Life Extension® clients take advantage of the annual Super Sale to obtain premium-grade nutrients at the year’s lowest prices.

The quality of these formulas is backed by our 40-year commitment to radically extended, healthy human life spans.

Below are a few examples of the savings you can enjoy during the SUPER SALE:

<table>
<thead>
<tr>
<th><strong>Two-Per-Day Multinutrient Formula</strong></th>
<th>120 capsules • Item #02314 (2-month supply)</th>
<th>$14.40</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-potency bioactive vitamins, minerals, and plant extracts. Provides a broad spectrum of nutrients in just two daily capsules.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Vitamin D3</strong></th>
<th>5,000 IU, 60 softgels • Item #01713</th>
<th>$5.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-potency vitamin D in a softgel to provide greater absorption into the bloodstream.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Advanced Curcumin Elite™ Turmeric Extract with Gingerols</strong></th>
<th>500 mg, 30 softgels • Item #02324 (Just one capsule daily.)</th>
<th>$16.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>A new turmeric root extract provides 45 times greater free curcuminoid bioavailability plus ginger and broad-spectrum turmeric at a lower price.</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Super Omega-3 EPA/DHA Fish oil, Sesame Lignans &amp; Olive Extract</strong></th>
<th>120 softgels • Item #01982</th>
<th>$18.90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly purified EPA (1,400 mg/day) and DHA (1,000 mg/day), sesame lignans plus potent olive extract, provide essential components of the Mediterranean diet.</td>
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</tbody>
</table>

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<thead>
<tr>
<th><strong>Super K</strong></th>
<th>90 softgels • Item #02334 (3-month supply)</th>
<th>$18.23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides two forms of vitamin K2 (1,000 mcg of MK-4 and 100 mcg of trans MK-7), along with 1,500 mcg of K1.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MacuGuard® Ocular Support with Saffron</strong></th>
<th>60 softgels • Item #01992</th>
<th>$15.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides lutein, trans-zeaxanthin, and meso-zeaxanthin to help maintain structural integrity of the macula and retina. Just one softgel per day.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bone Restore with Vitamin K2</strong></th>
<th>120 capsules • Item #01727</th>
<th>$14.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helps bone health with skeletal-strengthening nutrients in one highly absorbable formula.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Customers traditionally take advantage of the SUPER SALE to stock up on a year’s supply of their favorite supplements. To place your order, call 1-800-544-4440 or visit www.LifeExtension.com (SUPER SALE pricing available only to customers in the US, Canada, and England.)

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.
46 ON THE COVER
SURGING EPIDEMIC OF FATTY LIVER DISEASE
Close to 80 million Americans are afflicted with non-alcoholic fatty liver disease. A blend of probiotics and a prebiotic has been shown to reduce severity and stop liver destruction.

22 VISIBLE WRINKLE REDUCTION
In a human study, oral plant ceramides produced an 88% visible reduction of wrinkles and a 90% increase in hydration.

31 VITAMIN K ENHANCES BLOOD SUGAR METABOLISM
A recent study found that vitamin K can reduce the risk of developing type II diabetes by 51% and inhibit metabolic syndrome.

38 ARTHRITIS AND TYPE II COLLAGEN
In human studies type II collagen improved arthritic joint pain and function by 50% and helped reduce cartilage loss.

56 HOW TO USE ZINC LOZENGES
A study showed that lozenges containing zinc acetate are best at curbing a cold and shortening its duration. Zinc lozenges are not meant for everyday use.

64 FASTING FOR A LONGER, BETTER LIFE
Several fasting methods can result in slower aging, reduced disease risks and potential reversal of diabetes.

7 AS WE SEE IT: TRIBUTE TO A LIFE-SAVING PIONEER
We pay tribute to a pioneering surgeon who encountered fierce resistance in the 1960s for attempting to do the so-called impossible—transplanting livers.

15 IN THE NEWS
Glucosamine lowers cardiovascular risk; vitamin D deficiency linked to cirrhosis mortality; calcium reduces risk of AMD blindness; olive oil inhibits blood clot formation; and more.

73 HEALTHY EATING
Mostly Plants promotes the flexitarian lifestyle—eating mostly plant-based foods with animal products in moderation. We provide four recipes from this book.

81 WELLNESS PROFILE
Jane McLelland beat cervical, lung, and blood cancers using the missing link to defeat cancer: starving it.

89 SUPERFOODS
Packed with nutrients, eggplants have beneficial effects on heart health and cancer prevention.
NAD+ levels plummet with age but increase in response to nicotinamide riboside.

Optimized NAD+ Cell Regenerator™ combines 300 mg of nicotinamide riboside with resveratrol and other plant extracts.

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NAD+ Cell Regenerator™
SUPER SALE PRICING!
Item #02344 • 30 vegetarian capsules
1 bottle

* For pricing available to readers of this magazine, call 1-800-544-4440 or visit LifeExtension.com/NAD

For full product description and to order NAD+ Cell Regenerator™ or Optimized NAD+ Cell Regenerator™ with Resveratrol, call 1-800-544-4440 or visit www.LifeExtension.com

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L. Ray Matthews, MD, FACS, is a professor of surgery and director of Surgical Critical Care at Morehouse School of Medicine in Atlanta, GA, and a trauma and critical care surgeon at Grady Memorial Hospital. He has published widely and is known as one of the top vitamin D experts. Dr. Matthews has spoken before the U.S. Food and Drug Administration several times, presenting a recent update about clinical research on vitamin D.

Ralph W. Moss, PhD, is the author of books such as Antioxidants Against Cancer, Cancer Therapy, Questioning Chemotherapy, and The Cancer Industry, as well as the award-winning PBS documentary The Cancer War. Dr. Moss has independently evaluated the claims of various cancer treatments and currently directs The Moss Reports, an updated library of detailed reports on more than 200 varieties of cancer diagnoses.

Michael D. Ozner, MD, FACC, FAHA, is a board-certified cardiologist who specializes in cardiovascular disease prevention. He serves as medical director for the Cardiovascular Prevention Institute of South Florida and is a noted national speaker on heart disease prevention. Dr. Ozner is also author of The Great American Heart Hoax, The Complete Mediterranean Diet and Heart Attack Proof. For more information visit www.drozner.com.

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Xiaoxi Wei, PhD, is a chemist, expert in supramolecular assembly and development of synthetic transmembrane nanoparticles with distinguished selectivity via biomimetic nanoscience. She has expertise in ion channel function and characterization. She founded X-Therma Inc., a company developing a radical new highway towards non-toxic, hyper-effective antifreeze agents to fight unwanted ice formation in regenerative medicine and reduce mechanical icing.
The Two-Per-Day multinutrient formula is superior to commercial multivitamins because it provides vastly higher potencies of vitamins, minerals and plant extracts.

For full product description and to order Two-Per-Day Capsules or Tablets, call 1-800-544-4440 or visit LifeExtension.com.

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SUPER SALE PRICING!
Two-Per-Day Tablets
Item #02315 • 120 tablets (2-month supply)
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4 bottles $13.95 each

✓ 50 times the vitamin B1
✓ 25 times the vitamin B6
✓ 12 times the vitamin B12
✓ 10 times the biotin
✓ 10 times the selenium
✓ 8 times the vitamin C
✓ 2.5 times the vitamin B3
✓ 2 times the vitamin D
✓ 2 times the vitamin E
✓ 2 times the zinc

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In 1963, Dr. Starzl attempted the first human liver transplant. The patient died on the operating table. Several other attempts resulted in tragic outcomes. Critics called him “reckless.” The difficulties extended beyond connecting a new liver. A series of biochemical obstacles also had to be overcome, including organ rejection.

Dr. Starzl persevered against a tidal wave of technical and legal challenges. Today he is recognized as the “father of transplantation.”

Today’s Liver Crisis

In the February 2004 issue of Life Extension® magazine, we described a condition that few doctors had heard about. It’s called non-alcoholic fatty liver disease or NAFLD. The disease ranges from simple fatty buildup to advanced fibrosis and cirrhosis. This end result can be liver failure and/or liver cancer.

Our predictions of an NAFLD epidemic have turned tragically real. NAFLD is expected to be the leading reason for people to require liver transplants in 2020.

Approximately 25% of Americans suffer the damaging effects of NAFLD. Its prevalence and severity in overweight individuals are far higher. The encouraging news is that NAFLD is often a reversible condition, meaning those afflicted can avoid progressing to diseases like fibrosis and cirrhosis that increase the need for a liver transplant.
People often trivialize scientific advances that were considered impossible when the idea was conceived. Instead of recognizing the heroic accomplishments of pioneering individuals, the attitude is that their discovery was obvious, and someone would have eventually done it. This is the opposite of reality.

How One Individual Changed the World

The accomplishments of Dr. Starzl are worthy of a book that should be mandatory reading for medical students.

Dr. Starzl spent decades discovering and improving the full spectrum of organ transplantation technologies. He tirelessly educated other surgeons so they could perform these lifesaving procedures worldwide.

In between, he battled an apathetic and sometimes hostile establishment that raised “ethical and legal” obstacles relating to organ transplantation.

To put the enormity of Dr. Starzl’s work in perspective, there was a time when he was averaging the publication of a new scientific paper every 7.3 days.

In responding to pessimists Dr. Starzl wrote:

“What was inconceivable yesterday, and barely achievable today, often becomes routine tomorrow.”

Challenges of Transplanting A Liver

Few people understand the difficulties of performing a liver transplant.

Some view transplantation as simple as removing and replacing parts like a toy model.

The reality is that liver transplantation requires the intricate disconnect and reconnect of blood vessels, ligaments, and ducts... while keeping the patient alive on the operating table.

The metabolic challenges are more complex. A patient can die from coagulation imbalance, acidosis, ammonia toxicity, or the acute deficit of other critical liver functions. Lifelong monitoring, and anti-organ-rejection drugs are required.

The challenge of identifying tissue-type-matched donor organs in a timely manner was considered insurmountable in early years.

Why the Liver Is Essential to Sustain Life

Everything one ingests that is absorbed from the stomach or intestines first passes through the liver. This is where food, drinks, drugs and most everything else you consume is detoxified and/or converted into forms that are easier to use in cells throughout the body.

At any given moment, the liver contains about 13% of the body’s entire blood supply. As blood moves through the liver, numerous life-sustaining metabolic processes are performed.

This includes detoxifying ammonia that is a byproduct of normal cell metabolism.

Acute liver failure results in rapid ammonia buildup that quickly kills unless some liver function is restored.
Chronic liver dysfunction can result in excess ammonia levels that dangerously impact one’s health and wellbeing.\textsuperscript{15,16} The liver contains specialized proteins that vitamin K activates to enable blood to properly coagulate. A dysfunctional liver adversely impacts blood clotting.\textsuperscript{20} Diabetes is often thought of as a pancreatic disorder, but the liver also regulates glycemic control by, among other things, storing excess blood glucose (as glycogen). It then releases glucose back into the blood as needed. Type II diabetics often have impaired liver function that results in poorly controlled blood glucose.\textsuperscript{21,22} Healthy digestion is highly dependent on the liver to produce bile that breaks down dietary fats for absorption in the small intestine.

\textbf{Chronic Illnesses Can Begin in the Liver} Age-related diseases often begin as the liver slowly fails. That’s because the liver is responsible for everything you’ve read so far and more, including:\textsuperscript{19,23-25}

1. Degrading old, red blood cells to make room for new, red blood cells that can efficiently carry oxygen,
2. Producing lipoproteins essential to transport fats, and

The liver is responsible for more than 500 vital functions, including making immunoglobulins, that are essential for immune health.\textsuperscript{19} When the liver completely fails, the result is death unless a transplant is readily available.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Few understand the difficulty of advancing transplant technology.}
\end{figure}

Some think organ transplantation is as simple as removing and replacing parts like a model. Replacing an organ requires the intricate disconnect and reconnect of vasculature, peritoneum, ligaments, and much more... it is exceedingly complex.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Today’s Chronic Liver Disease Issue}
\end{figure}

Hepatitis C was once a leading cause of liver cirrhosis, liver cancer and eventual liver failure. Drugs approved seven years ago now cure over 90% of hepatitis C viral infections.\textsuperscript{26} This is an underappreciated medical breakthrough. Liver cirrhosis caused by excess alcohol consumption has remained rather constant over the past four decades.\textsuperscript{27}

The disorder that is explosively increasing in prevalence is non-alcoholic fatty liver disease, which is abbreviated as NAFLD. NAFLD represents more than 75% of all liver disease. Its severe form, non-alcoholic steatohepatitis (NASH), is becoming a leading reason people need liver transplants.\textsuperscript{28}

Long before acute liver failure occurs, NAFLD can inflict multiple miseries when it progresses to its more severe form, NASH, which causes a chronic inflammatory disorder that impacts quality of life.

Most physicians respond to the health problems caused by NAFLD by prescribing drugs to treat the various disorders that arise as liver function declines.

