

The right energy for

an active body





Our Mission

Empower Your Life



Our goal is for you to lead the healthiest possible life

Many people wish for more energy or a healthier lifestyle. Maintaining good nutrition proper nutrition and empowers individuals to achieve greater success in life. At Carnosine high-quality, we offer Synergy, science-based nutritional products designed to provide the body with daily nutrients. Good nutrition has been shown to support health and wellness. Of course, nutritional

products are intended to complement a balanced diet and regular exercise for optimal health. Developed by the world's leading researcher on anti-aging, whose writings have helped thousands of individuals worldwide achieve more healthier lives, Carnosine Synergy is the result of advanced nutrition designed for today's busy daily routine. We encourage you to reflect on how a healthy lifestyle could benefit your well-being as you review our product information in this document. Regardless of your past challenges, one's journey toward improved health begins today!



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The Research

After over a decade and more than 2000 pages, Carnosine Synergy is born.

Manufacturing Location and Facility

Manufactured in a country with one of the highest standards of living.

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We want you to succeed and we just may have found the right combination.

Skin Defense

Carnosine Synergy doesn't just work on the inside, it may also provide a powerful protective barrier against the damaging effects of UV rays.







You Deserve Healthy energy









Carnosine Synergy is the global leader in sugar and caffeine free energy nutrition. Founded by best selling anti-aging author Scott Rauvers. His decades of tireless research improving nutritional habits for customers worldwide has culminated in a groundbreaking new supplement designed to help people achieve, not only a sugar free source of energy, but motivate them towards their goals.

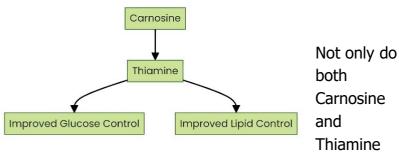
Our Mission is to provide energy that attains your goals

The Success behind our Formula

It's All about the Synergy

Our philosophy of synergy emphasizes sugar free nutrition supported by science Let's look at the data: The Data shown on our homepage confirms that Carnosine combined with Thiamine exhibits beneficial synergy.





help lower blood sugar ^{(1) (2)}, but our enhanced synergistic blend allows for an overall longer lasting effect, compared to taking either Carnosine or Thiamine alone.

Carnosine Synergy also includes Niacin (Vitamin B3) and Vitamin C. When both of these are combined, they have been scientifically proven to increase the levels of Human Growth Hormone in the body ⁽³⁾ (4) and are of benefit towards gastrointestinal regenerative medicine ⁽⁵⁾.

- (1) Thiamine and diabetes: back to the future? Elena Beltramo et al. June 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8505293/
- (2) Carnosine supplementation improves glucose control in adults with pre-diabetes and type 2 diabetes: A randomised controlled trial. Rohit Hariharan et al. Feb 2024. https://www.sciencedirect.com/science/article/pii/S0939475323004192#:~:text=Carnosine%20supplementation%20decreased%20blood%20glucose,additional%20changes%20in%20secondary%20outcomes.
- (3) A Pilot Study of the Effects of Niacin Administration on Free Fatty Acid and Growth Hormone Concentrations in Children with Obesity. Ovidiu A Galescu et al. Jan 2018. https://pmc.ncbi.nlm.nih.gov/articles/PMC5360541/#:~:text=Niacin%20administration%20was%20associated%20with,minutes%20was%202.9%20ng%2FdL.
- (4) The association of macro- and micronutrient intake with growth hormone secretion. S Denny-Brown et al. Apr 2012.
- https://pubmed.ncbi.nlm.nih.gov/22465725/
- (5) Vitamin C and B3 as New Biomaterials to Alter Intestinal Stem Cells. Yijun Qi et al. May 2019. https://pmc.ncbi.nlm.nih.gov/articles/PMC6626554/



Carnosine Synergy begins with extensive research

Formulated by an Expert

Carnosine Synergy was invented by anti-aging expert Scott Rauvers who achieved the synergized supplement formulation while living in Hawaii after publishing over 2,000 pages in 6 books. Scott studied Gerontology (the science of aging) at Weber State University in Utah...

