadione)	1000 mcg	Lutein	2 mg
Ginkgo extract	120 mg	Vitamin B12	300 mcg
Sesame lignans	20 mg	Vitamin C	95 mg
Chlorophyllin	100 mg		

A bottle of 60 **Super Booster** softgels retails for \$42. If a member buys four bottles during **Super Sale**, the price is reduced to **\$25.65** per bottle.

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

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# Unprecedented Liver Protection!

BY ROGER MORRISON

The **liver** is responsible for more than **500** vital life functions.<sup>1</sup>

Few people realize how critical **liver function** is to all aspects of health.<sup>1</sup>

Our liver works tirelessly as a purification plant to eliminate cellular waste products such as ammonia, as well as environmental toxins like heavy metals, pollutants, and drugs.<sup>1</sup>

Just as important, our liver helps regulate glucose/cholesterol blood levels, breaks down fats in our digestive tract, regulates blood clotting and converts foods into forms easier to use for the rest of the body. Our liver also helps detoxify dietary carcinogens.<sup>1</sup>

Disorders ranging from cirrhosis to non-alcoholic fatty liver disease and even cancer can increase oxidative stress in the liver resulting in liver damage and impairment of function.<sup>2-6</sup>

For more than 2,000 years, **milk thistle** has been used to treat liver as well as gall bladder dysfunction.<sup>7</sup> Studies confirm that milk thistle can protect liver function, prevent liver damage, and normalize elevated liver enzyme levels.<sup>8-10</sup>

Specific compounds within milk thistle are responsible for its potent liver-protecting benefits.<sup>11</sup> The exciting news is that, researchers have discovered a way to make milk thistle far more effective.

In recent developments, scientists have created a method to provide close to **five times** more of milk thistle's bioactive compound into your bloodstream.<sup>12</sup>

As a result of this enhancement, you can now get up to **10 times more benefit** directly to your liver from a single dose of milk thistle extract. The result is unprecedented protection for an aging liver.<sup>13,14</sup> >

## The Key to Unlocking Milk Thistle's Benefits

Extracts from the **milk thistle** (*Silybum marianum*) have been used for centuries for their preventive and curative properties for liver disease.<sup>7,9</sup> One of the most beneficial milk thistle components responsible for these protective effects is called *silymarin*.<sup>9,11</sup>

A potent antioxidant and anti-inflammatory, silymarin helps fight the root causes of liver disease.<sup>15-19</sup> Further research has identified a molecule called **silybin** as being the most active component in silymarin.<sup>9,20</sup>

As beneficial as milk thistle is, there's one issue keeping it from reaching its fullest potential: **silybin** has poor bioavailability, meaning it's difficult for your body to **absorb**.<sup>12-14,21,22</sup>

But scientists have now developed a **novel** way to overcome silybin's poor bioavailability. The solution is to combine silybin with a nutrient called **phosphatidylcholine**.<sup>23</sup>

As a major component of cell membranes, **phosphatidylcholine** facilitates transport across the cells lining the intestines, making it an ideal "carrier molecule" for silybin.<sup>21-23</sup>

## Close to 5 Times Better Absorption!

When **silybin** is combined with **phosphatidylcholine**, it is absorbed nearly **5 times better** than silymarin alone, and its concentration to the liver is **10-fold greater** than silymarin alone.<sup>12-14</sup>

In a study of rats exposed to various liver toxins, the combination of silybin plus phosphatidylcholine protected against the telltale rise in plasma levels of liver enzymes (a marker of liver damage), while the same doses of either nutrient alone had no detectable effect.<sup>8</sup>

Human studies also demonstrated that this complex has better results than silymarin or silybin alone, lowering serum levels of liver enzymes and producing clinical improvement in studies of liver cirrhosis and hepatitis caused by alcohol, drugs, and viruses.<sup>22</sup>

## Reverse Alcohol-Induced Liver Damage

You likely already know that large amounts of alcohol impose extreme oxidative stress on liver tissue,<sup>2,19</sup> but what you might not know is that milk thistle compounds have the potential to *attenuate* and even *reverse* alcohol-induced liver damage.<sup>2,19,22</sup>

In animal studies, acute alcohol administration produced a number of destructive effects in the liver, including prominent accumulations of fat in liver cells, small areas of dead tissue (necrosis), a rise in liver enzymes in the blood, a reduction in glutathione (the main intracellular antioxidant), and an increase in levels of the destructive cytokine TNF-alpha. Amazingly, supplementing with silymarin *prevented all* of these adverse alcohol-induced changes.<sup>19</sup>

And one dramatic human study demonstrated just how powerfully silymarin protects liver activity and improves liver function in alcoholic patients.<sup>24</sup> In a double-blind, clinical trial of 36 people with chronic alcoholic liver disease, patients took either silymarin or placebo every day for six months.<sup>24</sup> At baseline, all patients had elevated liver enzymes and other markers of liver damage in their blood; they also had biopsy-proven tissue damage.

Following treatment, however, **all** of the markers of liver damage had *normalized* in the silymarin group (with only minimal changes among placebo recipients).<sup>24</sup> Even better, subsequent biopsies indicated reversal of the disease process by revealing cellular-level improvement in the silymarin group, but no changes in the placebo patients.



*Silybum marianum*

## Milk Thistle Outperforms Mainstream Treatment

Although *non-alcoholic fatty liver disease* (NAFLD) is the most common cause of chronic liver disease in industrialized nations, mainstream medicine has little to offer for those suffering from this disease.<sup>25,26</sup> Fortunately, silymarin holds out substantial promise.<sup>4,27</sup>

In a **2012** study, researchers compared silymarin (**140 mg/day**) with insulin sensitizing drugs like *metformin* and *pioglitazone*.<sup>27</sup> All three treatments produced improvements in fasting blood sugar, lipid profiles, insulin levels, and insulin resistance, along with decreases in blood levels of liver enzymes. However, the silymarin group experienced the **greatest decrease** in liver enzymes, indicating greater protection against liver damage.<sup>27</sup>

As promising as silybin is on its own, the increased bioavailability of **silybin in combination** with **phosphatidylcholine** represents a major step forward in managing non-alcoholic fatty liver disease. One early study of patients with non-alcoholic fatty liver disease showed significant reductions in plasma markers of liver fibrosis and significant improvements in insulin resistance, using a combination of silybin, vitamin E, and phospholipids.<sup>28</sup>

A more recent, larger trial of a unique combination of silybin with phosphatidylcholine and vitamin E demonstrated significant improvements in liver enzymes, insulin resistance, and the appearance of liver tissue on biopsy (none of which were seen in placebo recipients).<sup>10</sup>

### Restore Vital Liver Function

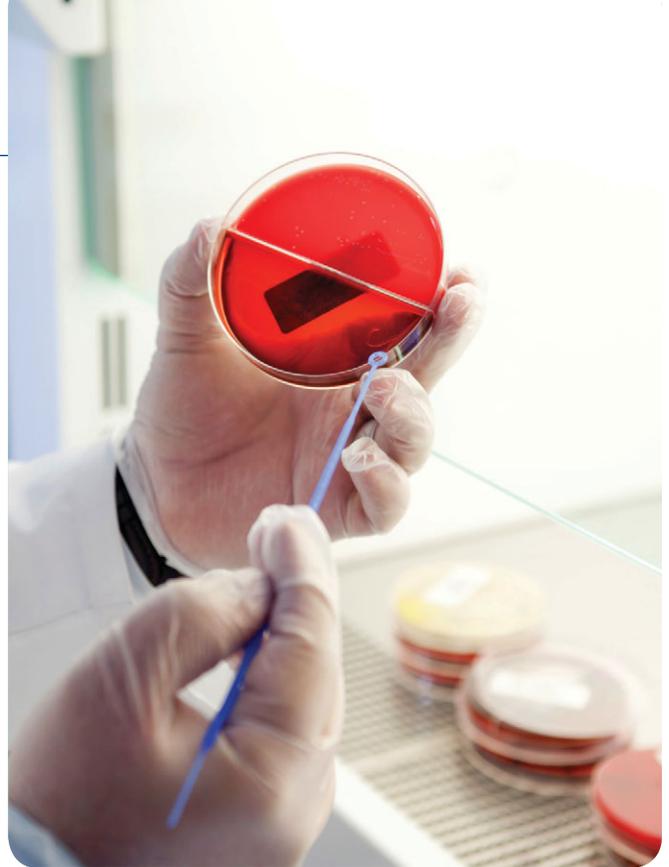
In about **10%** of cases, non-alcoholic fatty liver disease progresses to *non-alcoholic steatohepatitis* (NASH), a dangerous condition that ultimately produces liver fibrosis, cirrhosis, and even cancer.<sup>29,30</sup>

Silybin has been shown to restore vital liver functions in animals with non-alcoholic steatohepatitis, improving insulin sensitivity and markers of oxidative and inflammatory damage.<sup>31,32</sup>

It also suppressed the transformation of normal liver structural cells into the tough, inelastic tissue characteristic of liver fibrosis and cirrhosis, the end-stage phases of liver disease that follows non-alcoholic steatohepatitis.<sup>33</sup>

### Reverse Active Liver Damage

Viral hepatitis is a catch-all phrase for infections (such as hepatitis B and C) that can cause liver damage and raise the risk for liver cancer. Both hepatitis B and C can set up chronic infection (chronic active hepatitis) that can progress to fibrosis and cirrhosis.<sup>34</sup>



Silymarin treatment in acute viral hepatitis can speed the normalization of liver enzymes in the blood, indicating a *regression* of active liver damage.<sup>35</sup>

A group of patients with chronic active hepatitis took **240 mg** of **silybin** combined with **phosphatidylcholine**, or placebo, twice daily for 7 days.<sup>36</sup> The patients taking silybin had **significant drops** in *all markers of liver damage*, while control patients experienced no changes.<sup>36</sup>

While effective against hepatitis-induced liver damage, oral silymarin produces no reduction in the number of viral particles infecting the body, but studies of silymarin given intravenously reveal a substantial antiviral effect in patients who have not responded to standard IV antiviral treatment.<sup>35,37</sup>

### Increased Survival Rates!

Those with cirrhosis, the end-stage result of liver damage, are faced with two options: a slow and uncomfortable death or a liver transplant.<sup>38</sup> Fortunately, milk thistle extracts have been found to increase the **survival rate** of this deadly condition.

One study found that in people with alcohol-induced cirrhosis, those taking silymarin survived longer than control subjects.<sup>39</sup> A later study confirmed that finding, with **58%** of silymarin-treated patients surviving longer than 4 years, compared with **39%** of the placebo group.<sup>40</sup>

Even when liver disease has reached the stage of cirrhosis, silymarin treatment can normalize elevated liver enzymes in the blood, *indicating that it has slowed the progression of liver damage*.<sup>41</sup>



### Summary

Milk thistle extract has now been proven to lessen and, in some cases, reverse liver damage. Studies have shown that it can benefit multiple liver disorders, including alcohol-induced liver damage, non-alcoholic fatty liver disease, non-alcoholic steatohepatitis, viral infections, and cirrhosis.<sup>2,4,19,22,26,30,31,34,38-40</sup>

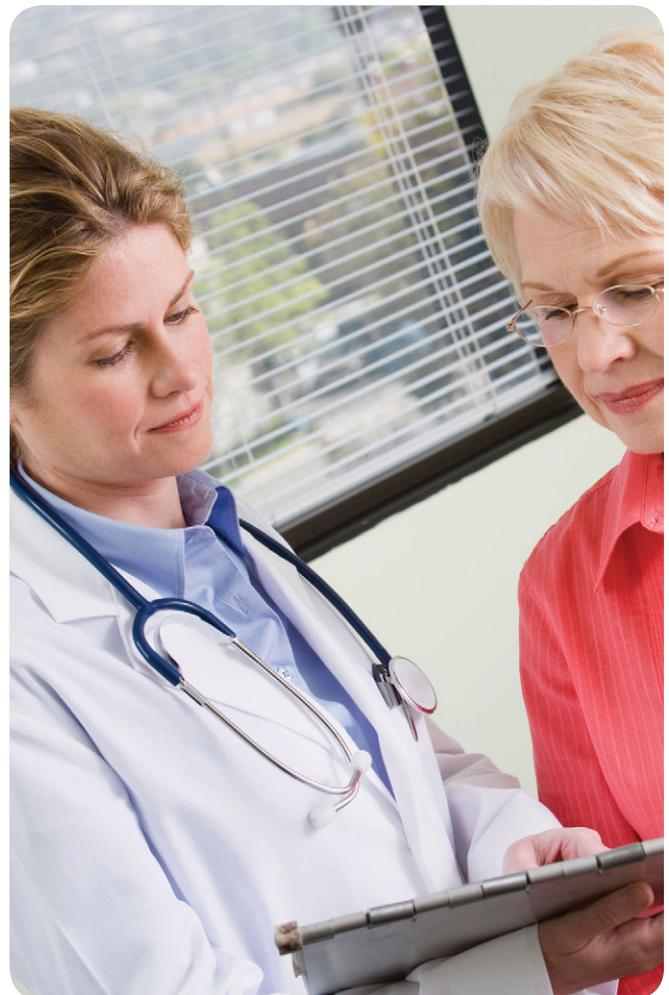
Scientists have uncovered specific compounds in milk thistle responsible for its liver-promoting benefits—and in the process have uncovered a way to substantially increase their absorption and bioavailability.<sup>13,14</sup> This breakthrough improves the delivery of the benefits of milk thistle extracts for liver health. ●

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

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# Top Off Your TESTOSTERONE *Naturally*

Low Testosterone Levels May Lead to:

**Reduced Sex Drive • Less Energy  
Cloudy Thinking • Weight Gain  
Cardiovascular Issues**

Maintaining healthy testosterone levels is one of the most important steps you can take to regain your health and improve your performance. With research showing that by the time a man is 60 years old, he may produce 60% less testosterone than he did in his 20s, the time is now to add Life Extension®'s Super MiraForte with Standardized Lignans to your supplement regimen.



Each daily dose of Super MiraForte with Standardized Lignans contains the following testosterone supporting ingredients:

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



Item # 01698

The retail price for a bottle of 120 capsules of **Super MiraForte with Standardized Lignans** is **\$62**. If a member buys four bottles during **Super Sale**, the price is reduced to **\$37.80** per bottle.

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

## Super Health. Super Libido. *Super MiraForte.*

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 registered trademark used under sublicense from Linnea S.A.

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

# New Absorption-Enhanced MILK THISTLE

## Now With Advanced Phospholipid Delivery

**Milk thistle** extract is one of nature's most potent weapons to support liver health. Until recently, however, the technology hasn't been available to fully harness this plant's full benefits.<sup>1</sup>

The problem has been that the star component of milk thistle, called **silybin**, does not dissolve well in water.<sup>2,3</sup> This makes it difficult for your body to **absorb** all of it.<sup>2,4,5</sup>

Scientists have developed a novel technology to overcome silybin's poor bioavailability. The solution is to mix **silybin** with a nutrient called **phosphatidylcholine**.

**Phosphatidylcholine** facilitates transport across the intestinal lining into the bloodstream, making it an ideal "carrier molecule" for **silybin**.<sup>4,5</sup> Scientists believe that phosphatidylcholine molecularly bonds to silybin ushering it through the membranes of cells in the intestinal tract.<sup>4</sup>

This **new silybin-phosphatidylcholine** complex is absorbed nearly **5 times better** than silymarin alone, and its concentration to the liver, its target organ, is **10-fold greater** than silymarin alone.<sup>6-8</sup>

The suggested twice daily dosage of one softgel provides:

<b>Milk Thistle Phospholipid Proprietary Blend</b>	<b>760 mg</b>
<b>Milk Thistle Extract</b> (seed) [std. to 80% silymarin (480 mg), 30% Silybin (180 mg), and 8% Isosilybin A and Isosilybin B (48 mg)], Phospholipids	
<b>SILIPHOS® Phytosome Milk Thistle Extract</b> (seed)	<b>160 mg</b>
[std to 29.7% silybin (47.52 mg)]	

A bottle containing 60 softgels of the new **absorption-enhanced Milk Thistle** retails for **\$28**. If a member buys four bottles during **Super Sale**, the cost is reduced to only **\$16.88** per bottle—a savings of nearly one third!

This novel Milk Thistle extract with phosphatidylcholine contains standardized concentrations of **silybin** and **isosilybin A** and **B** not found in other milk thistle extracts! Compare the price of **Milk Thistle** to commercial silymarin supplements, and members will see that this new formula is available at one of the **lowest** costs per milligram.

Contains soybeans.

SILIPHOS® is a registered trademark of Indena S.p.A., Italy.

**To order European Milk Thistle with Advanced Phospholipid Delivery**  
call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)



Item# 01822

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

# THE UPGRADED LIFE EXTENSION MIX™

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

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

**Olive polyphenols** help protect against LDL oxidation, quench free radicals, and stabilize cell membranes. LIFE EXTENSION MIX™ contains an olive extract standardized to provide the best-documented polyphenol called **hydroxytyrosol**.

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

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

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

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

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

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

**Pterostilbene** is a compound naturally found in blueberries and grapes that has been shown to have beneficial, anti-aging effects

**Cyanidin-3-Glucoside** is a berry compound that promotes healthy function of the retina to help support night vision.

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

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



315 tablets  
Item# 01855



490 capsules  
Item# 01854



14.81 oz powder  
Item# 01856

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

## Vegetable-Fruit Complex

Decaffeinated Green tea extract (45% EGCG)	325 mg
Broccoli sprout concentrate extracts and calcium D-Glucarate (providing sulforaphane, glucosinolates, D-3T, and PEITC)	725 mg
Olive juice extract (providing polyphenols, hydroxytyrosol, tyrosol, oleuropein)	12.5 mg
Grape seed proanthocyanidin extract (Leucoselect®)	25 mg
Grape (proanthocyanidin) extract (BioVin®)	25 mg
Luteolin (from orange extract)	8 mg
Lycopene (natural tomato extract) (Tomat-O-Red®)	3 mg
Lutein (marigold extract) (465 mcg trans-zeaxanthin)	15 mg
Maqui Berry ( <i>Aristotelia chilensis</i> ) anthocyanin extract	100 mg
Milk thistle extract (85% silymarin)	100 mg
Bromelain (from pineapple)	15 mg
Citrus Bioflavonoids (50% hesperidin)	200 mg
Acerola extract 4:1	300 mg
Bilberry extract (MirtoSelect®)	30 mg
Pomegranate extract (30% punicalagins) (POMELLA®)	85 mg
Sesame seed lignan extract	10 mg
Fruit/Berry Complex blend (proprietary blend of concentrated blackberry, blueberry, cherry, cranberry, elderberry, persimmon, prune powders)	300 mg
Wild Blueberry anthocyanin extract (fruit)	150 mg
trans-Pterostilbene (from pTeroPure™)	0.5 mg
Cyanidin-3-Glucoside (C3G) (from blackcurrant extract)	1.25 mg
CherryPure® Tart Cherry ( <i>Prunus cerasus</i> ) proanthocyanidin extract	85 mg
Delphinidins (from Delphinol® Maqui berry ( <i>Aristotelia chilensis</i> ) extract)	2 mg

## Water-Soluble Vitamins and Enzymatic Activators

Vitamin C	2000 mg
<i>as: ascorbic acid, calcium, magnesium &amp; niacinamide ascorbates, ascorbyl palmitate, acerola extract</i>	
Natural Folate (from lemon extract)	400 mcg
Biotin	3,000 mcg
Trimethylglycine (TMG)	100 mg
Vitamin B1 (thiamine HCl)	125 mg
Vitamin B2 (riboflavin)	50 mg
Supplying: Riboflavin 5'-phosphate	2 mg
Vitamin B3 (niacinamide and niacinamide ascorbate)	117 mg
Vitamin B3 (niacin)	73 mg
Vitamin B5 (D-calcium pantothenate)	600 mg
Pantethine	5 mg
Vitamin B6 (pyridoxine HCl)	5 mg
Pyridoxal 5'-phosphate (vitamin B6)	100 mg
Vitamin B12 (methylcobalamin)	600 mcg

# THE MOST COMPLETE MULTIVITAMIN AVAILABLE TODAY

Published scientific studies document that people who eat the **most fruits and vegetables** have much lower incidences of health problems. Few people, however, consistently eat enough plant foods to protect against common age-related decline, and commercial multivitamins do not provide all of the vital plant components needed to maintain good health.<sup>1,3</sup> **Life Extension Mix™** provides a broad array of **vegetable/fruit extracts**.

**Life Extension Mix™** now contains an upgraded **vitamin B12** that offers *superior absorption* compared to other forms of B12.

The **new Life Extension Mix™** also contains a potent **anthocyanin** called **delphinidins**. Delphinidins activate the production of **nitric oxide**, enabling vascular relaxation and supporting blood pressure. **Delphinidins** can also help to control inflammatory processes, stimulate the immune system, and stabilize blood sugar helping to control metabolic balance.

The content of **delphinidins** in the new Life Extension Mix™ is equivalent to 3 1/4 cup of **raspberries** or 5 3/4 cups of dried **plums**.

During **Super Sale**, the full daily dose of Life Extension Mix™ can be obtained for as little as **\$1.34** per day.

## Fat-Soluble Vitamins

Vitamin A (as Betatene® natural beta-carotene from dunaliella and acetate)	5,000 IU
Vitamin D3 (cholecalciferol)	2,000 IU
Vitamin C (as calcium ascorbate, ascorbic acid, ascorbyl palmitate, magnesium ascorbate, niacinamide ascorbate, acerola extract)	2,000 mg
Vitamin E (natural D-alpha tocopheryl succinate and D-alpha tocopherol)	100 IU
Natural mixed tocopherols (providing gamma, delta, alpha, and beta tocopherols)	60 mg

## Amino Acid Complex

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

## Mineral Complex

Selenium (from Se-methyl L-selenocysteine)	100 mcg
Selenium (from L-selenomethionine—SelenoPure™)	50 mcg
Selenium (from sodium selenite)	50 mcg
Zinc (as zinc citrate)	20 mg
Zinc (monomethionine) (OptiZinc®)	15 mg
Boron (Albion® bororganic glycine)	3 mg
Calcium	218 mg
Copper (as copper bisglycinate chelate TRAACS®)	1 mg
Chromium (as Crominex® 3+ chromium stabilized with Capros® and PrimaVie® Shilajit)	500 mcg
Potassium chloride (37.4 mg elemental)	71.3 mg
Molybdenum (sodium molybdate)	125 mcg
Manganese (gluconate)	1 mg
Iodine (potassium iodide)	150 mcg
Magnesium oxide (335.96 mg elemental)	560 mg
Magnesium citrate (35.28 mg elemental)	261.3 mg
Magnesium glycinate (11.74 mg elemental)	100 mg
Magnesium taurinate (7.83 mg elemental)	100 mg
Magnesium arginate (5.87 mg elemental)	100 mg
Magnesium ascorbate (3.40 mg elemental)	58.1 mg

## Cholinergic Complex

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

**Vitamin D3** helps maintain healthy bone density and DNA. There is five times more vitamin D in LIFE EXTENSION MIX™ compared to conventional multivitamins.

