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August 2026

FEATURE ARTICLES

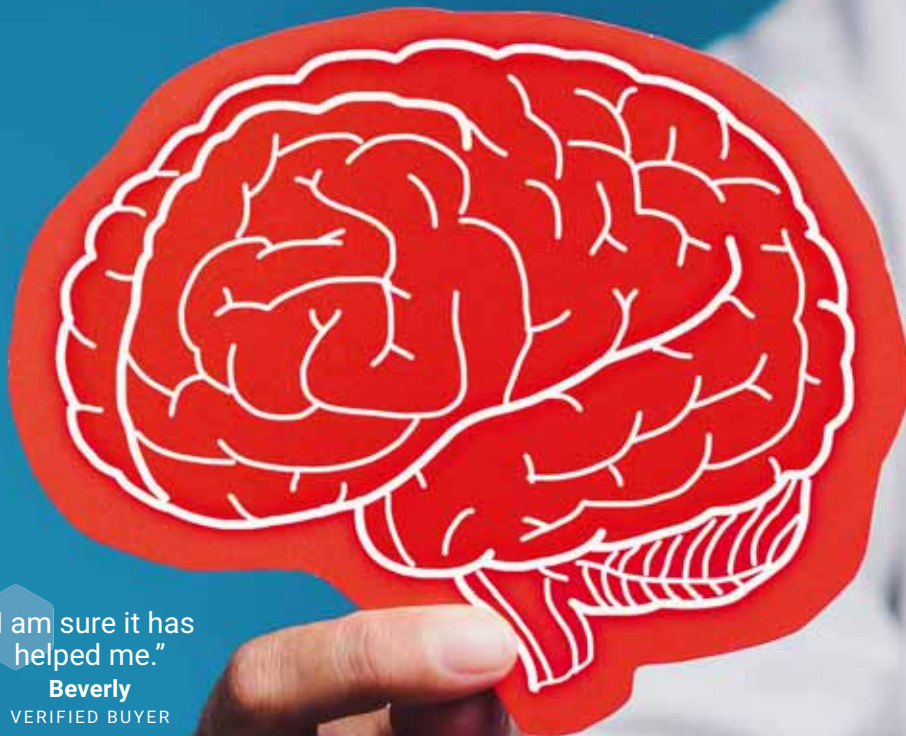
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# Lycopene

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### REPORTS

#### Lycopene's Cardiovascular Benefits

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**Lycopene**, a carotenoid found in various plant-based foods, works by several mechanisms to reduce risk factors for **heart** and other **cardiovascular** disorders.

#### 32 LITHIUM LINKED TO REDUCED CANCER RISK

People with the *highest* exposure to **lithium** in their drinking water had a lower risk of every type of **cancer** studied, according to a *Journal of the American Medical Association* publication.



#### 44 LIFTING FEMALE LIBIDO

In separate clinical trials, **fenugreek** seed extract *increased* **sex hormone** levels and doubled **sexual activity** in women in stable relationships, while **saffron** extract *improved* **sexual function** measures.



#### 54 PROTECT AGAINST PHOTOAGING

A **clinical trial** found that an oral **fern extract** *protected* the skin from **photoaging** and *decreased* UV-induced **DNA mutations**.



#### 67 WHAT IS OLIVE LEAF?

Studies show that **olive leaf** extract helps *lower* **blood pressure**, **cholesterol**, and **triglycerides**.



### DEPARTMENTS

**7 AS WE SEE IT: NAD+ AT A LOWER COST**  
**NR** and **NMN** *boost* levels of **NAD+**, which *promotes* **cellular energy**, **DNA repair**, and longevity proteins. In a key FDA reversal, **NMN** can now be offered as a **dietary supplement** and is less **expensive** than **NR**.

osteoarthritis progression; kidney disease linked to vitamin C inadequacy/deficiency; genetic testing helps optimize and personalize supplement strategies.



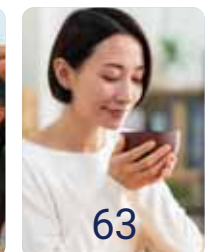
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**13 IN THE NEWS**  
CoQ10 may improve depression symptoms; metformin delays

**63 SUPERFOODS: BONE BROTH**  
Bone broth promotes the body's production of collagen, in turn supporting skin, joints, connective tissue, and intestinal lining. A cup of bone broth can provide **8-10 grams** of protein.



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# NAD<sup>+</sup> at a Lower Cost

BY WILLIAM FALOON



NAD<sup>+</sup> is a coenzyme found in all living cells that is essential to **sustain life**.<sup>1</sup>

Notable NAD<sup>+</sup> effects include promoting cell energy, DNA repair, and fueling beneficial longevity proteins.<sup>2-4</sup>

As we grow older, NAD<sup>+</sup> levels plummet. Observational evidence suggests that by age 50, NAD<sup>+</sup> levels may decline by about **50%** compared to younger participants.<sup>5</sup>

In **2014**, we introduced readers to a form of vitamin B3 (**nicotinamide riboside**) that boosted **NAD<sup>+</sup>** levels in the body.<sup>6</sup>

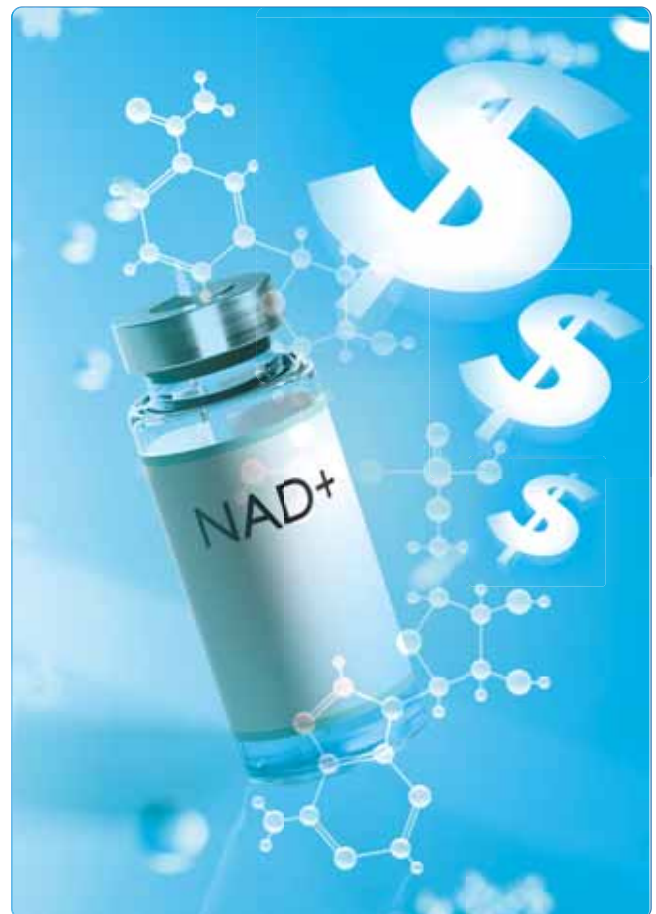
So compelling was the health data on **NAD<sup>+</sup>** that it became subject to substantial clinical investigations.<sup>7-10</sup> An investigational drug application was submitted to the **FDA**.<sup>11</sup>

The application sought approval for another **NAD<sup>+</sup>** precursor called **nicotinamide mononucleotide (NMN)** to treat aging-related conditions. Some effects reported in clinical studies related to **NMN** supplementation include **improved** walking distance,<sup>12</sup> gait speed,<sup>12-14</sup> and sleep metrics.<sup>14</sup>

Upon recognition of this new drug application, the **FDA** excluded the sale of **NMN** as a **dietary supplement**.<sup>11,15</sup>

The FDA's position was that if an ingredient was not sold before a new **drug** application is filed, then that **ingredient** cannot be simultaneously sold as a **dietary supplement**.<sup>11</sup>

In November 2022, the FDA determined that **NMN** was excluded from the definition of a **dietary supplement** under the drug-preclusion clause.<sup>11</sup>



## The FDA Reverses Its Position

In letters dated September 29, 2025, the **FDA** changed its position and concluded **NMN** is not excluded from the **dietary supplement** definition. They said that because evidence shows NMN was marketed in the U.S. before being authorized for investigation as a new drug.<sup>16</sup>

In a December 2, 2025 letter, the FDA reaffirmed the September 29 determination confirming **NMN** may be marketed in dietary supplements, subject to compliance.<sup>17</sup>

## Consumers Can Now Choose NR or NMN

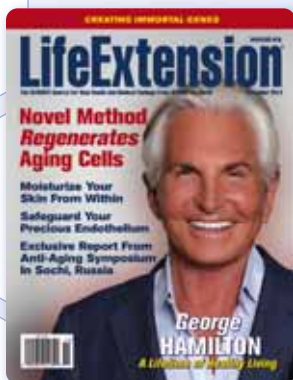
We at **Life Extension**<sup>®</sup> have reviewed data on the **NAD<sup>+</sup>** boosting effects of **nicotinamide riboside (NR)** and **nicotinamide mononucleotide (NMN)**. Both significantly increase NAD<sup>+</sup> in whole blood, but comparative efficacy is not yet well established for specific cells in the body.

The major difference is consumer cost. **NMN** supplements are less expensive than **NR**.

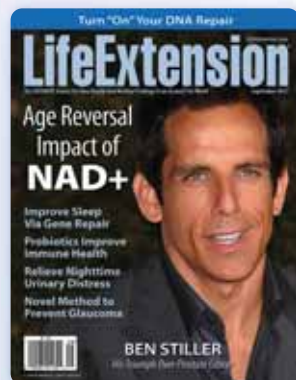
For longer life,



William Faloon, Co-Founder  
Life Extension



November 2014  
**Life Extension**  
introduces readers  
to the regenerative  
potential of **NAD<sup>+</sup>**<sup>16</sup>



September 2017  
**Life Extension** introduces  
readers to the additive  
benefits of combining  
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with **resveratrol**.<sup>18</sup>



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**CAUTION:** Individuals consuming more than 50 mcg 2,000 IU/day of vitamin D (from diet and supplements) should periodically obtain a serum 25-hydroxy vitamin D measurement. Do not exceed 250 mcg 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. If you are taking a vitamin K antagonist (e.g. warfarin), consult your healthcare practitioner before taking this product.

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**For daily  
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# In the News

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## CoQ10 May Improve Symptoms of Depression

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A systematic review and meta-analysis of randomized trials concluded that **coenzyme Q10** (CoQ10) use was associated with moderate symptom improvement in people with **depression**.\*

CoQ10 can significantly improve several antioxidant and inflammatory markers which may, in turn, lead to reduced depression symptoms.

Five randomized, controlled trials were selected that included a total of 474 depressed adults. Three trials included participants whose depression was associated with breast cancer, multiple sclerosis or polycystic ovary syndrome. The remainder involved individuals with primary depressive disorders that included bipolar disorder and major depression.

An analysis of trial outcomes found that participants treated with CoQ10 experienced greater **improvements** in depressive symptoms than those in control groups.

**Editor's Note:** CoQ10 is a mitochondrial cofactor with antioxidant and anti-inflammatory properties that may counteract oxidative stress and mitochondrial dysfunction implicated in depression.

\* *J Clin Psychopharmacol.* 2026 Jan-Feb; 46(1):93-100.

## Metformin Slows Osteoarthritis Progression

Metformin slowed the progression of **osteoarthritis** by improving mitochondrial health, reducing stress inside cartilage cells, and helping cartilage cells function better, according to a study published in the *Journal of Inflammatory Research*.\*

Osteoarthritis is a chronic degenerative disease that occurs when joint cartilage wears down and the cells that maintain it (*chondrocytes*) stop working properly, mainly due to problems with cellular energy (mitochondria) and oxidative stress.

Scientists used two lab models to study joint damage: a mouse model of knee injury and a lab model of human cartilage cells that were exposed to stress.

They tested how **metformin**, a drug commonly used for type 2 diabetes, affected mitochondrial function, autophagy (cell recycling), and oxidative stress in cartilage cells.

In the mouse model, metformin improved cartilage structure and strengthened the cartilage matrix.

In the lab-grown human cartilage cells, metformin helped cells work better in two ways: By activating the **AMPK** pathway (a key cellular “energy sensor” that helps cells stay healthy), and by promoting mitochondrial health by regulating Drp1-driven mitochondrial division, removing damaged ones and supporting proper mitochondrial function.

**Editor’s Note:** Overall, this study demonstrated that metformin could potentially delay the progression of osteoarthritis by promoting mitochondrial health, reducing oxidative stress, and restoring the function of cartilage cells.

\* *J Inflamm Res.* 2026;19:540176.





## Vitamin C Deficiency, Inadequacy, Linked to Kidney Disease

An association was found between chronic **kidney** disease (CKD) and inadequate or deficient **vitamin C** levels, according to research reported in the *American Journal of Clinical Nutrition*.\*

The study compared plasma vitamin C levels of the following: 62 individuals with chronic kidney disease who were receiving kidney dialysis, 41 patients with chronic kidney disease stage 4/5, 42 kidney transplant recipients, 447 living kidney donors, and 385 healthy control participants who did not have kidney disease.

