

Horphag Research Unveils New Ad Campaign

Horphag Research unveils a new advertising campaign showcasing the unique health benefits of Pycnogenol® for skin, joint, eye, heart, cognitive function, and sports nutrition. The new creative represents the evolution of the Pycnogenol® brand while continuing to stay true to its commitment to science. Look for the new advertisements in trade magazines, consumer publications, and industry trade websites, or visit www.pycnogenol.com.



Like Us on Facebook!

The official Pycnogenol® Facebook page has launched! Facebook provides a unique opportunity and community to share real-time information on our flagship ingredient with you, our valued customers, as well as thousands of consumers.

We invite you to visit the page at www.facebook.com/pycnogenol and to “like” Pycnogenol® so that you can receive continuous research updates, news, and marketing materials. The site will grow and change over the coming weeks as we continue to develop its content, so we encourage you to check back regularly.

We hope the page serves as a tool to help you further your business and stay on the cutting edge of Pycnogenol® news.



welcome

We are throwing our hat in the cognitive function ring with a new standout study on Pycnogenol® supplementation and memory improvement in both young and elderly individuals.

I am also pleased to share some exciting details on several new global product launches that truly exemplify innovation for sports nutrition and beauty from within.

Pycnogenol® is now part of the Facebook community, and we encourage you to “like” our page and take advantage of this new option for you to receive regular news updates.

I look forward to reconnecting with many of you at upcoming trade shows and meetings in the months to come.

Best Regards,



Victor Ferrari
Chief Executive Officer
Horphag Research

Horphag Research

PO Box 80
Avenue Louis-Casaï 71
CH-1216 Cointrin/GENEVA
Switzerland

featuring...

PYCNOGENOL® FOR COGNITIVE FUNCTION

THE LATEST PRODUCTS USING
PYCNOGENOL®

PYCNOGENOL® SHOWN TO IMPROVE
VISIBLE SIGNS OF AGING

PYCNOGENOL® NATURALLY IMPROVES
MENOPAUSE SYMPTOMS

Pycnogenol® French maritime pine bark extract, is a registered trademark of Horphag Research Ltd and is protected by U.S. patents #5,720,956 and #6,372,266 and other international patents.
www.pycnogenol.com

