

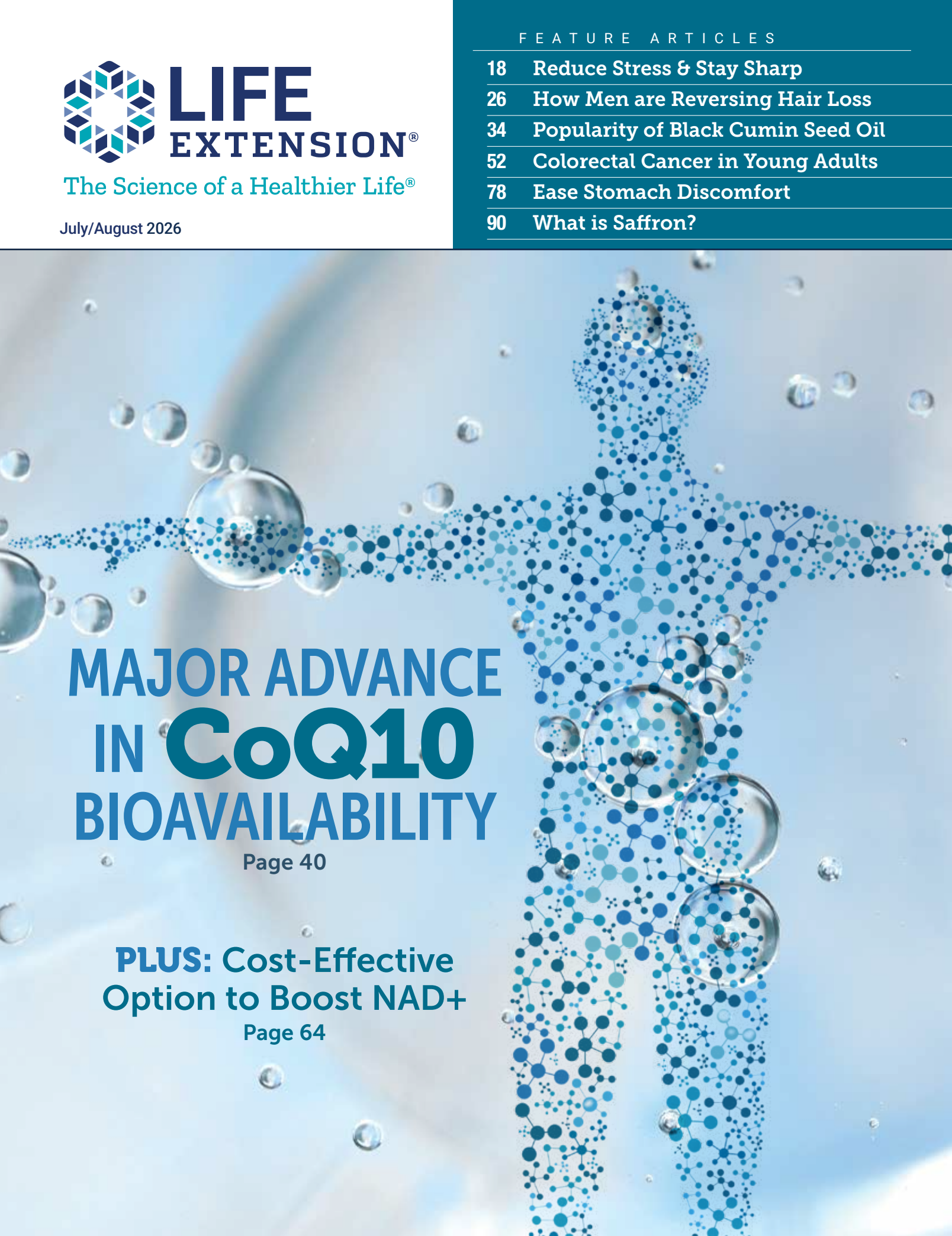


The Science of a Healthier Life®

July/August 2026

FEATURE ARTICLES

- 18 Reduce Stress & Stay Sharp
- 26 How Men are Reversing Hair Loss
- 34 Popularity of Black Cumin Seed Oil
- 52 Colorectal Cancer in Young Adults
- 78 Ease Stomach Discomfort
- 90 What is Saffron?

A large, stylized human silhouette is positioned on the right side of the cover, extending from the top to the bottom. The silhouette is composed of a network of blue dots of varying sizes, connected by thin lines, resembling a molecular or cellular structure. The background is a light blue gradient with several large, clear water droplets of different sizes scattered across it.

MAJOR ADVANCE IN **CoQ10** BIOAVAILABILITY

Page 40

PLUS: Cost-Effective
Option to Boost NAD+

Page 64

Oh-Mg!

LE

105 mg



Bioavailable
MAGNESIUM GLYCINATE
For Whole-Body Health

Magnesium is involved in over **600** biochemical reactions in the human body.

Each capsule of **Magnesium Glycinate** provides **105 mg** of elemental magnesium. This can enable healthy magnesium levels to be achieved throughout the body.

Item #02535

90 vegetarian capsules



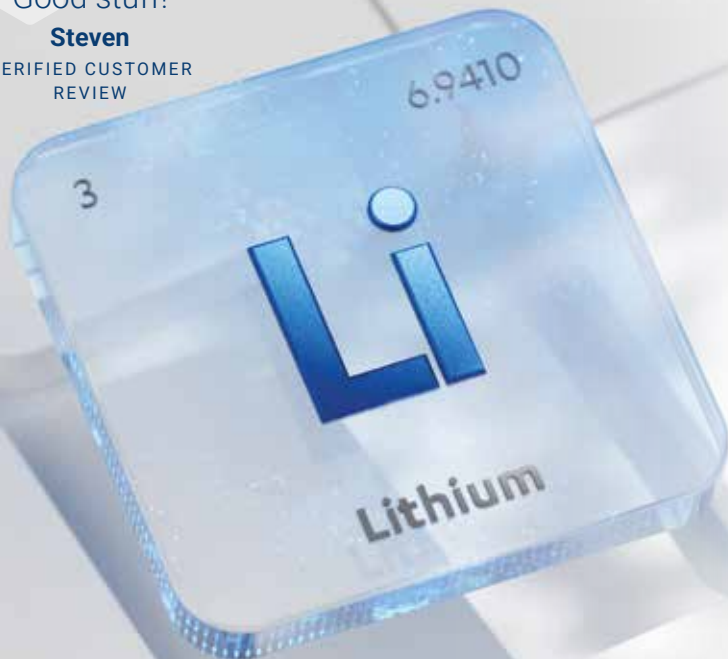
This product is available at fine health food stores everywhere.

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.

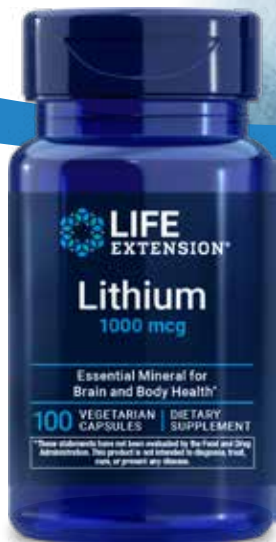
"Good stuff!"

Steven

VERIFIED CUSTOMER
REVIEW



A Bodyguard for Your BRAIN



(1000 mcg of lithium per tiny cap)

Item #02403

100 vegetarian capsules

Each bottle lasts 100 days.



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

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

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

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

This product is available at fine health food stores everywhere.

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.

Add **AMPK** METABOLIC ACTIVATOR

To Your Health Routine



AMPK is an enzyme in the body that signals cells to burn fat for energy.

Over time, AMPK levels decline and can cause accumulation of abdominal fat.

AMPK Metabolic Activator provides gynostemma and hesperidin extracts to:

- Revitalize healthy AMPK activity
- Encourage use of abdominal fat for energy
- Promote healthy cellular metabolism



This product is available at fine health food stores everywhere.

Item #02207
30 vegetarian tablets

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 are not guaranteed, and results may vary.

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.

Confidence

Between the Sheets

Sexual Health Support for Men

Turn up your libido with clinically researched ingredients that:

- Support healthy erectile & sexual function
- Promote male arousal, satisfaction & desire
- Support healthy mood, energy & stamina

Dim the lights and set the mood with
Advanced Male Sexual Support!

**This product is available at
fine health food stores everywhere.**

NEW



Item #02549

60 vegetarian capsules

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



The **SUPER AGING** Secret

Have you heard?
Luteolin is a
flavonoid that
may be the key
to healthy aging.



This new, highly-bioavailable formula:

- Supports cellular health and healthy aging
- Has been shown to provide up to 14x increased bioavailability in a clinical study*
- Is formulated with innovative fenugreek fiber coating to enhance absorption

Absorb the healthy aging benefits of Bio-Luteolin™

Item #02547

30 vegetarian capsules

*Than regular luteolin defined as 98% pure powder luteolin

This product is available at fine health food stores everywhere.

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.

REPORTS



Page
40
ON THE
COVER

A More Bioavailable CoQ10

CoQ10 levels decrease with aging and statin use. In a clinical trial, a new **CoQ10** formulation *boosted bioavailability* up to **24-fold**, compared to conventional CoQ10.

DEPARTMENTS

10 IN THE NEWS

Higher folate and vitamin D levels protect against mortality risk from plasticizer chemicals; higher carotenoid levels linked to lower mortality among cancer survivors; magnesium reduced mortality among ICU respiratory distress patients; testing and rebalancing two hormones may improve sleep.

18 REDUCE STRESS WHILE STAYING SHARP

Managing stress is key to cognitive function. In separate human trials, **two plant extracts** *reduced* overall perceived **stress** by **71%**, *lowered* **cortisol** by **24%**, and *improved* **attention** and **working memory**.

26 HOW MEN CAN REVERSE HAIR LOSS

In a clinical study, two **plant extracts** *increased* **hair growth** for **95%** of men with male pattern baldness. In a separate trial, another plant extract *decreased* **hair loss** by **29%**.

34 WHAT IS BLACK CUMIN SEED OIL?

Components in **black cumin seed oil** help *balance* optimal **inflammatory** and **immune responses**, which may help battle chronic diseases such as arthritis, allergies, asthma, cardiovascular disease, and more.

52 COLORECTAL CANCER:

A GROWING THREAT TO YOUNGER ADULTS

Life Extension® has historically advocated for earlier **colorectal cancer** screening. Now, younger adults are increasingly diagnosed with colorectal cancer. Specific nutrients, dietary patterns and screening can protect against this growing risk.

64 COST-EFFECTIVE NAD

NMN is an effective, lower-cost way to support **NAD⁺**. Clinical trials show that **NMN** significantly *increases* circulating levels of **NAD⁺** in older adults.

78 EASE STOMACH DISCOMFORT

In a clinical trial of adults with peptic ulcers, zinc- carnosine promoted healing in **65%** of subjects. In separate clinical trials, a novel postbiotic lowered marker of *H. pylori* infection.

90 WHAT IS SAFFRON?

Compounds in **saffron** help *balance* **mood** and *improve* **eye health**. Also, a saffron extract decreased snacking by **55%** and *promoted* **weight loss**.



The Key to Aging Well

Unlock healthy aging with our new family of NAD+ boosting formulas that deliver nicotinamide mononucleotide to support energy production at the cellular level. Promote healthy aging at the cellular level.

NEW

LIFE EXTENSION
NAD+ Cell Support
NMN
Nicotinamide Mononucleotide
300 mg
Supports Healthy NAD+ Levels
30 VEGETARIAN CAPSULES | DIETARY SUPPLEMENT

Item #02555
30 vegetarian capsules

GLUTEN FREE
NON GMO
LE CERTIFIED

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.

Editorial

Editor-in-Chief • Philip Smith
Executive Managing Editor • Renee Smith
Medical Editor • Mahwish Aurangzeb, MD, MPH
Senior Editor • Dan Jewel
Senior Staff Writer • Michael Downey
Department Editor • Laurie Mathena
Associate Editor • Rivka Rosenberger, EdD
Creative Director • Robert Vergara, MS
Art Director • Alexandra Maldonado

Chief Medical Officer

Steven Joyal, MD

Chief Scientific Officer

Andrew Swick, MS, PhD

Scientific Advisory Board

Richard Black, DO • Aubrey de Grey, PhD • Joel Kahn, MD, FACC
Sandra C. Kaufmann, MD • Peter H. Langsjoen, MD, FACC
Dipnarine Maharaj, MD • Ralph W. Moss, PhD
Michael D. Ozner, MD, FACC • Xiaoxi Wei, PhD • Jonathan V. Wright, MD

Contributors

Michael Downey • Laurie Mathena • Marsha McCulloch, MS, RD
Heather L. Makar • Patrick Sturges

Advertising

Chief Marketing Officer • Rey Searles • rsearles@lifeextension.com
National Advertising Manager • JT Hroncich • 404-347-4170

Vice President, Business Development

Ryan Thompson • rythompson@lifeextension.com • 954-202-7685

Circulation & Distribution

Life Extension • 3600 West Commercial Blvd., Ft. Lauderdale, FL 33309
Editorial offices: 954-766-8433 • fax: 954-491-5306

Customer Service: 800-678-8989 • Email: customerservice@LifeExtension.com

Wellness specialists: 800-226-2370 • Email: wellness@LifeExtension.com

Life Extension Magazine values your opinion and welcomes feedback.

Please mail your comments to *Life Extension Magazine*,

Attn: Letters to the Editor, PO Box 407198, Fort Lauderdale, FL 33340

or email us: LEmagazine@LifeExtension.com

LIFE EXTENSION (ISSN 1524-198X) July/August 2026 ©2026 is published monthly except bi-monthly in April by LE Publications, Inc. at 3600 West Commercial Blvd., Fort Lauderdale, FL 33309-3338. LE Publications, Inc. All rights reserved. Published 13 times a year. Subscription rate: \$40 per year in the United States. US \$47 in Canada. US \$60 in other countries. Mail subscriptions or address changes to: LE Publications, Inc., P.O. Box 407198, Fort Lauderdale, FL 33340-7198, USA. Or phone us toll-free at: 1-800-841-5433. Canada Subscriptions: Publications mail agreement number 40028967. Return undeliverable Canadian addresses to PO Box 503, RPO West Beaver Creek, Richmond Hill, ON L4B4R6. You will be sent your first issue within six weeks after LE Publications, Inc. receives your subscription fee. Periodicals Postage paid at Fort Lauderdale, FL and at additional mailing offices. POSTMASTER: Send address changes to Life Extension, P.O. Box 407198, Ft. Lauderdale, Florida 33340-7198, USA. The articles in this magazine are intended for informational purposes only. They are not intended to replace the attention or advice of a physician or other health-care professional. Anyone who wishes to embark on any dietary, drug, exercise, or other lifestyle change intended to prevent or treat a specific disease or condition should first consult with and seek clearance from a qualified health-care professional. LEGAL NOTICE: Health claims contained in articles and advertisements in this publication have not been approved by the FDA with the exception of FDA-approved, qualified health claims for calcium, antioxidant vitamins, folic acid and EPA and DHA omega-3 fatty acids, and selenium as noted where applicable. *Life Extension Magazine* does not endorse any of the businesses or the products and/or services that may appear in advertisements for non-Life Extension branded products or services contained in it, except to state that they are advertisers who may have paid Life Extension for placement of an advertisement in this publication. Life Extension disclaims any and all responsibilities or warranties as to the accuracy of information contained in advertisements for non-Life Extension branded products or services. For Canadian customers send change of address information and blocks of undeliverable copies to P.O. Box 1051, Fort Erie, ON L2A 6C7.



"I love it."
Steven
VERIFIED CUSTOMER
REVIEW

UP TO 45 TIMES
GREATER
BIOAVAILABILITY[‡]

CURCUMIN



Item #02407

60 vegetarian capsules

Patented technology combining **turmeric** and **fenugreek fiber** results in up to **45 times** greater bioavailability of free **curcuminoids**.

This product is available at fine health food stores everywhere.

[‡] Studied against powder turmeric extract standardized to 95% curcuminoids



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.

Mark S. Bezzek, MD, FACP, FAARM, FAAEM, is board-certified in internal medicine, emergency medicine, and anti-aging/regenerative medicine. He holds U.S. patents for a multivitamin/mineral supplement, an Alzheimer's/dementia compilation, and a diabetic regimen.

William Davis, MD, is a preventive cardiologist and author of *Wheat Belly: Lose the Wheat, Lose the Weight* and *Find Your Path Back to Health*.

Thomas F. Crais, MD, FACS, a board-certified plastic surgeon, was medical director of the microsurgical research and training lab at Southern Baptist Hospital in New Orleans, LA, and currently works in Hailey, ID.

Martin Dayton, MD, DO, has a private practice and his focus is on nutrition, aging, chelation therapy, holistic medicine, and oxidative medicine.

John DeLuca, MD, DC, is a 2005 graduate of St. George's University School of Medicine. He completed his internal medicine residency at Monmouth Medical Center in Long Branch, NJ, in 2008 and is board-certified by the American Board of Internal Medicine. Dr. DeLuca is a Diplomate of the American Academy of Anti-Aging Medicine and has obtained certifications in hyperbaric medicine, pain management, nutrition, strength and conditioning, and manipulation under anesthesia.

Sergey A. Dzugan, MD, PhD, was formerly chief of cardiovascular surgery at the Donetsk Regional Medical Center in Donetsk, Ukraine. Dr. Dzugan's current primary interests are anti-aging and biological therapy for cancer, cholesterol, and hormonal disorders.

Patrick M. Fratellone, MD, RH, is the founder and executive medical director of Fratellone Associates. He completed his internal medicine and cardiology fellowship at Lenox Hill Hospital in 1994, before becoming the medical director for the Atkins Center for Complementary Medicine.

Mitchell J. Ghen, DO, PhD, holds a doctorate in holistic health and anti-aging and practices at Dr. Mitch's Total Health.

Gary Goldfaden, MD, is a clinical dermatologist and a lifetime member of the American Academy of Dermatology. He is the founder of Academy Dermatology of Hollywood, FL, and has a skin care line.

Miguelangelo Gonzalez, MD, is a certified plastic and reconstructive surgeon at the Miguelangelo Plastic Surgery Clinic, Cabo San Lucas.

Ingo Mahn, DDS, AIAOMT, is the founder of Natural Dental Partners in North Scottsdale, AZ. A 1985 graduate of Marquette University School of Dentistry, he also earned a degree in Integrative Medicine from Capital University in Georgetown in 2004. Dr. Mahn is on the board of the International Academy of Oral Medicine and Toxicology (IAOMT) and serves as the chairman of the IAOMT Ozone committee. He is the author of *A Healthy Mouth - The Missing Link to Optimal Health*, and *A Breath of Health*.

Roberto Marasi, MD, is a psychiatrist in Brescia and in Piacenza, Italy. He is involved in anti-aging strategies and weight management.

Maurice D. Marholin, DC, DO, is a licensed chiropractic physician and board-certified osteopathic family physician. While training at the University of Alabama, he completed fellowships in Clinical Nutrition and Behavioral Medicine. He is currently in private practice in Clermont, FL.

Professor Francesco Marotta, MD, PhD, of Montenaepoleone Medical Center, Milan, Italy, is a gastroenterologist and nutrigenomics expert with extensive international university experience. He is also a consulting professor at the WHO-affiliated Center for Biotech & Traditional Medicine, University of Milano, Italy and honorary resident professor, Nutrition, Texas Women's University. He is the author of more than 130 papers and 400 lectures.

Philip Lee Miller, MD, is founder and medical director of California Age Management in Los Gatos, CA.

Michele G. Morrow, DO, FAAFP, is a board-certified family physician who merges mainstream and alternative medicine using functional medicine concepts, nutrition, and natural approaches.

Filippo Ongaro, MD, is board-certified in anti-aging medicine and has worked for many years as flight surgeon at the European Space Agency. He is a pioneer in functional and anti-aging medicine in Italy where he also works as a journalist and a writer.

Lambert Titus K. Parker, MD, an internist and a board-certified anti-aging physician, practices integrative medicine from a human ecology perspective with emphasis on personalized brain health, biomarkers, genomics and total health optimization. He also collaborates on education and research for Hampton Roads Hyperbaric Therapy.

Ross Pelton, RPh, PhD, CCN, is scientific director for Essential Formulas, Inc.

Patrick Quillin, PhD, RD, CNS, is a clinical nutritionist in Carlsbad, CA, and formerly served as vice president of nutrition for Cancer Treatment Centers of America, where he was a consultant to the National Institutes of Health.

Michael R. Rose, MD, a board-certified ophthalmologist with Acuity Eye Group in Los Angeles, CA, is on the staff of the University of Southern California and UCLA.

Ron Rothenberg, MD, is a former Clinical Professor in Family and Preventive Medicine at UCSD School of Medicine and founder of California HealthSpan Institute in San Diego.

Roman Rozencwaig, MD, is a pioneer in research on melatonin and aging. He practices in Montreal, Canada.

Michael D. Seidman, MD, FACS, is the director of skull base surgery and wellness for the Adventist Health System in Celebration, FL.



Sandra C. Kaufmann, MD, is a fellowship-trained and board-certified pediatric anesthesiologist as well as the Chief of Anesthesia at the Joe DiMaggio Children's Hospital in Hollywood, Florida. She is the founder of The Kaufmann Anti-Aging Institute and the author of the book *The Kaufmann Protocol: Why we Age and How to Stop It* (2018). Her expertise is in the practical application of anti-aging research.



Richard Black, DO, is a dedicated nuclear medicine physician practicing as an independent contractor out of Cleveland, Ohio. Dr. Black is board-certified in internal medicine and nuclear medicine, and is licensed to practice medicine in multiple states throughout the United States.



Aubrey de Grey, PhD, is a biomedical gerontologist and Editor-in-Chief of *Rejuvenation Research*, the world's highest-impact, peer-reviewed journal focused on intervention in aging. He received his BA and PhD from the University of Cambridge in 1985 and 2000 respectively. Dr. de Grey is a Fellow of both the Gerontological Society of America and the American Aging Association and sits on the editorial and scientific advisory boards of numerous journals and organizations.



Joel Kahn, MD, FACC of Detroit, Michigan, is a practicing cardiologist, and a Clinical Professor of Medicine at Wayne State University School of Medicine. He graduated Summa Cum Laude from the University of Michigan Medical School. Known as "America's Healthy Heart Doc", Dr. Kahn has triple board certification in Internal Medicine, Cardiovascular Medicine and Interventional Cardiology. He was the first physician in the world to certify in Metabolic Cardiology with A4M/MMI and the University of South Florida. He founded the Kahn Center for Cardiac Longevity in Bingham Farms, MI.



Peter H. Langsjoen, MD, FACC, is distinguished by a long career in cardiology with a specialization in congestive heart failure, primary and statin-induced diastolic dysfunction and other heart diseases. He is a leading authority on coenzyme Q10, having been involved with its clinical application since 1983. He is a founding and executive committee member of the International Coenzyme Q10 Association, a fellow of the American College of Cardiology and a member of numerous other medical associations.



Dipnarine Maharaj MD, MB, ChB, FRCP (Glasgow), FRCP (Edinburgh), FRCPath., FACP, is the Medical Director of the South Florida Bone Marrow Stem Cell Transplant Institute doing business as the Maharaj Institute of Immune Regenerative Medicine, and is regarded as one of the world's foremost experts on adult stem cells. He received his medical degree in 1978 from the University of Glasgow Medical School, Scotland. He completed his internship and residency in Internal Medicine and Hematology at the University's Royal Infirmary.



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 *Heart Attacks Are Not Worth Dying For*, *The Great American Heart Hoax*, and *The Complete Mediterranean Diet*. For more information visit www.DrOzner.com.



Jonathan V. Wright, MD, is medical director of the Tahoma Clinic in Tukwila, WA. He received his MD from the University of Michigan and has taught natural biochemical medical treatments since 1983. Dr. Wright pioneered the use of bioidentical estrogens and DHEA in daily medical practice. He has authored or co-authored 14 books, selling more than 1.5 million copies.



Xiaoxi Wei, PhD, is a chemist, expert in supramolecular assembly and development of synthetic transmembrane nanopores 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.

In the News

Folate, Vitamin D May Help Counteract Mortality Risk from Plasticizers

Greater exposure to a mixture of common plasticizers, chemicals such as phthalate metabolites and bisphenol-A, found in cosmetics, food packaging and other sources, was associated with an increased risk of cardiovascular mortality, cancer mortality, and mortality from all causes over an 8.5-year average follow-up period.*

But this association was observed *only* among individuals whose red blood cell **folate** and **vitamin D** levels were among the lowest third of the people in the study.

The study included 8,378 adults enrolled in the U.S. National Health and Nutrition Examination Survey (NHANES) 2005–2016 cycles. Participants were divided into thirds according to their urinary levels of eight phthalate metabolites, plus bisphenol-A.

Editor's Note: "Plastic pollution is a major environmental and health issue," the authors stated.

* *Lancet Planet Health*. 2025 Dec;9(12):101394.



Higher Carotenoid Levels in Cancer Survivors Linked with Reduced Death Rate

In a prospective cohort study, researchers found that higher serum levels of carotenoids were associated with reduced all-cause mortality in cancer survivors.*

Researchers analyzed serum concentrations of carotenoids in **1,816** cancer survivors from the National Health and Nutrition Examination Survey (NHANES) III and Continuous NHANES (2001–2006).

During 15 years of follow-up, only **40%** survived.