A better approach is to reverse the damage and fat in the liver by increasing insulin sensitivity and lowering glucose and lipid levels. This can be accomplished by losing excess body fat and increasing physical activity. These lifestyle changes are easier said than done.

NAFLD that has progressed to NASH can be so severe that more than dietary and physical activity improvements are needed.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{New Approach to A Healthier Liver}
\end{figure}

NAFLD and NASH increase the risk of death from liver disease by 1.5-fold to over 10-fold.\textsuperscript{29}

Before causing death, the buildup of fibrotic (non-functional) liver tissue ignites a series of chronic conditions that are often confused with degenerative aging.

\textbf{AS WE SEE IT} Few understand the difficulty of advancing transplant technology. Some think organ transplantation is as simple as removing and replacing parts like a model. Replacing an organ requires the intricate disconnect and reconnect of vasculature, peritoneum, ligaments, and much more... it is exceedingly complex.
Decades ago, Life Extension® identified nutrients to help benefit those afflicted with non-alcoholic fatty liver disease (NAFLD). The nutrients included n-acetylcysteine, milk thistle extract, and an expensive nutrient (sold as a drug in Germany) called polyenylphosphatidylcholine (PPC). I’m pleased to announce a new approach that demonstrates a marked reduction in severe liver fibrosis scores in addition to the modest benefits achieved by lifestyle modifications.

This non-drug method showed a 46% decrease in C-reactive protein (CRP), indicating a significant lowering of systemic inflammation.

The article on page 46 of this month’s issue describes this advance that demonstrates a marked reduction in severe liver fibrosis scores in addition to the modest benefits achieved by lifestyle modifications.

The article on page 46 of this month’s issue describes this advance that may save lives while improving one’s quality of life.

This is of particular importance to abnormally obese individuals who have chronically elevated inflammatory markers (such as C-reactive protein).

A Hero Today

I grew up in Pittsburgh, Pennsylvania, at the time Dr. Starzl was performing the first, human liver transplants in the 1960s. Yet the first time I heard his name was in 2017 in an obituary announcing his death at the age of 90. (I read obituaries to increase my motivation to keep me and you out of them.)

As I read how Dr. Starzl saved so many lives, I lamented that he is not a more recognized name.

By the time of his death, Thomas Starzl, M.D. Ph.D. had a towering reputation in the field of transplant medicine, yet sports stars of his era are whom most people recognize and idolize.

Critics called Dr. Starzl reckless. Yet his relentless exploration and clinical implementation changed the course of transplantation medicine forever.

Annual Super Sale

For the 31st consecutive year, we are discounting the price of all our advanced nutritional formulas. Long-time readers take advantage of this annual sale, along with additional discounts to obtain premium-grade nutrients at the year’s best pricing.

This year’s Super Sale ends on Feb. 3, 2020. With the free shipping available to Premier Rewards customers, consider ordering what you need now and then prepare your longer list in January 2020.

As many of you learned decades ago, our commitment to quality is backed by our unrelenting efforts to eradicate degenerative aging.

To order nutrients you need at Super Sale prices, call 1-800-544-4440 (24 hours).

For longer life,

William Faloon, Co-Founder
Life Extension Buyers Club

The burden of NAFLD on the escalation of liver disease can be summarized in the following percentages of those afflicted:

<table>
<thead>
<tr>
<th>Adults</th>
<th>Percent with NAFLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obese</td>
<td>Up to 91%</td>
</tr>
<tr>
<td>Overweight</td>
<td>Between 35-67%</td>
</tr>
<tr>
<td>Normal Weight</td>
<td>Up to 25%</td>
</tr>
</tbody>
</table>

References

Liver Transplant Complexities

A patient with a failing liver is put on a waiting list and told to be available on a moment’s notice.

The liver-failure patient relies on someone else to tragically die and the deceased individual’s liver to be harvested in a timely fashion and then transported for rapid transplantation.

There is a severe shortage of donor organs. Each year, about 7,000 Americans with failing livers die because a suitable transplant does not become available in time.17

The operation is done through a large incision in the upper abdomen.

The surgical procedure involves severing and reattaching the common bile duct, the hepatic artery, the hepatic vein and the portal vein, as well as ligaments that hold the liver in place.10

Additional vascular surgery involves the inferior vena cava (the largest vein in the body that is located in the thoracic and abdominal regions).10,18

The donor’s blood in the liver is replaced by an iced, organ-storage solution, until the donated liver is implanted into the liver-failure patient’s body.

Implantation involves anastomoses (surgical connections) of the inferior vena cava, portal vein, and hepatic artery. After blood flow is restored to the new liver, the biliary (bile duct) connection is constructed, either to the recipient’s bile duct or small intestine.10

The surgery usually takes between four and eight hours.

During the surgical procedure careful monitoring of the patient is needed as there are many complex challenges (such as coagulation imbalances) that can result in the patient’s death on the operating table.

Precise use of organ-rejection drugs is then needed.

Dr. Starzl pioneered and relentlessly improved all of the above.
COMBAT Senescent Cells and AGING

Science of Senolytics!

Senescent cells are old cells that no longer divide but they emit factors that accelerate aging.

Senolytic compounds selectively help target senescent cells in the body. Laboratory studies show evidence of systemic rejuvenation when the senescent cell burden is reduced.

Once-Weekly Senolytic Formula

Senolytic Activator provides a highly absorbable form of quercetin phytosome and black tea theaflavins designed to enhance the body’s ability to manage senescent cells.

The suggested dose is to take two capsules of Senolytic Activator just once weekly.

For full product description and to order Senolytic Activator, call 1-800-544-4440 or visit www.LifeExtension.com

SUPER SALE PRICING!

Item #02301 - 24 vegetarian capsules

1 box $16.20

4 boxes $14.40 each

(Each box lasts three months.)

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Essential Factor to Reduce Cell Fat Storage

The engine that enabled you to mature from a fertilized egg to an adult is a cell protein called mTOR.

Once we reach maturity, mTOR should turn down and serve only to maintain our structural and functional integrity.

Most people today consume too many excess calories. This results in mTOR is constantly running at high gear, which is a factor in unwanted fat storage.

Increase AMPK to Lower mTOR

Studies show that increasing AMPK activity turns down excess mTOR.¹

Scientific studies show that increasing AMPK activity can encourage cells to store less fat and burn it as energy.²,³

AMPK Metabolic Activator was formulated based on data showing reduced belly fat in response to just one of its ingredients (gynostemma pentaphyllum).³

AMPK Metabolic Activator is a dual-nutrient formula designed to support healthy AMPK cellular activation.

References

For full product description and to order AMPK Metabolic Activator, call 1-800-544-4440 or visit www.LifeExtension.com

SUPER SALE PRICING!
Item #02207 • 30 vegetarian tablets
1 bottle $25.65
4 bottles $21.60 each

Actiponin® is a trademark of TG Biotech Co., Ltd. This supplement should be taken in conjunction with a healthy diet and regular exercise program. Individual results may vary and are not guaranteed.

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Maintain a Healthy Post-Inflammatory Response

PRO-RESOLVING MEDIATORS

Specialized Pro-Resolving Mediators (SPMs) support a healthy relationship with inflammatory factors in our aging bodies.

SPMs help:

- **REMOVE**: Support the body’s natural process for clearing cellular debris.
- **RESTORE**: Help balance cytokines in the body.
- **RENEW**: Promote the regeneration of healthy tissues.

Specialized Pro-Resolving Mediators (SPMs) are derived from polyunsaturated fatty acids found in highly refined, marine-oil concentrate.

SUPER SALE PRICING!

Item #02223 - 30 softgels

1 bottle $18.90
4 bottles $17.10 each

For full product description and to order Pro-Resolving Mediators, 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.
Low Magnesium Increases Risk of Depression in Women

A beneficial role for greater magnesium intake and higher serum magnesium levels in the prevention of depression was suggested in a study published in the *Journal of Affective Disorders.*

The study included 17,730 participants in the 2007–2014 National Health and Nutrition Examination Survey (NHANES).

Researchers found a lower risk of depression among women who had a higher intake of magnesium. Individuals who were among the top 25% of magnesium consumers had an adjusted risk of depression that was 53% less than those who were among the lowest 25%.

**Editor’s Note:** The study contributes to the ever-expanding body of evidence in support of optimal magnesium intake and periodic magnesium blood testing, and it supports the inclusion of depression on the list of conditions benefitted by magnesium.

Vitamin D Deficiency Predicts Mortality in Cirrhosis Patients

Results from a meta-analysis published in Clinical Research in Hepatology and Gastroenterology found an association between severe vitamin D deficiency in patients with cirrhosis of the liver and a significantly greater risk of dying during follow-up periods ranging from 147 to 419 days.*

For the meta-analysis, researchers selected eight studies that included a total of 1,339 subjects with liver cirrhosis. Study reports included subjects’ serum 25-hydroxyvitamin D levels and provided data concerning mortality from all causes. While vitamin D levels of less than 20 ng/mL were categorized as deficient, severe deficiency was defined as a level of less than 10 ng/mL. Being severely deficient in vitamin D was associated with a 79% greater mortality risk during follow-up, in comparison with having higher levels of the vitamin.

Editor’s Note: Vitamin D deficiency of less than 6 ng/mL was associated with an even greater risk of dying during follow-up. Severe deficiency was also associated with cirrhosis severity.

Calcium May Decrease Risk of Age-Related Macular Degeneration

A greater intake of calcium was linked to a lower risk of progression to late, age-related macular degeneration (AMD), according to a study reported in *JAMA Ophthalmology.*

From 1992 to 2001, the Age-Related Eye Disease Study (AREDS) evaluated the effects of nutritional supplements on cataracts and AMD.

The study included 4,751 men and women, who were followed until 2005. Among those whose intake of calcium from food was among the top 20% of participants, there was a 27% lower risk of developing late AMD in comparison with subjects whose intake was among the lowest 20%. When calcium supplementation was evaluated, participants whose intake was among the top one-third had a 30% lower risk of developing neovascularization than those who did not use calcium supplements.

**Editor’s Note:** The authors found that, “Women in the highest tertile of calcium supplementation had a lower risk of progression to neovascular AMD…compared with those who did not take calcium supplements. Similar findings were found in men for dietary calcium. Too few men took calcium supplements to allow for analyses.”

Olive Oil Helps Maintain Normal Blood Viscosity

A presentation at the American Heart Association’s Epidemiology and Prevention/Lifestyle and Cardiometabolic Health Scientific Sessions 2019 reported on a study showing an association between regular consumption of olive oil and a reduction in blood platelet activity. Participants were healthy, obese adults, who were at risk of developing cardiovascular disease.* Increased blood platelet activation increases blood clot formation, which can impair blood flow.

The 63 nondiabetic subjects had no known cardiovascular disease and were part of a larger prospective study of platelet function in obesity. Dietary questionnaire responses provided information concerning the frequency of olive oil intake. Platelet activation was assessed via flow cytometry.

Among subjects whose intake of olive oil was once a week or less, platelet activation was significantly higher than the level of activation associated with consuming olive oil one to three times per week.

Editor’s Note: Olive oil consumption four or more times per week was associated with an even greater benefit than consuming the oil one to three times weekly.

* Abstract P335. Presented at: EPI-Lifestyle 2019 Scientific Sessions; March 5-8, 2019; Houston.
Glucosamine Supplementation Lowers Risk of Cardiovascular Disease

Among people who supplemented with glucosamine, there was a lower risk of cardiovascular disease events, coronary heart disease, stroke, and death from cardiovascular disease, according to a study reported in The BMJ.*

Researchers utilized data from 466,039 participants who enrolled in the UK Biobank between 2006 and 2010. Subjects completed questionnaires upon enrollment that provided data concerning diet, supplement use and other factors. Participants were followed for an average of seven years.

People who used glucosamine supplements had a 15% lower risk of total cardiovascular disease events, defined as cardiovascular disease death, coronary heart disease, and stroke, in comparison with people who did not use the supplements. When these outcomes were examined individually, glucosamine use was associated with a 22% lower risk of cardiovascular death, an 18% lower risk of coronary heart disease and a 9% lower risk of stroke.

Editor’s Note: Glucosamine is a popular over-the-counter supplement used by people with osteoarthritis to relieve pain and support healthy joint tissue.

* BMJ. 2019 May 14;365:l1628.
TASTY NUTRIENT GUMMY—NO ADDED SUGAR!

Protect Your Eyes from BLUE-LIGHT-EMITTING DEVICES

SMART PHONES, TVs, AND COMPUTERS EMIT BLUE LIGHT THAT CAN BE UNFAVORABLE TO HEALTHY VISION.

Digital Eye Support contains a trademarked blend of lutein and zeaxanthin that helps filter out the blue light* bombarding our eyes from digital devices.

Just two gummies a day provide ingredients shown to enhance the protective macula structure to support vision health.

Digital Eye Support comes in a tasty, berry-flavored gummy with no added sugar.

* Blue light is not easily filtered by our eyes, and vision experts warn against repeated overexposure.