REPORT

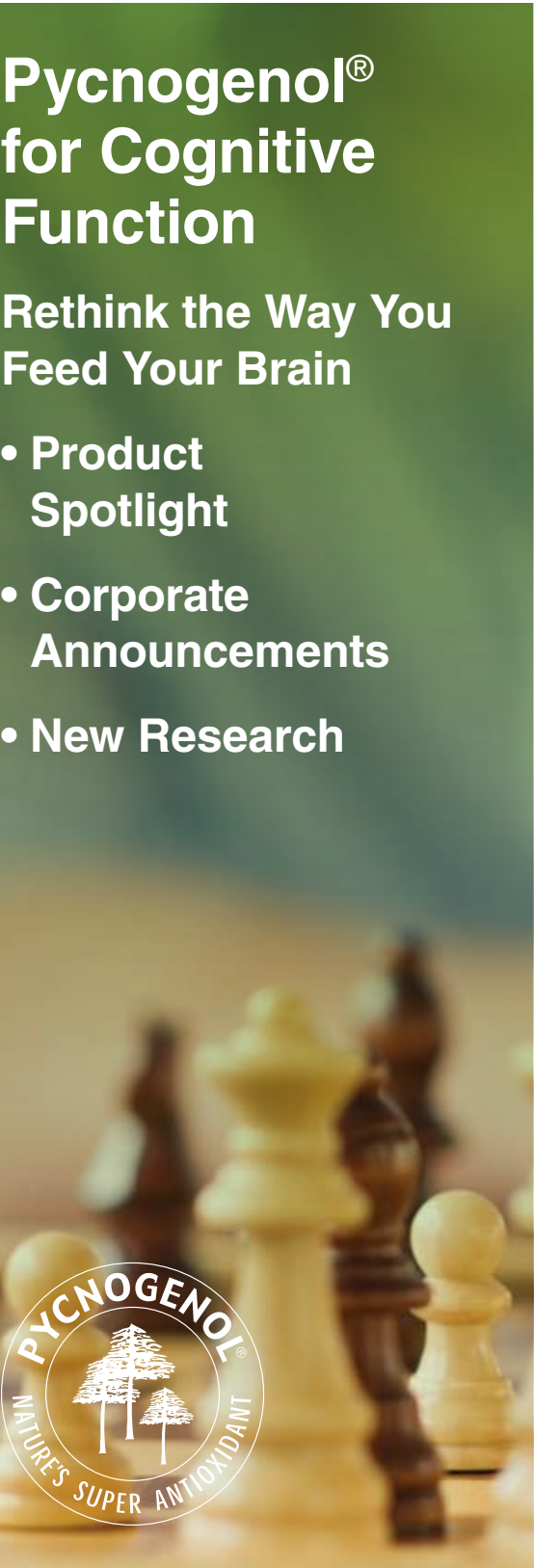
ISSUE 19 2012

LOOK, FEEL AND LIVE BETTER

Pycnogenol® for Cognitive Function

Rethink the Way You Feed Your Brain

- Product Spotlight
- Corporate Announcements
- New Research



Pycnogenol® for Cognitive Function

Rethink the way you feed your brain

From tying string around a finger to listening for the familiar beep of a cellular phone, technology continues to revolutionize how one remembers important information. Despite these methods for daily reminders, who has the ability to remember it all?

Improve your natural memory ability by powering your brain with a healthy diet and supplement regime. New to the scene of natural cognitive enhancers is botanical extract Pycnogenol®, which has demonstrated memory improvement in both students and seniors.

Recent research published in *Panminerva Medica* found that Pycnogenol® significantly enhanced mental performance in healthy college students. The study examined 53 Italian university students, aged 18-27. After supplementing with 100 mg of Pycnogenol® per day, for eight weeks, the study found that Pycnogenol® effectively enhanced mental performance, including improved sustained attention, memory, and mood in students. Students taking Pycnogenol® had higher test scores on university exams than the control group and experienced significantly improved alertness and contentedness. Results showed that not only did Pycnogenol® decrease test anxiety by 17 percent, but also confirmed Pycnogenol®’s ability to improve mental performance by evaluating students’ scores on exams.

According to the lead researcher, Dr. Gianni Belcaro, oxygen-rich blood supply to the brain is important for cognitive function, which Pycnogenol® enhances by improving overall vascular function.



While this is great news for young students, how does Pycnogenol® benefit the rest of the population? A previous study confirms findings that Pycnogenol® effectively improves cognitive function in senior individuals. Research published in the *Journal of Psychopharmacology* demonstrated that Pycnogenol® supplementation improved both numerical working memory as well as spatial working memory.

The study examined the effects of Pycnogenol® on a range of cognitive and biochemical measures in 101 senior individuals, aged 60-85. The study also examined the “oxidative stress” hypothesis of ageing and neuronal degeneration as it relates to normal changes in cognition in elderly individuals. Participants consumed a daily dose of 150 mg of Pycnogenol® for three months. After treatment, a marker known as F2-isoprostanes significantly decreased with Pycnogenol®, but not in the placebo group, as demonstrated by blood samples. F2-isoprostanes develop by oxidation of unsaturated fatty acids, which are present in particularly high quantities in nerve cell membranes. The coincidence of Pycnogenol® significantly improving memory after three months and the oxidation of nerve membranes being significantly inhibited suggests that the anti-oxidant activity of Pycnogenol® plays a major role in clinical effects.

Researchers suggest that several physiologic contributions of Pycnogenol® may have contributed to the improved cognitive function of investigated students, namely antioxidant potency and blood circulation improvement. While the results are promising, they need to be further investigated in a larger population group.

Similar conclusions were drawn in the study with elderly subjects. The researcher, Dr. Con Stough, remarked that the results support research from a range of disciplines that suggests that antioxidants may aid in preserving or enhancing specific mental functions. Cognitive research in this area specifically indicates that the putative benefits associated with antioxidant supplementation are associated with memory.