People with *higher* blood levels of **alpha-carotene**, **beta-carotene**, **lycopene**, and **lutein/zeaxanthin** had a significantly lower risk of death from any cause.

The association persisted even after adjusting for factors such as age, lifestyle, body weight, kidney function, supplement use, and existing health conditions.

Editor's Note: A carotenoid is a pigment responsible for producing red, orange, and yellow colors seen most commonly in fruits and vegetables. They have been shown to have antioxidant, anti-inflammatory, and immunomodulatory properties.

* *Clinical Nutrition ESPEN*. Volume 70, December 2025;165-173.



Magnesium Can Lower Mortality Risk for ICU Patients with Respiratory Distress

A recent study found that hospitalized adults with acute respiratory distress syndrome (ARDS) who received magnesium during their intensive care unit (ICU) stay had a significantly lower risk of death.*

The study included 1,282 critically ill, adult ICU patients with acute respiratory distress syndrome (ARDS) who received intravenous magnesium, and an equal number of ARDS patients who did not receive magnesium.

Patients who received magnesium had a **29% lower risk of in-hospital mortality** compared with those who did not receive the treatment.

When examining **30-day all-cause mortality in the ICU**, magnesium recipients showed a **25% lower risk**.

Editor's Note: "Magnesium homeostasis disturbances, especially hypomagnesemia, can increase infection risk, impair respiratory system function, and worsen disease progression, ultimately leading to increased mortality," the researchers stated.

* *Sci Rep*. 2025 Oct 10;15(1):35528.



Hormone Imbalances Can Cause Sleep Problems

Approximately half of adults over the age of 60 report difficulty with sleep.¹ While sleep aids may offer temporary relief, they do not solve the underlying cause of sleep problems.

For many people, poor sleep is associated with imbalances in two important hormones: cortisol and melatonin. Cortisol is the body's primary stress hormone, and its secretion follows a strong circadian rhythm. Levels are low at sleep onset and remain minimal during the evening and early night, which supports relaxation and sleep. Cortisol then begins to rise in the early morning hours, peaks shortly after awakening (around 30-45 minutes after waking up), and gradually declines throughout the day.^{2,3}

Melatonin is the body's primary sleep-promoting hormone, and its secretion follows a circadian rhythm. Levels begin to rise in the evening, peak during the night to support sleep, and decline after sunrise; this rhythm is regulated by the brain's internal clock and coordinated with cortisol to control the sleep-wake cycle.^{2,3}

Circadian rhythm disruption, common in shift-working healthcare workers, leads to poor sleep and biological misalignment. This causes chronic fatigue, stress hormone imbalance, and metabolic strain, increasing burnout, depression, and overall health risks.³

The Sleep Hormones Profile Saliva Test is a simple at-home test that measures your cortisol and melatonin levels. Understanding these patterns can provide valuable insight into why sleep issues are occurring and how to restore healthy hormone balance.

Editor's Note: If you experience any type of sleep difficulty, checking your hormones should be an important part of your plan for achieving better sleep and long-term health.

References

1. *Lancet Neurol.* 2019 Mar;18(3):296-306.
2. *Endocr Rev.* 2025 Jan 10;46(1):43-59.
3. *Clin Pract.* 2025 Oct 29;15(11):199.

To order this at-home test, call
1-800-208-3444 (24 hours).

Immune Defense Year-Round

spring

summer

fall

winter

"I feel that this product is a great partner in my quest for a healthy life"

Patricia

VERIFIED CUSTOMER REVIEW

Immune challenges can lead to nose, throat, and eye discomfort.

FLORASSIST® Probiotic Immune & Nasal Defense

combines a probiotic with a yeast fermentate to support a year-round healthy immune response.

Convenient, once-daily formula.

This product is available at fine health food stores everywhere.



EpiCor® is a registered trademark of Cargill, Incorporated.

Item #02208

30 vegetarian capsules



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.

Un-Bee-lievable Immune Support

Meet the bee's knees of respiratory immune defense. Our Bee Immune Propolis:

- Is available in both fast-acting spray and capsules for year-round support
- Supports upper respiratory tract health and a healthy immune response
- Delivers a clinically studied bee propolis standardized to compounds known to support immune health

**“Bee” your
healthiest self
year-round with
Bee Immune
Propolis.**



Item #02550

0.5 fl. oz. (15 mL)



Item #02546

60 vegetarian capsules

These products are available at
fine health food stores everywhere.

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.

IK

FOR DAILY HEALTH

Strong bones and a healthy heart are two benefits of adding vitamin K to your routine.

This essential nutrient helps maintain the body's calcium balance and, in turn, supports everything from arterial health to bone density.

Getting enough is easy by supplementing with as much—or as little—vitamin K as you need.



*** CAUTION:** If you are taking a vitamin K antagonist (e.g. warfarin), consult your healthcare practitioner before taking a vitamin K supplement.

Super K*

Vitamin K1 (as phytanadione) 2,000 mcg
Vitamin K2 (MK-4) 1,000 mcg
Vitamin K2 (as MenaQ7® *trans* menaquinone-7) 180 mcg

Item #02334

90 softgels

Low Dose Vitamin K*

45 mcg

Item #01936

90 softgels

Mega Vitamin K2*

45,000 mcg

Item #02417

30 capsules

These products are available at fine health food stores everywhere.

MenaQ7® is a registered trademark of Lesaffre et Compagnie, France.



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.



Hair so Nice, They'll Look Twice!

Hair Growth for Men is a **plant-derived** formula that *supports* the normal growth cycle for **healthy hair**.

In a clinical trial, a proprietary blend of **black rice seed** and **prickly pear** flower extracts helped to:¹

- Support hair health
- Promote hair fullness and density

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

- Fuller hair with more density
- Reduced hair shedding
- Healthy hair appearance

Just one **Hair Growth for Men** softgel daily can help maintain healthy hair.

This product is available at fine
health food stores everywhere.



GLUTEN
FREE

1
DAILY

NON
GMO
LE CERTIFIED

Item #02538

30 softgels

References: 1. J Cosmo Tricho. 2023;9(3):207. 2. Clin Cosmet Investig Dermatol. 2023 Nov 11;16:3251-3266.
Actrisave® is a registered trademark of Bionap S.r.l. VI-SPO® is a trademark of Vidya Herbs Inc. and used with permission.

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

"I do believe this works."
Carolyn
VERIFIED BUYER

Stressed?

"Won't want to be without it."

Donna
VERIFIED BUYER

Stress releases the hormone **cortisol** throughout the body. Maintaining healthy cortisol levels promotes healthy **mood** and **stress response**.

Cortisol-Stress Balance provides a proprietary blend of magnolia, phellodendron, lychee, and green tea extracts for a greater sense of calm.



Item #02312

30 vegetarian capsules

This product is available at fine health food stores everywhere.



Relora® is a trademark of Lonza, registered in the USA. Oligonol® is a registered trademark of Amino Up Co. Ltd.

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.



Reduce STRESS While Staying SHARP



The number of U.S. adults reporting difficulties with **concentration, memory, and decision-making** increased from **5.3%** to **7.4%** from 2013 to 2023, according to a study published in **2025**.¹

Surprisingly, the number of **younger adults** reporting these cognitive issues nearly **doubled** over the 10-year period.¹

Several factors, including **stress**, contribute to foggy thinking and cognitive challenges.¹⁻³

However, these concerns can be addressed. Some scientists have been researching two botanical extracts to address stress and mental focus:

- **Ashwagandha:** In one clinical trial, a standardized ashwagandha extract reduced feelings of stress by **71%** and lowered levels of the stress hormone cortisol by **24%**.⁴
- **Spearmint:** In clinical trials, spearmint increased **attention** by **11%**,⁵ and **working memory** by **15%**.⁶

Together, these plant extracts may help lower stress while maintaining mental focus.

Stress and Brain Dysfunction

Stress can make it challenging to concentrate and think.⁷

Chronic stress weakens the immune system and can increase susceptibility to illness. It raises cortisol levels through activation of the HPA axis, which suppresses immune function.⁸ Stress and elevated cortisol can interfere with sleep.^{9,10} Good sleep is crucial for **memory consolidation** and **attention**.¹¹

Stress is also linked to an increased risk of cognitive impairment,¹² as well as cardiometabolic conditions, including **type 2 diabetes**,¹³ **cardiovascular disease**,¹⁴ **high blood pressure**,¹⁵ and even **stroke**.¹⁵

Over the long term, mental stress can even increase the risk of **dementia**.¹²

The plant world offers promising solutions for calming the brain and enhancing its function.



Ashwagandha: An Ancient Stress Solution

Ashwagandha, an herb used in traditional Indian Ayurvedic medicine, is classified as an **adaptogen** because it helps the body adapt to stress.¹⁶ Ashwagandha helps the body manage stress by reducing cortisol and supporting the overall balance of stress-related hormones.¹⁷⁻¹⁹

In one trial, chronically stressed adults ages 18 to 60 took varying doses of standardized **ashwagandha extract** or a **placebo** daily for 60 days.⁴

Stress levels were measured with the Hamilton Rating Scale for Anxiety (**HAM-A**), a questionnaire assessing mental and physical symptoms, such as **difficulty concentrating**, and tension headaches.²⁰

Those taking **250 mg** of standardized ashwagandha extract daily, in two divided doses for 60 days, experienced the following changes from baseline:⁴

- **71%** decrease in overall feelings of **stress** and **anxiety**,
- **24%** decrease in the stress hormone **cortisol**,
- **3.4%** decrease in **systolic** (top number) blood pressure, and
- **8.2%** decrease in **pulse rate**.

The placebo group had no significant change in perceived stress or physical measures of stress.⁴

Participants who were taking ashwagandha also reported improvements in their ability to **concentrate** and **remember** things.

Anti-Stress Action

In a **2024** study, 131 mild to moderate chronically stressed adults ages 18 to 60 took a standardized extract of ashwagandha at varying doses or a placebo daily for eight weeks.²¹

Compared with placebo, those who took **150 mg** of **standardized ashwagandha extract** daily showed a dose-dependent response from baseline:

- **34%** reduction in **mental stress** (measured by a standard questionnaire),
- **18%** decrease in plasma **cortisol** levels, and
- Significant reduction in **inflammatory cytokines** associated with stress.

Ease Stress and Sharpen Thinking

- Foggy thinking and difficulty concentrating can often be linked to stress.
- Ashwagandha, an herb used in traditional South Asian medicine, has been clinically shown to reduce overall perceived stress by up to **71%** when taken as a standardized daily extract.
- Daily oral intake of a specialized spearmint extract has been shown to improve working memory by **15%** and increase sustained attention by **11%** in clinical trials.
- Combining ashwagandha and spearmint extracts may help support mental focus and cognitive function while promoting calmness.



In addition, the ashwagandha extract improved feelings of **vitality** and **mood** along with self-reported quality of **sleep**.

Spearmint and Focus

Spearmint is rich in health-promoting polyphenolic compounds, including **rosmarinic acid**.²²

In preclinical studies rosmarinic acid and other spearmint polyphenols support the brain by:

- Reducing **oxidative stress** and **inflammation**,^{23,24}
- Protecting the health of **neurons** in the brain,^{25,26} and
- Increasing **acetylcholine**, a neurotransmitter critical for learning and memory.²⁷

Scientists used traditional breeding techniques to develop a spearmint extract high in rosmarinic acid and other polyphenols.²⁸

A pilot trial of healthy adults confirmed that a **900 mg** dose of this spearmint extract was well absorbed. Supplementation improved reasoning and attention after 30 days and enhanced **attention** within **2–4 hours** after a single dose.²⁹

In a three-month trial involving 90 adults, ages 50 to 70, with age-associated memory issues, taking **900 mg** of spearmint extract improved **working memory** (the ability to temporarily retain and use information) by **15%** and improved spatial working memory by **9%**, compared to placebo.⁶

Diverse Brain Benefits

In another clinical study, 142 healthy, active **younger adults**, ages 18 to 50, took either **900 mg** of spearmint extract or a placebo daily for 90 days to test its effect on **sustained attention**.³⁰

Sustained attention helps people complete longer tasks, such as reading this article or focusing during lengthy car drives.³¹ Ongoing stress or worry can affect daily life and may cause poor sleep, irritability, restlessness, and difficulty concentrating.³²

On computerized cognitive tests, the spearmint group had an **11%** increase in **sustained attention** from baseline, while the placebo group showed little change.³⁰

In another 90-day, placebo-controlled trial of younger adults, the spearmint extract not only improved **mental focus** but also **reaction time**, and **hand-eye, foot-eye coordination**.⁵

A **combination** of spearmint and ashwagandha may both relieve stress *and* improve focus.

Summary

Managing stress and supporting brain health are key to maintaining cognitive function.

Scientists have developed an **ashwagandha** extract that has been clinically shown to reduce feelings of stress and anxiety while lowering the stress hormone cortisol.

To complement these benefits, a specialized **spearmint** extract with high levels of polyphenols has been clinically shown to improve attention and working memory.

Together, ashwagandha and spearmint extracts may help adults manage stress while supporting mental focus and cognitive performance. ■

References

- Wong KH, Anderson CD, Peterson C, et al. Rising Cognitive Disability as a Public Health Concern Among US Adults: Trends From the Behavioral Risk Factor Surveillance System, 2013-2023. *Neurology*. 2025 Oct 21;105(8):e214226.
- Girotti M, Bulin SE, Carreno FR. Effects of chronic stress on cognitive function - From neurobiology to intervention. *Neurobiol Stress*. 2024 Nov;33:100670.
- Berridge CW, Devilbiss DM, Martin AJ, et al. Stress degrades working memory-related frontostriatal circuit function. *Cereb Cortex*. 2023 Jun 8;33(12):7857-69.
- Auddy B, Hazra J, Mitra A, et al. A Standardized Withania Somnifera Extract Significantly Reduces Stress-Related Parameters in Chronically Stressed Humans: A Double-Blind, Randomized, Placebo-Controlled Study. *Journal of American Nutraceutical Association*. 2008.
- Falcone PH, Tribby AC, Vogel RM, et al. Efficacy of a nootropic spearmint extract on reactive agility: a randomized, double-blind, placebo-controlled, parallel trial. *J Int Soc Sports Nutr*. 2018 Dec 12;15(1):58.
- Herrlinger KA, Nieman KM, Sanoshy KD, et al. Spearmint Extract Improves Working Memory in Men and Women with Age-Associated Memory Impairment. *J Altern Complement Med*. 2018 Jan;24(1):37-47.
- Scott SB, Graham-Engeland JE, Engeland CG, et al. The Effects of Stress on Cognitive Aging, Physiology and Emotion (ESCAPE) Project. *BMC Psychiatry*. 2015 Jul 3;15:146.
- Available at: <https://www.americanbrainfoundation.org/how-stress-affects-the-brain/>. Accessed March 13, 2026.
- Goldberg ZL, Thomas KGF, Lipinska G. Bedtime Stress Increases Sleep Latency and Impairs Next-Day Prospective Memory Performance. *Front Neurosci*. 2020;14:756.
- Zhang XX, Sun SY, Ma ZJ, et al. Changed nocturnal levels of stress-related hormones couple with sleep-wake states in the patients with chronic insomnia disorder: A clinical pilot study. *Sleep Med*. 2024 May;117:177-83.
- Lucey BP. Sleep Alterations and Cognitive Decline. *Semin Neurol*. 2025 May;45(3):333-47.
- Kulshreshtha A, Alonso A, McClure LA, et al. Association of Stress With Cognitive Function Among Older Black and White US Adults. *JAMA Netw Open*. 2023 Mar 1;6(3):e231860.
- Hackett RA, Steptoe A. Type 2 diabetes mellitus and psychological stress - a modifiable risk factor. *Nat Rev Endocrinol*. 2017 Sep;13(9):547-60.
- Levine GN, Cohen BE, Commodore-Mensah Y, et al. Psychological Health, Well-Being, and the Mind-Heart-Body Connection: A Scientific Statement From the American Heart Association. *Circulation*. 2021 Mar 9;143(10):e763-e83.
- Reddin C, Murphy R, Hankey GJ, et al. Association of Psychosocial Stress With Risk of Acute Stroke. *JAMA Netw Open*. 2022 Dec 1;5(12):e2244836.
- Sprengel M, Laskowski R, Jost Z. Withania somnifera (Ashwagandha) supplementation: a review of its mechanisms, health benefits, and role in sports performance. *Nutr Metab (Lond)*. 2025 Feb 5;22(1):9.
- Fornalik M, Malkiewicz A, Adamczak D, et al. Hormonal Modulation with Withania somnifera: Systematic Review and Meta-Analysis of Randomized-controlled Trials. *Planta Med*. 2026 Feb 25.
- Vollmer G, Brendler T. Evaluation of Potential Hormonal Activities of Ashwagandha (Withania somnifera). *Phytother Res*. 2025 Dec 26.
- Majeed M, Nagabhushanam K, Mundkur L. A standardized Ashwagandha root extract alleviates stress, anxiety, and improves quality of life in healthy adults by modulating stress hormones: Results from a randomized, double-blind, placebo-controlled study. *Medicine (Baltimore)*. 2023 Oct 13;102(41):e35521.
- Thompson E. Hamilton Rating Scale for Anxiety (HAM-A). *Occup Med (Lond)*. 2015 Oct;65(7):601.
- Pandit S, Srivastav AK, Sur TK, et al. Effects of Withania somnifera Extract in Chronically Stressed Adults: A Randomized Controlled Trial. *Nutrients*. 2024 Apr 26;16(9).
- Cavar Zeljkovic S, Siskova J, Komzakova K, et al. Phenolic Compounds and Biological Activity of Selected Mentha Species. *Plants (Basel)*. 2021 Mar 15;10(3).
- Hassanzadeh-Taheri M, Ahmadi-Zohan A, Mohammadifard M, et al. Rosmarinic acid attenuates lipopolysaccharide-induced neuroinflammation and cognitive impairment in rats. *J Chem Neuroanat*. 2021 Nov;117:102008.
- Thingore C, Kshirsagar V, Juvekar A. Amelioration of oxidative stress and neuroinflammation in lipopolysaccharide-induced memory impairment using Rosmarinic acid in mice. *Metab Brain Dis*. 2021 Feb;36(2):299-313.
- Ghasemzadeh Rahbardi M, Hosseinzadeh H. Effects of rosmarinic acid on nervous system disorders: an updated review. *Naunyn-Schmiedeberg Arch Pharmacol*. 2020 Oct;393(10):1779-95.
- Hu X, Morihara R, Fukui Y, et al. Spearmint extract Neumintix downregulates amyloid-beta accumulation by promoting phagocytosis in APP23 mice. *Brain Res*. 2025 Sep 15;1863:149752.
- Szwajgier D, Baranowska-Wojcik E, Borowiec K. Phenolic Acids Exert Anticholinesterase and Cognition-Improving Effects. *Curr Alzheimer Res*. 2018;15(6):531-43.
- Narasimhamoorthy B, Zhao LQ, Liu X, et al. Differences in the chemotype of two native spearmint clonal lines selected for rosmarinic acid accumulation in comparison to commercially grown native spearmint. *Industrial Crops and Products*. 2015 2015/01/01;63:87-91.
- Nieman KM, Sanoshy KD, Bresciani L, et al. Tolerance, bioavailability, and potential cognitive health implications of a distinct aqueous spearmint extract. *Functional Foods in Health and Disease*. 2015;5(5):165 of 87.
- Falcone PH, Nieman KM, Tribby AC, et al. The attention-enhancing effects of spearmint extract supplementation in healthy men and women: a randomized, double-blind, placebo-controlled, parallel trial. *Nutr Res*. 2019 Apr;64:24-38.
- Huang H, Li R, Zhang J. A review of visual sustained attention: neural mechanisms and computational models. *PeerJ*. 2023;11:e15351.
- Hao X, Ma M, Meng F, et al. Diminished attention network activity and heightened salience-default mode transitions in generalized anxiety disorder: Evidence from resting-state EEG microstate analysis. *J Affect Disord*. 2025 Mar 15;373:227-36.



"I love this product!"

Susan

VERIFIED CUSTOMER
REVIEW

Enjoy the Finer Things in Life

with Optimized Resveratrol Elite™ Formula!

Resveratrol is good for your heart, mind, and cellular health—but is hard to absorb.

Optimized Resveratrol Elite™ supplement is formulated to yield up to 10x better resveratrol bioavailability* along with highly absorbable forms of quercetin and fisetin.



Item #02230

60 vegetarian capsules

This product is available at fine health food stores everywhere.

*Than unformulated resveratrol



Does not contain wine. Our *trans*-resveratrol is extracted from Japanese knotweed root.

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.

FOR A BALANCED IMMUNE RESPONSE

BLACK CUMIN SEED OIL

Black Cumin Seed Oil helps to maintain your body's already-healthy immune and inflammatory responses.¹⁻³

This convenient, easy-to-swallow softgel delivers **500 mg** of black cumin seed oil.

- Helps maintain immune system health
- Promotes a healthy inflammatory response
- Helps maintain systemic balance to promote whole-body health



Item #01709

60 softgels

This product is available at fine health food stores everywhere.

References

1. *Avicenna J Phytomed.* 2016;6(1):34-43.
2. *Phytother Res.* 2017;31(3):403-409.
3. *Phytother Res.* 2020;34(10):2706-2711.

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.

B12

B1

B6

B3

A

B2

E

D

VOTED

#1

MULTIVITAMIN

Compare
Two-Per-Day Multivitamin
to the Leading Brand

Compared to Centrum®
Silver® Adults 50+
Two-Per-Day Provides:

50 TIMES THE **VITAMIN B1**

25 TIMES THE **VITAMIN B6**

12 TIMES THE **VITAMIN B12**

10 TIMES THE **BIOTIN**

10 TIMES THE **SELENIUM**

7 TIMES THE **VITAMIN C**

2 TIMES THE **VITAMIN E**

2.5 TIMES THE **VITAMIN B3**

2 TIMES THE **VITAMIN D**

2 TIMES THE **ZINC**

"Covers all
the bases."

Brian

VERIFIED BUYER



Two-Per-Day Multivitamin Capsules

Item #02314 • 120 capsules (two-month supply)

Two-Per-Day Multivitamin Tablets

Item #02315 • 120 tablets (two-month supply)

**These products are available at
fine health food stores everywhere.**

Alpha lipoic acid, quercetin and plant extracts
lacking in most commercial multivitamins.

The **Two-Per-Day**
multinutrient
formula is superior
because it provides
vastly **higher** potencies
of **vitamins, minerals** and
plant extracts.



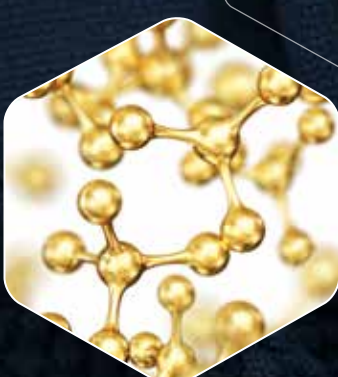
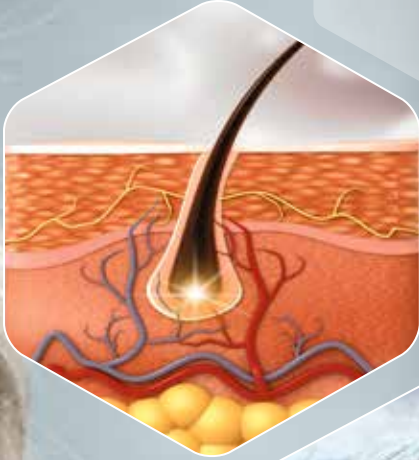
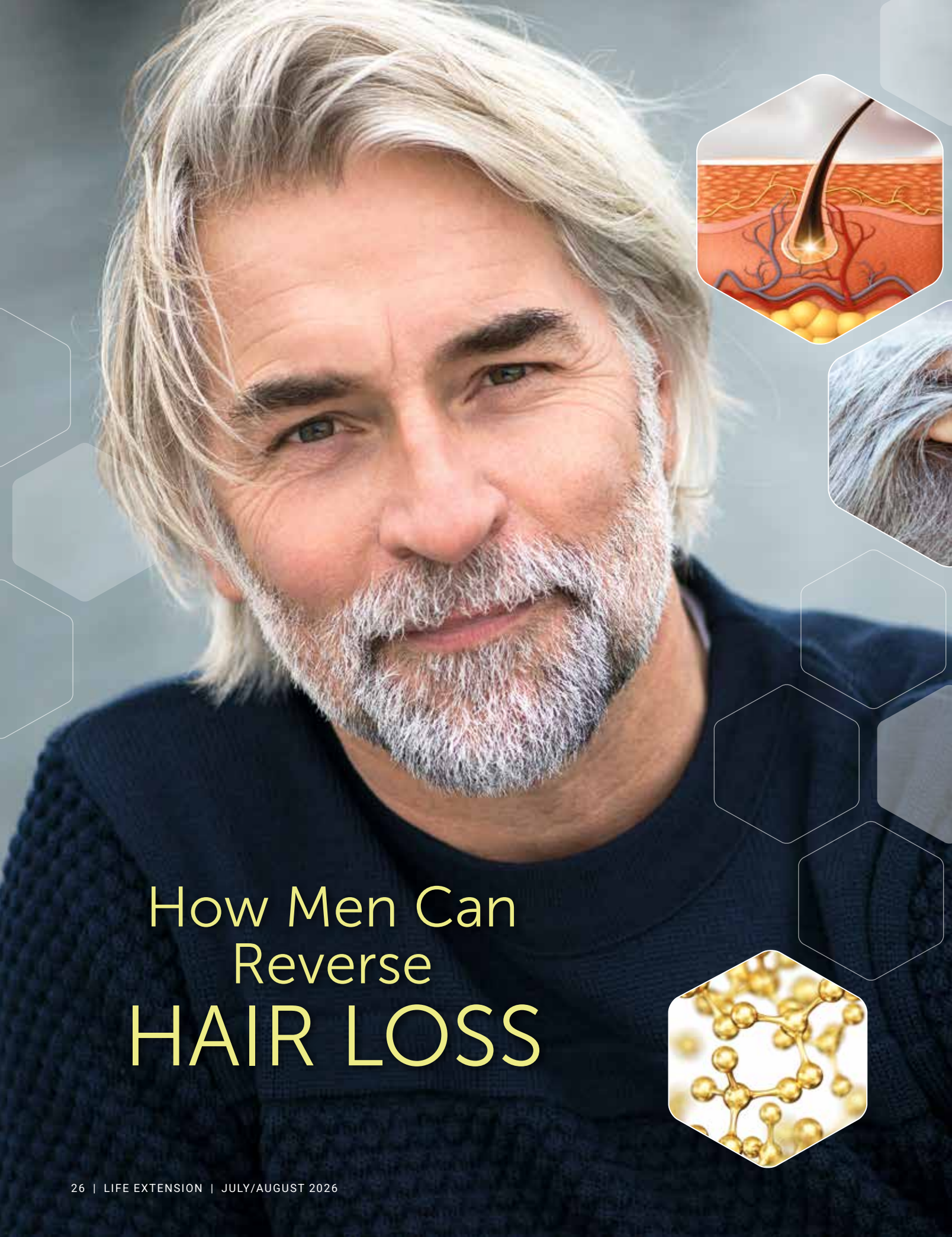
**2024
#1 Rated
Multivitamins –
11 Time Winner!†**

CAUTION: Individuals consuming more than 50 mcg (2000 IU)/day of vitamin D (from diet and supplements) should periodically obtain a serum 25-hydroxy vitamin D measurement. Vitamin D supplementation is not recommended for individuals with high blood calcium levels.