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Item #02323 • 60 Gummies
1 jar $18 • 4 jars $16.20 each

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Your Brain Health Is in Your Hands

Neuro-Mag® Magnesium L-Threonate was specifically formulated by MIT scientists to be uniquely absorbable by brain and nerve cells.

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Visible Wrinkle Reduction with Oral Plant Ceramides

Our skin has its own natural, built-in moisturizer: ceramides.

They make up 50% of the lipids in the outer layer of the skin and are crucial for a wrinkle-free skin appearance.1

Ceramides are part of the skin’s barrier function that enables a smooth and moist outer appearance.

With age and environmental exposure, the skin’s outer barrier and moisture are depleted.2,3

Seeking a way to revitalize aging skin, scientists have developed plant-derived ceramides that can be taken orally, working from the inside out to help restore skin to a more youthful state.

A clinical trial showed that taking a plant-ceramide extract does more than just moisturize the skin.

It reduced fine lines and wrinkles—with 88% of participants experiencing visible reduction of wrinkles and 90% experiencing greater skin hydration.4
The Need to Replenish Ceramides

Ceramides are lipids that help hold the surface skin cells together.3,5 They are essential to the skin’s barrier function and moisture content, both of which decrease with age.2,3

Ceramides are natural skin constituents that help keep skin moist and soft, and protect against damage from pollution and other environmental stresses.

Alterations to the skin’s barrier function and moisture content contribute to wrinkles and dry skin, and make skin more susceptible to environmental allergens, infections, and skin disorders.2,6

The solution: Plant-derived ceramides—or phyto-ceramides—that can be taken orally.

The Superiority of Oral Ceramides

Researchers discovered that ceramides are found in large quantities in grains such as rice, corn, and wheat.7,8

Using non-genetically modified wheat, they created an extract containing purified gluten-free oils.8 This wheat-derived ceramide extract is taken orally to nourish skin cells in the same way as the body’s natural supply of ceramides.

By circulating internally through the bloodstream, these ceramides are able to penetrate into the deepest skin cell layers, where they can hydrate, smooth, and help regenerate skin all over the body.8,9

Skin Rejuvenation

In one lab study, ceramide extract effectively hydrated and rejuvenated human skin.10 One way it does this is to inhibit enzymes that destroy elastin (which provides resilience to the skin). These elastin-destroying enzymes contribute to increased wrinkling and loss of skin flexibility.11,12

Ceramides were also shown to slow the hyper-pigmentation that can cause age spots and other unwanted discolorations.13-15

To conclusively demonstrate wheat-derived ceramides’ effect on aging skin, investigators conducted a series of double-blind, placebo-controlled human studies.

The first involved giving 200 mg daily of either a placebo or an oral ceramide extract to women with dry to very dry skin.9 After three months, the ceramide group experienced substantial improvement in skin hydration, along with significant reductions in dry patches, roughness, and itching. The placebo group had no changes.9

In another clinical trial, women with dry to very dry skin took 350 mg daily of either wheat-derived, ceramide-oil extract or a placebo.8 In three months, the ceramide oil significantly increased skin hydration all over the body.

On the arms, hydration increased by over 35%, compared to less than 1% in the placebo group.8
When volunteers were asked to rate their own views, the ceramide extract was perceived to provide greater improvement in all factors. These included facial skin hydration, leg skin hydration, suppleness, roughness, uniformity of complexion, itchiness, and overall state of the skin.8

Additional Findings

A clinical trial demonstrated the most impressive results yet, showing that plant ceramides can reverse age-related wrinkling and dryness.

Sixty-four women, aged 42 to 66, were given either 350 mg of the oral ceramide extract or a placebo daily for 12 weeks.4

The ceramide extract:4

- Increased skin hydration for 75% of the women after four weeks,
- Increased skin hydration for 90% of the women after 12 weeks,
- Visibly reduced wrinkles around the eyes (“crow’s feet”) for 88% of the participants after 12 weeks,
- Visibly reduced wrinkles through 20 weeks—a full eight weeks after participants stopped taking ceramides, showing long-term benefits, and
- Improved radiance and reduced dullness around the eye area after eight weeks.

Compared to the placebo, the ceramide extract led to:4

- 3 times the reduction in wrinkle visibility,
- Nearly 3 times the improvement in facial-skin hydration, and
- 5 times the improvement in skin radiance.

Ceramides and Dermatitis

Scientists have discovered that many skin disorders are connected to a decrease in ceramides.3

For example, patients with psoriasis (a chronic skin condition marked by a scaly, itchy rash) and atopic dermatitis (a condition that makes skin red and itchy) have lower levels of ceramides in the outer skin layer.16-18

Get Younger, Healthier Skin

- Natural lipids known as ceramides play an essential role in the water-retaining properties of the skin, which are critical to preserving skin’s smooth, youthful appearance.
- Ceramides are essential to the skin’s barrier function and moisture content.
- Clinical trials have shown that, when taken orally, plant ceramides are transported through the bloodstream and deep into the cells of the skin. There, they work from the inside out to improve skin hydration, smoothness, and suppleness.
- A recent, landmark study demonstrates that oral, wheat-derived ceramides significantly reduce wrinkles and fine lines and effectively hydrate and rejuvenate the skin.
Scientists found that using topical creams and increasing ceramide content in the skin alleviated atopic dermatitis in children and adults. Ceramides also relieved contact dermatitis (caused by an allergen or irritant) in patients, more than topical treatments alone.19,20

Dermatitis is more than an inconvenience. Patients with the condition have higher concentrations of bacteria, especially Staphylococcus aureus, on the skin surface.21,22 This bacterium is dangerous, causing skin infections, pneumonia, and heart valve and bone infections.23 Ceramides help protect against the damage Staphylococcus aureus can do.24-26

Compromised skin integrity increases the chance of bacterial infections that strike during other illnesses and are often resistant to drugs.27,28

**Summary**

Ceramides are essential to the skin’s barrier function and moisture content. Ceramides are natural lipids that function as natural skin moisturizers. Losing them leaves skin vulnerable to wrinkles, dryness, infections, and skin diseases.

Researchers developed an oral, wheat-derived ceramide extract that supports skin from within the body.

Clinical trials confirm that it substantially boosts skin hydration, smoothness, and suppleness.

The most recent study demonstrates that these plant ceramides reduce fine lines and wrinkles and rejuvenate the skin.

---

**Why Aging Skin Needs Ceramides**

The most visible signs of aging occur in the outer skin layer, the stratum corneum.

The stratum corneum is composed of flattened, hard, dead skin cells that resemble overlapping bricks, which start as living cells in the lower skin layers. As they are pushed closer to the surface, they flatten out and die, providing a thin but very tough barrier.29

These flat cells would immediately flake away if they were not held together by a kind of flexible skin cement—ceramides.8 If you think of the dead skin cells as bricks, the ceramides are the mortar between them that holds them in place.

Together, these flat cells and the flexible, lipid-rich cement act as a two-way barrier, keeping out germs, toxins, and other contaminants, and keeping in moisture. The result is healthy, flexible, and supple skin.30

Cells in the stratum corneum are constantly replaced by living cells in the deeper skin layers.29 And the ceramides and other lipids holding them together are replenished by nutrients brought to the deeper skin layers by the bloodstream.31

That’s how it works in youth.

Studies show that after age 50 or so, new outer layer skin cells take more than 50% longer to reach the surface.32 The amount of lipids supporting these cells also declines, with ceramides among the first to go.33-35

As a result, the “cement” that holds the skin cells together is weakened and loses much of its moisture-barrier function.35 Lost moisture results in the dry, wrinkle-prone skin common in older adults.33,35,36

In addition, the skin is damaged by oxidative stress and chronic inflammation,37 which trigger production of enzymes that degrade skin proteins. Among their chief targets are collagen, the main, structural skin protein, and elastin, which gives skin its suppleness and flexibility.38 Chronic exposure to sunlight aggravates the destruction of these proteins.33,38-41

Ceramides act as a natural sealing agent from inside the body. They’re delivered by the bloodstream, then make their way up through deeper skin layers until they’re deposited in the stratum corneum.31

Oral ceramides can replenish the skin’s supply, leading to reduced wrinkles, improved hydration, and rejuvenated skin.4,8,9


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

References


Super R-Lipoic Acid is more bioavailable, stable, and potent, achieving 10-30 times higher peak blood levels. This unique sodium-R-lipoate can help you reach peak plasma concentrations within just 10-20 minutes of supplementation.

Suggested dose is one to two capsules daily.

CAUTION: If you are taking glucose-lowering medication, consult your health care provider before taking this product. Bio-Enhanced® is a registered trademark of GeroNova Research, Inc.

Preserve Youthful CELLULAR ENERGY with Next-Generation LIPOMIC ACID

Super R-Lipoic Acid is more bioavailable, stable, and potent, achieving 10-30 times higher peak blood levels. This unique sodium-R-lipoate can help you reach peak plasma concentrations within just 10-20 minutes of supplementation.

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Wrinkling, dryness, and loss of firmness are outward signs of normal aging.

One reason is loss of ceramides that are required for skin to retain its moisture and youthful suppleness.

Skin Restoring Ceramides contains wheat-derived ceramide lipids in an oral capsule that hydrate the skin and smooth the appearance of fine lines and wrinkles.

SUPER SALE PRICING!
Item #02096 - 30 liquid vegetarian capsules
1 bottle $16.88
4 bottles $15.53 each

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Contains wheat. Gluten free.
Arterial Protect can help stabilize endothelial plaque and promote healthy blood flow throughout the body.*

Just one capsule a day provides the patented French Maritime pine bark extract used in clinical studies along with Gotu Kola.

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- 1 bottle $29.70
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Reference

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Vitamin K Promotes Healthy Blood Sugar Metabolism

BY SUZANNE SCHIFF

Type II diabetes isn’t curable, but it is preventable, given the right combination of lifestyle and nutritional choices.

There’s no cure for type II diabetes. But there is new hope for the 21 million adults living with it.¹

Recent research has shown that vitamin K plays an important role in glucose metabolism. That can help diabetics avoid the high blood sugar that damages the eyes, kidneys, nerves, and heart.

Vitamin K may also help prevent the onset of type II diabetes.²

**Vitamin K and Risk of Type II Diabetes**

Vitamin K is best known for helping blood properly clot, maintaining bone density, and preventing vascular calcifications.²,⁴-⁷

But its benefits go far beyond that.²,⁸,⁹

Several large-scale studies have analyzed the association between vitamin K and type II diabetes, examining more than 40,000 people in total.²,³,¹⁰,¹¹

Together, these studies show that increased intake of vitamin K—as either K1 (phylloquinone) or K2 (menaquinone)—is linked to a reduced risk of developing type II diabetes.²,³,¹⁰

In one study of older adults, subjects who increased their dietary vitamin K intake had a 51% reduction in their risk for developing diabetes, compared with those who decreased or failed to change their vitamin K intake.³
The study further demonstrated a **17% reduction** in the risk for type II diabetes for each additional intake of **100 mcg/day** of vitamin K1.3

And a 2018 study revealed that people with type II diabetes had blood vitamin K levels more than **2.7 times lower** than non-diabetic patients of the same age.11

Lower levels of vitamin K are linked to greater **insulin resistance**, the core metabolic defect in type II diabetes.11

**Vitamin K Improves Glucose Metabolism**

Recent studies show that supplementing with **vitamin K** (either as K1 or K2) can directly reduce the risk of type II diabetes. Among the results:

- In a study of 355 adults 60-80 years old, **500 mcg/day** of **K1** for three years led to significant reductions in insulin resistance and blood insulin levels in men.12

- A study of 82 women (mean age: 40 years) with **prediabetes** (a condition often indicative of poor insulin sensitivity, that can progress to type II diabetes) showed that **1,000 mcg/day** of **K1** resulted in significant increases in insulin sensitivity and reductions in insulin levels in just four weeks.13

- In a four-week study of 33 healthy young men (median age 29), supplementation with vitamin K2 led to increased insulin sensitivity.14

Research shows that both forms of the vitamin, K1 and K2, have a positive impact on glucose metabolism, insulin resistance, and other metabolic functions. These results hold out great promise for people with diabetes and those at risk of developing it.

**How It Works**

A study published in 2018 sheds further light on how vitamin K improves glucose metabolism.8 Dutch researchers gave 214 postmenopausal women either **180 mcg/day** of vitamin K2 or a **placebo** over a period of three years.8

As expected, they found that vitamin K activated a group of proteins called **Gla proteins**,8 known for their role in bone and mineral metabolism. However, Gla proteins are found throughout the body, and are instrumental in regulating metabolism.

In the group that received vitamin K, a subset who showed the largest increase in Gla protein activity experienced significant reduction in **abdominal fat mass**, compared with other participants.8

That group also had a significant reduction in body mass index, waist and hip circumference, and waist-hip ratio. All these results translate to a reduced risk for developing metabolic syndrome and type II diabetes.8

Vitamin K has also been shown to boost levels of **adiponectin**, a beneficial hormone that helps regulate the metabolism of sugars.2

Finally, a series of preclinical studies have indicated that vitamin K reduces activity of **nuclear factor kappa B** (NF-kB), the primary driver of inflammation in the body.15
Summary

Type II diabetes isn’t curable, but it is preventable, given the right combination of lifestyle and nutritional choices.

