

# PYCNOGENOL<sup>®</sup>

40+ YEARS OF RESEARCH

160+ CLINICAL TRIALS

450+ SCIENTIFIC PUBLICATIONS



Pycnogenol<sup>®</sup> derived from French Maritime Pine bark extract is one of the most researched plant antioxidants on the planet with 40+ years of research, 160+ clinical trials and 450+ scientific publications.

This 100% pure French maritime pine bark extract is Non-GMO, sustainably sourced, free from ethylene/propylene oxides and regulated for pesticides, heavy metals and aflatoxins.

Pycnogenol<sup>®</sup> is a powerful antioxidant, natural anti-inflammatory, stimulates synthesis of hyaluronic acid and aids in the production of endothelial nitric oxide.



# MAJOR FIELDS OF APPLICATION



## SKIN CARE

Helps protect the skin against free radicals generated by UV, stress and pollution, and maintain its elasticity and hydration.



## EYE HEALTH

Supports healthy retinal capillaries for better vision.



## JOINT CARE

Provides support for better flexibility and mobility of joints. Natural anti-inflammatory.



## WOMEN'S HEALTH

Reduces menstrual disorder, menopausal and endometriosis symptoms.



## COGNITIVE HEALTH

Improves memory, as well as numerical and spatial capacities.



## RESPIRATORY HEALTH

Inhibits pro-inflammatory mediators, reduces edema and supports healthy respiratory function.



## HEART AND CIRCULATION

Helps maintain healthy circulation, blood flow and blood pressure.



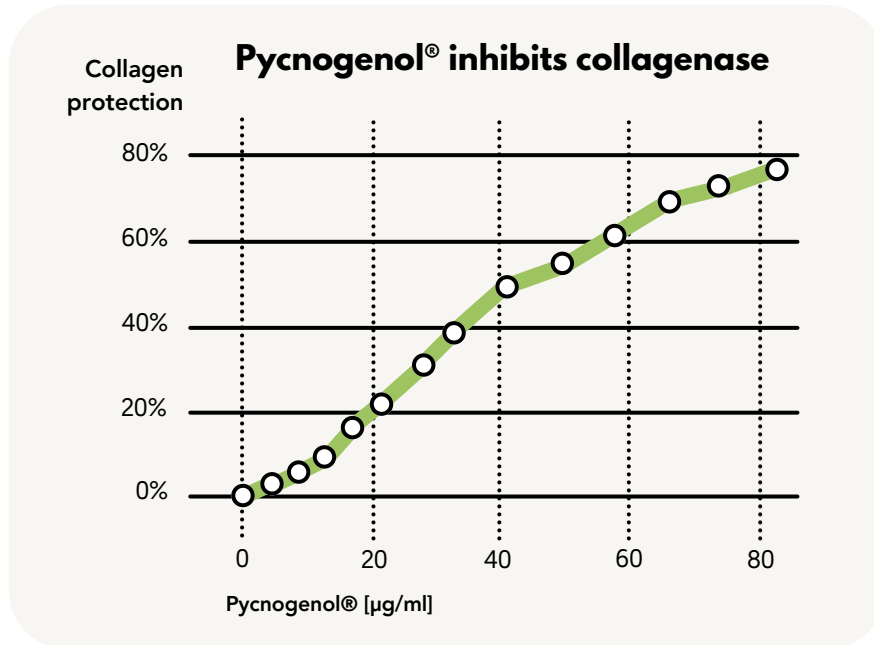
## SPORTS

Supports optimal muscle performance, better recovery and reduces muscular pain.

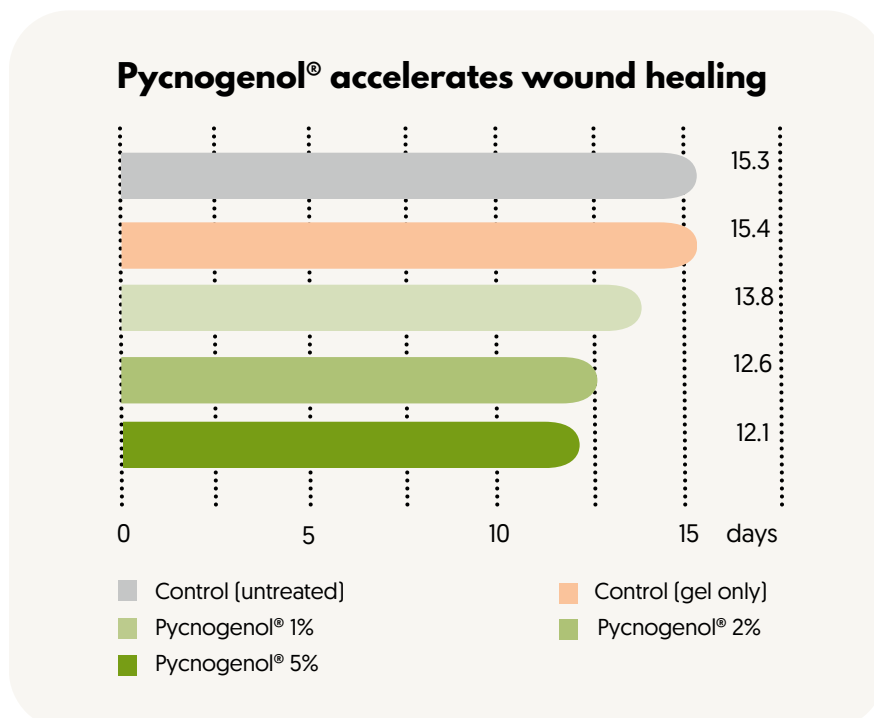
# PYCNOGENOL

## IN SKIN CARE

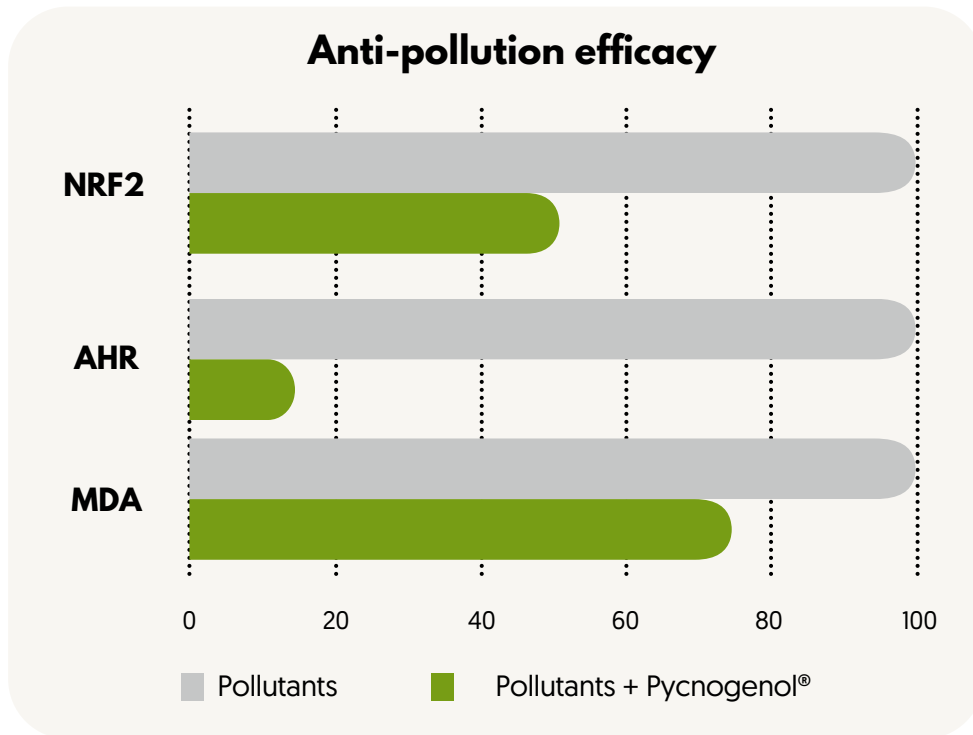
- Pycnogenol protects collagen and elastin in the skin by inhibiting collagen-degrading enzymes.



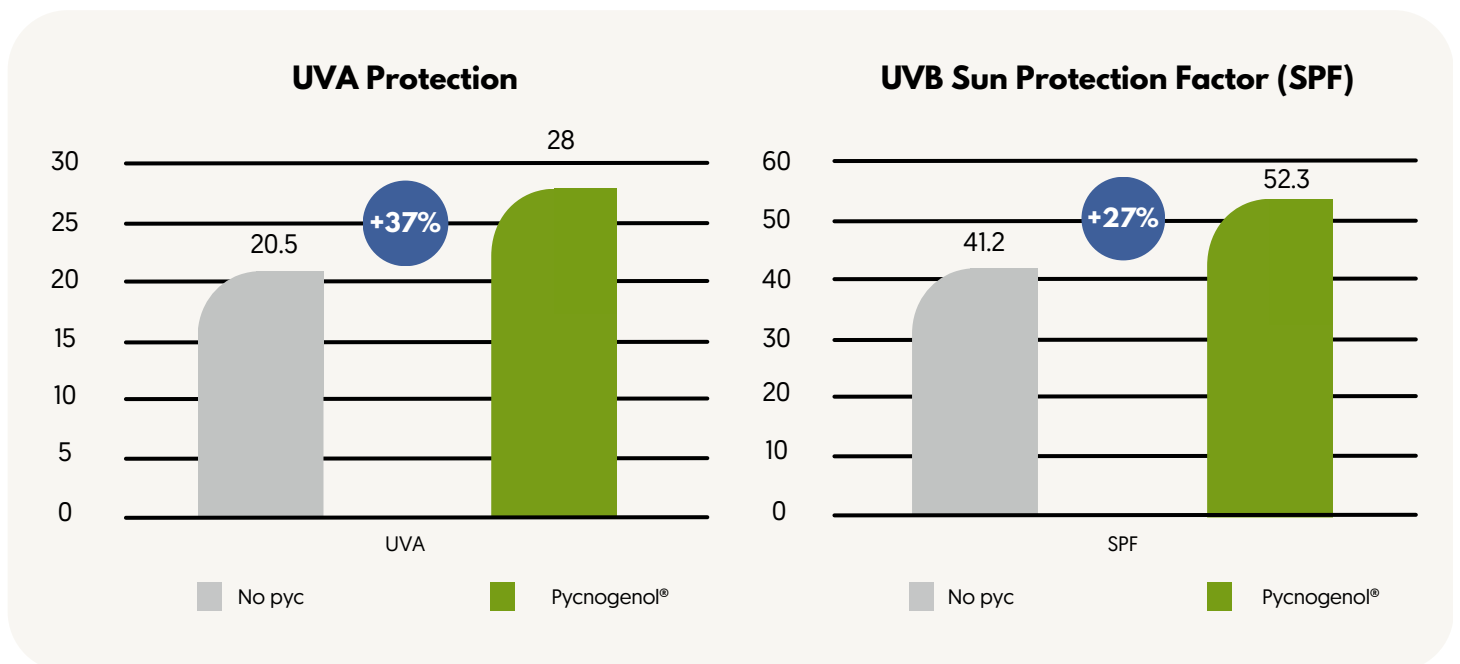
- Pycnogenol when applied topically was found to accelerate wound healing and lower scar formation.



- Pycnogenol was shown to act as an antipollution agent on both sides of the skin and inhibit oxidative stress induced by various pollutants.

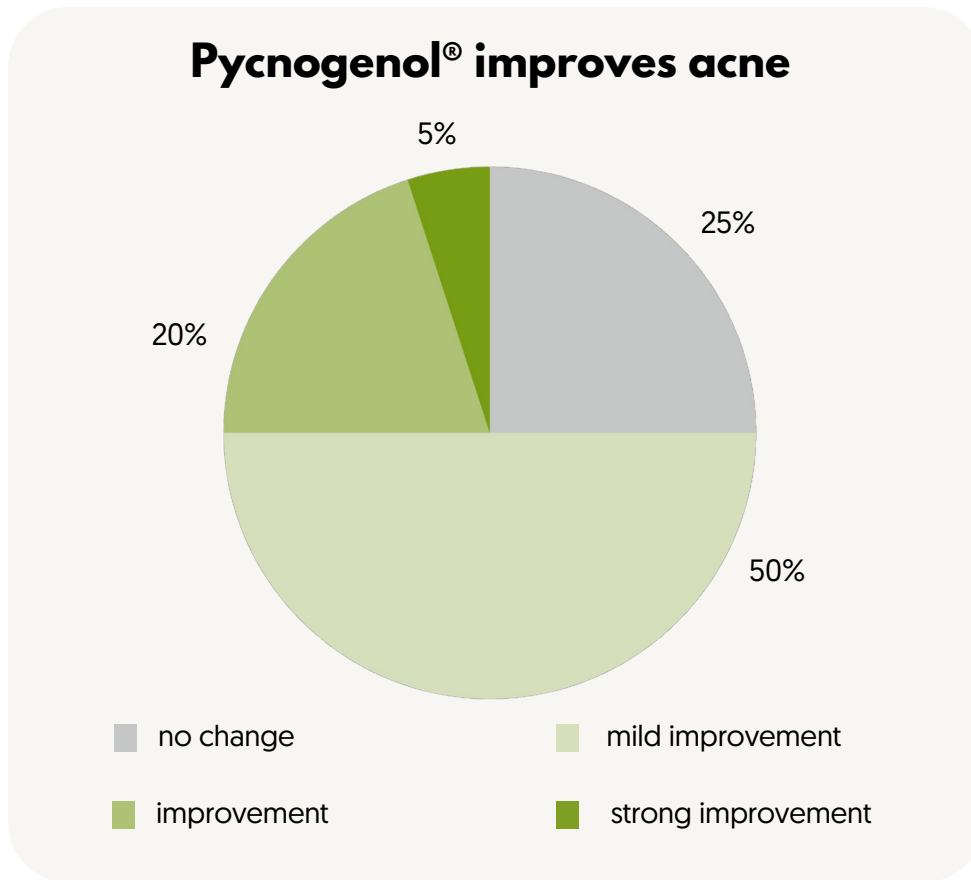


- Pycnogenol, when applied topically, was found to effectively counteract sunburn and photoaging.