Median plasma vitamin C levels were *highest* among the healthy control group. In this group, **14%** had inadequate or deficient levels of vitamin C, while **24%** of kidney donors had inadequacy/deficiency.

Among kidney transplant recipients, **48%** had inadequate/deficient levels.

Among dialysis patients **58%** had deficient/inadequate levels, and among individuals with stage 4/5 chronic kidney disease, **80%** had deficient/inadequate levels of vitamin C.

**Editor's Note:** "Our findings highlight the importance of monitoring vitamin C status in CKD and represent a potential target for intervention," the authors concluded. "Future research could evaluate the potential health effects of improving vitamin C status in CKD."

\* *Am J Clin Nutr.* 2025 Nov;122(5):1513-1523.



## Genetic Testing to Optimize Wellness

Genetic testing is a window into how the body is biologically wired. Genetic variation can influence how individuals metabolize nutrients, regulate inflammation, produce energy, and respond to environmental exposures, stress, toxins, and more.<sup>1</sup>

Understanding this information may offer insights to help optimize and personalize supplement strategies. What works for one person may not work for another, which is often due to genetic variations between people. Testing for these variations makes a significant difference in a customized plan, taking it to the next level to support health and longevity.

Genetic testing should include a comprehensive analysis of 54 genetic variations (SNPs) across seven key areas of health and provides genetically targeted nutritional suggestions and health information in these key areas:

1. **Methylation**—Methylation is a biochemical process that modulates your genes, which is vitally important for regulating gene expression, supporting DNA repair, and influencing disease risk.<sup>2</sup>
2. **Neurotransmitter production**—Neurotransmitters are powerful chemical messengers that play essential roles in cardiovascular function, sleep quality, stress response, emotions, cognitive focus, inflammation, and more.<sup>3</sup>

3. **Mitochondrial function**—Healthy mitochondria are critical for converting nutrients into cellular energy, regulating oxidative stress, and supporting metabolic and immune function.<sup>4</sup>
4. **Detoxification**—Detoxification pathways help eliminate harmful substances from the body and are essential for supporting immune function, regulating inflammation, maintaining hormone balance, and more.<sup>5</sup>
5. **Neuro-Inflammatory Potential**—Neuro-inflammation is an inflammatory response in the brain that can contribute to neurodegenerative disorders involving cognitive decline.<sup>6</sup>
6. **Environmental/Dietary Risk**—This test may reveal sensitivities related to diet and environment, such as gluten sensitivity/intolerance risk, histamine breakdown, microbiome support needs, vitamins D/K, and more, leading to brain fog, GI distress, allergy-like issues, fatigue, and more.
7. **Health Precautions**—These health insights can flag tendencies such as salt sensitivity, altered estrogen metabolism, hypothyroid risk, and more.

**Editor's Note:** By examining key biological systems like these through genetic analysis, genetic testing can help individuals move beyond one-size-fits-all health advice, and toward personalized strategies tailored to their unique biology, which helps maximize benefits.

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# A Key to Aging Well

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If your body doesn't bounce back the way it used to, it may be due to the decline of **NAD<sup>+</sup>**, a coenzyme found in every cell.

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In controlled **human** trials, oral **NMN** supplementation significantly increased blood **NAD<sup>+</sup>** levels compared to placebo. **NMN** is a lower-cost way to boost **NAD<sup>+</sup>**.<sup>3</sup>



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References: 1. *Nat Rev Mol Cell Biol.* 2021 Feb;22(2):119-41. 2. *NPJ Aging.* 2022 May 1;8(1):5. 3. *Geroscience.* 2024 Oct;46(5):4671-4688.

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This formula also features a standardized **saw palmetto** oil that in a 4-month clinical trial demonstrated support for:<sup>2</sup>

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



References: 1. *J Cosmo Tricho*. 2023;9(3):207.  
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BY STEPHEN WRIGHT

# Lycopene Lowers Cardiovascular Risk

**Cardiovascular disease** is the number one killer on the planet.<sup>1</sup> By 2030 it is projected to affect a staggering **44%** of the U.S. adult population.<sup>2</sup>

**Lycopene** has caught the attention of researchers for its potential cardiovascular benefits.

In preclinical studies, lycopene has demonstrated the ability to slow harmful changes that can lead to **stroke** and **heart attack**.<sup>3-5</sup>

A review and meta-analysis of dozens of **human** population studies found that those with the *highest* intake or **blood levels** of **lycopene** had a:<sup>6</sup>

- **14%** lower risk of cardiovascular disease,
- **26%** lower risk of stroke, and
- **37%** lower risk of **death from any cause**.

A human study published in **2025** demonstrated that consumption of **lycopene-rich** tomato juice **improved a marker of endothelial dysfunction** that threatens to progress into cardiovascular disease.<sup>7</sup>

## Arteries and Heart Health

**Arteries** carry blood from the heart to the rest of the body where it is needed.

When healthy, arteries actively direct blood flow, dilating when more blood is needed and constricting when less is required.<sup>8</sup>

This regulation of blood flow is largely controlled by a layer of cells, the **endothelium**, lining the inside walls of the blood vessels.<sup>9</sup>

Several risk factors can lead to damage to arteries, including diet, smoking, high blood pressure, insulin resistance, high blood glucose, and abnormal blood lipid levels.<sup>9,10</sup>

This damage can result in **endothelial dysfunction**, arterial stiffness, and the buildup of **atherosclerotic plaque**. The results: increased risk of cardiovascular diseases, peripheral vascular disease, blood clots causing **heart attacks** and **strokes**, and more.<sup>9</sup>

Maintaining healthy endothelial function is a critical step in preventing progression to atherosclerosis and cardiovascular disease.<sup>9,10</sup>

That's where **lycopene** comes in.

## Better Blood Vessel Function

**Lycopene** is a carotenoid with **antioxidant**, **anti-inflammatory**, and **anti-glycation** properties.<sup>11</sup>

It is a naturally occurring red pigment found in plants, particularly in fruits and vegetables such as tomatoes, pink guava, papaya, pink grapefruit, and watermelon.<sup>12</sup>

Humans cannot synthesize carotenoids. Therefore, they must be obtained through diet and/or by taking supplements.<sup>13</sup>

Preclinical evidence suggests that when present in ample amounts, lycopene may help protect arterial health by reducing oxidative stress,<sup>4,12</sup> attenuating inflammation,<sup>4,14</sup> and inhibiting **glycation**—a harmful process in which sugar molecules attach to proteins or fats in the body that can cause widespread tissue damage,<sup>15</sup> including kidney injury.<sup>16</sup>

Lycopene may also improve **endothelial function**, thereby supporting the ability of blood vessels to dilate in the face of various circulatory challenges.<sup>7,17</sup>

A human study published in **2025** demonstrated that consumption of lycopene-rich tomato juice **improved a marker of endothelial dysfunction** that threatens to progress into cardiovascular disease.<sup>7</sup>

In that study, researchers in Japan recruited healthy adults with signs of early arterial dysfunction. They determined this using ultrasound to measure **flow-mediated dilation**, the ability of arteries to dilate in response to increased blood flow. Poor flow-mediated dilation is a marker of risk for future cardiovascular disease.

In this clinical study, participants had flow-mediated dilation in the **borderline** range of **4-7%**.<sup>7</sup> Normal function is considered above **7.1%**, with a *higher* percentage indicating better function.<sup>18</sup>

One group received a placebo juice with barely any lycopene, another took **15 mg** of lycopene as tomato juice, and a third took **26.7 mg** of lycopene from high-lycopene tomato juice daily.

After 12 weeks, those receiving either of the tomato juices had significant **improvements** in arterial function. While the placebo group had an average score of **5.4%**, the lower-dose lycopene group improved to an average of **6.1%** and the higher-dose lycopene group was almost normal at **7%**.<sup>7</sup>

Lycopene intake improved **arterial function**, which is associated with better cardiovascular health.





## What You Need To Know

### Lycopene's Benefits for Heart Health

- **Cardiovascular disease** is the leading cause of death worldwide. It is expected to affect up to **44%** of adults in the U.S. by 2030.
- **Lycopene** is a carotenoid found in tomatoes, watermelon, and some other fruits and vegetables. Research suggests that it may support blood vessel function and favorably affect several cardiovascular risk factors.
- In a **2025** clinical trial, taking oral lycopene *improved* flow-mediated dilation, a measure of endothelial **function**, in adults with impaired vascular function.
- Observational human studies have found that higher lycopene intake or blood levels are associated with lower risk of cardiovascular disease, stroke, and overall **mortality**.

In another trial, male participants were randomized to receive **6 mg** or **15 mg** of lycopene or a placebo. After eight weeks, the **15 mg** lycopene group showed a significant **23% improvement** in **endothelial function** from baseline, along with significant reductions in **inflammatory** markers and a beneficial increase in **LDL particle** size—effects not observed in the low-dose or placebo groups.<sup>19</sup>

The findings are consistent with the results of prior human studies showing that lycopene intake may help improve **endothelial dysfunction** and maintain cardiovascular health.<sup>20</sup>

#### Improved Cardiovascular Outcomes

These protective effects could have dramatic results. In human observational studies, higher lycopene intake has been associated with lower rates of **cardiovascular disease** and cardiovascular events.

One review and meta-analysis of population studies totaling more than **100,000 subjects** found that those with the highest intake or blood levels of lycopene had a:<sup>6</sup>

- **14%** lower risk of cardiovascular disease,
- **26%** lower risk of stroke, and
- **37%** lower risk of death from any cause.

Evidence from preclinical, clinical, and observational studies suggests that lycopene may support arterial and cardiovascular health and may favorably affect several cardiovascular disease risk factors.<sup>6,12,17,20-24</sup>

## How Lycopene Helps

Lycopene may improve arterial function, which also protects the heart. Preclinical evidence indicates that higher lycopene blood levels or intake may have these effects through the following mechanisms:

- Help protect against **oxidative damage** and **chronic inflammation**,<sup>4,12</sup>
- Help reduce damage caused by high blood **sugar**—including protecting blood vessel cells and blocking harmful chemical reactions (called **glycation**) linked to diabetes, and metabolic disease,<sup>15,25</sup>
- Help inhibit abnormal proliferation of smooth muscle cells in the arterial walls that contribute to stiffness and arterial dysfunction,<sup>17,26</sup>
- Help modulate factors associated with abnormal blood clotting,<sup>27</sup>
- May help improve blood **lipid** levels,<sup>3,28-30</sup>
- Help slow the progression of **atherosclerosis**,<sup>17,21,31</sup> and
- Help protect heart muscle from damage and preserve heart function following ischemic injury.<sup>5,32,33</sup>

Human observational studies suggest that higher lycopene intake and circulating levels are associated with a lower prevalence of **metabolic syndrome**.<sup>34-36</sup> An observational study in a Chinese population reported that individuals in the *highest* quartile of **serum lycopene** concentrations had **61% lower** odds of having **metabolic syndrome** compared to those in the *lowest* quartile.<sup>34</sup>

Human observational studies also suggest that higher lycopene intake, or consumption of lycopene-rich foods such as tomatoes, may be associated with **lower blood pressure**.<sup>20,37-39</sup>

In addition, a meta-analysis of 34 trials found that lycopene significantly *reduced* levels of malondialdehyde, a marker of **oxidative stress**.<sup>40</sup>



## Summary

**Cardiovascular disease** is the most common cause of death worldwide.

The carotenoid **lycopene** has been shown to improve endothelial function in clinical studies and has demonstrated antioxidant, anti-inflammatory, and vascular protective effects in preclinical research.

In clinical studies, lycopene improved measures of **endothelial function** in individuals with impaired vascular function. ■

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

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# LESS FAT AROUND THE MIDDLE

A Mediterranean fruit has been demonstrated to support **healthy fat loss** in humans.\*

A 3-month placebo-controlled trial asked participants to continue with their existing diet (1500-2000kcal) and exercise habits. Daily ingestion of **400 mg** extract from the **moro orange** produced on average:<sup>1</sup>

- Lower **waist** circumference by up to **2.7 inches**
- Reduced overall **weight** by up to **4.0%**
- Decreased **hip circumference** by up to **2.3 inches**

A 6-month placebo-controlled trial asked participants to consume 500 fewer daily calories and walk for 30 minutes, three times a week. The group taking **400 mg** each day of **moro orange extract** had on average:<sup>2</sup>

- Lower **waist** circumference by up to **1.5 inches**
- Decreased **abdominal fat** by up to **11.3%**
- Reduced overall **weight** by up to **4.2%**

For full product description and to order **Mediterranean Weight Management**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

Morosil® is a registered trademark of Bionap S.r.l.

**Mediterranean Weight Management** comes in tasty, vegetarian gummies **sugar free**.<sup>†</sup>

Each gummy provides **400 mg** of a proprietary extract of **moro orange**.

The suggested dose is two gummies once daily. Each bottle of the **new Mediterranean Weight Management** gummies provides a 30-day supply.