Adherence to Industry Standards

Carnosine Synergy wants you to have the best possible product. Therefore we focus on sourcing the best ingredients and strictest manufacturing conditions. Through our collective expertise and experience, Carnosine Synergy is committed to designing a high-quality, compact and affordable efficacious supplement supported by scientific research and rigorous testing standards.

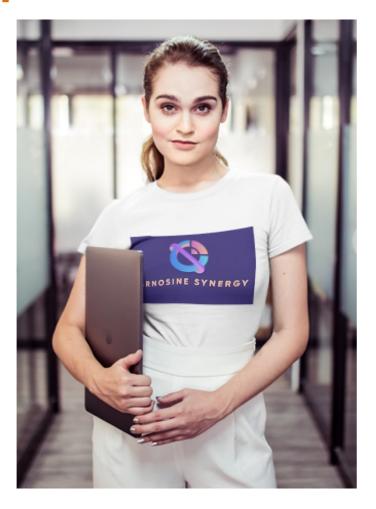
Our Core Values

At The Carnosine
Synergy Company,
we recognize the
importance of
fulfilling our vital
mission of
connecting and
inspiring the world.
Thousands of lives
are impacted daily by
our product, and we
remain dedicated to
gaining and maintaining
the public's trust through
excellence.

Carnosine Synergy is a subsidiary of Pizza-Genius.com. Across our global operations, employees are united by a shared commitment to our core principles, which guide all aspects of our mission. As an industry leader in sugar free nutrition, each employee works their hardest to demonstrate our company values through their tireless efforts. We strive to empower our employees while delivering quality results.



Carnosine Synergy is committed to delivering products of the highest quality. Through well-trained personnel, advanced manufacturing technology, and rigorous quality control procedures implemented at all stages of production, we are confident that every product meets our exacting specifications.



Ingredients



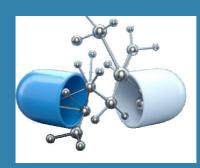
At our company, we are dedicated to pursuing new discoveries, employing responsible business practices, and leveraging cutting-edge production techniques to develop the highest quality products.

Stage Process



At Carnosine Synergy, we are deeply committed to product quality and go to great lengths to meet and exceed industry standards. Through rigorous testing and certification practices, we ensure the purity and potency of all active ingredients. Our manufacturing processes are carefully designed and monitored to maintain the integrity of formulations from start to finish. You can trust that Carnosine Synergy products deliver the quality and performance our customers have come to rely on.

Energy



Through leveraging cutting-edge technology, we diligently track warehouse storage conditions where our products are stocked guaranteeing they arrive at your doorstep as fresh as possible. Continuous monitoring allows us to safeguard product integrity from creation through delivery, so customers receive the same superior benefits wherever business takes them. Backed by stringent processes and quality assurance, you can count on receiving an optimized product from goods kept in tiptop form through our dedicated stewardship.



Location IS everything

Made in a healthier environment for a healthier you

We choose Noosa Heads in Australia to manufacture Carnosine Synergy due to its clean air and sustainable business ethics. Noosa is home to the Biosphere Awards which recognizes individuals and businesses who demonstrate environment and sustainability excellence in the Noosa Shire, in alignment with the UNESCO Man and the Biosphere Programme (MAB).



One of Noosa's greatest assets is its golden, sun-drenched beaches and nearby Eumundi Markets, which host craft beer and artisanal gins. Noosa is also home to the Garmin Noosa Triathlon, one of the world's top 10 triathlons and Makepeace Island, owned by Sir Richard Branson. Noosa is home to numerous celebrities from around the world, and according to the Quality of Life Ranking, Australia has the fifth-highest quality of life globally. The 2023 World Air Quality Report showed that Australia's air quality is the 7th best in the world.



Your personalized **Carnosine Synergy** regimen will always commence with an oral capsule that has been carefully designed by our research and development team to help awaken your body's inherent vitality. **Composed of a** proprietary blend of ingredients Whether facing routine tasks or extreme physical challenges, your **Carnosine Synergy®** capsule will sustain you with vibrant whole-body functioning day after day.



The Right Combination

Achieving and maintaining a healthy, active lifestyle requires commitment and diligence. At the foundation of any successful fitness regimen is establishing reasonable, attainable goals that support an individual's overall well-being and quality of life. Whether the goal is to lower blood pressure, manage a medical condition, or simply feel more energized, breaking broad objectives down into specific, measurable steps makes sustained progress possible over the long-term. Regular exercise and smart nutrition choices are certainly important aspects, but equally significant is adopting a holistic mindset of self-care. A balanced approach that accounts for one's physical, mental and social needs best enables active living each and every day.