† Ratings based on results of the 2024 ConsumerLab.com Survey of Supplement Users. More information at www.consumerlab.com/survey.

Crominex® 3+, Capros® and PrimaVie® are trademarks of a Kerry Company. Lycored Lycopodium® is a registered trademark of Lycored; Orange, New Jersey. SelenoExcell® is a registered trademark of Cypress Systems Inc. L-OptiZinc® is a Lonza trademark, registered in USA.

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



How Men Can Reverse HAIR LOSS



BY HEATHER L. MAKAR

Progressive hair loss may begin in early adulthood, affecting about **30%** of men by age **30** and worsening with age.¹

For many men, hair loss can seem inevitable.

But researchers have identified three **plant extracts** that may help men save their hair.

In a clinical study, **95%** of men taking a blend of two of these ingredients showed **improvements** in **hair growth** measures within six months.²

In another clinical trial, participants who took a third plant extract experienced a **29%** decrease in hair loss and a **5%** increase in hair density.³

These three plant-extract ingredients have been combined into an **oral** formula designed to support hair growth and reduce hair loss.

Why Men Lose Their Hair

Progressive hair loss in men is known as **male pattern baldness**, or androgenetic alopecia, caused by increased levels of a hormone called **dihydro-testosterone (DHT)**.

DHT acts on genetically sensitive hair follicles, leading to gradual hair loss.⁴

When DHT binds to hair follicles, it causes them to shrink. Over time, thick, healthy hairs are replaced by thinner, shorter ones until only fine, barely visible hairs remain, gradually leading to the appearance of baldness.⁴

An enzyme in the body called **5-alpha-reductase** converts testosterone into DHT.^{4,5} Men experiencing hair loss often have more of this (DHT) enzyme.⁵

Inflammation, oxidative stress, and vascular changes affecting follicles can all accelerate hair loss and balding.^{2,4,5}

Conventional Therapies for Hair Loss

Currently, two FDA-approved therapies—topical minoxidil and oral finasteride—are commonly used for male pattern baldness.^{4,6} In addition, non-pharmacologic options including low-level laser and light-based devices (such as red-light therapy) have obtained FDA clearance for hair regrowth.⁷

Minoxidil, applied topically, improves blood flow to hair follicles, and promotes cell growth. Finasteride, taken orally, inhibits the enzyme **5-alpha-reductase** that contributes to DHT production.⁶

Both have limitations. Results can take six to twelve months to appear, so it should be used for up to a year before deciding whether treatment is a success, and any gains vanish when treatment stops. Both can prevent further hair loss but they only partially reverse baldness.⁴

Finasteride can cause decreased sex drive and erectile problems in some men.^{8,9}

Plant-Based Compounds for Hair Growth

To support individuals seeking non-drug alternatives, scientists evaluated several plant-derived extracts including **standardized black rice** and **prickly pear flower extracts**.

A preclinical cell study provided evidence that **prickly pear flower extract** is capable of inhibiting **5-alpha-reductase**.¹⁰

Black rice provides **cyanidin-3-glucoside (C3G)**, an anthocyanin with antioxidant properties that may help protect follicles from oxidative damage.²

When these two extracts were combined in a clinical study, supplementation with the standardized extracts resulted in increased hair growth and density, and a slowing of hair loss.²



What You Need To Know

Boost Healthy Hair Growth

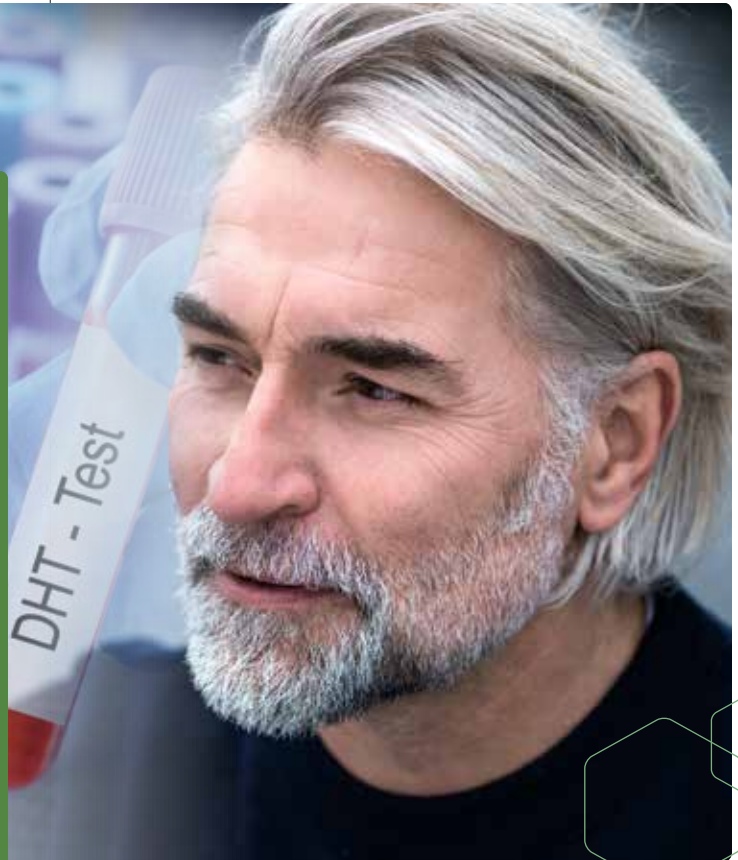
- Male pattern baldness, a type of progressive hair loss, affects up to **80%** of men.
- In a clinical trial, a **black rice-prickly pear flower** extract blend improved hair growth measures in **95%** of men within six months. Over **63%** of men noticed visible improvements within **three months**.
- In another trial, **saw palmetto oil** reduced hair shedding by **29%** and increased hair density by **5%** in 16 weeks.
- A blend of these three oral ingredients may help optimize hair growth and fullness and reverse hair loss.

Researchers tested the combination of **black rice** and **prickly pear** extracts in 86 men (18 – 55 years old) with mild-to-moderate male pattern hair loss. Half received **250 mg** of the extract blend daily, while half took a **placebo**, for six months.

Treatment progress was evaluated using a high-resolution phototrichogram—a noninvasive tool for assessing hair growth—along with a self-assessment questionnaire. Dermatologists analyzed high resolution scalp images to quantify hair density per square centimeter and to measure hair thickness and length.

After six months, advanced imaging technology revealed notable differences between the two groups. Men taking the extract blend had a:²

- **9.5%** increase in total **hair density**,
- **28%** increase in density of hair in the **growing** phase, and
- **31%** decrease in dormant, **non-growing** hair.



Dermatologists reviewing before-and-after photos, rated a remarkable **95%** of treated men as showing **hair growth improvement**, compared to just **34%** in the placebo group.²

Overall, **75.6%** of those receiving the extract blend were satisfied with the results, and **63.5%** noticed visible improvements within just **two months**.²

Saw Palmetto May Help Reduce Hair Loss

Saw palmetto, long used in prostate health applications, has demonstrated potential benefits for hair health as well.³

In a cell study, standardized saw palmetto oil inhibited 5-alpha reductase and provided **anti-inflammatory** and **angiogenic** (forming new blood capillaries) effects.¹¹

Saw palmetto oil standardized to **2–3% beta sitosterol** and **85% total fatty acids**, has been shown in laboratory studies to inhibit **5-alpha-reductase** and support anti-inflammatory and angiogenic (forming new blood capillaries) effects.³

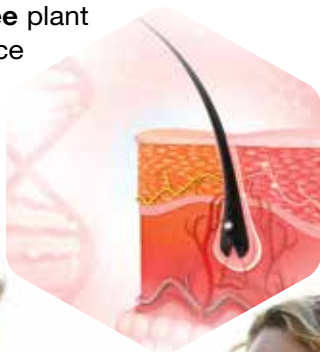
In a clinical trial, participants with mild to moderate hair loss who took **100 mg** of standardized **saw palmetto oil** daily for 16 weeks had:³

- A **29%** reduction in **shedding** during a hair comb test,
- A **20.5%** decrease in **shedding** during a hair pull test, and
- A **5.17%** increase in **hair density** (compared to a **3.23%** decrease in those taking a placebo).

Half the men taking saw palmetto reported thicker, better-looking hair, compared to just **10.5%** in the placebo group.³

Blood tests confirmed that **DHT** levels dropped by **22.2%** in those taking saw palmetto while remaining within the normal range for healthy men.³ Saw palmetto does not appear to affect PSA levels, which may be relevant for men undergoing prostate screening.^{12,13}

Combining these **three** plant extracts may help reduce hair loss and support hair growth.



Summary

Progressive **hair loss** may be slowed or managed.

In a clinical trial, **95%** of men taking a blend of **black rice** and **prickly pear** flower extracts showed increased **hair growth** measures by six months.

In another trial, oral **saw palmetto oil** was associated with a **29%** reduction in **hair shedding**.

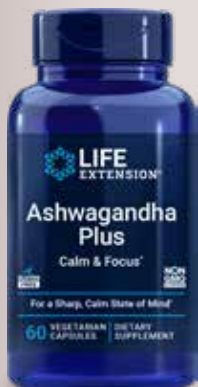
A combination of these three ingredients offers a promising approach to promoting hair growth and reducing hair loss. ■

References

1. Cortez GL, Hassun K, Linhares LRP, et al. Male androgenetic alopecia. *An Bras Dermatol*. 2025 Mar-Apr;100(2):308-21.
2. Enza Cestone ES, Vincenzo Nobile. Efficacy of *Oryza Sativa* L. (Black Rice) and *Opuntia Ficus Indica* L. Blend in Men with Androgenetic Alopecia: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial. *Journal of Cosmetology & Trichology*. 2023;9(3).
3. Sudeep HV, Rashmi S, Jestin TV, et al. Oral and Topical Administration of a Standardized Saw Palmetto Oil Reduces Hair Fall and Improves the Hair Growth in Androgenetic Alopecia Subjects - A 16-Week Randomized, Placebo-Controlled Study. *Clin Cosmet Investig Dermatol*. 2023;16:3251-66.
4. Asfour L CW, Sinclair R. *Male Androgenetic Alopecia*. National Library of Medicine; 2023.
5. Owecka B, Tomaszewska A, Dobrzeniecki K, et al. The Hormonal Background of Hair Loss in Non-Scarring Alopecias. *Biomedicines*. 2024 Feb 24;12(3).
6. Devjani S, Ezemma O, Kelley KJ, et al. Androgenetic Alopecia: Therapy Update. *Drugs*. 2023 Jun;83(8):701-15.
7. Maghfour J, Mineroff J, Ozog DM, et al. Evidence-based consensus on the clinical application of photobiomodulation. *J Am Acad Dermatol*. 2025 Aug;93(2):429-43.
8. Available at: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6f904709-65aa-44ce-b144-b4c8a0416e36>. Accessed April 24, 2026.
9. Available at: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6f988153-fc74-4ca4-b29a-11f750c4a4b>. Accessed April 24, 2026.
10. Jonas A, Rosenblatt G, Krapf D, et al. Cactus flower extracts may prove beneficial in benign prostatic hyperplasia due to inhibition of 5alpha reductase activity, aromatase activity and lipid peroxidation. *Urol Res*. 1998;26(4):265-70.
11. Sawaya ME, Price VH. Different levels of 5alpha-reductase type I and II, aromatase, and androgen receptor in hair follicles of women and men with androgenetic alopecia. *J Invest Dermatol*. 1997 Sep;109(3):296-300.
12. Available at: <https://www.nccih.nih.gov/health/saw-palmetto>. Accessed April 24, 2026.
13. Andriole GL, McCullum-Hill C, Sandhu GS, et al. The effect of increasing doses of saw palmetto fruit extract on serum prostate specific antigen: analysis of the CAMUS randomized trial. *J Urol*. 2013 Feb;189(2):486-92.

A woman with dark hair and large hoop earrings is sitting in a meditative lotus position on a city sidewalk. She is wearing a white sleeveless button-down shirt and black pants. Her hands are resting on her knees in a mudra. The background is a blurred city street with people walking and buildings.

In times of stress...
STAY CALM AND ALERT!



Ashwagandha Plus Calm & Focus ingredients promote a healthy response to everyday stress and encourage focus and attention. Each capsule contains:

- Standardized **ashwagandha** clinically studied to encourage a state of emotional well-being and feeling calm.¹
- Patented **spearmint** extract clinically studied to promote focus and sustained attention.²⁻³

Item #02519

60 vegetarian capsules

References

1. *J Amer Nutraceutical Assoc.* 2008;11:1.
 2. *J Altern Complement Med.* 2018 Jan;24(1):37-47.
 3. *Nutr Res.* 2019 Apr;64:24-38.
- Sensoril® is protected under US Patent No. 7,318,938 and is a registered trademark of Natreon, Inc.
Neumentix® is a trademark of Kemin Industries, Inc.

A decorative plant with green leaves and bright orange and yellow flowers, possibly a type of Physalis, is shown in the bottom right corner.

This product is available at fine health food stores everywhere.

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.

NEXT GEN CoQ10

CoQ10 is essential for **cellular energy** in the **heart, liver, kidneys, and muscles**.^{1,2}

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

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

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

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



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

Item #02554

100 mg • 60 vegetarian capsules

Item #02553

50 mg • 60 vegetarian capsules



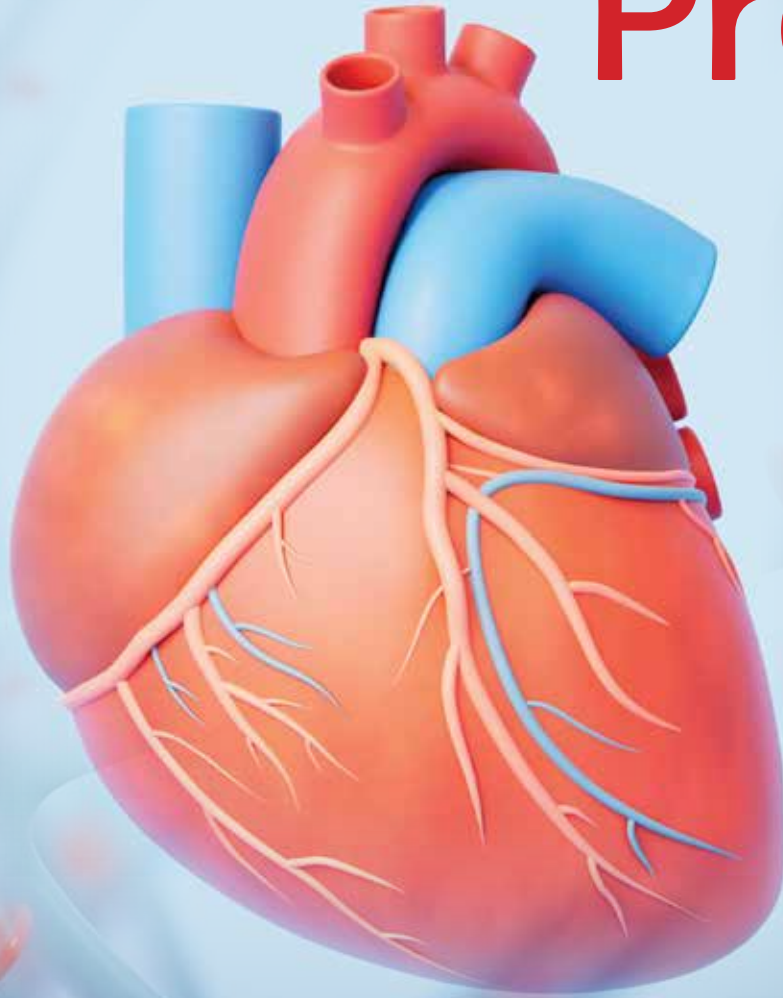
These products are available at fine health food stores everywhere.

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

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

Maintain Vascular and
Endothelial Health with

Arterial Protect



Arterial Protect supports the body's natural processes for managing arterial debris to help maintain endothelial and circulatory health.*

Each capsule provides the patented French maritime **pine bark extract** used in clinical studies along with **gotu kola**.

**This product is available at fine
health food stores everywhere.**

* Int Angiol. 2014 Feb;33(1):20-6.

Item #02004

30 vegetarian capsules



Pycnogenol® and Centellicum® are registered trademarks of Horphag Research.
Use of this product may be protected by one or more U.S. patents and other international patents.

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

What is Black Cumin Seed Oil?

BY LAURIE MATHENA



Nigella sativa (black cumin seed) oil has a long-standing history of traditional medicinal use for digestive support, respiratory comfort, and vitality.^{1,2}

Preclinical and clinical research have reported beneficial effects related to immune support by its balancing **inflammatory** and beneficial **immune** responses.^{1,3,4}

Chronic inflammation and changes in immune system function are considered contributors to many age-related diseases.^{5,6}

With aging, the balance between protective and inflammatory responses may become dysregulated. This can lead to low-level systemic inflammation alongside reduced immune responsiveness.^{6,7}

Modern research has identified *thymoquinone*, a primary bioactive compound in **black cumin seed oil**, as having a range of biological activities relevant to inflammation and chronic conditions.²

Current research has focused on three main potential benefits of black cumin seed oil: inflammatory response,^{2,8,9} immune health,^{3,4} and antioxidant defense.^{2,9}

As a result, black cumin seed oil has attracted interest for its potential role in addressing chronic diseases such as arthritis, allergies, asthma, cardiovascular health, and more.²

Arthritis

Rheumatoid arthritis and osteoarthritis differ in cause but are both associated with joint pain, reduced mobility, and inflammation.¹⁰ Preclinical research suggests that **thymoquinone** may influence inflammatory pathways.^{11,12}

- **Rheumatoid arthritis** –

Preliminary research suggests that black cumin seed oil may support joint comfort and help maintain healthy joint function.¹⁰ In a small study of 40 women with rheumatoid arthritis who were already receiving standard treatment, taking **500 mg** of black cumin seed oil twice daily for one month led to significant improvements in disease activity. Participants experienced fewer swollen joints and shorter duration of morning stiffness, as measured by the Disease Activity Score for *Rheumatoid Arthritis*.¹³

- **Osteoarthritis** – associated with the breakdown of joint cartilage.¹⁰ In a study of 116 patients with knee **osteoarthritis**, those taking **2.5 mL of black cumin seed oil** every eight hours for one month experienced significant decreases in their symptoms and in their pain scores, compared to those taking a **placebo**.

A reduction in acetaminophen use was also observed in the treatment group.¹⁴



Nasal Allergies and Asthma

Nasal allergies (allergic rhinitis) and **asthma** are both driven by an overreaction of the immune system and resulting inflammation.¹⁵ Experimental and clinical research have reported that black cumin seed oil has been explored for potential effects on the inflammatory factors in these conditions. Studies suggest it exhibits a range of biological activities relevant to immune and respiratory functions.¹⁶

- **Nasal Allergies** – inflammation triggered by allergens in the air.¹⁵ In a clinical trial of 66 patients with allergic rhinitis, treatment with black cumin seed oil for **30 days** resulted in significant reductions in nasal congestion and itching, runny nose, and sneezing attacks. The improvements were seen in the treatment group as early as in 15 days.¹⁷

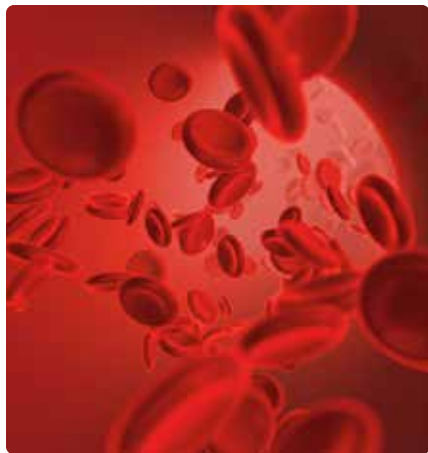


- **Asthma** – a chronic condition involving airway inflammation and reversible narrowing.¹⁸ In a randomized, double-blind, placebo-controlled trial, asthma patients who took **500 mg** of black cumin seed oil twice a day for four weeks experienced greater improvements in their Asthma Control Test score than those taking a placebo. They also had a significant reduction in blood eosinophils.¹⁹ These white blood cells are often elevated in asthma and contribute to the airway inflammation and swelling that trigger asthma attacks.¹⁸

Cardiovascular Health

C-reactive protein (CRP), a marker of **systemic inflammation**, helps predict the risk of **heart disease**.²⁰ Inflammation and oxidative stress contribute to cardiovascular disease progression, with CRP serving as a biomarker and a contributor to clot formation.²¹





- **Coronary artery disease.** In 60 individuals with coronary artery disease, patients took either **2 grams** of black cumin seed oil per day or a placebo for eight weeks. Those taking the black cumin seed oil experienced significant decreases in two cell adhesion molecules that contribute to inflammatory diseases. They also experienced a decrease in the measure of oxidative stress and beneficial increases in total antioxidant capacity. These results indicate that black cumin seed oil may support vascular function and markers of oxidative stress.²²
- **Two systematic reviews** and meta-analyses of randomized controlled trials suggest that *Nigella sativa* seed and seed oil supplementation may be associated with modest improvements in markers of **inflammation** and oxidative stress. Reported findings include reductions in serum **C-reactive protein**^{8,23} and malondialdehyde levels,²³ as well as increases in total antioxidant capacity,²³ with effects appearing more pronounced among individuals with obesity.⁸

Black cumin seed oil should not be confused with culinary cumin; it is derived from the seeds of the *Nigella sativa* plant and is often cold-pressed.