**Item #02506C**

60 vegetarian gummies  
1 jar **\$28.50** • 4 jars \$27 each

\* This supplement should be taken in conjunction with a healthy diet and regular exercise program. Individual results are not guaranteed, and results may vary.

<sup>†</sup> **Not a low-calorie food.**

#### References

1. *Nat Prod Res.* 2015;29(23):2256-60.
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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 quickest way  
to betray your age is  
with a tired  
appearance...*

"I like what I  
see when I look  
in my mirror!"

**Nancy**  
VERIFIED BUYER

Item #02322  
120 tablets  
1 bottle **\$24.75**  
4 bottles \$22.50 each



# Revive Hair, Skin, and Nails from Within



#### References

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2. *Vet Rec.* 1984 Dec 22-29;114 (25-26):642-5.
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**Caution:** Individuals with inborn errors of copper metabolism (e.g. Wilson's disease) should avoid daily, chronic use of this product.

Cynatine® is a registered trademark of Roxlor, LLC. VERISOL® and Bioactive Collagen Peptides® are registered trademarks of GELITA AG.

Working from the inside out, **Hair, Skin & Nails Collagen Plus Formula** is an oral supplement with nutrients shown to benefit the hair, skin, and nails to keep them looking vibrant and healthy.

Rejuvenating nutrients include:

- **VERISOL® Bioactive Collagen Peptides®**—Stimulates the formation of new collagen and elastin to promote skin suppleness and elasticity<sup>1</sup>
- **Cynatine® HNS Plus**—Provides solubilized keratin, zinc, B vitamins, biotin, and copper
- **Biotin**—Supports nail strength and integrity<sup>2</sup>
- **Silicon**—For the formation of collagen and keratin molecules<sup>3</sup>

For full product description and to order **Hair, Skin & Nails Collagen Plus Formula**, 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.

# pms relief

**Daily PMS Relief** is a nutrient blend designed to help relieve **premenstrual syndrome (PMS) discomforts**.

This formula includes a **ginger extract**, standardized to contain at least **26% gingeroids**—**five times** the amount in standard ginger.

In a clinical study, taking **200 mg** of this extract daily resulted in an average **84% reduction** in menstrual-cramp discomfort score.

It also eased period-related nausea, fatigue, and low back discomfort.<sup>1</sup>

**Magnesium** and **vitamin B6** are included in this nutrient blend.

Taken together daily, in clinical studies, the combination helped alleviate PMS related irritability and mood swings.<sup>2,3</sup>

#### References

1. *Open Acc J Comp & Alt Med.* 2023;5(1):594-601.
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Ginfort® is a registered trademark of Olene Life Sciences Pvt. Ltd.



**Item #02537**

60 vegetarian capsules  
1 bottle **\$15**  
4 bottles **\$13.50** each

For full product description and to order **Daily PMS Relief**, call **1-800-544-4440** or visit **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.

"NAC is a powerful tool."

Maury

VERIFIED BUYER

# Tap the Power of N-ACETYL-L-CYSTEINE to Support Immune Function

N-Acetyl-L-Cysteine (NAC) has been shown to support healthy immune response and respiratory function.

NAC supports healthy levels of *glutathione* that helps promote a healthy **inflammatory response** and protect cells from **oxidative damage**.

For full product description and to order **N-ACETYL-L-CYSTEINE**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)



**Item #01534**  
600 mg • 60 capsules  
1 bottle \$11.25  
4 bottles \$10 each



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.

**Prenatal Advantage** provides vitamins and key nutrients recommended for about-to-become-pregnant, pregnant, and nursing women to optimally support their baby's overall health.

Scientifically formulated **Prenatal Advantage** contains:

- **Choline** and **DHA** (docosahexaenoic acid) to promote healthy brain and eye development.
- **Folic acid** and its most *biologically active form*, called **5-MTHF**— to support healthy development.
- **Lutien, zeaxanthin**, and other carotenoids for healthy development of the eyes and brain.
- Full spectrum of vitamins and minerals to ensure against deficiencies.

Take **four** softgels daily, in divided doses with meals, or as directed by a healthcare practitioner.

For full product description and to order **Prenatal Advantage**, call **1-800-544-4440** or visit [www.LifeExtension.com](http://www.LifeExtension.com)

# A Complete Multivitamin

---

## for Moms and Developing Infants



**Item #02319**  
**120 easy-to-swallow softgels**  
**1 bottle \$21**  
**4 bottles \$18 each**

Metafolin® is a registered trademark of Merck KGaA, Darmstadt, Germany. L-OptiZinc is a Lonza trademark, registered in USA. SelenoExcell® is a registered trademark of Cypress Systems Inc. TRAACS® is a registered trademark of Albion Laboratories, Inc. If you are taking a vitamin K antagonist (e.g. warfarin), consult your healthcare practitioner before taking this product.



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.

# LYCOPENE

## *Boost Your Body's Defenses:*

Lycopene, extracted from tomatoes, is a potent and powerful antioxidant.

Lycopene can help strengthen your body's defense systems on a cellular level.

"An essential part of my supplement plan."

**Larry**  
VERIFIED BUYER



**Item #00455**

90 softgels  
1 bottle \$26.25  
4 bottles \$22.50 each



For full product description and to order **Mega Lycopene**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

Lyc-O-Mato® is a registered trademark of Lycored Corp.

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.





# LITHIUM'S Link to Reduced Cancer Risk

BY SAMUEL RUTGER

The mineral lithium has long interested scientists.

At higher doses, lithium, in the form of lithium carbonate, has been used as a pharmaceutical to help those with bipolar disorder.<sup>1</sup>

**Low-dose** lithium has shown promise in slowing cognitive decline in people with mild cognitive impairment, an early stage that often precedes Alzheimer's.<sup>2-4</sup>

Animal studies in invertebrates have shown that lithium may extend lifespan.<sup>5,6</sup>

On another front, scientists have investigated an *enzyme* in the body, that may be involved in processes linked to certain cancers.<sup>7,8</sup>

**Lithium** has been shown to inhibit this enzyme called **glycogen synthase kinase-3** or **GSK-3**.



**Lithium**, a mineral found in trace amounts in some foods and drinking water, is known to *inhibit GSK-3* activity.<sup>1,7,9</sup>

A recent observational study of over **252,000** men and women found **higher** exposure to **lithium** was associated with **lower** risk of **every type of cancer** studied.<sup>9</sup>

Those in the highest **20%** of estimated lithium ingestion in drinking groundwater had a **71% lower** overall cancer risk compared to those with the lowest intake.

### GSK-3's Role in Cancer

The enzyme **GSK-3 (glycogen synthase kinase-3)** can be thought of as a master regulator that turns the **activity** of many cellular functions "on" or "off".<sup>10</sup>

Preclinical studies have shown that **overactivity** of **GSK-3** is associated with processes involved in several chronic illnesses, including neurological disorders like Alzheimer's,<sup>11</sup> inflammatory disorders like asthma<sup>12</sup> and arthritis,<sup>13</sup> and psychiatric disorders such as bipolar disorder.<sup>7,14</sup>

When it comes to **cancer**, preclinical research has linked **dysregulated GSK-3** activity to multiple aspects of development and progression of malignancies, including cancer cell growth and proliferation, avoidance of cancer cell death, and metastatic spread.<sup>8,15</sup>

Scientists have set out to identify nutrients and medications that **inhibit GSK-3**, which could potentially help slow cancer progression in certain tumor types.<sup>8,16</sup> That's where **lithium** comes in.



### Lithium Inhibits GSK-3

**Lithium** is a trace element that is generally needed only in small amounts. Preclinical research has shown that it is an inhibitor of **GSK-3**.<sup>17</sup>

It has been proposed that by taming GSK-3's overactivity in this way, lithium may influence pathways involved in multiple chronic diseases, including **cancer**.

Lithium has also been found to inhibit other enzymes that may be involved in cancer progression, including **inositol monophosphatase**.<sup>9,18</sup>

### Lithium and Cancer

Trace amounts of **lithium** are naturally present in some water sources. That allows researchers to perform population studies examining the correlation between lithium intake and health.<sup>19-21</sup>

Several ecological studies have found that among people who are exposed to **higher** lithium concentrations in drinking water, there are **lower** risk associations with certain health outcomes:

- Metabolic disorders like **diabetes** and **obesity**,<sup>21,22</sup>
- Death due to **Alzheimer's**,<sup>22</sup> and
- **Death from any cause**.<sup>23</sup>

A study published in **2025** in a *Journal of the American Medical Association* publication focused specifically on the link between **lithium exposure** and **cancer risk**.<sup>9</sup>

Researchers used U.S. Geological Survey data from over **4,700** groundwater wells across the U.S. to estimate lithium concentrations in drinking water by geographic area. They also followed **252,178** participants for a median of nearly **four years**. What they found was striking: Those living in areas with **higher** estimated lithium levels had a **lower incidence of cancer**.<sup>9</sup>

The greater the estimated exposure to lithium, the greater the reduction in cancer incidence. Compared to the lowest exposure group, those in the highest quintile of estimated lithium exposure had a **71% lower risk of developing cancer**.



Higher lithium intake was associated with reduced risk of **all cancer types** investigated in both men and women, including:<sup>9</sup>

- Breast,
- Prostate,
- Bladder and urinary,
- Central nervous system,
- Kidney,
- Colorectal,
- Leukemia,
- Non-Hodgkin's lymphoma, and
- Thyroid cancer.

These results suggest a possible association with cancer-related outcomes.

What You  
Need  
To Know

## Lithium and Cancer Risk

- Overactivity of the enzyme **GSK-3** has been tied to risk for several common chronic illnesses, including **cancer**, in preclinical research.
- Researchers are investigating the potential role of **GSK-3 inhibitors** in modulating pathways involved in cancer development and spread.
- **Lithium** inhibits **GSK-3** and has also been shown to affect other enzymes tied to cancer progression.
- In an observational study published in 2025, people with the highest lithium exposure from drinking water had a **71%** lower risk of developing cancer than those with the lowest exposure.

## Summary

In preclinical research, overactivity of the enzyme **GSK-3** has been tied to several common chronic diseases, including **cancer**.

These studies suggest that *reducing* GSK-3 activity may influence several pathways of tumor formation and progression.

The mineral **lithium** inhibits **GSK-3** activity. One population-based observational study found that people with the *highest lithium exposure* from their drinking water have much **lower rates** of all cancers examined. ■



## How Much Lithium Do You Need?

At high doses (from **600 mg to 1,500 mg**), lithium **carbonate** is widely used to treat mood disorders, particularly bipolar disorder.<sup>1</sup>

The trace amounts of lithium found in some regions' drinking water are associated with **lower cancer** rates and other health benefits.<sup>9,26</sup> Daily microdoses of lithium (**1,000 mcg/1 mg**) may help promote healthy aging, cognitive health, and more.<sup>1,27</sup>

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

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## Additional Benefits of Lithium

Researchers are investigating potential new benefits of low-dose lithium ranging from longevity to neuroprotection—specifically in Alzheimer's and dementia.

Initial observational studies suggest that lithium may be a contributor to healthy longevity. For example, an ecological study of over 1.2 million people in Japan found that trace amounts of **lithium in drinking water** were associated with lower overall mortality. The same study showed that low-dose lithium exposure also extended lifespan in *C. elegans*.<sup>23</sup>

In another study using a *C. elegans* model, lithium exposure throughout adulthood **extended lifespan**—by as much as **46%**.<sup>6</sup>

Some of the exciting work with lithium is related to its potential role in protecting against cognitive decline and Alzheimer's. In 2025, the prestigious journal *Nature* published evidence

that lithium was the only metal significantly reduced, out of 27 minerals measured, in the brains of over 150 people with mild cognitive impairment and Alzheimer's. In the same study, low-dose **lithium orotate** was associated with preserved **memory** performance in both normal **aging mice** and in mice with an inbred susceptibility to **Alzheimer's**-like changes.<sup>24</sup>

In one controlled clinical study, 113 patients with **Alzheimer's** who received a daily dose of **300 mcg** of lithium for 15 months experienced less **cognitive decline** compared to those receiving placebo.<sup>4</sup>

Currently, there are around 50 clinical trials in the works regarding the benefits of the mineral lithium. **Life Extension** eagerly awaits emerging, promising data about the brain and body benefits of this powerful mineral over the next few years.<sup>25</sup>

# Heart of the Mediterranean

Catch our best omega-3 supplement.



2025  
#1 Rated  
Omega-3 EPA/DHA Products!  
7 Time Winner!

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Our highest dose EPA/DHA omega-3 formula is made with Pure+™, a high-quality fish oil concentrate combined with krill oil, astaxanthin and olive extract that:

- Supports both cardiovascular and cognitive health
- Helps maintain already-healthy triglyceride and HDL cholesterol levels
- Promotes a healthy inflammatory response and whole-body health

Get to the heart of the matter with Super Omega-3 Plus EPA/DHA Fish Oil, Sesame Lignans, Olive Extract, Krill & Astaxanthin.

For full product description and to order **Super Omega-3 Plus EPA/DHA Fish Oil, Sesame Lignans, Olive Extract, Krill & Astaxanthin**, call **1-800-544-4440** or visit [www.LifeExtension.com](http://www.LifeExtension.com)

Contains crustacean shellfish (krill), sesame.