Compatibility breeds success

Carnosine Synergy is specifically designed to provide your body with the daily nutrients necessary to support optimal cognition operating conditions. An effective nutrition regimen should balance energy needs with essential vitamins, minerals, complex carbohydrates, plant-based proteins, healthy fats, dietary fibers, herbs,



and antioxidants. The Carnosine Synergy approach is built upon principles of balanced fueling, an active lifestyle, and personal goal-setting. Balanced fueling is grounded in thoughtfully sourcing the right nutrients that work together with each other.

Routine	■ AM	■ PM
1 INSTRUCTIONS	Take 3 capsules before workout or a cup of Carnosine Raspberry tea just before a demanding mental task such as an Exam, Driver's License Test etc.	Take 2 Capsules before bed after a day of demanding physical or mental activity.
Daily		
Synergy	For normal routines, after 3 days of continuous supplementation, reduce dosage to 1 capsule daily for2 days, than repeat.	

The daily routine is based upon the science that the Vitamin C in our formula acts as a preservation buffer for the ingredients, allowing the carnosine, milk thistle and other components to circulate in the body for a longer period of time. Reducing the dosage after a few days allows for a more overall broader synergistic reaction to take place.

The main component in Milk Thistle is Silymarin and studies show that Silymarin supplementation may enhance physical performance, recovery, and muscle growth during regular exercise training ⁽¹⁾.

(1) <u>Effect of Silymarin Supplementation on Physical Performance, Muscle and Myocardium</u>
<u>Histological Changes, Bodyweight, and Food Consumption in Rats Subjected to Regular Exercise</u>
<u>Training. Nancy Vargas-Mendoza et al. Oct 2020.</u>

Get off to the best start possible

It's as easy as

Up to 3 capsules a day for an extra busy lifestyle

Take 2 capsules daily before bed to wake up feeling energized.

After 3 days reduce dosage to 1 capsule daily for 2 days for best results..

Capsules

2

Capsules

Capsule





CapsuleContents Fact Sheet

Each Carnosine Synergy capsule provides essential nutrients to help you achieve your goals with unlimited energy.



Carnosine is supported by over a thousand published research papers in peer reviewed journals for its numerous health benefits and lack of known side effects ⁽¹⁾.

Silymarin, found in abundance in Milk Thistle, is one of the most powerful substances that fights cancers, especially skin cancer ⁽²⁾.

Cobalamin, also called Vitamin B12, helps with red blood cell formation and anemia prevention, it may support bone health, and prevent osteoporosis, may reduce your risk of macular degeneration, may improve mood and symptoms of depression, may benefit your brain and memory and may improve energy levels ⁽³⁾.

Research shows that higher levels of Vitamin D3 are associated with a 25% to 33% lower odds of dementia or mild cognitive impairment

Grape seed extract may help prevent macular degeneration, poor circulation, and nerve damage ⁽⁵⁾.

Vitamin C plays an important role in immune function and improves the absorption of nonheme iron, the form of iron present in plant-based foods. Insufficient vitamin C intake causes scurvy, which is characterized by fatigue or lassitude, widespread connective tissue weakness, and capillary fragility ⁽⁶⁾.

B vitamins are a group of 8 water-soluble vitamins. The body does not store them, so they need to be replaced daily. B vitamins are cofactors for many essential enzymes involved in the biosynthesis of RNA and DNA ⁽⁷⁾. The high prevalence of vitamin B12 deficiencies in the elderly and increasing evidence that that low maternal vitamin B12 status in pregnant women may be a risk factor in birth defects has stimulated interest in considering the potential benefits of mandatory fortification of enriched flour with vitamin B12 ⁽⁸⁾.