The **Life Extension Mix™** utilizes **natural mixed tocopherols** that provide natural vitamin E from alpha tocopherol and a small amount of gamma tocopherol (40 mg). Compared to synthetic vitamin E, the natural form is far more **bioavailable** to the body.

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

**Life Extension Mix™** contains the **sodium selenite, selenomethionine, and Se-methyl L-selenocysteine** forms of 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.

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

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

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

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

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

Contains soybeans. Contains fish (Tilapia).

1) Betatene® is a registered trademark of BASF SE. 2) Delphinol® is a registered trademark of MNL protected by U.S. patent application US 13/076,117 and WPO PCT/IB2010/002698. 3) OptiZinc® is a registered trademark of InterHealth Nutritionals, Inc. 4) SelenoPure™ is a trademark of Nutrition 21. 5) Crominex® 3+, Capros® and PrimaVie® are registered trademarks of Natreon, Inc. 6) Leucoselect® is a registered trademark of Indena S.p.A. 7) BioVin® is a registered trademark of Cyvex Nutrition. 8) Tomat-O-Red® is a registered trademark of LycoRed LTD. 9) POMELLA® Extract is covered under U.S. Patent 7,638,640 and POMELLA® is a registered trademark of Verdure Sciences, Inc. 10) pTeroPure™ is a trademark of ChromaDex, Inc. 11) MirtoSelect® is a registered trademark of Indena, S.p.A., Milan, Italy. 12) TRAACS® and Albion® are registered trademarks of Albion Laboratories, Inc. 13) CherryPure® is a registered trademark of Shoreline fruit LLC.

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

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To order call toll-free  
1-800-544-4440 or visit  
[www.LifeExtension.com](http://www.LifeExtension.com)

# OBTAINING THE LOWEST PRICES ON YOUR SUPPLEMENTS

We are pleased to announce our **25<sup>th</sup> annual winter SUPER SALE**. During this special event, **members** can purchase our most advanced formulas at **extra-discounted** prices.

When consumers buy products from the **Life Extension Foundation® Buyers Club**, they have assurance that the **quality of the product** is backed by the organization's **commitment** to achieving an indefinitely extended life span.

During **Super Sale**, members can purchase **premium-quality** nutrients at prices below those charged by commercial companies. This enables members to obtain products they can **trust** and still obtain discounted prices.

Life Extension® members always receive a **25% discount** off the retail price. The big savings occur when members purchase multiple bottles. For instance, when four or ten bottles of a product are purchased, the savings can **exceed 50%**!

Not only do Life Extension members save substantial dollars, but they also gain access to the most technologically advanced formulations in the world.

A review of this **Special Edition of Life Extension Magazine®** reveals new products and enhancements made to existing formulations. For example, in a significant advance, researchers have found that **gastrodin**, a compound typically derived from a traditional Chinese orchid (*Gastrodia elata*), powerfully supports the brain's normal defenses and regenerative mechanisms.

For members seeking to control inflammatory processes, a new formula called **Advanced Bio-Curcumin® with Ginger and Tumerones** helps block inflammation at every stage of the process, safely inhibiting long-term disease risk.

Studies demonstrate that **ginger, curcumin, and turmeric oil** combat an array of disorders, including cancer, cardiovascular disease, and arthritis.

Life Extension has added new ingredients to existing formulations so that members have convenient access to a comprehensive health maintenance program. This is the time of year when members gain access to updated formulations—at low **Super Sale** pricing.

## Super Savings on the new Life Extension Mix™

Life Extension Mix™ provides standardized **botanical** extracts, vitamins, minerals, and amino acids at a fraction of the cost of taking these nutrients individually.

As you'll see on the previous pages, **Life Extension Mix™** now contains **delphinidins**, potent anthocyanin compounds found in dark red fruits that help support the production of nitric oxide, control inflammatory processes, stimulate the immune system, and benefit metabolic balance.

The new **Life Extension Mix™** also provides the bioactive coenzyme form of B12, **methylcobalamin**, which offers *superior absorption* when compared to other forms of vitamin B12.

The cost of taking all these nutrients separately would be astronomical, but members can obtain the full dose of **Life Extension Mix™** for as little as **\$1.34 per day** if they buy during **Super Sale**. On a "**cost-per-milligram**" basis, **Life Extension Mix™** provides much **more potency** for far **less money** than commercial formulas.

Here's how members can obtain  
**Life Extension Mix™**  
at below wholesale prices:

The retail price of a five-week supply of the new **Life Extension Mix™** (315 tablets) is **\$98**. The member price for one bottle during **Super Sale** is **\$66.15**. (Item# 01855)

If a member buys four bottles, the price is reduced to **\$58.05** per bottle. When a member buys ten bottles during **Super Sale**, the price goes down to just **\$46.91 per bottle**. Since each bottle lasts for **five weeks**, that means that ten bottles will last for almost **one year!**

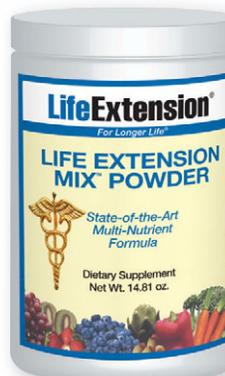
Members can save up to **52%** off the retail price of **Life Extension Mix™** during **Super Sale**. Life Extension Mix™ provides more health-maintaining nutrients than any other nutrient formula in the world. This year's **Super Sale** begins **November 18, 2013**.



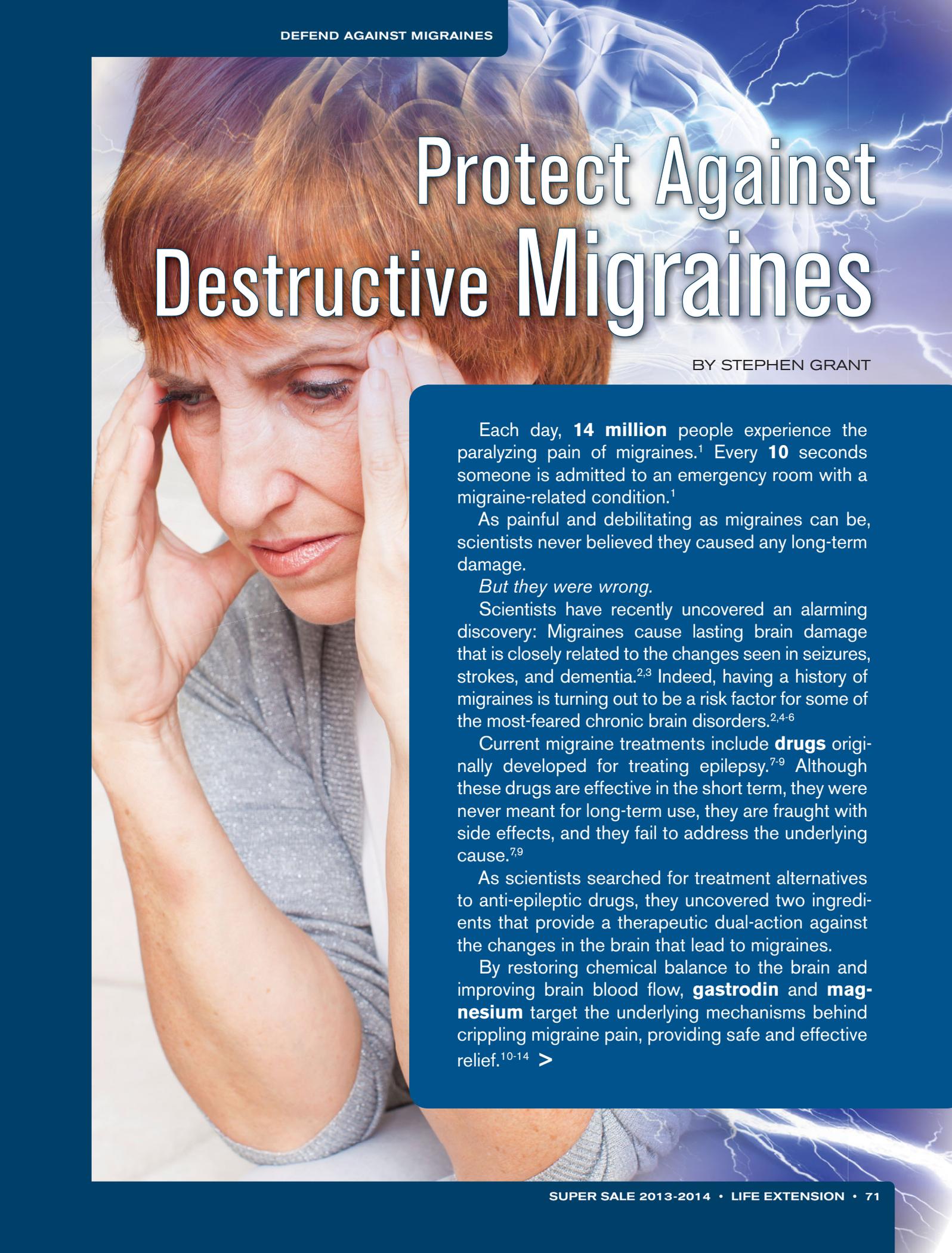
Item# 01854



Item# 01855



Item# 01856



# Protect Against Destructive Migraines

BY STEPHEN GRANT

Each day, **14 million** people experience the paralyzing pain of migraines.<sup>1</sup> Every **10** seconds someone is admitted to an emergency room with a migraine-related condition.<sup>1</sup>

As painful and debilitating as migraines can be, scientists never believed they caused any long-term damage.

*But they were wrong.*

Scientists have recently uncovered an alarming discovery: Migraines cause lasting brain damage that is closely related to the changes seen in seizures, strokes, and dementia.<sup>2,3</sup> Indeed, having a history of migraines is turning out to be a risk factor for some of the most-feared chronic brain disorders.<sup>2,4-6</sup>

Current migraine treatments include **drugs** originally developed for treating epilepsy.<sup>7-9</sup> Although these drugs are effective in the short term, they were never meant for long-term use, they are fraught with side effects, and they fail to address the underlying cause.<sup>7,9</sup>

As scientists searched for treatment alternatives to anti-epileptic drugs, they uncovered two ingredients that provide a therapeutic dual-action against the changes in the brain that lead to migraines.

By restoring chemical balance to the brain and improving brain blood flow, **gastrodin** and **magnesium** target the underlying mechanisms behind crippling migraine pain, providing safe and effective relief.<sup>10-14</sup> >

## Getting to the Root of Migraine Pain

Brain imaging studies show that people with migraines have visible abnormalities that are similar to those seen in stroke victims and in people with dementia.<sup>15,16</sup> And some large-scale epidemiological studies suggest that people with chronic migraines are at increased risk for strokes and dementia.<sup>17,18</sup>

An abrupt reduction in brain blood flow occurs during an ischemic stroke, and more gradually in the condition known as *vascular dementia*.<sup>19,20</sup> Similarly, before and during a migraine attack, blood flow in specific brain regions begins to drop.<sup>21-23</sup> In all three cases—stroke, vascular dementia, and *migraines*—the result is increased vulnerability of brain cells to dysfunction, degeneration, and eventually death.<sup>19,23</sup>

But brain blood flow disturbances are just part of the picture in migraine headaches. In addition to (and perhaps as a result of) those disruptions, people with migraines show a harmful imbalance in the brain's *excitatory and inhibitory chemical activity*.<sup>4,24,25</sup>

## The Migraine/Seizure Connection

Normally, your brain maintains a healthy balance between excitatory and inhibitory activity by modulating neurotransmitters such as GABA.

When you do not have enough GABA, you can end up with the uncoordinated electrical “storm” that presents itself as an epileptic seizure. We now know that a milder version of this process occurs during a migraine.<sup>3,26</sup>

Because the imbalance between excitatory and inhibitory neurotransmitters is common to both migraines and to seizures, anti-epileptic drugs might appear to be a promising treatment option for migraine sufferers. Such drugs generally elevate the GABA-related activity in the brain, which has a calming, inhibitory effect.<sup>8,9</sup> They also reduce concentrations of excitatory neurotransmitters, further restoring a normal balance.

The problem is that seizure drugs are loaded with adverse effects and were never meant to be used on a long-term basis for the prevention of something like a migraine.<sup>7,9</sup> In fact, the US Food and Drug Administration has issued a warning that all anti-epileptic drugs are associated with increased risk of suicidal ideation and behavior.<sup>7</sup>

Fortunately, **magnesium** formulations and **gastrodin** work to improve cerebral blood flow and restore neurotransmitter input as do anti-epileptic drugs...*but with a much better safety profile*.<sup>11-13,27-32</sup> The result is a natural treatment that has been proven to reduce the number and severity of migraine attacks.<sup>30</sup>



*Gastrodia elata*

## Reduce the Number and Duration of Migraine Attacks

**Gastrodin**, originally extracted from the root of the orchid *Gastrodia elata*, has been used for centuries in traditional Chinese medicine, especially for disorders involving the central nervous system such as headaches and seizures as well as stroke and dementia.<sup>33</sup> Now, these effects have been validated by modern science.

In one clinical trial, gastrodin was found to reduce the **total number** and the **duration** of migraine attacks—and was even more effective than the leading drug *flunarizine*.<sup>30</sup> Other studies have also shown that gastrodin has a higher overall effective rate when compared to flunarizine.<sup>34-36</sup>

### How it Works

Studies show that gastrodin-based formulas improve brain blood flow, which is commonly reduced during migraines.<sup>12,29</sup> In fact, due to gastrodin's powerful effect on blood flow, doctors in China use it to treat stroke victims, whose decrease in brain blood flow is life-threatening.<sup>37,38</sup>

But perhaps gastrodin's most exciting mechanism of action stems from its ability to modulate both excitatory and inhibitory neurotransmitters: It raises GABA levels to normal by blocking the enzymes that break it down,<sup>11,27</sup> and it decreases levels of excitatory neurotransmitters.<sup>28,39,40</sup>

Restoring this balance has been shown to be neuroprotective, even against the massive decrease in brain blood flow seen in strokes.<sup>28,33,39</sup>

Clearly, gastrodin's multiple mechanisms of action make it an effective choice in the treatment and prevention of migraine headaches. But as we're about to see, adding magnesium enhances the benefits of gastrodin for comprehensive migraine prevention.

### Magnesium for Migraine Relief

**Magnesium** supplementation has been proven to be effective at preventing and reducing the duration of migraine headaches—with one dramatic study demonstrating a *complete disappearance of pain* in **87%** of those given intravenous magnesium sulfate—and **100%** of patients responding to treatment.<sup>41</sup>

And in another impressive study, **80%** of patients receiving intravenous magnesium sulfate experienced complete pain relief *within 15 minutes* of the injection, along with complete elimination of hypersensitivity to light or sound.<sup>42</sup>

Doctors in hospitals and clinics have even started using intravenous *magnesium sulfate* to treat an existing migraine headache.<sup>41-44</sup>

Clinical trials have demonstrated the benefits of **oral** magnesium as well. One study found that **360 mg** of magnesium reduced the number of days women experienced headaches during their menstrual cycles,<sup>45</sup> a study of both male and female migraine patients found that **600 mg/day** of magnesium in the form of *trimagnesium dicitrate* significantly reduced the incidence of migraine headaches,<sup>46</sup> and another study found that magnesium supplementation reduced the irritation of facial and neck muscles that is common in migraines.<sup>47</sup>

In total, more than a half a dozen solid clinical trials have now demonstrated the utility of oral magnesium for preventing migraines and reducing their severity.<sup>45-51</sup>

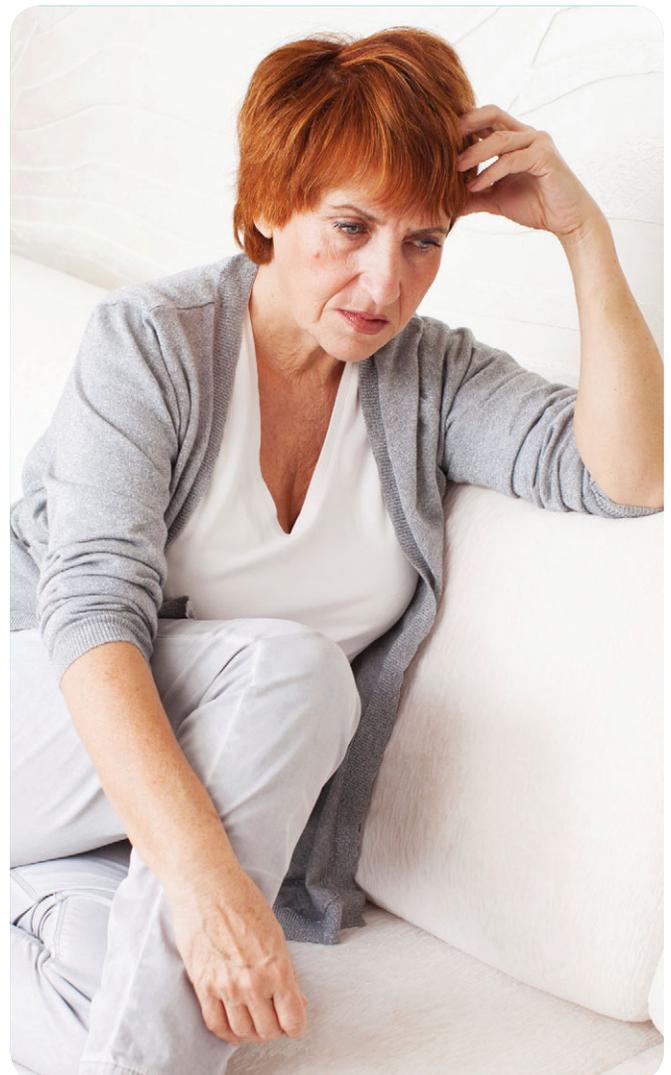
#### How it Works

Magnesium is increasingly being recommended for migraine prevention—and for good reason.<sup>13,50,51</sup> When it comes to treating and preventing migraines, the mineral magnesium is able to work hand-in-hand with gastrodin to improve brain blood flow and to help balance the brain's neurotransmitters.

Studies show that up to **50%** of migraine patients are deficient in magnesium during an attack, and that they have a high ratio of calcium to magnesium.<sup>13,52</sup> This imbalance sets the stage for the contraction of brain blood vessels resulting in a reduction of blood flow.<sup>52</sup>

Researchers using high-tech Doppler ultrasound to measure blood flow velocity in a major brain artery have definitively proven that supplementation with magnesium does increase both brain blood flow and its velocity.<sup>48,53</sup>

Like *gastrodin*, magnesium also has beneficial effects on the balance of excitatory to inhibitory neurotransmitters. Magnesium is a natural blocker of the excitatory receptor on brain cells, so when ample magnesium is available those receptors don't trigger the excitatory electrical impulse.<sup>54-56</sup> This allows the brain to move into its more balanced, calm mode.





### Summary

Despite the fact that migraine headaches affect around **18%** of American women and **6%** of men, mainstream medicine has yet to find a safe, long-term way to prevent this debilitating condition.<sup>1</sup>

Two natural substances have now been found to be effective in preventing and often in treating migraine headaches. Together, **gastrodin** and **magnesium** target the underlying mechanisms of migraines, improving brain blood flow and restoring balance to the brain chemicals neurotransmitters.<sup>11-13,27-32</sup>

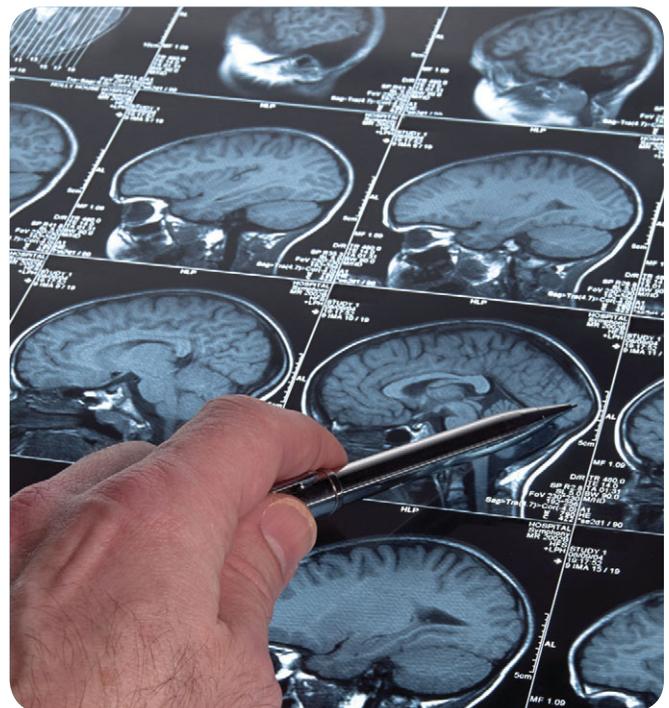
By calming the brain and reducing its dangerous level of excitotoxicity, gastrodin and magnesium have been shown to minimize or eliminate migraine headaches.<sup>11,27,28,30,39,40,54-56</sup> This is especially important as we learn how much migraines have in common with debilitating disorders such as strokes and dementia—and how greatly migraines raise your risk for those conditions.<sup>2,17,18</sup> ●

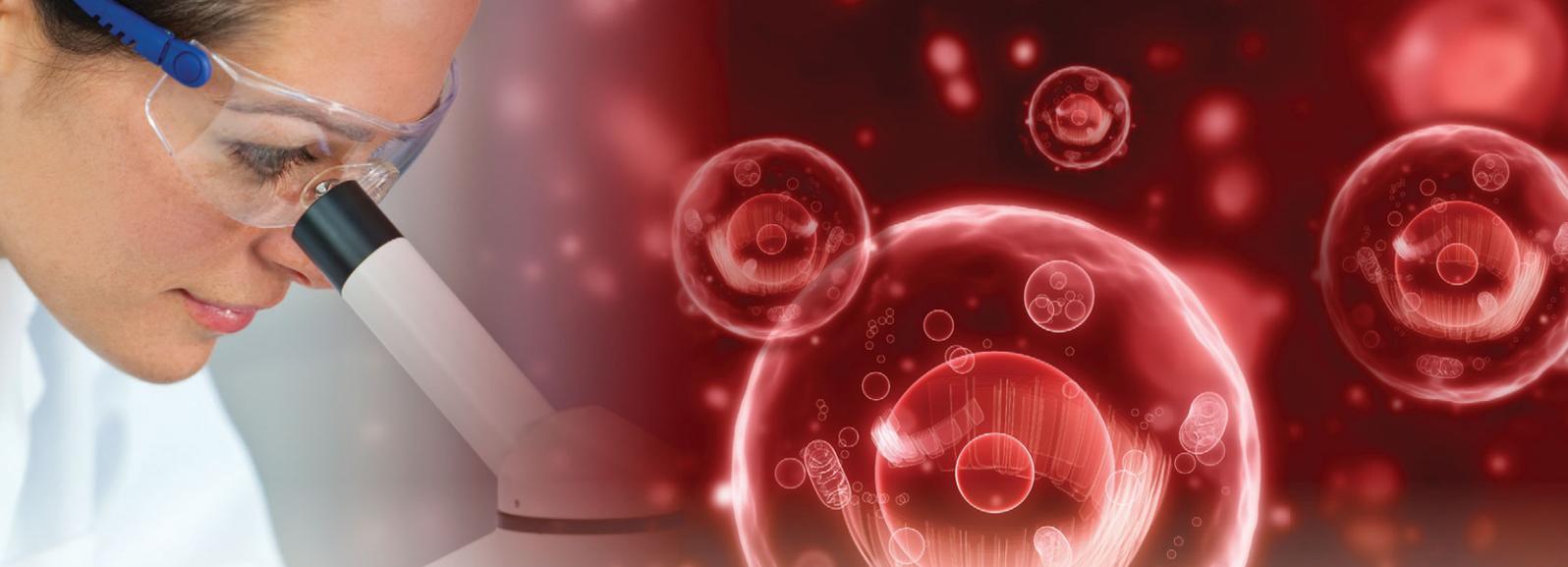
If you have any questions on the scientific content of this article, please call a Life Extension® Health Advisor at 1-866-864-3027.