While Pycnogenol®’s cognitive function benefits are in the process of being investigated further, combination formulas with Pycnogenol® for memory are also being explored.



Fruit Flavored Gel Supplement, PULZ™

Developed and introduced by Berry.En, a German manufacturer of high-end nutritional products, **PULZ™** is a unique functional gel supplement designed to naturally support the cardiovascular system.

The special formulation of highly efficient and proven components in Berry.En PULZ™ includes 50 mg of Pycnogenol®, Resveratrol, L-Carnitine, Taurine, Coenzyme Q10, Vitamin E and folic acid. The potent combination supports heart, blood vessel and circulatory health.

Clinical research has shown that botanical ingredients like Pycnogenol® promote heart health through blood pressure control, cholesterol maintenance and circulation enhancing properties.

The fruit flavored gel pack is designed for health conscious individuals, including athletes, to incorporate into their everyday diet and exercise routine. The product is available in the official Berry.En Store, www.berryenstore.com, and through independent distributors in many European countries. For more information on Berry.En markets and products, visit www.berryen.com.



Dietary Supplement Flebon®

Introduced by Farmoquímica in Brazil last year, **Flebon®** is a dietary supplement containing 50 mg of Pycnogenol®. The supplement is designed to manage symptoms of chronic venous insufficiency.

Research has shown Pycnogenol® effectively helps against the typical subjective symptoms of venous insufficiency including pain, cramps and the “feeling of heaviness.” It seals fragile veins and capillaries and effectively reduces lower leg and foot swelling. Pycnogenol®

is anti-inflammatory, enabling fragile blood vessels to heal and recover completely. Finally, studies have shown it reduces platelet aggregation without increasing bleeding time, thus helping to avoid complications such as deep vein thrombosis.

Flebon® has obtained OTC registration in Brazil by the local authorities, Anvisa, and recommends a daily dose of three tablets. Please visit www.fqm.com.br for more information.



Three Elite Performance Products from USN

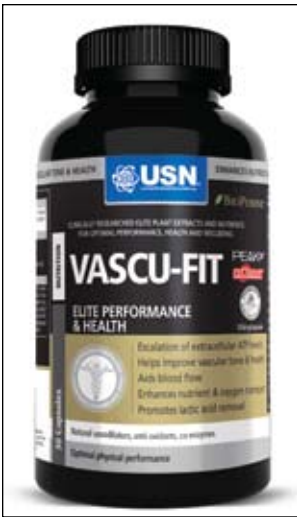
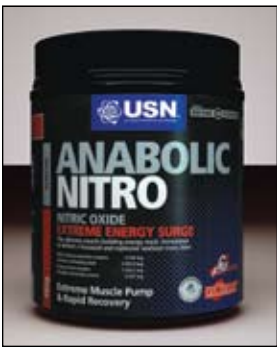
Ultimate Sports Nutrition has launched the ultimate muscle building energy stack, **ANABOLIC NITRO-X**. Formulated to deliver a focused and explosive workout, key ingredients Pycnogenol®, creatine and Vitargo® agglomerated barley starch work in combination to provide potential benefits to significantly enhance nitric oxide generation, assistance in generating energy during workouts and speeding muscle recovery between sets, all resulting in muscle gain.

SPRINT PRO RACE FUEL is a new pre- and during-exercise beverage designed to deliver energy and peak performance for up to 90 minutes. Active ingredients Pycnogenol® and Pure Creatine monohydrate work synergistically to provide significant enhancement of nitric oxide generation, explosive energy during strenuous activity and hastening muscle recovery between races/training sessions.

USN’s **VASCU-FIT** is a nutritional supplement developed for optimal performance, health and well-being. It is a unique formulation of scientifically tested polyphenol-rich fruit extracts, Vitamin B12, Pycnogenol® (100mg), Vinburnine and absorption enhancers. VASCU-FIT elevates the body’s extracellular ATP levels (Anaerobic Energy), helps to improve vascular health, aids in stimulating blood flow to peripheral sites, provides an efficient mechanism for removal of catabolic waste products such as lactic acid and provides excellent free radical scavengers during stressful situations.