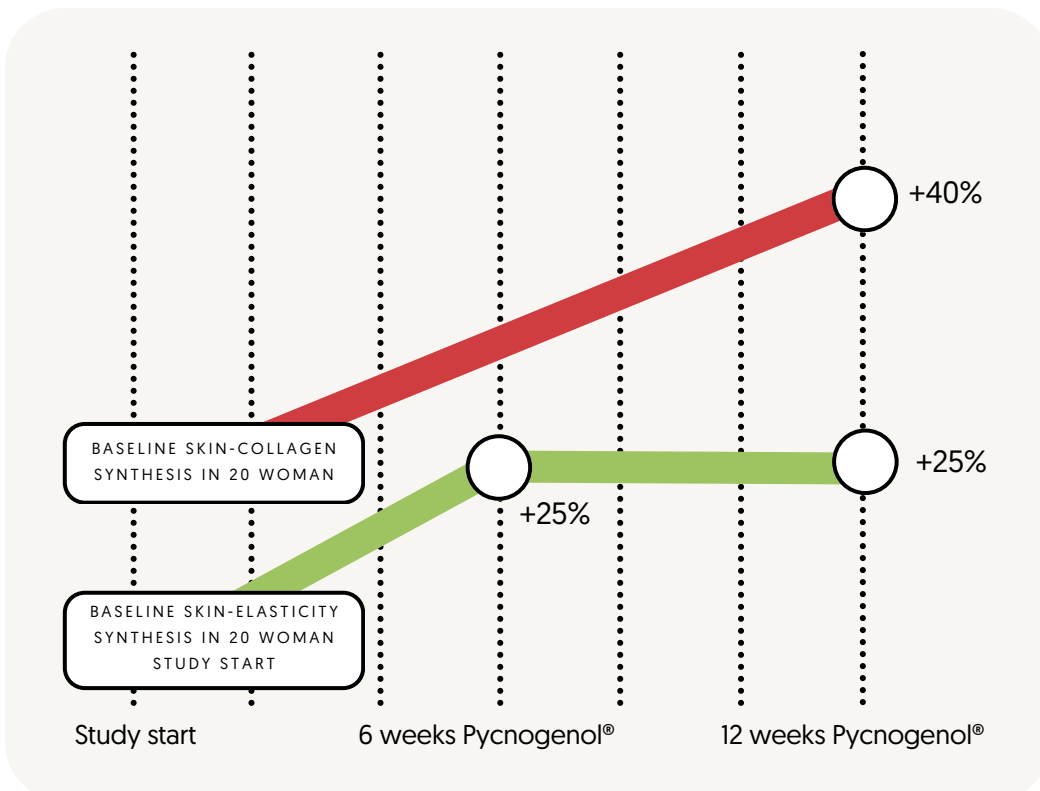


- Pycnogenol was studied to exhibit broad-spectrum antimicrobial action against a wide range of gram-positive, gram-negative bacteria as well as yeast.

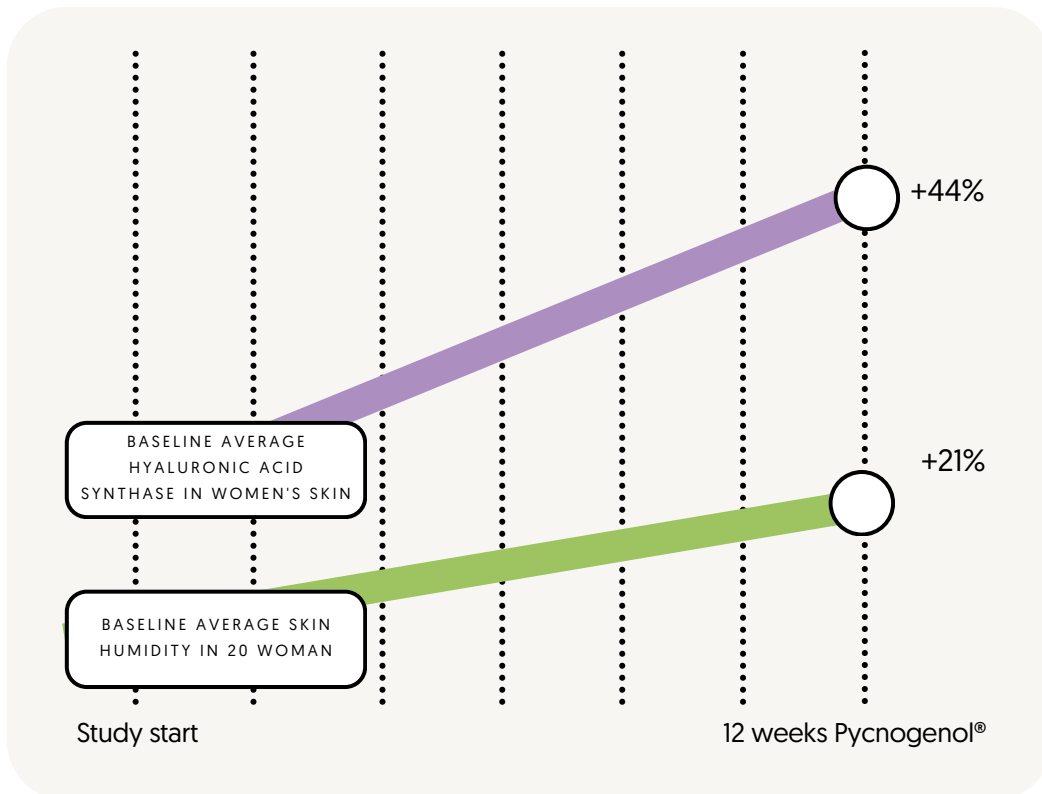
- Topical application of Pycnogenol was found to be effective against acne due to its antimicrobial and anti-inflammatory properties.



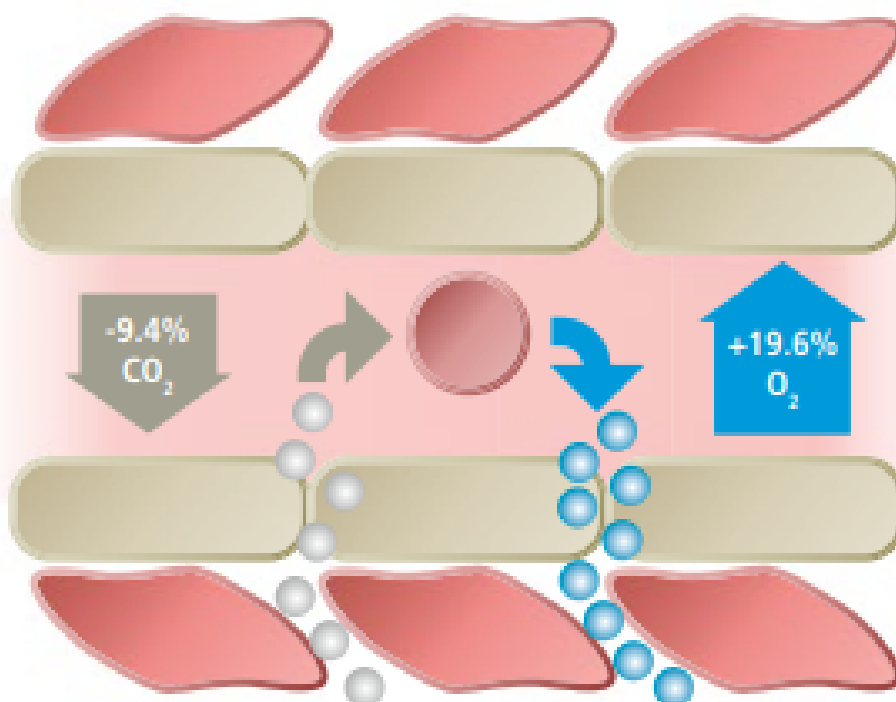
- Pycnogenol was proven to increase skin elasticity by stimulating the synthesis of new collagen in the skin.



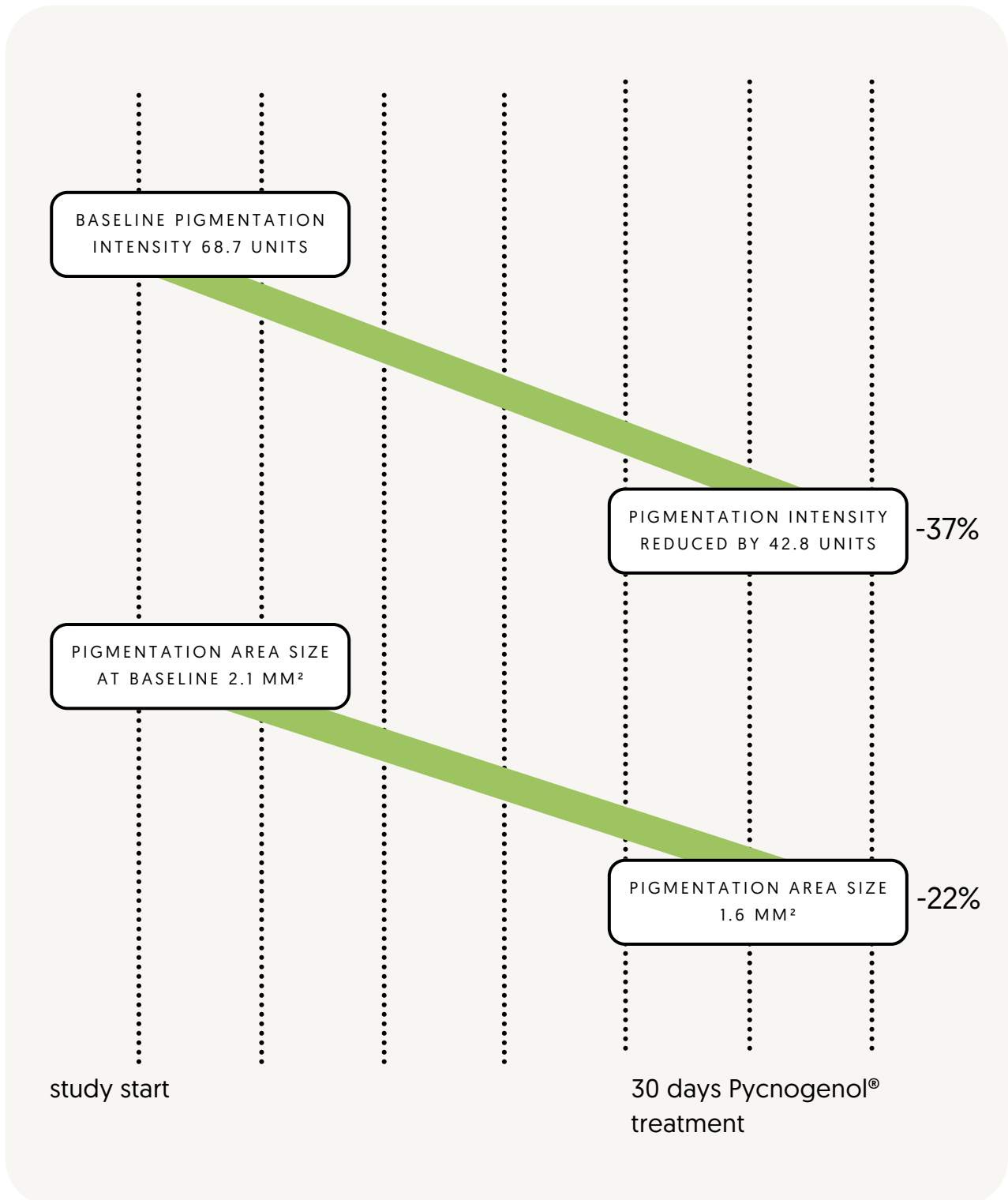
- Pycnogenol significantly elevates hyaluronic acid synthesis in the skin, which in turn elevates skin hydration and reduces skin dryness.