Summary

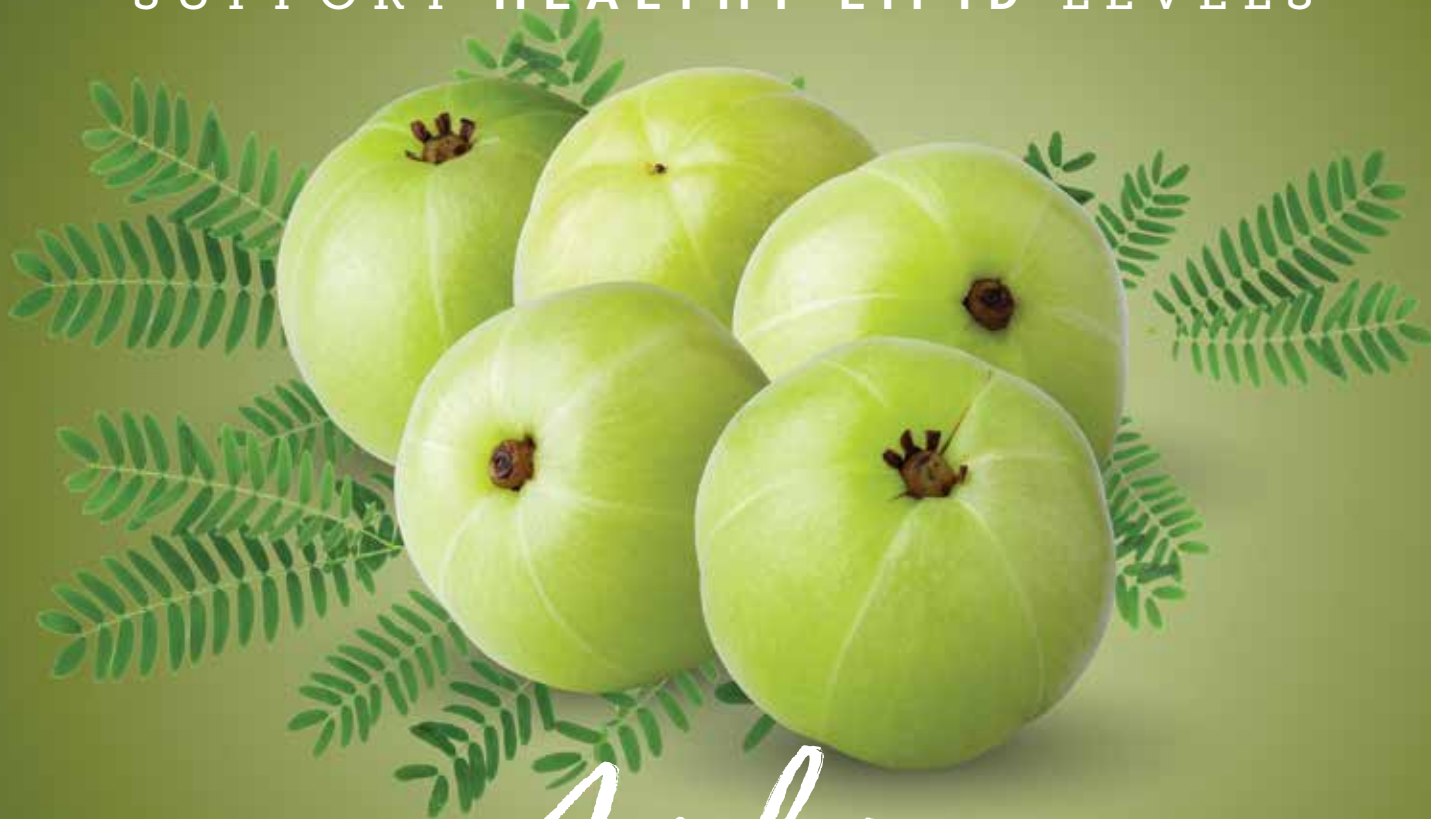
Black cumin seed oil has a history of traditional use and has been studied for its effects on inflammatory response, immune function, and antioxidant activity.

Research, including clinical trials, suggests it may be associated with improvements in symptoms and biomarkers in conditions such as arthritis, allergic rhinitis, asthma, and aspects of cardiovascular health. •

References

1. Amin B, Hosseinzadeh H. Black Cumin (*Nigella sativa*) and Its Active Constituent, Thymoquinone: An Overview on the Analgesic and Anti-inflammatory Effects. *Planta Med.* 2016 Jan;82(1-2):8-16.
2. Yimer EM, Tuem KB, Karim A, et al. *Nigella sativa* L. (Black Cumin): A Promising Natural Remedy for Wide Range of Illnesses. *Evid Based Complement Alternat Med.* 2019;2019:1528635.
3. Salem A, Bamosa A, Alam M, et al. Effect of *Nigella sativa* on general health and immune system in young healthy volunteers: a randomized, placebo-controlled, double-blinded clinical trial. *F1000Res.* 2021;10:1199.
4. Majdalawieh AF, Fayyad MW. Immunomodulatory and anti-inflammatory action of *Nigella sativa* and thymoquinone: A comprehensive review. *Int Immunopharmacol.* 2015 Sep;28(1):295-304.
5. Ajoalabady A, Pratico D, Tang D, et al. Immunosenescence and inflammaging: Mechanisms and role in diseases. *Ageing Res Rev.* 2024 Nov;101:102540.
6. Rea IM, Gibson DS, McGilligan V, et al. Age and Age-Related Diseases: Role of Inflammation Triggers and Cytokines. *Front Immunol.* 2018;9:586.
7. Lewis ED, Wu D, Meydani SN. Age-associated alterations in immune function and inflammation. *Prog Neuropsychopharmacol Biol Psychiatry.* 2022 Aug 30;118:110576.
8. Tavakoly R, Arab A, Vallianou N, et al. The effect of *Nigella sativa* L. supplementation on serum C-reactive protein: A systematic review and meta-analysis of randomized controlled trials. *Complement Ther Med.* 2019 Aug;45:149-55.
9. Lan X, Xia Y. Alleviating effects of *Nigella sativa* supplements on biomarkers of inflammation and oxidative stress: Results from an umbrella meta-analysis. *Prostaglandins Other Lipid Mediat.* 2025 Jan;176:106945.
10. Zhang Z, Shao Z, Xu Z, et al. Similarities and differences between osteoarthritis and rheumatoid arthritis: insights from Mendelian randomization and transcriptome analysis. *J Transl Med.* 2024 Sep 20;22(1):851.
11. Wang D, Qiao J, Zhao X, et al. Thymoquinone Inhibits IL-1 β -Induced Inflammation in Human Osteoarthritis Chondrocytes by Suppressing NF- κ B and MAPKs Signaling Pathway. *Inflammation.* 2015 Dec;38(6):2235-41.
12. Mahboubi M, Mohammad Taghizadeh Kashani L, Mahboubi M. *Nigella sativa* fixed oil as alternative treatment in management of pain in arthritis rheumatoid. *Phytotherapy Res.* 2018 Jul 15;46:69-77.
13. Gheita TA, Kenawy SA. Effectiveness of *Nigella sativa* oil in the management of rheumatoid arthritis patients: a placebo controlled study. *Phytother Res.* 2012 Aug;26(8):1246-8.
14. Huseini HF, Mohtashami R, Sadeghzadeh E, et al. Efficacy and safety of oral *Nigella sativa* oil for symptomatic treatment of knee osteoarthritis: A double-blind, randomized, placebo-controlled clinical trial. *Complement Ther Clin Pract.* 2022 Nov;49:101666.
15. Available at: <https://www.nhsinform.scot/illnesses-and-conditions/ears-nose-and-throat/allergic-rhinitis/>. Accessed March 26, 2026.
16. Gholamnezhad Z, Shakeri F, Saadat S, et al. Clinical and experimental effects of *Nigella sativa* and its constituents on respiratory and allergic disorders. *Avicenna J Phytomed.* 2019 May-Jun;9(3):195-212.
17. Nikakhlagh S, Rahim F, Aryani FH, et al. Herbal treatment of allergic rhinitis: the use of *Nigella sativa*. *Am J Otolaryngol.* 2011 Sep-Oct;32(5):402-7.
18. Ghairi N, Elhechmi YZ. Physiopathology of Allergic Asthma: A Comprehensive Review. *Scand J Immunol.* 2025 May;101(5):e70032.
19. Koshak A, Wei L, Koshak E, et al. *Nigella sativa* Supplementation Improves Asthma Control and Biomarkers: A Randomized, Double-Blind, Placebo-Controlled Trial. *Phytother Res.* 2017 Mar;31(3):403-9.
20. Ridker Paul M. A Test in Context. *JACC.* 2016 2016/02/16;67(6):712-23.
21. Zhang Z, Yang Y, Hill MA, et al. Does C-reactive protein contribute to atherothrombosis via oxidant-mediated release of pro-thrombotic factors and activation of platelets? *Front Physiol.* 2012;3:433.
22. Tavakoli-Rouzbehani OM, Abbasnezhad M, Kheirouri S, et al. Efficacy of *nigella sativa* oil on endothelial function and atherogenic indices in patients with coronary artery diseases: A randomized, double-blind, placebo-control clinical trial. *Phytother Res.* 2022 Dec;36(12):4516-26.
23. Mohit M, Farrokhzad A, Faraji SN, et al. Effect of *Nigella sativa* L. supplementation on inflammatory and oxidative stress indicators: A systematic review and meta-analysis of controlled clinical trials. *Complement Ther Med.* 2020 Nov;54:102535.

SUPPORT HEALTHY LIPID LEVELS



FRUIT *Amla* EXTRACT



Item #01828

60 vegetarian capsules



ADVANCED LIPID CONTROL
CAN HELP SUPPORT
HEART HEALTH.

ADVANCED LIPID CONTROL[†]
contains a standardized
500 mg extract of **amla** in
each capsule.

Researchers have discovered
that **amla** supports various
markers of **cardiovascular**
health.¹

In a **placebo-controlled** clinical
trial, **amla extract** helped maintain
already-healthy levels of:

- ▶ **LDL**
- ▶ **HDL**
- ▶ **Triglycerides**
- ▶ **CRP (C-reactive protein)**



This product is available at fine health food stores everywhere.

[†]For those already within normal range.

1. *BMC Complement Altern Med.* 2019;19:97.

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.



Item #02533

60 vegetarian delayed
release capsules



FOOD *Freedom*

More cheese? Yes, please! Feel free to indulge without worrying about occasional gas and stomach upset, as well as other gastrointestinal discomforts.

Food Sensitivity Relief with Diamine Oxidase is formulated to encourage healthy metabolism of histamine-rich foods like cured meats, cheeses and wine, so you can make friends with your favorite foods again.

Put digestive comfort back on the menu with our new plant-based formula!

This product is available at fine health food stores everywhere.

CAUTION: This product breaks down histamine but won't prevent severe allergic or gluten-related (celiac) reactions. Do not knowingly ingest food you are allergic to.

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.

Highway to Heart Health

Stay on the cardio health fast track with NitroVasc™ Boost!

This improved formula promotes healthy blood flow and circulation by supporting your body's production of nitric oxide. And our special L-arginine-silicate complex stays in the blood longer than regular arginine, so your heart can stay the course.

Get ready to live life at full speed with this easy-mix berry-flavored powder.



*Not a low-calorie food.

Item #02320

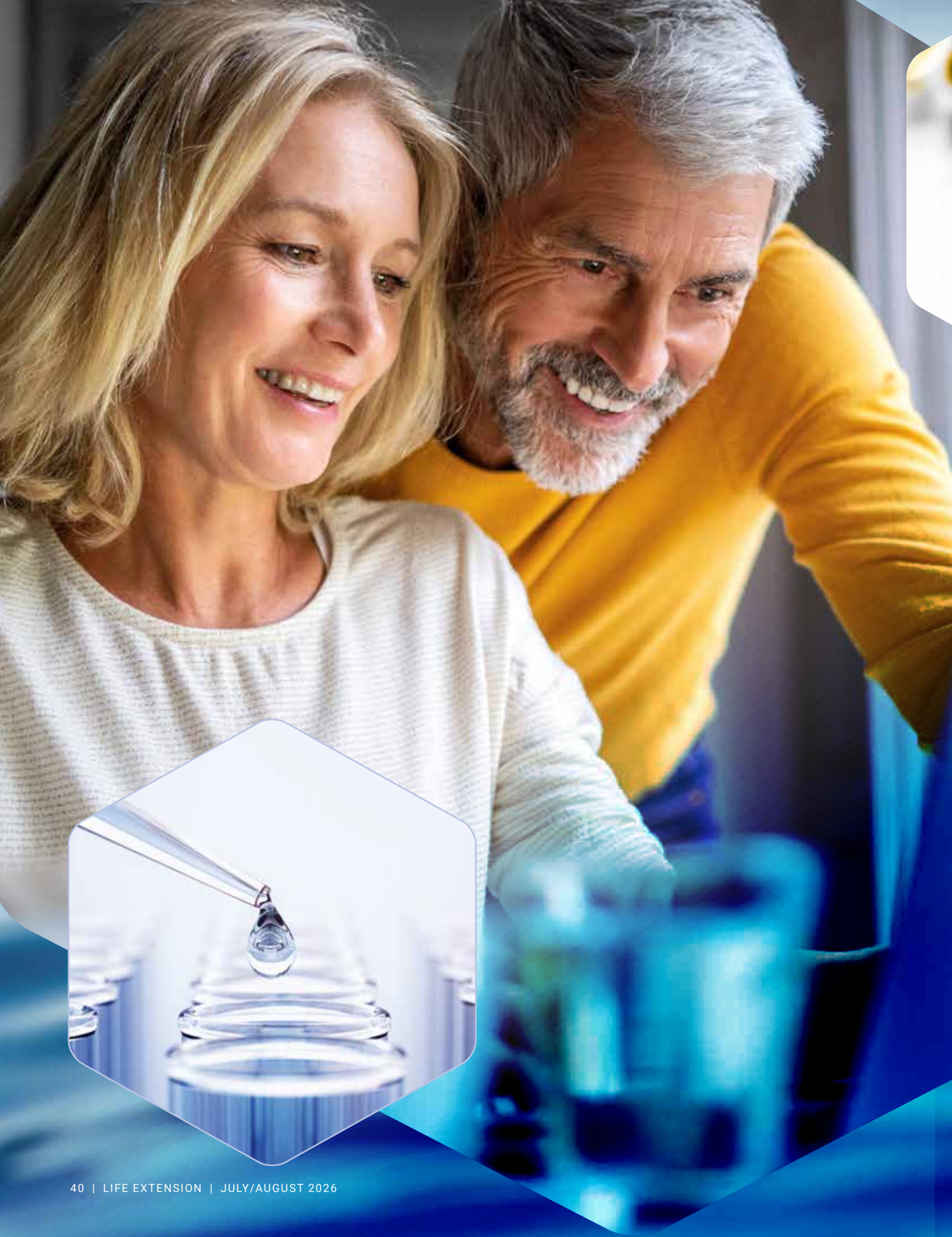
Net Wt. 78.6 g (0.173 lb.)



This product is available at fine health food stores everywhere.

Nitrosigine® is a registered trademark of Nutrition 21, LLC. Nitrosigine® is patent protected.

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





NEW! An Even More Bioavailable CoQ10

BY MICHAEL DOWNEY

Coenzyme Q10 (CoQ10) is naturally present in almost every cell in your body.^{1,2}

It plays critical roles in cellular energy production, anti-inflammatory activity, heart and blood vessel support, glucose metabolism, and more.^{1,2}

But our ability to synthesize coenzyme Q10 typically begins to diminish after our mid-twenties.^{3,4} And when taken orally, there are limitations as to how well it is *absorbed* by the body.^{2,5}

Now, a collaborative effort involving **Life Extension®** scientists has led to a new approach to addressing this.

Using a **100%** plant-based delivery system, scientists have developed a form of **CoQ10** designed to enhance its **stability** and *significantly* boost its **bioavailability**.⁶

Multiple bioavailability studies have been conducted, and a recent **clinical trial** demonstrated that, compared to standard coenzyme Q10, this next-generation form of CoQ10 resulted in up to **24-fold improvement in bioavailability!**⁶

This formulation resulted in *higher* circulating levels of **CoQ10** that persisted *longer*.

The Need for Coenzyme Q10

Coenzyme Q10 is a fat-soluble, vitamin-like molecule synthesized by the body and found in all human tissues. It plays an essential role for the creation of **ATP**, the energy used by cells.^{2,5,7}

Its *highest* concentrations are in tissues with the *greatest* energy requirements, like the heart, kidneys, liver, and muscle.⁵ One hallmark of **aging** is a decline in energy metabolism.⁸

Preclinical research suggests that CoQ10 may help address mitochondrial dysfunction.^{5,9,10} Mitochondria produce the energy our cells need. Mitochondrial damage is associated with age-related degenerative conditions, and reduced lifespan.¹¹

Some of this damage is linked to oxidative stress. CoQ10 acts as an **antioxidant** in cells and helps support other antioxidants and mitochondrial enzymes.⁸

Challenge: Poor Bioavailability

Absorption refers to how much of a nutrient enters the digestive system and bloodstream. **Bioavailability** refers to how much of a nutrient passes through the digestive system and reaches tissues that need it most.¹²

Standard CoQ10 suffers from both poor absorption and bioavailability. Taken orally, relatively little of it circulates in the bloodstream or reaches tissues, and it may degrade.¹³

The body's ability to produce its *own* CoQ10 decreases with **age**.⁸

Statin drugs, which are taken by about **35%** of Americans, *further inhibit* CoQ10 synthesis and deplete body levels.^{5,15}



Solution: Galactomannan Technology

In a recent development, scientists developed a new form of CoQ10 with superior **bioavailability**.⁶

Using a patented, plant-based water extraction process, they combined CoQ10 in a hydrogel with components of the spice **fenugreek**.

Fenugreek seeds contain **galactomannan**, a fiber with a unique chemical structure that improves CoQ10's stability and protects it from breakdown, enhancing **bioavailability**.

In a human study, scientists tested this **galactomannan-CoQ10** formula against two forms of *regular* **CoQ10**: the standard **ubiquinone** form and a reduced form called **ubiquinol**.⁶ Ubiquinol has been shown to produce *higher* plasma concentrations than ubiquinone.^{16,17}

With a 12-day washout period between each single-dose supplementation, 12 healthy adults (aged 30-57 years) took:⁶

- **100 mg** of ubiquinone CoQ10 formulated with **400 mg** of **galactomannan**,
- **100 mg** of standard CoQ10 as **ubiquinone**, and/or
- **100 mg** of CoQ10 as **ubiquinol**.



What You
Need
To Know

A Better Coenzyme Q10

- Found in all human tissues, **coenzyme Q10 (CoQ10)** is required for the creation of **ATP**, the energy used by cells.
- CoQ10 production declines with age. Taken orally, it suffers from low **bioavailability**, which means little of it makes it to tissues where it is needed most.
- A new formulation has been developed that has resulted in a new enhanced-bioavailability CoQ10 that combines it with the fiber **galactomannan** from fenugreek seeds.
- In a human study, a single dose of this next-generation formulation led to a remarkable **24-fold** improvement in bioavailability, compared to standard CoQ10 (ubiquinone).
- This new formulation may help support cardiovascular and metabolic health, cellular energy production, and healthy aging.

Measuring plasma CoQ10 over twenty-four hours showed that:⁶

- Taking the *new* **galactomannan-CoQ10** formulation resulted in a **24-fold improvement** in bioavailability, compared to standard CoQ10 in the **ubiquinone** form.
- Even compared to CoQ10 in the more bioavailable **ubiquinol** form, taking the **galactomannan-CoQ10** formulation resulted in a **three-fold higher** bioavailability.

Validated in Older Adults

Scientists also tested the new formula in **older** adults, who have lower CoQ10 levels and may **absorb** it less efficiently.¹⁸

With a 12-day washout period between each single-dose supplement, twelve healthy volunteers, aged 58-73, took:⁶

- **250 mg** of the **galactomannan-CoQ10** formulation (which uses **20% CoQ10** as ubiquinone, providing **50 mg** of CoQ10), and
- **50 mg** of standard CoQ10 as **ubiquinone**.

Compared to standard CoQ10, the **galactomannan-CoQ10** formulation led to a **16-fold higher** bioavailability in these older adults.⁶

Clinical Benefits

This new formulation increased the circulating levels of **CoQ10** in the studies conducted.

The potential benefits can be remarkable. Coenzyme Q10 supports cardiovascular and metabolic health and may influence factors associated with several **chronic conditions**.^{10,19-22}

In other **clinical trials**, CoQ10:

- Reduced the rate of major **cardiovascular** events like heart attack, stroke, or death by **50%** in heart failure patients,²³
- Decreased levels of triglycerides, LDL, and total cholesterol and increased HDL,²⁴
- Improved **endothelial** function and blood flow,²⁵
- Improved total antioxidant capacity and reduced a marker for oxidative stress and **lipid peroxidation**, a process that leads to cell damage,^{19,26}
- Boosted activity of the innate antioxidant **superoxide dismutase**,¹⁹
- Increased cellular energy production,²⁷
- Lowered levels of multiple **chronic inflammation** biomarkers,²⁸
- Decreased insulin resistance, fasting insulin, fasting glucose, and **HbA1c** (a measure of average blood glucose over time),²⁹
- Increased the pregnancy rate in women with infertility undergoing assisted reproductive technologies,³⁰
- Reduced the frequency, duration, and severity of **migraines**,^{31,32}
- Reduced general **fatigue** and enhanced physical performance,³³ and
- Decreased **myopathy** (muscular pain or weakness) associated with the use of statins.¹⁵

Improving CoQ10's **bioavailability** may help optimize these and other benefits.



Summary

Coenzyme Q10 is required throughout the body to boost cellular energy, help combat inflammation, support cardiovascular and metabolic health, and more.

CoQ10 production decreases with **aging** and **statin** drug use, and it suffers from poor **bioavailability** when taken orally.

A new formulation gets around that problem. Combining CoQ10 with the fiber **galactomannan** significantly increases **bioavailability**.

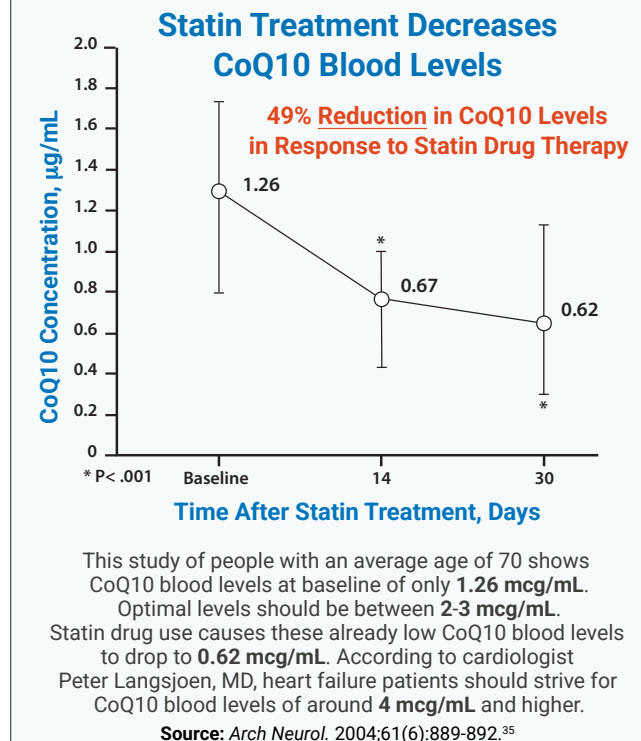
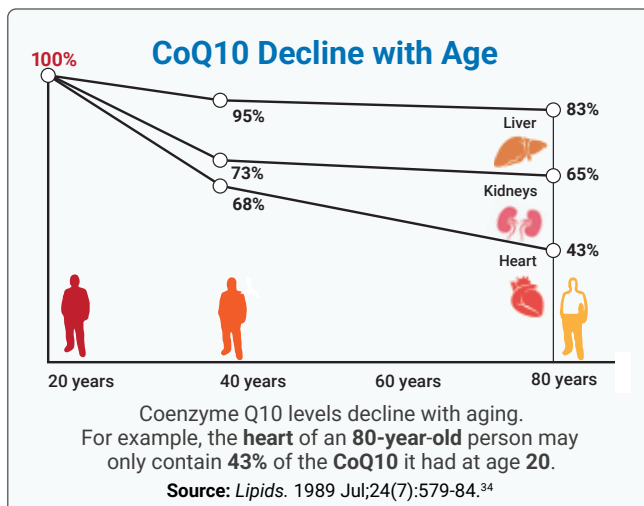
In a **human** trial, this novel formulation of CoQ10 provided vast **improvements** in bioavailability, compared to standard CoQ10. Greater bioavailability was separately validated in **older** adults, who generally have more difficulty *absorbing* CoQ10.

The greater bioavailability may help support CoQ10's multiple roles related to healthy aging. ■

References

1. Gasmi A, Bjorklund G, Mujawdiya PK, et al. Coenzyme Q(10) in aging and disease. *Crit Rev Food Sci Nutr*. 2024;64(12):3907-19.
2. Hernandez-Camacho JD, Garcia-Corzo L, Fernandez-Ayala DJM, et al. Coenzyme Q at the Hinge of Health and Metabolic Diseases. *Antioxidants (Basel)*. 2021 Nov 8;10(11).
3. Hargreaves IP, Mantle D. Coenzyme Q10 Supplementation in Fibrosis and Aging. *Adv Exp Med Biol*. 2019;1178:103-12.
4. Lopez-Lluch G. Coenzyme Q-related compounds to maintain healthy mitochondria during aging. *Adv Protein Chem Struct Biol*. 2023;136:277-308.
5. Raizner AE, Quinones MA. Coenzyme Q(10) for Patients With Cardiovascular Disease: JACC Focus Seminar. *J Am Coll Cardiol*. 2021 Feb 9;77(5):609-19.
6. Enhanced bioavailability and pharmacokinetics of a novel hybrid-hydrogel formulation of Coenzyme Q10. *Data on File*. 2025.
7. Rauchova H. Coenzyme Q10 effects in neurological diseases. *Physiol Res*. 2021 Dec 30;70(Suppl4):S683-S714.