All three elite performance products developed with Pycnogenol® harness the botanical extract’s ability to stimulate the enzyme endothelial nitric oxide synthase which has been clinically proven to increase vasodilation, consequently improving blood micro-circulation. It was also demonstrated

in controlled clinical trials to speed up the healing of harmed tissue, to reduce pain and cramps in training, as well as to improve endurance capacity. The products are available at these distribution outlets in UK/Europe: Holland & Barrett, GNC, DW Gyms, Muscle Fines, Evolution Nutrition, CLF, TROPicana, and everywhere online. And in South Africa, you can find them in these stores: Dis-Chem, Clicks, Sportsman’s Warehouse, Massmart stores, and independent pharmacies. For more information visit www.usn.co.za.



Pycnogenol® Shown to Improve Visible Signs of Aging

Natural supplement Pycnogenol® was found to improve skin at a physiological and molecular level, increasing skin hydration by eight percent and elasticity by 25 percent in women in a trial recently published in *Skin Pharmacology and Physiology*. According to researcher Dr. Jean Krutmann, Pycnogenol® is the only natural supplement to date that stimulates hyaluronic acid production in human skin.

The study examined 20 healthy women, aged 55-68 years. Participants were given 75 mg of Pycnogenol® per day, over a 12-week period. Skin hydration, elasticity, and fatigue were assessed by noninvasive biophysical methods at trial start and after six and 12 weeks. The study found that Pycnogenol® elevated gene expression COL1A1 by 29 percent, COL1A2 by 41 percent and increased hyaluronic acid production in skin by 44 percent. Pycnogenol® also decreased skin fatigue considerably, reduced skin wrinkles by three percent and increased skin smoothness by six percent.



Pycnogenol® Naturally Improves Menopause Symptoms

Pycnogenol® was found to significantly improve signs and symptoms of menopause and decreased elevated levels of oxidative stress, while helping to manage heart health, which is particularly important as menopausal women live at elevated risk for cardiovascular disease. The study examined 70 perimenopausal women, aged 40-50. After supplementing with 100 mg of Pycnogenol® per day (50 mg taken twice daily), over eight weeks, the study concluded that Pycnogenol® substantially improved perimenopausal signs and symptoms including hot flashes, night sweats, mood swings, irregular periods, loss of libido and vaginal dryness after treatment, as judged by patients’ scores, showing a decrease from an average of 2.67/4 to 1.45/4.

Pycnogenol® also effectively decreased the severity of bloating, irregular heart beat, and digestive problems. Additionally, oxidative stress levels decreased significantly after Pycnogenol® supplementation.



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Publication

THE REPORT

LOOK, FEEL AND LIVE BETTER



Pycnogenol® in Menopause

Feeling Healthy and
Beautiful at any Age

New Research

Pycnogenol® Relieves
Symptoms of Restless
Legs Syndrome

Product Spotlight

Modex® Natural, White Pine®,
Vita S, Me.No.Pause and
Don't Sweat It

Focus on
Menopause



PYCNOGENOL®

feature story

Pycnogenol® in Menopause

Feeling Healthy and Beautiful at any Age

By: Franziska Weichmann, PhD
Manager of Scientific Communications/Product Development
Horphag Research