- Pycnogenol was demonstrated to increase blood perfusion of the dermis, resulting in greater oxygen and nutrient abundance as well as better waste removal.



- Pycnogenol was proven to lower sun-induced hyperpigmentation and brighten skin tone.

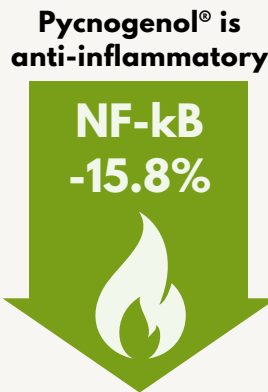




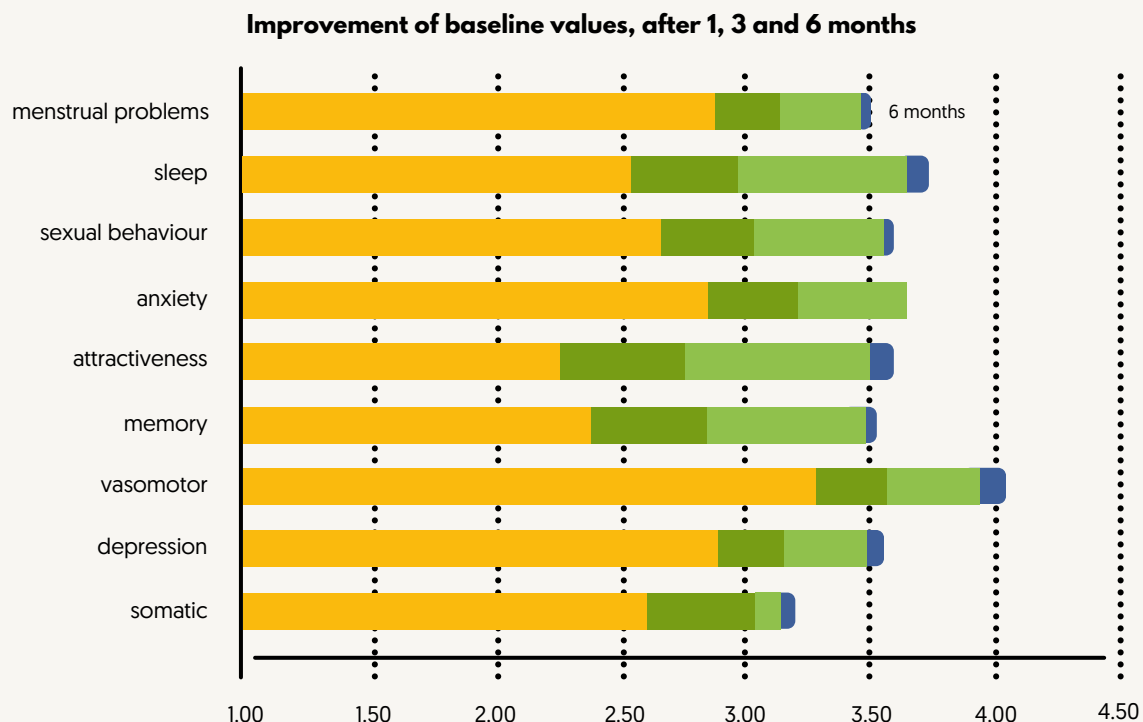
# PYCNOGENOL

## WOMEN'S HEALTH

- Pycnogenol was proven to exhibit anti-inflammatory effects against dysmenorrhoea.



- Pycnogenol® was found to significantly improve perimenopausal symptoms like fatigue, concentration and memory problems, hair loss, dizziness, weight gain, bloating, brittle nails, irregular heartbeat, depression, anxiety, irritability and panic disorder.

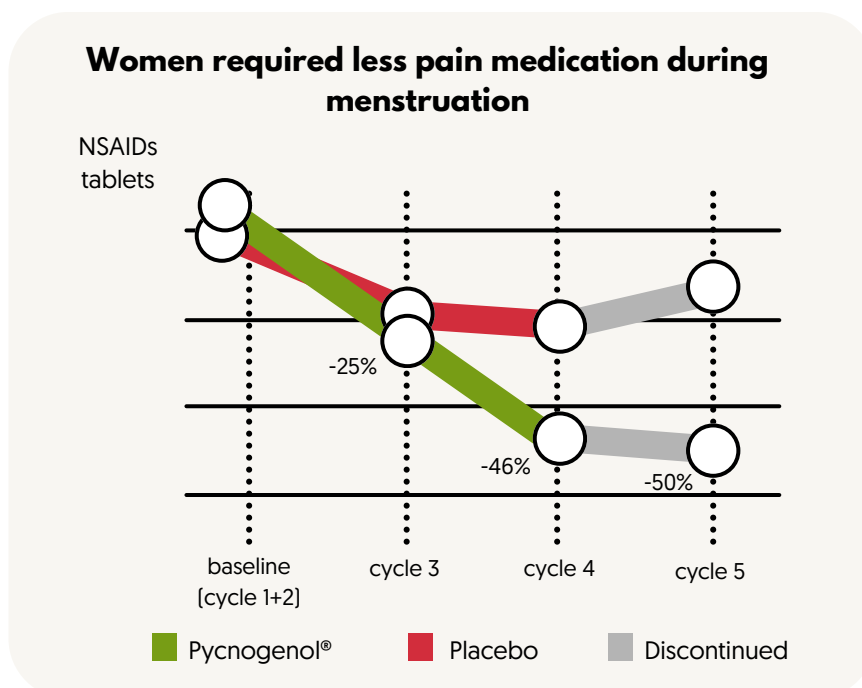


Mean change of the climacteric symptoms evaluated by the WHQ [Women's Health Questionnaire] scale.

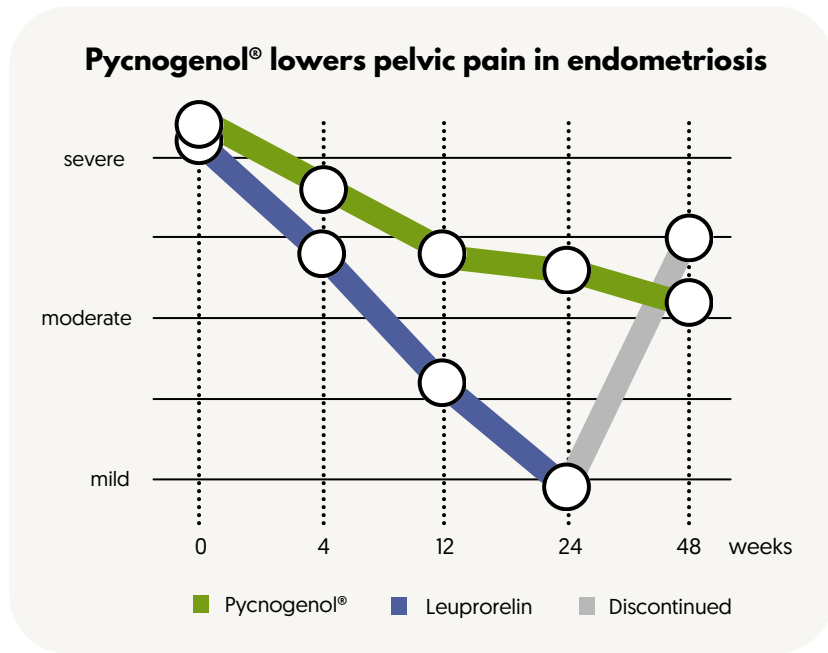
score range 0-4	score at inclusion	after 8 weeks Pycnogenol®
hot flushes	3.1	1.1
nightly sweating	3.1	2.1
irregular periods	3.7	2.1
loss of libido	2.1	1.1
vaginal dryness	2.2	1.2
mood swings	1.9	1.1

score range 0-4	score at inclusion	after 8 weeks Pycnogenol®
breast pain	2.6	1.3
head aches	3.2	2.2
joint pain	2.7	0.9
electric shocks	2.5	0.6
gum problems	2.2	1.2
muscle tension	2.8	1.1
itchy skin	2.9	1.2
tingling extremities	2.2	1.1

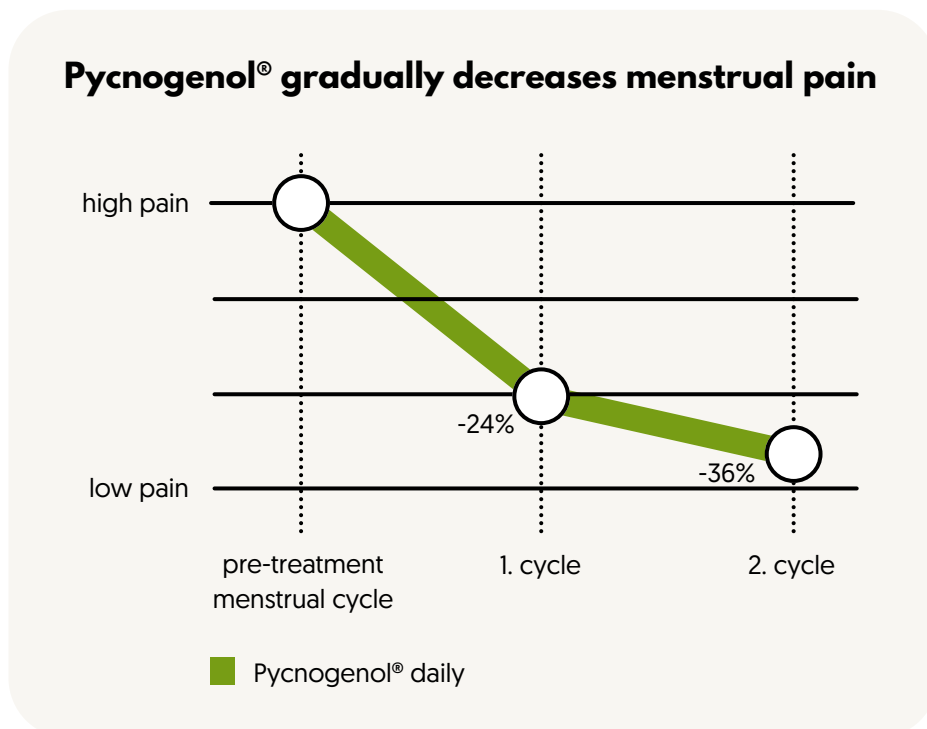
- Pycnogenol was proven to reduce dependency on pain medications during menstruation.



- Pycnogenol was found to lower the intensity of pelvic pain in women with endometriosis.



- Pycnogenol is demonstrated to be safe and does not cause any hormonal alterations in menopausal women.
- Pycnogenol reduces abdominal pain and tenderness associated with dysmenorrhea.



# PYCNOGENOL

## FOR MEN'S HEALTH

- Pycnogenol was found to improve sperm quality and function in subfertile men.
- Pycnogenol significantly reduces symptoms associated with Benign Prostatic Hyperplasia(BPH).
- Pycnogenol was found to reduce penile plaques in men with penile fibrosis.
- Pycnogenol was studied to improve erectile function in men with diabetes mellitus.
- Pycnogenol improves sexual function in men with antidepressant-induced sexual dysfunction.



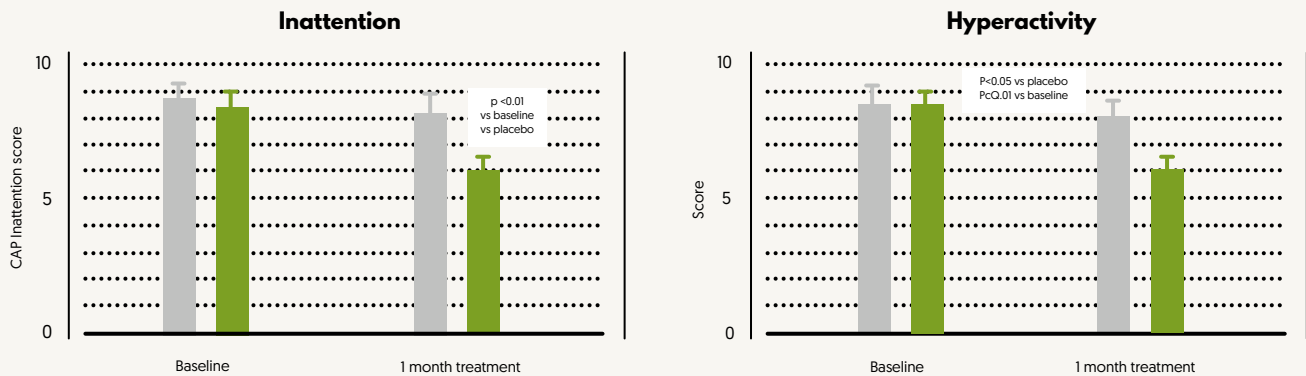
# PYCNOGENOL

## FOR COGNITIVE HEALTH

- Pycnogenol was studied to improve the attention of ADHD children with a success rate of 40%.