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.

\*Product ratings based on results of the 2025 ConsumerLab.com Survey of Supplement Users. For more information, visit [www.ConsumerLab.com/survey](http://www.ConsumerLab.com/survey).

# COMPREHENSIVE EYE HEALTH FORMULA

## MACUGUARD® OCULAR SUPPORT PROVIDES:

- **Lutein, zeaxanthin, and meso-zeaxanthin** to help maintain structural integrity of the **macula** and **retina**.<sup>1-5</sup>
- **Saffron** to help support **vision** as demonstrated by doctors' eye exams.<sup>1</sup>
- **Alpha-carotene** to further help support **macular density**.<sup>1</sup>



MacuGuard® Ocular Support  
with Saffron  
Item #01992 • 60 softgels  
1 bottle \$18 • 4 bottles \$17 each



MacuGuard® Ocular Support  
with Saffron + Astaxanthin  
Item #01993 • 60 softgels  
1 bottle \$32.25 • 4 bottles \$29 each

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Each bottle lasts for two months.

MacuGuard® Ocular Support is available with or without astaxanthin.

For full product description and to order either  
of these **MACUGUARD®** formulas, call **1-800-544-4440**  
or visit **www.LifeExtension.com**

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# eye

**PRESSURE  
SUPPORT**

**Eye Pressure Support  
with Mirtogenol®**  
formula is designed to  
support blood flow in tiny  
vessels of the eyes,  
to help maintain healthy  
fluid pressure.

**"It's AWESOME."**

**Chrissy**

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30 vegetarian capsules

1 bottle **\$30.75**

4 bottles **\$28.25 each**



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or visit **[www.LifeExtension.com](http://www.LifeExtension.com)**

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Mirtoselect® is a registered trademark of Indena, S.p.A., Milan, Italy.  
Use of Mirtogenol® is protected by U.S. patent #9,125,925 and other international patents.

**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



# NEXT GEN CoQ10

**CoQ10** is essential for **cellular energy** in the **heart, liver, kidneys, and muscles.**<sup>1,2</sup>

Standard **CoQ10** is difficult for the body to *absorb* due to its limited bioavailability.<sup>3</sup>

An *innovative* **AmpliQ CoQ10™** formula combines **CoQ10** with **FenuMat® technology** to deliver superior bioavailability.

In a **clinical study**, this new form of **CoQ10** was found to be up to **24-fold more bioavailable** compared to standard CoQ10 ubiquinone—and **three times more bioavailable** than ubiquinol.<sup>4</sup>

**AmpliQ** provides greater **CoQ10 activity** per milligram at a lower effective cost than most CoQ10 products.

**Two Choices of Highly Bioavailable AmpliQ CoQ10™**

**Item #02554**  
100 mg, 60 vegetarian capsules  
1 bottle **\$45**  
4 bottles \$42 each

**Item #02553**  
50 mg, 60 vegetarian capsules  
1 bottle **\$22.50**  
4 bottles \$21 each

NEW



For full product description and to order **AmpliQ CoQ10™**, call **1-800-544-4440** or visit **www.LifeExtension.com**

**References:** 1. *Antioxidants (Basel)*. 2021 Jun 3;10(6):906. 2. *Int J Mol Sci*. 2024 Jun 20;25(12):6765. 3. *Int J Mol Sci*. 2023 Jan 30;24(3):2585. 4. Data on File. Manuscript in prep: 2025. FenuMat® is a registered trademark of Akay Group.

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.

# Fisetin

The Healthy-Aging  
Flavonoid



“Good stuff.”

Scott

VERIFIED CUSTOMER  
REVIEW

**Fisetin**, a flavonoid found in strawberries and apples, is currently being studied for its effectiveness as a **senolytic** in humans.<sup>1</sup>

**Fisetin** has low bioavailability due to its breakdown in the small intestines.

**Bio-Fisetin**<sup>®</sup> formula solves this problem by enclosing fisetin with fiber from the fenugreek herb.

A human trial showed **bioavailability** of this fisetin compound increased up to **25 times** compared to fisetin\* by itself.<sup>2</sup>

Item #02414

30 vegetarian capsules

1 bottle \$11.25

4 bottles \$10 each

GLUTEN  
FREE

NON  
GMO  
LE CERTIFIED



For full product description and to order **Bio-Fisetin**<sup>®</sup>, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

\* Studied against powder fisetin (98% purity)

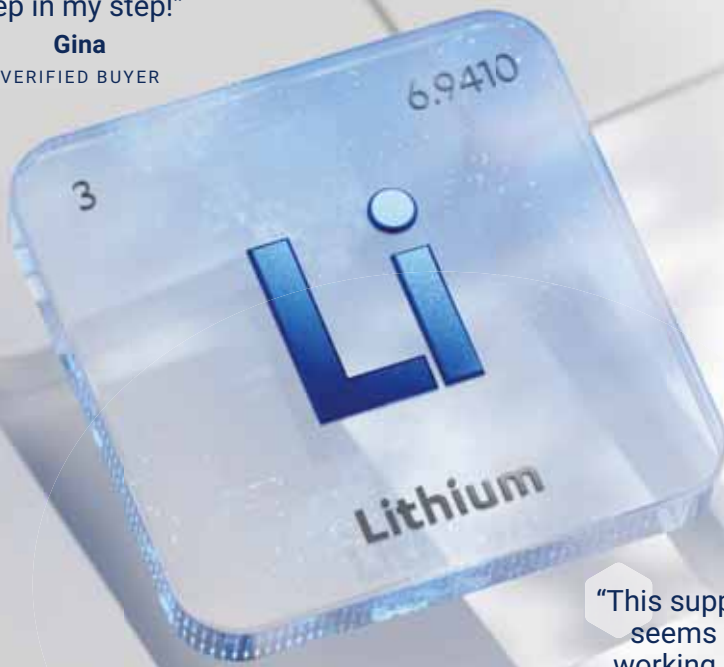
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These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

"I feel a mental pep in my step!"

Gina

VERIFIED BUYER

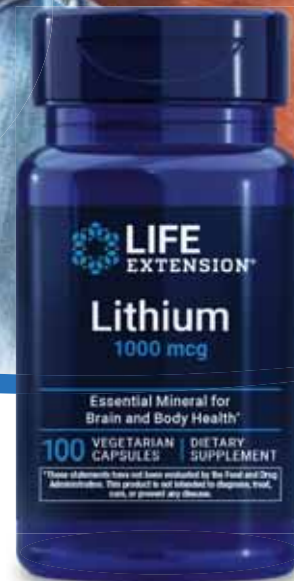


"This supplement seems to be working great."

Gregory

VERIFIED BUYER

# A Bodyguard for Your BRAIN



People tend to live longer in areas where lithium is abundant in the drinking water.\*

Lithium is a low-cost mineral that functions in several ways to support cognition and overall brain health.

Maintain healthy cognition with lithium—it's like a bodyguard for your brain!

\* European Journal of Nutrition. 2011;50(5):387-389.



(1000 mcg of lithium per tiny cap)  
Item #02403 | 100 vegetarian capsules  
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# Enhance **FEMALE** Sexual Health and Libido



BY MARSHA MCCULLOCH, MS, RD

Female sexual health issues affect about **40%** to **50%** of all women.<sup>1-3</sup>

Frequent concerns include low sexual desire, physical discomfort, and reduced pleasure.<sup>1,2,4,5</sup>

Many women are uncomfortable mentioning these concerns to healthcare providers, and current available medical treatments are limited and not appropriate for all women.<sup>6</sup>

**Plant-based** solutions for sexual health concerns are available for women seeking alternatives.

Scientists have developed two standardized botanical extracts **clinically shown** to support female sexual function:

- **Fenugreek seed** extract increased sex hormone levels, arousal, and more than **doubled** the frequency of sexual activity in women in stable relationships.<sup>7</sup>
- **Saffron** extract improved scores in sexual function measures, including desire and satisfaction, by **62%** from baseline in a study of married women.<sup>8</sup>

The two extracts have been studied separately and promote healthy sexual function in different ways.<sup>7,8</sup>



## Sexual Dysfunction in Women

Women of all ages may have sexual health issues.<sup>2</sup>

A meta-analysis of **95** observational studies conducted across the globe found that **41%** of *younger* (premenopausal) women struggle with sexual health issues.<sup>9</sup>

One of the most commonly reported concerns is low desire or **libido**.<sup>10</sup>

In one U.S. study, about **27%** of premenopausal women and **52%** of menopausal women reported **low sexual desire**.<sup>11</sup>

Female sexual function is impacted by complex interactions among:

- **Sex hormones**, including estrogen and testosterone,<sup>12</sup>
- **Medical conditions**, including diabetes, thyroid disorders, and other chronic ailments,<sup>13-15</sup>
- **Medications**, such as antidepressants, beta blockers, opioids, and birth control pills,<sup>16-18</sup>
- The **autonomic** (involuntary) **nervous system** that regulates sexual responses,<sup>19</sup> and
- **Mental outlook**, such as depression, anxiety, stress, and fatigue.<sup>20,21</sup>

Changes in these factors may contribute to concerns with sexual desire, lubrication, and relationship satisfaction.<sup>3</sup>



Saffron

Fenugreek

## Hormones and Female Sexual Health

Estrogen (particularly a form known as **estradiol**) and **testosterone** play key roles in female sexual health.

When estrogen levels drop during menopause, **vaginal dryness** and **discomfort** are more likely.<sup>22,23</sup>

**Testosterone** also plays a significant role in vaginal lubrication and sexual desire in women.<sup>24,25</sup>

Testosterone levels decline steadily across adulthood, including the **premenopausal** years, which may contribute to reduced sexual desire.<sup>24,26</sup>

Some birth control pills also lower testosterone levels.<sup>27,28</sup>

## Fenugreek Supports Healthy Sexual Desire

The herb **fenugreek** is listed as an aphrodisiac in ancient Indian Ayurvedic medical texts.<sup>29</sup>

Fenugreek is rich in **saponins**, compounds that are believed to be responsible for its effects.<sup>30,31</sup>

Scientists have developed a **fenugreek seed** extract standardized to contain at least **50%** saponins.<sup>7</sup>

In a clinical trial, 80 healthy women (ages 20 to 49) in stable relationships but with a low sex drive took **300 mg** of this standardized fenugreek extract or a placebo twice daily for eight weeks.<sup>7</sup>

The results were stunning.

Those taking fenugreek reported **significant improvements** across all five domains measured on a recognized **sexual function** questionnaire. These domains include sexual thoughts, arousal, activity, orgasm, and drive/relationship, compared to placebo.<sup>7</sup>

Overall, those taking fenugreek increased their frequency of **sexual activity** from one or two times per month to **once per week**.

These sexual health improvements in the fenugreek group corresponded with statistically significant increases in **estradiol** levels (**66%**) and in free (biologically active) **testosterone** levels (**24%**). These improvements are based on mean changes reported in the study, in women with hormone levels within the normal range.

Sexual function measures improved a similar amount in women using **birth control** pills and in those who were not.<sup>7</sup>



### Saffron Supports Sexual Arousal

**Saffron**, which comes from flowers of the *Crocus sativus* plant, has been studied for multiple components of mood and mental functioning, including **sexual function**.<sup>32,33</sup>

Two of the main beneficial components of saffron are **safranal** and **crocins**.<sup>32</sup>

Standardized **saffron** extract was tested in a **placebo-controlled** trial of 74 married women, ages 18 to 55, with low sexual function.<sup>8</sup>

The treatment group took **15 mg** of standardized **saffron extract** twice daily for six weeks. Compared to baseline, total scores on a recognized sexual function questionnaire improved by **62%** at six weeks in the saffron group.

In addition, the saffron group reported improvements in domains related to **desire**, **lubrication**, and **satisfaction** aspects of their sexual relationships, compared to placebo.<sup>8</sup>

**Combining** fenugreek seed and saffron extracts in an oral formula provides a multipronged approach to supporting female sexual health.

## Get Your Libido Back

- About **27%** of premenopausal and **52%** of menopausal American women report struggling with **low sexual desire**.
- A range of factors can lower female sexual function, including age, sex hormone imbalances, some medications, and mental distress.
- **Fenugreek extract** has been clinically shown to improve sex hormone levels and double the frequency of sexual activity of women in stable relationships.
- Daily intake of **saffron extract** improved sexual desire, lubrication, and satisfaction in women with low sexual function in one clinical trial.
- Fenugreek and saffron extracts offer multifaceted support for women's sexual health.

## Summary

Sexual health issues, including low desire and reduced enjoyment, are common in women of any age.

Scientists have developed two standardized herbal extracts to support **sexual vitality** and **desire**.

**Fenugreek seed** extract has been clinically found to improve sexual arousal and more than **doubled** sexual activity frequency in women in stable relationships.

**Saffron** extract has been clinically shown to improve desire, lubrication, and sexual satisfaction in women with low sexual function.

These extracts work in different ways to support sexual health. ■

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

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5. *J Food Sci*. 2015 Mar;80 Suppl 1:A8-a15.