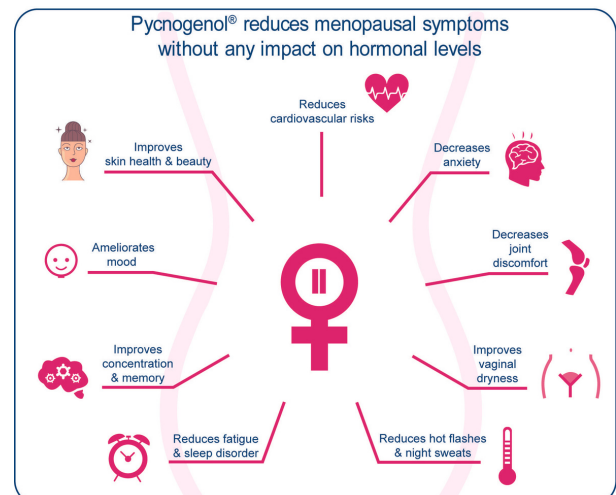


Menopause not only marks the end of fertile years, but it affects various physiological systems as a result of hormonal fluctuations. Climacteric symptoms include cognitive impairments, sexual dysfunction (vaginal dryness, loss of libido, dyspareunia), vasomotor symptoms (hot flashes, sweats), increased risk of cardiovascular problems, depressed mood, sleep disruption, joint and muscle aches and impaired sense of attractiveness (1, 2). This life-changing phase in all women's lives between 45 and 55 years can last from a few months up to 4 years (3). Interestingly, women from different cultures perceive the severity and mere occurrence of various symptoms very differently (4).

Hormone therapy (especially estrogen-progestogen preparations) has for a long time been a common way to treat menopausal symptoms. However, this treatment may cause an increased risk of severe adverse effects, including venous thromboembolism, strokes and even breast cancer (5). Thus, many women are looking for non-hormonal and natural ways to cope with the signs and symptoms of menopausal transition. Pycnogenol®, French maritime pine bark extract is a natural antioxidant and anti-inflammatory food supplement and was found to have beneficial properties for the various health impairments in perimenopausal women. It has been established that Pycnogenol® does not only improve menopausal symptoms but it also helps with cardiovascular, joint and skin health without affecting hormone levels (6).

Pycnogenol® relieves menopausal symptoms

To date, almost 500 menopausal women took part in different studies investigating the effect of Pycnogenol® on climacteric symptoms (6-9). A randomized, double-blind placebo-controlled 6-month study with 155 peri-menopausal women found all symptoms of the Women's Health Questionnaire (WHQ) to be significantly improved in the Pycnogenol® supplementing subjects, as compared to placebo controls (7). The symptoms on the WHQ include somatic (tiredness, headache) and vasomotor problems (hot flashes, sweating), depressed mood, memory and concentration issues, attractiveness, anxiety, sexual behavior, sleep, and menstrual problems.



feature story continued

In another study, the symptoms of 70 women in menopausal transition were evaluated with 38 subjects being supplemented with 100 mg Pycnogenol® per day for 8 weeks (8). The scoring system included 33 common signs and symptoms of menopausal complaints, which were improved significantly after Pycnogenol® intake. A significant efficacy of a low dosage of Pycnogenol® (60 mg daily) on climacteric symptoms could be shown in a randomized, double-blind placebo-controlled investigation with 170 women (6).

Menopause is a leading risk factor of cardiovascular disease (10). Supplementation of peri-menopausal women with 100 mg Pycnogenol® per day for 6 months was shown to normalize elevated blood pressure and to improve the lipid profile (9). Factors, connected to cardiovascular events (homocysteine and CRP values) were improved significantly and blood plasma free radicals were decreased significantly by 22%. Additionally, almost all symptoms of a menopausal questionnaire with 34 items, were improved after Pycnogenol® supplementation.

Being the lead active ingredient in the context of a patented complex dietary formulation (Lady Prelox®), Pycnogenol® has also been shown to be beneficial in peri- and post-menopausal women, regarding vaginal dryness, sexual function and emotional and physical health (11-13).

Pycnogenol® improves skin, joint health and maintains a healthy cardiovascular system in menopausal women

In over 20 published dermatological clinical investigations, Pycnogenol® was shown to provide numerous health benefits to the skin. These benefits include decreased pigmentation, increased skin hydration, improved skin microcirculation and greater skin elasticity, leading to a beautifully glowing skin appearance with less wrinkles (14-21). Many menopausal women complain about increased joint pain and indeed, there are several hypotheses regarding the decreasing estrogen levels during menopause influencing osteoarthritis prevalence and severity (22). Pycnogenol® has been shown to act beneficially in patients with signs of osteoarthritis, decreasing inflammation, pain, need for analgesic medication and stiffness and improving physical function (19, 20, 23-28).

The frequency and severity of perimenopausal symptoms was associated with vascular/endothelial dysfunction, explaining the increased risk for cardiovascular diseases (29). One of the vastly researched properties of Pycnogenol® is its positive effect on the vascular and endothelial health (7, 30-32). The suggested mechanism of action of Pycnogenol® is an activation of the endothelial nitric oxide synthase, which leads to an optimized NO generation. This results in vasorelaxation and improved tissue perfusion.