(1) Unveiling the Hidden Therapeutic Potential of Carnosine, a Molecule with a Multimodal Mechanism of Action: A Position Paper. Giuseppe Caruso. May 2022.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9143376/

(2) Silibinin and non-melanoma skin cancers. Ram Raj Prasad et al. Feb 2020. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7340873/

(3) Health Benefits of Vitamin B12, Based on Science. Healthline. https://www.healthline.com/nutrition/vitamin-b12-benefits

- (4) Brain vitamin D forms, cognitive decline, and neuropathology in community-dwelling older adults. M. Kyla Shea et al. https://alz-journals.onlinelibrary.wiley.com/doi/10.1002/alz.12836
- (5) What are the benefits of grape seed extract?. Medical News Today. https://www.medicalnewstoday.com/articles/263332#:~:text=Grape%20seed%20extract%20is%20an,poor%20circulation%2C%20and%20nerve%20damage.
- (6) Vitamin C. Fact Sheet for Health Professionals. U.S. Department of Health & Human Services. https://ods.od.nih.gov/factsheets/VitaminC-HealthProfessional/
- (7) B Vitamins: Functions and Uses in Medicine. Mary Hanna et al. June 2022. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9662251/
- (8) Vitamin B12 and older adults. Patrick J. Stover. Jan 2010. https://pubmed.ncbi.nlm.nih.gov/19904199/



Daily Brain Nutrition

Healthy way to start the day:

Carnosine Synergy contains just the right amounts of nutrients for healthy brain functioning. **Key ingredients: Carnosine blended with Milk Thistle, Grape Seed Extract, Riboflavin, Niacin and Vitamins C, D3, B1 and Cobalamin (B12).**

Quick Fact

After an overnight fast of 8-12 hours without food, replenishing energy reserves is important. If breakfast is skipped, the brain will lack needed energy for fully enjoying daily activities.





Fast Fact

In studies on elderly animals, silymarin, found in Milk Thistle has been shown to prevent oxidative damage to brain cells, which could help prevent mental decline.

Effect of silymarin on biochemical parameters of oxidative stress in aged and young rat brain https://pubmed.ncbi.nlm.nih.gov/19647779/

Silymarin ameliorates memory deficits https://pubmed.ncbi.nlm.nih.gov/24866499/





Attaining Your Ideal Weight

In a clinical trial, when Carnosine was given to overweight or obese individuals, it improved their glucose metabolism ⁽¹⁾. Carnosine also mitigated metabolic disorders of obesity by reducing carbonyl stress ⁽²⁾. Carbonyl stress is a by-product of the body's metabolism of lipids and sugars.

Research has shown Milk Thistle Oil normalizes metabolic and cardiovascular complications from diet-induced obesity ⁽³⁾. Research also suggests Milk Thistle Oil in obese individuals' diets may protect against the worsening of cardiovascular and metabolic disease by reducing inflammation and keeping the liver healthy ⁽³⁾ ⁽⁴⁾.

Vitamin D deficiency is strongly related to obesity ⁽⁵⁾.

Research indicates that Vitamin C intakes may be lower in obese individuals $^{(6)}(7)$.

Recent studies have shown that grape seed extract has antiobesity effects ⁽⁸⁾.

- (1) Carnosine Supplementation Improves Serum Resistin Concentrations in Overweight or Obese Otherwise Healthy Adults: A Pilot Randomized Trial. Estifanos Baye et al. Sept 2018. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6165206/
- (2) A carnosine analog mitigates metabolic disorders of obesity by reducing carbonyl stress. Ethan J. Anderson et al. Sept 2018. https://www.jci.org/articles/view/94307
- (3) Milk thistle seed cold press oil attenuates markers of the metabolic syndrome in a mouse model of dietary-induced obesity.

Hsin-Hsueh Shen et al. Jan 2021.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7770619/

- (4) Silymarin Ameliorates Metabolic Dysfunction Associated with Diet-Induced Obesity via Activation of Farnesyl X Receptor. Ming Gu et al. Sept 2016. https://www.frontiersin.org/journals/pharmacology/articles/10.3389/fphar.2016.00345/full
- (5) Vitamin D Deficiency: Consequence or Cause of Obesity?. Luka Vranić et al. Sept 2019. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6780345/
- (6) Vitamin C in the treatment and/or prevention of obesity. Diego Fernando Garcia-Diaz et al. 2014.

https://pubmed.ncbi.nlm.nih.gov/25866299/

(7) A Systematized Review of the Relationship Between Obesity and Vitamin C Requirements. Julia K Bird et al. May 2024.

https://cdn.nutrition.org/article/S2475-2991(24)00086-

6/fulltext#:~:text=Vitamin%20C%20intakes%20may%20be,in%20lean%20or%20adipose%20tiss ue.