8. Lopez-Lluch G. Coenzyme Q homeostasis in aging: Response to non-genetic interventions. *Free Radic Biol Med*. 2021 Feb 20;164:285-302.
9. Nakazawa H, Ikeda K, Shinozaki S, et al. Coenzyme Q10 protects against burn-induced mitochondrial dysfunction and impaired insulin signaling in mouse skeletal muscle. *FEBS Open Bio*. 2019 Feb;9(2):348-63.
10. Rabanal-Ruiz Y, Llanos-Gonzalez E, Alcain FJ. The Use of Coenzyme Q10 in Cardiovascular Diseases. *Antioxidants (Basel)*. 2021 May 10;10(5).
11. Somasundaram I, Jain SM, Blot-Chabaud M, et al. Mitochondrial dysfunction and its association with age-related disorders. *Front Physiol*. 2024;15:1384966.
12. Rodrigues DB, Marques MC, Hacke A, et al. Trust your gut: Bioavailability and bioaccessibility of dietary compounds. *Curr Res Food Sci*. 2022;5:228-33.
13. Mantle D, Dybring A. Bioavailability of Coenzyme Q(10): An Overview of the Absorption Process and Subsequent Metabolism. *Antioxidants (Basel)*. 2020 May 5;9(5).
14. Matyori A, Brown CP, Ali A, et al. Statins utilization trends and expenditures in the U.S. before and after the implementation of the 2013 ACC/AHA guidelines. *Saudi Pharm J*. 2023 Jun;31(6):795-800.
15. Ahmad K, Manongi NJ, Rajapandian R, et al. Effectiveness of Coenzyme Q10 Supplementation in Statin-Induced Myopathy: A Systematic Review. *Cureus*. 2024 Aug;16(8):e68316.
16. Zhang Y, Liu J, Chen XQ, et al. Ubiquinol is superior to ubiquinone to enhance Coenzyme Q10 status in older men. *Food Funct*. 2018 Nov 14;9(11):5653-9.
17. Failla ML, Chitchumroonchokchai C, Aoki F. Increased bioavailability of ubiquinol compared to that of ubiquinone is due to more efficient micellization during digestion and greater GSH-dependent uptake and basolateral secretion by Caco-2 cells. *J Agric Food Chem*. 2014 Jul 23;62(29):7174-82.
18. Mantle D, Lopez-Lluch G, Hargreaves IP. Coenzyme Q10 Metabolism: A Review of Unresolved Issues. *Int J Mol Sci*. 2023 Jan 30;24(3).
19. Akbari A, Mobini GR, Agah S, et al. Coenzyme Q10 supplementation and oxidative stress parameters: a systematic review and meta-analysis of clinical trials. *Eur J Clin Pharmacol*. 2020 Nov;76(11):1483-99.
20. Gutierrez-Mariscal FM, de la Cruz-Ares S, Torres-Pena JD, et al. Coenzyme Q(10) and Cardiovascular Diseases. *Antioxidants (Basel)*. 2021 Jun 3;10(6).
21. Dlugda PV, Orlando P, Silvestri S, et al. Coenzyme Q(10) Supplementation Improves Adipokine Levels and Alleviates Inflammation and Lipid Peroxidation in Conditions of Metabolic Syndrome: A Meta-Analysis of Randomized Controlled Trials. *Int J Mol Sci*. 2020 May 4;21(9).
22. Fan L, Feng Y, Chen GC, et al. Effects of coenzyme Q10 supplementation on inflammatory markers: A systematic review and meta-analysis of randomized controlled trials. *Pharmacol Res*. 2017 May;119:128-36.
23. Mortensen SA, Rosenfeldt F, Kumar A, et al. The effect of coenzyme Q10 on morbidity and mortality in chronic heart failure: results from Q-SYMBIO: a randomized double-blind trial. *JACC Heart Fail*. 2014 Dec;2(6):641-9.
24. Liu Z, Tian Z, Zhao D, et al. Effects of Coenzyme Q10 Supplementation on Lipid Profiles in Adults: A Meta-analysis of Randomized Controlled Trials. *J Clin Endocrinol Metab*. 2022 Dec 17;108(1):232-49.
25. Gao L, Mao Q, Cao J, et al. Effects of coenzyme Q10 on vascular endothelial function in humans: a meta-analysis of randomized controlled trials. *Atherosclerosis*. 2012 Apr;221(2):311-6.
26. Dai S, Tian Z, Zhao D, et al. Effects of Coenzyme Q10 Supplementation on Biomarkers of Oxidative Stress in Adults: A GRADE-Assessed Systematic Review and Updated Meta-Analysis of Randomized Controlled Trials. *Antioxidants (Basel)*. 2022 Jul 13;11(7).
27. Mantle D, Dewsbury M, Hargreaves IP. The Ubiquinone-Ubiquinol Redox Cycle and Its Clinical Consequences: An Overview. *Int J Mol Sci*. 2024 Jun 20;25(12).
28. Hou S, Tian Z, Zhao D, et al. Efficacy and Optimal Dose of Coenzyme Q10 Supplementation on Inflammation-Related Biomarkers: A GRADE-Assessed Systematic Review and Updated Meta-Analysis of Randomized Controlled Trials. *Mol Nutr Food Res*. 2023 Jul;67(13):e2200800.
29. Liang Y, Zhao D, Ji Q, et al. Effects of coenzyme Q10 supplementation on glycemic control: A GRADE-assessed systematic review and dose-response meta-analysis of randomized controlled trials. *EClinicalMedicine*. 2022 Oct;52:101602.
30. Florou P, Anagnostis P, Theocharis P, et al. Does coenzyme Q(10) supplementation improve fertility outcomes in women undergoing assisted reproductive technology procedures? A systematic review and meta-analysis of randomized-controlled trials. *J Assist Reprod Genet*. 2020 Oct;37(10):2377-87.
31. Nattagh-Eshtivani E, Dahri M, Hashemilar M, et al. The effect of Coenzyme Q10 supplementation on serum levels of lactate, pyruvate, matrix metalloproteinase 9 and nitric oxide in women with migraine. A double blind, placebo, controlled randomized clinical trial. *European Journal of Integrative Medicine*. 2018 2018/08/01;21:70-6.
32. Sandor PS, Di Clemente L, Coppola G, et al. Efficacy of coenzyme Q10 in migraine prophylaxis: a randomized controlled trial. *Neurology*. 2005 Feb 22;64(4):713-5.
33. Mizuno K, Tanaka M, Nozaki S, et al. Antifatigue effects of coenzyme Q10 during physical fatigue. *Nutrition*. 2008 Apr;24(4):293-9.
34. Kalen A, Appelkvist EL, Dallner G. Age-related changes in the lipid compositions of rat and human tissues. *Lipids*. 1989 Jul;24(7):579-84.
35. Rundek T, Naini A, Sacco R, et al. Atorvastatin Decreases the Coenzyme Q10 Level in the Blood of Patients at Risk for Cardiovascular Disease and Stroke. *Archives of Neurology*. 2004;61(6):889-92.



"It is my goal
to never run out
of this. Ever!"

Rusty

VERIFIED CUSTOMER
REVIEW

Neuro-Mag[®]

THE SMART MAGNESIUM



Item #01603
90 vegetarian capsules

Supports Overall Cognitive Ability

Neuro-Mag[®] Magnesium L-Threonate
helps maintain working
(short-term) memory, encourages
healthy processing speed, and
supports overall cognitive function.^{1,2}



Item #02032
93.35 grams of powder

These products are available at fine health food stores everywhere.

References: 1. *Nutrients*;14:5235.10.3390/nu14245235. 2. *J Alzheimers Dis.* 2016;49(4):971-90.

Magtein[®] is protected under a family of patents, pending patents, and is protected worldwide.

Magtein[®] is a trademark of and is licensed exclusively by Threotech LLC.



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.

Ciao, Belly!

Say “goodbye” to belly fat and
“hello” to a trimmer waist with
Gummy Science™ Mediterranean
Weight Management!

Inspired by the healthy weight benefits of the Mediterranean diet, these gummies promote both fat and weight loss when combined with diet and exercise. This formula targets not just belly fat but the visceral fat that surrounds your organs.

If your goal is a trimmer waistline that’s “molto bene,” Life Extension’s new and improved sugar-free* gummies may be just the ticket.

Item #02506C

60 gummies



*Not a
low-
calorie
food.



This product is available at fine health food stores everywhere.

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

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.

ADVANCED Milk Thistle

ULTIMATE SUPPORT
FOR YOUR LIVER



Advanced Milk Thistle contains standardized, top-grade **silymarin**, **silybin**, **isosilybin A**, and **isosilybin B**, providing a full spectrum of liver-supportive compounds.

The SILIPHOS® phytosome in **Advanced Milk Thistle** resulted in almost **3.5-fold** greater bioavailability compared to unformulated milk thistle extract.

This product is available at fine health food stores everywhere.

Item #01922

60 softgels



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

Life Extension's Advanced Milk Thistle has met ConsumerLab.com standards for ingredient and product quality for Milk Thistle in independent testing. More information at www.consumerlab.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.

B12

B12

B SMART

Body & Brain

"It is everything I wanted
in a B12 supplement."

Christine

VERIFIED CUSTOMER REVIEW

BIOACTIVE FORMS OF VITAMIN B12

B12 Elite provides both:

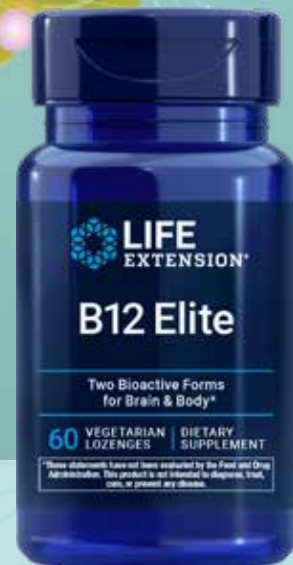
ADENOSYLCOBALAMIN

- Active in brain cell mitochondria.
- Supports nerve cell function.
- Supports cellular energy production.

METHYLCOBALAMIN

- Supports brain cell function.
- Promotes red blood cell production.
- Helps maintain healthy homocysteine levels.

Dissolve in the mouth or chew one vegetarian
lozenge daily.



Item #02419

60 vegetarian lozenges



This product is available at fine health
food stores everywhere.

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.

A Key to Aging Well



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

NAD⁺ facilitates the production of **ATP**, which your body uses for fuel.¹

NMN (nicotinamide mononucleotide) provides a **cost-effective NAD⁺** precursor.

NMN with Resveratrol Elite provides *trans-resveratrol*, *quercetin*, and *fisetin* for cell support...in addition to **300 mg** of **NMN**.

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



NAD⁺ Cell Support NMN
Nicotinamide Mononucleotide
300 mg of nicotinamide mononucleotide per capsule.

Item #02555 • 30 vegetarian capsules

Item #02558 • 90 vegetarian capsules

Optimized NAD⁺ NMN Nicotinamide Mononucleotide with Resveratrol Elite
300 mg of nicotinamide mononucleotide + *trans-resveratrol*, *quercetin* and *fisetin*.

Item #02556 • 30 vegetarian capsules

Item #02559 • 90 vegetarian capsules



These products are available at fine health food stores everywhere.

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

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.

Back in Action

Improved



Item #02529

60 vegetarian capsules

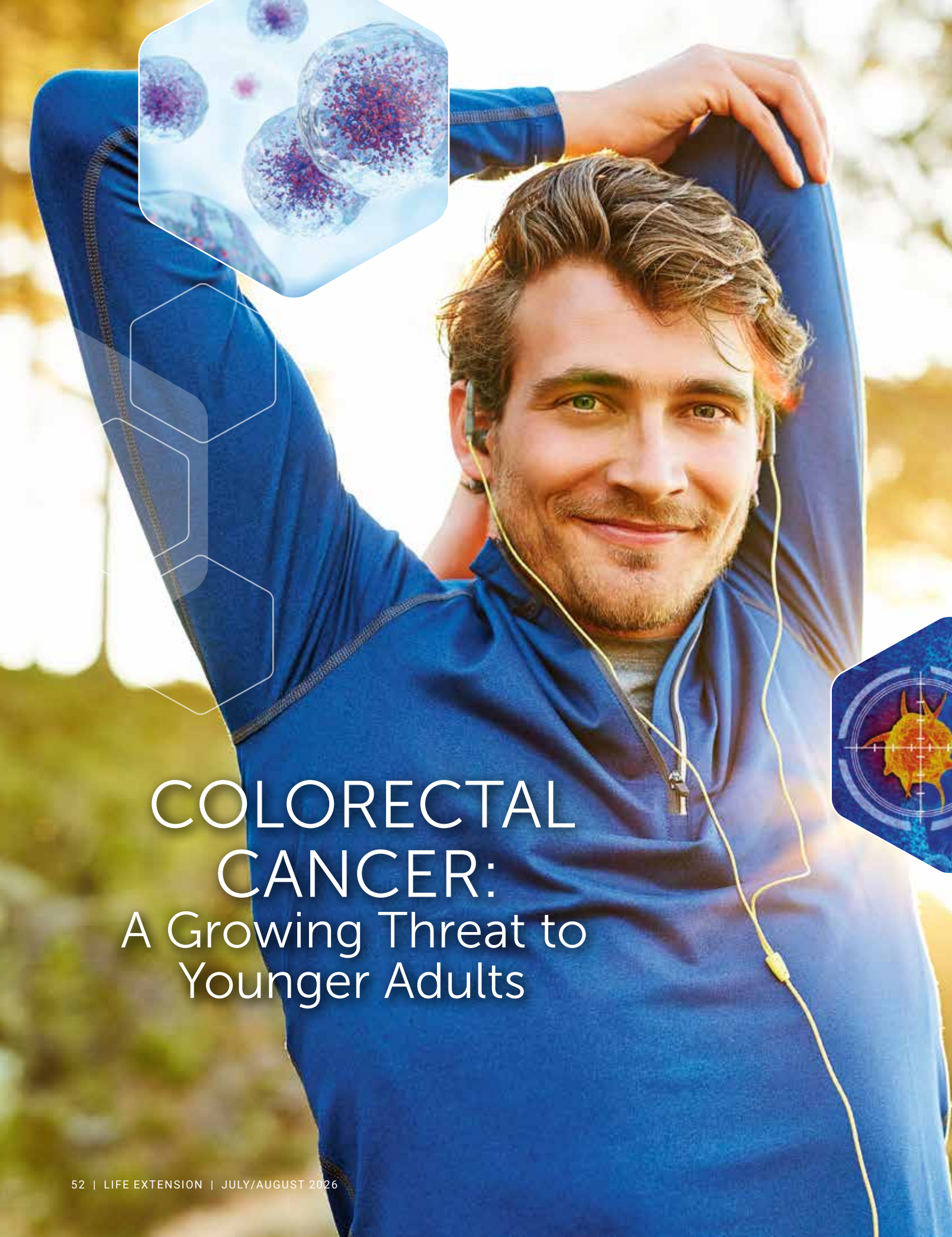
Occasional back discomfort benching you?

Help relieve occasional lower back discomfort and stiffness with clinically studied chaste tree and ginger extracts. We added white willow bark extract for additional lower back relief benefits. Start feeling relief in as little as 7 days.

Embrace your back's flexibility and range of motion
with Lower Back Relief!

This product is available at fine health food stores everywhere.

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.

A young man with brown hair and a light beard is smiling and stretching his arms behind his head. He is wearing a blue zip-up athletic shirt and yellow earbuds. The background is a soft-focus outdoor scene with trees. Overlaid on the image are several hexagonal graphics: a cluster of purple and blue cells in the top left, a series of white hexagons on the left side, and a glowing orange cell with a crosshair in the bottom right.

COLORECTAL CANCER: A Growing Threat to Younger Adults



BY PATRICK STURGES

Colorectal cancer is the second most common cause of cancer-related death in the U.S.¹

The **American Cancer Society** estimates there will be approximately **55,000** deaths from colorectal cancer nationwide in **2026**.²

Recent years have seen a notable shift. While rates of colorectal cancer have declined slightly among older adults, they have increased among adults younger than 50.²⁻⁴

The good news is, over the past several decades, evidence from observational studies as well as experimental research suggests that certain nutrients^{5,6} and overall dietary patterns⁵⁻⁷ are associated with a lower risk of cancer of the colon and rectum.

Improving diet quality and adopting healthy lifestyle habits, including adequate intake of these nutrients, may help support colorectal health.

Individuals at high risk may want to consider discussing supplementation with a healthcare provider.

Early diagnosis using various screening options can prevent many of these deaths.

The Changing Landscape of Colorectal Cancer

Colorectal cancers, cancers of the **colon** (large intestine) and the **rectum**, were until recently considered diseases of older age. Routine screenings like colonoscopies were recommended for those over 50 years old.^{8,9}

Over the last few decades, an increasing number of adults under 50 have been diagnosed with colon cancer, suggesting that risk factors may begin early in life and contribute to disease later on,⁴ often in advanced stages that are more difficult to treat.

In **1995**, the proportion of cases in younger adults was about **11%**. By **2022**, it was up to **22%**. Colorectal cancer is now the **leading cause of cancer deaths** among men under 50 years old.³

The American Cancer Society now recommends that adults start getting screened for colorectal cancer at age **45** instead of 50.¹⁰ However, risk may still be present in younger individuals.⁴

Life Extension® has historically advocated earlier colorectal cancer screening than what was once standard.¹¹⁻¹³ In recent years, leading medical organizations have moved in this direction as well, advising that average-risk adults begin colorectal cancer screening discussions with their physicians at age 45.^{10,14}

Fortunately, there are steps people can take that may help **reduce the risk** of developing colorectal cancer, including avoiding smoking, maintaining a healthy weight, and improving diet and nutrient intake.¹⁵

How Diet Impacts Colorectal Cancer Risk

Poor **diet** is considered a significant contributor to colorectal cancer risk.¹⁶

The cells that line the colon and rectum are directly exposed to food components that have passed through the mouth, stomach, and small intestine. Diet also influences the gut **microbiome**, the mix of microorganisms in the digestive tract.^{17,18}

Healthy gut bacteria help ward off disease. Harmful bacteria create toxins, damage the lining of the intestines, and contribute to chronic inflammation, which are associated with increased cancer incidence.^{17,18}

One population-level modeling study estimated that approximately **38%** of colorectal cancer cases in the U.S. could be attributed to suboptimal **diet**.⁷

Eating lots of fruits and vegetables, fish, nuts, legumes, and whole grains is associated with lower cancer risk, while excessive intake of red meats, sugary drinks, and alcohol increases risk.¹⁰





What You Need To Know

Reduce Risk for Colon and Rectal Cancer

- Colorectal cancer, cancer of the colon and rectum, is responsible for tens of thousands of deaths in the U.S. annually.
- Younger adults are increasingly diagnosed with these tumors.
- High-fiber, plant-based diets are associated with lower risk of colorectal cancer.
- Specific nutrients have been associated with potential protective effects against colon cancer, including vitamin D, calcium, polyphenols, and sulforaphane.

A pooled analysis of 27 studies involving about 30,000 colorectal cancer cases found that each quartile increase in **red meat** consumption was associated with a **30%** increased risk, while each quartile increase in processed meat consumption was associated with a **40%** increased risk of colorectal cancer.¹⁹

Specific nutrients have been tied to lower risk of colorectal cancer.

Dietary Fiber

Dietary fiber may help protect against cancer—especially colorectal cancer—by working on several levels at once.²⁰

Many plant foods contain indigestible **fiber**, which helps reshape the gut microbiome, reducing harmful bacteria and helping beneficial gut bacteria thrive. When healthy microbes ferment fiber, they can produce **butyrate**, a fatty acid that has demonstrated anti-tumor effects in preclinical research.^{20,21}

At the same time, fiber may help lower inflammation and support immune responses that help the body recognize and fight tumor cells.²⁰

In addition, **bile acids** secreted into the gut by the liver can contribute to the development of colon cancer. Dietary fiber may interfere with the metabolism of these bile acids, which may help limit their tumor-promoting effects.²¹

Epidemiological studies show that *low* fiber intake is associated with *increased* risk of colorectal cancer, while a diet high in fiber is associated with reduced risk.²¹

Pooled evidence from multiple meta-analyses shows that higher dietary fiber intake is associated with a **22%** reduction in cancer risk and a **17%** reduction in cancer-related mortality.²²

Low fiber intake is common in Western countries and may be one contributing factor to rising colorectal cancer rates.²¹

A landmark study of over 1,500 patients with colorectal cancer found that each **5 gram** per day increase in post-diagnosis fiber intake was associated with a **22%** reduction in colorectal cancer-specific mortality, with an **18%** reduction among those who increased fiber intake after diagnosis.²³



Calcium

In epidemiological studies, those who consume the **most calcium** have **lower** rates of colorectal cancer.²⁴

A study published in 2025 of almost **500,000** subjects aged 50 to 71 found those with the **highest** calcium intake were **29% less likely** to develop colorectal cancer, for up to 22 years, than those with the lowest intake.²⁵

One way in which calcium may be protective is by binding to potentially harmful compounds like bile acids and free fatty acids.²⁴

In a follow-up analysis of a randomized controlled trial, participants who had received **1,200 mg** of elemental calcium supplementation daily for four years experienced reductions in adenoma formation for as long as five years after calcium supplementation ended.²⁶

Vitamin D

Preclinical studies suggest that vitamin D and its metabolites have demonstrated anti-tumor activity, inhibiting the formation of cancerous tumors.²⁷⁻²⁹

In population studies, those with the lowest vitamin D levels have the highest rates of cancers, including colorectal cancer,²⁹⁻³¹ and the **highest risk of death** from cancer.^{32,33}

Pooled data from eight prospective observational studies, including the Physicians' Health Study, showed a **34%** lower risk of developing colorectal cancer for those with the highest versus lowest vitamin D levels.³⁴

Polyphenols

Polyphenols are plant compounds found in many foods that have been studied for potential health benefits.

In preclinical studies polyphenols have demonstrated **anti-cancer** activity, including effects on tumor formation, progression, and cell survival.³⁵⁻³⁸ Human observational studies have linked **higher** polyphenol intake to **lower** risk of colorectal cancer.³⁹

Evidence from studies of individual polyphenols provides additional context to these associations:

- In animal models, curcumin has been shown to inhibit colorectal tumor growth through diverse mechanisms,^{40,41} including by reducing harmful secondary bile acids linked to colon cancer risk.⁴²
- In preclinical settings, green tea polyphenols known as catechins, including the well-known epigallocatechin-3-gallate (EGCG), have been studied for their potential to inhibit carcinogenesis in various cancers, including colorectal cancers.⁴³ A meta-analysis of five randomized controlled trials found that long-term EGCG supplementation was associated with reduced colorectal cancer recurrence after polyp removal.⁴⁴
- In preclinical studies polyphenols such as resveratrol have been shown to support gut health by strengthening the intestinal barrier, reducing inflammation, balancing the gut microbiome, and showing antitumor activity with potential for cancer prevention and treatment.³⁶
- Animal studies indicate that quercetin has shown potential to influence pathways associated with colorectal cancer by reducing tumor growth, pre-cancerous lesions, inflammation, and oxidative stress.⁴⁵ In a pilot study, patients with familial adenomatous polyposis who took curcumin and quercetin for six months experienced reduction in polyp numbers by about **60%** and polyp size by about **50%**.⁴⁶
- A systematic review and meta-analysis of 39 pre-clinical studies showed that the polyphenol flavonoid apigenin has been shown to reduce cancer cell viability, slow cell growth, and induce apoptosis and cell cycle arrest in vitro.⁴⁷ In an animal model with colorectal cancer, it was associated with reduced tumor growth and limited metastasis to the liver and lungs.⁴⁸

Importance of Regular Screening

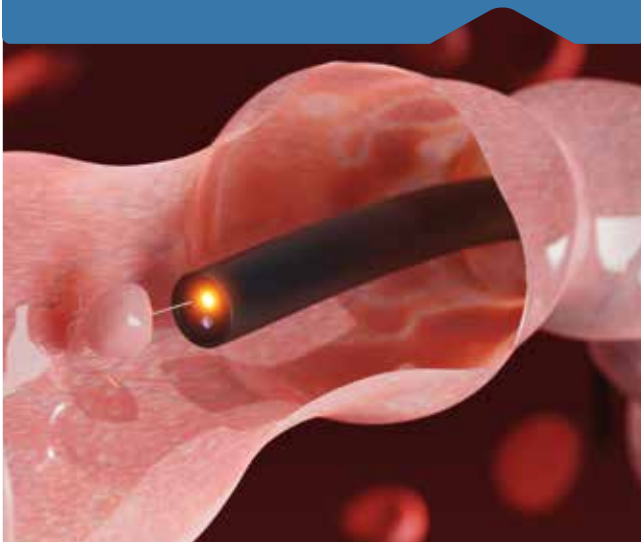
Screening for colorectal cancer can catch the disease early when treatment is likely to be successful.

A **colonoscopy** is considered the gold standard for screening because it allows clinicians to directly visualize the colon, identify precancerous polyps, and remove them *before* they turn malignant.²⁴

Additional screening options include capsule endoscopy (**PillCam**) and **at-home stool tests**.^{24,52}

These tests are non-invasive, but they vary in sensitivity (ability to correctly identify disease) and specificity (ability to correctly rule out disease) when compared with the colonoscopy. Importantly, while these tests can indicate the possible presence of colon cancer they do not allow for biopsies or the removal of suspicious lesions, like colonoscopies do.

The current recommendation is that people with average risk begin getting colonoscopies or doing stool testing at age **45**. Those at high risk or with a family history of colon cancer should consult their physician about when to undergo screening.



Sulforaphane

Sulforaphane, a compound produced by the digestion of **cruciferous vegetables** like broccoli has demonstrated anti-cancer activity in preclinical studies.^{49,50}

In a cell study, sulforaphane was shown to block the proliferation, invasion, and spread of **colon cancer** cells. It did this by helping to block gene expression and pathways tied to cancer progression.⁵¹

Increasing intake of cruciferous vegetables may influence processes involved in cancer growth and spread by blocking harmful processes inside cancer cells.

Summary

In recent decades, the rate of **colorectal cancer** diagnoses in younger adults has been increasing.