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For more information, please visit www.pycnogenol.com.

product spotlight

Modex® Natural is a patented performance nutrition formula designed to improve performance, aid recovery and enhance cognitive function.

Launched in Australia, **Modex®** is an easy to digest liquid, optimal for absorption and ideal for all levels of fitness. The blend of natural ingredients includes Pycnogenol®, aloe vera, papain enzyme and honey which provide potent anti-inflammatory and antioxidant properties with clinically proven benefits. Pycnogenol® helps the body and brain achieve peak performance in both athletes and healthy individuals because it is clinically proven to enhance blood microcirculation, reduce inflammation, neutralize free radicals and regenerate collagen and hyaluronic acid. Papain enzymes play a key role in clearing your stomach at an optimal rate to maximize absorption.

Modex® liquid tonic is best taken daily or before working out. Consume 100ml 1 - 4 hours prior to training/race or game day or take 30ml anytime of the day to maintain general health and fitness. A suitable loading period when first starting is 100ml daily for 2 weeks. For more information visit www.modexnatural.com.



Vita S Vitamin by Dr. Awie is a versatile beauty supplement launched in Thailand and utilizes Pycnogenol®'s clinically researched skin benefits for healthy skin from within.

The formula's main ingredients are Pycnogenol® and Apple phenol, a green apple extract imported from Japan. Pycnogenol® is a powerful antioxidant that has been shown to help reduce pigmentation and address skin concerns like blemishes, reduce acne scars and increase skin lighting during seasonal changes when dark spots can emerge. The extract also reinforces skin barrier function for those exposed to urban environmental pollution.



Vita S By Dr.Awie is available in a variety of box sets ranging from 1-10 boxes. The manufacturer recommends taking 2 capsules in the morning and 2 capsules in the evening. Follow [@DrAwie_vitas](https://twitter.com/DrAwie_vitas) for more information.

White Pine® Pycnogenol® is a comprehensive beauty line featuring oral and cosmetic formulas created for healthy and younger looking skin.

Developed in India, **White Pine®** is available in 25mg or 50mg Pycnogenol® capsules along with a selection of topical serums including Red Oil, Detox Mousse and Mirror Glaze. When it comes to antiaging and antioxidant activity, the patented extract Pycnogenol® is 50 times more potent than vitamin E and 20 times more potent than vitamin C. The formulation provides clinically researched skin benefits as it moisturizes, elevates hyaluronic acid generation, stimulates synthesis of new collagen, increases skin elasticity, reduces skin fatigue and pigmentation for even, brighter looking skin, arrests activity of enzymes breaking-down collagen and elastin and helps limit photo-aging.



White Pine® Pycnogenol® is available exclusively at CHOSEN, one of India's leading cosmetic retail stores in 11 different SKUs.



Womaness™ launches **Me.No.Pause.**, a natural menopause supplement designed to support menopause symptoms including hot flashes, night sweats, memory and mood.

The hormone-free formula includes selected ingredients with remarkable clinical results including Pycnogenol® which supports healthy blood circulation to help manage hot flashes and night sweats and insomnia; Bacognize® (a Bacopa monnieri extract) which supports cognitive health, memory, and focus; and adaptogen ashwagandha, known for its benefits to help mind and body better handle stress and promote libido.



Me.No.Pause. is the latest addition to the Womaness™ selection of menopause product solutions. It's available in the United States and was awarded one of W Magazine's "Best Vitamin Supplements of 2021". For best results, adults should take daily for at least four weeks or as directed by a doctor. For more information visit www.womaness.com.