(8) Effects of Grape Seed Proanthocyanidin Extract on Obesity. Miao Liu et al. Feb 2020. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7250358/

Take back control of your yeight and feel great!
Your tailored nutrition formula

To learn more, go to www.Carnosine Synergy .com

Carnosine Synergy is a leading pioneer in capsulated weight management and is now one of the most successful companies in the field. With Carnosine Synergy, customers have a convenient way to meet their unique health, fitness, or weight goals.

Attaining your ideal weight



Instant Beverage

Our Raspberry Carnosine Tea is infused with extracts of Milk Thistle, D3 and Carnosine which supports your mental acuity and gives you a boost of energy that assist you in achieving your daily goals.

Main Features:

Our tea combines modern science with contemporary innovation to support overall well-being and normal vitality. It combines the numerous advantages of carnosine along with Milk Thistle. With natural raspberry flavors and xylitol sweetener, this formulation delivers key benefits in a pleasant way.

Guide:

Water is vital for life. Every cell in the human body relies on ample water to perform properly. A lack of hydration masquerades as various ailments that are not immediately recognized as water deficiency. Plain water is often overlooked as a beverage choice despite its significance to health and wellness. Excessive coffee can deplete the body of important nutrients and elevate free radical harm and carbonated beverages on average contain six teaspoons of sugar per can.

Ingredients:

Raspberry, Xylitol, Grape Seed Extract, Vitamins D3, B12, B1, Niacin, and Riboflavin.



Directions for use:

Add 1 tea bag to hot or boiled water and sip for instant cognitive energy. Delivers results similar to coffee, but without the withdrawals attributed to caffeine.



Achieving your desired weight

Raspberry Shake

The typical western diet nowadays tends to be high in fat and low in fibre. Scientific and nutritional experts recommend an increased consumption of dietary fiber and a lower intake of fat and calories may help maintain good health.

Features

Red raspberies contain several powerful antioxidants that provide significant health benefits. Specifically, they are a notable source of vitamin C as well as quercetin and gallic acid, both of which have demonstrated antioxidant properties. A growing body of research suggests that antioxidants may help protect against cancer development, cardiovascular and circulatory issues, and certain signs of aging. Regular consumption of red raspberries' antioxidant compounds could help maintain health and wellness.

Guide:

Carnosine Synergy Raspberry Flavor Meal Replacement Shake provides a nutritious and flavorful addition to your diet. This shake combines the sweet and tart flavors of raspberries with the nutritional benefits of Carnosine and Vanilla. Carnosine Synergy shakes are designed with both health and enjoyment in mind. High-quality ingredients are used to create a shake that satisfies tastes buds through the flavor of raspberries while also providing a balanced blend of proteins, vitamins, and minerals to support overall well-being. It offers a convenient solution for those looking to maintain a healthy diet without compromising on flavor or ease of preparation.

Whether needed for a quick breakfast, light lunch, or snack, the Carnosine Synergy Raspberry Flavor Meal Replacement Shake provides a delicious way to stay nourished and energized throughout the day. Enjoy the sweet and tangy essence of raspberries as part of your daily routine, and

incorporate meal replacement into your health journey.

Ingredients:

Pea Protein, Vanilla, Natural Freeze Dried Raspberry Powder, Xylitol, Grape Seed Extract, Vitamins D3, B12, B1, Niacin, and Riboflavin.

- GMO Free
- Nut Free
- Egg Free
- Dairy Free
- Gluten Free
- Plant Protein

Directions for use:

Mix 1/2 teaspoon (approx. 1.7 g) with 200-250 mL of cold water and take before workout or exercise.

Daily Power Capsulated

Carnosine Synergy makes attaining your ideal weight a reality

For those seeking weight loss solutions, Carnosine Synergy offers science-backed products designed to support healthy hunger management, metabolic function and energy levels during weight loss journeys. Leveraging Cellular Science and high-quality sources, our formulation aims to help individuals safely and sustainably achieve desired weight and wellness goals through energized nutrition.