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# FIGHT BACK AGAINST AGING!

## Aging is Characterized by Inflammation, Glycation, and Mitochondrial Decay

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

Mitochondrial Energy Optimizer with BioPQQ® is designed to counteract age-related structural and functional changes by providing the following unique ingredients:

- **CARNOSINE:** As humans age, proteins in their bodies become **irreversibly damaged** by glycation reactions. Glycation is the cross-linking of proteins and sugar to form **non-functioning** structures called advanced glycation end products in the body, which can lead to alterations of normal cell function. Carnosine is not only a powerful **anti-glycating** agent, but it also protects **neurons** against reactive and cytotoxic protein carbonyl species associated with normal aging.<sup>1-5</sup>
- **PQQ:** This breakthrough micronutrient has been shown to trigger **mitochondrial biogenesis**—the growth of **new** mitochondria in aging cells!<sup>6</sup> PQQ also activates genes involved in protecting the delicate structures within the mitochondria.<sup>7-10</sup>
- **LUTEOLIN:** Systemic inflammation is involved in most undesirable consequences of aging. Culprits behind **inflammatory** reactions are pro-inflammatory **cytokines**, such as **interleukin-1** and **tumor necrosis factor-alpha**. Luteolin is a flavonoid that has been shown to help suppress these inflammatory cytokines.<sup>11-16</sup>
- **BENFOTIAMINE:** Effectively modulates multiple destructive biochemical pathways that are induced by higher than desirable blood glucose levels. Human mortality studies indicate that **ideal** fasting glucose levels are between **74–85 mg/dL**. Yet many aging people have fasting glucose above **90 mg/dL**, which is less than optimal.<sup>16-19</sup> Benfotiamine protects endothelial cell integrity from the effects of high glucose levels. In addition, benfotiamine exhibits direct antioxidative capacity and supports DNA function.<sup>20</sup>
- **PYRIDOXAL 5'-PHOSPHATE:** Aging results in the formation of **advanced glycation end products** throughout the body. **Pyridoxal 5'-phosphate** is the active form of vitamin B6 that has been shown to protect against both lipid and protein **glycation** reactions.<sup>21-24</sup>

- **R-LIPOIC ACID:** Destructive free-radical activity in the **mitochondria** plays a major role in the loss of cellular vitality. A **microencapsulated Bio-Enhanced® R-lipoic acid** facilitates youthful **mitochondrial energy output** while guarding against **free radicals**. Two forms of lipoic acid are sold on the supplement market, but **R-lipoic acid** is far more potent.<sup>25-28</sup>
- **ACETYL-L-CARNITINE ARGINATE:** The amino acid L-carnitine is required to transport fats into the **mitochondria** to be burned for cellular energy. **Acetyl-L-carnitine arginate** is a patented form of carnitine that also **supports neurites** in the brain.<sup>29</sup>

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

A bottle of **Mitochondrial Energy Optimizer with BioPQQ®** containing **120 capsules** retails for \$94. If a member buys four bottles during **Super Sale**, the price is reduced to **\$56.70** per bottle.

Just four capsules of **Mitochondrial Energy Optimizer with BioPQQ®** provide:

Carnosine	1000 mg
ArginoCarn® Acetyl-L-carnitine arginate DiHCl	675 mg
R-Lipoic acid (as microencapsulated Bio-Enhanced®)	150 mg
Benfotiamine	150 mg
Pyridoxal 5'-Phosphate	100 mg
BioPQQ®	10 mg
Luteolin	8 mg
Calcium	230 mg



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To order **Mitochondrial Energy Optimizer with BioPQQ®**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

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# Lessen Cranial Discomfort

## Migra-Mag with Brain Shield™

Maintaining balanced neurotransmitter levels along with healthy blood flow to the brain can be an effective strategy to lessen the impact of head discomfort.<sup>1,2</sup>

Research has shown that **magnesium** and **gastrodin**, work in unique ways to lessen the distress of cranial discomfort.<sup>3-9</sup>

Scientific studies have confirmed the effectiveness of the ingredients found in the new **Migra-Mag with Brain Shield™** in targeting the key, underlying factors resulting in head-cavity discomfort.<sup>3-9</sup>

**Magnesium** is the second most-common mineral inside our cells, but many Americans do not obtain adequate amounts of magnesium in their diets.<sup>10</sup> This mineral has been shown to be a major factor in relaxing the smooth muscles within the blood vessels.<sup>11,12</sup> This in turn supports normal blood flow and helps promote head comfort.<sup>9,11,12</sup>

**Gastrodin**, typically extracted from the root of the Chinese orchid *Gastrodia elata*, has been used for centuries in traditional Chinese medicine formulations.<sup>13</sup> Studies show that gastrodin enhances the presence of the calming neurotransmitter, GABA.<sup>4,5</sup>

Working through *different* yet functionally supportive mechanisms, the individual ingredients in **Migra-Mag with Brain Shield™** have been shown to:

- Support normal relaxation of the constriction of cerebral blood vessels.<sup>6,11,12</sup>
- Help maintain a normal, healthy balance of brain neurotransmitters.<sup>3-5,7,8</sup>
- Help promote normal blood flow to the head cavity.<sup>10,11</sup>
- Help provide support against the normal stress and tension of daily life.<sup>14,15</sup>

To order **Life Extension® Migra-Mag with Brain Shield™**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

Help Promote Head Comfort—with the *dual-action* support of **Life Extension® Migra-Mag with Brain Shield™**.

The suggested three times daily dosage of one vegetarian capsule of **Migra-Mag with Brain Shield™** provides:

<b>Magnesium</b> (as magnesium oxide, trimagnesium dicitrate)	<b>363 mg</b>
<b>Brain Shield™</b> (gastrodin)	<b>150 mg</b>

A bottle of 90 vegetarian capsules of **Life Extension® Migra-Mag with Brain Shield™** retails for \$22. If a member buys four bottles during **Super Sale**, the price is reduced to **\$13.50** per bottle.



Item #01800

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# ULTIMATE PROSTATE PROTECTION

At Life Extension®, we continually update our formulas to reflect the latest research findings.

**Ultra Natural Prostate** formula has been upgraded to include the most scientifically substantiated nutrients to help protect the prostate gland and maintain its healthy function.

The new **Ultra Natural Prostate** formula contains **thymoquinone**—a potent compound typically found in black cumin seed. Here are the ingredients in the new **Ultra Natural Prostate**:

- **Thymoquinone** targets prostate cells to promote healthy **apoptosis** (orderly removal of senescent cells).<sup>1-9</sup> The **10 milligrams** of thymoquinone in this formula is the same amount contained in around **2.5 grams** of black cumin seed oil!<sup>10</sup>
- **Standardized lignans** from flax seed and Norway spruce knotwood convert to *enterolactone* in the intestine, which is then absorbed into the bloodstream to provide support for prostate cells against excess estrogen levels.<sup>11-13</sup> Testosterone often converts to estrogen at higher rates as men age—and prostate cells are sensitive to estrogen's growth stimulatory effects.<sup>14,15</sup>
- **AprèsFlex®**, an extract of *Boswellia*, supports normal inhibition of *5-lipoxygenase* or *5-LOX*, an enzyme that is associated with undesirable cell division changes.<sup>16,17</sup> AprèsFlex® absorbs into the blood nearly **52% better** than standard *Boswellia*, for superior effectiveness.<sup>18</sup>
- **Stinging and Dwarf nettle root extracts** help support prostate cells against excess estrogen levels by mitigating the activity of the aromatase enzyme needed to create estrogens.<sup>19,20</sup>
- **DeepExtract™ USPlus® saw palmetto extract** helps inhibit dihydrotestosterone (DHT) activity in the prostate, helps inhibit alpha-adrenergic receptor activity (to support normal urinary flow), and helps regulate inflammatory reactions in the prostate.<sup>21-24</sup> DeepExtract™ is a patented, state-of-the-art, ultra-high pressure CO2 extraction technology that ensures the most complete bioactive extract profile available. This results in a superior formula containing key ingredients in higher concentrations than many other extracts.<sup>25</sup>

To order Ultra Natural Prostate,  
call 1-800-544-4440 or  
visit [www.LifeExtension.com](http://www.LifeExtension.com)

# Now With Thymoquinone

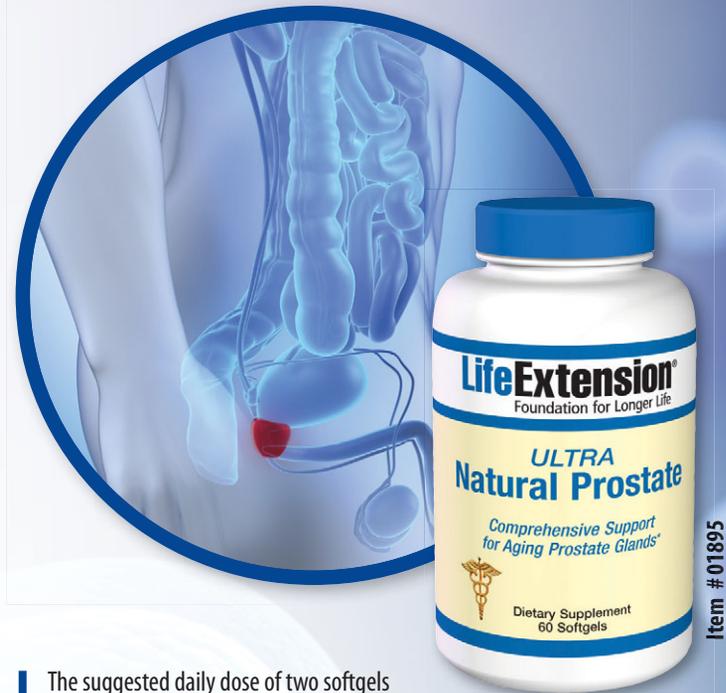
- **Pygeum** (*Pygeum africanum*) extract helps suppress prostaglandin production in the prostate and supports healthy urination patterns.<sup>26,27</sup>
- **Pumpkin seed oil**, from select pumpkins, enhances the composition of free fatty acids and augments saw palmetto's benefits.<sup>28-30</sup>
- **Beta-sitosterol** is a biologically active constituent of pygeum and saw palmetto<sup>31</sup> that enhances pygeum's protective effects and helps improve quality of life.<sup>32,33</sup>
- **Graminex® Flower Pollen Extract™**, a European pollen extract has been shown to help relax the smooth muscles of the urethra and help regulate inflammatory reactions.<sup>34-36</sup>
- **Boron** has been shown to slow elevation of prostate-specific antigen (PSA), seemingly a result of this mineral's positive effect on the body's regulation of protein-degrading enzymes.<sup>37-39</sup>
- **Lycopene**, a carotenoid associated with the tomato's red color, supports efficient cellular communication, helps maintain healthy DNA, regulates hormonal metabolism, and promotes healthy prostate size and structure.<sup>40-46</sup>

**Ultra Natural Prostate** formula—now with **thymoquinone**—provides the latest scientifically validated, standardized botanical extracts 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 supporting the aging prostate gland.

AprèsFlex® is a registered trademark of Laila Nutraceuticals exclusively licensed to PL Thomas- Laila Nutra LLC. International patents pending. HMRIignan™ is a trademark used under sublicense from Linnea S.A. USPlus® and DeepExtract™ are trademarks of Valensa International and are used under license. US Patents 6,319,524 and 6,669,968. Albion® is a registered trademark of Albion Laboratories, Inc.

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Item # 01895

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

<b>USPlus® Saw Palmetto CO2 DeepExtract™</b> (fruit) [providing 272 mg total fatty acids]	<b>320 mg</b>
<b>Graminex® Flower Pollen Extract™</b> (from rye)	<b>252 mg</b>
<b>Stinging and Dwarf nettle extracts</b> (root)	<b>240 mg</b>
<b>Beta-Sitosterol</b> (from pine)	<b>180 mg</b>
<b>ThymoQ™ Phospholipid Complex</b> [Phospholipids, thymoquinone (10 mg)]	<b>170 mg</b>
<b>Pygeum extract</b> (bark)	<b>100 mg</b>
<b>Pumpkin seed oil</b> [providing 170 mg total fatty acids]	<b>200 mg</b>
<b>AprèsFlex® Indian frankincense</b> ( <i>Boswellia serrata</i> ) <b>extract</b> (gum resin) [providing 14 mg AKBA1]	<b>70 mg</b>
<b>Proprietary Enterolactone Precursors Blend</b> [HMRIignan™ Norway spruce ( <i>Picea abies</i> ) (knot wood) and Flax (seed) lignan extracts]	<b>20 mg</b>
<b>Lycopene</b> [from natural tomato extract (fruit)]	<b>10 mg</b>
<b>Boron</b> (as Albion® bororganic glycine)	<b>3 mg</b>

<sup>1</sup> 3-O-acetyl-11-keto-β-boswellic acid

A bottle of 60 softgels of **Ultra Natural Prostate** retails for **\$38**. If a member buys four bottles during **Super Sale**, the price is reduced to **\$23.63** per bottle. Contains soybeans.



**B**lood testing provides the ultimate information regarding correctable risk factors that 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*<sup>®</sup> offers this innovative and convenient service at a very affordable price. Not only is comprehensive blood testing an important step in safeguarding your health, it is a simple process from virtually anywhere in the United States.

#### Five Easy Steps:

1. Call 1-800-208-3444 to discuss and place your order with one of our knowledgeable health advisors. (This order form can also be faxed to 1-866-728-1050 or mailed). Online orders can also be placed at [www.lifeextension.com](http://www.lifeextension.com).
2. After your order is placed, you will be mailed either a requisition form to take to your local LabCorp Patient Service Center or a Blood Draw Kit; whichever is applicable (Please note: If a blood draw kit is used, an additional local draw fee may be incurred.)
3. Have your blood drawn.
4. Your blood test results will be sent 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 5990 North Federal Highway, Ft. Lauderdale, FL, 33308-2633.

# Blood Testing The Ultimate Information

## MOST POPULAR PANELS

### Life Extension Member Pricing

- COMPREHENSIVE PANELS**

**○ MALE LIFE EXTENSION PANEL (LC322582) \$269**  
**Chemistry Profile** includes glucose, cholesterol, LDL, HDL, triglycerides, liver and-kidney function tests PLUS 20 additional tests. **CBC** includes immune (white) cell count, red blood cell count and platelet count. Also includes: **C-Reactive Protein**  
**DHEA-S** **Homocysteine**  
**TSH for thyroid function** **Free Testosterone**  
**Estradiol** **Total Testosterone**  
**Vitamin D 25- hydroxy** **PSA (prostate-specific antigen)**  
**Hemoglobin A1c**
- FEMALE LIFE EXTENSION PANEL (LC322535) \$269**  
**Chemistry Profile** includes glucose, cholesterol, LDL, HDL, triglycerides, liver and-kidney function tests PLUS 20 additional tests. **CBC** includes immune (white) cell count, red blood cell count and platelet count. Also includes: **C-Reactive Protein**  
**DHEA-S** **Homocysteine**  
**TSH for thyroid function** **Free Testosterone**  
**Estradiol** **Total Testosterone**  
**Progesterone** **Vitamin D 25- hydroxy**  
**Hemoglobin A1c**
- MALE WEIGHT LOSS PANEL (LCWLM) \$299**  
**Chemistry Profile** includes glucose, cholesterol, LDL, HDL, triglycerides, liver and-kidney function tests PLUS 20 additional tests. **CBC** includes immune (white) cell count, red blood cell count and platelet count. Also includes: **C-Reactive Protein**  
**DHEA-S** **Insulin**  
**SHBG** **Free Testosterone**  
**Estradiol** **Total Testosterone**  
**Free T3** **Free T4**  
**TSH for thyroid function** **PSA (prostate-specific antigen)**
- FEMALE WEIGHT LOSS PANEL (LCWLF) \$299**  
**Chemistry Profile** includes glucose, cholesterol, LDL, HDL, triglycerides, liver and-kidney function tests PLUS 20 additional tests. **CBC** includes immune (white) cell count, red blood cell count and platelet count. Also includes: **C-Reactive Protein**  
**DHEA-S** **Insulin**  
**Progesterone** **Free Testosterone**  
**Estradiol** **Total Testosterone**  
**Free T3** **Free T4**  
**TSH for thyroid function** **SHBG**
- MALE HORMONE ADD-ON PANEL (LCADDM)\* \$155**  
**Pregnenolone and Dihydrotestosterone (DHT)**  
 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 HORMONE ADD-ON PANEL (LCADDF)\* \$125**  
**Pregnenolone and Total Estrogens**  
 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.**
- FEMALE COMPREHENSIVE HORMONE PANEL\* (LC100011) \$299**  
**CBC/Chemistry Profile** (see description above), **DHEA-S**, **Estradiol**, **Total Estrogens**, **Progesterone**, **Pregnenolone**, **Total and Free Testosterone**, **SHBG**, **TSH**, **Free T3**.
- MALE COMPREHENSIVE HORMONE PANEL\* (LC100010) \$299**  
**CBC/Chemistry Profile** (see description above), **DHEA-S**, **Estradiol**, **DHT**, **PSA**, **Pregnenolone**, **Total and Free Testosterone**, **SHBG**, **TSH**, **Free T3**.
- THE CBC/CHEMISTRY PROFILE (LC381822) \$35**  
**Note:** This CBC/Chemistry Profile is included in many Life Extension panels. Please check panel descriptions.  
**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**
- COMPREHENSIVE THYROID PANEL (LC100018) \$199**  
**TSH, T4, Free T4, Free T3, Reverse T3, TPO, ATA**
- FOOD SAFE ALLERGY TEST\*\* (LCM73001) \$198**  
 This test measures delayed (IgG) food allergies for 95 common foods.
- ADRENAL FUNCTION PANEL (LC100021) \$136**  
**DHEA-S, AM/PM Cortisol, Glucose, Insulin, Lipid Panel, RBC magnesium**
- 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.
- MITOCHONDRIAL FUNCTION PANEL\* (LC100020) \$159**  
**Carnitine (Free with Total), CoQ10, Glucose**
- VAP™ TEST\* (LC804500) \$90**  
 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.

\* 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.