### Child inattention / hyperactivity rated by teachers

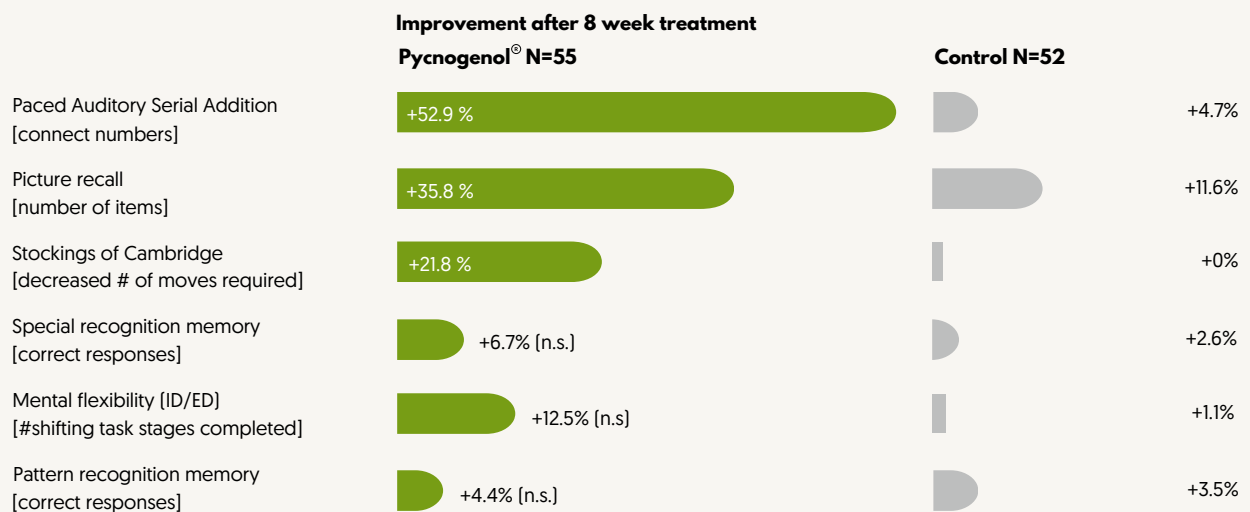
Child attention problem rating scale (CAP test)



Trebaticka et al., Eur Child Adolesc Psychiatry 15:329-335, 2006

- Pycnogenol was found to improve attention, memory and executive functions in students aged from 18 to 27 years.

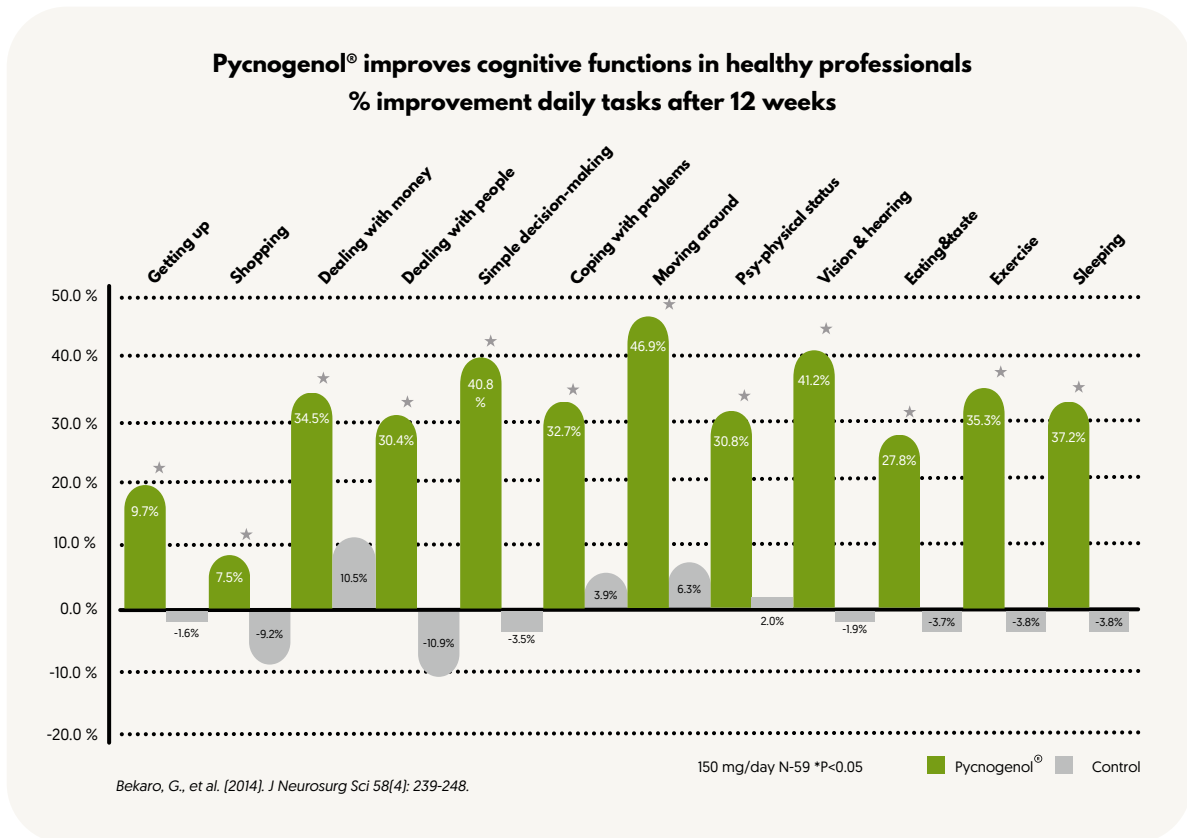
### Cognitive test rating results Pycnogenol<sup>®</sup> vs control in healthy students



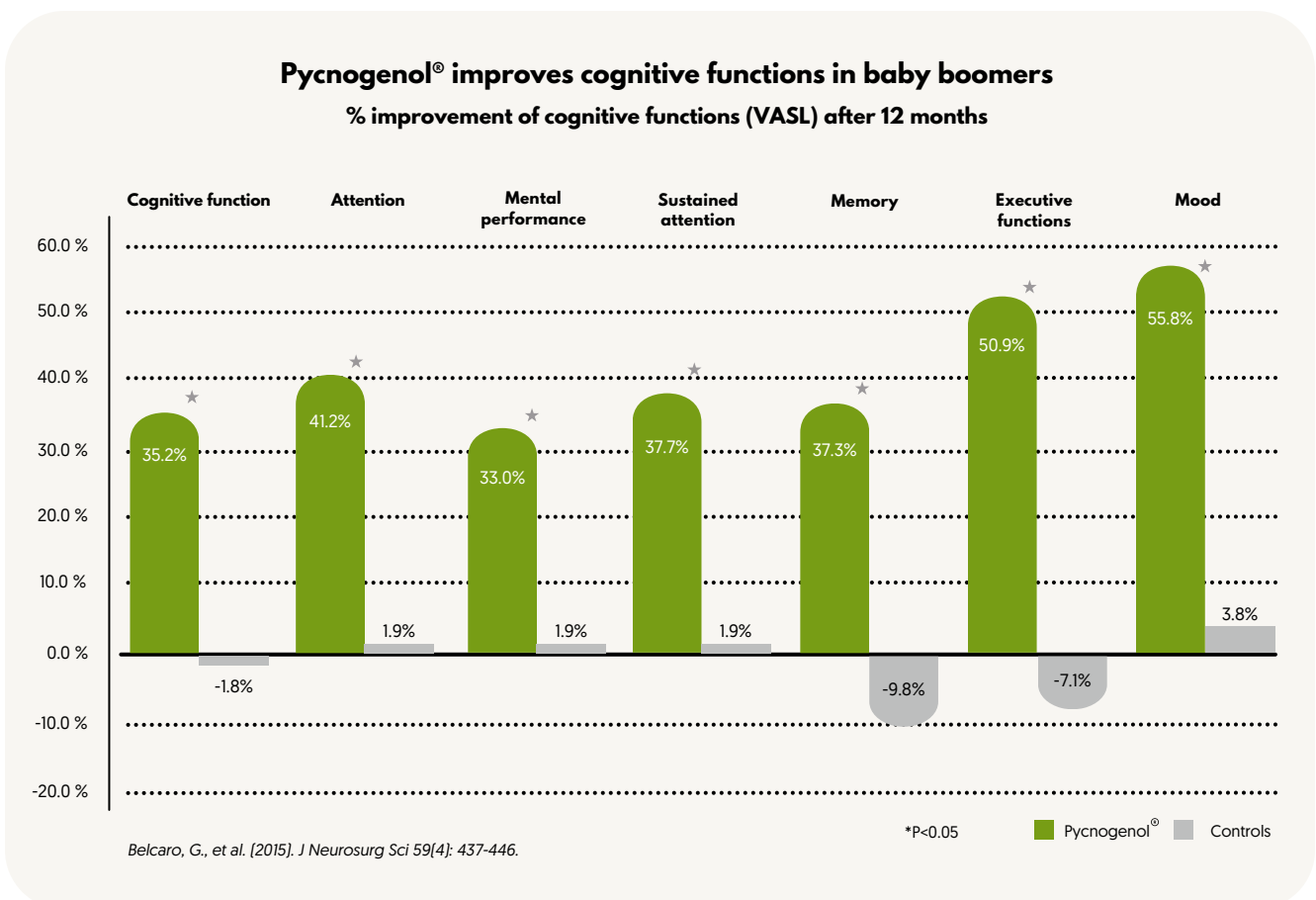
Luzzi et al, Panminerva Med; 53: 75-82, 2011

100mg N-107

- Pycnogenol was found to improve attention, memory and executive functions in students aged from 18 to 27 years.



- Pycnogenol was studied to significantly improve attention, memory, mental performance and executive functions in baby boomers.



- Pycnogenol supplementation alleviates symptoms of Parkinson's disease with mild cognitive impairment.

# PYCNOGENOL

## FOR JOINT HEALTH

- Pycnogenol provides significant benefits for individuals suffering from arthritis:
  - Natural way of lowering joint pain
  - Less pain medication required for joint pain
  - Improvement of joint stiffness
  - Restoration of joint physical function
  - Improvement of joint mobility.
- Pycnogenol was proven to potently inhibit inflammation in arthritis.

### Pycnogenol<sup>®</sup> potently inhibits inflammation in osteoarthritis

Inflammatory  
«master-switch»

**NF-kB**  
**-15.5%**



Source of pain  
in joints

**COX**  
**-15%**

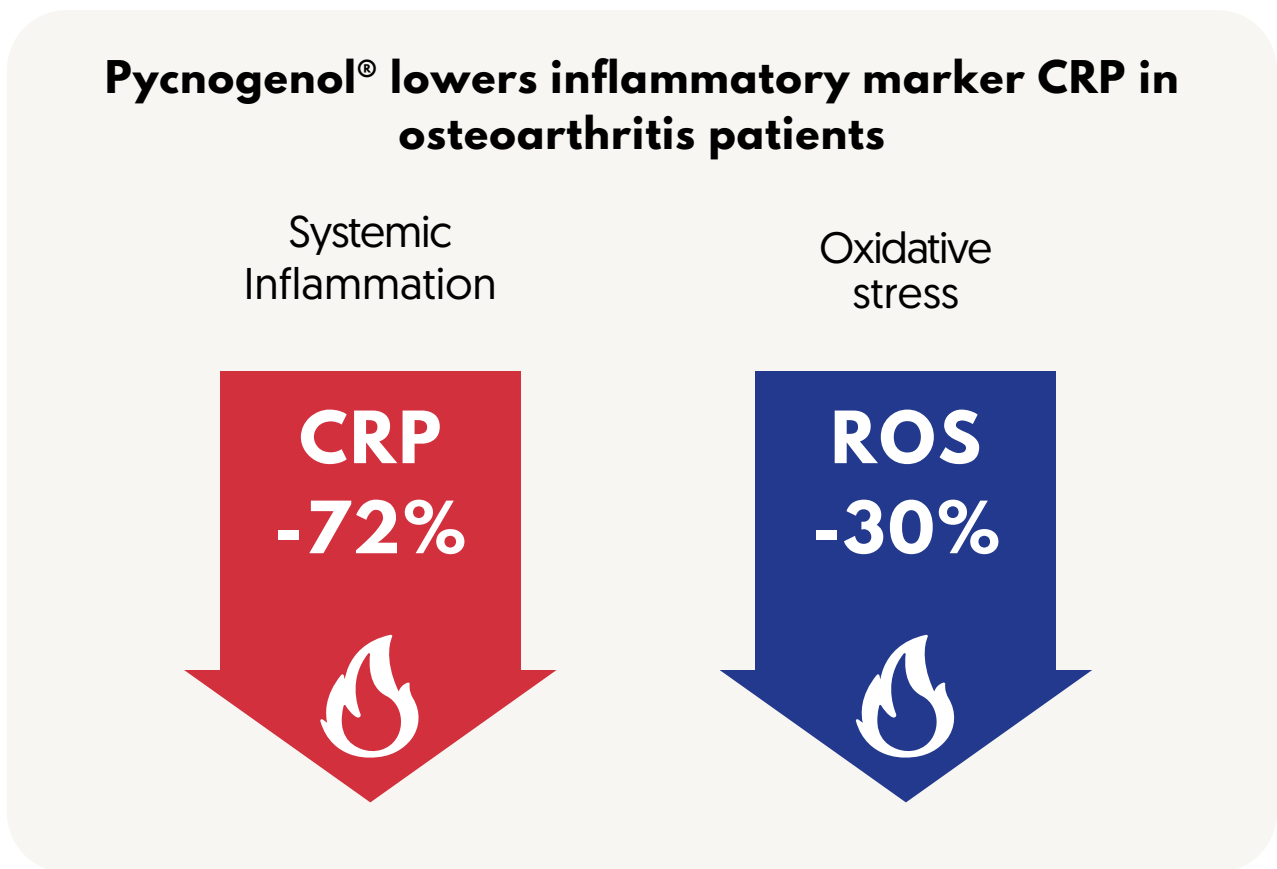


Cartilage  
degradation

**MMPs**  
**-25%**



- Pycnogenol was proven to significantly lower the inflammatory marker C-reactive protein (CRP) by 72% in people with Osteoarthritis.