Enjoy the Journey:

Carnosine Synergy supports your health and wellness goals. Our capsules are designed to provide additional energy, support weight management efforts, and promote an overall sense of well-being. We utilize high-quality, scientifically-backed ingredients to help you achieve your desired results. Merge Carnosine Synergy into your customized weight loss plan to fit your individual needs and lifestyle.

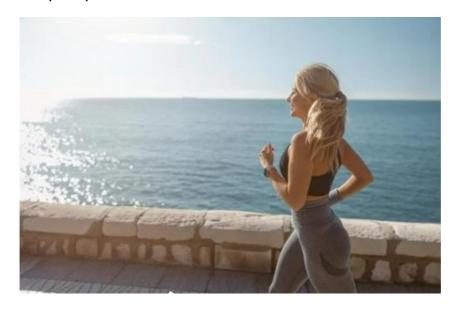


Your Health

Our Targeted Nutrition line focuses on precisely meeting individual needs. Our targeted formulation are meticulously designed to directly address physical energy and maintain healthy cognition.

You have numerous responsibilities that must be fulfilled each day in a fast-paced environment. Our products help sustain stamina throughout long days and may help fitness enthusiasts and athletes make progress toward their goals more quickly.

Add Carnosine Synergy to your daily regime and give yourself a nutritional edge. Carnosine Synergy ® products are based on a foundation of balanced energy nutrition and ingredients that can help maintain your health.



Whatever your health needs, Carnosine Synergy is here to help you succeed!





Sugar, Caffiene free Nutrition

Carnosine Synergy ®

Carnosine Synergy ® is an excellent way to supplement your daily intake of ingredients that help maintain physical energy. Especially Vitamin B12, which is essential for physical energy, healthy blood cells a defense against osteoporosis and healthy memory.

Key benefits:

Carnosine supports:

- Healthy mood
- Healthy glucose control (1)
- Eye health
- Cognitive functioning
- Physical Energy
- Fighting AGE's

Guide

In the human body, healthy carnosine levels play vital roles:

- · Help fight Free Radicals
- Physical Energy
- · Inhibit AGE's

Carnosine is a naturally occurring dipeptide in the body. It is highly concentrated in brain and muscle tissue. Healthy Glucose control is a key element for maintaining good health. Carnosine has antioxidant and antiglycation properties that may play important antiaging roles. Mice studies found that Carnosine's antioxidant and antialycation effects, prevented oxidative stress and advanced glycation end product formation (2)

Key ingredients:

Carnosine, Milk Thistle, Vitamins D3, B12, B2, Riboflavin and Niacin. Grape Seed Extract, Vitamin C, Vitamin B12.

Directions for use:

- Take one to two capsules three times a day, on an empty stomach, preferably before bed.
- Take Tea for an immediate boost for concentration and memory.
- Take shake before workout or exercise.

- (1) Carnosine supplementation improves glucose control in adults with prediabetes and type 2 diabetes: A randomised controlled trial https://pubmed.ncbi.nlm.nih.gov/38172006/
- (2) Novel advances in inhibiting advanced glycation end product formation using natural compounds. Qinghe Song et al. Aug 2011. https://www.sciencedirect.com/science/article/pii/S0753332221005321

Fast Fact

Your adult skeletal system undergoes full renewal approximately every 7 to 10 years. The average body contains roughly 1.36 kilograms of calcium, with 99% stored in the bones and teeth. Calcium is removed from your body at an accelerated rate after exhaustive exercise because minerals are pulled from your bones to establish recovery.

Maintain Your Energy

Maintain peak performance daily with our premium Synergy Capsules

At times, an energy boost is necessary to carry one through the week and maintain focus on goals. Carnosine Synergy delivers precisely that boost of energy when you most need it.