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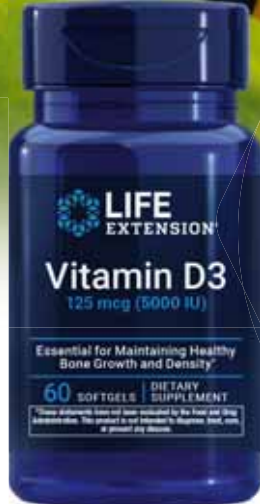
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- Lubrication<sup>2</sup>
- Satisfaction<sup>2</sup>

1. *Phytother Res.* 2015;29(8):1123-30. (significant versus placebo)

2. *Avicenna J Phytomed.* 2022;12(3):257-268. (significant versus baseline)

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# Oral Plant Extracts Protect Against PHOTOAGING



BY MICHAEL DOWNEY

Chronic exposure to **sunlight** damages the **skin** in several ways,

*“Collectively contributing to a prematurely aged appearance that exceeds the skin’s chronological age.”<sup>1</sup>*

**Topical sunscreens** are widely used to protect against ultraviolet radiation,<sup>2</sup> but many people apply an insufficient amount, and don’t reapply often enough.<sup>3-5</sup>

Although sunscreens help prevent sunburn, they may not fully protect against UV-related damage and immune suppression.<sup>6</sup>

Fortunately, certain oral nutrients may provide adjunctive support as part of your skincare routine.

Preclinical studies suggest that an oral extract of the fern ***Polypodium leucotomos*** may help support the skin’s defenses against UV-related damage from within.<sup>7-10</sup>

Two additional oral compounds, **Sicilian red orange extract**<sup>11</sup> and **nicotinamide**,<sup>12</sup> have shown additional protective effects in separate clinical studies against damage from the sun’s harmful rays.

While it’s still important to use a safe, high-SPF sunscreen and wear protective clothing, these nutrients may offer adjunctive oral photoprotection support.

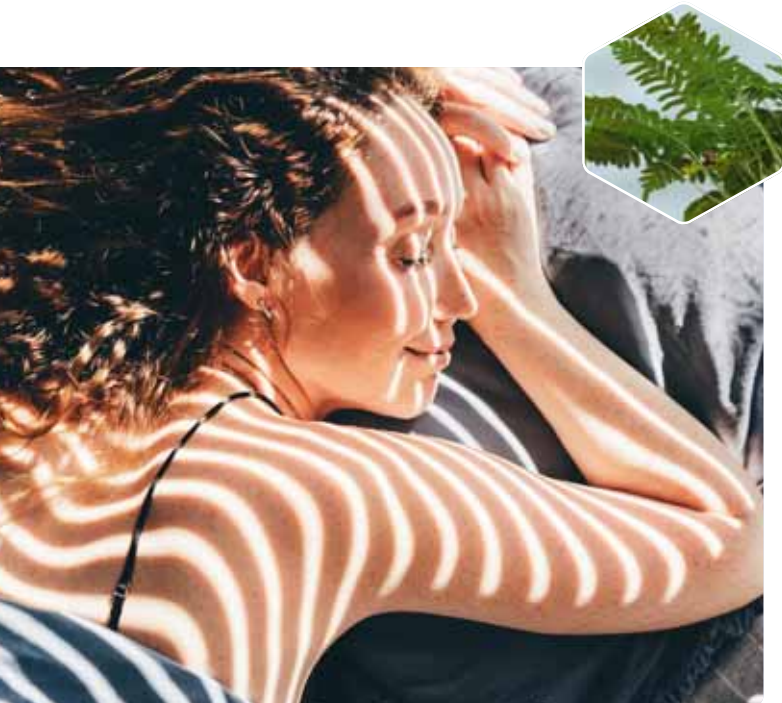
## How Sunlight Contributes to Skin Aging

The glow of sunlight on your skin may feel good. But those ultraviolet (UV) rays penetrate *beneath* the surface, causing your skin to **age faster** while also increasing the risk of skin cancers.<sup>13-15</sup>

Preclinical studies have shown that, left unchecked, this solar onslaught:

- **Damages DNA** directly or indirectly through free radical formation, which can lead to skin cancer,<sup>15,16</sup>
- Causes mitochondrial damage and dysfunction,<sup>15,16</sup>
- Promotes cellular **senescence** (dysfunctional, growth-arrested cells) in skin cells,<sup>15</sup>
- Degrades collagen and contributes to the loss of skin elasticity,<sup>15-17</sup> and
- Triggers inflammation and exacerbates **chronic inflammation**.<sup>16</sup>

Skin damage from **ultraviolet (UV) radiation** begins at an early age and accumulates over time, with effects such as **premature aging** becoming apparent later in life. That's why early defense is advised.



## Why Sunscreen Alone is Not Enough for UV Protection

Apart from sun avoidance, sunscreen provides the best alternative protection.<sup>18</sup> It's important to wear sunscreen or sunblock.<sup>2</sup> However, **topical** products have certain limitations because they:

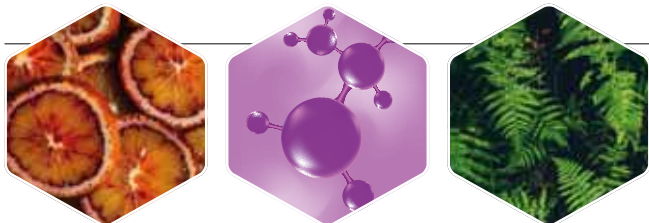
- May block **UVB** (responsible for sunburn) more effectively than **UVA** (which contributes to DNA damage and skin aging) so hidden skin damage can still occur even without visible sunburn.<sup>19</sup>
- May leave commonly missed areas—such as the ears, scalp, neck, and tops of the feet—under-protected if not applied carefully, and must be reapplied after swimming or sweating to maintain effectiveness.<sup>18</sup>
- Are often applied in insufficient amounts,<sup>4</sup> and not reapplied as recommended,<sup>18</sup>
- May be labeled incorrectly and have lower actual SPF and UVA protection than “labeled values.”<sup>16</sup>
- Some clothing allows UV rays to pass through depending on fabric, color, and environmental conditions.<sup>20</sup>
- Can degrade with sun exposure,<sup>21,22</sup> and
- May contain chemicals that can irritate sensitive skin.<sup>18</sup>

Researchers have evaluated adjunctive **oral** photoprotective compounds.

## Novel Oral Plant Extract Provides Photoprotection

Scientists identified an extract from the fern ***Polypodium leucotomos***, which may complement topical sunscreens as an adjunctive photoprotection strategy.

Evidence from preclinical studies suggests that extracts from ***Polypodium leucotomos*** protect skin cells against sunlight-induced **DNA damage** and may help modulate **inflammatory responses**.<sup>8,9,23</sup>



### Lab Data: Polypodium Tested in Skin Cells

Researchers conducted lab tests in which *Polypodium leucotomos* was applied to skin cells to study its general anti-aging effects on skin elasticity and structure.

In these lab tests, researchers found that the *Polypodium* extract:<sup>7</sup>

- Directly *inhibited* enzymes that break down **collagen**, and proteins required for skin's structural framework, helping to maintain a youthful appearance, and
- *Protected* the **extracellular matrix** and **collagen** that make up the structural framework of skin tissue.

These laboratory findings suggest that *Polypodium leucotomos* may influence mechanisms associated with **skin aging**.

### Animal Studies: Polypodium Protected DNA

Next, scientists gave oral *Polypodium leucotomos* to hairless mice, which were then exposed to UV radiation.

The extract was associated with reduced inflammation, enhanced DNA repair, and reduced mutagenesis (DNA changes).<sup>8</sup>

Remarkably, **Polypodium** was associated with decreased skin DNA damage, not only during—but also **before**—UV exposure.

Other preclinical data showed that *Polypodium leucotomos* extract may:

- Defend against harmful UV-generated oxidative stress,<sup>9</sup> and
- Research in experimental models suggests it may help modulate immune responses, including the beneficial activation of NK and T lymphocyte immune cells.<sup>10,24,25</sup>



What You  
Need  
To Know

## Protect Against Photoaging

- The sun's ultraviolet (UV) rays damage DNA, accelerating **photoaging** of the skin and increasing skin cancer risk.
- Taken orally, an extract of the fern *Polypodium leucotomos* has shown potential to help protect DNA and skin structure in preclinical studies.
- **Nicotinamide** and **red orange** extract may provide additional sun protection support.
- These ingredients can be taken orally to provide adjunctive systemic support against UV exposure, but they do not replace topical sunscreen, protective clothing, shade, or sun avoidance.
- In addition to these adjunctive oral nutrients, a high-quality topical sunscreen should be used for prolonged sun exposure.

## Additional Protection: Nicotinamide

**Nicotinamide**, a form of vitamin B, was shown in preclinical studies to protect the skin against UV-induced damage by:

- Promoting **DNA repair**,<sup>26-28</sup>
- Inhibiting UV-induced immune suppression in the skin,<sup>26,27,29</sup>
- Boosting **skin barrier** function (which keeps skin hydrated and protected),<sup>28,30</sup>
- Preventing cellular energy depletion and restoring energy levels after UV exposure,<sup>28,31</sup> and
- Supporting genomic stability and DNA-repair pathways after UV exposure.<sup>32</sup>

In a phase 3 randomized trial in adults at high risk for non-melanoma skin cancer—defined as having at least two non-melanoma skin cancers in the previous five years—**500 mg of nicotinamide** twice daily for 12 months was associated with a **23% lower rate** of new non-melanoma skin cancer versus **placebo** during the intervention period.<sup>12</sup>



## Even Further Defense: Red Orange

**Sicilian red orange** contains anthocyanins, flavonoids, and other free radical scavenger constituents which have been associated with protection of cells against inflammation and oxidative stress.<sup>33</sup>

In an *in vitro* model of skin photoaging using two human skin cell lines, cells pre-treated with **Sicilian red orange extract** before UV radiation exposure showed:<sup>34</sup>

- Reduced UV damage,
- Reduced DNA damage,
- Reduced oxidative stress, and
- Decreased markers related to **photoaging** and **inflammation**.

In a clinical study, taking **100 mg** of oral red orange extract daily for 15 days was associated with a **40%** reduction in UV-induced skin **redness** and **sunburn**, along with a decrease in melanin content in age spots from **27% to 7%**.<sup>11</sup>

Over time, reducing UV-induced erythema and oxidative stress may help support skin appearance and defenses against photoaging related changes.

## Summary

Ultraviolet rays cause cellular damage that accelerates **skin aging**, while increasing skin cancer risk.

**Polypodium leucotomos**, a fern extract, has been shown in preclinical studies to help protect DNA and support against **photoaging**.

**Nicotinamide** and **Sicilian red orange** extract may offer additional sun protection.

Taken orally, these three nutrients may provide adjunctive systemic support against UV-related damage when used with topical sunscreen and other sun-protective measures. ■

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



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# Fuller, Stronger Hair



Item #02541

30 softgels

1 bottle \$22.50

4 bottles \$20.50 each

Contains wheat.

**Hair Growth for Women** is an oral formula with two scientifically studied **plant extracts** that:<sup>1,2</sup>

- Help **maintain** existing hair,
- Support normal **hair growth** cycle,
- Support healthy **scalp oil** levels,
- Support **hair density** and **volume** for fuller hair, and
- Maintain already normal **DHT** levels (a hormone linked to maintaining hair follicle health).

In separate **clinical trials**, these standardized extracts show *reduced hair shedding*—by up to **48%** in one study.<sup>1</sup>

Another study showed a **hair shedding** reduction of up to **20%**.<sup>2</sup> Some users noticed results in as little as two months.

For full product description and to order **Hair Growth for Women**, call **1-800-544-4440** or visit **www.LifeExtension.com**

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References: 1. *Int J Cosmet Sci.* 2024;46(2):284-296. 2. *Clin Cosmet Investig Dermatol.* 2023;16:3251-3266.

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.



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Christine

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Health...  
Now

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**Caution:** Those taking a vitamin K antagonist (e.g. warfarin) should use Bone Restore without vitamin K2.

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Life Extension's Bone Restore Calcium Supplement with Vitamin K2 has met ConsumerLab.com standards for ingredient and product quality for calcium, vitamin D, magnesium, vitamin K & boron in independent testing. More information at [www.consumerlab.com](http://www.consumerlab.com).

Top Pick



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# Bone Broth

BY LAURIE MATHENA

Bone broth has been referred to as “liquid gold” because of its golden hue and abundance of nutrients. While it has been utilized for thousands of years as a base for soups and sauces, it has recently gained popularity as a stand-alone, nutrient-dense beverage.