There’s growing evidence that those with higher intake and blood levels of vitamin K (in the form of both K1 and K2) have substantially reduced risks of developing type II diabetes.

Studies show that people taking vitamin K have improved glucose metabolism, improved insulin sensitivity, and lower body fat, all of which protect against type II diabetes and metabolic syndrome.

Increasing vitamin K can also benefit those who already have diabetes, by keeping damaging high blood sugar under control.

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

References

Has Your Doctor Recommended CoQ10?

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Comprehensive Vitamin K Formula!

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Item #02334 • 90 softgels

1 bottle $20.25
4 bottles $18.23 each

Each bottle lasts for three months.

For full product description and to order Super K, call 1-800-544-4440 or visit www.LifeExtension.com

Just one daily softgel of Super K provides:

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<tr>
<td>Vitamin K1</td>
<td>1,500 mcg</td>
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**Discount Prices for Premium-Quality Products**

Life Extension® customers take extraordinary steps to stave off disease and aging.

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Each purchase at these discount prices qualifies for valuable Rewards Dollars that reduce the cost of future orders.

<table>
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<th>Product Description</th>
<th>SUPER SALE One Unit</th>
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<td><strong>Super Omega-3 EPA/DHA Fish Oil, Sesame Lignans &amp; Olive Extract</strong></td>
<td>$21.60</td>
<td>$18.90</td>
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<td>120 softgels, Item #01982. Highly purified EPA (1,400 mg) and DHA (1,000 mg), sesame lignans plus potent olive extract, provides essential components of the Mediterranean diet in four softgels.</td>
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<td><strong>Curcumin Elite™ • 500 mg, 60 vegetarian capsules, Item #02407</strong> (Just one capsule daily.) A patented extract from turmeric root that provides 45 times greater free curcuminoid bioavailability than standardized turmeric powder.</td>
<td>$21.60</td>
<td>$19.80</td>
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<td><strong>Super Ubiquinol CoQ10 with Enhanced Mitochondrial Support™</strong></td>
<td>$41.85</td>
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<td>100 mg, 60 softgels, Item #01426. Superior ubiquinol form of CoQ10 (100 mg) plus shilajit shown to double mitochondrial CoQ10 levels.</td>
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<td>$32.40</td>
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<td>(ten-unit per-bottle price)</td>
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<td><strong>FLORASSIST® GI with Phage Technology • 30 liquid vegetarian capsules, Item #02125</strong> Dual-encapsulation probiotic for optimal delivery to help balance bacteria in the intestines.</td>
<td>$22.28</td>
<td>$20.25</td>
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<tr>
<td><strong>Bone Restore with Vitamin K2 • 120 capsules, Item #01727</strong> Helps bone health with skeletal-strengthening nutrients in one highly absorbable formula.</td>
<td>$16.20</td>
<td>$14.85</td>
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<tr>
<td><strong>Vitamin D3 • 5,000 IU, 125 mcg, 60 softgels, Item #01713</strong> High-potency vitamin D in a softgel to provide greater absorption into the bloodstream.</td>
<td>$6.75</td>
<td>$5.85</td>
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<td><strong>Pro-Resolving Mediators • 30 softgels, Item #02223</strong> Supports a healthy relationship with the body’s inflammatory factors to promote whole-body health.</td>
<td>$18.90</td>
<td>$17.10</td>
</tr>
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<td><strong>Ultra Prostate Formula • 60 softgels, Item #02029</strong> Comprehensive support for an aging prostate gland utilizing extracts from pygeum, nettle, flower pollen, and saw palmetto, plus boron, beta-sitosterol, and lycopene.</td>
<td>$25.65</td>
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Super K • 90 softgels, Item #02334 (3-month supply)
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Ease Arthritis with Type II Collagen

Nearly 24% of U.S. adults suffer from arthritis.¹

One type, osteoarthritis, is a leading cause of disability worldwide.²

Arthritis was once considered an unavoidable result of wear and tear on the joints.

But scientists discovered a way to combat the structural degeneration that marks osteoarthritis. They did this by supplying the same type of collagen that is the main component of joint cartilage.

The name of this compound is undenatured type II collagen.

Clinical trials show that this specific collagen can improve joint pain, joint function, and quality of life, while helping to reduce the inflammatory cartilage destruction.³⁶

Collagen may even boost the production of new cartilage and protect against the development of future arthritis.⁷
A Novel Approach to Arthritis

Most people treat arthritis by taking painkillers or anti-inflammatory drugs. They provide temporary relief but can have long-term side effects and do nothing to address the underlying cause.

**Undenatured type II collagen** is identical to the collagen present in our joints.

Animal and human studies have shown that supplementation with this type of collagen, prevents the progression of joint damage, helps relieve joint pain, and improves joint function.3,7,8

This should be of interest for the millions of Americans affected by osteoarthritis.

Protecting Joints in Animals

In a rat model of osteoarthritis, oral administration of undenatured type II collagen prevented pain, improved balance, and improved motor activity.8

Additionally, a marker of cartilage breakdown, called **CTX-II**, was significantly decreased. This suggests that this collagen prevented the progression of joint damage.8

In dogs, supplementation with undenatured type II collagen for 90 days resulted in significant declines in overall pain and increased physical activity levels.9

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Promising Results in People

Scientists decided to see what would happen if undenatured type II collagen were combined with two known, cartilage-supporting nutrients, **glucosamine** and **chondroitin sulfate**.

In a year-long study, 104 patients (average age 61.4 years) with osteoarthritis of the hand, took glucosamine and chondroitin daily. Fifty-seven of those patients also took small daily doses (just 2 mg) of undenatured type II collagen.7

Doctors found that patients who added collagen to their treatment had less severe osteoarthritis than the other group, at both six months and after one year. This collagen decreased progression of osteoarthritis and reduced bone decay more than glucosamine and chondroitin alone.7

The study also tested subjects’ urine for two markers of cartilage breakdown, **CTX-I** and **CTX-II**.

Levels of these markers were reduced for both groups at six months and at one year. But those taking undenatured type II collagen with the other nutrients had a greater decrease in CTX-II after a year, indicating that patients taking collagen improved more than those treated with glucosamine and chondroitin alone.7

The study’s authors noted that undenatured type II collagen appears to reduce damage to joints and slow the breakdown of cartilage, and it may help promote new cartilage synthesis.
Randomized Controlled Human Trial

Next, scientists enlisted patients, aged 47 to 70, with knee osteoarthritis for a randomized controlled study.3 Each day, all 39 patients took 1,500 mg of acetaminophen (Tylenol®), the usual first step in mild osteoarthritis treatment. Twenty of the patients also took 10 mg of undenatured type II collagen daily.3 After 90 days, in the patients taking acetaminophen and collagen, there was significant improvement in joint pain while walking, in knee function, and in quality of life. In fact, this group reported a compelling 50% reduction in the pain score.3

But in the acetaminophen-only group, the sole improvements were in some subscales of the pain and quality-of-life measures.3 The addition of undenatured type II collagen more substantially decreased joint pain and supported joint health.3,7,8

Acetaminophen is dangerous to the kidneys and liver when taken long term. For instance, regular acetaminophen users may be doubling their risk of kidney cancer.10-13

Summary

Uncontrolled inflammation is a key underlying factor in osteoarthritis, resulting in joint pain, inflammation, stiffness, and deterioration.

A protein called undenatured type II collagen has demonstrated the ability to relieve joint pain and inflammation, and even slow the destruction of cartilage.

Animal and human studies have demonstrated that undenatured type II collagen improves joint pain and function, enhances quality of life, and reverses cartilage loss.

If you have any questions on the scientific content of this article, please call a Life Extension® Wellness Specialist at 1-866-864-3027.
Other Nutrients for Joint Health

**Undenatured type II collagen** can improve joint pain and function and may reduce cartilage loss. Other nutrients act in different ways to support the overall health and comfort of joints. Taking them together can most effectively provide relief from arthritis pain.

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**References**

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Alcohol abuse and viral hepatitis are well-known causes of liver disease.

Few people are aware that non-alcoholic fatty liver disease (NAFLD) and its more severe form, nonalcoholic steatohepatitis (NASH), are responsible for a large share of chronic liver disease cases.1-4

The rates of both NAFLD and NASH have grown exponentially and are expected to increase by 21% and 63%, respectively, by the year 2030.5

NAFLD shows no obvious symptoms until potentially irreversible liver damage has occurred. And there are no medications currently available to treat it.

But researchers have discovered a close link between the health of the liver and the health of the gut.6

They found that unhealthy gut bacteria contribute to NAFLD and beneficial bacteria protect against it, when combined with a healthy lifestyle.6-8

Recent clinical trials have shown that a specialized blend of probiotics, in combination with a healthy lifestyle, can reduce the severity of NAFLD and even stop the harm it does to the liver.7,8

In one study, probiotic supplementation plus following healthy lifestyle advice led to a remarkable 54% reduction in C-reactive protein levels, a measure of inflammation.7
The Threat of Non-Alcoholic Fatty Liver Disease

The most common sources of chronic liver damage and liver failure used to be alcohol abuse, and infection of the liver by viruses such as hepatitis B and C.

In recent years, however, liver disease not associated with alcohol or infection has skyrocketed. In this condition, known as non-alcoholic fatty liver disease (NAFLD), high levels of fatty tissue build up in the liver, slowly destroying it.

NAFLD currently affects approximately 25% of the entire U.S. population, accounts for over 75% of all chronic liver disease, and is a major contributor to the incidence of advanced liver disease.5,9-11

Those people most at risk are the obese and individuals who suffer from high blood sugar.

Men and women with NAFLD usually have no symptoms. It is diagnosed through a combination of blood tests and medical scans. In cases where the diagnosis is not clear,12 a biopsy may be necessary.

Few people give their liver a second thought, but it works tirelessly to filter the blood and detoxify the body.

In the long term, NAFLD can cause fibrosis (scarring) of the liver, significantly impairing normal liver function.13-15 Advanced scarring, known as liver cirrhosis, is irreversible and can lead to liver failure, that is eventually fatal. The only treatment at that point is a liver transplant.16

The Gut-Liver Connection

The microorganisms that live in our intestines, or gut, have a critical impact on overall health throughout the body.

An unhealthy mix of gut microbes is increasingly common in populations that consume a modern Western diet. This imbalance has been found to be tied to many chronic ailments.17-19

Improving gut health through diet and the use of probiotics may help reduce the risk of some of these diseases.

The impact of gut microbiota is particularly profound for liver health—to such an extent that the link is known as the gut-liver axis.18

Here’s why: The majority of blood that circulates away from the intestines feeds directly into the liver through a large vessel called the portal vein. This vein then splits into tiny capillaries that run throughout the liver.
Probiotics Protect Against NAFLD

Due to the rapid increase in NAFLD rates, scientists have been scrambling to find ways to shield the liver against the damage it causes.

Because of the strong link between gut microbes and NAFLD, they decided to focus on probiotics. Scientists designed a blend of microorganisms they believed was ideal to improve gut health and favorably impact the liver, reducing risk and severity of non-alcoholic fatty liver disease (NAFLD).

This probiotic blend consists of seven beneficial bacteria that are considered to be a part of a healthy gut microbiome. They are:

- Lactobacillus casei PXN® 37,
- Lactobacillus rhamnosus PXN® 54,
- Streptococcus thermophilus PXN® 66,
- Bifidobacterium breve PXN® 25,
- Lactobacillus acidophilus PXN® 35,
- Bifidobacterium longum PXN® 30, and
- Lactobacillus bulgaricus PXN® 39.

But probiotic organisms can only work if they survive and thrive in the intestines, outcompeting harmful bacteria. Combining the probiotics with prebiotics, compounds that help support the health and functioning of the bacteria, give the probiotic organisms an added boost.

WHAT YOU NEED TO KNOW

Synbiotics Combat NAFLD

- Non-alcoholic fatty liver disease (NAFLD) is the most common cause of chronic liver damage. It affects 25% of the U.S. population, and much higher rates of older adults and people who are overweight.
- There are generally no warning signs or symptoms of NAFLD until damage to the liver is already severe and irreversible. No drugs are currently approved to treat it.
- Scientists have discovered that the health of the liver is closely related to gut microbiota, the mix of bacteria in the digestive tract.
- Clinical trials have shown that a carefully designed probiotic and prebiotic blend, combined with following dietary and lifestyle advice, can significantly reduce several markers of NAFLD severity, and even appears to stop the damage it does to the liver.
The blend of probiotics and prebiotics is often referred to as **synbiotics** because of their **synergistic** activity in improving gut health.

**Results of Human Trials**

Two randomized clinical trials have evaluated the impact of this new **probiotic-prebiotic blend** on non-alcoholic fatty liver disease.