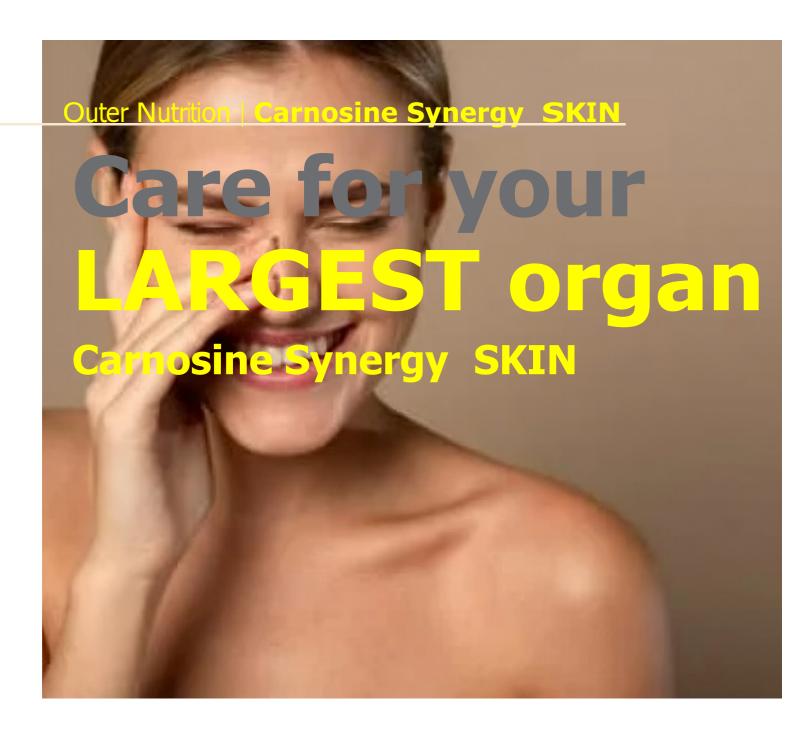
Adhering to our Carnosine Synergy philosophy, we remain grounded in the concept of the Cellular Science model - aiming to clients support achieving their individual wellness objectives. Formulated to provide sustainable energy levels and support physical performance, our energy capsules incorporate evidence-based ingredients tailored to the body's needs.

Whether seeking an afternoon pick-me-up or supplemental nutrition to complement daily activities, Carnosine Synergy provides science-backed

solutions. Consistent with Carnosine Synergy's commitment to research-driven formulations, you can feel confident you are supporting your body's energy requirements in a healthy, balanced manner.



Excessive hours at work or time spent traveling combined with poor nutrition can lead to low energy levels and a lack of physical fitness. In modern society, workloads have increased. Establishing an active lifestyle or even taking initial steps in that direction may seem challenging with a demanding schedule. Carnosine Synergy offers a convenient and effective way to improve health and fitness regardless of one's schedule. Our Carnosine Synergistic capsules benefit both general consumers as well as athletes.



Outer Nutrition | Carnosine | Synergy for SKIN | PROTECTION

Carnosine Synergy includes Milk Thistle, which contains Silymarin, recognized as one of the most powerful substances for maintaining healthy skin.

Active Component

The primary active components in Milk Thistle are Silibinin and Silymarin. Both Milk thistle and silymarin have been used as treatments for skin cancers (1).



The secret behind Carnosine Synergy is the combination of Milk Thistle combined with Grape Seed Extract. This combination has been used to treat Lung Cancer (10) by synergistically inhibiting the growth of lung cancer cells (11). It also restores healthy kidney and heart functioning (12) and enhances the activity of antioxidants (12).

Skin Defense

Silvmarin is used for protecting skin that has been damaged by air pollutants (2)(3) and Silymarin has shown significant effects in managing the side effects of patients undergoing chemotherapy (4) and is also used to prevent the occurrence of skin lesions in patients after radiotherapy (5). Numerous studies now confirm that Silibinin protects the skin against UVB rays and accelerates the repair of damaged skin (6) (7) and taking a silymarin or silibinin supplement protects skin against tumors caused by UVB radiation ⁽⁷⁾.



No Side Effects

Another study found that Silibinin inhibited tumor volume up to 97% ⁽⁸⁾. Chronic administration of silibinin taken as dietary supplement is well tolerated and does not exhibit any adverse side effects ⁽⁸⁾ and a research study concluded that silymarin may be useful for protecting skin against the harmful effects of full-spectrum solar radiation including slowing down skin (photo)aging ⁽⁹⁾.