Increasing intake of calcium, fiber, vitamin D, polyphenols, and sulforaphane may support gut health. Low intake has been associated with factors linked to colorectal cancer risk. ■

References

1. Siegel RL, Wagle NS, Star J, et al. Colorectal cancer statistics, 2026. *CA Cancer J Clin.* 2026 Mar-Apr;76(2):e70067.
2. Available at: <https://www.cancer.org/cancer/types/colon-rectal-cancer/about/key-statistics.html>. Accessed April 20, 2026.
3. Siegel RL, Wagle NS, Cercek A, et al. Colorectal cancer statistics, 2023. *CA Cancer J Clin.* 2023 May-Jun;73(3):233-54.
4. Downham L, Laversanne M, Perdomo S, et al. Increase of early-onset colorectal cancer: a cohort effect. *J Natl Cancer Inst.* 2026 Apr 1;118(4):751-6.
5. Song M, Garrett WS, Chan AT. Nutrients, foods, and colorectal cancer prevention. *Gastroenterology.* 2015 May;148(6):1244-60 e16.
6. Vallis J WP. Gastrointestinal Cancers. In: JA M-D, ed. *The Role of Diet and Lifestyle in Colorectal Cancer Incidence and Survival. National Library of Medicine: Exon Publications*; 2022: <https://www.ncbi.nlm.nih.gov/books/NBK585999/>
7. Zhang FF, Cudhea F, Shan Z, et al. Preventable Cancer Burden Associated With Poor Diet in the United States. *JNCI Cancer Spectr.* 2019 Jun;3(2):pkz034.
8. Shaikat A, Kahi CJ, Burke CA, et al. ACG Clinical Guidelines: Colorectal Cancer Screening 2021. *Am J Gastroenterol.* 2021 Mar 1;116(3):458-79.
9. Benard F, Barkun AN, Martel M, et al. Systematic review of colorectal cancer screening guidelines for average-risk adults: Summarizing the current global recommendations. *World J Gastroenterol.* 2018 Jan 7;24(1):124-38.
10. Available at: <https://www.cancer.org/cancer/types/colon-rectal-cancer/detection-diagnosis-staging/acs-recommendations.html>. Accessed April 22, 2026.
11. Available at: https://www.lifeextension.com/magazine/2016/8/government-inflicted-colon-cancer?srltid=AfmBOoreyUkKUDu5U0Zw7V4fxSrzkPqDKHfK_zFeACIH4RyJB-AtMt2o. Accessed April 27, 2026.
12. Available at: <https://www.lifeextension.com/magazine/2000/10/awsi>. Accessed April 27, 2026.

13. Available at: <https://www.lifeextension.com/magazine/2004/12/awsi>. Accessed April 27, 2026.
14. Available at: <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/colorectal-cancer-screening>. Accessed April 27, 2026.
15. Available at: <https://www.cancer.org/cancer/types/colon-rectal-cancer/causes-risks-prevention/prevention.html>. Accessed April 22, 2026.
16. Mohammad N, Shahril MR, Shahar S, et al. Association between Diet-related Behaviour and Risk of Colorectal Cancer: A Scoping Review. *J Cancer Prev*. 2022 Dec 31;27(4):208-20.
17. Han B, Zhang Y, Feng X, et al. The power of microbes: the key role of gut microbiota in the initiation and progression of colorectal cancer. *Front Oncol*. 2025;15:1563886.
18. Chen A, Jiang Z, Cai L, et al. On the road to colorectal cancer development: crosstalk between the gut microbiota, metabolic reprogramming, and epigenetic modifications. *Carcinogenesis*. 2023 Dec 2;44(8-9):631-41.
19. Stern MC, Sanchez Mendez J, Kim AE, et al. Genome-Wide Gene-Environment Interaction Analyses to Understand the Relationship between Red Meat and Processed Meat Intake and Colorectal Cancer Risk. *Cancer Epidemiol Biomarkers Prev*. 2024 Mar 1;33(3):400-10.
20. Zhang P. Influence of Foods and Nutrition on the Gut Microbiome and Implications for Intestinal Health. *Int J Mol Sci*. 2022 Aug 24;23(17).
21. Celiberto F, Aloisio A, Girardi B, et al. Fibres and Colorectal Cancer: Clinical and Molecular Evidence. *Int J Mol Sci*. 2023 Aug 31;24(17).
22. Arayici ME, Basbınar Y, Ellidokuz H. High and low dietary fiber consumption and cancer risk: a comprehensive umbrella review with meta-meta-analysis involving meta-analyses of observational epidemiological studies. *Crit Rev Food Sci Nutr*. 2025;65(9):1617-30.
23. Song M, Wu K, Meyerhardt JA, et al. Fiber Intake and Survival After Colorectal Cancer Diagnosis. *JAMA Oncol*. 2018 Jan 1;4(1):71-9.
24. Liang PS, Shaikat A, Crockett SD. AGA Clinical Practice Update on Chemoprevention for Colorectal Neoplasia: Expert Review. *Clin Gastroenterol Hepatol*. 2021 Jul;19(7):1327-36.
25. Zouliouh S, Wahl D, Liao LM, et al. Calcium Intake and Risk of Colorectal Cancer in the NIH-AARP Diet and Health Study. *JAMA Netw Open*. 2025 Feb 3;8(2):e2460283.
26. Grau MV, Baron JA, Sandler RS, et al. Prolonged effect of calcium supplementation on risk of colorectal adenomas in a randomized trial. *J Natl Cancer Inst*. 2007 Jan 17;99(2):129-36.
27. Dallavalasa S, Tulimilli SV, Bettada VG, et al. Vitamin D in Cancer Prevention and Treatment: A Review of Epidemiological, Preclinical, and Cellular Studies. *Cancers (Basel)*. 2024 Sep 20;16(18).
28. Peixoto RD, Oliveira LJC, Passarini TM, et al. Vitamin D and colorectal cancer - A practical review of the literature. *Cancer Treat Res Commun*. 2022;32:100616.
29. Carlberg C, Munoz A. An update on vitamin D signaling and cancer. *Semin Cancer Biol*. 2022 Feb;79:217-30.
30. Hernandez-Alonso P, Boughanem H, Canudas S, et al. Circulating vitamin D levels and colorectal cancer risk: A meta-analysis and systematic review of case-control and prospective cohort studies. *Crit Rev Food Sci Nutr*. 2023;63(1):1-17.
31. McCullough ML, Zoltick ES, Weinstein SJ, et al. Circulating Vitamin D and Colorectal Cancer Risk: An International Pooling Project of 17 Cohorts. *J Natl Cancer Inst*. 2019 Feb 1;111(2):158-69.
32. Schomann-Finck M, Reichrath J. Umbrella Review on the Relationship between Vitamin D Levels and Cancer. *Nutrients*. 2024 Aug 15;16(16).
33. Sha S, Chen LJ, Brenner H, et al. Associations of 25-hydroxyvitamin D status and vitamin D supplementation use with mortality due to 18 frequent cancer types in the UK Biobank cohort. *Eur J Cancer*. 2023 Sep;191:113241.
34. Lee JE, Li H, Chan AT, et al. Circulating levels of vitamin D and colon and rectal cancer: the Physicians' Health Study and a meta-analysis of prospective studies. *Cancer Prev Res (Phila)*. 2011 May;4(5):735-43.
35. Neamtu AA, Maghiar TA, Alaya A, et al. A Comprehensive View on the Quercetin Impact on Colorectal Cancer. *Molecules*. 2022 Mar 14;27(6).
36. Prakash V, Bose C, Sunilkumar D, et al. Resveratrol as a Promising Nutraceutical: Implications in Gut Microbiota Modulation, Inflammatory Disorders, and Colorectal Cancer. *Int J Mol Sci*. 2024 Mar 16;25(6).
37. Yammine A, Namsi A, Vervandier-Fasseur D, et al. Polyphenols of the Mediterranean Diet and Their Metabolites in the Prevention of Colorectal Cancer. *Molecules*. 2021 Jun 8;26(12).
38. Qadir MI, Naqvi ST, Muhammad SA. Curcumin: a Polyphenol with Molecular Targets for Cancer Control. *Asian Pac J Cancer Prev*. 2016;17(6):2735-9.
39. Fike LT, Munro H, Yu D, et al. Dietary polyphenols and the risk of colorectal cancer in the prospective Southern Community Cohort Study. *Am J Clin Nutr*. 2022 Apr 1;115(4):1155-65.
40. Jia Y, Liu X, Liu C, et al. Effectiveness and mechanisms of curcumin for colorectal cancer in preclinical models: A systematic review and meta-analysis. *J Ethnopharmacol*. 2026 Jan 10;354:120511.
41. Ojo OA, Adeyemo TR, Rotimi D, et al. Anticancer Properties of Curcumin Against Colorectal Cancer: A Review. *Front Oncol*. 2022;12:881641.
42. Han Y, Haraguchi T, Iwanaga S, et al. Consumption of some polyphenols reduces fecal deoxycholic acid and lithocholic acid, the secondary bile acids of risk factors of colon cancer. *J Agric Food Chem*. 2009 Sep 23;57(18):8587-90.
43. Suetsugu F, Tadokoro T, Fujita K, et al. Antitumor Effects of Epigallocatechin-3-Gallate on Colorectal Cancer: An In Vitro and In Vivo Study. *Anticancer Res*. 2025 Jul;45(7):2937-47.
44. He B, Kang S, Su R, et al. Chemoprophylaxis Effect of EGCG on the Recurrence of Colorectal Cancer: A Systematic Review and Meta-Analysis. *Curr Pharm Des*. 2024;30(33):2643-51.
45. Duan X, Zhang L, Liu F. The potential value of quercetin for colorectal cancer: a systematic review and a meta-analysis of preclinical studies. *Front Pharmacol*. 2025;16:1642957.
46. Cruz-Correa M, Shoskes DA, Sanchez P, et al. Combination treatment with curcumin and quercetin of adenomas in familial adenomatous polyposis. *Clin Gastroenterol Hepatol*. 2006 Aug;4(8):1035-8.
47. Ahmadzadeh K, Roshdi Dizaji S, Ramezani F, et al. Potential therapeutic effects of apigenin for colorectal adenocarcinoma: A systematic review and meta-analysis. *Cancer Med*. 2024 Sep;13(17):e70171.
48. Chunhua L, Donglan L, Xiuqiong F, et al. Apigenin up-regulates transgelin and inhibits invasion and migration of colorectal cancer through decreased phosphorylation of AKT. *J Nutr Biochem*. 2013 Oct;24(10):1766-75.
49. Keum YS. Regulation of the Keap1/Nrf2 system by chemopreventive sulforaphane: implications of posttranslational modifications. *Ann N Y Acad Sci*. 2011 Jul;1229(1):184-9.
50. Abdull Razis AF, Konsue N, Ioannides C. Isothiocyanates and Xenobiotic Detoxification. *Mol Nutr Food Res*. 2018 Sep;62(18):e1700916.
51. Ma Y, Jiao Y, Liu S, et al. Effect of sulforaphane on colon cancer cell invasion and metastasis. *Food Science*. 2025;46(14):187-96.
52. Camara CF, Passos PRC, Cezar ECL, et al. Second-generation capsule endoscopy for the detection of colorectal polyps: An updated systematic review and comparative meta-analysis of prospective studies. *Colorectal Dis*. 2026 Jan;28(1):e70362.

Pomegranate

The Fruit of Life



Pomegranate Complete
combines extracts from the
whole fruit, flower, and seed oil.

Pomegranate plant compounds
support **heart** health.

Item #01953
30 softgels



This product is available at fine health food stores everywhere.

Pomella® is a registered trademark of Verdure Sciences, Inc. Patent Pending.

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.

FOUR PHAGES TWO PROBIOTICS ONE POSTBIOTIC



GLUTEN
FREE

1
DAILY

NON
GMO
LE CERTIFIED

FLORASSIST® Probiotic GI with Phage Technology

When it comes to digestion, “millions & billions” isn’t always better. Instead, choose a formula built with clinically studied ingredients:

4 bacteriophages to help inhibit unwanted bacteria in the gut.

2 probiotics *L. paracasei* IMC 502 and *L. rhamnosus* IMC 501 for optimal digestive health and regularity.

1 postbiotic for occasional gas, bloating and other discomforts.

The result: FLORASSIST® Probiotic GI with Phage Technology, our flagship probiotic for digestive health.

Item #02125

30 liquid vegetarian capsules

This product is available at fine health food stores everywhere.

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.

Keep *The Drive* Alive

Experience the sexual satisfaction you long for with Sexual Health for Her, a clinically studied formula that encourages healthy female libido and sex drive.

This plant-based formula helps turn up the heat in the bedroom with clinically studied fenugreek seed and saffron, extracts that enhance arousal and lubrication.

Feel the excitement with Sexual Health for Her!

This product is available at fine health food stores everywhere.



GLUTEN
FREE

NON
GMO
LE CERTIFIED

Item #02536

60 vegetarian capsules

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.



Super Omega-3

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

Super Omega-3 provides healthy components of the Mediterranean diet, including highly purified fish oil, sesame lignans and standardized olive fruit extracts.

2,400 mg
of EPA + DHA
in four softgels



Item #01982
120 softgels

This product is available at fine health food stores everywhere.

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

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

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

THE VERSATILE BENEFITS OF PYCNOGENOL®

Pycnogenol® extract is derived from French maritime pine bark.

Its benefits are available in these three formulations:



Arterial Protect
Item #02004
30 vegetarian capsules



Provides Pycnogenol® formula and standardized gotu kola leaf extract to help maintain endothelial structure and function and promote healthy blood flow throughout the body.



***VenoFlow™**
Item #02102
30 vegetarian capsules



For those who sit for long periods while traveling or in the office, this proprietary blend of Pycnogenol® formula and nattokinase promotes healthy venous blood flow.



Pycnogenol®
French Maritime Pine Bark Extract
Item #01637
60 vegetarian capsules

Numerous published studies describe how concentrated extracts in Pycnogenol® formula help protect against multiple factors related to normal aging.

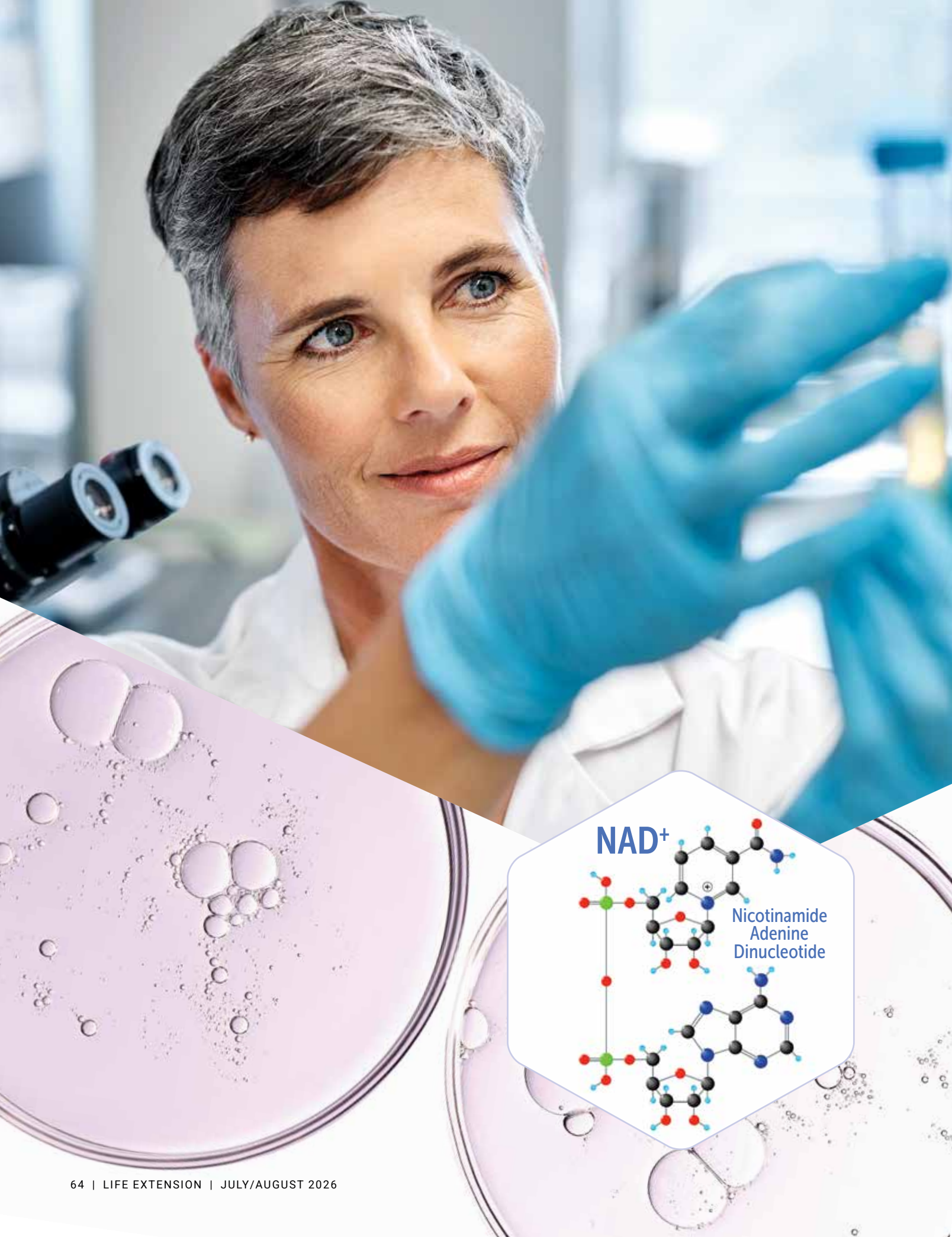
These products are available at fine health food stores everywhere.



Pycnogenol® and Centellicum® are registered trademarks of Horphag Research.
Use of this product may be protected by one or more U.S. patents and other international patents.

• **CAUTION:** If you are taking anticoagulant or antiplatelet medications, or have a bleeding disorder, consult your healthcare provider before taking this product.

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.



NAD⁺

Nicotinamide
Adenine
Dinucleotide



Cost-Effective Option to Boost NAD⁺

BY MICHAEL DOWNEY



There's a good reason why **NAD⁺** is found in every *living cell* in our bodies.¹

NAD⁺ is *required* for hundreds of critical **cellular** processes, including energy production, DNA repair, and immune responses.²⁻⁴

It plays critical roles in processes related to **aging** at the cellular level.^{2,5}

But **NAD⁺** levels decrease as we **age**, which can contribute to age-related functional decline.^{2,6,7}

NAD⁺ precursors are compounds that have been shown to boost NAD⁺ when taken orally and have the potential to support healthier aging.⁸

Life Extension[®] readers are familiar with the NAD⁺ precursor **nicotinamide riboside** or **NR**. It was introduced to readers of this publication in **2014**.

A lower-cost and effective **NAD⁺ precursor**, called **NMN (nicotinamide mononucleotide)**, has recently entered the commercial marketplace.

In controlled human trials, oral **NMN** supplementation significantly increased blood **NAD⁺** levels compared to placebo. NMN is a lower-cost way to boost **NAD⁺**.^{9,10}

NMN may support healthy aging at the cellular level via increased **NAD⁺** production.

The Importance of NAD⁺

The coenzyme **NAD⁺** (**nicotinamide adenine dinucleotide**) is *essential* for normal cellular function.^{4,11}

Without ample NAD⁺, cells cannot properly convert food into usable **energy** or effectively mitigate **DNA damage**.^{4,11}

NAD⁺ is required for the normal function of over **300 proteins**, including:²

- **Sirtuins**, which maintain mitochondrial health, suppress chronic inflammation, and help regulate cell metabolism,^{12,13}
- **PARPs** (poly-ADP ribose polymerases), which handle **DNA repair**, autophagy (cell cleanup), and gene regulation,^{2,13} and
- **CD38** (cyclic ADP-hydrolase), which supports immune responses and calcium signaling.^{2,13}

NAD⁺ is critical for all cells. Preclinical data shows that it is a key mediator in energy metabolism, DNA repair, cellular antioxidant defenses, inflammation regulation, and more.^{2,5,13-15}

Why NAD⁺ Declines as You Age

NAD⁺ levels progressively decline across multiple human tissues and have been associated with age-related chronic disorders and metabolic dysfunction.^{6,16}

With age, **cellular damage** accumulates due to inflammation, oxidative stress, and DNA damage.

Sirtuins, PARPs, and CD38 help mitigate this damage.^{13,16,17} But to function properly, these critical proteins “consume” **NAD⁺** thereby depleting levels.¹⁸ This decline is continuous and progressive. One human observational study showed that by **age 50**, NAD⁺ levels can drop by about **50%**.¹⁹

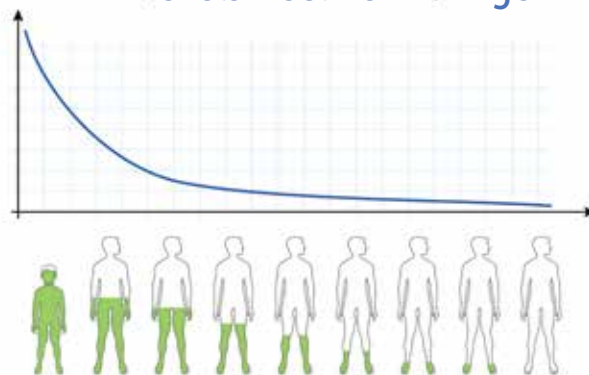
Decreased **NAD⁺** levels are associated with reduced mitochondrial function and increased risk of **premature aging** and chronic age-related conditions.^{16,17,19,20}

Restoring NAD⁺ Levels

Orally consuming NAD⁺ is not an effective way to replenish levels. In addition to being poorly absorbed, it cannot readily pass through the cell membrane intact.^{21,22}



NAD⁺ Levels Decline with Age



To get around this problem, scientists studied **NAD⁺ precursors**, compounds that can be taken orally to boost NAD⁺.

Two precursors have been shown in clinical studies to raise blood NAD⁺ levels significantly, efficiently, and safely:

- **NR (nicotinamide riboside)**,^{23,24} and
- **NMN (nicotinamide mononucleotide)**.^{9,10}

A Lower-Cost Option

In **2014**, **Life Extension** researchers were among the first to recognize the importance of boosting **NAD⁺** throughout the body for cellular health.

Nicotinamide riboside was recommended 12 years ago as a method to boost **NAD⁺** levels.

Another option to boost **NAD⁺** is to supplement using **NMN**.

In **2022**, however, the **FDA** formally classified **NMN** as a *drug*.²⁵

In late **2025**, that classification was removed, allowing **NMN** to re-enter the consumer marketplace as an *officially* recognized **dietary supplement**.^{26,27}

Both NR and NMN boost NAD⁺ levels in a similar fashion and at equivalent levels. However, **NMN** can be produced at a **lower** cost.

This allows aging individuals to boost their NAD⁺ levels in a more *cost-effective* way.

NMN and **NR** have both been clinically shown to boost **NAD⁺** levels. They have overlapping as well as unique pathways for cellular entry.¹⁷

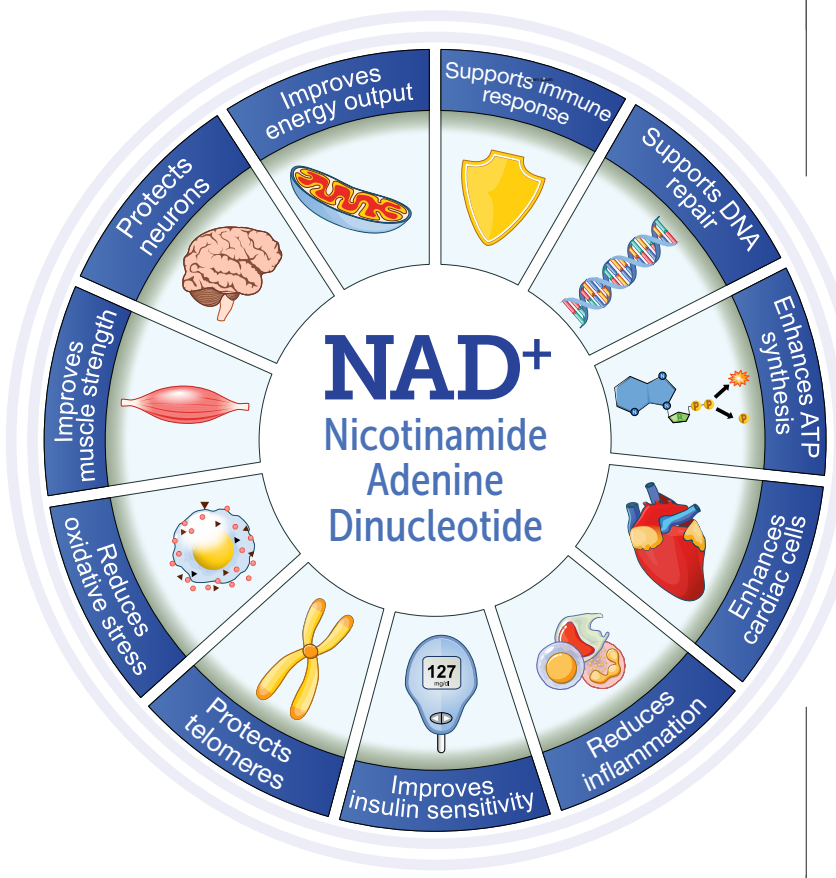
NR HAS TWO MAIN PATHWAYS:

- NR can be directly transported into the cell where it then needs to be converted into NMN to produce NAD⁺.
- NR can be metabolized by the gut before entering the cell and producing NAD⁺.