- Pycnogenol was proven to restore joint health by promoting the synthesis of hyaluronic acid in the body.
- Pycnogenol was proven to reduce the usage of analgesics in people with Osteoarthritis.

**Overview of three clinical trials demonstrating efficacy of Pycnogenol® for arthritis**

Study	Number of patients	Arthritis symptom relief after 3 months Pycnogenol® relative to baseline [* after 2 months]		
		Pain	Joint stiffness	Physical function
Farid et al.	37	- 43 %	- 35 %	+ 52 %
Cisar et al.	100	- 40 %	- 40 % *	+ 22 % *
Belcaro et al.	156	- 55 %	- 53 %	+ 56 %

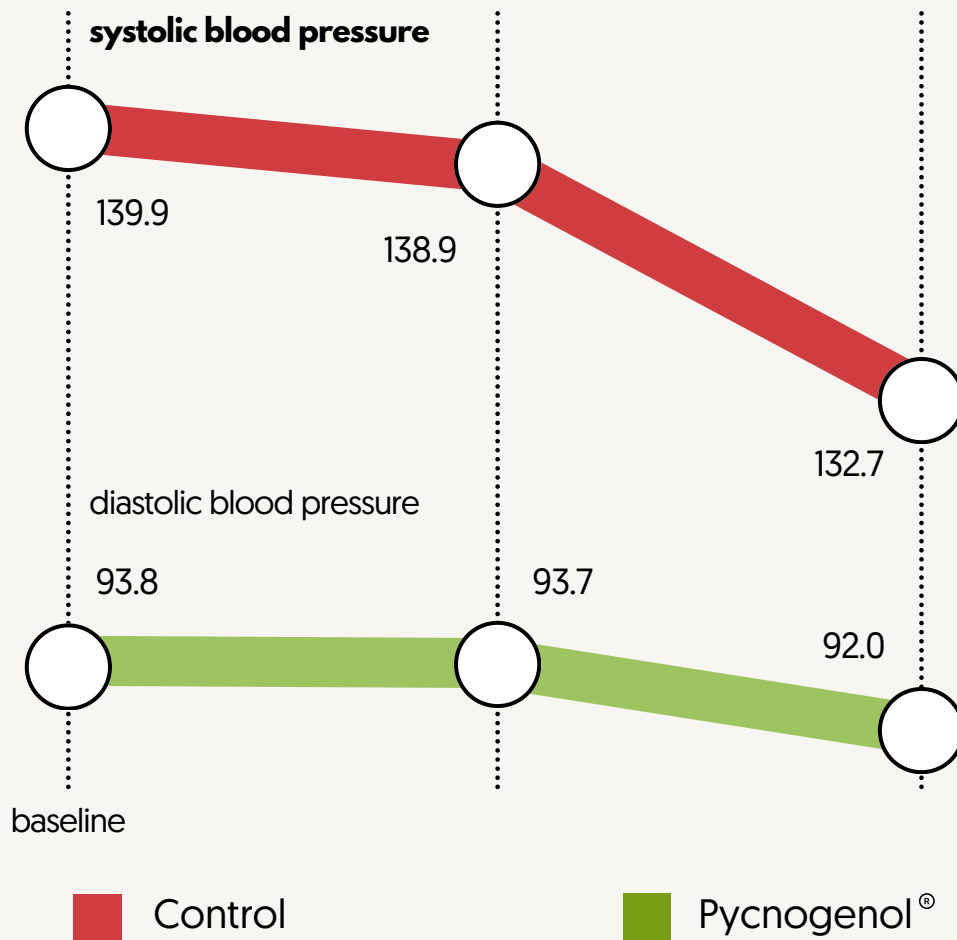


# PYCNOGENOL

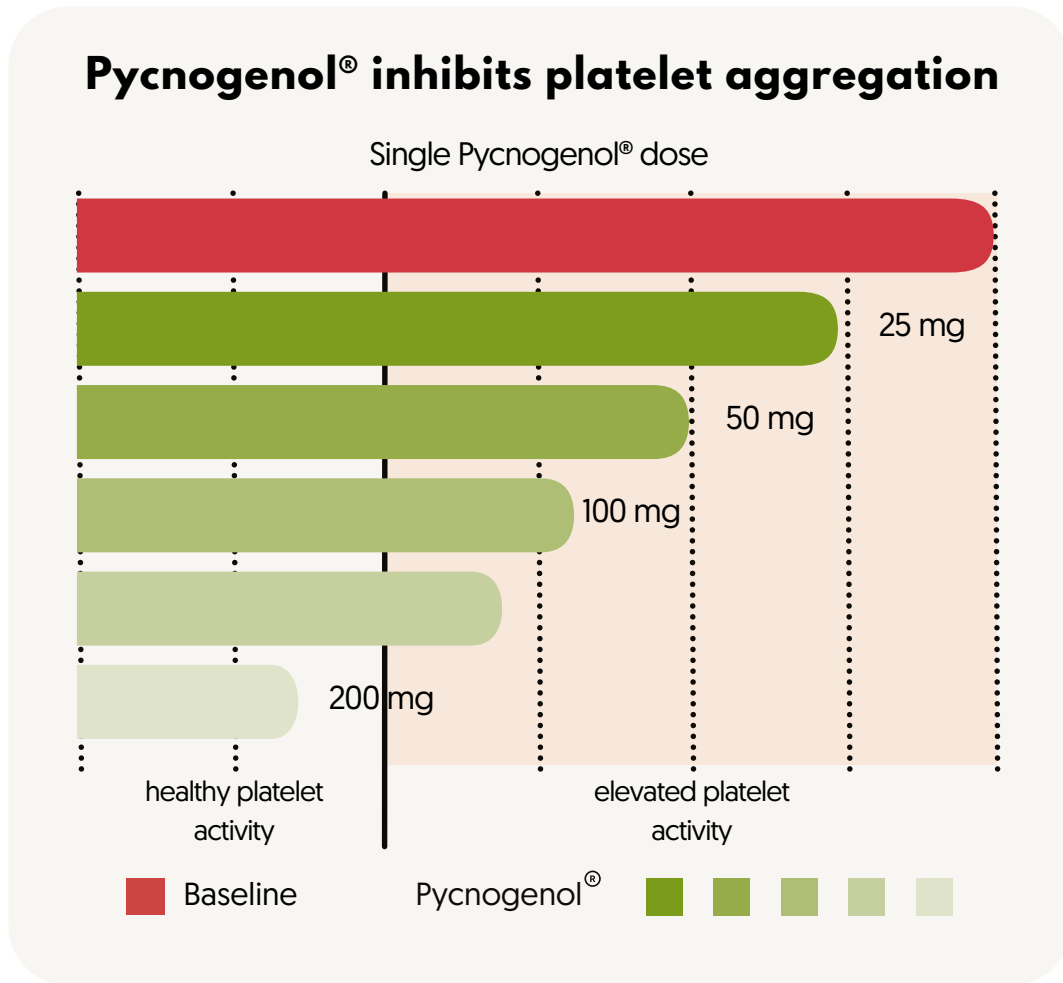
## FOR CARDIOVASCULAR HEALTH

- Pycnogenol safeguards the cardiovascular system from abnormal blood pressure, high blood glucose levels, increased LDL cholesterol, increased platelet aggregation and inflammation.
- Pycnogenol significantly reduces both systolic and diastolic blood pressure in people with hypertension.

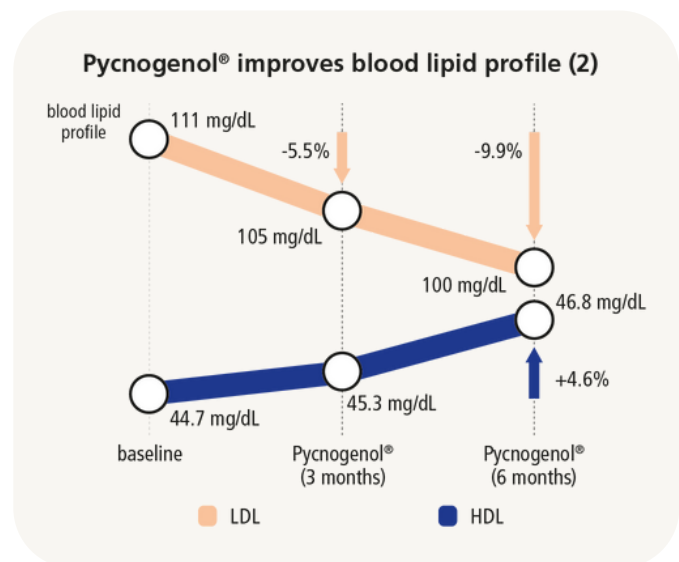
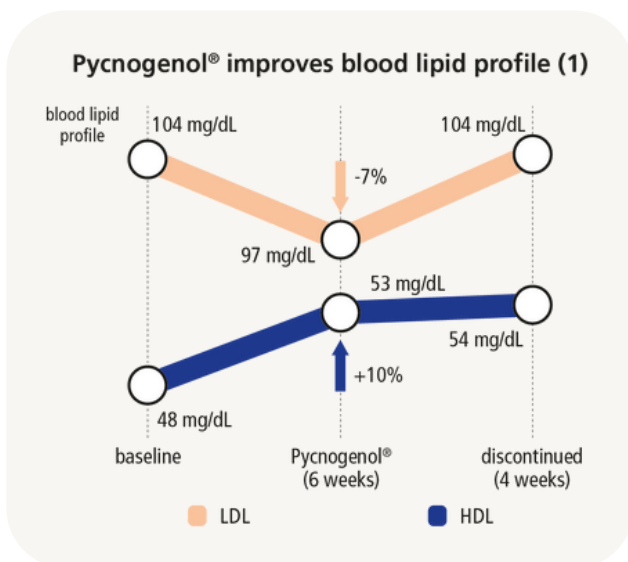
### Pycnogenol<sup>®</sup> reduces high blood pressure