(1) A review of therapeutic potentials of milk thistle (Silybum marianum L.) and its main constituent, silymarin, on cancer, and their related patents. Seyyed Amir Emadi et al.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9588316/#B88

(2) A review of therapeutic potentials of milk thistle (Silybum marianum L.) and its main constituent, silymarin, on cancer, and their related patents. Seyyed Amir Emadi, et al. Oct 2022.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9588316/#B88

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- (8) Mallikarjuna G, Dhanalakshmi S, Singh RP, et al. Silibinin protects against photocarcinogenesis via modulation of cell cycle regulators, mitogen-activated protein kinases, and Akt signaling. Cancer Res. 2004;64:6349–56. https://pubmed.ncbi.nlm.nih.gov/15342425/
- (9) Skin Protective Activity of Silymarin and its Flavonolignans. Jitka Vostálová et al. Mar 2019. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6470681/
- (10) Combinations of grape seed procyanidin extract and milk thistle silymarin extract against lung cancer The role of MiR-663a and FHIT. Jenny T Mao et al. Apr 2023. https://pubmed.ncbi.nlm.nih.gov/36775115/
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https://grantome.com/grant/NIH/I01-BX004092-02

(12) Synergistic therapeutic effects of Vitis vinifera extract and Silymarin on experimentally induced cardiorenal injury: The pertinent role of Nrf2. Hani M. Abdelsalam et al.

https://www.sciencedirect.com/science/article/pii/S0753332218370987

(13) Synergistic Effect of Milk Thistle and Grape Seed Extracts on the Recovery of Fumonisin b1 Toxicity in Rats. Muhammad El-Shafeey et al. December 2012.

https://eajbsc.journals.ekb.eg/article 16126.html

Glossary of Terms

Inner Nutrition

Anti-Glycation — also called Advanced Glycation End Products. Dietary advanced glycation end products (dAGEs) are known to contribute to increased oxidant stress and inflammation, which are linked to the recent epidemics of diabetes and cardiovascular disease (JAIME URIBARRI, et al. Jul 2013)

Antioxidant — asubstance such as vitamin C or E that removes potentially damaging oxidizing agents in a living organism **Ascorbic acid (Vitamin C)** — an antioxidant needed for the growth and health of tissues in all parts of the body.

B12 – vitamin B12, also called cobalamin. B12 deficiency is associated with cognitive problems (problems with thinking, judgement, and learning) and memory issues.

B2 — is a water-soluble and heat-stable vitamin that the body uses to metabolize fats, protein, and carbohydrates into glucose for energy. In addition to boosting energy, riboflavin is an antioxidant for the proper immune system function and healthy skin and hair.

Calcium – is one of the most important minerals for the human body. Calcium helps in the formation and maintenance of healthy teeth and bones.

Cancer — Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. Cancer can start almost anywhere in the human body and usually is the result of a poor diet and lifestyle choice.

Carnosine -

is a dipeptide comprised of a beta-alanine and a 3-methyl-L-histidine, which is found in dietary red meat. It is a potential antioxidant and exhibits metal-chelating and anti-glycation activities. Carnosine scavenges both reactive oxygen species (ROS) and unsaturated aldehydes.

Cobalamin – Vitamin B12 (cobalamin) is an essential vitamin used to manage and treat pernicious anemia and spinal cord myelopathy.

D3 – is a fat-soluble vitamin essential for health. It keeps your bones strong, can improve your mental health and helps you sleep.

Diabetes — Diabetes is a chronic, metabolic disease characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys and nerves.

Gallic acid – is an antioxidant and phenolic acid found in most plants in various amounts.

Grape Seed – an orally bioavailable dietary supplement composed of an extract from grape seeds containing high amounts of polyphenols, particularly lower proanthocyanidin oligomers (OPCs) and catechins, with antioxidant and chemopreventive activities.

Milk Thistle — A substance derived from any of several Old World coarse prickly-leaved shrubs and subshrubs including the plant Silybum marianum. Milk thistle's active chemical component is silymarin, which is a combination of flavonoids such as silibinin, dehydrosilibinin, silychristin and silydianin.

Niacin — also known as Vitamin B3 or nicotinic acid, is produced by plants and animals from the amino acid tryptophan and is used to treat pellagra, which causes anemia, headaches and tiredness.

Riboflavin - also called vitamin B2, is a vitamin that the body uses to metabolize carbohydrates, fats, and protein into glucose for energy. It also acts as an antioxidant for the proper functioning of the immune system, healthy skin, and hair.