**The first study** recruited volunteers who were overweight or obese and had a diagnosis of NAFLD. Patients were randomized to receive either the **synbiotic** blend or a placebo for 28 weeks. Both groups were advised to follow recommendations for physical activity and balanced diet.

To determine the effectiveness, researchers evaluated different markers of **NAFLD** severity. The first was levels of two **liver enzymes**, **ALT** (alanine aminotransferase) and **AST** (aspartate aminotransferase), which spill into the bloodstream when there’s damage to the liver. Higher levels in the blood indicate more liver damage.

The subjects in this study all started out with **elevated** liver enzyme levels due to NAFLD. At the end of the study, both groups saw a **decline** in liver enzymes, but those who received the **probiotic** had a greater drop in levels of **ALT** and **AST** of such magnitude that they returned to a **normal range**.

By the end of the study, another marker of NAFLD severity, the **fibrosis score** (showing how much scarring is present in the liver), dropped, on average, into the **normal** range in the **probiotic-prebiotic** group.

Lastly, this study looked at **C-reactive protein**, a marker of the inflammation resulting from NAFLD. The **probiotic-prebiotic** group had a **54% reduction** in C-reactive protein levels by the end of the study.

**The second study** tested the same **probiotic-prebiotic** blend plus healthy lifestyle advice on people with non-alcoholic fatty liver disease who were **not** overweight or obese.

In these subjects, those taking the **probiotic-prebiotic** blend saw a larger average drop in liver enzymes, including a significant **17% reduction** in AST. The fibrosis score also dropped significantly in the **synbiotic** group, falling into the normal range, on average, and C-reactive protein was **reduced by 46%**.

The outcomes of these trials indicate that the new **probiotic-prebiotic blend** significantly reduces signs of non-alcoholic fatty liver disease (NAFLD) severity, regardless of body weight.
PROTECT AGAINST FATTY LIVER WITH TARGETED PROBIOTICS

References


Summary

Non-alcoholic fatty liver disease (NAFLD) occurs in 25% of the U.S. population, and in much higher rates in older and in overweight people. Over time, without dietary and lifestyle changes, it can progress and damage the liver, potentially leading to liver cirrhosis and liver failure. There are currently no FDA-approved medical treatments to prevent or reduce liver damage. However, scientists have discovered that liver health is tied to a healthy mix of gut microbes.

A carefully chosen blend of probiotic microorganisms, combined with a prebiotic to support their survival, has shown in clinical trials to reduce the severity of liver disease caused by NAFLD. ●

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How Ionic Zinc Can Stop Colds Fast

BY MICHAEL DOWNEY

Common colds are the most common human infection.¹

Based on research published in the 1980s, many people know to start popping zinc lozenges.

But not all zinc is the same.

Many cold lozenges feature different forms of zinc that are not the most effective choice.

The specific kind of zinc lozenge that has shown the most consistent benefit is one that slowly releases ionic zinc.

Taken at the earliest sign of symptoms, it can protect against a cold developing and shorten the duration of a cold by seven days.²,³

What’s critical is to initiate zinc lozenges as soon as the first cold symptom manifests. Waiting for full symptoms to develop inhibits the ability of zinc to do its job.

And the best way to get the ionic form is from zinc acetate.
Dangers of the Common Cold

The common cold is a viral infection of the upper respiratory tract that causes symptoms like a runny or stuffy nose, sneezing, coughing, and sore throat. Headache, fatigue, fever, and muscle aches can also occur.4

Americans contract an estimated one billion colds annually, and they’re the leading cause of missed days at work or school.5,6

Though cold symptoms are usually mild, the effects on those with a weakened immune system, like the elderly, may be severe. Complications can develop, including sinusitis, and secondary infections like pneumonia and strep throat.7,8

Zinc Wards Off Colds

Rhinoviruses, the most common cold viruses, attach to receptors in cells of the mucus membranes of the upper respiratory tract and then replicate out of control.9,10

When taken as a slow-release lozenge, zinc binds to those same cell receptors, preventing the rhinovirus from entering cells and establishing a common cold infection. This makes it uniquely effective in warding off colds.11

Zinc is a mineral that has functions throughout the body, including support for the immune system. But its unique effect in the throat (blocking viruses from entering cells) is what makes the occasional use of zinc lozenges so beneficial.

Only Ionic Zinc Really Works

In 1984, a team of researchers led by pioneering scientist George Eby published the results of the first double-blind, human study on zinc lozenges for common colds. They discovered that after seven days, cold symptoms vanished in 86% of people taking zinc, compared to 46% taking placebo lozenges.2

The form of zinc that most effectively binds to cell receptors, blocking the cold virus, is ionic zinc.3 This type of zinc has acquired a positive charge by losing electrons.

There are significant differences in the amounts of ionic zinc released from the different zinc forms. Scientists have now calculated these amounts, and they found that:3

- Zinc acetate releases 100% of its zinc as ionic zinc,
- Zinc gluconate releases 72% of its zinc as ionic zinc,
- Zinc gluconate-glycine releases 57% or less of its zinc as ionic zinc, and
- Zinc gluconate-citrate releases no ionic zinc.

These findings show zinc acetate releases the most ionic zinc, which is believed to be the essential form for fighting the common cold.

In fact, research demonstrates that when the right dose of zinc acetate is used within 24 hours of cold symptoms developing, the benefits can be remarkable.12

Zinc Acetate Stops Colds

In a 2000 study, researchers gave patients moderate-dose (12.8 mg) zinc acetate lozenges, every two to three hours while awake, within 24 hours of developing common cold symptoms. Days of suffering were reduced by about 45%. The average, overall duration of symptoms was just 4.5 days, compared to 8.1 days in a placebo group.13

58 | LIFE EXTENSION | JANUARY 2020
In a similar study done in 2008, adults took moderate doses (13.3 mg) of zinc acetate lozenges within 24 hours of showing symptoms, every two to three hours while awake. On average, cold duration was 4 days compared to 7.1 days for those taking a placebo. Severity of cold symptoms was also markedly lower in the zinc group.14

In 2011, a review of 13 placebo-controlled human trials was published that examined the effect of zinc lozenges on common cold episodes:15

• Five trials used a total daily zinc dose of less than 75 mg. These studies found no effect.

• Three trials used zinc acetate in total daily doses of over 75 mg. The pooled result of these higher-dose studies showed a 42% reduction in cold duration.

• Five trials used other zinc forms (like zinc gluconate) in total daily doses of over 75 mg. The pooled result of these non-acetate trials showed a more modest 20% reduction in cold duration.

This review demonstrated that zinc acetate is the best zinc form for shortening the duration of colds.15

In fact, after reviewing decades of studies, the scientist who led the first zinc lozenge trial, George Eby, concluded that slowly dissolving zinc acetate lozenges every two waking hours should shorten colds by up to seven days.3

In 2017, a meta-analysis provided further support for the use of zinc acetate. Scientists selected three double-blind, controlled trials that evaluated the effect of zinc acetate lozenges on colds among a total of 199 participants. Dosages ranged from 80 mg to 92 mg daily. They found that:12

• Zinc acetate increased rate of recovery compared with a placebo.

• On the fifth treatment day, 70% of subjects given zinc acetate had recovered from their colds, compared to 27% in the placebo group.

The team concluded that people who come down with colds should use zinc acetate within 24 hours of symptom onset.12

Compelling Evidence

- **Colds** are the most common illness and pose a serious health risk to those with respiratory or immune issues, as well as the elderly.

- People frequently take zinc lozenges to treat colds, but many products on the market use a form of zinc that’s inferior.

- Evidence shows that, taken at the very first symptoms, ionic zinc blocks the cold-causing rhinovirus from entering cells. This can shorten the duration of a cold by seven days, which scientists consider a cure.

- The most effective way to get ionic zinc is from zinc acetate. Taken in 18.75 mg doses every two hours, this specific form of zinc has demonstrated compelling findings in clinical studies.
An Accidental Discovery

The effectiveness of zinc lozenges against the common cold was discovered purely by accident in 1979.

During her eventually successful battle with leukemia, a three-year-old girl was being treated with chemotherapy, radiation, and zinc supplements. One day, because she had a sore throat due to a cold, she refused to swallow the usual 50 mg zinc tablet and instead dissolved it in her mouth.²

Within hours, her cold had disappeared and did not return.²

That lucky accident spurred researchers to conduct the first double-blind, human study on zinc lozenges for common colds. In 1984, the published results confirmed that zinc lozenges could drastically shorten the length of a cold.²

Summary

Many people take zinc lozenges to ward off a common cold. But studies show that only ionic zinc, delivered most effectively by zinc acetate, can help stop a cold in its tracks.

Taken at the first onset of symptoms in doses of 18.75 mg every two waking hours, this specific form of zinc prevents the rhinovirus from entering cells and establishing a cold infection.

These zinc lozenges are not meant for everyday use. They should instead be kept for use upon any symptom developing and used for no more than seven days. One reason for short term use is one might ingest excess amounts of zinc at the frequency recommended. •

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

References

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Many LivingTheCRWay members also incorporate long, daily fasting times into their lives, and their results are remarkable, indicating reduced risk of age-related disease.²

2. **Decreased Cancer Likelihood and Slower Metastasis**

Fasting reduces risk factors that make cancer likely.³

Fasting may help slow metastasis and make chemotherapy more effective.⁴
3. Type II Diabetes and Prediabetes—Reversible

Fasting makes cells more insulin sensitive, reducing blood glucose levels. Some studies indicate that low-calorie diets can reverse type II diabetes and prediabetes.\(^5,6\)

4. Improved Cardiovascular Health

Intermittent fasting may slow atherosclerosis progression, decrease blood pressure, improve lipid profile, and cut inflammation related to heart risk.\(^7\)

Why Fast when you are Already Healthy?

In my 40s, I was happy with the results of my calorie-restricted diet and did not see a reason to try fasting. Once I got into my 50s, though, brain fog crept into my life. Brain fog is another way of saying memory and other cognitive capabilities—like creativity and organizational skills—are not working as well as they once did.

Looking for help, I tried a brain-training program that flashed numbers for a few seconds on my computer screen and challenged me to repeat them back from memory. I wondered whether this kind of brain training could clear up brain fog.

Try it. Take two seconds to memorize this number:

864237906

Now look away so you can’t see the number and repeat it. How did you do? Can you repeat it without looking?

If you can, try repeating it backward without looking.

In my 50s, a sequence of nine numbers was as much as I could remember. A sequence of 10 numbers (try 2539046407), especially backward, was too much for me.

I could probably have improved my score by practicing for weeks or months, but I wanted to improve faster—like I could in my 20s and 30s. Little did I know that a far-away lab had developed what I needed: Intermittent Fasting or Periodic Fasting, as they called it in their paper.\(^8\)

This innovative research compares the cognitive functions of calorie-restricted mice to mice that were not calorie-restricted but were fed on a schedule that included fasting time without food. The brain-boosting benefits were greater for the fasting mice.

Inspired, I decided to try it. I ate two meals—a big breakfast and a smaller lunch—and stopped eating as soon as I could: mid-afternoon. Then I drank only water until the next morning.
After eating this way for a few days, I tried the number sequences again, not expecting any improvement. But there it was: When I got to ten numbers, I could do it! Soon I progressed to 11 numbers, then 12 and 13. And sometimes I could remember 13 numbers backward. I was amazed. Not only did I get better at the brain-training game, but other aspects of my life got better too. I was able to use my increased cognitive skills to develop business opportunities that required new, creative concepts.

By then I was hooked. Life was too good to go back to eating three meals a day. What has become The CR Way to Daily Intermittent Fasting will always be part of my life.

Transforming Lives

As The CR Way to Daily Intermittent Fasting developed, new possibilities emerged for people to transform their lives by improving their brain function. Seniors particularly, might be able to combine better brain function with social skills, developed over decades, to be terrific grandparents, great managers, salespeople, entrepreneurs—whatever they want.

Our mentor, Ralph Cornell in Massillon, Ohio, did just that. Ralph started daily intermittent fasting when he was in his 50s. He didn’t call it intermittent fasting. He just decided to skip lunch so he wouldn’t feel like falling asleep after eating and therefore get nothing done in the afternoon.

Ralph lived to 104, almost 20 years longer than his two brothers who died in their 80s.

Reinforcing how effective daily intermittent fasting can be for healthy longevity, Walter Breuning, who lived to 114.5 years, revealed that he ate two meals a day for 35 years.9

Should you Fast?

Meredith Averill, cofounder of the CR Way, says, “If you want to slow aging, fasting may be appropriate for you. However, if you need to gain weight or if you sense that you would be under undue emotional stress while fasting, address those issues first before trying to fast. Also, see a doctor who makes sure that fasting is not unduly stressful to your cardiovascular system.”