## Other Popular Tests and Panels Life Extension Member Pricing

- |  |   |
|--|---|
| <input type="radio"/> <b>ENERGY PROFILE (LC100005)</b> <b>\$375</b>  | <input type="radio"/> <b>HORMONES</b>   |
| CBC/Chemistry Profile (see description), Epstein –Barr Virus antibodies (IgG and IgM), Cytomegalovirus Antibodies (IgG and IgM), Ferritin, Total and Free Testosterone, DHEA-S, Free T3, Free T4, Cortisol, C-Reactive Protein (high sensitivity), Vitamin B12, Folate, Insulin. | <input type="radio"/> <b>DHEA-SULFATE (LC004020)</b> <b>\$61</b>  |
| <input type="radio"/> <b>ANEMIA PANEL* (LC100006)</b> <b>\$86</b>  | This test shows if you are taking the proper amount of DHEA. This test normally costs \$100 or more at commercial laboratories.   |
| CBC/Chemistry Profile (see description), Ferritin, Total Iron Binding Capacity (TIBC), Vitamin B12, Folate, Reticulocyte Count.  | <input type="radio"/> <b>DIABESITY PANEL* (LC100019)</b> <b>\$159</b>   |
| <input type="radio"/> <b>INFLAMMATION PANEL (LC100007)</b> <b>\$135</b>  | Glucose, Insulin, HbA1c, VAP™, Cortisol, C-Reactive Protein   |
| CBC/Chemistry Profile (see description above), C-Reactive Protein (high sensitivity), Sedimentation Rate, Rheumatoid (RA) Factor, Antinuclear Antibodies (ANA) Screen.   | <input type="radio"/> <b>MALE BASIC HORMONE PANEL (LC100012)</b> <b>\$75</b>  |
| <input type="radio"/> <b>THYROID ANTIBODY PROFILE (LC100004)</b> <b>\$99</b>   | DHEA-S, Estradiol, Free and Total Testosterone, PSA   |
| Thyroid Antithyroglobulin Antibody (ATA) and Thyroid Peroxidase Antibody (TPO).  | <input type="radio"/> <b>FEMALE BASIC HORMONE PANEL (LC100013)</b> <b>\$75</b>  |
| <input type="radio"/> <b>CARDIAC PLUS* (LC100008)</b> <b>\$145</b>   | DHEA-S, Estradiol, Free and Total Testosterone, Progesterone  |
| CBC/Chemistry profile (see description), Vitamin D 25-hydroxy, C-Reactive Protein (high sensitivity), Fibrinogen, Homocysteine.  | <input type="radio"/> <b>DIHYDROTESTOSTERONE (DHT)* (LC500142)</b> <b>\$99</b>  |
| <input type="radio"/> <b>VAP™ PLUS* (LC100009)</b> <b>\$330</b>  | Measures serum concentrations of DHT.   |
| VAP, C-Reactive Protein (high sensitivity), Homocysteine, Fibrinogen, PLAC® Test (Lp-PLA2), Vitamin D 25-hydroxy.  | <input type="radio"/> <b>ESTRADIOL (LC004515)</b> <b>\$33</b>   |
| <b>CARDIAC RISK</b>  | For men and women. Determines the proper amount in the body.  |
| <input type="radio"/> <b>COQ10* (COENZYME Q10) (LC120251)</b> <b>\$99</b>  | <input type="radio"/> <b>INSULIN FASTING (LC004333)</b> <b>\$25</b>   |
| This test is used to check the blood level of CoQ10 and will enable more precise dosing for anyone seeking to achieve and maintain high levels of this critical antioxidant.   | Can predict those at risk of diabetes, obesity, and heart and other diseases.   |
| <input type="radio"/> <b>Lp-PLA2 (PLAC® TEST) (LC123240)</b> <b>\$125</b>  | <input type="radio"/> <b>PREGNENOLONE* (LC140707)</b> <b>\$116</b>  |
| 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.                    | Used to determine ovarian failure, hirsutism, adrenal carcinoma, and Cushing's syndrome.  |
| <input type="radio"/> <b>C-REACTIVE PROTEIN (HIGH-SENSITIVITY) (LC120766)</b> <b>\$42</b>  | <input type="radio"/> <b>PROGESTERONE (LC004317)</b> <b>\$55</b>  |
| 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.  | Primarily for women. Determines the proper amount in the body.  |
| <input type="radio"/> <b>FIBRINOGEN* (LC001610)</b> <b>\$31</b>  | <input type="radio"/> <b>SEX HORMONE BINDING GLOBULIN (SHBG) (LC082016)</b> <b>\$33</b>   |
| High levels of this blood-clotting factor increase the risk of heart attack and stroke.  | This test is used to monitor SHBG levels which are under the positive control of estrogens and thyroid hormones, and suppressed by androgens.   |
| <input type="radio"/> <b>HOMOCYSTEINE (LC706994)</b> <b>\$64</b>   | <b>BONE HEALTH</b>  |
| 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-clogging metabolic debris that can be lowered with high doses of TMG, vitamin B6, and vitamin B12.                       | <input type="radio"/> <b>VITAMIN D (25OH) (LC081950)</b> <b>\$47</b>  |
| <b>MALE HEALTH</b>   | This test is used to rule out vitamin D deficiency as a cause of bone disease. It can also be used to identify hypercalcemia.   |
| <input type="radio"/> <b>PSA (PROSTATE-SPECIFIC ANTIGEN) (LC010322)</b> <b>\$31</b>  | <input type="radio"/> <b>OSTEOCALCIN* (LC010249)</b> <b>\$91</b>  |
| Can provide an early warning sign for prostate disorders and possible cancer.  | Osteocalcin is often used as a biochemical marker, or biomarker, for the bone formation process. It has been routinely observed that higher serum osteocalcin levels are relatively well correlated with bone diseases characterized by increased bone turnover, especially osteoporosis.                               |
| <input type="radio"/> <b>FREE-PSA (INCLUDES TOTAL PSA)* (LC480780)</b> <b>\$61</b>   | <input type="radio"/> <b>DPD CROSS LINK URINE TEST (LC511105)</b> <b>\$79</b>   |
| Recommended to determine if an elevated PSA is indicative of prostate cancer.  | The deoxypyridinoline (DPD) urine test can be used to measure bone re-absorption rates in healthy individuals and in those with enhanced risk of developing metabolic bone diseases. Deoxypyridinoline can be used to monitor therapies (which may include bisphosphonate drugs) in people diagnosed with osteoporosis. |

## 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.

3600 West Commercial Boulevard  
Fort Lauderdale, FL 33309

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

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

Blood tests available only in  
the continental United States.  
Not available in Maryland.

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

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

# PRODUCTS

## AMINO ACIDS

Acetyl-L-Carnitine  
Acetyl-L-Carnitine-Arginate  
Branched Chain Amino Acids  
D, L-Phenylalanine Capsules  
Glycine Capsules  
L-Arginine Capsules  
Arginine/L-Ornithine Capsules  
L-Carnitine Capsules  
L-Carnitine Powder Natural Lemon Flavor  
L-Glutathione, L-Cysteine & C  
L-Glutamine Capsules  
L-Glutamine Powder  
L-Lysine Capsules  
L-Tyrosine Tablets  
Mega L-Glutathione Capsules  
N-Acetyl-L-Cysteine Capsules  
Optimized Carnitine with GlycoCarn®  
PharmaGABA  
Super Carnosine Capsules  
Taurine Capsules

## BONE & JOINT HEALTH

ArthroMax® with Theaflavins and AprèsFlex®  
ArthroMax® Advanced with UC-II® and  
AprèsFlex®  
Bone-Up™  
Bone Restore  
Bone Restore w/Vitamin K2  
Bone Strength Formula w/KoAct™  
Dr. Strum's Intensive Bone Formula  
Fast Acting Joint Formula  
Glucosamine Chondroitin Capsules

## BRAIN HEALTH

Acetyl-L-Carnitine  
Acetyl-L-Carnitine-Arginate  
Brain Shield™  
CDP Choline Capsules  
Cognitex® with Brain Shield™  
Cognitex® with Pregnenolone &  
Brain Shield™  
Cognitex® Basics  
DMAE Bitartrate  
Ginkgo Biloba Certified Extract™  
Huperzine A  
Lecithin Granules  
Methylcobalamin Lozenges  
Migra-Mag with Brain Shield™  
Neuro-Mag™ Magnesium L-Threonate  
Optimized Ashwagandha Extract  
Phosphatidylserine Capsules  
Rhodiola Extract  
Super Ginkgo Extract  
Vinpocetine

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Carnosoothe w/PicroProtect  
Digest RC™  
Esophageal Guardian  
Enhanced Super Digestive Enzymes  
Extraordinary Enzymes  
FlorAssist™  
LACTOSOLV™ Long Lasting Digestion  
Life Flora™  
Pancreatin  
Regimint  
Theralac Probiotics

## DURK AND SANDY PRODUCTS

Blast™  
Inner Power™

## EYE CARE

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Brite Eyes III  
Eye Pressure Support with Mirtogenol®  
Solarshield Sunglasses  
Super Zeaxanthin with Lutein &  
Meso-Zeaxanthin Plus Astaxanthin and C3G

Super Zeaxanthin with Lutein &  
Meso-Zeaxanthin and C3G

## FIBER

AppleWise Polyphenol  
Fiber Food  
TruFiber®  
WellBetX PGX® plus Mulberry

## FOOD

Rich Rewards™ Black Bean Vegetable Soup  
Rich Rewards™ Spicy Cruciferous Vegetable Soup  
Rich Rewards™ Cruciferous Vegetable Soup  
Rich Rewards™ Lentil Soup  
Rich Rewards™ Mung Bean Soup with Turmeric  
Rich Rewards® Coffee  
(Available in mocha, vanilla and decaffeinated)  
Rich Rewards™ Dark Chocolate

## HAIR CARE

Dr. Proctor's Advanced Hair Formula  
Dr. Proctor's Shampoo  
Super-Absorbable Tocotrienols

## HEART HEALTH

AppleWise Polyphenol  
Advanced Lipid Control  
Aspirin (Enteric Coated)  
Cardio Peak™ w/Standardized Hawthorn and Arjuna  
Cho-Less™  
D-Ribose Tablets  
D-Ribose Powder  
Endothelial Defense™ with  
Full-Spectrum Pomegranate™  
Fibrinogen Resist  
Forskolin  
Homocysteine Resist  
Natural BP Management  
Olive Leaf Vascular Support  
Peak ATP® with GlycoCarn®  
PhosphoOmega®  
Policosanol  
Pycnogenol® French Maritime Pine Bark Extract  
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 BioPQQ®  
Super Ubiquinol CoQ10 with Enhanced  
Mitochondrial™ Support  
Theaflavin Standardized Extract  
TMG Powder  
TMG Tablets

## HERBAL/PHYTO PRODUCTS

Artichoke Leaf Extract  
Asian Energy Boost  
Astaxanthin w/Phospholipids  
Berry Complete  
Blueberry Extract  
Blueberry Extract w/Pomegranate  
Butterbur Extract w/Standardized  
Rosmarinic Acid  
Calcium D-Glucarate  
Enhanced Berry Complete with Acai  
Full-Spectrum Pomegranate™  
Grapeseed Extract with Resveratrol &  
Pterostilbene  
Huperzine A  
Kyolic® Garlic Formula 102 + 105  
Kyolic® Reserve  
Mega Green Tea Extract  
Mega Green Tea Extract (Decaffeinated)  
(also w/CoffeeGenic® Green Coffee Extract)  
Mega Lycopene Extract  
Optimized Ashwagandha Extract  
Optimized Garlic  
Pomegranate Extract  
Pomegranate Juice Concentrate  
Pycnogenol

Optimized Quercetin  
Resveratrol with Synergistic Grape-Berry Actives  
Rhodiola Extract  
Silymarin  
SODzyme™ with GliSODin®  
Stevia Extract  
Advanced Bio-Curcumin®  
with Ginger & Turmerones  
Super Bio-Curcumin®  
Super Ginkgo Extract  
Triple Action Cruciferous Vegetable Extract  
Venotone  
Whole Grape Extract

## HORMONES

Advanced Natural Sex for Women® 50+  
7-KETO® DHEA  
DHEA  
DHEA Complete  
GH Pituitary Support Day Formula  
GH Pituitary Support Night Formula  
Liquid Melatonin  
Melatonin  
Melatonin Timed Release  
Natural Estrogen with Pomegranate Extract  
Pregnenolone  
ProgestaCare for Women  
Super Miraforte with Standardized Lignans

## IMMUNE ENHANCEMENT

AHCC® (Active Hexose Correlated Compound)  
Black Cumin Seed Oil  
Black Cumin Seed Oil w/Bio-Curcumin®  
Buffered Vitamin C Powder  
Echinacea Extract  
FlorAssist™ Probiotic  
i26 Hyperimmune Egg  
Immune Modulator w/Tinofend®  
Immune Protect with PARACTIN®  
Lactoferrin  
Norwegian Shark Liver Oil  
Optimized Fucoidan w/Maritech® 926  
ProBoost™ Thymic Protein A  
Reishi Extract Mushroom Complex  
Vitamin C with Dihydroquercetin  
Winter Wellness™  
Zinc Lozenges

## INFLAMMATORY REACTIONS

Arthro-Immune Joint Support  
ArthroMax® with Theaflavins  
Boswella  
Bromelain (Specially-coated)  
Cytokine Suppress™ with EGCG  
DHA (Vegetarian Sourced)  
Fast Acting Joint Formula  
Ginger Force  
Krill Healthy Joint Formula  
5-LOX Inhibitor w/AprèsFlex®  
Mega EPA/DHA  
Mega GLA with Sesame Lignans  
MSM  
Omega-3 Whirl  
Serrafazyme  
SODzyme™ with GliSODin® and Wolfberry  
Super Omega-3 EPA/DHA with Sesame  
Lignans & Olive Fruit Extract  
Tart Cherry w/Standardized CherryPURE®  
Zyflamend® Whole Body

## LIVER HEALTH

Branch Chain Amino Acids  
N-Acetyl Cysteine  
Liver Efficiency Formula  
European Milk Thistle  
Advanced Phospholipid Delivery  
Hepatopro  
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  
 Only Trace Minerals  
 Optimized Chromium w/Crominex® 3+  
 OptiZinc  
 Sea-Iodine™  
 Selenium  
 Se-Methyl L-Selenocysteine  
 Strontium  
 Vanadyl Sulfate  
 Zinc Lozenges

## MISCELLANEOUS

Blood Pressure Monitor Arm Cuff  
 CR Way Edition Advanced Dietary Software

## MITOCHONDRIAL SUPPORT

Acetyl-L-Carnitine  
 Acetyl-L-Carnitine-Arginate  
 Mitochondrial Basics w/BioPQQ®  
 Mitochondrial Energy Optimizer w/BioPQQ®  
 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

Adrenal Energy Formula  
 Bioactive Milk Peptides  
 L-Theanine  
 5 HTP  
 Enhanced Natural Sleep® w/ Melatonin  
 Enhanced Natural Sleep® w/o Melatonin  
 Natural Stress Relief  
 SAME  
 St. John's Wort Extract  
 L-Tryptophan  
 Optimized Tryptophan Plus

## MOUTH CARE

Advanced Oral Hygiene  
 Mouthwash w/Pomegranate  
 Toothpaste

## MULTIVITAMIN

Booster  
 Children's Formula Life Extension Mix™  
 Comprehensive Nutrient Packs Basic  
 Comprehensive Nutrient Packs Advanced  
 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

## PET CARE

Cat Mix  
 Dog Mix

## PROSTATE & URINARY HEALTH

Optimized Cran-Max® with UTIRose™  
 5-LOXIN®  
 Pomi-T™

(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

Advanced Under Eye Serum with Stem Cells  
 Amber Self MicroDermAbrasion  
 Anti-Aging Mask  
 Anti-Glycation Serum  
 Anti-Aging Rejuvenating Face Cream with Coffee Extracts  
 Antioxidant Rejuvenating Foot Cream  
 Antioxidant Rejuvenating Foot Scrub  
 Antioxidant Rejuvenating Hand Cream  
 Antioxidant Rejuvenating Hand Scrub  
 Anti-Redness & Blemish Lotion  
 Bio-Collagen w/Patented UC-II®  
 Bioflavonoid Cream  
 Broccoli Sprout  
 Corrective Clearing Mask  
 DNA Repair Cream  
 Dual-Action MicroDermAbrasion  
 Essential Plant Lipids Reparative Serum  
 Face Master® Platinum  
 Face Rejuvenating Antioxidant Cream  
 Enhanced FernBlock® with Red Orange Complex  
 Fine Line-Less  
 Hair Suppress Formula  
 Healing Formula All-in-One Cream  
 Healing Mask  
 Hyaluronic Facial Moisturizer  
 Hydrating Anti-oxidant Face Mist  
 Hydroderm®  
 Lifting & Tightening Complex  
 Lycopene Cream  
 Melatonin Cream  
 Mild Facial Cleanser  
 Neck Rejuvenating Antioxidant Cream  
 Pigment Correcting Cream (Ultra) Rejuvenex®  
 Rejuvenex® Body Lotion  
 Rejuvenex® Factor Firming Serum  
 Rejuvenating Serum  
 Renewing Eye Cream  
 Resveratrol Anti-Oxidant Serum  
 Skin Lightening Serum  
 Skin Restoring Phytoceramides w/Lipowheat®  
 Skin Stem Cell Serum  
 Stem Cell Cream w/Alpine Rose  
 Ultra Rejuvenex®  
 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 E-ssential Cream  
 Vitamin K Healing Cream  
 Youth Serum

## SOY

Natural Estrogen w/Pomegranate  
 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  
 Green Coffee Extract CoffeeGenic® (also w/Glucose control)  
 Coriolus Super Strength  
 CR Mimetic Longevity Formula

Cinsulin® w/InSea2® and Crominex® 3+  
 European Leg Solution Diosmin 95  
 Fem Dophilus  
 Femmenessence MacaPause®  
 GlycemicPro™ Transglucosidase  
 Migra-eeze™  
 Natural Female Support  
 Pecta-Sol®  
 Potassium Iodide  
 PQQ Caps with BioPQQ®  
 PteroPure™  
 Prelox® Natural Sex for Men®  
 Pyridoxal 5' - Phosphate  
 Tri Sugar Shield™

## SPORTS PERFORMANCE

Creatine Capsules  
 DMG (N, N-dimethylglycine)  
 L-Glutamine Capsules  
 L-Glutamine Powder  
 Whey Protein Isolate  
 Whey Protein Concentrate

## VITAMINS

Ascorbyl Palmitate Capsules  
 B12  
 Beta-Carotene  
 Biotin Capsules  
 Buffered Vitamin C Powder  
 Complete B Complex  
 Effervescent Vitamin C  
 Fast-C®  
 Folic Acid + B12  
 Gamma E Tocopherol w/Sesame Lignans  
 Gamma E Tocopherol/Tocotrienols  
 Inositol Capsules  
 Mega Lycopene Extract  
 Methylcobalamin  
 MK-7  
 No-Flush Niacin  
 Optimized Folate  
 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 Lozenges  
 Vitamin C  
 Vitamin D3  
 Vitamin D3 w/Sea-Iodine™  
 Vitamins D and K w/Sea-Iodine™  
 Vitamin E  
 Vitamin K2

## WEIGHT MANAGEMENT

Advanced Anti-Adipocyte Formula w/AdipoStat & Integra Lean®  
 Advanced Natural Appetite Suppress  
 Alli® Refill Pack  
 Calorie Control Weight Management™ Formula w/CoffeeGenic® Green Coffee Extract  
 CoffeeGenic® Weight Management™ with Green Coffee Extract  
 7-KETO DHEA  
 DHEA® Complete  
 Fucoxanthin Slim™  
 Garcinia HCA  
 Integra-Lean® African Mango Irvingia  
 LuraLean® Caps Special Propolmannan Particle Size  
 Optimized Irvingia w/Phase 3™ Calorie Control Complex  
 Optimized Saffron with Satiereal®  
 Natural Appetite Control  
 Natural Glucose Absorption Control  
 Super CLA Blend w/Guarana and Sesame Lignans  
 Super CLA Blend w/Sesame Lignans  
 WellBetX PGX® plus Mulberry

# Buyers Club Order Form

**SUPER SALE SAVINGS ON ALL PRODUCTS**  
To order call 1-800-544-4440

No.		Retail Each	Member Each	Qty	Total
<b>A</b>					
01524	<b>ACETYL-L-CARNITINE</b> - 500 mg, 100 veg. caps	\$34.00	\$25.50		
	Buy 4 bottles, price each	30.00	22.50		
01525	<b>ACETYL-L-CARNITINE ARGINATE</b> - 100 veg. caps	59.00	44.25		
	Buy 4 bottles, price each	50.99	38.24		
01628	<b>ADRENAL ENERGY FORMULA</b> - 60 veg. caps	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		
01630	<b>ADRENAL ENERGY FORMULA</b> - 120 veg. caps	46.00	34.50		
	Buy 4 bottles, price each	42.00	31.50		
01308	<b>ADVANCED LIPID CONTROL</b> - 60 veg. caps	30.00	22.50		
	Buy 4 bottles, price each	27.00	20.25		
01521	<b>ADVANCED ORAL HYGIENE</b> - 60 veg. mint lozenges	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		
00681	<b>AHCC</b> - 500 mg, 30 caps	59.98	44.99		
*46925	<b>ALLI® REFILL PACK</b> - 120 caps	69.95	58.00		
00457	<b>ALPHA-LIPOIC ACID w/BIOTIN (SUPER)</b> - 250 mg, 60 caps	37.00	27.75		
	Buy 4 bottles, price each	32.00	24.00		
01440	<b>ANTI-ALCOHOL ANTIOXIDANTS w/HEPATOPRO</b> - 100 caps	26.00	19.50		
	Buy 4 bottles, price each	23.00	17.25		
01509	<b>ANTI-ADIPOCYTE FORMULA w/ADIPOSTAT &amp; INTEGRA LEAN®(ADVANCED)</b> - 60 veg. caps	39.00	29.25		
	Buy 4 bottles, price each	36.00	27.00		
01625	<b>APPLEWISE POLYPHENOL EXTRACT</b> - 600 mg, 30 veg. caps	21.00	15.75		
	Buy 4 bottles, price each	19.00	14.25		
01039	<b>ARGININE/ORNITHINE</b> - 500/250, 100 caps	17.99	13.49		
00038	<b>ARGININE/ORNITHINE POWDER</b> - 150 grams	22.95	17.21		
	Buy 4 bottles, price each	19.00	14.25		
01624	<b>(L)-ARGININE CAPS</b> - 700 mg, 200 veg. caps	26.50	19.88		
	Buy 4 bottles, price each	23.25	17.44		
01617	<b>ARTHROMAX® w/THEAFLAVINS &amp; APRESFLEX®</b> - 120 veg. caps	44.00	33.00		
	Buy 4 bottles, price each	40.00	30.00		
01618	<b>ARTHROMAX® ADVANCED w/UC-II® &amp; APRESFLEX®</b> - 60 caps	36.00	27.00		
	Buy 4 bottles, price each	32.00	24.00		
01404	<b>ARTHRO-IMMUNE JOINT SUPPORT</b> - 60 veg. caps	32.00	24.00		
	Buy 4 bottles, price each	28.00	21.00		
00919	<b>ARTICHOKE LEAF EXTRACT</b> - 500 mg, 180 veg. caps	28.00	21.00		
	Buy 4 bottles, price each	25.38	19.04		
01533	<b>ASCORBYL PALMITATE</b> - 500 mg, 100 veg. caps	22.50	16.88		
	Buy 4 bottles, price each	20.00	15.00		
00888	<b>ASHWAGANDHA EXTRACT (OPTIMIZED)</b> - 60 veg. caps	10.00	7.50		
	Buy 4 bottles, price each	9.00	6.75		
01805	<b>ASIAN ENERGY BOOST</b> - 90 veg. caps	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		
01066	<b>ASPIRIN</b> - 81 mg, 300 enteric coated tablets	6.00	4.50		
	Buy 4 bottles, price each	5.33	4.00		
01720	<b>ASTAXANTHIN WITH PHOSPHOLIPIDS</b> - 4 mg, 30 softgels	16.00	12.00		
	Buy 4 bottles, price each	14.00	10.50		
<b>B</b>					
00920	<b>BENFOTIAMINE w/ THIAMINE</b> - 100 mg, 120 veg. caps	\$19.95	\$14.96		
	Buy 4 bottles, price each	18.60	13.95		
00925	<b>BENFOTIAMINE (MEGA)</b> - 250 mg, 120 veg. caps	30.00	22.50		
	Buy 4 bottles, price each	27.00	20.25		
01206	<b>BERRY COMPLETE</b> - 30 veg. caps	21.00	15.75		
	Buy 4 bottles, price each	18.67	14.00		