new research | corporate announcements



Don't Sweat It, developed by Awesome Woman for Wellness & Beauty

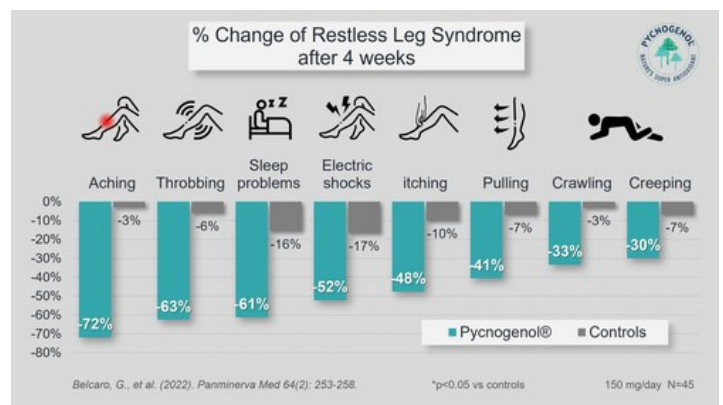
Dry skin, fine lines and hot flashes stealing your peace? **Don't sweat it.** Made with a powerful blend of Pycnogenol®, grape seed extract, B-vitamin complex, vegan vitamin D3, plus calcium and phosphorus, this potent little capsule is a godsend for women 35+. It not only helps relieve common symptoms like night sweats and hot flashes, it packs amazing skin benefits—boosting hydration and fighting fine lines and dullness. It also supports heart, bone and joint health, while helping ease moodiness and irritability. More about the hero ingredient: Pycnogenol® is a 100% pure, patented ingredient backed by 40 years of research and 135 clinical trials with numerous health and beauty benefits for women in the (peri) menopause years.



Don't Sweat It is available as a beauty-from-the-inside supplement on **Birchbox.com** and as part of the **AwesomeWoman.com** complete healthcare experience for women.

Pycnogenol® Relieves Symptoms of Restless Legs Syndrome

Newly published research in *Pain Medicine* found Pycnogenol® helps relieve and may prevent symptoms associated with Restless Leg Syndrome (RLS). After four weeks of daily supplementation with 150mg of Pycnogenol®, results included a significant decrease in Restless Legs Syndrome symptoms, including crawling, throbbing, aching and sleep problems. Additionally, the need for pain managements was significantly reduced for those in the Pycnogenol® group.



Remembering Dr. Richard Passwater

"Our hearts are saddened by the recent loss of Dr. Richard Passwater. We have had the pleasure of collaborating with him for more than 30 years on various projects including groundbreaking research discoveries, six educational books on Pycnogenol® and decades of enlightening conversations and interviews for his Vitamin Connection column published in *Whole Foods* magazine. Dr. Passwater was truly an industry pioneer and a brilliant scientist. We have lost a great colleague and a treasured friend. We will miss him dearly. Our thoughts continue to be with his wife Barbara and sons."

– Victor Ferrari, CEO Horphag Research



Dr. Passwater participating in a book signing at the Horphag Research booth at SupplySide West trade show in 2015.

Improving Women's Health



welcome

It is gratifying to see the many ways our customers apply the clinical studies on the benefits of Pycnogenol® to bring innovative products to market. In this issue you will see how Pycnogenol®'s benefits for women's health, specifically menopause, lead to the development of result-oriented solutions for the consumer.

Our science-based research group continues to produce important findings. With newly published work on Restless Leg Syndrome we highlight how Pycnogenol®'s circulation boosting attributes effectively reduce symptoms.

As always, please let us know how we can continue to support you in market. We look forward to seeing you soon!

Best Regards,

A handwritten signature in black ink, appearing to read 'V. Ferrari'.

Victor Ferrari
Chief Executive Officer
Horphag Research

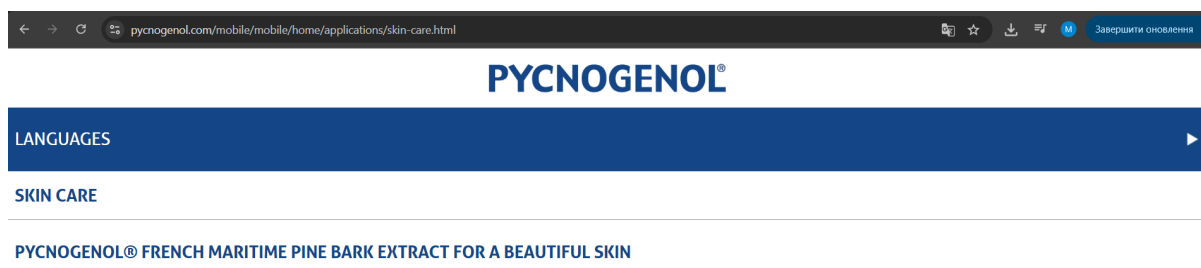
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- Menopause
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- Product Spotlight
- Corporate Announcements