If you decide to fast, choose a fasting method that works for you. Here are a few to consider:

- Intermittent Fasting (15-16 hours between meals most days)
- 24-hour Fasts
- Weekend Fasts
- Five-day Fasts
- Longer Fasts

For fasts longer than 24 hours, consider going to a fasting center where your vital signs would be monitored by knowledgeable doctors.
Here is how some experienced CR Way members fast and why they chose their fasting method:

“Intermittent fasting for me usually involves just extending my overnight fast for several more hours. This is a more regular practice. For example, I haven’t eaten yet today and I will likely have my first meal around 1 or 2. Sometimes this is shorter and I will have lunch at noon and sometimes I wait until 5 or 6 for dinner. I have had several 24-hour fasts in the last year and I believe one 36-hour fast during that time due to traveling. I love fasting when traveling because I just focus on hydrating and I don’t have to worry about finding the types of healthy foods I like to eat in airports or in unknown restaurants.”

– Heidi, 2019

“I started intermittent fasting in 2016 as I moved from five or six small meals a day to three meals, then two meals and finally to one meal a day with a 21-to-22-hour fasting window. In 2017 I began fasting for two to four days at a time, gradually becoming more metabolically flexible. My current optimal intermittent fasting schedule is alternate-day fasting with a six-hour eating window in the morning between 6 a.m. and noon followed by 42 hours of fasting. I also do several medium-term, four-to-six-day fasts a year—usually when traveling on business, and one long-term supervised fast at TrueNorth Health in CA in the summer. Last year after a 22-day water fast there my arterial age went down by 11 years!”

– Alex, 2019

“‘Inspired by Mahatma Gandhi, I began fasting as an experiment in the early 1980s, speculating that there might be benefits. My water-only fasting begins after dinner and ends two days later at noon, approximately 42 hours. This was done weekly for about 20 years. I stopped fasting for several years and later returned to a regime of fortnightly 42-hour fasts, combined with a daily intermittent-fasting eating window of eight hours. The evidence-based benefits of fasting include activation of protective nutrient-sensing pathways and deactivation of harmful pathways, thus promoting healthspan.’”

– Ernest, 2019

“I prefer daily intermittent fasting to extended fasting. I would like to give my body predictability rather than surprises, so I give it meal-timing it can count on. My targets of finishing food intake around 4 p.m. in the afternoon and fasting until breakfast at 7 a.m. the next morning give me a window of time away from food of about 15 hours—and that’s every day! I’m toying with the idea of eating one meal a day to grow my fasting window.”

– Meredith, 2019
Paul McGlothin and Meredith Averill have discovered the bridge between scientific research and its practical application for a better, longer life. Their work brings real results and longevity benefits to CR Way practitioners. Their CR Way lifestyle is based on decades of research, showing favorable changes in genes and other biomarkers of aging. They have played a pivotal role in this research on aging at Washington University in St. Louis School of Medicine and at the University of California at both San Francisco and Riverside.

You can find more about them and the benefits of LivingTheCRWay Membership by calling 877-481-4841 or visiting www.livingthecrway.com.

References

Refeeding—An Important Part of Your Fast

When you break your fast, your refeeding plan should do the following:

- Get insulin back into production
- Normalize bowel function
- Hydrate well
- Reduce populations of pathogens and their influence

Fasting can do wonders for your health—but only if you do it the right way. The CR Way’s key to fasting success includes solving the problem from healthy refeeding as well as lifestyle planning—especially diet—to complement the beneficial biochemistry you get from fasting.

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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<thead>
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<th>Item #02097</th>
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<td>1 bottle $45.90</td>
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Mostly Plants: 101 Delicious Flexitarian Recipes from the Pollan Family

BY TRACY, DANA, LORI, AND CORKY POLLAN

Michael Pollan is a *New York Times* best-selling author of books such as *The Omnivore’s Dilemma*, *In Defense of Food*, and *Cooked*.

Now, Pollan’s mother and sisters are building on his famous words, “Eat food, mostly plants, not too much,” with a cookbook that puts this food philosophy into practice.

Their cookbook, called *Mostly Plants*, focuses on a *flexitarian* diet, which can be defined as eating mostly plant-based foods, with meat and other animal products eaten in moderation. For those individuals who don’t want to go completely vegetarian or vegan, the authors encourage simply changing the ratio on their plate and using meat as an accent rather than the centerpiece.

In addition to providing recipes that are both satisfying and delicious, the authors highlight the health benefits of following a flexitarian lifestyle.

“Plants are Mother Nature’s prescription for improved health,” they write. “They are chock-full of protective vitamins, minerals, and antioxidants, many of which cannot be found in animal protein. The great news is, you don’t have to give up meat completely to reap the benefits of a plant-based diet. In fact, there is compelling evidence that just cutting back on meat reduces the risk of many chronic diseases and can help you live longer.”

*Mostly Plants* includes simple, plant-centric recipes that can often be prepared in 35 minutes or less. The 101 recipes presented in the book include a mix of recipes for vegetarian, vegan, dairy-free, and gluten-free dishes, as well as seafood, poultry, and meat.

On the following pages, *Life Extension*® features four of these delicious, nutritious recipes, specifically designed to help you achieve a healthier lifestyle.

—LAURIE MATHENA
Cauliflower, Spinach, and Chickpea Patties

These chickpea patties are packed with the added goodness of cauliflower, spinach, red pepper, and scallions, giving them a wonderful light flavor and texture. Then we add tasty Mediterranean herbs and spices, such as cumin, turmeric, and parsley. The end result? A great-tasting dish, chock-full of legume protein and nutritious vegetables.

6 servings
Time: 1 hour 15 minutes

3 cups 2-inch cauliflower florets
One 15-ounce can chickpeas, drained and rinsed, or 1½ cups cooked chickpeas
One 10-ounce package frozen chopped spinach, thawed and squeezed of excess liquid
¾ cup finely chopped red bell pepper
4 scallions, white and light green parts only, finely chopped
3 cloves garlic, minced
2 tablespoons finely chopped fresh flat-leaf parsley
½ teaspoon ground cumin
½ teaspoon ground turmeric
Sea salt
Freshly ground black pepper
3 large eggs, lightly beaten
1 cup panko bread crumbs, plus more as needed
4 tablespoons extra-virgin olive oil, plus more as needed
Sauce of your choice: such as tahini, salsa, spiced yogurt

1. Preheat the oven to 350°F. Line a rimmed baking sheet with parchment paper and line another baking sheet with waxed paper.

2. In a stockpot fitted with a steamer basket, bring 2 inches of water to a simmer over medium-high heat. Place the cauliflower florets in the steamer, cover, and cook until just tender, 8 to 10 minutes.

3. Meanwhile, place the chickpeas into a large bowl and use a potato masher or fork to crush them. Add the cauliflower and mash until the ingredients are well smashed but not smooth. Add the spinach, bell pepper, scallions, garlic, and parsley and mix well. Stir in the cumin, turmeric, 1 teaspoon salt, and ¼ teaspoon black pepper. Add the eggs and ½ cup of the bread crumbs and stir to combine.

4. Place the remaining ½ cup bread crumbs in a shallow dish. Shape about ½ cup of the chickpea mixture into a patty ½ inch thick. Coat the patty lightly with bread crumbs. Place on the waxed-paper-lined baking sheet. Repeat with the remaining mixture (to make 12 to 14 patties).

5. In a large nonstick skillet over medium heat, heat 2 tablespoons of the olive oil until shimmering. Place one-third to one-half of the patties in the pan and cook undisturbed until golden brown, about 4 minutes. Flip the patties and cook until golden, about 4 minutes more. Transfer the patties to the parchment-lined baking sheet. Wipe the skillet clean with paper towel. Repeat to cook the remaining patties, wiping the skillet clean and adding 2 tablespoons of oil before each batch. Transfer the patties to the baking sheet as they are done. When all the patties have been cooked, place the baking sheet in the oven and bake for 10 minutes.

6. Transfer the patties to a serving platter, season with additional salt and pepper, and serve hot, with the sauce passed separately.
White Bean and Kale Quesadillas with Roasted Tomatillo Salsa

This combination hits all the right marks: creamy white beans, gooey cheese, and earthy kale, finished with a fabulously flavorful salsa verde. Serve with a salad, soup, or sliced avocado for a simple, savory, and healthy meal.

4 servings
Time: 40 minutes

2 tablespoons extra-virgin olive oil
3 tablespoons minced shallots
1 clove garlic, minced
Two 15-ounce cans cannellini beans, drained and rinsed, or 3 cups cooked cannellini beans
1 tablespoon finely chopped fresh flat-leaf parsley
Kosher salt
Freshly ground black pepper
5 cups roughly chopped lacinato (dinosaur or Tuscan) kale, stems removed
2 to 3 tablespoons unsalted butter
Ten 8- to 10-inch multigrain or whole wheat flour tortillas
2½ cups shredded Monterey Jack cheese
¾ cup salsa

1. Preheat the oven to 250ºF.
2. In a medium nonstick skillet over medium heat, heat 1 tablespoon of the olive oil until shimmering. Add the shallots and cook until translucent, 2 to 3 minutes. Add the garlic and cook for an additional minute. Add the beans, parsley, ¼ teaspoon salt, and ⅛ teaspoon pepper and mix well. Cook until the beans are hot, about 3 minutes.
3. Wipe out the skillet, return it to medium heat, and add the remaining 1 tablespoon olive oil. Once the oil is shimmering, add the kale and sauté until wilted, about 4 minutes. Season with salt and pepper. Set aside.
4. In a grill pan or a separate large skillet over medium heat, melt a small pat of the butter. Place a tortilla in the pan and sprinkle 3 tablespoons of the cheese over the entire tortilla. Cook until the cheese has melted, then distribute about 2 tablespoons of the white bean mixture and some of the kale over just half the tortilla. With a spatula, fold the tortilla in half to sandwich the filling. Sprinkle the folded tortilla with a pinch of salt. Cook until the bottom is golden brown, about 1 minute, then flip, sprinkle with an additional pinch of salt, and cook until golden brown on the second side, about 1 minute more. Transfer to a rimmed baking sheet and place in the oven to keep warm. Repeat with the remaining tortillas, cheese, filling, and kale.
5. Remove the quesadillas from the oven, cut each in half, and serve with the salsa.
**Amped-Up Vegetable Nachos**

This dish comes out of the oven sizzling and bubbling and is devoured as soon as it hits the table. Everybody loves nachos, but it’s not typically a dish that offers much in the way of nutrition. We’ve taken these up a notch by loading them with kale, corn, beans, and avocado. And yes, cheese, too. The end result is addictive.

4 to 6 servings  
Time: 35 minutes

2 tablespoons extra-virgin olive oil  
1 cup chopped red onion  
2 cloves garlic, minced  
4 cups roughly chopped stemmed lacinato (dinosaur or Tuscan) kale leaves  
Kosher salt  
Freshly ground black pepper  
1 1/2 cups fresh or thawed frozen corn kernels  
One 15-ounce can refried beans  
2 tablespoons low-sodium vegetable broth  
2 tablespoons pico de gallo or salsa, plus more for serving  
40 tortilla chips  
2 cups freshly shredded Monterey Jack cheese  
10 pickled jalapeño slices  
1 cup diced ripe avocado

1. Preheat the oven to 375°F.

2. In a large nonstick skillet over medium-high heat, heat 1 tablespoon of the olive oil until shimmering. Add the onion and garlic and cook, stirring with a wooden spoon, until the onion is soft and translucent, about 3 minutes.

Add the kale, 1/2 teaspoon salt, and 1/8 teaspoon pepper and cook, stirring, for 1 1/2 minutes. Add the corn and cook for an additional 1 1/2 minutes. Transfer to a bowl and set aside.

3. Wipe out the skillet with paper towels and return it to medium-high heat. Add the remaining 1 tablespoon olive oil and the refried beans and stir. Pour in the broth and mix until incorporated. Add the pico de gallo and stir to combine. Set aside.

4. Divide the tortilla chips between two 9 by 13-inch baking dishes. Spoon the beans over the chips in each baking dish. Top each with half the vegetables and sprinkle the cheese evenly over each. Scatter the jalapeño slices on top. Bake until the cheese is melted, about 7 minutes. Switch the oven to broil and broil until the cheese is golden and bubbling, 1 to 2 minutes.

5. Serve with additional pico de gallo and the avocado.
1. In a medium saucepan, cook the farro according to the directions on the package. Drain well and let cool. (The farro can be made ahead of time and refrigerated.)

2. In a small bowl, beat the eggs with ¼ teaspoon of the soy sauce and ¼ teaspoon of the sesame oil.

3. In a large nonstick skillet over medium-high heat, heat 1 teaspoon of the peanut oil until shimmering. Add the egg mixture and scramble until it sets, 3 to 4 minutes. Transfer the egg to a plate, cut into bite-size pieces, and set aside.

4. Wipe the skillet clean, add the remaining 1 tablespoon plus 1 teaspoon peanut oil, and heat over medium-high heat until shimmering. Add the carrots and cook, stirring, for 2 minutes. Add the broccoli and cook until the vegetables are fork-tender, 3 to 4 minutes. Stir in the garlic, ginger, scallion whites, and peas and cook for 2 minutes. Season with ½ teaspoon salt.

5. Using a wooden spoon, push the vegetables to the sides of the skillet, making a well in the center. Add the cooked farro to the well and gradually mix the vegetables into it.