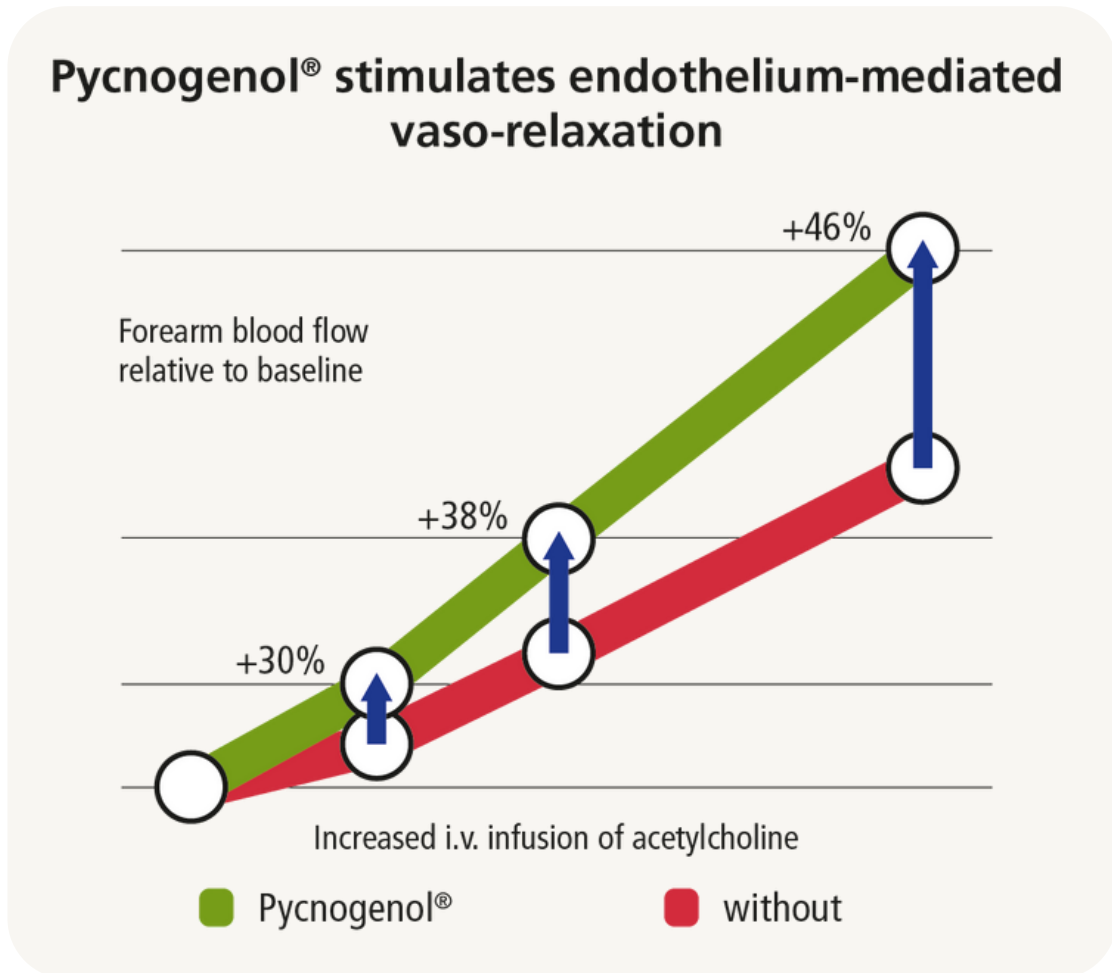
- Pycnogenol was shown to be effective in inhibiting platelet aggregation, reducing the risk of cardiovascular complications.



- Pycnogenol was found to reduce LDL cholesterol levels in the blood, reducing the risk of cardiovascular disease.



- Pycnogenol was proven to reduce the severity of symptoms associated with Primary Raynaud's Syndrome.
- Pycnogenol® improves endothelial function in cardiovascular patients.

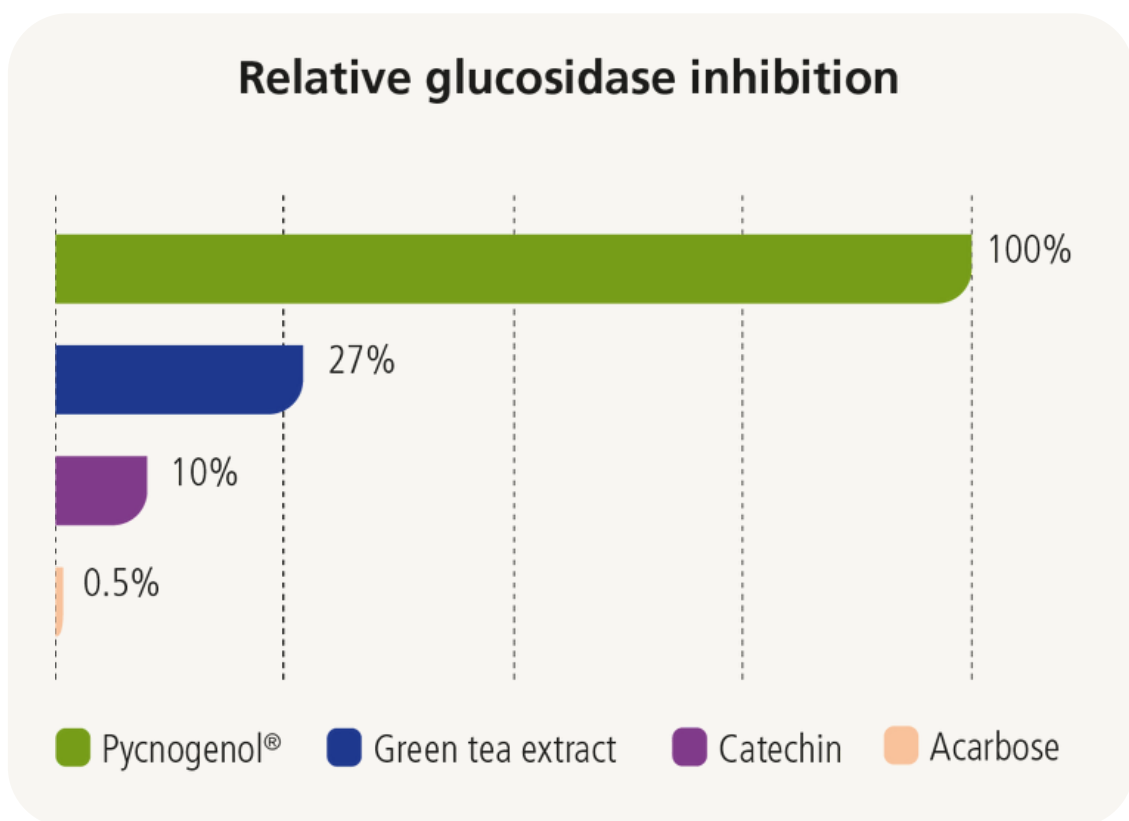


- Pycnogenol reduces the side effects of hypotensive medications in hypertensive patients.

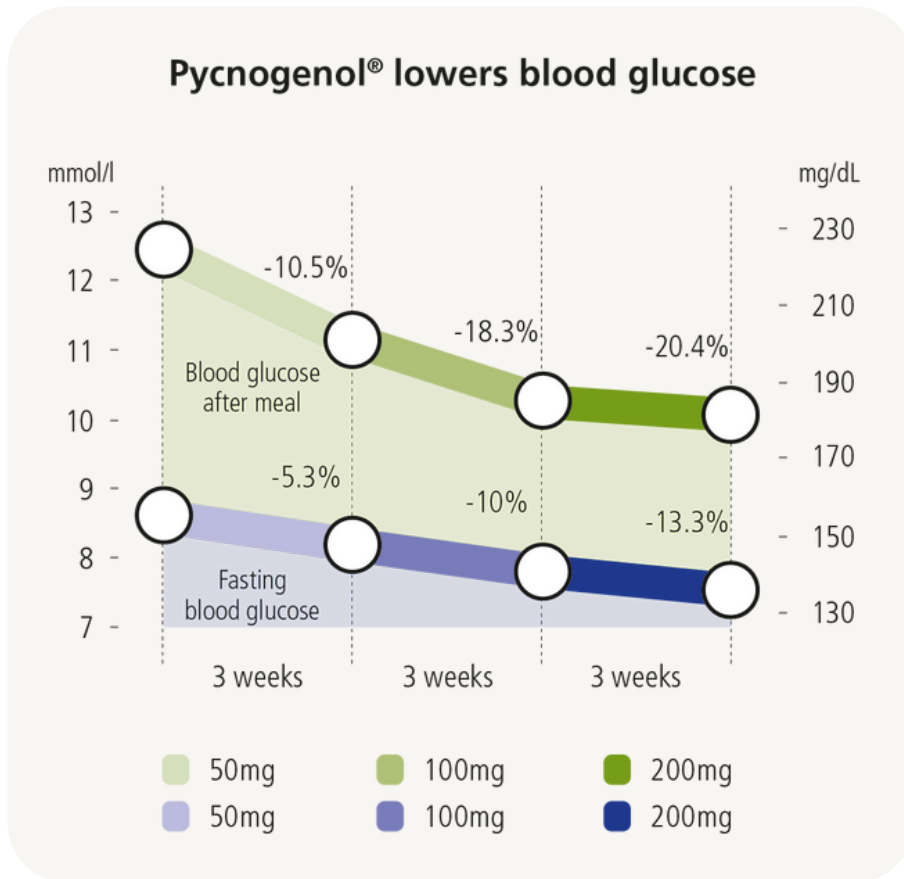
# PYCNOGENOL

## FOR DIABETES CARE

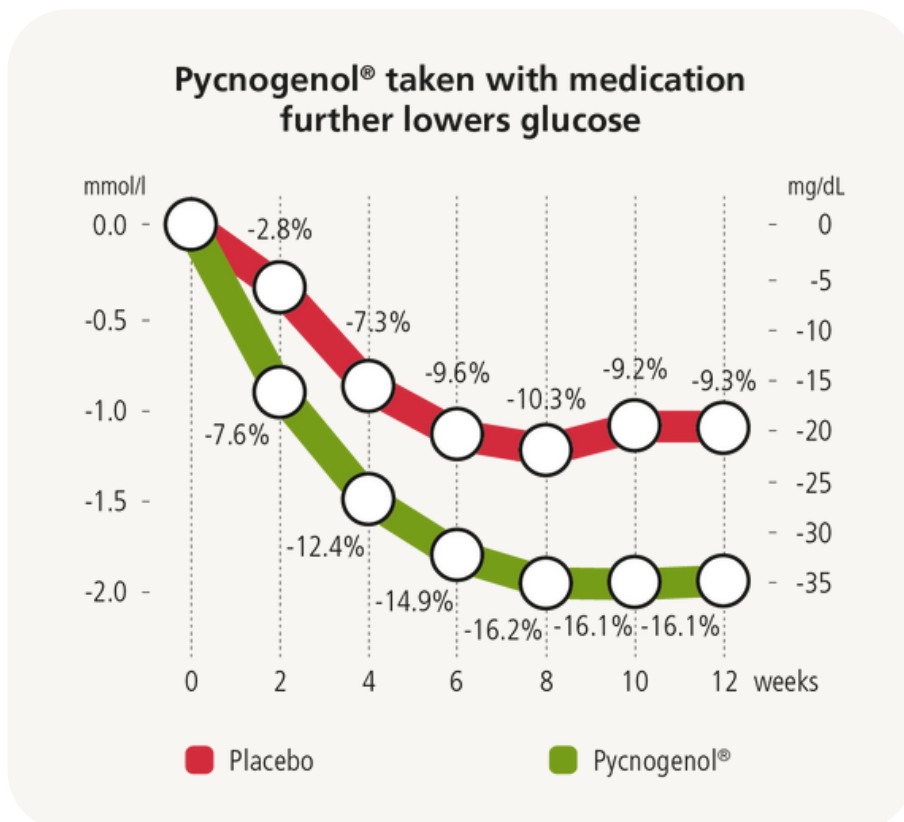
- Pycnogenol® significantly lowers blood sugar levels by inhibiting  $\alpha$ -glucosidase, an enzyme responsible for dietary carbohydrate absorption.



- Pycnogenol® helps individuals with borderline elevated blood sugar, as well as pre-diabetes and type II diabetes, not requiring medication, to achieve significantly healthier blood sugar levels.
- Pycnogenol was studied to normalize blood glucose levels in people with metabolic syndrome.



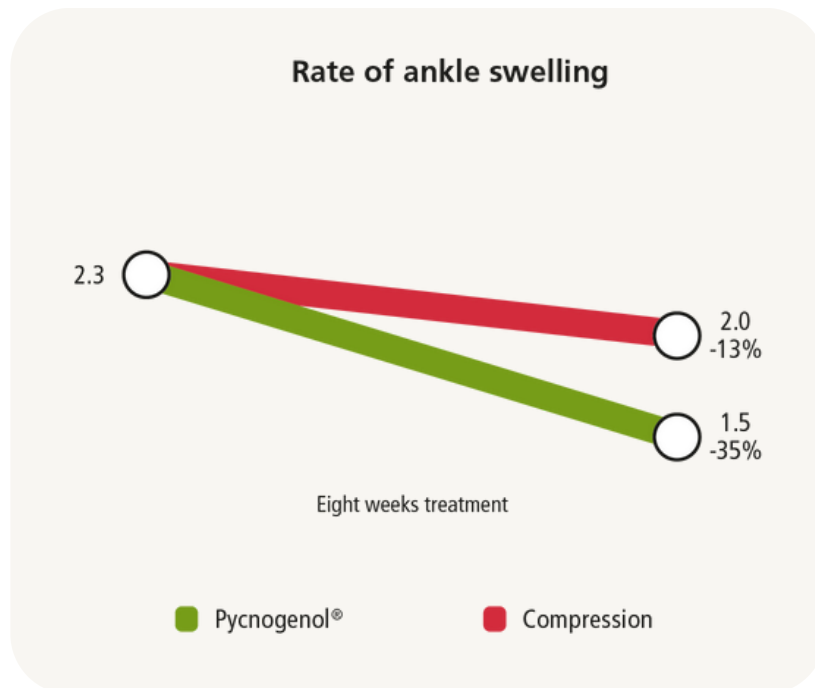
- Pycnogenol was found to significantly lower blood glucose levels in diabetic patients when coupled with antidiabetic medications.
- Pycnogenol was studied to alleviate microvascular complications like retinopathy and nephropathy in diabetic patients.