**SUB-TOTAL OF COLUMN 1**

No.		Retail Each	Member Each	Qty	Total
01496	<b>BERRY COMPLETE w/ACAI (ENHANCED)</b> - 60 veg. caps	\$29.00	\$21.75		
	Buy 4 bottles, price each	26.00	19.50		
00664	<b>BETA-CAROTENE</b> - 25,000 IU, 100 softgels	11.25	8.44		
01622	<b>BIFIDO GI BALANCE</b> - 60 veg. caps	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		
01073	<b>BILBERRY EXTRACT</b> - 100 mg, 100 veg. caps	42.00	31.50		
	Buy 4 bottles, price each	38.00	28.50		
01512	<b>BIOACTIVE MILK PEPTIDES</b> - 30 caps	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
01631	<b>BIO-COLLAGEN w/PATENTED UC-II®</b> - 60 caps	36.00	27.00		
	Buy 4 bottles, price each	32.00	24.00		
*01006	<b>BIOSIL™</b> - 5 mg, 30 veg. caps	18.95	15.16		
*01007	<b>BIOSIL™</b> - 1 fl oz	31.99	25.59		
00102	<b>BIOTIN</b> - 600 mcg, 100 caps	7.50	5.63		
	Buy 4 bottles, price each	6.50	4.88		
01709	<b>BLACK CUMIN SEED OIL</b> - 60 softgels	16.00	12.00		
	Buy 4 bottles, price each	14.00	10.50		
01710	<b>BLACK CUMIN SEED OIL w/BIO-CURCUMIN®</b> - 60 softgels	32.00	24.00		
	Buy 4 bottles, price each	30.00	22.50		
01008	<b>BLAST™</b> - 600 grams of powder	26.95	20.21		
70000	<b>BLOOD PRESSURE MONITOR</b> - ARM CUFF (medium)	99.95	64.97		
70004	<b>BLOOD PRESSURE MONITOR</b> - WRIST (travel size)	69.95	52.46		
01214	<b>BLUEBERRY EXTRACT</b> - 60 veg. caps	22.50	16.88		
	Buy 4 bottles, price each	20.00	15.00		
01438	<b>BLUEBERRY EXTRACT w/ POMEGRANATE</b> - 60 veg. caps	30.00	22.50		
	Buy 4 bottles, price each	27.00	20.25		
01506	<b>BONE FORMULA (DR. STRUM'S INTENSIVE)</b> - 300 caps	56.00	42.00		
	Buy 4 bottles, price each	50.00	37.50		
01726	<b>BONE RESTORE</b> - 120 caps	22.00	16.50		
	Buy 4 bottles, price each	19.00	14.25		
01727	<b>BONE RESTORE w/VITAMIN K2</b> - 120 caps	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		
01725	<b>BONE STRENGTH FORMULA w/KOACT®</b> - 120 veg. caps	45.00	33.75		
	Buy 4 bottles, price each	40.00	30.00		
00313	<b>BONE-UP®</b> - 240 caps	28.95	21.71		
	Buy 4 bottles, price each	27.21	20.41		
01379	<b>BOOSTER</b> - 60 softgels	48.00	36.00		
	Buy 4 bottles, price each	44.00	33.00		
01680	<b>BOOSTER w/ADVANCED K2 COMPLEX (SUPER)</b> - 60 softgels	42.00	31.50		
	Buy 4 bottles, price each	38.00	28.50		
01661	<b>BORON</b> - 3 mg, 100 veg. caps	5.95	4.46		
	Buy 4 bottles, price each	5.25	3.94		
00202	<b>BOSWELLA</b> - 100 caps	38.00	28.50		
	Buy 4 bottles, price each	30.00	22.50		
01802	<b>BRAIN SHIELD™</b> - 60 veg. caps	33.00	24.75		
	Buy 4 bottles, price each	30.00	22.50		
01253	<b>BRANCHED CHAIN AMINO ACIDS</b> - 90 veg. caps	19.50	14.63		
	Buy 4 bottles, price each	17.00	12.75		
01699	<b>BREAST HEALTH FORMULA</b> - 60 veg. caps	34.00	25.50		
	Buy 4 bottles, price each	30.00	22.50		
00893	<b>BRITE EYES III</b> - 2 vials, 5 ml each	34.00	25.50		
	Buy 4 boxes, price each	32.00	24.00		

**SUB-TOTAL OF COLUMN 2**

SUPER SALE 2013-2014

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

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

**OFFER ENDS FEBRUARY 3, 2014**  
**To order online visit [www.LifeExtension.com/SuperSale](http://www.LifeExtension.com/SuperSale)**

# Buyers Club Order Form

No.		Retail Each	Member Each	Qty	Total
01203	<b>BROMELAIN (SPECIALLY-COATED)</b> - 500 mg, 60 enteric coated tablets Buy 4 bottles, price each	\$21.00 19.00	\$15.75 14.25		
00884	<b>BUTTERBUR EXT. w/STANDARDIZED ROSMARINIC ACID</b> - 60 softgels Buy 4 bottles, price each	44.00 39.60	33.00 29.70		
<b>C</b>					
01653	<b>CALCIUM CITRATE w/VITAMIN D</b> - 300 caps Buy 4 bottles, price each	\$24.00 21.25	\$18.00 15.94		
01651	<b>CALCIUM D-GLUCARATE</b> - 200 mg, 60 veg. caps Buy 4 bottles, price each	18.00 15.00	13.50 11.25		
01693	<b>CALORIE CONTROL WEIGHT MANAGEMENT FORMULA w/COFFEEGENIC® GREEN COFFEE EXTRACT BLUEBERRY FLAVOR</b> - 414 grams powder Buy 4 jars, price each Buy 8 jars, price each	60.00 54.00 50.00	45.00 40.50 37.50		
01700	<b>CARDIO PEAK™ W/STANDARDIZED HAWTHORN &amp; ARJUNA</b> - 120 veg. caps Buy 4 bottles, price each	36.00 32.00	27.00 24.00		
00916	<b>CARNITINE w/GLYCOCARN® (OPTIMIZED)</b> - 60 veg. caps Buy 4 bottles, price each	36.00 32.00	27.00 24.00		
01532	<b>L-CARNITINE</b> - 500 mg, 30 veg. caps Buy 4 bottles, price each	15.00 13.20	11.25 9.90		
01719	<b>L-CARNITINE POWDER NATURAL LEMON FLAVOR</b> - 114 grams Buy 4 jars, price each	28.00 24.00	21.00 18.00		
01258	<b>CARNOSSOOTHIE w/PICROPROTECT™</b> - 60 veg. caps Buy 4 bottles, price each	29.95 27.00	22.46 20.25		
01687	<b>CARNOSINE (SUPER)</b> - 500 mg, 90 veg. caps Buy 4 bottles, price each	66.00 60.00	49.50 45.00		
01003	<b>CAT MIX</b> - 100 grams powder Buy 4 jars, price each	15.00 12.00	11.25 9.00		
01659	<b>CDP CHOLINE CAPS</b> - 250 mg, 60 veg. caps Buy 4 bottles, price each	36.00 34.00	27.00 25.50		
01391	<b>CHILDREN'S FORMULA LIFE EXTENSION MIX™</b> - 100 chewable tablets Buy 4 bottles, price each	20.00 18.00	15.00 13.50		
00550	<b>CHLORELLA</b> - 500 mg, 200 tablets	23.50	17.63		
01571	<b>CHLOROPHYLLIN</b> - 100 mg, 100 veg. caps Buy 4 bottles, price each	24.00 20.00	18.00 15.00		
01359	<b>CHO-LESS™</b> - 90 capsules	32.50	24.38		
01477	<b>CHROMIUM ULTRA</b> - 100 veg. caps Buy 4 bottles, price each	24.00 21.00	18.00 15.75		
01504	<b>CHROMIUM W/CROMINEX® 3+ (OPTIMIZED)</b> - 500 mcg, 60 veg. caps Buy 4 bottles, price each	9.00 8.00	6.75 6.00		
01503	<b>CINSULIN® W/INSEA® AND CROMINEX® 3+</b> - 90 veg. caps Buy 4 bottles, price each	38.00 34.00	28.50 25.50		
00818	<b>CLA BLEND W/SESAME LIGNANS (SUPER)</b> - 1,000 mg, 120 softgels Buy 4 bottles, price each Buy 10 bottles, price each	36.00 33.00 26.33	27.00 24.75 19.75		
00819	<b>CLA BLEND w/GUARANA &amp; SESAME (SUPER)</b> - 1,000 mg, 120 softgels Buy 4 bottles, price each	42.00 38.33	31.50 28.75		
01707	<b>COFFEEGENIC® WEIGHT MANAGEMENT™ w/GREEN COFFEE EXTRACT</b> - 90 veg. caps Buy 4 bottles, price each	48.00 42.00	36.00 31.50		
01896	<b>COGNITEX® w/BRAIN SHIELD™</b> - 90 softgels Buy 4 bottles, price each Buy 8 bottles, price each	60.00 52.00 48.00	45.00 39.00 36.00		

**SUB-TOTAL OF COLUMN 1**

No.		Retail Each	Member Each	Qty	Total
01897	<b>COGNITEX® w/PREGNENOLONE &amp; BRAIN SHIELD™</b> - 90 softgels Buy 4 bottles, price each Buy 8 bottles, price each	\$62.00 53.00 50.00	\$46.50 39.75 37.50		
01421	<b>COGNITEX® BASICS</b> - 60 softgels Buy 4 bottles, price each Buy 12 bottles, price each	38.00 35.00 32.00	28.50 26.25 24.00		
01735	<b>COMPLETE B-COMPLEX</b> - 60 veg. caps Buy 4 bottles, price each	10.00 9.00	7.50 6.75		
01795	<b>COMPREHENSIVE NUTRIENT PACKS BASIC</b> - 30 packs Buy 4 boxes, price each	48.00 44.00	36.00 33.00		
01796	<b>COMPREHENSIVE NUTRIENT PACKS ADVANCED</b> - 30 packs Buy 4 boxes, price each	90.00 82.00	67.50 61.50		
00119	<b>COPPER CAPSULES</b> - 2 mg, 100 caps	9.91	7.43		
00949	<b>COQ10™ w/ #LIMONENE (SUPER ABSORBABLE)</b> - 50 mg, 60 softgels Buy 4 bottles, price each Buy 10 bottles, price each	25.00 22.00 20.00	18.75 16.50 15.00		
00950	<b>COQ10™ w/ #LIMONENE (SUPER ABSORBABLE)</b> - 100 mg, 100 softgels Buy 4 bottles, price each Buy 10 bottles, price each	66.00 60.00 56.00	49.50 45.00 42.00		
01226	<b>COQ10 (SUPER UBIQUINOL)</b> - 100 mg, 60 softgels Buy 4 bottles, price each Buy 10 bottles, price each	56.00 52.00 48.00	42.00 39.00 36.00		
01733	<b>COQ10 w/BIOPQQ® (SUPER UBIQUINOL)</b> - 100 mg, 30 softgels Buy 4 bottles, price each Buy 10 bottles, price each	54.00 50.00 46.00	40.50 37.50 34.50		
01426	<b>COQ10 w/ENH MITOCHONDRIAL SUPPORT™ (SUPER UBIQUINOL)</b> - 100 mg, 60 softgels Buy 4 bottles, price each Buy 10 bottles, price each	62.00 56.00 52.00	46.50 42.00 39.00		
01425	<b>COQ10 w/ENH MITOCHONDRIAL SUPPORT™ (SUPER UBIQUINOL)</b> - 50 mg, 100 softgels Buy 4 bottles, price each Buy 10 bottles, price each	58.00 53.00 50.00	43.50 39.75 37.50		
01427	<b>COQ10 w/ENH MITOCHONDRIAL SUPPORT™ (SUPER UBIQUINOL)</b> - 50 mg, 30 softgels Buy 4 bottles, price each	20.00 18.00	15.00 13.50		
01431	<b>COQ10 w/ENH MITOCHONDRIAL SUPPORT™ (SUPER UBIQUINOL)</b> - 200 mg, 30 softgels Buy 4 bottles, price each Buy 10 bottles, price each	62.00 56.00 52.00	46.50 42.00 39.00		
01053	<b>CORIOLUS SUPER STRENGTH</b> - 600 mg, 150 veg. caps	99.95	74.96		
80140	<b>COSMESIS ADVANCED UNDER EYE SERUM w/STEM CELLS</b> - .33 oz Buy 2 bottles, price each	49.00 42.00	36.75 31.50		
80139	<b>COSMESIS AMBER SELF MICRODERMABRASION</b> - 2 oz Buy 2 jars, price each	49.00 42.00	36.75 31.50		
80151	<b>COSMESIS ANTI-AGING REJUVENATING FACE CREAM</b> - 2 oz jar w/COFFEE EXTRACT Buy 2 jars, price each	65.00 57.00	48.75 42.75		
80118	<b>COSMESIS ANTI-AGING MASK</b> - 2 oz Buy 2 bottles, price each	72.00 63.36	54.00 47.52		
80134	<b>COSMESIS ANTI-GLYCATION SERUM</b> - 1 oz w/BLUEBERRY & POMEGRANATE EXTRACTS Buy 2 bottles, price each	33.00 31.35	24.75 23.51		
80133	<b>COSMESIS ANTIOXIDANT FACIAL MIST</b> - 2 oz Buy 2 bottles, price each	32.00 30.40	24.00 22.80		
80127	<b>COSMESIS ANTIOXIDANT REJUVENATING FOOT CREAM</b> - 2 oz Buy 2 jars, price each	45.00 42.80	33.75 32.10		

**SUB-TOTAL OF COLUMN 4**

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

SUPER SALE 2013-2014

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

# Buyers Club Order Form

**SUPER SALE SAVINGS ON ALL PRODUCTS**  
To order call 1-800-544-4440

No.		Retail Each	Member Each	Qty	Total
<b>C CONTINUED</b>					
80128	<b>COSMESIS ANTI-OXIDANT REJUVENATING FOOT SCRUB - 2 oz</b> Buy 2 jars, price each	\$59.00 51.92	\$44.25 38.94		
80117	<b>COSMESIS ANTI-OXIDANT REJUVENATING HAND CREAM - 2 oz</b> Buy 2 jars, price each	64.00 57.49	48.00 43.12		
80121	<b>COSMESIS ANTI-OXIDANT REJUVENATING HAND SCRUB - 2 oz</b> Buy 2 jars, price each	58.00 51.04	43.50 38.28		
80105	<b>COSMESIS ANTI-REDNESS &amp; ADULT BLEMISH LOTION - 1 oz</b> Buy 2 bottles, price each	74.50 65.56	55.88 49.17		
80147	<b>COSMESIS BIOFLAVONOID CREAM - 1 oz jar</b> Buy 2 jars, price each	46.00 39.00	34.50 29.25		
80144	<b>COSMESIS BROCCOLI SPROUT CREAM - 1 oz</b> Buy 2 jars, price each	46.00 39.00	34.50 29.25		
80120	<b>COSMESIS CORRECTIVE CLEARING MASK - 2 oz</b> Buy 2 jars, price each	64.50 56.76	48.38 42.57		
80141	<b>COSMESIS DNA REPAIR CREAM - 1 oz jar</b> Buy 2 jars, price each	49.00 42.00	36.75 31.50		
80108	<b>COSMESIS ESSENTIAL PLANT LIPIDS REPARATIVE SERUM - 1 oz</b> Buy 2 bottles, price each	74.95 65.95	56.21 49.46		
80123	<b>COSMESIS FACE REJUVENATING ANTI-OXIDANT CREAM - 2 oz</b> Buy 2 jars, price each	69.50 61.16	52.13 45.87		
80107	<b>COSMESIS FINE LINE-LESS - 1 oz</b> Buy 2 bottles, price each	74.50 65.56	55.88 49.17		
80131	<b>COSMESIS HAIR SUPPRESS FORMULA - 4 oz</b> Buy 2 bottles, price each	59.00 51.92	44.25 38.94		
80137	<b>COSMESIS HEALING FORMULA ALL-IN-ONE CREAM - 1 oz</b> Buy 2 jars, price each	53.00 45.43	39.75 34.07		
80115	<b>COSMESIS HEALING MASK - 2 oz</b> Buy 2 bottles, price each	64.50 56.76	48.38 42.57		
80102	<b>COSMESIS HEALING VITAMIN K CREAM - 1 oz</b> Buy 2 bottles, price each	79.50 69.96	59.63 52.47		
80109	<b>COSMESIS HYALURONIC FACIAL MOISTURIZER - 1 oz</b> Buy 2 bottles, price each	58.00 51.04	43.50 38.28		
80110	<b>COSMESIS HYALURONIC OIL-FREE FACIAL MOISTURIZER - 1 oz</b> Buy 2 bottles, price each	58.00 51.04	43.50 38.28		
80138	<b>COSMESIS HYDRATING ANTI-OXIDANT FACE MIST - 4 oz</b> Buy 2 bottles, price each	39.95 38.00	29.96 28.50		
80103	<b>COSMESIS LIFTING &amp; TIGHTENING COMPLEX - 1 oz</b> Buy 2 tubes, price each	74.50 65.56	55.88 49.17		
80146	<b>COSMESIS LYCOPENE CREAM - 1 oz jar</b> Buy 2 jars, price each	28.00 25.40	21.00 19.05		
80135	<b>COSMESIS MELATONIN CREAM - 1 oz</b> Buy 2 jars, price each	33.00 27.10	24.75 20.33		
80114	<b>COSMESIS MILD FACIAL CLEANSER - 8 oz</b> Buy 2 bottles, price each	59.00 51.92	44.25 38.94		
80122	<b>COSMESIS NECK REJUVENATING ANTI-OXIDANT CREAM - 2 oz</b> Buy 2 jars, price each	64.00 56.32	48.00 42.24		
80111	<b>COSMESIS PIGMENT CORRECTING CREAM - 1/2 oz</b> Buy 2 bottles, price each	74.00 65.12	55.50 48.84		
80106	<b>COSMESIS REJUVENATING SERUM - 1 oz</b> Buy 2 bottles, price each	74.50 65.56	55.88 49.17		
80150	<b>COSMESIS RENEWING EYE CREAM - 1/2 oz</b> Buy 2 jars, price each	65.00 57.00	48.75 42.75		
80142	<b>COSMESIS RESVERATROL ANTI-OXIDANT SERUM - 1 oz</b> Buy 2 bottles, price each	46.00 39.00	34.50 29.25		

**SUB-TOTAL OF COLUMN 5**

No.		Retail Each	Member Each	Qty	Total
80112	<b>COSMESIS SKIN LIGHTENING SERUM - 1/2 oz</b> Buy 2 bottles, price each	\$85.00 74.80	\$63.75 56.10		
80130	<b>COSMESIS SKIN STEM CELL SERUM - 1 oz</b> Buy 2 bottles, price each	74.00 69.00	55.50 51.75		
80143	<b>COSMESIS STEM CELL CREAM W/ALPINE ROSE - 1 oz jar</b> Buy 2 jars, price each	66.00 58.00	49.50 43.50		
80148	<b>COSMESIS TIGHTENING &amp; FIRMING NECK CREAM - 2 oz jar</b> Buy 2 jars, price each	39.00 35.00	29.25 26.25		
80116	<b>COSMESIS ULTRA LIP PLUMPER - 1/3 oz</b> Buy 2 bottles, price each	64.00 56.32	48.00 42.24		
80101	<b>COSMESIS ULTRA WRINKLE RELAXER - 1 oz</b> Buy 2 bottles, price each	89.95 79.76	67.46 59.82		
80113	<b>COSMESIS UNDER EYE REFINING SERUM - 1/2 oz</b> Buy 2 bottles, price each	74.50 65.56	55.88 49.17		
80104	<b>COSMESIS UNDER EYE RESCUE CREAM - 1/2 oz</b> Buy 2 bottles, price each	74.50 65.56	55.88 49.17		
80129	<b>COSMESIS VITAMIN C SERUM - 1 oz</b> Buy 2 bottles, price each	85.00 74.80	63.75 56.10		
80136	<b>COSMESIS VITAMIN D LOTION - 4 oz</b> Buy 2 bottles, price each	36.00 33.66	27.00 25.25		
80145	<b>COSMESIS VITAMIN E-ESSENTIAL CREAM - 1 oz</b> Buy 2 jars, price each	28.00 26.00	21.00 19.50		
80149	<b>COSMESIS YOUTH SERUM - 1 oz</b> Buy 2 bottles, price each	65.00 57.00	48.75 42.75		
00862	<b>CRAN-MAX® - 500 mg, 60 veg. caps</b> Buy 4 bottles, price each	17.50 15.00	13.13 11.25		
01424	<b>CRAN-MAX® with UTIROSE™ (OPTIMIZED) - 60 veg. caps</b> Buy 4 bottles, price each	18.00 16.00	13.50 12.00		
01529	<b>CREATINE CAPSULES - 120 veg. caps</b> Buy 4 bottles, price each	10.95 9.25	8.21 6.94		
01746	<b>CREATINE WHEY GLUTAMINE POWDER - 454 grams (vanilla)</b> Buy 4 jars, price each	30.00 27.00	22.50 20.25		
01429	<b>CR MIMETIC LONGEVITY FORMULA - 60 veg. caps</b> Buy 4 bottles, price each	39.00 36.00	29.25 27.00		
*33840	<b>CRWAY GREAT GLUCOSE CONTROL CD</b>	98.00	82.00		
**CRWAY	<b>CR WAY OPTIMAL HEALTH PROGRAM SOFTWARE</b>	195.00	195.00		
00407	<b>CURCUMIN® (SUPER BIO) - 400 mg, 60 veg. caps</b> Buy 4 bottles, price each	38.00 35.00	28.50 26.25		
01808	<b>CURCUMIN® w/GINGER &amp; TURMERONES (ADVANCED BIO)-30 softgels</b> Buy 4 bottles, price each	30.00 27.00	22.50 20.25		
01804	<b>CYTOKINE SUPPRESS™ w/EGCG - 30 veg. caps</b> Buy 4 bottles, price each	30.00 27.00	22.50 20.25		
<b>D</b>					
00658	<b>7-KETO® DHEA METABOLITE - 25 mg, 100 caps</b> Buy 4 bottles, price each	\$28.00 24.00	\$21.00 18.00		
01479	<b>7-KETO® DHEA METABOLITE - 100 mg, 60 veg. caps</b> Buy 4 bottles, price each	40.00 36.00	30.00 27.00		
01640	<b>DHA (VEGETARIAN SOURCED) - 200 mg, 30 veg. softgels</b> Buy 4 bottles, price each	20.00 18.00	15.00 13.50		
00607	<b>DHEA - 25 mg, 100 tablets (dissolve in mouth)</b> Buy 4 bottles, price each	14.00 11.75	10.50 8.81		
01478	<b>DHEA COMPLETE - 60 veg. caps</b> Buy 4 bottles, price each	48.00 43.20	36.00 32.40		

**SUB-TOTAL OF COLUMN 6**

SUPER SALE 2013-2014

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

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

**OFFER ENDS FEBRUARY 3, 2014**  
**To order online visit [www.LifeExtension.com/SuperSale](http://www.LifeExtension.com/SuperSale)**