NMN HAS THREE MAIN PATHWAYS:

- NMN is converted into NR to enter the cell where it then gets converted back into NMN to produce NAD⁺.
- NMN can also be metabolized by the gut before entering the cell and producing NAD⁺.
- NMN appears to have a unique cell transporter that allows for direct entry into the cell where it produces NAD⁺. (However, this is evolving science and has so far only been described in animal studies.)²⁸

Importantly, regardless of the pathways that **NR** or **NMN** use, studies have shown increases in **NAD⁺** production.



A New Alternative for Boosting NAD⁺

- **NAD⁺ (nicotinamide adenine dinucleotide)** is critical to cellular processes that support healthy aging, including energy metabolism, DNA repair, and immune responses.
- NAD⁺ levels drop with older age. The precursor **NMN (nicotinamide mononucleotide)**, taken orally, can be converted into **NAD⁺** in the body to help boost levels.
- In animal studies, oral NMN increased lifespan, increased energy metabolism and physical activity, reduced frailty, and decreased age-related gene-expression changes.
- In clinical studies of older men and women, NMN significantly increased circulating **NAD⁺** levels.
- **NMN (nicotinamide mononucleotide)** is a **NAD⁺ precursor** that has recently become commercially available at a relatively low cost.

Benefits of NMN

Preclinical studies suggest that **NMN** may support aspects of **healthy aging** by boosting NAD⁺.

In one study, giving mice **NMN** for 12 months:²⁹

- Increased **energy** metabolism,
- Boosted **physical activity** levels,
- Decreased age-associated **weight gain**,
- Improved **insulin sensitivity** and **blood lipid levels**, and
- Reduced **age-related gene-expression** changes.

A second study administered NMN throughout the lifespan of a premature aging mouse model, starting at an early age. These mice exhibited:³⁰

- **Increased lifespan** and improved median life expectancy,
- Reduced **frailty**, and
- Better **overall health**.

Validated in Clinical Studies

In a clinical study, healthy older men (mean age 71) were given **250 mg** of **NMN** or a placebo.

After 12 weeks, NMN significantly **increased NAD⁺ levels** compared to **placebo**.⁹

In another clinical study, healthy older men and women (mean age 69) were given **250 mg** of **NMN** or a placebo.

Again, after 12 weeks, NMN significantly **increased NAD⁺ levels** compared to the placebo group.¹⁰

In both trials, **NMN** also increased levels of *other* NAD⁺ precursors and intermediates. This provides additional evidence that **NMN** raises **NAD⁺ levels**.^{9,10}

These *higher* NAD⁺ levels may help support **healthy aging**.

Summary

NAD⁺ (nicotinamide adenine dinucleotide) is a compound found in every living cell in the body. It's required for essential cellular processes like energy production, DNA repair, and immune function.

Levels of NAD⁺ decline with age, reducing mitochondrial function and accelerating aging. The precursor **NMN (nicotinamide mononucleotide)**, taken orally, can boost NAD⁺ levels.

Clinical studies show that NMN safely **increases NAD⁺ levels** in older adults, which may support **healthy aging** at the cellular level.

Consumers now have access to NMN or NR. The major difference from our view is that **NMN** costs far less than **NR**. ■





References

- Amjad S, Nisar S, Bhat AA, et al. Role of NAD(+) in regulating cellular and metabolic signaling pathways. *Mol Metab*. 2021 Jul;49:101195.
- Covarrubias AJ, Perrone R, Grozio A, et al. NAD(+) metabolism and its roles in cellular processes during ageing. *Nat Rev Mol Cell Biol*. 2021 Feb;22(2):119-41.
- Stromland O, Diab J, Ferrario E, et al. The balance between NAD(+) biosynthesis and consumption in ageing. *Mech Ageing Dev*. 2021 Oct;199:111569.
- Braid N, Berg J, Clement J, et al. Role of Nicotinamide Adenine Dinucleotide and Related Precursors as Therapeutic Targets for Age-Related Degenerative Diseases: Rationale, Biochemistry, Pharmacokinetics, and Outcomes. *Antioxid Redox Signal*. 2019 Jan 10;30(2):251-94.
- Chini CCS, Cordeiro HS, Tran NLK, et al. NAD metabolism: Role in senescence regulation and aging. *Aging Cell*. 2024 Jan;23(1):e115920.
- Camacho-Pereira J, Tarrago MG, Chini CCS, et al. CD38 Dictates Age-Related NAD Decline and Mitochondrial Dysfunction through an SIRT3-Dependent Mechanism. *Cell Metab*. 2016 Jun 14;23(6):1127-39.
- Johnson S, Imai SI. NAD (+) biosynthesis, aging, and disease. *F1000Res*. 2018;7:132.
- Loreto A, Antoniou C, Merlini E, et al. NMN: The NAD precursor at the intersection between axon degeneration and anti-ageing therapies. *Neurosci Res*. 2023 Dec;197:18-24.
- Igarashi M, Nakagawa-Nagahama Y, Miura M, et al. Chronic nicotinamide mononucleotide supplementation elevates blood nicotinamide adenine dinucleotide levels and alters muscle function in healthy older men. *NPJ Aging*. 2022 May 1;8(1):5.
- Morifuji M, Higashi S, Ebihara S, et al. Ingestion of beta-nicotinamide mononucleotide increased blood NAD levels, maintained walking speed, and improved sleep quality in older adults in a double-blind randomized, placebo-controlled study. *Geroscience*. 2024 Oct;46(5):4671-88.
- Griffiths HBS, Williams C, King SJ, et al. Nicotinamide adenine dinucleotide (NAD⁺): essential redox metabolite, co-substrate and an anti-cancer and anti-ageing therapeutic target. *Biochem Soc Trans*. 2020 Jun 30;48(3):733-44.
- Wang YJ, Paneni F, Stein S, et al. Modulating Sirtuin Biology and Nicotinamide Adenine Diphosphate Metabolism in Cardiovascular Disease-From Bench to Bedside. *Front Physiol*. 2021;12:755060.
- Xie N, Zhang L, Gao W, et al. NAD(+) metabolism: pathophysiologic mechanisms and therapeutic potential. *Signal Transduct Target Ther*. 2020 Oct 7;5(1):227.
- Chu X, Raju RP. Regulation of NAD(+) metabolism in aging and disease. *Metabolism*. 2022 Jan;126:154923.
- Reiten OK, Wilvang MA, Mitchell SJ, et al. Preclinical and clinical evidence of NAD(+) precursors in health, disease, and ageing. *Mech Ageing Dev*. 2021 Oct;199:111567.
- Iqbal T, Nakagawa T. The therapeutic perspective of NAD(+) precursors in age-related diseases. *Biochem Biophys Res Commun*. 2024 Apr 2;702:149590.
- Zhang J, Wang HL, Lautrup S, et al. Emerging strategies, applications and challenges of targeting NAD(+) in the clinic. *Nat Aging*. 2025 Sep;5(9):1704-31.
- Migaud ME, Ziegler M, Baur JA. Regulation of and challenges in targeting NAD(+) metabolism. *Nat Rev Mol Cell Biol*. 2024 Oct;25(10):822-40.
- Yang F, Deng X, Yu Y, et al. Association of Human Whole Blood NAD(+) Contents With Aging. *Front Endocrinol (Lausanne)*. 2022;13:829658.
- Aman Y, Frank J, Lautrup SH, et al. The NAD(+)-mitophagy axis in healthy longevity and in artificial intelligence-based clinical applications. *Mech Ageing Dev*. 2020 Jan;185:111194.
- Ye M, Zhao Y, Wang Y, et al. NAD(H)-loaded nanoparticles for efficient sepsis therapy via modulating immune and vascular homeostasis. *Nat Nanotechnol*. 2022 Aug;17(8):880-90.
- Ratajczak J, Joffraud M, Trammell SA, et al. NRK1 controls nicotinamide mononucleotide and nicotinamide riboside metabolism in mammalian cells. *Nat Commun*. 2016 Oct 11;7:13103.
- Martens CR, Denman BA, Mazzeo MR, et al. Chronic nicotinamide riboside supplementation is well-tolerated and elevates NAD(+) in healthy middle-aged and older adults. *Nat Commun*. 2018 Mar 29;9(1):1286.
- Trammell SA, Schmidt MS, Weidemann BJ, et al. Nicotinamide riboside is uniquely and orally bioavailable in mice and humans. *Nat Commun*. 2016 Oct 10;7:12948.
- Available at: <https://www.nmn.com/news/the-npa-and-anh-petition-the-fda-concerning-nmns-classification-as-a-drug>. Accessed April 7, 2026.
- Available at: <https://www.nmn.com/news/fda-dubs-nmn-lawful-in-dietary-supplements>. Accessed April 7, 2026.
- Available at: <https://natlawreview.com/article/fda-determines-nmn-lawful-dietary-supplements>. Accessed April 7, 2026.
- Grozio A, Mills KF, Yoshino J, et al. Slc12a8 is a nicotinamide mononucleotide transporter. *Nat Metab*. 2019 Jan;1(1):47-57.
- Mills KF, Yoshida S, Stein LR, et al. Long-Term Administration of Nicotinamide Mononucleotide Mitigates Age-Associated Physiological Decline in Mice. *Cell Metab*. 2016 Dec 13;24(6):795-806.
- Gu Y, Gao L, He J, et al. beta-Nicotinamide mononucleotide supplementation prolongs the lifespan of prematurely aged mice and protects colon function in ageing mice. *Food Funct*. 2024 Mar 18;15(6):3199-213.

Get More FIBER the *Easy* Way

ENJOY FIBER BENEFITS
with SMALLER DOSES

Most soluble fiber products contain **psyllium** husk that requires higher doses to deliver benefits.

The side effect is often unpleasant bloating.

Konjac root contains a soluble fiber that provides benefits at smaller doses than psyllium, so it's much less filling.

Easy Fiber provides **1,000 mg** of **glucomannan** from **konjac root** in each dose to support:¹⁻⁵

- Satiety and weight management†
- Regularity
- Digestion
- Heart health and already-healthy cholesterol levels
- Prebiotic fiber
- Already-healthy blood sugar and insulin levels

Natural orange flavor with other natural flavors and sugar free!
Do not take if you have difficulty swallowing.

References

1. Nutrition 22 (2006) 1112–1119.
2. J Am Coll Nutr. 2008 Feb;27(1):102-8.
3. Med Sci Monit. 2005 Jan;11(1):PI5-8.
4. Ann Nutr Metab 2020;76:259–267.
5. Am J Clin Nutr 2017; 1239-1247.

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

CAUTION: Fiber supplements may affect absorption of medications.
Take 2 hours before or 1 hour after any medications.



Item #02514

167 g (0.368 lb. or 5.89 oz.)



This product is available at fine health food stores everywhere.

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.



AGING CAN WAIT

Stay ahead of Father Time. Healthy aging means maintaining a “with-it” brain, a healthy heart and an active lifestyle—no matter your age.

That’s why we’ve combined taurine for your heart and exercise performance, lithium for your mood and spermidine from wheat germ extract to help you stay ahead of the aging game into an unflavored, easy-mix powder.

Keep your drive alive with **Healthy Aging Powder!**



This product is available at fine health food stores everywhere.

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.



"Terrific."

Christina

VERIFIED BUYER

VD efend Your Health



Vitamin D3 Systemic support for immune function, bone health, and whole-body health.

CAUTION: Individuals consuming more than 50 mcg (2000 IU)/day of vitamin D (from diet and supplements) should periodically obtain a serum 25-hydroxy vitamin D measurement. Do not exceed 10000 IU per day unless recommended by your doctor. Vitamin D supplementation is not recommended for individuals with high blood calcium levels.

Item #01713

125 mcg (5000 IU)

60 softgels



This product is available at fine health food stores everywhere.

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.

Munch

Crunch, Digest Your Lunch

(Or breakfast, or dinner...)



Uncomfortable after eating?

Digestive enzymes are specialized proteins that help you break down the foods you eat.*

Enhanced Super Digestive Enzymes combines 10 vegetarian-friendly enzymes to help you break down hard-to-digest foods and encourage a healthy gastrointestinal balance...so you can feel good after you eat!

* Curr Drug Metab. 2016;17(2):187-93.

Item #02021

60 vegetarian capsules



**This product is available at fine
health food stores everywhere.**

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

"NAC is a powerful tool."

Maury

VERIFIED BUYER

TAP THE POWER OF N-ACETYL-L-CYSTEINE

TO SUPPORT IMMUNE FUNCTION

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

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

This product is available at fine health food stores everywhere.



Item #01534

600 mg • 60 capsules



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.



Don't
Wait to
**Feel
Great**

Maintain Optimal Hormone Levels

DHEA Complete can help maintain DHEA levels to support lean muscle mass, bone health, libido and cognitive function.

DHEA Complete delivers 7-Keto® DHEA (100 mg) and regular DHEA (25 mg), plus *trans*-resveratrol as well as extracts from curcumin and green tea.



Item #02478

60 vegetarian capsules

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.

This product is available at fine health food stores everywhere.

7-Keto® is a Lonza trademark registered in USA.



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.

Say goodbye to “kitchen raids” and say hello to **Optimized Saffron**



People who struggle with weight loss often point to several issues that sabotage their efforts:

- Eating between meals,
- Grazing at night, and
- Constant desire to snack.

A proprietary extract of saffron was clinically studied to help support appetite control, feelings of hunger and help with weight management.*

* Nutr Res. 2010 May;30(5):305-13.

This product is available at fine health food stores everywhere.

Satiereal® is a registered trademark of INOREAL International patents pending.

Item #01432

60 vegetarian capsules



This supplement should be taken in conjunction with a healthy diet and regular exercise program. Results may vary and individual results are not guaranteed.

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.

Your
Bone
Health...
Now

BOOSTED

Bone Restore Calcium Supplement with Vitamin K2 combines skeletal-strengthening nutrients in one formula.



Item #01727

120 capsules



This product is available at fine health food stores everywhere.

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

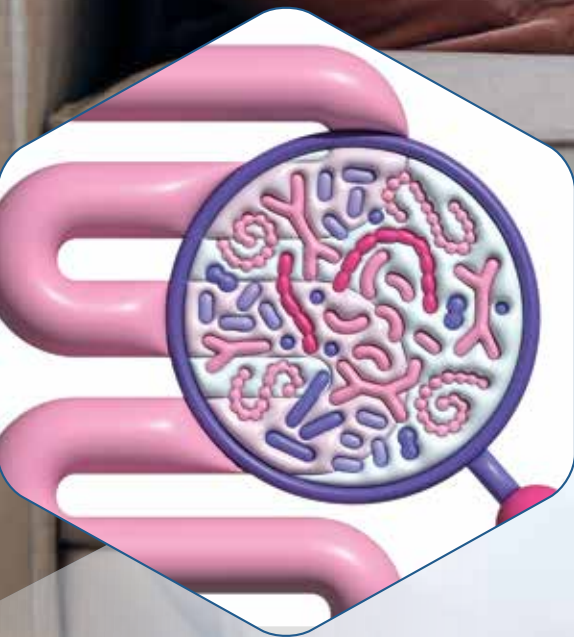
Fruitex B® and OsteoBoron® are registered trademarks of VDF Futureceuticals, Inc. Pat. Fcpatent.com

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

Top Pick



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.





Ease STOMACH Discomfort

BY MARSHA MCCULLOCH, MS, RD

Stomach pain, fullness, and bloating are common symptoms of **gastritis**.¹

This inflammatory condition is frequently triggered by ***Helicobacter pylori***, a bacterium that also causes some **stomach ulcers** and **stomach cancer**.^{2,3}

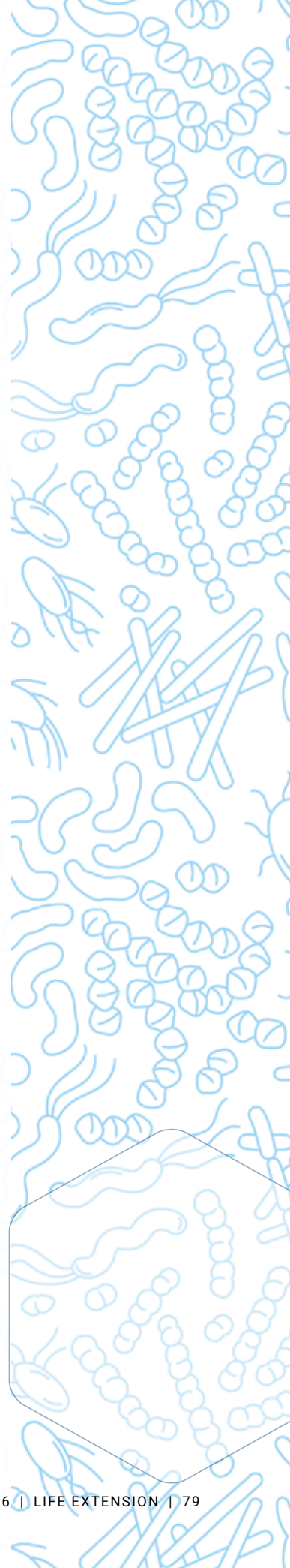
Globally, approximately **44%** of adults were infected with *Helicobacter pylori* during **2015–2022**, including about **45%** of adults in the Americas.⁴

H. pylori infection is generally treated with the standard combination of prescription medications; however, antibiotic resistance remains a significant challenge.^{2,5}

Researchers have explored non-drug approaches that may complement standard treatment by helping reduce *H. pylori* burden and support gastric health. In clinical trials:

- **Zinc-carnosine** healed stomach ulcers in **65%** of subjects and eased gastritis symptoms.⁶
- ***Lactobacillus reuteri* DSMZ 17648** reduced the marker of *H. pylori* infection by **16%** in just two weeks.⁷

Combining these two ingredients may offer comprehensive support for stomach health and comfort.



Triggers of Stomach Problems

The interior of the stomach is acidic, which helps it digest food and kill harmful bacteria.¹

To prevent this acidity from destroying the inner lining, or mucosa, of the stomach, it secretes protective mucus.¹

Helicobacter pylori is a common bacterial infection that is usually acquired in childhood and can persist for life if untreated. It can disrupt normal stomach function.

Most infected people have no symptoms, but some develop chronic inflammation of the stomach lining (gastritis), and about **10–15%** develop peptic ulcers.⁸

H. pylori produces an enzyme called urease, which creates ammonia to neutralize stomach acid. The ammonia damages stomach tissue⁹ and enables the harmful bacteria to thrive and colonize the mucosa.^{2,10}

H. pylori also impairs the production of protective mucus in the stomach.¹¹

Non-steroidal anti-inflammatory drugs (NSAIDs), such as aspirin and ibuprofen (Advil®), can also drive gastritis. Symptoms of gastritis may include:¹

- Belching,
- Bloating,
- Feeling full prematurely,
- Gas,
- Heartburn,
- Low appetite,
- Nausea and vomiting, and
- Stomach pain.

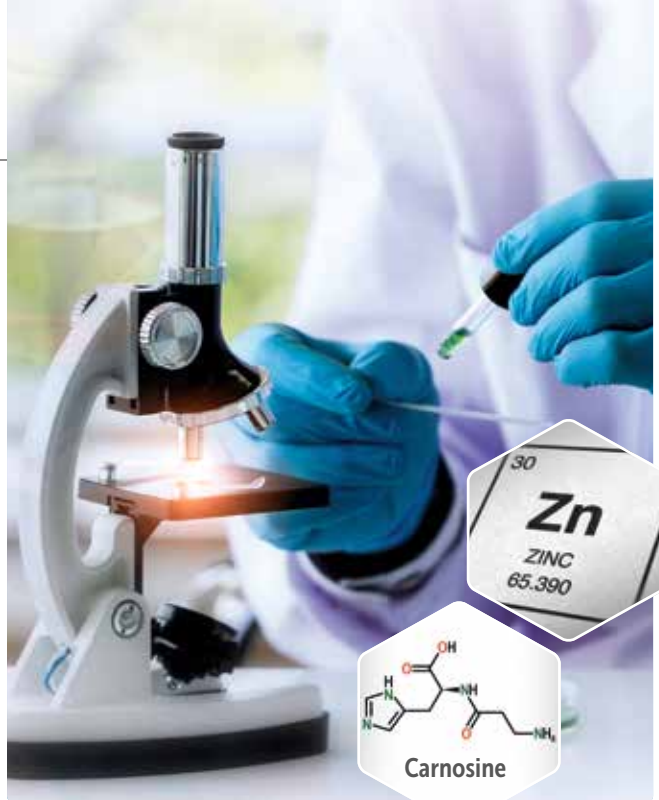
Chronic Gastritis Risks

Over time, chronic gastritis caused by ***H. pylori*** can erode the lining of the stomach and duodenum (the top part of the small intestine), leading to painful peptic ulcers.²

H. pylori is responsible for over **80%** of stomach ulcers and **90%** of duodenal ulcers.⁹

The combination of ***H. pylori*** infection with NSAID use causes a 3.5-fold increased risk of peptic ulcers beyond the medication's use alone.¹²

Even more worrisome, individuals with *H. pylori* infection have **20 times the risk of stomach cancer** as those without the infection.¹³



H. pylori causes oxidative stress and DNA damage in stomach cells, provoking cancerous changes.^{14,15}

Zinc-Carnosine for Gastric Healing

To support gastric health, Japanese scientists developed **zinc-carnosine**.¹⁶

Zinc is an essential trace mineral and antioxidant that plays a crucial role in healing tissues, and gut health, including the stomach lining.¹⁷

Carnosine is a peptide (a short chain of amino acids) that promotes healing and is found in high concentrations in human **gastrointestinal tissues**.¹⁸

Zinc-carnosine offers an approach to addressing stomach issues such as gastritis and peptic ulcers.^{19,20}

Animal research revealed that the combination of zinc and carnosine in a single compound enables the nutrients to stay in ulcerous regions of the stomach **twice as long** as the individual ingredients. It binds tightly to the stomach lining, allowing zinc and carnosine to remain longer at ulcer sites and provide stronger, targeted stomach protection.²¹

In a clinical trial, **zinc-carnosine** was shown to be protective of the intestinal mucosal barrier when administered with a **non-steroidal anti-inflammatory drug (NSAID)**, compared to the group that received an NSAID alone.²²

In an eight-week clinical trial, taking **75 mg of zinc-carnosine twice daily** **healed gastric ulcers** in a remarkable **65%** of participants, as shown by endoscopy.⁶

Subjects also reported improvement in digestive symptoms, including:⁶

- **63.6%** reduction in **heartburn**,
- **66.7%** reduction in **nausea**,
- **76.9%** reduction in **bloating**, and an
- **80%** reduction in **belching**.

Similar results have been found in other clinical trials.²⁰

Zinc-Carnosine Targets *H. pylori*

Zinc-carnosine fights *H. pylori* by inhibiting its **urease** activity, which is what the pathogen uses to survive in the acidic stomach.¹⁶

Preclinical research shows zinc-carnosine also increases levels of protective **heat shock proteins** in stomach mucosal cells, helping to protect the stomach lining from damage associated with *Helicobacter pylori* colonization and activity.²³

A meta-analysis of three clinical trials involving 396 people with *H. pylori* infection compared **triple drug therapy** (the standard treatment of two antibiotics and a proton pump inhibitor) to the same drug therapy combined with **150 mg of zinc-carnosine** taken **twice** daily.²⁴

Pairing the medications with **zinc-carnosine** eradicated *H. pylori* in **80%** of cases, compared to **67%** of cases using *only* drug treatment.²⁴



H. pylori

What You
Need
To Know

Innovative Solutions for Stomach Health

- ***Helicobacter pylori* infection** is a top trigger of stomach ulcers and **gastritis**, which can cause bloating, belching, gas, heartburn, and nausea.
- **Zinc-carnosine** and the postbiotic ***Lactobacillus reuteri* DSMZ 17648** work in different ways to reduce *H. pylori* infection and heal the stomach lining.
- In a clinical trial of adults with stomach ulcers, zinc-carnosine produced healing in **65%** of subjects.
- A clinical trial study of ***L. reuteri* DSMZ 17648** found it helped lower a marker of *H. pylori* infection by **16%** within two weeks.



H. pylori

Postbiotic Protection

Seeking another way to make *H. pylori* treatment more effective,, scientists selected a beneficial bacterial strain, ***Lactobacillus reuteri* DSMZ 17648**.²⁵ This strain is heat-treated to make it more stable, so it is considered a **postbiotic**.²⁶⁻²⁸

In preclinical research, this strain has the unique ability to **bind** to *H. pylori* and prevent it from attaching to the stomach lining. Once bound, the pathogen can be **eliminated** in the stool.²⁵

The reduction of *H. pylori* levels can be measured using a **urea breath test**. As *H. pylori* levels decline, a product of urea metabolism decreases in the breath.²⁹

In two similar trials, adults with asymptomatic *H. pylori* infection were given a placebo for two weeks, followed by **200 mg** of ***L. reuteri* DSMZ 17648** daily for two weeks.^{7,25}

In both trials, the postbiotic was associated with a significant **decrease** in urea breath test levels from baseline, indicating a reduction in ***H. pylori***. The placebo produced no significant change.^{7,25}

In one trial, ***L. reuteri* DSMZ 17648** decreased urea breath test levels by **16%**. Scientists followed the participants for 24 weeks after treatment ended and found that significant improvement from baseline was maintained.⁷

A combination of ***L. reuteri* DSMZ 17648** and **zinc-carnosine** can target *H. pylori* infection in multiple ways and provide powerful relief for gastritis symptoms.

Summary

The stomach lining is vulnerable to damage from ***H. pylori*** infection, potentially resulting in gastritis, peptic ulcers, or stomach cancer.