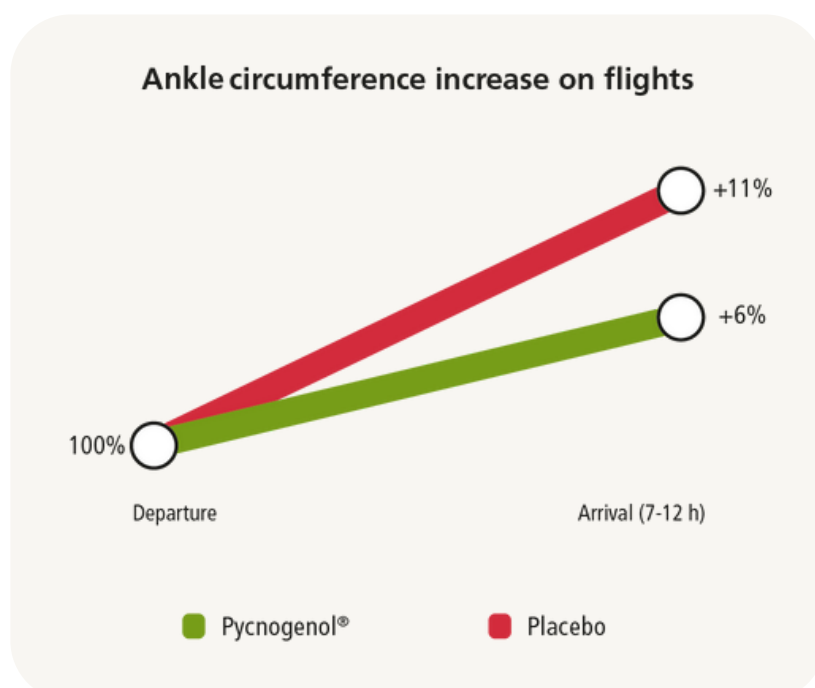
# PYCNOGENOL

## FOR HEALTHY VEINS

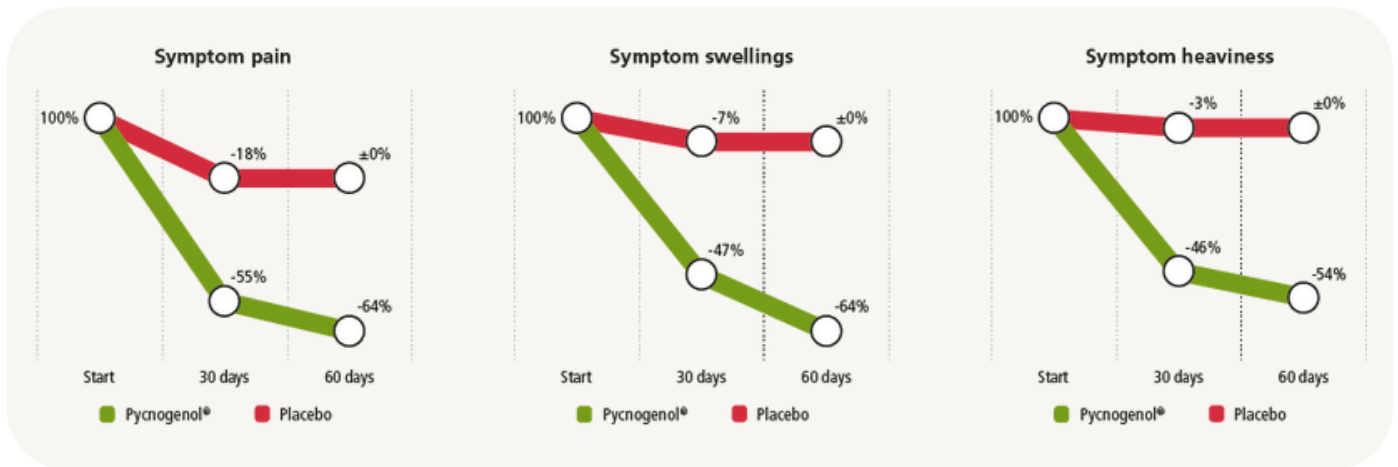
- Pycnogenol® was proven to be 3X more effective in improving leg swellings than compression stockings.



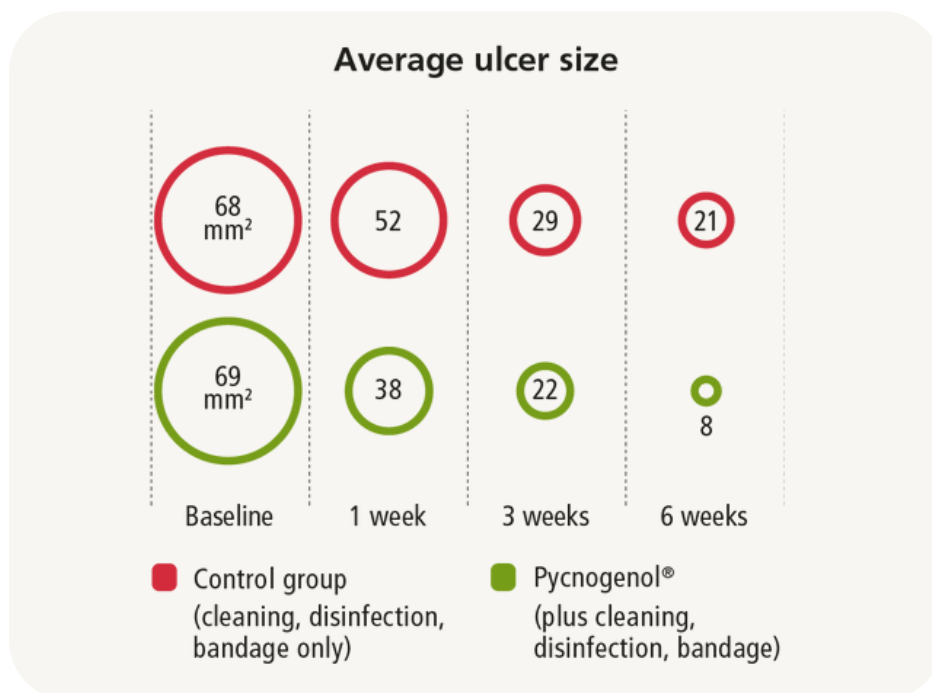
- Pycnogenol was found to prevent ankle swelling in flight travellers.



- Pycnogenol was proven to rapidly improve venous insufficiency symptoms like leg pain, swelling and heaviness.



- Pycnogenol was proven to accelerate the healing of venous ulcers.

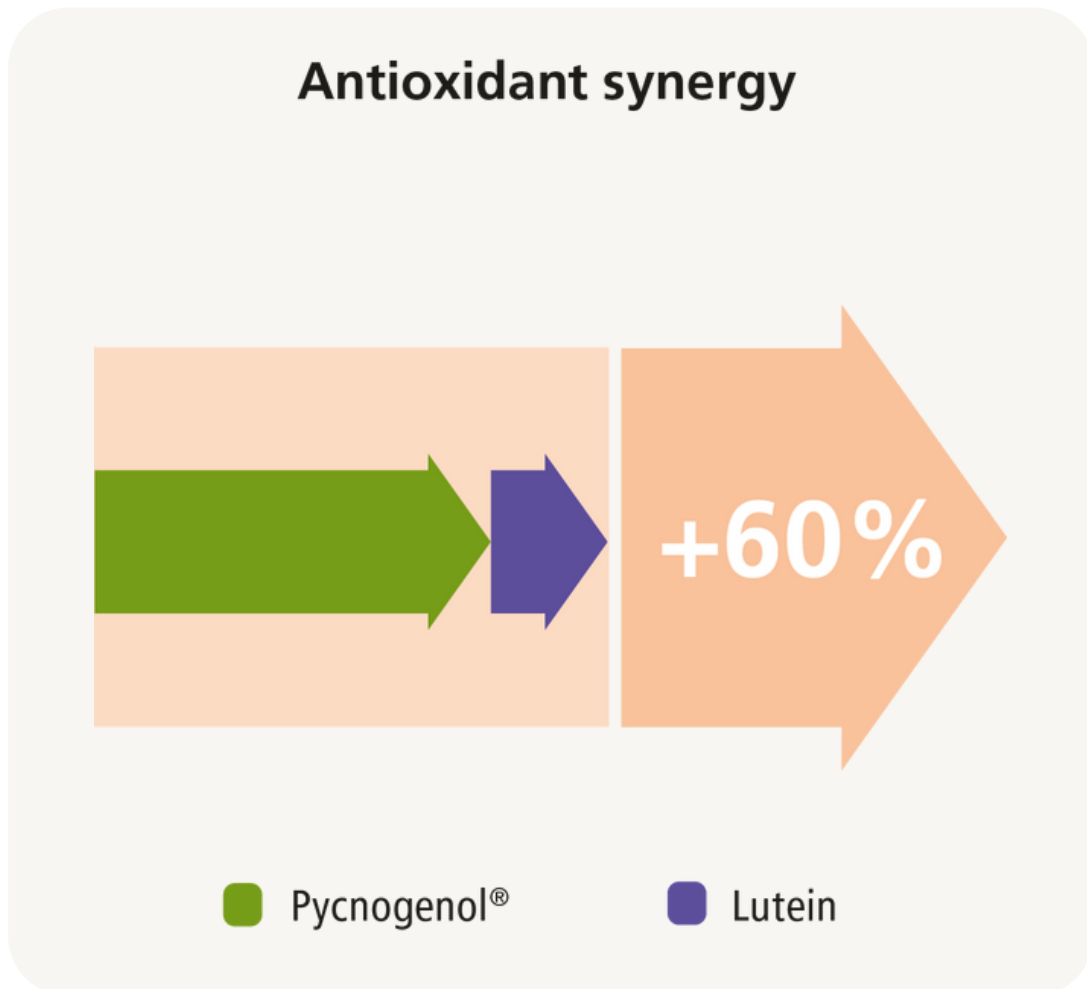


- Pycnogenol was found to be more effective than citrus flavonoids in reducing ankle swelling in patients with venous insufficiency.
- Pycnogenol was proven to prevent venous thrombosis in passengers on long-haul flights in a double-blind, placebo-controlled study with 200 participants.

# PYCNOGENOL

## FOR EYE HEALTH

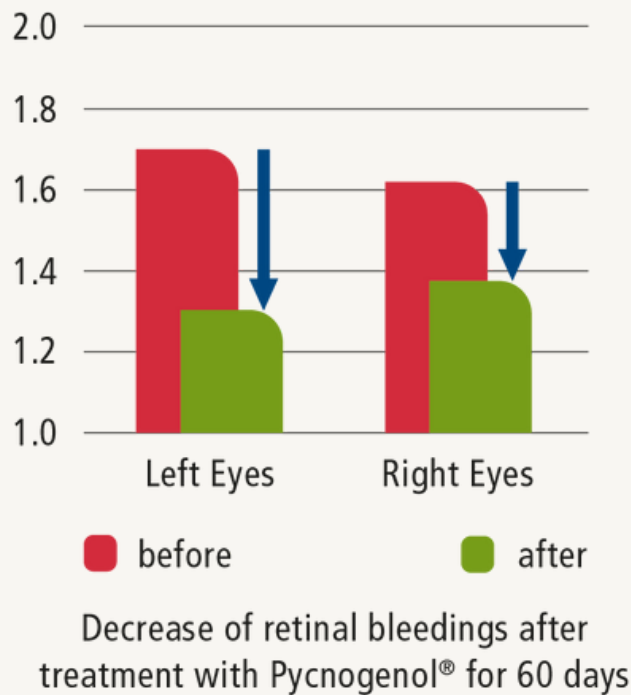
- Pycnogenol is studied to work synergistically with Lutein to protect the retina from oxidative damage by 60%.



- Pycnogenol was proven to prevent vision loss in diabetic retinopathy.
- Pycnogenol was found to lower retinal bleeding in people with retinopathy.