Bone broth typically provides approximately **6–12 grams** of protein per cup, depending on preparation methods and concentration, with an average of about **8–10 grams** per serving,<sup>1</sup> along with varying amounts of minerals like calcium, potassium, magnesium, zinc and phosphorus.<sup>2</sup>

A key nutritional characteristic of bone broth is its **collagen-derived protein content**. Dietary collagen may support collagen production by supplying key amino acids like glycine, proline, and hydroxyproline. These serve as the building blocks the body uses to produce its own collagen, a major structural protein that supports skin, joints, connective tissue, and the intestinal lining.<sup>3</sup>

Emerging evidence suggests that various compounds found in bone broth may support gut health, alleviate inflammation in the intestinal barrier, enhance nutrient absorption, and improve intestinal barrier function, especially in inflammatory bowel conditions.<sup>2</sup> Glycine and glutamine, both amino acids in bone broth, have been shown in preclinical models to support gut health by strengthening the intestinal barrier and reducing inflammation. Research suggests that they may help protect tissues from stress and injury by lowering oxidative stress and inflammatory responses.<sup>2</sup>

In a mouse model of ulcerative colitis (a form of inflammatory bowel disease), providing bone broth for 10 days prior to triggering the disease resulted in less damage to the intestinal tissue.<sup>4</sup>

The mice also had significant *reductions* in pro-inflammatory markers, along with marked increases in regulatory cytokines that help calm the immune system and promote tissue repair. Two of these protective cytokines (IL-4 and IL-10) increased more than **five-fold**.<sup>4</sup>

Bone broth can be purchased from most grocery stores or prepared at home by simmering bones of edible animals at a low temperature for 12 to 24 hours.

The nutrient content in bone broth will vary depending on the bones used, their marrow and connective tissue content, and the animal source. Beef bones are generally richer in type I and type III collagen, which support skin and blood vessels, while chicken bones tend to contain more type II collagen, which is beneficial for joints and cartilage. •

## References

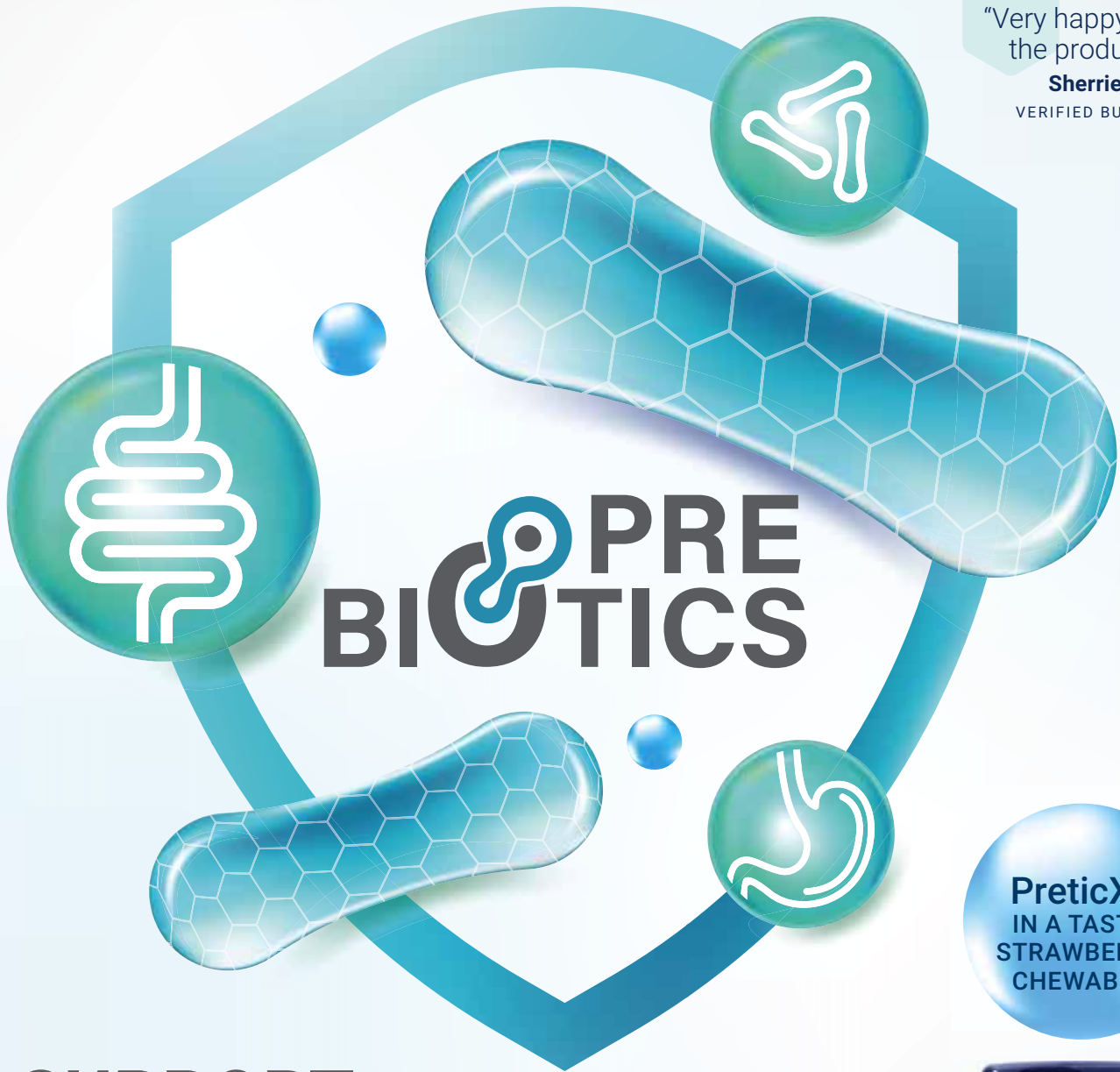
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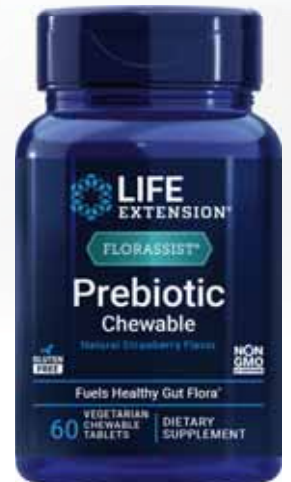
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- *Increasing **bifidobacteria** levels enhances digestion and carbohydrate metabolism.*
- *Strawberry flavored **FLORASSIST® Prebiotic Chewable** helps support **bifidobacteria** levels using **XOS** prebiotic.<sup>2</sup>*
- **1,000 mg** of **XOS** (xylooligosaccharides) per prebiotic chewable.

**Item #02203** | 60 vegetarian chewable tablets  
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#### References

1. *Front Microbiol.* 2016;7:1204.
2. *Food Func.* 2014;Jan(5):436-445.



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# What is Olive Leaf?

BY LAURIE MATHENA



**Olive oil** is a key component of the **Mediterranean diet**.

*Higher* consumption has been associated with a reduced risk of dying from heart disease,<sup>1-3</sup> cancer,<sup>3,4</sup> or from any cause at all.<sup>1,2,4</sup>

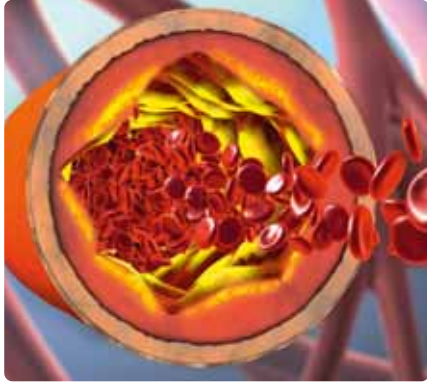
But olive trees also provide another component that could be more beneficial: the olive *leaves*.

Much of olive oil's benefits come from its high concentration of **polyphenols**, the most abundant of which is *oleuropein*. This is the compound that gives unprocessed olives their characteristic bitter taste.<sup>5</sup>

Among all parts of the olive plant, olive leaves contain the highest levels of **oleuropein**, exceeding the concentrations found in branches, roots, buds, flowers, or any other plant tissues.<sup>5</sup> This suggests that the leaves themselves may offer additional health-related properties.

Research on oleuropein spans cardiovascular, anti-inflammatory, antioxidant, and anti-tumor domains, with the cardiovascular effects being the most clinically studied in human trials.

Preclinical studies indicate that **oleuropein** exhibits anti-inflammatory, antioxidant, and anti-tumor effects.<sup>5</sup> The strongest body of evidence relates to cardiovascular health outcomes, including blood pressure regulation,<sup>6-8</sup> lipid profile,<sup>6-8</sup> and inflammatory markers.<sup>9</sup>



### Heart-Healthy Benefits

In a 12-week randomized placebo-controlled clinical trial involving 60 hypertensive patients aged 30–60, those receiving **olive leaf extract** showed significantly lower levels of the inflammatory markers IL-6, IL-8, and TNF- $\alpha$  compared with those receiving **placebo**.<sup>9</sup>

In a meta-analysis of 12 randomized controlled trials (819 participants), supplementation with **olive leaf extract** was associated with reduction in systolic blood pressure and triglycerides in *overall* pooled analysis. People with hypertension experienced even larger reductions in systolic blood pressure as well as reductions in total cholesterol and LDL cholesterol.<sup>8</sup>

Taking a closer look, this study showed the following reductions:

- **Blood pressure:** Systolic blood pressure dropped by about **3.9 mmHg** overall. People with hypertension had an even larger decrease, with systolic (top number) BP decreasing by **4.8 mmHg** and diastolic (bottom number) BP decreasing by **2.5 mmHg**. Normal weight individuals experienced the largest reductions, with a decrease in systolic BP of **7.1 mmHg**.

- **Cholesterol:** Total cholesterol dropped by about **9.1 mg/dL** in people with hypertension and by **6.7 mg/dL** in normal weight individuals. LDL-C dropped by **4.6 mg/dL** in hypertensive patients.
- **Triglycerides:** Triglyceride levels fell by about **9.5 mg/dL** on average in the whole group, and by **14.4 mg/dL** in hypertensive individuals.

A **2025** multicenter, 12-week randomized controlled trial in 621 patients *already* on blood pressure **medication** found that **olive leaf extract** was associated with a greater reduction in systolic blood pressure than placebo.<sup>7</sup>

It was also associated with improvements in metabolic and inflammatory markers, including **blood sugar, triglycerides, and C-reactive protein (CRP)**, with no significant safety concerns reported. Overall, the findings suggest it may be a useful adjunct for supporting cardiovascular health.<sup>7</sup>



### How it Works

Laboratory and animal studies suggest several potential mechanisms through which olive leaf extract may support cardiovascular health:

- **Promotes nitric oxide.** Oleuropein has been shown to enhance nitric oxide production,<sup>10</sup> and to induce vasodilation in blood vessels (likely involving nitric oxide pathways),<sup>11</sup> which may help support healthy blood flow.
- **Improves vascular function.** Experimental evidence indicates that olive leaf extract may help support vascular function, which may contribute to overall blood vessel health.<sup>12,13</sup>
- **May help reduce platelet aggregation.** Olive leaf extract has anti-platelet activity,<sup>14,15</sup> which may help support normal blood flow.



### • Supports healthy cholesterol.

Olive phenols, including oleuropein, have been shown to inhibit HMG-CoA reductase activity in rat hepatocytes,<sup>16</sup> which inhibits intracellular cholesterol production.

Together, these mechanisms may contribute to cardiovascular support.

## Summary

Many of olive oil's benefits are linked to the polyphenol, *oleuropein*. Olive leaves contain high concentrations of oleuropein, which has led researchers to investigate their potential health benefits.

Across clinical trials and meta-analysis discussed in this article, **olive leaf extract** was associated with reductions in blood pressure, cholesterol, and inflammatory markers. •

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

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This product  
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estrogen.

Item #02534 | 60 vegetarian tablets  
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CAUTION: Consult with your healthcare practitioner if you have, or have a history of, estrogen-dependent tumors.

#### References

1. *PharmaNutrition*. 2020;14:100209.
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Estrogen Balance Elite contains a proprietary seed extract of the herb fenugreek to promote healthy hormonal balance.

In clinical studies, fenugreek seed extract has been shown to help: <sup>1,2</sup>

- ✓ Relieve hormone related discomforts like hot flashes and night sweats.
- ✓ Promote healthy hormone balance.
- ✓ Encourage healthy mood, sleep and overall well-being.

This plant-based product also includes Red Clover, Chaste Tree, and Black Cohosh for women's health during menopause.

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"Taking this supplement, I feel I will be healthy for the long haul."

Larry

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with **BIO-FISETIN<sup>®</sup>**



Item #02301

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(Each bottle lasts 3 months)

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- **APIGENIN** (a natural flavonoid)
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The suggested dose of the **Senolytic Activator<sup>®</sup>** formula is **3 capsules** once a week. Each bottle lasts 3 months and costs very little.

*\* Studied against powder fisetin (98% purity).*

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**Fish oil** is a popular supplement people use to boost **omega-3** levels in the **heart, brain, eyes,** and other tissues.

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**CAUTION:** If you are taking anti-coagulant or anti-platelet medications, or have a bleeding disorder, consult your health-care provider before taking these products.



\* The IFOS™ product certification is a registered trademark of SGS Nutrasource. This product has been tested to verify quality and purity per the IFOS™ standard.