# Buyers Club Order Form

No.		Retail Each	Member Each	Qty	Total
00335	<b>DHEA</b> - 25 mg, 100 caps Buy 4 bottles, price each	\$18.00 15.00	\$13.50 11.25		
00454	<b>DHEA</b> - 15 mg, 100 caps Buy 4 bottles, price each	14.00 12.00	10.50 9.00		
00882	<b>DHEA</b> - 50 mg, 60 caps Buy 4 bottles, price each	19.00 17.00	14.25 12.75		
01689	<b>DHEA</b> - 100 mg, 60 veg. caps Buy 4 bottles, price each	24.00 22.00	18.00 16.50		
01358	<b>DIGEST RC</b> - 30 tablets Buy 4 boxes, price each	19.95 17.00	14.96 12.75		
01272	<b>DIGESTIVE ENZYMES (ENHANCED SUPER)</b> - 100 veg. caps Buy 4 bottles, price each	18.95 16.00	14.21 12.00		
01671	<b>D,L-PHENYLALANINE CAPSULES</b> - 500 mg, 100 veg. caps Buy 4 bottles, price each	18.75 16.00	14.06 12.00		
01540	<b>DMAE BITARTRATE</b> - 150 mg, 200 veg. caps Buy 4 bottles, price each	18.00 15.00	13.50 11.25		
00059	<b>DMG</b> - 125 mg, 60 tablets Buy 4 boxes, price each	22.80 21.00	17.10 15.75		
01570	<b>DNA PROTECTION FORMULA</b> - 60 veg. caps Buy 4 bottles, price each	34.00 32.00	25.50 24.00		
00544	<b>DOG MIX</b> - 100 grams powder Buy 4 jars, price each	19.50 16.00	14.63 12.00		
00321	<b>DR. PROCTOR'S ADVANCED HAIR FORMULA</b> - 2 oz Buy 4 bottles, price each	39.95 32.00	29.96 24.00		
00320	<b>DR. PROCTOR'S HAIR FORMULA SHAMPOO</b> - 8 oz Buy 4 bottles, price each	24.95 22.00	18.71 16.50		
00899	<b>DUAL-ACTION MICRODERMABRASION ADV. EXFOLIATE</b> - 2.4 oz Buy 4 jars, price each	39.95 38.95	29.96 29.21		
<b>E</b>					
01528	<b>ECHINACEA EXTRACT</b> - 250 mg, 60 veg. caps Buy 4 bottles, price each	\$14.35 12.50	\$10.76 9.38		
01498	<b>ENDOTHELIAL DEFENSE™ w/FULL-SPECTRUM POMEGRANATE™</b> - 60 softgels Buy 4 bottles, price each	56.00 52.00	42.00 39.00		
00997	<b>ENDOTHELIAL DEFENSE™ w/GLISODIN®</b> - 60 veg. caps Buy 4 bottles, price each	54.00 48.00	40.50 36.00		
00625	<b>EPA/DHA (MEGA)</b> - 120 softgels Buy 4 bottles, price each	19.95 18.00	14.96 13.50		
01737	<b>ESOPHAGEAL GUARDIAN</b> (Berry flavor) - 60 chewable tablets Buy 4 bottles, price each	36.00 32.00	27.00 24.00		
01042	<b>EUROPEAN LEG SOLUTION DIOSMIN 95</b> - 600 mg, 30 veg. tabs Buy 4 bottles, price each	20.00 18.00	15.00 13.50		
01706	<b>EXTRAORDINARY ENZYMES</b> - 60 caps Buy 4 bottles, price each	26.00 24.00	19.50 18.00		
01514	<b>EYE PRESSURE SUPPORT w/MIRTOGENOL®</b> - 30 veg. caps Buy 4 bottles, price each	38.00 34.00	28.50 25.50		
<b>F</b>					
01054	<b>FACE MASTER® PLATINUM</b>	\$199.00	\$199.00		
00965	<b>FAST-ACTING JOINT FORMULA</b> - 30 caps Buy 4 bottles, price each	39.00 36.00	29.25 27.00		
01717	<b>FAST-C® w/DIHYDROQUERCETIN</b> - 120 veg. tabs Buy 4 bottles, price each	26.00 24.00	19.50 18.00		
20053	<b>FEM DOPHILUS®</b> - 30 caps	25.95	19.46		
20055	<b>FEM DOPHILUS®</b> - 60 caps	39.95	29.96		

**SUB-TOTAL OF COLUMN 7**

No.		Retail Each	Member Each	Qty	Total
01064	<b>FEMMESENCE MACAPAUSE®</b> - 120 veg. caps	\$34.99	\$26.24		
01728	<b>FERNBLOCK® w/RED ORANGE COMPLEX (ENHANCED)</b> - 30 veg. caps Buy 4 bottles, price each	42.00 38.00	31.50 28.50		
01670	<b>FIBER FOOD CAPS</b> - 200 veg. caps Buy 4 bottles, price each Buy 10 bottles, price each	16.00 14.00 13.00	12.00 10.50 9.75		
00718	<b>FIBRINOGEN RESIST™</b> - 30 veg. caps Buy 4 bottles, price each	49.00 44.00	36.75 33.00		
01806	<b>FLORASSIST™ PROBIOTIC</b> - 30 liquid veg. caps Buy 4 boxes, price each	33.00 30.00	24.75 22.50		
01439	<b>FOLATE (OPTIMIZED) (L-METHYLFOLATE)</b> 1,000 mcg - 100 veg. caps Buy 4 bottles, price each	28.00 25.00	21.00 18.75		
01641	<b>FOLIC ACID + B12 CAPSULES</b> - 200 veg. caps Buy 4 bottles, price each	10.50 9.50	7.88 7.13		
01544	<b>FORSKOLIN</b> - 10 mg, 60 veg.caps Buy 4 bottles, price each	16.00 14.00	12.00 10.50		
01513	<b>FUCOIDAN w/MARITECH® 926 (OPTIMIZED)</b> - 60 veg. caps Buy 4 bottles, price each	36.00 33.00	27.00 24.75		
00993	<b>FUCOXANTHIN-SLIM™</b> - 90 softgels Buy 4 bottles, price each	44.00 39.00	33.00 29.25		
<b>G</b>					
00559	<b>GAMMA E TOCOPHEROL/TOCOTRIENOLS</b> - 60 softgels Buy 4 bottles, price each	\$42.00 37.00	\$31.50 27.75		
00759	<b>GAMMA E TOCOPHEROL w/SESAME LIGNANS</b> - 60 softgels Buy 4 bottles, price each	32.00 29.00	24.00 21.75		
01394	<b>(OPTIMIZED) GARLIC</b> - 200 veg. caps Buy 4 bottles, price each	24.95 21.00	18.71 15.75		
01301	<b>GH PITUITARY SUPPORT DAY FORMULA</b> - 120 tabs Buy 4 bottles, price each	48.00 44.00	36.00 33.00		
01302	<b>GH PITUITARY SUPPORT NIGHT FORMULA</b> - 120 veg. caps Buy 4 bottles, price each	25.00 22.50	18.75 16.88		
**01228	<b>GINGER FORCE</b> - 60 softgels	29.95	22.46		
01658	<b>GINKGO BILOBA CERTIFIED EXTRACT™</b> - 120 mg, 365 veg. caps Buy 2 bottles, price each	46.00 43.50	34.50 32.63		
01648	<b>GINKGO EXTRACT 28/7 (SUPER)</b> - 120 mg, 100 veg. caps Buy 4 bottles, price each	29.00 26.50	21.75 19.88		
00756	<b>GLA WITH SESAME LIGNANS (MEGA)</b> - 60 softgels Buy 4 bottles, price each	19.50 18.00	14.63 13.50		
00345	<b>(L) GLUTAMINE CAPSULES</b> - 500 mg, 100 caps Buy 4 bottles, price each	14.95 13.50	11.21 10.13		
00141	<b>(L)-GLUTAMINE POWDER</b> - 100 grams Buy 4 bottles, price each	22.00 20.00	16.50 15.00		
00522	<b>GLUCOSAMINE/CHONDROITIN CAPSULES</b> - 100 caps Buy 4 bottles, price each	38.00 32.00	28.50 24.00		
01541	<b>GLUTATHIONE, CYSTEINE &amp; C</b> - 100 veg. caps Buy 4 bottles, price each	20.00 18.00	15.00 13.50		
00314	<b>L-GLUTATHIONE (MEGA)</b> - 250 mg, 60 caps	39.64	29.73		
01731	<b>GLYCEMICPRO™ TRANSGLUCOSIDASE</b> - 60 veg. caps Buy 4 bottles, price each	48.00 42.00	36.00 31.50		
01669	<b>GLYCINE</b> - 1,000 mg, 100 veg. caps Buy 4 bottles, price each	12.00 10.80	9.00 8.10		
01091	<b>GRAPE EXTRACT w/RESVERATROL (WHOLE)</b> - 60 veg. caps Buy 4 bottles, price each	36.00 34.00	27.00 25.50		

**SUB-TOTAL OF COLUMN 8**

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

SUPER SALE 2013-2014

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# Buyers Club Order Form

**SUPER SALE SAVINGS ON ALL PRODUCTS**  
To order call 1-800-544-4440

No.		Retail Each	Member Each	Qty	Total
<b>G CONTINUED</b>					
01411	<b>GRAPE SEED EXTRACT w/RESVERATROL &amp; PTEROSTILBENE</b> - 100 mg, 60 veg. caps Buy 4 bottles, price each	\$36.00 34.00	\$27.00 25.50		
01604	<b>GREEN COFFEE EXTRACT COFFEEGENIC®</b> - 200 mg, 90 veg. caps Buy 4 bottles, price each	25.00 22.00	18.75 16.50		
01620	<b>GREEN COFFEE EXTRACT COFFEEGENIC®</b> - 400 mg, 90 veg. caps Buy 4 bottles, price each	38.00 34.00	28.50 25.50		
00953	<b>GREEN TEA EXTRACT (MEGA)</b> - lightly caffeinated - 100 veg. caps Buy 4 bottles, price each	30.00 28.00	22.50 21.00		
00954	<b>GREEN TEA EXTRACT (MEGA)</b> - decaffeinated - 100 veg. caps Buy 4 bottles, price each	30.00 28.00	22.50 21.00		
<b>H</b>					
01074	<b>5 HTP</b> - 100 mg, 60 caps	\$27.95	\$20.96		
01738	<b>HCA (GARCINIA)</b> - 90 veg. caps Buy 4 bottles, price each	16.00 14.00	12.00 10.50		
01393	<b>HEPATOPRO</b> - 900 mg, 60 softgels Buy 4 bottles, price each	50.00 46.00	37.50 34.50		
01435	<b>HOMOCYSTEINE RESIST</b> - 100 caps Buy 4 bottles, price each	24.00 21.60	18.00 16.20		
01527	<b>HUPERZINE A</b> - 200 mcg, 60 veg caps Buy 4 bottles, price each	40.00 36.00	30.00 27.00		
00661	<b>HYDRODERM®</b> - 1 oz Buy 2 bottles, price each	79.95 65.33	59.96 49.00		
<b>I</b>					
*01060	<b>i26® HYPERIMMUNE EGG</b> - 140 grams powder	\$54.99	\$46.75		
01704	<b>IMMUNE MODULATOR W/TINOFEND®</b> - 60 veg. caps Buy 4 bottles, price each	17.00 15.00	12.75 11.25		
00955	<b>IMMUNE PROTECT W/PARACTIN®</b> - 30 veg. caps Buy 4 bottles, price each	29.50 26.55	22.13 19.91		
01049	<b>INNERPOWER™</b> - 555 grams powder	42.00	31.50		
01674	<b>INOSITOL CAPSULES</b> - 1,000 mg, 360 veg. caps Buy 4 bottles, price each	62.00 58.00	46.50 43.50		
01292	<b>INTEGRA-LEAN® AFRICAN MANGO IRVINGIA</b> - 150 mg, 60 veg. caps Buy 4 bottles, price each	28.00 24.00	21.00 18.00		
01002	<b>IODORAL®</b> - 180 tabs	50.00	37.50		
01677	<b>IRON PROTEIN PLUS</b> - 300 mg, 100 veg. caps Buy 4 bottles, price each	28.00 26.00	21.00 19.50		
01492	<b>IRVINGIA W/PHASE 3™</b> - 120 veg. caps <b>CALORIE CONTROL COMPLEX (OPTIMIZED AFRICAN MANGO)</b> Buy 4 bottles, price each	56.00 48.00	42.00 36.00		
<b>J, K</b>					
00056	<b>JARRO-DOPHILUS EPS™</b> - 60 veg. caps	\$22.95	\$17.21		
01388	<b>JARRO-DOPHILUS ORAL PROBIOTIC LOZENGE</b> - Pom-Berry flavor, 8 pieces	4.95	3.71		
01724	<b>K w/ADVANCED K2 COMPLEX (SUPER)</b> - 90 softgels Buy 4 bottles, price each	30.00 27.00	22.50 20.25		
01600	<b>KRILL HEALTHY JOINT FORMULA</b> - 30 softgels Buy 4 bottles, price each	32.00 29.00	24.00 21.75		
01050	<b>(NKO) KRILL OIL PHOSPH OMEGA</b> - 60 softgels	33.95	25.46		
00316	<b>KYOLIC® GARLIC FORMULA 102</b> - 200 caps	26.45	19.84		
00214	<b>KYOLIC® GARLIC FORMULA 105</b> - 200 caps	27.45	20.59		
00789	<b>KYOLIC® RESERVE</b> - 600 mg, 120 caps	27.95	20.96		

**SUB-TOTAL OF COLUMN 9**

No.		Retail Each	Member Each	Qty	Total
<b>L</b>					
01681	<b>LACTOFERRIN (APOLACTOFERRIN) CAPS</b> - 60 caps Buy 4 bottles, price each	\$48.00 44.00	\$36.00 33.00		
01702	<b>LACTOSOLV™ LONG LASTING LACTASE</b> - 30 caps Buy 4 boxes, price each	30.00 27.00	22.50 20.25		
00020	<b>LECITHIN</b> - 16 oz. granules Buy 4 jars, price each	15.00 12.50	11.25 9.38		
01855	<b>LIFE EXTENSION MIX™</b> - 315 tablets Buy 4 bottles, price each Buy 10 bottles, price each	98.00 86.00 69.50	73.50 64.50 52.13		
01857	<b>LIFE EXTENSION MIX™ W/EXTRA NIACIN</b> - 315 tablets Buy 4 bottles, price each Buy 10 bottles, price each	98.00 86.00 69.50	73.50 64.50 52.13		
01854	<b>LIFE EXTENSION MIX™</b> - 490 caps Buy 4 bottles, price each Buy 10 bottles, price each	110.00 98.00 85.00	82.50 73.50 63.75		
01856	<b>LIFE EXTENSION MIX™ POWDER</b> - 14.81 oz Buy 4 bottles, price each Buy 10 bottles, price each	98.00 86.00 72.00	73.50 64.50 54.00		
01865	<b>LIFE EXTENSION MIX™</b> - 315 tablets w/o copper Buy 4 bottles, price each Buy 10 bottles, price each	98.00 86.00 69.50	73.50 64.50 52.13		
01867	<b>LIFE EXTENSION MIX™ W/EXTRA NIACIN</b> 315 tablets w/o copper Buy 4 bottles, price each Buy 10 bottles, price each	98.00 86.00 69.50	73.50 64.50 52.13		
01864	<b>LIFE EXTENSION MIX™</b> - 490 caps w/o copper Buy 4 bottles, price each Buy 10 bottles, price each	110.00 98.00 85.00	82.50 73.50 63.75		
01866	<b>LIFE EXTENSION MIX™ POWDER</b> - 14.81 oz w/o copper Buy 4 bottles, price each Buy 10 bottles, price each	98.00 86.00 72.00	73.50 64.50 54.00		
00263	<b>LIFE FLORA™</b> - 300 mg, 120 caps	20.50	15.38		
01608	<b>LIVER EFFICIENCY FORMULA</b> - 30 veg. caps Buy 4 bottles, price each	18.00 16.00	13.50 12.00		
01639	<b>5-LOX INHIBITOR W/APRESFLEX®</b> - 100 mg, 60 veg. caps Buy 4 bottles, price each	22.00 20.00	16.50 15.00		
01678	<b>L-LYSINE</b> - 620 mg, 100 veg. caps Buy 4 bottles, price each	9.00 8.00	6.75 6.00		
01470	<b>LURALEAN® CAPS SPECIAL PROPOLMANNAN PARTICLE SIZE</b> - 120 veg. caps Buy 4 bottles, price each	28.00 25.00	21.00 18.75		
00455	<b>LYCOPENE EXTRACT (MEGA)</b> - 15 mg, 90 softgels Buy 4 bottles, price each	35.00 30.00	26.25 22.50		
<b>M</b>					
01459	<b>MAGNESIUM CAPS</b> - 500 mg, 100 veg. caps Buy 4 bottles, price each	\$12.00 10.00	\$9.00 7.50		
01682	<b>MAGNESIUM CITRATE</b> - 160 mg, 100 veg. caps Buy 4 bottles, price each	9.00 7.50	6.75 5.63		
01668	<b>MELATONIN</b> - 300 mcg, 100 veg. caps Buy 4 bottles, price each	5.75 5.00	4.31 3.75		
01083	<b>MELATONIN</b> - 500 mcg, 200 veg. caps Buy 4 bottles, price each	18.00 16.00	13.50 12.00		

**SUB-TOTAL OF COLUMN 10**

SUPER SALE 2013-2014

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

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

**OFFER ENDS FEBRUARY 3, 2014**  
 To order online visit [www.LifeExtension.com/SuperSale](http://www.LifeExtension.com/SuperSale)

# Buyers Club Order Form

No.		Retail Each	Member Each	Qty	Total
00329	<b>MELATONIN</b> - 1 mg, 60 caps	\$5.00	\$3.75		
	Buy 4 bottles, price each	4.63	3.47		
00330	<b>MELATONIN</b> - 3 mg, 60 caps	8.00	6.00		
	Buy 4 bottles, price each	6.88	5.16		
01786	<b>MELATONIN TIME RELEASE</b> - 3 mg, 60 veg. tabs	12.00	9.00		
	Buy 4 bottles, price each	11.00	8.25		
00331	<b>MELATONIN</b> - 10 mg, 60 caps	28.00	21.00		
	Buy 4 bottles, price each	24.00	18.00		
00332	<b>MELATONIN</b> - 3 mg, 60 veg. lozenges	8.00	6.00		
	Buy 4 bottles, price each	6.88	5.16		
01734	<b>MELATONIN</b> (Fast Acting Liquid) - 3 mg (Natural Citrus-Van)	12.00	9.00		
	Buy 4 bottles, price each	11.00	8.25		
01787	<b>MELATONIN TIME RELEASE</b> - 300 mcg, 100 veg. tabs	12.00	9.00		
	Buy 4 bottles, price each	11.00	8.25		
01788	<b>MELATONIN TIME RELEASE</b> - 750 mcg, 60 veg. tablets	8.00	6.00		
	Buy 4 bottles, price each	7.00	5.25		
01536	<b>METHYLCOBALAMIN</b> - 1 mg, 60 lozenges (vanilla)	9.95	7.46		
	Buy 4 bottles, price each	8.00	6.00		
01537	<b>METHYLCOBALAMIN</b> - 5 mg, 60 lozenges (vanilla)	32.00	24.00		
	Buy 4 bottles, price each	25.00	18.75		
	Buy 10 bottles, price each	23.00	17.25		
00709	<b>MIGRA-EZZE™ (BUTTERBUR)</b> - 60 softgels	29.50	22.13		
	Buy 4 bottles, price each	26.33	19.75		
01800	<b>MIGRA-MAG w/BRAIN SHIELD™</b> - 90 veg. caps	22.00	16.50		
	Buy 4 bottles, price each	20.00	15.00		
01822	<b>MILK THISTLE (EUROPEAN)</b> - 60 softgels	28.00	21.00		
	Buy 4 bottles, price each	25.00	18.75		
01817	<b>MILK THISTLE (EUROPEAN)</b> - 120 softgels	44.00	33.00		
	Buy 4 bottles, price each	40.00	30.00		
01698	<b>MIRAFORTE w/STANDARDIZED LIGNANS (SUPER)</b> - 120 caps	62.00	46.50		
	Buy 4 bottles, price each	56.00	42.00		
01769	<b>MITOCHONDRIAL BASICS w/BIOPQQ®</b> - 30 caps	52.00	39.00		
	Buy 4 bottles, price each	46.00	34.50		
01768	<b>MITOCHONDRIAL ENERGY OPTIMIZER w/BIOPQQ®</b> - 120 caps	94.00	70.50		
	Buy 4 bottles, price each	84.00	63.00		
00065	<b>MK-7</b> - 90 mcg, 60 softgels	28.00	21.00		
	Buy 4 bottles, price each	25.00	18.75		
01279	<b>MOUTHWASH W/POMEGRANATE</b> - 16 oz	18.50	13.88		
	Buy 4 bottles, price each	17.00	12.75		
00451	<b>MSM (METHYLSULFONYLMETHANE)</b> - 1,000 mg, 100 caps	14.00	10.50		
	Buy 4 bottles, price each	11.95	8.96		
<b>N</b>					
01534	<b>N-ACETYL-L-CYSTEINE</b> - 600 mg, 60 veg. caps	\$14.00	\$10.50		
	Buy 4 bottles, price each	13.50	10.13		
00066	<b>NATTOKINASE</b> - 60 softgels	25.50	19.13		
00891	<b>NATURAL APPETITE CONTROL</b> - 90 softgels	28.00	21.00		
	Buy 4 bottles, price each	25.20	18.90		
01807	<b>NATURAL APPETITE SUPPRESS (ADVANCED)</b> - 60 veg. caps	38.00	28.50		
	Buy 4 bottles, price each	34.00	25.50		
00984	<b>NATURAL BP MANAGEMENT</b> - 60 tablets	42.00	31.50		
	Buy 4 bottles, price each	37.80	28.35		