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Pycnogenol® is a registered trademark of Horphag Research. Use of this product may be protected by one or more U.S. patents and other international patents.



How Pycnogenol® helps from both inside and out?

Pycnogenol® French maritime pine bark extract is widely used in topical and oral applications for various dermatological indications. A unique combination of pharmacological functions of Pycnogenol® provides an unmatched variety of health benefits for skin health.

Wrinkles

Pycnogenol® binds with skin proteins collagen and elastin, and protects skin from various harmful enzymes helping to rebuild elasticity, essential for a smooth, younger look.

Hyper-Pigmentation & brown spots

Pycnogenol® helps promote the «glow» and reduce over-pigmentation for a more even complexion (brown spots).

Suncare

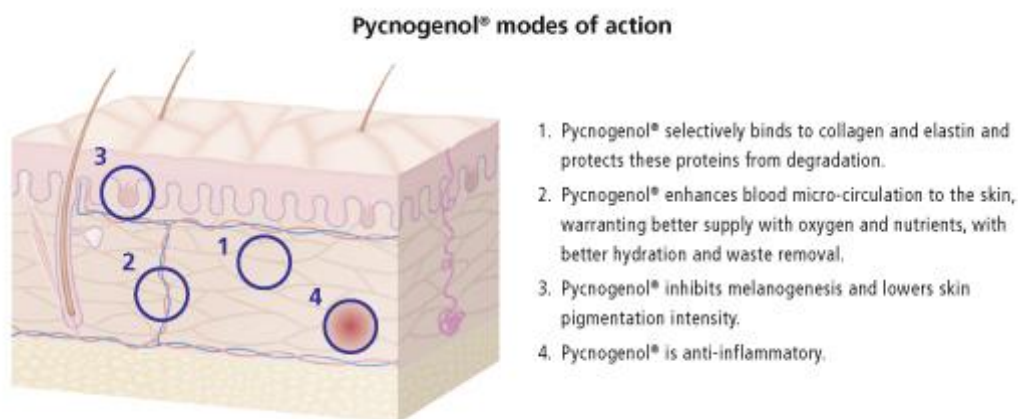
Sunburn is an inflammation caused by free radical induced tissue damage. By neutralizing these free radicals, Pycnogenol® helps protect skin from the stress and damage of sunburn and photoaging.

Scar Formation

Several clinical studies have shown that Pycnogenol® protects the collagen matrix and increases skin stability during healing.

Pycnogenol® binds and protects collagen and elastin

Pycnogenol® protects elastic tissue proteins and stimulates genesis of new collagen and hyaluronic acid in human skin



Pycnogenol® has a high affinity to the amino acid hydroxy-proline, which is present exclusively in matrix proteins collagen and elastin.

In consequence, Pycnogenol® (and also its metabolites) protects these proteins from free radical damage and enzymatic degradation.

Recent research identified enhanced collagen synthesis with Pycnogenol® in skin of human volunteers. Pycnogenol® further increased synthesis of hyaluronic acid in women's skin, corresponding with better skin elasticity and water retent

Pycnogenol® enhances blood micro-circulation in the skin

Pycnogenol® enhances generation of endothelial nitric oxide (NO) which is the key mediator facilitating arterial relaxation and consequently allows for optimal blood flow.

Taken orally, Pycnogenol® was found to increase blood perfusion of the skin and oxygen partial pressure increased and, conversely, carbon dioxide concentration decreased. This study demonstrated an improved healing of wounds (ulcers) in individuals with micro-circulatory disorders.

An improved blood perfusion of the skin warrants optimal supply with all important nutrients as well as better hydration to support skin vitality.