For full product description and to order **SUPER OMEGA-3** and **SUPER OMEGA-3 PLUS**, call **1-800-544-4440** or visit **www.LifeExtension.com**

# Olive Leaf

HEART HEALTH IS HERE

**Advanced Olive Leaf Vascular Support** combines two bioactive compounds to provide **dual-action** vascular support.

**Olive leaf extract** contains *oleuropein*, a natural compound that supports healthy blood pressure already within the normal range.

**Celery seed extract** contains *3-n-butylphthalide (3nB)*, which supports a healthy inflammatory response that is critical to maintaining a healthy circulatory system.

**Celery seed** also helps promote healthy blood pressure already within the normal range.

For full product description and to order **Advanced Olive Leaf Vascular Support**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)



**Item #01824**

60 vegetarian capsules

1 bottle \$27.75

4 bottles \$24.75 each

**Caution:** Consult your health care provider before taking this product if you are being prescribed anti-hypertensive medication.

Benolea® is a registered trademark of Frutarom Netherlands B.V. Excelery™ is a trademark of BioActives, LLC.



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.

**ACTIVE LIFESTYLE & FITNESS**

- 02545 Active Vitality & Strength
- 02548 Biological Aging Defense
- 01529 Creatine Capsules
- 02543 Creatine Powder
- 02020 Super Carnosine
- 02532 Creatine & Acetyl-L-Carnitine Energy Plus
- 02023 Tart Cherry with CherryPURE®
- 02246C Wellness Code® Advanced Whey Protein Isolate Vanilla
- 02221 Wellness Code® Muscle Strength & Restore Formula
- 02127 Wellness Code® Plant Protein Complete & Amino Acid Complex
- 02261C Wellness Code® Whey Protein Concentrate Chocolate
- 02260 Wellness Code® Whey Protein Concentrate Vanilla
- 02243C Wellness Code® Whey Protein Isolate Chocolate
- 02242 Wellness Code® Whey Protein Isolate Vanilla

**AMINO ACIDS**

- 00038 Arginine Ornithine Powder
- 01253 Branched Chain Amino Acids
- 01829 Carnosine
- 01671 D,L-Phenylalanine Capsules
- 01624 L-Arginine Caps
- 01532 L-Carnitine
- 00345 L-Glutamine
- 00141 L-Glutamine Powder
- 01678 L-Lysine
- 01827 Taurine
- 00133 Taurine Powder

**BLOOD PRESSURE & VASCULAR SUPPORT**

- 01824 Advanced Olive Leaf Vascular Support
- 02004 Arterial Protect
- 56885 Natto Activ Cardiovascular & Respiratory Support
- 02320 NitroVasc™ Boost
- 01953 Pomegranate Complete
- 00956 Pomegranate Fruit Extract
- 02024 Triple Action Blood Pressure AM/PM
- 02102 VenoFlow™

**BONE HEALTH**

- 01726 Bone Restore Calcium Supplement
- 02123 Bone Restore Calcium Supplement Chewable Tablet
- 02416 Bone Restore Elite with Super Potent K2
- 01727 Bone Restore Calcium Supplement w/ Vitamin K2
- 01725 Bone Strength Collagen Formula
- 01963 Calcium Citrate with Vitamin D
- 01506C Dr. Strum's Intensive Bone Formula
- 02417 Mega Vitamin K2
- 01476 Strontium Caps

**BRAIN HEALTH**

- 01524 Acetyl-L-Carnitine
- 01974 Acetyl-L-Carnitine Arginate
- 02419 B12 Elite
- 02510 Brain Fog Relief
- 01659 CDP Choline

- 02321 Cognitex® Alpha GPC
- 02396 Cognitex® Elite
- 02397 Cognitex® Elite Pregnenolone
- 01540 DMAE Bitartrate
- 02006 Dopa-Mind™
- 02413 Dopamine Advantage
- 01658 Ginkgo Biloba Certified Extract™
- 01527 Huperzine A
- 00020 Lecithin
- 02101 Memory Protect
- 00709 Migra-Eeze™
- 01603 Neuro-Mag® Magnesium L-Threonate Caps
- 02032 Neuro-Mag® Magnesium L-Threonate Powder
- 02520 Neuro-Mag® Magnewum L-Threonate Gummies
- 00888 Optimized Ashwagandha
- 01676 PS (Phosphatidylserine) Caps
- 02406 Quick Brain Nootropic®
- 01327 Vinpocetine

**CHOLESTEROL MANAGEMENT**

- 01828 Advanced Lipid Control
- 01910 CHOL-Support™
- 01304 Theaflavins Standardized Extract
- 00372 Vitamin B3 Niacin Capsules

**DIGESTION SUPPORT**

- 02412 Bloat Relief
- 02514 Easy Fiber
- 01736 Effervescent Vitamin C - Magnesium Crystals
- 02021 Enhanced Super Digestive Enzymes
- 02022 Enhanced Super Digestive Enzymes and Probiotics
- 02033 EsophaCool™
- 01737 Esophageal Guardian
- 01706 Extraordinary Enzymes
- 02533 Food Sensitivity Relief with Diamine Oxidase
- 02100 Gastro-Ease™

**ENERGY MANAGEMENT**

- 01628C Adrenal Energy Formula • 60 vegetarian capsules
- 01630C Adrenal Energy Formula • 120 vegetarian capsules
- 00972 D-Ribose Powder
- 01473 D-Ribose Tablets
- 01900 EnergyGain™
- 01544 Forskolin
- 01805 Ginseng Energy Boost
- 01869 Mitochondrial Basics with PQQ
- 01868 Mitochondrial Energy Optimizer with PQQ
- 01904 NAD+ Cell Regenerator™ • 100 mg, 30 veg capsules
- 02344 NAD+ Cell Regenerator™ 300 mg, 30 veg capsules
- 02348 NAD+ Cell Regenerator™ and Resveratrol Elite™
- 02555 NAD+ Cell Support NMN • 30 veg capsules
- 02558 NAD+ Cell Support NMN •90 veg capsules
- 02556 Optimized NAD+ NMN w/Resveratrol Elite 30 vegetarian capsules
- 02559 Optimized NAD+ NMN w/Resveratrol Elite 90 vegetarian capsules
- 01500 PQQ Caps • 10 mg, 60 vegetarian capsules
- 01647 PQQ Caps • 20 mg, 30 vegetarian capsules
- 00889 Rhodiola Extract
- 02003 Thyroid Support Complex

**EYE HEALTH**

- 01923 Astaxanthin with Phospholipids
- 01514 Eye Pressure Support with Mirtogenol®
- 01992 MacuGuard® Ocular Support with Saffron
- 01993 MacuGuard® Ocular Support with Saffron & Astaxanthin
- 01873 Standardized European Bilberry Extract
- 01918 Tear Support with MaquiBright®

**FISH OIL & OMEGAS**

- 01937 Mega EPA/DHA
- 02218 Mega GLA Sesame Lignans
- 01983 Super Omega-3 EPA/DHA Fish Oil, Sesame Lignans & Olive Extract • 60 softgels
- 01988 Super Omega-3 Plus EPA/DHA Fish Oil, Sesame Lignans, Olive Extract, Krill & Astaxanthin
- 01982 Super Omega-3 EPA/DHA Fish Oil, Sesame Lignans & Olive Extract • 120 softgels
- 01985 Super Omega-3 EPA/DHA Fish Oil, Sesame Lignans & Olive Extract • 60 enteric coated softgels
- 01984 Super Omega-3 EPA/DHA Fish Oil, Sesame Lignans & Olive Extract • 120 enteric coated softgels
- 01986 Super Omega-3 EPA/DHA Fish Oil, Sesame Lignans & Olive Extract • 240 softgels
- 01812 Provinal® Purified Omega-7
- 01640 Vegetarian DHA

**FOOD**

- 02008 California Estate Extra Virgin Olive Oil
- 02170 Rainforest Blend Decaf Ground Coffee
- 02169 Rainforest Blend Ground Coffee
- 02171 Rainforest Blend Whole Bean Coffee

**GLUCOSE MANAGEMENT**

- 01503 CinSulin® with InSea2® and Crominex® 3+
- 01620 CoffeeGenic® Green Coffee Extract
- 02122 Glycemic Guard™
- 00925 Mega Benfotiamine
- 01803 Tri Sugar Shield®

**HEART HEALTH**

- 02530 Aged Black Garlic
- 02553 AmpliQ CoQ10™ • 50 mg, 60 vegetarian capsules
- 02554 AmpliQ CoQ10™ • 100 mg, 60 vegetarian capsules
- 01066 Aspirin (Enteric Coated)
- 01842 BioActive Folate & Vitamin B12 Caps
- 02531 Cardio Peak™
- 01949 CoQ10 (Ubiquinone) with d'Limonene • 50 mg, 60 softgels
- 01951 CoQ10 (Ubiquinone) with d'Limonene • 100 mg, 60 softgels
- 02121 Homocysteine Resist
- 02508 Omega-3 Fish Oil Gummy Bites
- 02018 Optimized Carnitine
- 01929 Super Ubiquinol CoQ10
- 01427 Super Ubiquinol CoQ10 with Enh Mitochondrial Support™ • 50 mg, 30 softgels
- 01425 Super Ubiquinol CoQ10 with Enh Mitochondrial Support™ • 50 mg, 100 softgels
- 01437 Super Ubiquinol CoQ10 with Enh Mitochondrial Support™ • 100 mg, 30 softgels

- 01426 Super Ubiquinol CoQ10 with Enh Mitochondrial Support™ • 100 mg, 60 softgels
- 01431 Super Ubiquinol CoQ10 with Enh Mitochondrial Support™ • 200 mg, 30 softgels
- 01733 Super Ubiquinol CoQ10 with PQQ
- 01859 TMG Liquid Capsules
- 00349 TMG Powder

**HORMONE BALANCE**

- 01468 Cruciferous Vegetable Extract Blend
- 01469 Cruciferous Vegetable Extract Blend and Resveratrol
- 00454 DHEA • 15 mg, 100 capsules
- 00335 DHEA • 25 mg, 100 capsules
- 00882 DHEA • 50 mg, 60 capsules
- 00607 DHEA • 25 mg, 100 vegetarian dissolve in mouth tablets
- 01689 DHEA • 100 mg, 60 vegetarian capsules
- 02368 Optimized Broccoli with Myrosinase
- 00302 Pregnenolone • 50 mg, 100 capsules
- 00700 Pregnenolone • 100 mg, 100 capsules

**IMMUNE SUPPORT**

- 02546 Bee Immune Propolis Capsules
- 02550 Bee Immune Propolis Spray
- 02302 Bio-Quercetin®
- 02433 Echinacea Elite
- 01961 Enhanced Zinc Lozenges
- 02425 Immune Packs with Vitamin C & D, Zinc and Probiotic
- 02005 Immune Senescence Protection Formula™
- 01681 Lactoferrin (Apolactoferrin) Caps
- 02426 Mushroom Immune with Beta Glucans
- 01903 NK Cell Activator™
- 01394 Optimized Garlic
- 01309 Optimized Quercetin
- 01811 Peony Immune
- 01708 Reishi Extract Mushroom Complex
- 01906 Standardized Cistanche
- 01561 Zinc Lozenges

**INFLAMMATION HEALTH SUPPORT**

- 01639 5-LOX Inhibitor with AprèsFlex®
- 02324 Advanced Curcumin Elite™  
Turmeric Extract, Ginger & Turmerones
- 01709 Black Cumin Seed Oil
- 02310 Black Cumin Seed Oil and Curcumin Elite™
- 02467 Curcumin Elite™ Turmeric Extract  
30 vegetarian capsules
- 02407 Curcumin Elite™ Turmeric Extract  
60 vegetarian capsules
- 01804 Cytokine Suppress® with EGCG
- 02223 Pro-Resolving Mediators
- 56886 Restore Activ Joint, Muscle & Tissue
- 01203 Specially-Coated Bromelain
- 00407 Super Bio-Curcumin® Turmeric Extract

**JOINT SUPPORT**

- 02238 ArthroMax® Advanced NT2 Collagen™ & AprèsFlex®
- 00965 Fast-Acting Joint Formula
- 02430 Fast Acting Relief

- 00522 Glucosamine/Chondroitin Capsules
- 02420 Glucosamine Sulfate
- 02424 Joint Mobility
- 01600 Krill Healthy Joint Formula
- 02529 Lower Back Relief
- 00451 MSM (Methylsulfonylmethane)
- 02231 NT2 Collagen™

**KIDNEY & BLADDER SUPPORT**

- 00862 Cran-Max® Cranberry Whole Fruit Concentrate
- 01424 Optimized Cran-Max®
- 01921 Uric Acid Control
- 01209 Water-Soluble Pumpkin Seed Extract

**LIVER HEALTH & DETOXIFICATION**

- 01922 Advanced Milk Thistle • 60 softgels
- 01925 Advanced Milk Thistle • 120 softgels
- 02240C Anti-Alcohol Complex
- 01651 Calcium D-Glucarate
- 01571 Chlorophyllin
- 02402 FLORASSIST® Liver Restore™
- 02521 Glutathione
- 01541 Glutathione, Cysteine & C
- 01393 HepatoPro
- 01608 Liver Efficiency Formula
- 01522 Milk Thistle • 60 vegetarian capsules
- 01534 N-Acetyl-L-Cysteine
- 01884 Silymarin
- 02361 SOD Booster