**SUB-TOTAL OF COLUMN 11**

No.		Retail Each	Member Each	Qty	Total
01692	<b>NATURAL ESTROGEN w/POMEGRANATE EXTRACT</b> - 60 caplets	\$38.00	\$28.50		
	Buy 4 bottles, price each	33.00	24.75		
01221	<b>NATURAL FEMALE SUPPORT</b> - 30 veg. caps	28.00	21.00		
	Buy 4 bottles, price each	24.00	18.00		
01471	<b>NATURAL GLUCOSE ABSORPTION CONTROL</b> - 60 veg. caps	39.00	29.25		
	Buy 4 bottles, price each	36.00	27.00		
01626	<b>NATURAL SEX FOR WOMEN® 50+ (ADVANCED)</b> - 90 veg. caps	59.00	44.25		
	Buy 4 bottles, price each	45.33	34.00		
01444	<b>NATURAL SLEEP®</b> - 60 veg. caps	13.00	9.75		
	Buy 4 bottles, price each	10.00	7.50		
01551	<b>NATURAL SLEEP® w/ MELATONIN (ENHANCED)</b> - 30 caps	22.00	16.50		
	Buy 4 bottles, price each	20.00	15.00		
01511	<b>NATURAL SLEEP® w/o MELATONIN (ENHANCED)</b> - 30 caps	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		
01445	<b>NATURAL SLEEP® MELATONIN</b> - 5 mg, 60 veg. caps	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
00987	<b>NATURAL STRESS RELIEF</b> - 30 veg. caps	28.00	21.00		
	Buy 4 bottles, price each	24.00	18.00		
01603	<b>NEURO-MAG™ MAGNESIUM L-THREONATE</b> - 90 veg. caps	40.00	30.00		
	Buy 4 bottles, price each	36.00	27.00		
01602	<b>NEURO-MAG™ L-THREONATE W/CALCIUM &amp; VITAMIN D</b> 225 grams - Lemon flavor	40.00	30.00		
	Buy 4 bottles, price each	36.00	27.00		
00373	<b>NO-FLUSH NIACIN</b> - 800 mg, 100 caps	19.00	14.25		
	Buy 4 bottles, price each	17.00	12.75		
<b>O</b>					
01623	<b>OLIVE LEAF VASCULAR SUPPORT</b> - 500 mg, 60 veg. caps	\$22.00	\$16.50		
	Buy 4 bottles, price each	20.00	15.00		
01483	<b>OMEGA 3 EPA/DHA w/SESAME LIGNANS &amp; OLIVE FRUIT EXTRACT (SUPER)</b> - 60 softgels	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
	Buy 10 bottles, price each	14.00	10.50		
01482	<b>OMEGA 3 EPA/DHA w/SESAME LIGNANS &amp; OLIVE FRUIT EXTRACT (SUPER)</b> - 120 softgels	32.00	24.00		
	Buy 4 bottles, price each	28.00	21.00		
	Buy 10 bottles, price each	24.90	18.68		
01484	<b>OMEGA 3 EPA/DHA W/SESAME LIGNANS &amp; OLIVE FRUIT EXTRACT (SUPER)</b> - 120 enteric coated softgels	34.00	25.50		
	Buy 4 bottles, price each	31.00	23.25		
	Buy 10 bottles, price each	28.00	21.00		
01485	<b>OMEGA 3 EPA/DHA W/SESAME LIGNANS &amp; OLIVE FRUIT EXTRACT (SUPER)</b> - 60 enteric coated softgels	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		
	Buy 10 bottles, price each	16.00	12.00		
01619	<b>OMEGA 3 EPA/DHA W/SESAME LIGNANS &amp; OLIVE FRUIT EXTRACT (SUPER) (SMALL SOFTGEL)</b> - 240 softgels	32.00	24.00		
	Buy 4 bottles, price each	28.00	21.00		
	Buy 10 bottles, price each	24.90	18.68		
01632	<b>OMEGA-3 LEMON WHIRL</b> - 16 oz bottle	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		
01633	<b>OMEGA-3 TROPICAL WHIRL</b> - 16 oz bottle	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		

**SUB-TOTAL OF COLUMN 12**

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

SUPER SALE 2013-2014

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

# Buyers Club Order Form

**SUPER SALE SAVINGS ON ALL PRODUCTS**  
To order call 1-800-544-4440

No.		Retail Each	Member Each	Qty	Total
<b>CONTINUED</b>					
01801	<b>ONE-PER-DAY</b> - 60 tablets Buy 4 bottles, price each	\$22.00 20.00	\$16.50 15.00		
01328	<b>ONLY TRACE MINERALS</b> - 90 caps Buy 4 bottles, price each	15.00 12.50	11.25 9.38		
00915	<b>OPTIZINC</b> ® - 30 mg, 90 veg. caps Buy 4 bottles, price each	5.95 5.00	4.46 3.75		
<b>P</b>					
00073	<b>PANCREATIN</b> - 500 mg, 50 caps	\$13.22	\$9.92		
01323	<b>PEAK ATP® WITH GLYCOCARN®</b> - 60 veg. caps Buy 4 bottles, price each	54.00 50.00	40.50 37.50		
00342	<b>PECTA SOL-C® MODIFIED CITRUS PECTIN</b> - 454 grams powder	99.95	74.96		
01080	<b>PECTA SOL-C® MODIFIED CITRUS PECTIN</b> - 270 veg. caps	69.95	52.46		
00673	<b>PGX™ PLUS MULBERRY (WELLBETX®)</b> -180 caps	34.95	26.21		
00865	<b>PHARMAGABA®</b> - 60 chewable tablets Buy 4 bottles, price each	29.95 27.00	22.46 20.25		
01676	<b>PHOSPHATIDYL SERINE CAPS</b> - 100 mg, 100 veg. caps Buy 4 bottles, price each	54.00 48.00	40.50 36.00		
01390	<b>PHOSPHOMEGA®</b> - 60 softgels	39.95	26.96		
01436	<b>POLICOSANOL</b> - 10 mg, 60 veg. caps Buy 6 bottles, price each	20.00 15.00	15.00 11.25		
01423	<b>POMEGRANATE™ (FULL-SPECTRUM)</b> - 30 softgels Buy 4 bottles, price each	24.00 21.00	18.00 15.75		
00956	<b>POMEGRANATE EXTRACT</b> - 30 veg. caps Buy 4 bottles, price each	19.50 17.55	14.63 13.16		
00957	<b>POMEGRANATE JUICE CONCENTRATE</b> - 16 oz. liquid Buy 4 bottles, price each	30.00 28.00	22.50 21.00		
01797	<b>POMI-T™</b> - 60 veg. caps Buy 4 bottles, price each	33.33 30.00	25.00 22.50		
00577	<b>POTASSIUM IODIDE</b> - 1 box, 14 tablets Buy 4 boxes, price each	6.95 5.25	5.21 3.94		
01500	<b>PQQ CAPS W/BIOPQQ®</b> - 10 mg, 30 veg. caps Buy 4 bottles, price each	24.00 22.00	18.00 16.50		
01647	<b>PQQ CAPS W/BIOPQQ®</b> - 20 mg, 30 veg. caps Buy 4 bottles, price each	40.00 36.00	30.00 27.00		
00302	<b>PREGNENOLONE</b> - 50 mg, 100 caps Buy 4 bottles, price each	26.00 22.00	19.50 16.50		
00700	<b>PREGNENOLONE</b> - 100 mg, 100 caps Buy 4 bottles, price each	30.00 27.00	22.50 20.25		
**01373	<b>PRELOX® NATURAL SEX FOR MEN®</b> - 60 tablets Buy 4 bottles, price each	52.00 48.00	39.00 36.00		
00525	<b>PROBOOST THYMIC PROTEIN A™</b> - 4 mcg, 30 packets	59.95	44.96		
01441	<b>PROGESTACARE FOR WOMEN</b> - 4 oz cream Buy 4 bottles, price each	35.00 32.00	26.25 24.00		
01895	<b>PROSTATE FORMULA (ULTRA NAT)</b> 60 softgels Buy 4 bottles, price each Buy 12 bottles, price each	38.00 35.00 32.00	28.50 26.25 24.00		
01742	<b>PROTEIN-ISOLATE (WHEY) VANILLA</b> - 1 lb. powder Buy 4 jars, price each	30.00 27.00	22.50 20.25		
01743	<b>PROTEIN-ISOLATE (WHEY) CHOCOLATE</b> - 1 lb. powder Buy 4 jars, price each	30.00 27.00	22.50 20.25		

**SUB-TOTAL OF COLUMN 13**

No.		Retail Each	Member Each	Qty	Total
01770	<b>PROTEIN CONCENTRATE</b> (New Zealand Whey) <b>Vanilla</b> - 520 gr Buy 4 bottles, price each	\$30.00 26.60	\$22.50 19.95		
01771	<b>PROTEIN CONCENTRATE</b> (New Zealand Whey) <b>Chocolate</b> - 660 gr Buy 4 bottles, price each	30.00 26.60	22.50 19.95		
01508	<b>PTEROPURE™</b> - 50 mg Pterostilbene 60 veg. caps Buy 4 bottles, price each	32.00 30.00	24.00 22.50		
01587	<b>PURE PLANT PROTEIN</b> - Veg. Vanilla 540 grams powder Buy 4 jars, price each	38.00 35.00	28.50 26.25		
01209	<b>PUMPKIN SEED EXTRACT (WATER-SOLUBLE)</b> - 60 veg. caps Buy 4 bottles, price each	20.00 18.00	15.00 13.50		
01210	<b>PUMPKIN SEED EXT w/SOY ISOFLAVONES (WATER-SOLUBLE)</b> - 60 veg. caps Buy 4 bottles, price each	22.00 20.00	16.50 15.00		
01637	<b>PYCNOGENOL® FRENCH MARITIME PINE BARK EXTRACT</b> -100 mg, 60 veg. caps Buy 4 bottles, price each	64.00 60.00	48.00 45.00		
01217	<b>PYRIDOXAL 5'-PHOSPHATE</b> - 100 mg, 60 veg. caps Buy 4 bottles, price each	22.00 19.80	16.50 14.85		
<b>Q, R</b>					
01309	<b>QUERCETIN (OPTIMIZED)</b> - 250 mg, 60 veg. caps Buy 4 bottles, price each	\$22.00 20.00	\$16.50 15.00		
01030	<b>RED YEAST RICE</b> (Bluebonnet) - 600 mg, 60 veg. caps	16.95	13.56		
00605	<b>REGIMINT</b> - 60 enteric-coated caps Buy 4 bottles, price each	19.95 18.67	14.96 14.00		
01708	<b>REISHI EXTRACT MUSHROOM COMPLEX</b> - 60 veg. caps Buy 4 bottles, price each	30.00 27.00	22.50 20.25		
01448	<b>REJUVENEX® BODY LOTION</b> - 6 oz Buy 4 tubes, price each Buy 8 tubes, price each	24.00 19.80 17.00	18.00 14.85 12.75		
01621	<b>REJUVENEX® FACTOR FIRING SERUM</b> - 1.7 oz Buy 2 bottles, price each Buy 6 bottles, price each	65.00 50.66 38.52	48.75 38.00 28.89		
01220	<b>REJUVENEX® (ULTRA)</b> - 2 oz Buy 2 jars, price each Buy 4 jars, price each Buy 8 jars, price each	52.00 48.00 44.00 39.93	39.00 36.00 33.00 29.95		
00676	<b>REJUVENIGHT® (ULTRA)</b> - 2 oz Buy 4 jars, price each	39.95 36.00	29.96 27.00		
01413	<b>RESVERATROL W/PTEROSTILBENE</b> - 20 mg, 60 veg. caps Buy 4 bottles, price each	24.00 22.00	18.00 16.50		
01410	<b>RESVERATROL W/PTEROSTILBENE</b> - 100 mg, 60 veg. caps Buy 4 bottles, price each	36.00 32.00	27.00 24.00		
01430	<b>RESVERATROL w/SYNERGISTIC GRAPE-BERRY ACTIVES (OPTIMIZED)</b> - 250 mg, 60 veg. caps Buy 4 bottles, price each	46.00 41.33	34.50 31.00		
00889	<b>RHODIOLA EXTRACT</b> - 250 mg, 60 veg. caps Buy 4 bottles, price each	11.75 10.58	8.81 7.94		
00972	<b>(D) RIBOSE POWDER</b> - 150 grams Buy 4 jars, price each	27.50 24.75	20.63 18.56		
01473	<b>(D) RIBOSE TABLETS</b> - 100 veg. tabs Buy 4 bottles, price each	32.00 28.00	24.00 21.00		
01609	<b>RICH REWARDS® BREAKFAST GROUND COFFEE</b> - 12 oz. bag	13.00	9.75		
01729	<b>RICH REWARDS® BREAKFAST BLEND GROUND COFFEE</b> - 12 oz. bag Natural Vanilla	15.00	11.25		
01730	<b>RICH REWARDS® BREAKFAST BLEND GROUND COFFEE</b> - 12 oz. bag Natural Mocha	15.00	11.25		

**SUB-TOTAL OF COLUMN 14**

SUPER SALE 2013-2014

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

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

**OFFER ENDS FEBRUARY 3, 2014**  
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# Buyers Club Order Form

No.		Retail Each	Member Each	Qty	Total
01610	<b>RICH REWARDS® DECAFFEINATED ROAST GROUND COFFEE</b> - 12 oz. bag	\$14.00	\$10.50		
01809	<b>RICH REWARDS™ DARK CHOCOLATE</b> - 15 piece bag	15.00	11.25		
	Buy 4 bags, price each	12.96	9.72		
01712	<b>RICH REWARDS™ BLACK BEAN VEGETABLE SOUP</b> - 32 oz. bottle	13.00	9.75		
	Buy 6 bottles, price each	12.25	9.19		
01530	<b>RICH REWARDS™ CRUCIFEROUS VEGETABLE SOUP</b> - 32 oz. bottle	11.95	8.96		
	Buy 6 bottles, price each	11.25	8.44		
01531	<b>RICH REWARDS™ (SPICY) CRUCIFEROUS VEGETABLE SOUP</b> - 32 oz. bottle	11.95	8.96		
	Buy 6 bottles, price each	11.25	8.44		
01705	<b>RICH REWARDS™ LENTIL VEGETABLE SOUP</b> - 32 oz. bottle	13.00	9.75		
	Buy 6 bottles, price each	12.25	9.19		
01810	<b>RICH REWARDS™ MUNG BEAN SOUP W/TURMERIC</b> - 32 oz. bottle	13.00	9.75		
	Buy 6 bottles, price each	12.25	9.19		
01208	<b>R-LIPOIC ACID (SUPER)</b> - 300 mg, 60 veg. caps	49.00	36.75		
	Buy 4 bottles, price each	45.00	33.75		
00070	<b>RNA CAPSULES</b> - 500 mg, 100 caps	17.95	13.46		
	Buy 4 bottles, price each	16.16	12.12		
<b>S</b>					
01432	<b>SAFFRON w/SATIREAL (OPTIMIZED)</b> - 60 veg. caps	\$36.00	\$27.00		
	Buy 4 bottles, price each	32.00	24.00		
00358	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 200 mg, 20 enteric coated tablets	16.00	12.00		
	Buy 8 boxes, price each	14.00	10.50		
00453	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 200 mg, 50 enteric coated tablets	36.00	27.00		
	Buy 4 bottles, price each	32.00	24.00		
00557	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 400 mg, 20 enteric coated tablets	28.00	21.00		
	Buy 6 boxes, price each	24.00	18.00		
01055	<b>SAME (S-ADENOSYL-METHIONINE)</b> - 400 mg, 50 enteric coated tablets	66.00	49.50		
	Buy 4 bottles, price each	60.00	45.00		
01543	<b>SEA-IODINE™</b> - 1,000 mcg, 60 caps	8.00	6.00		
	Buy 4 bottles, price each	7.20	5.40		
00046	<b>SELENIUM</b> - 2 oz dropper bottle	11.75	8.81		
01679	<b>SE-METHYL L-SELENOCYSTEINE</b> - 200 mcg, 100 veg. caps	12.00	9.00		
	Buy 4 bottles, price each	11.00	8.25		
00318	<b>SERRAFLAZYME</b> - 100 tablets	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
00284	<b>SHARK LIVER OIL (NORWEGIAN)</b> - 1,000 mg, 30 softgels	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
01684	<b>SILYMARIN</b> - 100 mg, 50 veg. caps	9.25	6.94		
	Buy 4 bottles, price each	8.25	6.19		
01596	<b>SKIN RESTORING PHYTCERAMIDES w/LIPOHEAT®</b> - 30 veg. liquid caps	25.00	18.75		
	Buy 4 bottles, price each	23.00	17.25		
00961	<b>SODZYME® w/GLISODIN® AND WOLFBERRY</b> - 90 veg. caps	28.00	21.00		
	Buy 4 bottles, price each	24.00	18.00		
00657	<b>SOLARSHIELD SUNGLASSES</b> - 1 pair smoke color	12.99	9.74		
	Buy 2 pairs, price each	11.50	8.63		
01097	<b>SOY EXTRACT (ULTRA)</b> - 150 veg. caps	87.00	65.25		
	Buy 4 bottles, price each	78.00	58.50		
00432	<b>STEVIA EXTRACT</b> - 100 packets, 1 gram each	9.95	7.46		
01396	<b>ST. JOHN'S WORT EXTRACT</b> - 300 mg, 60 veg. caps	10.98	8.24		
	Buy 4 bottles, price each	10.00	7.50		
01476	<b>STRONTIUM</b> - 750 mg, 90 veg. caps	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		

**SUB-TOTAL OF COLUMN 15**

No.		Retail Each	Member Each	Qty	Total
01649	<b>SUPER ABSORBABLE SOY ISOFLAVONES</b> - 60 veg. caps	\$28.00	\$21.00		
	Buy 4 bottles, price each	25.00	18.75		
01790	<b>SUPER SAW PALMETTO/NETTLE ROOT W/BETA-SITOSTEROL</b> - 60 softgels	28.00	21.00		
	Buy 4 bottles, price each	26.00	19.50		
	Buy 12 bottles, price each	24.00	18.00		
01407	<b>SUPER SAW PALMETTO W/BETA-SITOSTEROL</b> - 30 softgels	15.00	11.25		
	Buy 12 bottles, price each	12.00	9.00		
01778	<b>SUPER SELENIUM COMPLEX</b> - 200 mcg, 100 veg. caps	14.00	10.50		
	Buy 4 bottles, price each	12.00	9.00		
	Buy 12 bottles, price each	11.00	8.25		
<b>T</b>					
01723	<b>TART CHERRY EXTRACT w/STANDARDIZED CHERRYPURE®</b> - 60 veg. caps	\$22.00	\$16.50		
	Buy 4 bottles, price each	20.00	15.00		
00199	<b>TAURINE</b> - 1,000 mg, 50 caps	8.95	6.71		
	Buy 4 bottles, price each	8.00	6.00		
00133	<b>TAURINE POWDER</b> - 300 grams	20.00	15.00		
	Buy 4 bottles, price each	16.88	12.66		
01304	<b>THEAFLAVIN STANDARDIZED EXTRACT</b> - 30 veg. caps	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
01683	<b>(L) THEANINE</b> - 100 mg, 60 veg. caps	24.00	18.00		
	Buy 4 bottles, price each	20.50	15.38		
**01038	<b>THERALAC PROBIOTICS</b> - 30 caps	47.95	35.96		
00668	<b>THYROID FORMULA™ (METABOLIC ADVANTAGE)</b> - 100 caps	21.95	16.46		
00349	<b>TMG POWDER</b> - 50 grams	14.00	10.50		
	Buy 4 bottles, price each	11.00	8.25		
01559	<b>TMG</b> - 500 mg, 60 veg. tablets	11.00	8.25		
	Buy 4 boxes, price each	10.00	7.50		
00781	<b>TOCOTRIENOLS WITH SESAME LIGNANS</b> - 60 softgels	38.00	28.50		
	Buy 4 bottles, price each	36.00	27.00		
01400	<b>TOCOTRIENOLS (SUPER-ABSORBABLE)</b> - 60 softgels	30.00	22.50		
	Buy 4 bottles, price each	28.00	21.00		
01278	<b>TOOTHPASTE</b> - 4 oz (Mint)	9.50	7.13		
	Buy 4 tubes, price each	8.67	6.50		
01468	<b>TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT</b> - 60 veg. caps	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		
01469	<b>TRIPLE ACTION CRUCIFEROUS VEGETABLE EXTRACT W/RESVERATROL</b> - 60 veg. caps	32.00	24.00		
	Buy 4 bottles, price each	29.60	22.20		
01803	<b>TRI SUGAR SHIELD™</b> - 60 veg. caps	36.00	27.00		
	Buy 4 bottles, price each	32.00	24.00		
01386	<b>TRUFIBER®</b> - 180 grams	32.95	24.71		
01389	<b>TRUFLOA PROBIOTICS &amp; ENZYMES</b> - 32 veg. caps	42.95	32.21		
01722	<b>L-TRYPTOPHAN</b> - 500 mg, 90 veg. caps	33.00	24.75		
	Buy 4 bottles, price each	30.00	22.50		
01721	<b>TRYPTOPHAN PLUS (OPTIMIZED)</b> - 90 veg. caps	32.00	24.00		
	Buy 4 bottles, price each	29.00	21.75		
01816	<b>TWO-PER-DAY</b> - 60 tablets	10.50	7.88		
	Buy 4 bottles, price each	9.50	7.13		
01815	<b>TWO-PER-DAY</b> - 120 tablets	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		
01814	<b>TWO-PER-DAY</b> - 120 caps	22.00	16.50		
	Buy 4 bottles, price each	20.00	15.00		
00326	<b>L-TYROSINE</b> - 500 mg, 100 tablets	12.98	9.74		

**SUB-TOTAL OF COLUMN 16**

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

SUPER SALE 2013-2014

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

# Buyers Club Order Form

No.		Retail Each	Member Each	Qty	Total
<b>V</b>					
00213	<b>VANADYL SULFATE</b> - 7.5 mg, 100 tablets	\$15.00	\$11.25		
	Buy 4 bottles, price each	12.50	9.38		
00408	<b>VENOTONE</b> - 60 caps	18.95	14.21		
	Buy 4 bottles, price each	16.00	12.00		
01327	<b>VINPOCETINE</b> - 10 mg, 100 tablets	18.00	13.50		
	Buy 4 bottles, price each	14.00	10.50		
01526	<b>VITAMIN B3 NIACIN</b> - 1,000 mg, 100 veg. caps	12.75	9.56		
	Buy 4 bottles, price each	12.00	9.00		
00372	<b>VITAMIN B3 NIACIN</b> - 500 mg, 100 caps	7.65	5.74		
	Buy 4 bottles, price each	6.65	4.99		
00098	<b>VITAMIN B5</b> - 500 mg, 100 caps (Pantothenic Acid)	10.50	7.88		
	Buy 4 bottles, price each	9.38	7.04		
01535	<b>VITAMIN B6</b> - 250 mg, 100 veg. caps	12.50	9.38		
	Buy 4 bottles, price each	11.00	8.25		
00361	<b>VITAMIN B12</b> - 500 mcg, 100 lozenges	8.75	6.56		
	Buy 4 bottles, price each	7.25	5.44		
01634	<b>VITAMIN C w/ DIHYDROQUERCETIN</b> - 1,000 mg, 60 tablets	10.00	7.50		
	Buy 4 bottles, price each	9.00	6.75		
00927	<b>VITAMIN C w/ DIHYDROQUERCETIN</b> - 1,000 mg, 250 tablets	25.50	19.13		
	Buy 4 bottles, price each	23.25	17.44		
00084	<b>VITAMIN C (BUFFERED) POWDER</b> - 454.6 grams	23.95	17.96		
	Buy 4 bottles, price each	22.00	16.50		
01736	<b>(EFFERVESCENT) VITAMIN C-MAGNESIUM CRYSTALS</b> - 180 grams	20.00	15.00		
	Buy 4 bottles, price each	18.00	13.50		
01732	<b>VITAMIN D3</b> - 2,000 IU, 1 fl oz, Mint flavor	28.00	21.00		
	Buy 4 bottles, price each	25.00	18.75		
01753	<b>VITAMIN D3</b> - 1,000 IU, 90 softgels	7.00	5.25		
	Buy 4 bottles, price each	6.00	4.50		
01751	<b>VITAMIN D3</b> - 1,000 IU, 250 softgels	12.50	9.38		
	Buy 4 bottles, price each	11.25	8.44		
01713	<b>VITAMIN D3</b> - 5,000 IU, 60 softgels	11.00	8.25		
	Buy 4 bottles, price each	9.90	7.43		
01718	<b>VITAMIN D3</b> - 7,000 IU, 60 softgels	14.00	10.50		
	Buy 4 bottles, price each	12.60	9.45		
01573	<b>VITAMIN D3 w/SEA-IODINE™</b> - 5,000 IU, 60 caps	14.00	10.50		
	Buy 4 bottles, price each	12.50	9.38		
00864	<b>VITAMIN D3</b> Liquid Emulsion - 2,000 IU, 1 oz.	28.00	21.00		
	Buy 4 bottles, price each	25.00	18.75		
01572	<b>VITAMINS D AND K w/SEA-IODINE™</b> - 60 caps	24.00	18.00		
	Buy 4 bottles, price each	22.00	16.50		
01763	<b>VITAMIN E (NATURAL)</b> - 400 IU, 100 softgels	30.00	22.50		
	Buy 4 bottles, price each	28.00	21.00		
	Buy 10 bottles, price each	26.00	19.50		
01225	<b>VITAMIN K2 (LOW-DOSE)</b> - 45 mcg, 90 softgels	18.00	13.50		
	Buy 4 bottles, price each	16.00	12.00		
<b>W</b>					
01739	<b>WINTER WELLNESS™</b> - 60 caps	\$15.00	\$11.25		
	Buy 4 bottles, price each	13.00	9.75		
<b>Z</b>					
01686	<b>ZEAXANTHIN w/LUTEIN &amp; MESO-ZEAXANTHIN PLUS ASTAXANTHIN AND C3G (SUPER)</b> - 60 softgels	\$42.00	\$31.50		
	Buy 4 bottles, price each	38.00	28.50		

**SUB-TOTAL OF COLUMN 17**

**SUPER SALE SAVINGS ON ALL PRODUCTS**  
To order call 1-800-544-4440

No.		Retail Each	Member Each	Qty	Total
01685	<b>ZEAXANTHIN w/LUTEIN &amp; MESO-ZEAXANTHIN AND C3G (SUPER)</b> - 60 softgels	\$22.00	\$16.50		
	Buy 4 bottles, price each	19.80	14.85		
00061	<b>ZINC LOZENGES</b> - 75 lozenges	9.50	7.13		
	Buy 4 bottles, price each	6.75	5.06		
***01051	<b>ZYFLAMEND® WHOLE BODY</b> - 120 softgels	60.95	45.71		

**SUB-TOTAL OF COLUMN 18**

***GIVE THE GIFT of HEALTH, with a LIFE EXTENSION GIFT CARD!***



**GIVE THE LIFE-ENHANCING BENEFITS OF LIFE EXTENSION® WITH A GIFT OF \$10, \$25, \$50 OR \$100**

**To order a Life Extension Gift Card for someone special, call 1-800-544-4440**

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

\*\* Not eligible for member discount or member renewal product credit.