6. Add the remaining 2 tablespoons plus 1 teaspoon soy sauce, the remaining 2 teaspoons sesame oil, and the vinegar. Stir in the scrambled eggs and mix well.

7. Serve hot, garnished with the scallion greens. Pass the Sriracha or chili garlic sauce separately, if desired.

Healthy Vegetable-Fried Farro

This dish is our take on fried rice, but here we’ve substituted farro—one of our favorite grains—for white rice. The chewy texture and nutty taste of the farro add complexity to this familiar dish. We’ve included traditional fried rice veggies like broccoli, carrots, and peas, but any assortment of vegetables you have on hand—like bell peppers, cauliflower, or spinach—will work. If you cook your farro the day before, this is a super-fast dish to get on the table.

4 servings
Time: 45 minutes

2 cups farro
4 large eggs
2 tablespoons plus 1¼ teaspoons low-sodium soy sauce
2 teaspoons plus ¼ teaspoon toasted sesame oil
1 tablespoon plus 2 teaspoons peanut oil
1 cup sliced carrots, ¼-inch-thick rounds
2½ cups 1-inch broccoli florets
2 cloves garlic, minced
1 teaspoon grated fresh ginger
4 scallions, thinly sliced, green and white parts separated
1 cup frozen petite peas, thawed
Kosher salt
½ teaspoon rice vinegar
Sriracha or chili garlic sauce (optional)
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References
Jane McLelland shouldn’t be alive. According to doctors and cancer statistics, she should have lived only about 12 weeks after receiving her diagnosis of stage IV cancer.

But McLelland refused to go down without a fight. Taking matters into her own hands, she dug through medical journals, poring over long-forgotten research and overlooked evidence, looking for clues to overcoming her cancer.

Along the way, she discovered a missing link to defeating cancer: starving it. Based on this concept, she developed her own cancer-starving cocktail—utilizing diet, supplements, and off-label drugs—that proved to be more effective than any current cancer treatment.

Now, 18 years later, after suffering from cervical cancer, secondary lung cancer, and treatment-related myelodysplasia, she is alive, well, and cancer-free.

And she has made it her life’s mission to help other cancer patients achieve the same results.

This is Jane’s remarkable story.
After an initial breast cancer diagnosis and treatment a few years earlier, the cancer had come back with a vengeance, and she died within a few months.

But McLelland says that her mother’s death is what ultimately saved her life.

“My mother’s cancer was a huge wake-up call to me to re-evaluate the situation I’d found myself in. For the first time ever, I realized I was only one step away from terminal cancer,” McLelland said. “That’s when I started looking at diet and supplementation in more detail as a way to combat cancer.”

In the early stages of her research, McLelland first learned that glucose feeds most cancers and that IGF-1 (an insulin-like growth factor hormone found in high levels in dairy and meat) also helped to drive its growth.

So, she modified her diet, cutting out simple carbohydrates and removing dairy and most meat. She cut out foods like potatoes and tomatoes because they caused an inflammatory reaction in her body (and she had learned that inflammation was a driving force for cancer). She also started drinking green tea, juicing, and taking numerous supplements.

Unfortunately, just a few months later, Jane started coughing up blood, and found out that her worst nightmare had come true: Her cervical cancer had spread to her lungs.

She now had stage IV, terminal cancer.

**Strike Two**

Just like the cervical cancer, Jane’s lung cancer was initially misdiagnosed (this time as a chest infection). But the benefit of having the improperly read X-ray from four months prior—along with the properly diagnosed X-ray—was the ability to see the rate at which the cancer was growing.

McLelland had repeatedly been told that diet had no impact on cancer, but the fact that her lung tumor had remained the size of a golf ball—and the fact that there were no tumors in other locations in her body—proved to her that the dietary changes she had already made were making a difference.

“You could see that my approach had slowed the tumor’s growth,” said McLelland. “I may have had that tumor for a long time. That was actually quite reassuring for me.”

This time, Jane would not be rushed into a hasty treatment decision. She delayed surgery and dove even deeper into cancer research. That’s when she learned that in order to fully eradicate her cancer, she’d have to attack it in a different way: by starving it.

**Starving Cancer**

The idea behind starving cancer cells is nothing new. In 1931, Otto Warburg was awarded the Nobel Prize for his discovery that cancer cells have an altered metabolism. Since then, more research has expanded on his initial studies, and has revealed that cancer cells require a tremendous amount of three fuel sources in order to survive: glucose, glutamine (an amino acid), and lipids.

Mainstream medicine ignores this simple fact, focusing instead on using chemotherapy and radiation therapy to target the tumor’s abnormal, fast-dividing cells. Given that chemotherapy often has poor outcomes for stage IV cancer, McLelland determined that she had to attack her cancer from two fronts: starve the cancer’s stem cells, and then kill them when they’re in a weakened state. Cancer stem cells are dangerous because they are more resistant to conventional treatment and are capable of producing new malignant cells that are more difficult to eradicate.

This one-sided approach is why mainstream treatments can appear to work for a time, only to have the cancer come back more aggressively in the future. It is also why the percentage of positive outcomes in a stage IV patient is, too often, zero.

On the other hand, starving the cancer by cutting off the supply to its three main fuel sources attacks
She also underwent treatment with...eight years later, it did.

McLelland underwent surgery to remove the tumor in her lung, and she endured six months of chemo (at a much lower dose than that recommended by her oncologist). But this time, she also employed a strategy to starve the cancer’s stem cells.

Her diet and numerous supplements were already helping on that front—particularly berberine, hydroxycitrate, gymnema, curcumin, niacin, and pycnogenol—all of which were inhibiting key pathways that are abnormal in cancer. She also underwent treatment with high-dose intravenous vitamin C.

“Intravenous vitamin C has been shown to target cancer stem cells, the original cancer cells that are responsible for chemo and radio-therapy resistance, because it stops a key step in the process of glycolysis, effectively starving the cancer as well as triggering apoptosis, or cell death,” said McLelland. “It helps block off one of cancer’s main energy supply lines.”

To her doctor’s utter amazement, it appeared that McLelland had beaten the odds once again. Nine months later, she was not only alive, but her cancer blood markers were good.

Those months turned into years of living cancer-free.

Still, McLelland lived with the constant realization that her cancer could always come back. And four years later, it did.

**McLelland’s Big Guns**

McLelland discovered that there were numerous drugs on the market designed for other purposes (like heart disease or infections) that could go beyond diet and supplements to effectively cut off cancer’s various fuel lines. These drugs are considered “off-label,” since they were developed for conditions other than cancer.

The first big gun was a cardiovascular drug called dipyridamole, which stops protein from getting into the cancer cell, a key factor in starving leukemia, according to McLelland.

*This was exactly what she needed,* McLelland decided.

She made another critical finding when she picked up an issue of *Life Extension® Magazine* that she says played a key role in saving her life. *From Life Extension,* she learned about a novel combination of a statin (lovastatin) plus a non-steroidal anti-inflammatory drug (etodolac).

“I already knew that statins would be potentially useful against cervical cancer. But research had also shown that they caused apoptosis in acute myeloid leukemias. I also had overlooked the fact that NSAIDs could cause cell death (apoptosis),” said McLelland. “What I learned from the *Life Extension* article was that there was a synergy between the two drugs, making them far more potent when taken together.”

She later learned that statins also block the cell surface receptor Glut1, which is used by most cancers to access more glucose.

Another key, off-label drug McLelland learned about from reading *Life Extension* was the diabetes drug, metformin. Metformin is critical for starving cancer because it cuts off cancer’s supply to glucose and insulin, and reduces IGF-1.

“I recognized that *Life Extension* was ahead of its time. It was providing information that nobody else seemed to be providing, and piecing together research and reporting on it before anybody else did,” said McLelland. “*Life Extension* really was instrumental in helping me survive.”

Years later, she also discovered the anti-cancer effects of the antibiotic doxycycline (which slows the creation of new cancer cells) and of the anti-worming drug mebendazole (which stops the cancer cells from being able to take on more glucose).

“All of these drugs are cheap and off-patent, which is why they have largely been ignored by the pharmaceutical industry, despite research...
That information has already saved countless lives. One man who followed her protocol took his PSA numbers from 1008 down to .67. She’s also helped a stage IV pancreatic cancer patient achieve full remission—another success story unheard of in the medical world.

And a breast cancer patient who was told by her oncologist she was going to die is still alive and well, going to the gym, working as a nurse, and living a full life—all as a result of following McLelland’s approach to starving her cancer.

But McLelland cautioned that we have to start looking at cancer differently. “People are always looking for the disappearance of tumors, but we have to rethink how we evaluate success with cancer,” she said. “I have a huge number of people following my protocol who still have tumors in their bodies that are no longer growing. Success is not necessarily about getting rid of the tumor. You can live with the tumor quite happily as long as it’s not pressing on something vital.”

markers (a marker of abnormal glycolysis) had dropped from 397 to 21.5—just slightly above a “normal” reading of 15.

She had done the impossible. Her cocktail of cheap, off-label drugs—in addition to diet and supplementation—had halted the progression of myelodysplasia.

Spreading the Word

In 2018, McLelland chronicled her cancer journey—including detailed information on her science-backed approach to cancer—in her book, How to Starve Cancer Without Starving Yourself.

McLelland was reluctant about writing her book, but she felt she had a duty to share with the world what she had discovered—and what had saved her life. “I didn’t want to have to relive everything,” said McLelland, “but I knew I had information I had to pass on. It was a social responsibility to provide people with information they weren’t getting elsewhere.”
Utilizing the Metro Map

McLelland created a diagram depicting her approach to starving cancer that she calls the “Metro Map,” based on an analogy of an underground metro system.

If one tunnel is blocked, the trains will be rerouted through a different tunnel, but will ultimately keep running. Cancer is the same way. If you cut off one fuel source, it will simply “reroute,” using a different source for energy.

McLelland’s system simply boils down to this: You have to cut off all fuel sources at the same time in order to effectively weaken cancer.

“The Metro Map is the key to starving the cancer. Once you’ve done that, killing it becomes much easier,” said McLelland.

She lists several off-label drugs (like chloroquine and loratadine), supplements (like curcumin, resveratrol, and quercetin), and treatments (like intravenous vitamin C, and following a low-glycemic diet). According to McLelland, all have been shown to block one or more of cancer’s three main fuel lines.

However, McLelland cautions that there is no one-size-fits-all approach. Her own experience with her various forms of cancer highlight that fact. Instead, McLelland’s approach focuses on learning which fuel sources your particular cancer uses—and then creating a targeted treatment plan based on that information.

In her book, McLelland provides all the information a cancer patient might need to point them in the right direction for developing a protocol to starve their cancer.

“The book is a starting point,” said McLelland.

Not a Death Sentence

For people currently struggling with a cancer diagnosis, McLelland has an important message: Never give up.

“I do believe we already have every drug and every supplement that we need to beat cancer. The key is getting the right combinations to people at the right time,” said McLelland. “Yes, in certain circumstances there can be too much damage to the body from the cancer itself. But if you can get to people before that, I cannot see why patients can’t be rescued even from advanced malignancies. Stage IV cancer should not be a death sentence, in my view.”

McLelland herself is the living, breathing proof of that belief.

Now, 18 years after her initial cancer diagnosis—at after battling cervical, lung, and blood cancers—McLelland is living the life of her dreams. She married the love of her life, and through the selflessness of a surrogate, was able to have two sons of her own.

“I didn’t even think I was going to be alive, and I certainly didn’t expect to have a family,” said McLelland. “I have to pinch myself to believe it sometimes.”

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

To order a copy of How to Survive Cancer Without Starving Yourself, call 1-800-544-4440 or visit www.LifeExtension.com

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MMXIV-190201
Eggplants are best known for their deep, glossy purple skin, but they also come in colors ranging from lavender to green to orange, and in sizes ranging from a small tomato to a large zucchini.

Early varieties of eggplants had a predominantly bitter taste, which contributed to their reputation as a cause of insanity and leprosy.

Today’s varieties are much less bitter, and they are now recognized for what they truly are: a nutrient-dense health food that has beneficial effects on heart health and cancer prevention.

Heart Health

In one animal study, feeding eggplant juice to rabbits with high cholesterol for two weeks led to lower LDL cholesterol and triglycerides.1

Another study showed that feeding raw or grilled eggplant to animals for 30 days prior to inducing a heart attack provided important cardioprotective effects. These included increasing left ventricular function, reducing the size of the heart attack (the portion of the heart without oxygen), and reducing the death of heart muscle cells.2

Anti-Cancer Properties

Eggplants contain numerous compounds that have anti-cancer properties.

For example, glycoalkaloids, which help protect plants against various threats, have been shown in cell studies to have anti-cancer properties against gastric cancer,3 leukemia,4 liver cancer,5 lung cancer,6 and osteosarcoma.7

Eggplants contain the phenolic compound, chlorogenic acid, which has been shown to induce apoptosis in human leukemia cells and human lung cancer cells.8 They are also rich in anthocyanins, which have been shown to have numerous anti-cancer actions in gastrointestinal cancer cells.9

One cup (82 grams) of raw eggplant contains only 20 calories and is loaded with fiber. You can enjoy eggplant roasted, sautéed, or baked. It can also be used as a healthy substitute in dishes like lasagna (use eggplant instead of noodles), or in place of sausage in other Italian recipes.