**LONGEVITY & WELLNESS**

- 00457 Alpha-Lipoic Acid
- 02414 Bio-Fisetin®
- 02547 Bio-Luteolin™
- 01214 Blueberry Extract
- 01438 Blueberry Extract and Pomegranate
- 02270 DNA Protection Formula
- 02431 Essential Youth - L-Ergothioneine
- 02119 GEROPROTECT® Ageless Cell™
- 02415 GEROPROTECT® Autophagy Renew
- 02401 GEROPROTECT® Stem Cell
- 02211 Grapeseed Extract
- 02527 Healthy Aging Powder
- 00954 Mega Green Tea Extract (decaffeinated)
- 00953 Mega Green Tea Extract (lightly caffeinated)
- 02540 Mega L-Ergothioneine
- 01513 Optimized Fucoidan with Maritech® 926
- 02230 Optimized Resveratrol Elite™
- 01637 Pycnogenol® French Maritime Pine Bark Extract
- 02210 Resveratrol Elite™
- 02301 Senolytic Activator®
- 01208 Super R-Lipoic Acid

**LUNG HEALTH**

- 02512 Healthy Lungs

**MEN'S HEALTH**

- 02538 Hair Growth for Men
- 02549 Advanced Male Sexual Support
- 02209 Male Vascular Sexual Support
- 00455 Mega Lycopene Extract

- 02306 Men's Bladder Support
- 01789 PalmettoGuard® Saw Palmetto and Beta-Sitosterol
- 01790 PalmettoGuard® Saw Palmetto/Nettle Root Formula and Beta-Sitosterol
- 01373 Prelox® Enhanced Sex for Men
- 01940 Super MiraForte with Standardized Lignans
- 02500 Testosterone Elite®
- 01909 Triple Strength ProstaPollen™
- 02029 Ultra Prostate Formula

**MINERALS**

- 01661 Boron
- 02107 Extend-Release Magnesium
- 01677 Iron Protein Plus
- 02403 Lithium
- 01459 Magnesium Caps
- 01682 Magnesium (Citrate)
- 02535 Magnesium Glycinate
- 01328 Only Trace Minerals
- 01504 Optimized Chromium with Crominex® 3+
- 02309 Potassium with Extend-Release Magnesium
- 01740 Sea-Iodine™
- 01879 Se-Methyl L-Selenocysteine
- 01778 Super Selenium Complex
- 00213 Vanadyl Sulfate
- 01813 Zinc Caps

**MISCELLANEOUS**

- 00577 Potassium Iodide

**MOOD & STRESS MANAGEMENT**

- 02519 Ashwagandha Plus
- 02434 Calm-Mag
- 02312 Cortisol-Stress Balance
- 00987 Enhanced Stress Relief
- 02542 GABA
- 01683 L-Theanine
- 02175 SAME (S-Adenosyl-Methionine)  
200 mg, 30 enteric coated vegetarian tablets
- 02176 SAME (S-Adenosyl-Methionine)  
400 mg, 30 enteric coated vegetarian tablets
- 02174 SAME (S-Adenosyl-Methionine)  
400 mg, 60 enteric coated vegetarian tablets
- 02429 Theanine XR™ Stress Relief

**MULTIVITAMINS**

- 02199 Children's Formula Life Extension Mix™
- 02354 Life Extension Mix™ Capsules
- 02364 Life Extension Mix™ Capsules without Copper
- 02356 Life Extension Mix™ Powder
- 02355 Life Extension Mix™ Tablets
- 02357 Life Extension Mix™ Tablets with Extra Niacin
- 02365 Life Extension Mix™ Tablets without Copper
- 02292 Once-Daily Health Booster • 30 softgels
- 02291 Once-Daily Health Booster • 60 softgels
- 02313 One-Per-Day Tablets
- 02317 Two-Per-Day Capsules • 60 capsules
- 02314 Two-Per-Day Capsules • 120 capsules
- 02316 Two-Per-Day Tablets • 60 tablets
- 02315 Two-Per-Day Tablets • 120 tablets
- 02428 Whole Food Multivitamin

**NERVE & COMFORT SUPPORT**

- 02202 ComfortMAX™
- 02303 Discomfort Relief
- 02544 Migra-Health™

**PERSONAL CARE**

- 02322 Hair, Skin & Nails Collagen Plus Formula
- 01278 Life Extension® Toothpaste
- 00408 Venotone

**PET CARE**

- 01932 Cat Mix
- 01931 Dog Mix

**PROBIOTICS**

- 01622 Bifido GI Balance
- 02421 FLORASSIST® Daily Bowel Regularity
- 02125 FLORASSIST® GI with Phage Technology
- 01821 FLORASSIST® Heart Health
- 02250 FLORASSIST® Mood Improve
- 02208 FLORASSIST® Immune & Nasal Defense
- 02120 FLORASSIST® Oral Hygiene
- 02203 FLORASSIST® Prebiotic
- 01825 FLORASSIST® Probiotic Balance
- 02505 FLORASSIST® Probiotic Women's Health
- 02539 FLORASSIST® Probiotic Youthful Gut

**SKIN CARE**

- 02423 Daily Skin Defense
- 01938 Shade Factor™
- 02129 Skin Care Collection Anti-Aging Serum
- 02130 Skin Care Collection Day Cream
- 02131 Skin Care Collection Night Cream
- 02096 Skin Restoring Ceramides

**SLEEP**

- 02234 Fast-Acting Liquid Melatonin
- 01669 Glycine
- 01722 L-Tryptophan
- 01668 Melatonin • 300 mcg, 100 vegetarian capsules
- 01083 Melatonin • 500 mcg, 200 vegetarian capsules
- 00329 Melatonin • 1 mg, 60 capsules
- 00330 Melatonin • 3 mg, 60 vegetarian capsules
- 00331 Melatonin • 10 mg, 60 vegetarian capsules
- 00332 Melatonin • 3 mg, 60 vegetarian lozenges
- 02201 Melatonin IR/XR
- 01787 Melatonin 6 Hour Timed Release  
300 mcg, 100 vegetarian tablets
- 01788 Melatonin 6 Hour Timed Release  
750 mcg, 60 vegetarian tablets
- 01786 Melatonin 6 Hour Timed Release •3 mg,  
60 vegetarian tabs
- 01445 Quiet Sleep Melatonin • 5 mg, 60 veg capsules
- 02502 Rest & Renew
- 02526 Serene Sleep

**VITAMINS**

- 01533 Ascorbyl Palmitate
- 00920 Benfotiamine with Thiamine
- 01945 BioActive Complete B-Complex
- 00102 Biotin
- 00084 Buffered Vitamin C Powder

- 02229 Fast-C® and Bio-Quercetin®
- 02075 Gamma E Mixed Tocopherol Enhanced with  
Sesame Lignans
- 02070 Gamma E Mixed Tocopherol & Tocotrienols
- 01913 High Potency Optimized Folate
- 01674 Inositol Caps
- 02244 Liquid Vitamin D3 • 50 mcg (2000 IU)
- 02232 Liquid Vitamin D3 (Mint) • 50 mcg (2000 IU)
- 01936 Low-Dose Vitamin K2
- 00373 No Flush Niacin
- 01939 Optimized Folate (L-Methylfolate)
- 01217 Pyridoxal 5'-Phosphate Caps
- 01400 Super Absorbable Tocotrienols
- 02334 Super K
- 01863 Super Vitamin E
- 02422 Vegan Vitamin D3
- 02028 Vitamin B5 (Pantothenic Acid)
- 01535 Vitamin B6
- 00361 Vitamin B12 Methylcobalamin
- 01536 Vitamin B12 Methylcobalamin  
1 mg, 60 vegetarian lozenges
- 01537 Vitamin B12 Methylcobalamin  
5 mg, 60 vegetarian lozenges
- 02228 Vitamin C and Bio-Quercetin®  
60 vegetarian tablets
- 02227 Vitamin C and Bio-Quercetin®  
250 vegetarian tablets
- 01753 Vitamin D3 • 25 mcg (1000 IU), 90 softgels
- 01751 Vitamin D3 • 25 mcg (1000 IU), 250 softgels
- 01713 Vitamin D3 • 125 mcg (5000 IU), 60 softgels
- 01718 Vitamin D3 • 175 mcg (7000 IU), 60 softgels
- 01758 Vitamin D3 with Sea-Iodine™
- 02040 Vitamins D and K with Sea-Iodine™

**WEIGHT MANAGEMENT & BODY COMPOSITION**

- 02479 7-Keto® DHEA Metabolite  
100 mg, 60 vegetarian capsules
- 02207 AMPK Metabolic Activator
- 02504 Body Trim and Appetite Control
- 02478 DHEA Complete
- 02506C Mediterranean Weight Management
- 01432 Optimized Saffron
- 02511 Thermo Weight Control
- 02509 Waistline Control™

**WOMEN'S HEALTH**

- 01942 Breast Health Formula
- 02537 Daily PMS Relief
- 02534 Estrogen Balance Elite
- 01894 Estrogen for Women
- 02541 Hair Growth for Women
- 02204 Menopause Relief
- 02319 Prenatal Advantage
- 02536 Sexual Health for Her
- 01649 Soy Isoflavones
- 02513 Women's Bladder Support

Ubiquinol Form of CoQ10

"Super product!"  
Richard  
VERIFIED BUYER

# CoQ10

## For Cellular Energy and Heart Health

CoQ10 is essential for cellular energy production.

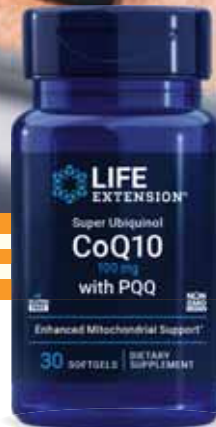
The ubiquinol form of CoQ10 has long been used to support higher blood concentrations.



### Item #01426 | Best Seller

Our customer favorite  
CoQ10 formula

100 mg • 60 softgels • 2-month supply  
1 bottle **\$42**  
4 bottles \$37.50 each



### Item #01733

Supercharged heart health &  
cellular energy support

100 mg ubiquinol + 10 mg PQQ  
30 softgels  
1 bottle **\$33.75**  
4 bottles \$29 each



### Item #01431

Our maximum  
dose ubiquinol

200 mg • 30 softgels  
1 bottle **\$39**  
4 bottles \$35 each

4.9  
★★★★★

99%  
OF RESPONDENTS  
WOULD RECOMMEND  
THIS TO A FRIEND

### #1 Rated CoQ10 Products - 7 Time Winner!

For full product description and to order **Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™**, or **Super Ubiquinol CoQ10 with PQQ**, call 1-800-544-4440 or visit [www.LifeExtension.com](http://www.LifeExtension.com)

Q+®, Kaneka Ubiquinol™, and the quality seal™ are registered or pending trademarks of Kaneka Corp.



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.

# Better Together



**Curcumin** helps to promote a healthy inflammatory response.



**Pro-Resolving Mediators** help remove cellular debris and build new, healthy tissue.

**The duo that improves the picture**

**This complementary combo promotes a healthy inflammatory response.**

## Curcumin Elite™

Item #02407 | 60 500 mg vegetarian capsules  
1 bottle \$25.50 | 4 bottles \$23.75 each

## Pro-Resolving Mediators

Item #02223 | 30 softgels  
1 bottle \$21 | 4 bottles \$19 each

For full product description and to order **Curcumin Elite™** and **Pro-Resolving Mediators**, call **1-800-544-4440** or visit **www.LifeExtension.com**

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## IN THIS EDITION OF *LIFE EXTENSION MAGAZINE*®



### 7 **NAD<sup>+</sup> AT A LOWER COST**

Both **NR** and **NMN** boost levels of **NAD<sup>+</sup>**, which *promotes cell energy, DNA repair, and longevity* proteins. **NMN** is less expensive than **NR**.



### 20 **LYCOPENE'S CARDIOVASCULAR BENEFITS**

**Lycopene**, a carotenoid found in various plant-based foods, works by several mechanisms to reduce risk factors for **heart** and other **cardiovascular** disorders.



### 32 **LITHIUM LINKED TO REDUCED CANCER RISK**

People with the *highest* exposure to **lithium** in their drinking water had a lower risk of every type of cancer studied, according to a *Journal of the American Medical Association* publication.



### 44 **LIFTING FEMALE LIBIDO**

**Fenugreek** seed extract *increased* **sex hormone** levels and doubled **sexual activity** in women. **Saffron** extract *improved* **sexual function** measures.



### 54 **PROTECT AGAINST PHOTOAGING**

A **clinical trial** found that an oral **fern extract** *protected* skin from **photoaging** and *decreased* ultraviolet-induced **DNA mutations**.



### 67 **WHAT IS OLIVE LEAF?**

**Olive leaves** are high in the polyphenol **oleuropein** that may help lower blood pressure, cholesterol and triglycerides.