\*\*\* Due to license restrictions, this product is not for sale to customers outside of the USA.

† Member pricing not valid on this item.

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

### ORDER SUBTOTALS

SUB-TOTAL COLUMN	1	
SUB-TOTAL COLUMN	2	
SUB-TOTAL COLUMN	3	
SUB-TOTAL COLUMN	4	
SUB-TOTAL COLUMN	5	
SUB-TOTAL COLUMN	6	
SUB-TOTAL COLUMN	7	
SUB-TOTAL COLUMN	8	
SUB-TOTAL COLUMN	9	
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SUB-TOTAL COLUMN	14	
SUB-TOTAL COLUMN	15	
SUB-TOTAL COLUMN	16	
SUB-TOTAL COLUMN	17	
SUB-TOTAL COLUMN	18	

### ORDER TOTALS

Sub-Total A (Sub-total of Columns 1 through 18)	
<b>SUPER SALE DEDUCT 10% (Subtotal x 10%)</b> <b>Ends 02/03/14</b>	
Postage And Handling (Any size order, continental U.S.)	<b>\$5.50</b>
C.O.D.s (Add \$7 for C.O.D. orders)	
Shipping <small>UPS OVERNIGHT add \$16, UPS 2nd DAY AIR add \$7. For Puerto Rico, US Virgin Islands, Alaska &amp; Hawaii, add \$7. CANADA UPS EXPRESS Flat rate \$17.50, UK Flat rate \$25 USD. ALL OTHER INTERNATIONAL AIR WILL BE ADDED.</small>	
<b>GRAND TOTAL</b> (Must be in U.S. dollars)	



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**P.O. Box 407198 • Ft. Lauderdale, Florida 33340-7198**  
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**ORDER ONLINE AT: [www.LifeExtension.com](http://www.LifeExtension.com)**

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- I want to join the Life Extension Foundation®.  
 Enclosed is \$75 for annual membership. (Canadians add \$7.00, all others outside the U.S. add \$35.00). Send me: *Disease Prevention & Treatment Protocol Book*
- CHECK HERE FOR C.O.D. ORDERS
- CHECK HERE FOR UPS BLUE LABEL (2ND DAY)
- CHECK HERE FOR UPS RED LABEL (OVERNIGHT)

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NAME	E-MAIL
ADDRESS	
CITY/STATE/ZIP-POSTAL CODE	COUNTRY
PHONE	FAX
VISA/MASTERCARD/AMEX/DISCOVER #	
EXP. DATE	
SIGNATURE	

### SHIP TO ADDRESS

NAME	E-MAIL
ADDRESS	
CITY/STATE/ZIP-POSTAL CODE	COUNTRY
PHONE	FAX
SIGNATURE	

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DPT05	<b>DISEASE PREVENTION AND TREATMENT, EXPANDED FIFTH EDITION</b> (hardcover) <b>Until February 1, 2014</b> Buy 4 books, price each	2014	\$69.95 \$60.00	\$24.95 \$20.98		
33862	<b>I'M TOO YOUNG FOR THIS</b> • by Suzanne Somers	2013	\$26.00	\$19.50		
33835	<b>PHARMOCRACY</b> • by William Faloon Buy 4 books, price each	2011	\$24.00	\$9.60 \$8.00		
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33861	<b>THE SOUTH BEACH DIET GLUTEN SOLUTION</b> • Dr. Arthur Agatston	2013	\$25.99	\$19.49		
33860	<b>YOUNG FOR LIFE</b> • by Marilyn Diamond and Dr. Donald Schnell	2013	\$26.99	\$20.24		
33859	<b>THE BLOOD SUGAR SOLUTION</b> • by Mark Hyman, MD	2013	\$27.99	\$20.99		
33855	<b>POWER FOODS FOR THE BRAIN</b> • by Neal D. Barnard, MD	2013	\$26.99	\$20.24		
33854	<b>THE GREAT CHOLESTEROL MYTH</b> • by Jonny Bowden, PhD, CNS and Stephen Sinatra, MD	2012	\$19.99	\$14.99		
33852	<b>THE MAGIC OF CHOLESTEROL NUMBERS</b> • by Dr. Sergey Dzigan	2012	\$29.95	\$22.46		
33848	<b>YOUR BEST INVESTMENT SECRETS TO A HEALTHY BODY AND MIND</b> • by Edwin Lee, MD	2012	\$24.95	\$18.71		
33847	<b>THE FATIGUE SOLUTION</b> • by Dr. Eva Cwynar	2012	\$24.95	\$18.71		
33844	<b>ABUNDANCE: THE FUTURE IS BETTER THAN YOU THINK</b> • by Steven Kotler and Petere Diamandis	2012	\$26.99	\$20.24		
33843	<b>BOMBSHELL</b> • by Suzanne Somers	2012	\$26.00	\$19.50		
33845	<b>DRUG MUGGERS</b> • by R.Ph. Susy Cohen	2012	\$21.99	\$16.49		
33842	<b>HEART ATTACK PROOF</b> • by Michael Ozner, MD	2012	\$19.95	\$14.96		
33839	<b>THE GOLDEN RATIO LIFESTYLE DIET</b> • by Robert Friedman, MD, and Matthew Cross	2012	\$19.95	\$14.96		
33838	<b>YOUR GUIDE TO HEALTHY SKIN THE NATURAL WAY</b> • by Gary Goldfaden, MD	2012	\$26.00	\$15.00		
33837	<b>WHEAT BELLY</b> • by William Davis, MD	2011	\$25.99	\$19.49		
33833	<b>THE LIFE PLAN</b> • by Jeffrey S. Life, MD, PhD	2011	\$26.00	\$19.50		
33832	<b>YOUR BONES</b> • by Lara Pizzorno, MA, LMT	2011	\$12.00	\$9.00		
33829	<b>THE IMMORTALITY EDGE</b> • by Michael Fassel, MD, PhD, Greta Blackburn, David Woynarowski, MD	2011	\$25.95	\$18.17		
33824	<b>VITAMIN D SOLUTION</b> • by Michael F. Holick, PhD, MD	2010	\$25.95	\$18.17		
33822	<b>BREAKTHROUGH: EIGHT STEPS TO WELLNESS</b> • by Suzanne Somers (paperback)	2010	\$15.00	\$10.50		
33836	<b>WEIGHT LOSS GUIDE</b> • by Steven V. Joyal, MD and William Faloon (hardcover) (3rd Edition)	2010	\$29.95	\$8.99		
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33818	<b>STAY YOUNG &amp; SEXY WITH BIO-IDENTICAL HORMONE REPLACEMENT</b> • by Jonathan Wright, MD	2010	\$19.95	\$14.96		
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33809	<b>TESTOSTERONE FOR LIFE</b> • by Abraham Morgentaler, MD	2008	\$16.95	\$11.87		
33599	<b>YOUNGER YOU</b> • by Eric Braverman, MD	—	\$24.95	\$15.75		
33696	<b>LIFE EXTENSION REVOLUTION</b> • by Philip Lee Miller, MD (paperback)	—	\$16.00	\$12.00		
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33906	<b>THE MIGRAINE CURE</b> • by Sergey Dzigan, MD, PhD	2006	\$24.00	\$15.60		
33670	<b>A PRIMER ON PROSTATE CANCER</b> (2nd edition) • by Stephen B. Strum, MD, and Donna Pogliano	2005	\$28.95	\$21.71		
33806	<b>THE CR WAY</b> • by Paul McGlothlin and Meredith Averill		\$15.95	\$11.25		
33828	<b>THE SEXY YEARS</b> • by Suzanne Somers (paperback)	2004	\$15.00	\$10.50		
33803	<b>WHAT YOUR DOCTOR MAY NOT TELL YOU ABOUT DIABETES</b> • by Steven V. Joyal, MD	2008	\$14.99	\$10.49		
33703	<b>JOHN ABDO'S NO EXCUSES WORKOUT DVD</b>	2008	\$13.30	\$9.98		
33804	<b>YOU: STAYING YOUNG: THE OWNER'S MANUAL FOR EXTENDING YOUR WARRANTY</b> • by Mehmet Oz, MD	2008	\$26.00	\$18.20		

Sub-Total (U.S. Dollars)	
Shipping only \$5.50 U.S. • \$17.50 Canada • \$12.50 Hawaii, Alaska, U.S. Virgin Islands, Puerto Rico • UK Flat rate \$25 USD	
(Add \$7 for C.O.D. • Add \$16.00 for UPS overnight • Add \$7.00 for UPS 2nd day air • International air mail costs will be added.)	
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 P.O. Box 407198 • Ft. Lauderdale, Florida 33340-7198  
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[www.lef.org/vitamins-supplements/shipping/shipping-information.htm](http://www.lef.org/vitamins-supplements/shipping/shipping-information.htm) for details.

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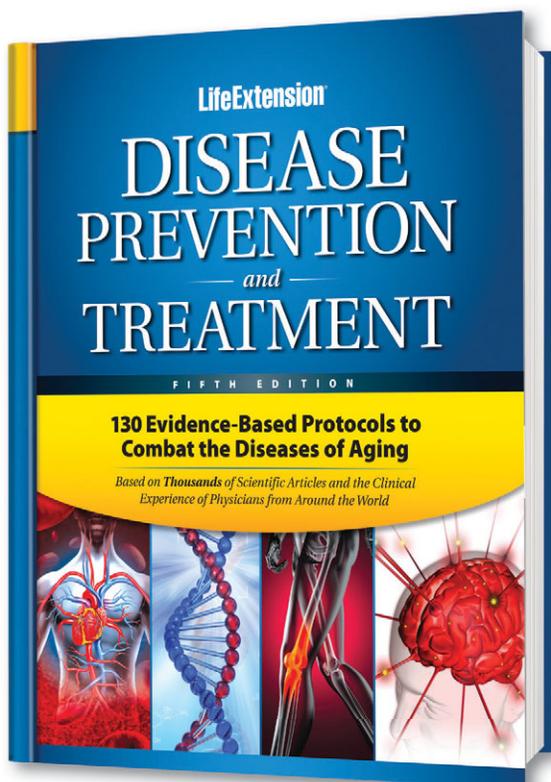
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 Enclosed is \$75 for annual membership. (Canadians add \$7.00, all others outside the U.S. add \$35.00). Send me: *Disease Prevention & Treatment Protocol Book*

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SIGNATURE	
<input type="checkbox"/> COD	<input type="checkbox"/> UPS RED LABEL
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## FREE Gift to New Members

This **2014** edition of ***Disease Prevention and Treatment*** provides 1,400 pages of information about therapies that are documented in the scientific literature, but are not routinely used in clinical medical practice. Gaining access to this knowledge enables one with a medical disorder to take advantage of these advanced modalities immediately, rather than waiting years for conventional medicine to catch on.



To order a copy of  
***Disease Prevention and Treatment***,  
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### HOW TO JOIN THE LIFE EXTENSION FOUNDATION®

As a member of the Life Extension Foundation®, you have the opportunity to participate in a great scientific endeavor. We are the world's premier organization dedicated to stopping and reversing aging.

Our 33-year track record shows that we have been five to ten years ahead of conventional and alternative medicine in making new life-saving therapies available to our members.

When you join the Life Extension Foundation®, we update you on the latest published medical research by sending you FREE books. Our most impressive publication is the 1,400-page *Disease Prevention and Treatment* protocol book that contains novel therapies to treat 130 common diseases of aging. *Disease Prevention and Treatment* is the only book that combines conventional and alternative therapies in order to implement a treatment regimen for fighting the multiple processes involved in degenerative disease.

Each month, Life Extension Foundation® members receive a magazine packed with the latest medical findings from around the world. Members also can call a toll-free phone number to talk to our knowledgeable health advisors about their health issues.

**If your number one priority is good health and a long life,  
please join our not-for-profit organization.**

#### Four Easy Ways to Join

1. Call toll-free 1-800-544-4440
2. Go to [www.lef.org](http://www.lef.org)
3. Fax back to 1-866-728-1050
4. Mail to: Life Extension Foundation® • PO Box 407198  
Ft. Lauderdale, FL 33340-7198

### MEMBERSHIP APPLICATION

I want to contribute to your research efforts to extend the healthy human life span. Enclosed is my first year's membership donation of \$75 to join the most elite group of longevity enthusiasts in the world. (Canadians add \$7, all others outside the U.S. add \$35)  
Item code: MEMB1. Call for multiple year membership rates.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_

Email \_\_\_\_\_ Phone \_\_\_\_\_

Check enclosed (payable to Life Extension Foundation®)

Charge my cc: \_\_\_\_\_

Card # \_\_\_\_\_ Exp. \_\_\_\_\_

ENHANCE

# HEART HEALTH

The reason for many circulatory problems is the breakdown of **endothelial function** and structure.

Today, there are nutrients that have been clinically shown to help maintain healthy endothelial function and arterial circulation. **Endothelial Defense™ with GliSODin®** provides potent nutrients to support endothelial health: **standardized pomegranate** and an orally active form of **superoxide dismutase**.

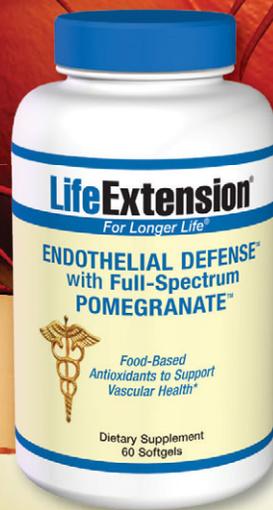
While both of these components have been clinically shown to help with blood flow and age-related changes in endothelial function, Life Extension® has made the best endothelial product even more powerful by adding **Full-Spectrum Pomegranate™**, which includes active constituents from the **seed** and **flower** in addition to the pomegranate **fruit**.<sup>1-7</sup>

**The daily serving of 2 softgels of Endothelial Defense™ with Full-Spectrum Pomegranate™ contains:**

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

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 the registered trademark of GliSODin®.

**Contains soybeans and wheat.**



Item # 01498

## Next-Generation Pomegranate Power

The unique blend of **pomegranate flower extract** and **seed oil** in **Endothelial Defense™ with Full-Spectrum Pomegranate™** contains potent polyphenols that provide support for youthful **lipid** and **glucose** metabolism, and help with **inflammatory factors**.<sup>8</sup>

A bottle containing 60 softgels of **Endothelial Defense™ with Full-Spectrum Pomegranate™** retails for \$56. If a member buys four bottles during **Super Sale**, the price is reduced to just **\$35.10** per bottle.

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

### References

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

# Multiple Mechanisms for the Support of Healthy Blood Sugar Levels

## Tri Sugar Shield™

Many aging individuals find themselves under assault from rising **blood sugar** levels.

Despite a healthy diet and exercise, blood sugar levels can rise due to a number of factors including excess **gluconeogenesis** whereby the liver produces glucose from protein. Another issue is the rapid conversion of any **starch**, including whole grains, into **glucose**. The result is that even health-conscious, active people can experience higher-than-desired blood sugar levels as they age.<sup>1,2</sup>

An all-natural, **multi-pronged** approach has been designed to support the natural balance of key **glucose pathways!**

**Tri Sugar Shield™** provides three plant-derived nutrients that—through their **rich array of complementary mechanisms**<sup>3-18</sup>—afford an **unrivalled** level of optimal, broad-spectrum support for healthy glucose metabolism in aging individuals within normal range.

### MULTI-PRONGED APPROACH

**Life Extension® Tri Sugar Shield™** contains the following three nutrients:

#### Sorghum Extract

Sorghum has long been cultivated in Asia (and now is grown in Africa, India, China, Australia and the USA) and helps maintain healthy blood sugar levels, among those in the normal range, by modulating **four** different mechanisms:

- Balances the rate of sugar manufacture in the liver (*gluconeogenesis*).<sup>5</sup>
- Promotes insulin sensitivity.<sup>6</sup>
- Regulates *PPAR-gamma*, a metabolic thermostat controlling glucose metabolism.<sup>6,7</sup>
- Regulates the enzyme *alpha-amylase*, which in turn controls the release of sugar found in starch.<sup>3,4</sup>

#### Mulberry Leaf Extract

Mulberry leaf has been used in Chinese traditional medicine for centuries. Like sorghum, mulberry leaf extract targets **three** different mechanisms:

- Targets the *alpha-glucosidase* enzyme to regulate conversion of starch into glucose.<sup>8-10</sup>
- Supports glucose transporter *GLUT4* that moves glucose out of the bloodstream and into muscle and liver cells.<sup>11,12</sup>
- Promotes insulin sensitivity.<sup>13</sup>

#### Phloridzin

Phloridzin is a natural polyphenol found in various fruit trees.<sup>14</sup> Phloridzin helps maintain healthy blood sugar levels, among those in the normal range by:

- Targeting carrier protein *SGLT1*, in turn helping to block the absorption of glucose into the bloodstream.<sup>15,16</sup>
- Targeting carrier protein *SGLT2*, in turn supporting glucose elimination via urine.<sup>17,18</sup>

By targeting **all** of these diverse glucose pathways, **Life Extension® Tri Sugar Shield™** delivers the **widest possible support** to help naturally stabilize already healthy glucose levels!

The suggested daily dose of **one** vegetarian capsule taken before the heaviest carbohydrate or sugar containing meals/drinks of the **new Tri Sugar Shield™** provides:

<b>Sorghum bran (<i>Sorghum bicolor</i>) extract</b> [providing proanthocyanidins (540 mg)]	<b>600 mg</b>
<b>White mulberry extract (leaf)</b> [providing 1-deoxynojirimycin (DNJ) (15 mg)]	<b>300 mg</b>
<b>Phloridzin [from apple extract (root bark)]</b>	<b>100 mg</b>

A bottle of 60 vegetarian capsules of **Life Extension® Tri Sugar Shield™** retails for \$36. If a member buys four bottles during **Super Sale**, the price is reduced to **\$21.60** per bottle.



Item #01803

#### References

1. Croat Med J. 2006 October; 47(5): 709–13.
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To order **Life Extension® Tri Sugar Shield™**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

## WHAT'S INSIDE

# SUPER \$ SALE

Annual **Super Sale** begins November 18, 2013.



### Restore Oxygen Flow to Your Brain • 2

Aging humans suffer chronic **obstructions** to their **cerebral blood flow** resulting in **memory loss, depression, and cognitive dysfunction**. These circulatory deficits are being recognized as underlying causes of **stroke** and **Alzheimer's**. Find out how to restore healthy blood flow to your aging **brain**.



### Balance "Hunger Hormones" to Shed Body Fat • 15

Groundbreaking human studies demonstrate that a natural plant extract regulates *appetite hormones*, including the hunger hormone *ghrelin*, resulting in **body fat loss**.



### Turn "Off" Your Body's "Aging Switch" • 25

In an exciting development, scientists have uncovered two natural compounds that suppress an **"aging switch"** involved in chronic inflammation and premature senescence.



### Sustainable Energy Without Stimulants • 43

Two herbal ingredients have been uncovered that work at the **cellular level** to boost **ATP**, the body's internal energy resource. When combined, these readily available plant extracts have shown the ability to fight **fatigue** without stimulants.



### Enhanced Liver Protection • 61

Scientists have developed an innovative method that transports a **10-fold greater** concentration of active **milk thistle** compounds to the liver for optimal health and function.



### Defend Against Migraines • 71

Scientists have discovered two **nutrients** that calm migraine's electrical storm of neurotransmitters while nourishing the brain with improved blood flow for prevention and relief.