Zinc-carnosine has been clinically shown to aid in the healing of peptic ulcers and combat *H. pylori* infection by inhibiting the bacteria's survival.

The postbiotic strain ***L. reuteri* DSMZ 17648** can bind to *H. pylori* in the stomach and facilitate its elimination.

Oral intake of a **combination** of these ingredients promotes stomach health and comfort. ■

References

1. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK310265/>. Accessed March 27, 2026.
2. Malfertheiner P, Camargo MC, El-Omar E, et al. Helicobacter pylori infection. *Nat Rev Dis Primers*. 2023 Apr 20;9(1):19.
3. Raza Y, Mubarak M, Memon MY, et al. Update on molecular pathogenesis of Helicobacter pylori-induced gastric cancer. *World J Gastrointest Pathophysiol*. 2025 Jun 22;16(2):107052.
4. Chen Y-C, Malfertheiner P, Yu H-T, et al. Global Prevalence of Helicobacter pylori Infection and Incidence of Gastric Cancer Between 1980 and 2022. *Gastroenterology*. 2024;166(4):605-19.
5. Muttiah B, Wahid W, Sukri A, et al. Towards Effective Helicobacter pylori Eradication: Emerging Therapies in the Wake of Antibiotic Resistance. *Int J Mol Sci*. 2025 Jun 24;26(13).
6. Amakawa T. Clinical Effect of Z-103 Tablets against Gastric Ulcers: Phase III Clinical Study. *Jpn Pharmacol Ther*. 1992;20(1):199-223.
7. Mehling H, Busjahn A. Non-viable Lactobacillus reuteri DSMZ 17648 (Pylopass) as a new approach to Helicobacter pylori control in humans. *Nutrients*. 2013 Aug 2;5(8):3062-73.





8. Available at: <https://cancer.ca/en/cancer-information/reduce-your-risk/get-vaccinated/helicobacter-pylori#:~:text=Most%20H.,duodenum%20of%20the%20small%20intestine>). Accessed 11/13/2025.
9. Almarmouri C, El-Gamal MI, Haider M, et al. Anti-urease therapy: a targeted approach to mitigating antibiotic resistance in *Helicobacter pylori* while preserving the gut microflora. *Gut Pathog.* 2025 May 28;17(1):37.
10. Albush A, Yassine F, Abbas H, et al. The impact of *Helicobacter pylori* infection and eradication therapies on gut microbiota: a systematic review of microbial dysbiosis and its implications in gastric carcinogenesis. *Front Cell Infect Microbiol.* 2025;15:1592977.
11. Bansil R, Celli JP, Hardcastle JM, et al. The Influence of Mucus Microstructure and Rheology in *Helicobacter pylori* Infection. *Front Immunol.* 2013 Oct 10;4:310.
12. Ko KA, Lee DK. Nonsteroidal Anti-Inflammatory Drug-Induced Peptic Ulcer Disease. *Korean J Helicobacter Up Gastrointest Res.* 2025 Mar;25(1):34-41.
13. Hiramatsu T, Kakushima N, Kuribara H, et al. Recent advancement in endoscopic diagnosis for risk stratification of gastric cancer. *Clin Endosc.* 2025 Nov;58(6):787-96.
14. Duan Y, Xu Y, Dou Y, et al. *Helicobacter pylori* and gastric cancer: mechanisms and new perspectives. *J Hematol Oncol.* 2025 Jan 23;18(1):10.
15. He Z, Zhou Y, Liu J, et al. The intersection of *Helicobacter pylori* and gastric cancer: signaling pathways and molecular mechanisms. *Front Cell Infect Microbiol.* 2025;15:1601501.
16. Li M, Sun Z, Zhang H, et al. Recent advances on polaprezinc for medical use (Review). *Exp Ther Med.* 2021 Dec;22(6):1445.
17. Wan Y, Zhang B. The Impact of Zinc and Zinc Homeostasis on the Intestinal Mucosal Barrier and Intestinal Diseases. *Biomolecules.* 2022 Jun 27;12(7):900.
18. Jukic I, Kolobaric N, Stupin A, et al. Carnosine, Small but Mighty- Prospect of Use as Functional Ingredient for Functional Food Formulation. *Antioxidants (Basel).* 2021 Jun 28;10(7).
19. Hewlings S, Kalman D. A Review of Zinc-L-Carnosine and Its Positive Effects on Oral Mucositis, Taste Disorders, and Gastrointestinal Disorders. *Nutrients.* 2020 Feb 29;12(3).
20. Efthymakis K, Neri M. The role of Zinc L-Carnosine in the prevention and treatment of gastrointestinal mucosal disease in humans: a review. *Clin Res Hepatol Gastroenterol.* 2022 Aug-Sep;46(7):101954.
21. Furuta S, Toyama S, Miwa M, et al. Residence time of polaprezinc (zinc L-carnosine complex) in the rat stomach and adhesiveness to ulcerous sites. *Jpn J Pharmacol.* 1995 Apr;67(4):271-8.
22. Mahmood A, FitzGerald AJ, Marchbank T, et al. Zinc carnosine, a health food supplement that stabilises small bowel integrity and stimulates gut repair processes. *Gut.* 2007 Feb;56(2):168-75.
23. Meng F, Zhu S, Gong M, et al. Heat shock protein 70 is involved in polaprezinc driven cell protection against *Helicobacter pylori*-induced injury. *Int J Med Microbiol.* 2023 May;313(3):151582.
24. Mahmoud A, Abuelazm M, Ahmed AAS, et al. Efficacy and Safety of Polaprezinc-Based Therapy versus the Standard Triple Therapy for *Helicobacter pylori* Eradication: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Nutrients.* 2022 Oct 4;14(19).
25. Holz C, Busjahn A, Mehling H, et al. Significant Reduction in *Helicobacter pylori* Load in Humans with Non-viable *Lactobacillus reuteri* DSM17648: A Pilot Study. *Probiotics Antimicrob Proteins.* 2015 Jun;7(2):91-100.
26. Salminen S, Collado MC, Endo A, et al. The International Scientific Association of Probiotics and Prebiotics (ISAPP) consensus statement on the definition and scope of postbiotics. *Nat Rev Gastroenterol Hepatol.* 2021 Sep;18(9):649-67.
27. Ikram A, Safdar SZ, Arshad MT, et al. An overview of postbiotics: unveiling their distinct role in gut health. *Food and Agricultural Immunology.* 2024;35(1).
28. Ivashkin V, Maev I, Poluektova E, et al. Efficacy and Safety of Postbiotic Contained Inactivated *Lactobacillus reuteri* (*Limosilactobacillus reuteri*) DSM 17648 as Adjuvant Therapy in the Eradication of *Helicobacter pylori* in Adults With Functional Dyspepsia: A Randomized Double-Blind Placebo-Controlled Trial. *Clin Transl Gastroenterol.* 2024 Sep 1;15(9):e1.
29. Said ZNA, El-Nasser AM. Evaluation of urea breath test as a diagnostic tool for *Helicobacter pylori* infection in adult dyspeptic patients. *World J Gastroenterol.* 2024 May 7;30(17):2302-7.

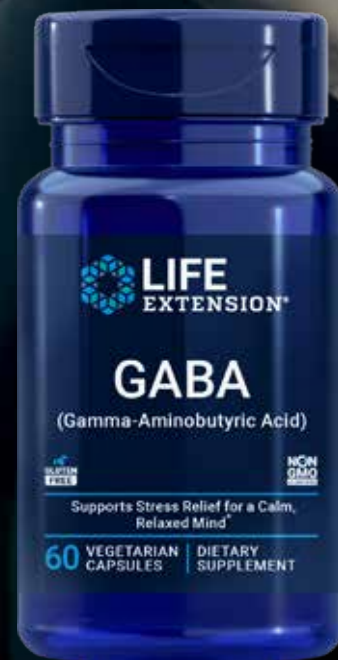
STRESS RELIEF, WHEN YOU NEED IT MOST.

What do medical appointments, public speaking, or preparing for a trip have in common?

They can all make you feel worried or uneasy. GABA is an amino acid that has been clinically studied to help relieve occasional stress and promote a relaxed state of mind, balanced mood and better sleep.*

And unlike traditional stress support supplements, GABA can support a healthy stress response in as little as 30 minutes.

*For occasional sleeplessness



Item #02542

60 vegetarian capsules

This product is available at fine health food stores everywhere.

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.

Brains & BRAWN



Whether you're in the office, at the gym, or helping your kids with their math homework, you need energy. Fuel your mind and body with Creatine & Acetyl-L-Carnitine Energy Plus. This convenient powder helps fight physical and mental fatigue and promotes healthy energy production, cognitive function, exercise performance, and recovery. Power through your day—no athletic skills required.



Item #02532

Net Wt. 233 g (0.51 lb)

This product is available at fine health food stores everywhere.

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.

Liposomal-Hydrogel™

VITAMIN

SUSTAINED SUPPORT

24

HOURS
A DAY



Item #02501

60 vegetarian tablets



This product is available at
fine health food stores everywhere.

"I feel better about
my immune
system with it."

Mary

VERIFIED CUSTOMER
REVIEW

Buffered **ascorbate** encased in two **plant extracts** (liposomes plus hydrogel fenugreek) increases blood (plasma) exposure nearly **seven times** more compared to an equivalent dose of vitamin C as calcium ascorbate.¹

It also maintains vitamin C levels throughout the day.²

Just one vegetarian tablet daily provides **around-the-clock** vitamin C support.

References 1. Akay Internal Study. Liposomal vitamin C (calcium ascorbate) pharmacokinetics. Data on file. 2021.
2. Akay Internal Study. Liposomal hydrogel vitamin C pharmacokinetics. Data on file. 2021.

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.

Crack *the* Aging Code

Mega L-Ergothioneine



The must-have amino acid for healthy aging.

L-ergothioneine helps protect cells from oxidative stress. Why is that important? Because oxidative stress is considered a key factor in aging—and L-ergothioneine levels decline with age.

Age well with L-ergothioneine. **Now available in 25 mg doses.**

Item #02540

30 vegetarian capsules



This product is available at fine health food stores everywhere.

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.

1000 MG Glycine CAPSULES

For Restful
Sleep and
Much More



Item #01669

100 vegetarian capsules



For occasional sleeplessness.

Glycine is an amino acid that functions as a precursor to multiple bodily functions.¹

Glycine has properties for promoting calming sleep.^{1,2}

It also plays a role in gene expression,¹ and metabolic,^{1,2} cardiovascular,² and brain health.^{1,2}

This product is available at fine health food stores everywhere.

A randomized controlled trial in a small number of older adults suggests that relatively high doses of glycine plus N-acetylcysteine may help support several functional and structural factors associated with decline during aging.³

References

1. *Oxid Med Cell Longev.* 2017;2017:1716701.
2. *Ochsner J.* 2018 Spring;18(1):81-7.
3. *J Gerontol A Biol Sci Med Sci.* 2023;7(1):75-89.

Baby *your* Skin

Healthy skin. Comfortable joints. Both rely on collagen. Our **Collagen Peptides for Skin & Joints** formula:

- Stimulates increased production of collagen in the body.
- Supports skin elasticity, hydration, smoothness and suppleness.
- Supports joint structure and comfort.



Item #02408

343 grams of powder
(0.75 lb or 12 oz)



**MIX ONE SCOOP WITH WATER
OR BEVERAGE OF CHOICE**

This product is available at fine health food stores everywhere.

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.

What is Saffron?

BY LAURIE MATHENA



Saffron has been used for over 2,500 years in traditional medicine for a variety of conditions.¹

Preclinical research has shown that saffron contains natural compounds that may help protect cells, reduce inflammation and improve memory and mood.¹

Emerging evidence from human studies suggests that these beneficial compounds may help support metabolic and cardiovascular health markers such as blood glucose,^{2,3} cholesterol,⁴ and blood pressure.⁵⁻⁷

Among its various benefits, two in particular stand out:

1. **Mood and emotional well-being** – There is clinical evidence for saffron's effects on improvements in mood and reduction in symptoms of depression and anxiety.¹ In one clinical trial, a standardized saffron extract increased satiety and reduced between-meal snacking versus placebo.⁸
2. **Visual and retinal health** – Saffron has been associated with improved visual function and support for retinal health in people with macular degeneration.^{9,10}

Saffron for Snacking Control

Snacking can sabotage even the most disciplined weight loss efforts. It adds extra hidden calories, disrupts blood sugar balance, and can contribute to insulin resistance, especially when it happens late at night.

One research study found that a particular saffron extract helped reduce snacking, cravings, and appetite—contributing to measurable weight loss in as little as eight weeks.

In a randomized, double-blind trial, 60 mildly overweight women took either this particular saffron extract (**176.5 mg**) or a placebo for eight weeks. By the end of the study, the saffron group experienced a **55%** decrease in snacking frequency and lost significantly more weight than the placebo group.⁸

Saffron for Mood Balance

A systematic review of 12 randomized controlled trials evaluating saffron's effects on psychological and behavioral outcomes reported improvements in depressive and premenstrual symptoms as a result of saffron extract consumption.¹

Preclinical research suggests that saffron and its active compounds may help support mood by modulating brain pathways involved in mood, inflammation, and nerve protection. One way that saffron may help curb snacking is by supporting healthy serotonin levels in the brain.¹¹



Dysregulation of this neurotransmitter has been linked to carbohydrate craving,^{12,13} increased appetite,¹⁴ less meal satisfaction,¹⁴⁻¹⁶ and emotional eating.¹⁷

Saffron has shown effects on depressive symptoms comparable to some anti-depressants in certain studies, which could possibly help reduce emotionally driven snacking behaviors.¹

Better Eye Health

The macula is a small central part of the retina responsible for sharp, detailed vision directly in front of the eyes. **Age-related macular degeneration (AMD)**, the leading cause of vision loss in older adults, damages the macula and gradually reduces central vision.¹⁸ The retina is critical for vision because it detects light and translates it into signals your brain can use. Generally, better retinal function is associated with better visual acuity.¹⁹



AMD develops over time due to aging, genetic factors, and environmental exposure, which cause inflammation and oxidative damage to retinal cells.¹⁸

While there is no cure for AMD, evidence shows that saffron may improve visual function in those with mild to moderate AMD.

Two ways saffron may accomplish this, as shown in several clinical trials, are by reducing inflammation and oxidative stress,^{6,20} two key mechanisms involved in AMD pathophysiology.

Encouraging symptomatic improvement has also been demonstrated in clinical studies. For instance, in a double-blind, placebo-controlled, crossover trial, 100 adults with mild to moderate AMD took either **20 mg** per day of oral saffron supplementation or a placebo for three months. Those already taking “eye vitamins” continued taking them. Saffron supplementation resulted in improvements in “best-corrected visual acuity,” meaning





participants experienced improvement in vision even when using corrective lenses. The study also found improved retinal function, further confirming saffron's benefits to vision and the eyes.¹⁰

Another study reported that participants taking **20 mg** per day of oral saffron supplementation had improvements in visual acuity (sharpness of vision) after three months, with these changes remaining stable during follow-up over approximately 14 months.⁹ This means that the observed visual changes were maintained over time in this study population, though the extent and consistency of such effects may vary.

These visual improvements make sense in light of saffron's benefits to retinal function, inflammation, and oxidative stress.^{6,10,20-22}

Summary

Saffron is a well-known spice with a variety of properties that have been studied for health-promoting effects. Saffron has been associated with effects on mood, impulse control, and appetite regulation, which may help reduce between-meal snacking, stress eating, and late-night cravings.

Saffron has also been associated with improvements in retinal function and it promotes better visual function in individuals with age-related macular degeneration.

Overall, current evidence suggests that saffron may help support both mood and long-term vision. •

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

- Hausenblas HA, Heekin K, Mutchie HL, et al. A systematic review of randomized controlled trials examining the effectiveness of saffron (*Crocus sativus* L.) on psychological and behavioral outcomes. *J Integr Med*. 2015 Jul;13(4):231-40.
- Amatto PPG, Chaves L, Braga GG, et al. Effect of *Crocus sativus* L. (saffron) and crocin in the treatment of patients with type-2 diabetes mellitus: A systematic review and meta-analysis. *J Ethnopharmacol*. 2024 Jan 30;319(Pt 2):117255.
- Zhang JW, Zhao Q, Li Z, et al. The effect of saffron supplementation on liver and kidney function, blood glucose and pressure in patients with diabetes and prediabetes: A grade assessed systematic review and meta-analysis of randomized controlled trials. *Prostaglandins Other Lipid Mediat*. 2025 Mar;177:106949.
- Rahmani J, Manzari N, Thompson J, et al. The effect of saffron on weight and lipid profile: A systematic review, meta-analysis, and dose-response of randomized clinical trials. *Phytother Res*. 2019 Sep;33(9):2244-55.
- Zhang X, Miao J, Song Y, et al. Effects of Saffron Supplementation on Glycolipid Metabolism and Blood Pressure in Patients With Metabolic Syndrome and Related Disorders: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Phytother Res*. 2025 May;39(5):1883-904.
- Mafi A, Mokhtari Z, Hosseini E, et al. Effect of Saffron (*Crocus sativus*) Supplementation on Oxidative Stress, Inflammatory Indices, and Renal and Liver Function Parameters in Patients With Type 2 Diabetes Mellitus: A GRADE-Assessed Systematic Review and Meta-analysis of Randomized Clinical Trials. *Nutr Rev*. 2025 Jun 1;83(6):971-87.
- Schuster J, Mundhenke C, Nordsieck H, et al. Effect of a saffron extract on sleep quality in adults with moderate insomnia: A decentralized, randomized, double-blind, placebo-controlled trial. *Sleep Med X*. 2025 Dec 15;10:100147.
- Gout B, Bourges C, Paineau-Dubreuil S. Satiereal, a *Crocus sativus* L extract, reduces snacking and increases satiety in a randomized placebo-controlled study of mildly overweight, healthy women. *Nutr Res*. 2010 May;30(5):305-13.
- Piccardi M, Marangoni D, Minnella AM, et al. A longitudinal follow-up study of saffron supplementation in early age-related macular degeneration: sustained benefits to central retinal function. *Evid Based Complement Alternat Med*. 2012;2012:429124.
- Broadhead GK, Grigg JR, McCluskey P, et al. Saffron therapy for the treatment of mild/moderate age-related macular degeneration: a randomised clinical trial. *Graefes Arch Clin Exp Ophthalmol*. 2019 Jan;257(1):31-40.
- Chauhan S, Tiwari A, Verma A, et al. Exploring the Potential of Saffron as a Therapeutic Agent in Depression Treatment: A Comparative Review. *Yale J Biol Med*. 2024 Sep;97(3):365-81.
- Ventura T, Santander J, Torres R, et al. Neurobiologic basis of craving for carbohydrates. *Nutrition*. 2014 Mar;30(3):252-6.
- Leibowitz SF, Alexander JT. Hypothalamic serotonin in control of eating behavior, meal size, and body weight. *Biol Psychiatry*. 1998 Nov 1;44(9):851-64.
- Lam DD, Garfield AS, Marston OJ, et al. Brain serotonin system in the coordination of food intake and body weight. *Pharmacol Biochem Behav*. 2010 Nov;97(1):84-91.
- Sadek AT. Serotonin as a Regulator of Leptin-Mediated Food Intake Control Within a Novel Neuronal Circuit Between the Hypothalamus and Raphe Nuclei. *Journal of the Endocrine Society*. 2021 April-May 2021;5:A55-A6.
- Feijo Fde M, Bertoluci MC, Reis C. [Serotonin and hypothalamic control of hunger: a review]. *Rev Assoc Med Bras* (1992). 2011 Jan-Feb;57(1):74-7.
- Markus CR, Verschoor E, Smeets T. Differential effect of the 5-HTT gene-linked polymorphic region on emotional eating during stress exposure following tryptophan challenge. *J Nutr Biochem*. 2012 Apr;23(4):410-6.
- Guymer RH, Campbell TG. Age-related macular degeneration. *Lancet*. 2023 Apr 29;401(10386):1459-72.
- Ptito M, Bleau M, Bouskila J. The Retina: A Window into the Brain. *Cells*. 2021 Nov 23;10(12).
- Bahari H, Shahraki Jaznaki M, Aghakhani L, et al. Crocin Supplementation on Inflammation and Oxidative Stress: A Systematic Review and Meta-Analysis. *Phytother Res*. 2025 Jan;39(1):465-79.
- Falsini B, Piccardi M, Minnella A, et al. Influence of saffron supplementation on retinal flicker sensitivity in early age-related macular degeneration. *Invest Ophthalmol Vis Sci*. 2010 Dec;51(12):6118-24.
- Di Marco S, Carnicelli V, Franceschini N, et al. Saffron: A Multitask Neuroprotective Agent for Retinal Degenerative Diseases. *Antioxidants (Basel)*. 2019 Jul 17;8(7).



For Oral Health Worth Smiling About

FLORASSIST® Probiotic Oral Hygiene



Promote oral health and inhibit unwanted oral bacteria with **FLORASSIST® Probiotic Oral Hygiene**.

This mint-flavored lozenge contains a unique probiotic strain paired with a postbiotic to maintain healthy gum tissue, help manage dental plaque, inhibit inflammation to support oral health, promote a healthy oral pH and even inhibit the unwanted bacteria that live in your mouth.

Go beyond brushing with **FLORASSIST® Probiotic Oral Hygiene!**

Item #02120

30 vegetarian lozenges



This product is available at fine health food stores everywhere.

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.

Fuller, Stronger Hair



Item #02541

30 softgels

Contains wheat.

Hair Growth for Women is an oral formula with two scientifically studied **plant extracts** that:^{1,2}

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

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

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

This product is available at fine health food stores everywhere.

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

VI-SPO® is a trademark of Vidya Herbs Inc. and used with permission. Ceramosides™ is a trademark of Seppic SA.

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.

Biohack YOUR DNA

You can't stop the clock, but you can slow the hands of time with this new, cutting-edge formula.

- Support healthy biological aging by targeting key hallmarks of the aging process
- Help preserve DNA methylation age, an important factor in healthy biological aging
- Help maintain healthy telomere length, a key aging biomarker

Your healthy aging strategy just got smarter with Biological Aging Defense.



Item #02548

30 vegetarian capsules

This product is available at fine health food stores everywhere.

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.

Soothe Your Stomach Lining

Suggested dose
is one capsule
twice daily,
after breakfast
and before bed.

Gastro-Ease™ contains a nutrient compound
(**zinc-L-carnosine**) plus a novel ingredient made from
inert, heat-stabilized *Lactobacillus reuteri* to help soothe
the stomach lining and promote optimal gastric health.^{1,2}



This product is available at fine health food stores everywhere.

Item #02100
60 vegetarian capsules



Pylopass™ is a trademark of Novozymes A/S, Denmark.
PepZinGI® is a registered trademark of Hamari Chemicals, Ltd.

References

1. *Jpn Pharmacol Ther.* 1992;20(1):199-223.
2. *Nutrients.* 2013 Aug 2;5(8):3062-73.

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

NEW PRODUCTS

The Key to Aging Well

Item #02554

60 vegetarian capsules

NEXT GEN CoQ10

Step into the future of heart health and cellular energy support with this groundbreaking CoQ10.

Our most advanced CoQ10 ever is up to 24x more bioavailable than standard ubiquinone and up to 3x more than standard ubiquinol.

Get the most out of your CoQ10 supplement with our AmpliQ CoQ10™ formula, available in 50 mg and 100 mg.



Item #02553

60 vegetarian capsules



New from Life Extension: NAD⁺ boosting NMN nicotinamide mononucleotide formulas.

NMN (nicotinamide mononucleotide) has been clinically studied to increase levels of NAD⁺, a compound essential for cellular energy.

Choose from a stand-alone NMN formula or NMN combined with Resveratrol Elite™, a bioavailable resveratrol formulation that promotes healthy aging.

NAD⁺ Cell Support NMN
Item #02555

30 vegetarian capsules

Optimized NAD⁺ NMN with Resveratrol Elite
Item #02556

30 vegetarian capsules

Also available in a 90-count bottle





The Science of a Healthier Life®

PO BOX 407198
FORT LAUDERDALE, FLORIDA 33340-7198



IN THIS EDITION OF LIFE EXTENSION MAGAZINE:



18

18 REDUCE STRESS WHILE STAYING SHARP

In separate human trials, **two plant extracts** *reduced stress* by **71%**, *lowered cortisol* by **24%**, and *improved attention* and **working memory**.



26

26 HOW MEN CAN REVERSE HAIR LOSS

In a clinical study, two **plant extracts** *increased hair growth* for **95%** of men with male pattern baldness, while in another trial, a third plant extract *decreased hair loss* by **29%**.



34

34 WHAT IS BLACK CUMIN SEED OIL?

Components in **black cumin seed oil** may help support balanced **inflammatory** and **immune responses** associated with chronic diseases.



40

40 COQ10 AND THE FREE MARKET

In 1983, the **FDA** claimed **CoQ10** was a **prescription drug** and moved to ban it. Congress allowed consumer access in 1994. Since then, advances in **CoQ10 absorption** technologies have slashed **consumer prices** and improved **bioavailability**.



52

52 A GROWING THREAT TO YOUNGER ADULTS

Colorectal cancer is increasing in younger adults. **Life Extension** has long advocated for *earlier* screening along with intake of healthy nutrients to reduce this growing risk.



90

90 WHAT IS SAFFRON?

Compounds in **saffron** help *balance mood* and *improve eye health*. A saffron extract *decreased snacking* by **55%** and *promoted weight loss*.