References
Milk thistle extract—rich in silymarin—is a powerful weapon to support liver health. Scientific studies demonstrate silymarin’s ability to provide potent protection for your liver. 1,2

Life Extension’s European Milk Thistle contains standardized, top-grade potencies of silymarin, silybin, isosilybin A, and isosilybin B, providing a full spectrum of liver-supportive compounds.

This unique formula includes phosphatidylcholine, a nutrient that promotes better absorption of milk thistle extract.3

The silymarin contained in European Milk Thistle is absorbed nearly 5 times better than silymarin alone, and its bioavailability to the liver is 10 times better.

References

SILIPHOS® is a registered trademark of Indena S.p.A., Italy.
Caution: Individuals consuming more than 2,000 IU/day of vitamin D (from diet and supplements) should periodically obtain a serum 25-hydroxy vitamin D measurement. Do not exceed 10,000 IU per day unless recommended by your doctor. Vitamin D supplementation is not recommended for individuals with high blood calcium levels.

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

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## AMINO ACIDS

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## BLOOD PRESSURE & VASCULAR SUPPORT

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## BONE HEALTH

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PRODUCTS

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
01989 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
00438 Stevia™ Organic Liquid Sweetner
00432 Stevia™ Sweetener

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

HEART HEALTH
01066 Aspirin (Enteric Coated)
01842 BioActive Folate & Vitamin B12 Caps
01700 Cardio Peak™ with Standardized Hawthorn and Arjuna
02121 Homocysteine Resist
02018 Optimized Carnitine
01949 Super-Absorbable CoQ10 Ubiquinone with d-Limonene • 50 mg, 60 softgels
01951 Super-Absorbable CoQ10 Ubiquinone with d-Limonene • 100 mg, 30 softgels
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
00454 DHEA (Dehydroepiandrosterone) 15 mg, 100 capsules
00335 DHEA (Dehydroepiandrosterone) 25 mg, 100 capsules
00882 DHEA (Dehydroepiandrosterone) 50 mg, 60 capsules
00607 DHEA (Dehydroepiandrosterone) 25 mg, 100 tablets (dissolve in mouth)
01689 DHEA (Dehydroepiandrosterone) 100 mg, 60 veg capsules
02368 Optimized Broccoli and Cruciferous Blend
00302 Pregnenolone • 50 mg, 100 capsules
00700 Pregnenolone • 100 mg, 100 capsules
01468 Triple Action Cruciferous Vegetable Extract
01469 Triple Action Cruciferous Vegetable Extract with Resveratrol

IMMUNE SUPPORT
00681 AHCC®
02302 Bio-Quercetin
01961 Enhanced Zinc Lozenges
01704 Immune Modulator with Tinos fend®
00955 Immune Protect with PARACTIN®
02005 Immune Senescence Protection Formula™
29727 Kinoko® Gold AHCC
24404 Kinoko® Platinum AHCC
00316 Kyolic® Garlic Formula 102
00789 Kyolic® Reserve
01681 Lactoferrin (Apolactoferrin) Caps
01903 NK Cell Activator™
01394 Optimized Garlic
01309 Optimized Quercetin
01811 Peony Immune
00525 ProBoost Thymic Protein A
01708 Reishi Extract Mushroom Complex
01906 Standardized Cistanche
13685 Ten Mushroom Formula®
01097 Ultra Soy Extract
01561 Zinc Lozenges

INFLAMMATION MANAGEMENT
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™ Turmeric Extract
00202 Boswella
02467 Curcumin Elite™ Turmeric Extract • 30 veg capsules
02407 Curcumin Elite™ Turmeric Extract • 60 veg capsules
01804 Cytokine Suppres® with EGCg
02223 Pro-Resolving Mediators
00318 Serrafflazyme
01203 Specially-Coated Bromelain
01254 Zyflamend™ Whole Body

JOINT SUPPORT
02404 Arthro-Immune Joint Support
02238 ArthroMax® Advanced NT2 Collagen™ & Après Flex®
01617 ArthroMax® with Theaflavins & Après Flex®
02138 ArthroMax® Elite
00965 Fast-Acting Joint Formula
00522 Glucosamine/Chondroitin Capsules
01600 Kill Healthy Joint Formula
01050 Kill Oil
00451 MSM (Methylsulfonylmethane)
02231 NT2 Collagen™

KIDNEY & BLADDER SUPPORT
00862 Cran-Max® Cranberry Whole Fruit Concentrate
01424 Optimized Cran-Max® with Ellirose™
01921 Uric Acid Control
01209 Water-Soluble Pumpkin Seed Extract

LIVER HEALTH & DETOXIFICATION
02240 Anti-Alcohol HepatoProtection Complex
01651 Calcium D-Gluarate
00550 Chlorella
01571 Chlorophyllin
01922 European Milk Thistle • 60 softgels
01925 European Milk Thistle • 120 softgels
01522 European Milk Thistle • 60 veg capsules
02402 FLORASSIST® Liver Restore™
01541 Glutathione, Cysteine & C
01393 HepatoPro
01608 Liver Efficiency Formula
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<tr>
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<td>Anti-Oxidant Facial Mist Hydrator</td>
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<td>Collagen Boosting Peptide Serum</td>
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PRODUCTS

SLEEP

80169  Cucumber Hydra Peptide Eye Cream
80141  DNA Support Cream
80167  Environmental Support Serum
80163  Eye Lift Cream
80123  Face Rejuvenating Anti-Oxidant Cream
80109  Hyaluronic Facial Moisturizer
80110  Hyaluronic Oil-Free Facial Moisturizer
80138  Hydrating Anti-Oxidant Facial Mist
00661  Hydroderm
80103  Lifting & Tightening Complex
80168  Melatonin Advanced Peptide Cream
80114  Mild Facial Cleanser
80159  Multi Stem Cell Hydration Cream
80122  Neck Rejuvenating Anti-Oxidant Cream
80174  Purifying Facial Mask
80150  Renewing Eye Cream
80114  Resveratrol Anti-Oxidant Serum
80129  Skin Stem Cell Serum
80130  Skin Tone Equalizer
80143  Stem Cell Cream with Alpine Rose
80148  Tightening & Firming Neck Cream
80161  Triple-Action Vitamin C Cream
80162  Ultimate MicroDermabrasion
80160  Ultra Eyelash Booster
80164  Ultra Facial Cleanser
80130  Under Eye Refining Serum
80104  Under Eye Rescue Cream
80171  Vitamin C Lip Rejuvenator
80102  Vitamin K Cream
80101  Vitamin K Cream
80122  Fast-C® with Bio-Quercetin Phytosome

VITAMINS

80169  Ascorbyl Palmitate
00920  Benfotiamine with Thiamine
00664  Beta-Carotene
01945  BioActive Complete B-Complex
00102  Biotin
00084  Buffered Vitamin C Powder
02229  Fast-C® and Bio-Quercetin Phytosome
02075  Gamma E Mixed Tocopherol Enhanced with Sesame Lignans
02070  Gamma E Mixed Tocopherol/Tocotrienols
01913  High Potency Optimized Folate
01674  Inositol Caps Liquid Emulsified
02244  Liquid Vitamin D3 • 2,000 IU, 1 fl oz
02232  Liquid Vitamin D3 • 2,000 IU, 1 fl oz, mint
01936  Low-Dose Vitamin K2
01536  Methylcobalamin • 1 mg, 60 veg lozenges
01537  Methylcobalamin • 5 mg, 60 veg lozenges
00065  MK-7
00373  No Flush Niacin
01939  Optimized Folate (L-Methylfolate)
01217  Pyridoxal 5'-Phosphate Caps
01400  Super Absorbable Tocotrienols
02334  Super K
02335  Super K Elite
01863  Super Vitamin E
02028  Vitamin B5 (Pantothenic Acid)
01535  Vitamin B6
00361  Vitamin B12
02228  Vitamin C and Bio-Quercetin Phytosome
1,000 mg, 60 veg tablets
02227  Vitamin C and Bio-Quercetin Phytosome
1,000 mg, 250 veg tablets
01753  Vitamin D3 • 1,000 IU, 90 softgels
01751  Vitamin D3 • 1,000 IU, 250 softgels
01718  Vitamin D3 • 7,000 IU, 60 softgels
01758  Vitamin D3 with Sea-Iodine™
02040  Vitamins D and K with Sea-Iodine™

WEIGHT MANAGEMENT & BODY COMPOSITION

00658  7-Keto® DHEA Metabolite • 25 mg, 100 capsules
02479  7-Keto® DHEA Metabolite • 100 mg, 60 veg capsules
01509  Advanced Anti-Adipocyte Formula
01807  Advanced Appetite Suppress
02207  AMPK Metabolic Activator
01823  CalReduce Selective Fat Binder
02478  DHEA Complete
01738  Garcinia HCA
29754  HCAActive Garcinia Cambogia Extract
01292  Integra-Lean®
01908  Mediterranean Trim with Sinetrol™-Xpur
01492  Optimized Irvingia with Phase 3™ Calorie Control Complex
01432  Optimized Saffron with Satireal®
00818  Super CLA Blend with Sesame Lignans
01902  Waist-Line Control™
02151  Wellness Code® Appetite Control

WOMEN'S HEALTH

01942  Breast Health Formula
01626  Enhanced Sex for Women 50+
01894  Estrogen for Women
01064  Femmenessence MacaPause®
02204  Menopause 731™
02319  Prenatal Advantage
01441  Progesta-Care®
01649  Super-Absorbable Soy Isoflavones
Cognitex® Elite contains clinically studied brain-boosting nutrients in one advanced formula.

A new ingredient called SIBELIUS™: Sage Extract demonstrated improvement in attention and memory performance in healthy, older volunteers.

Cognitex® Elite provides all of these ingredients:

- SIBELIUS™: Sage Extract (leaf) 333 mg
- AuroraBlue® Wildcrafted 200 mg
- Blueberry Complex
- Sensoril® Ashwagandha extract 125 mg
- Phosphatidylserine 100 mg
- Uridine-5’-monophosphate 50 mg
- Vinpocetine 20 mg

Cognitex® Elite Pregnenolone contains these same powerful ingredients but with 50 mg of pregnenolone added.

* CAUTION: Consult a physician or licensed qualified health care professional before using this product if you have, or have a family history of breast cancer, prostate cancer, or other hormone-sensitive diseases. Do not take this product if you have a history of seizures.

Do not use if you are of childbearing age, pregnant or planning to become pregnant.

Item #02397 • 60 vegetarian tablets
1 bottle $39.15
4 bottles $36 each

Item #02396 • 60 vegetarian tablets
1 bottle $37.80
4 bottles $34.20 each

For full product description and to order Cognitex® Elite or Cognitex® Elite Pregnenolone, call 1-800-544-4440 or visit www.LifeExtension.com

**FEED YOUR BRAIN**

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

Highly Absorbable

CURCUMIN

Curcumin Elite™ is a patented extract from turmeric root that provides 45 times greater free curcuminoid bio-availability than standardized turmeric powder.

Curcumin Elite™ contributes to higher blood levels of bio-active curcuminoids that stay in the body longer to provide more health benefits.

Advanced Curcumin Elite™ contains the same optimal 500 mg potency of curcumin with the added benefits of ginger and additional turmeric actives.

45 times Greater Bioavailability
At a Lower Price

SUPER SALE PRICING!
Item #02407
500 mg, 60 vegetarian capsules
1 bottle $21.60
4 bottles $19.80 each

SUPER SALE PRICING!
Item #02324
500 mg curcumin + gingerol, 30 softgels
1 bottle $18
4 bottles $16.20 each

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

These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.
22 VISIBLE WRINKLE REDUCTION
In a human study, oral plant ceramides produced a visible 88% reduction in wrinkles and a 90% increase in hydration.

31 VITAMIN K PROMOTES HEALTHY BLOOD SUGAR
Vitamin K can reduce the risk of developing type II diabetes by 51%, improve insulin sensitivity, and inhibit metabolic syndrome.

38 ARTHRITIS AND TYPE II COLLAGEN
Undenatured type II collagen can improve arthritic joint discomfort and function by 50% while reducing cartilage loss.

46 SURGING EPIDEMIC OF FATTY LIVER DISEASE
For the 80 million Americans afflicted with non-alcoholic fatty liver disease, a probiotic blend with a prebiotic can reduce liver damage.

56 WHAT TO LOOK FOR IN ZINC LOZENGES
There are many types of zinc lozenges, but a study showed that lozenges containing zinc acetate are best at curbing a cold and shortening its duration.

64 FASTING FOR A LONGER, BETTER LIFE
Several fasting methods can result in slower aging, reduced disease risk, and can potentially reverse diabetes.

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