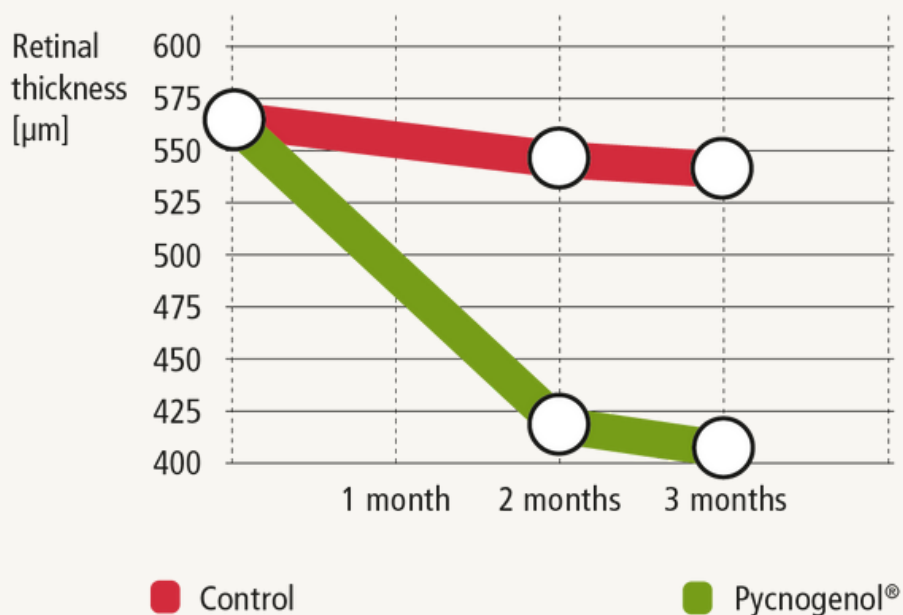


## Pycnogenol® significantly lowers the retinal bleedings after 2 months



- Pycnogenol was found to increase visual acuity and decrease retinal oedema in people with early stage retinopathy.

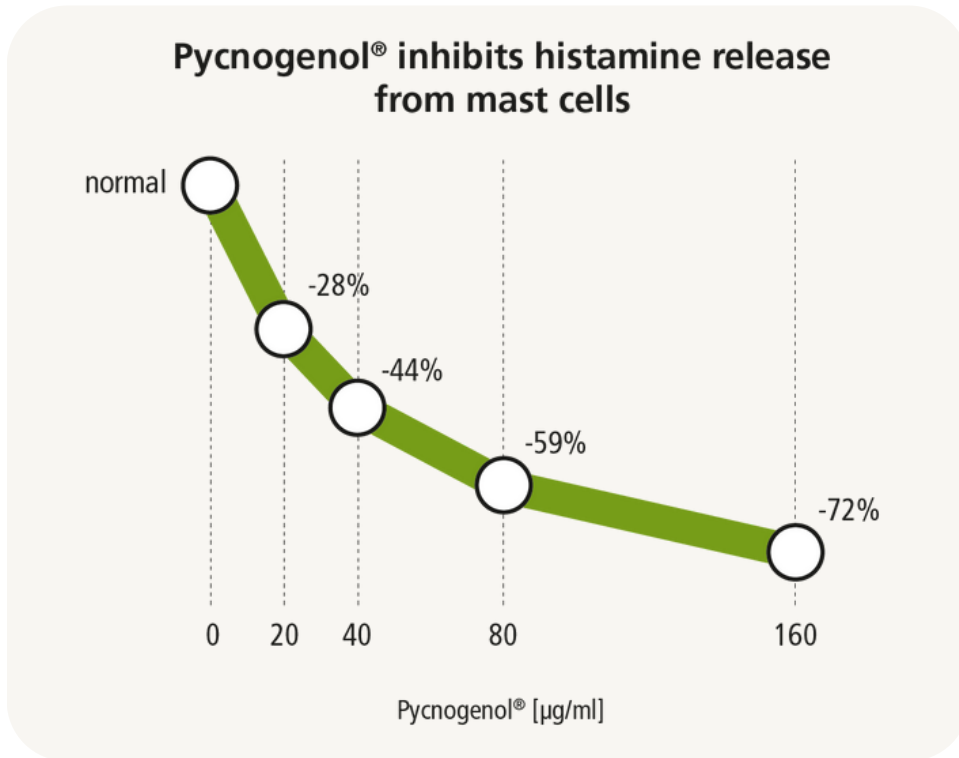
## Pycnogenol® lowers retinal edema in retinopathy



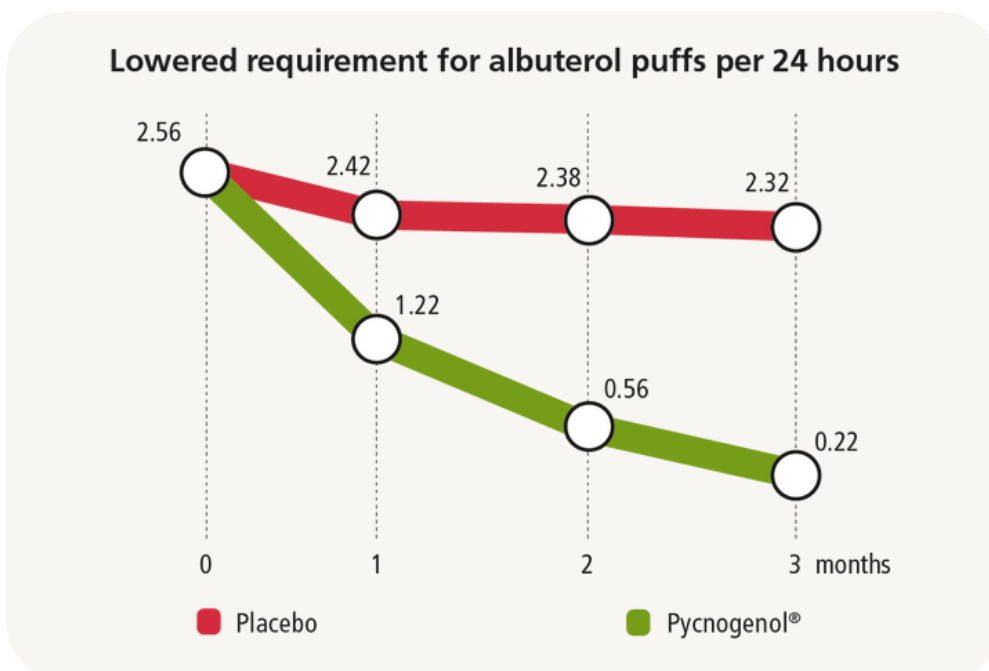
# PYCNOGENOL

## FOR RESPIRATORY HEALTH

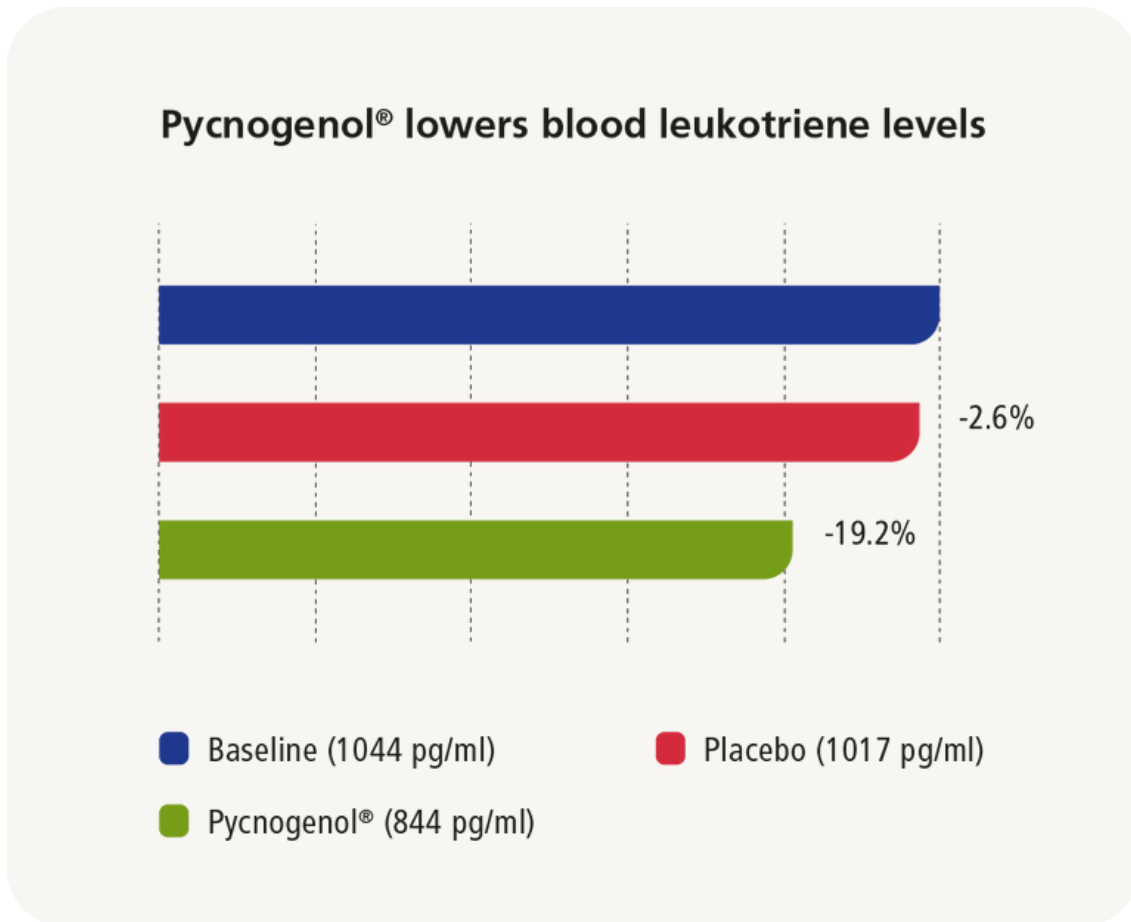
- Pycnogenol is studied to work synergistically with Lutein to protect the retina from oxidative damage by 60%.



- Pycnogenol was shown to manage mild to moderate asthma in children and reduce the frequency of inhaler usage.



- Pycnogenol lowers inflammatory molecules and improves airway functions in Asthma.

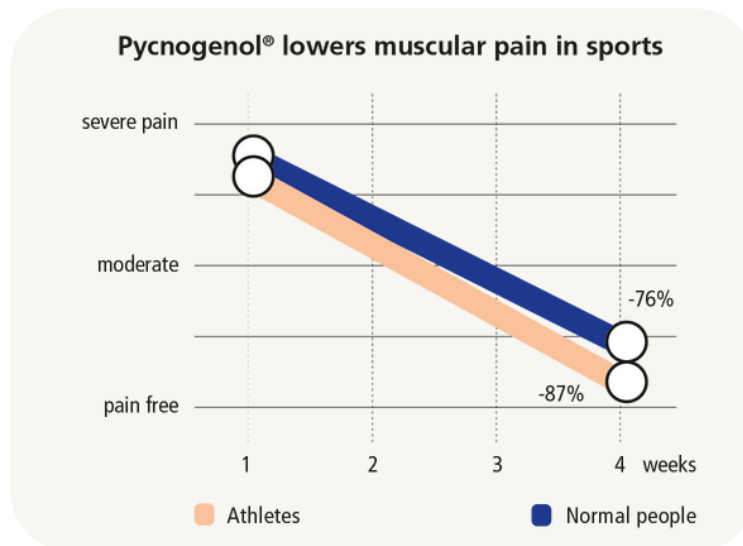


- Pycnogenol reduces lung fibrosis in patients with idiopathic interstitial pneumonia.

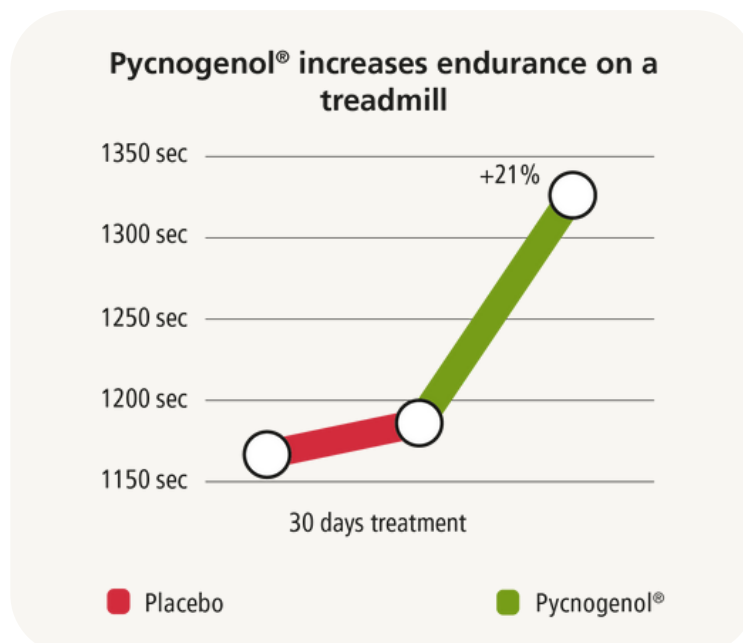
# PYCNOGENOL

## FOR SPORTS NUTRITION

- Pycnogenol is proven to enhance muscular endurance by stimulating endothelial Nitric Oxide(NO) synthesis and improving blood flow by 46%.
- Pycnogenol was studied to reduce oxidative stress in muscle tissues and shorten recovery time.
- Pycnogenol was shown to reduce muscular pain and cramps in competitive athletes.



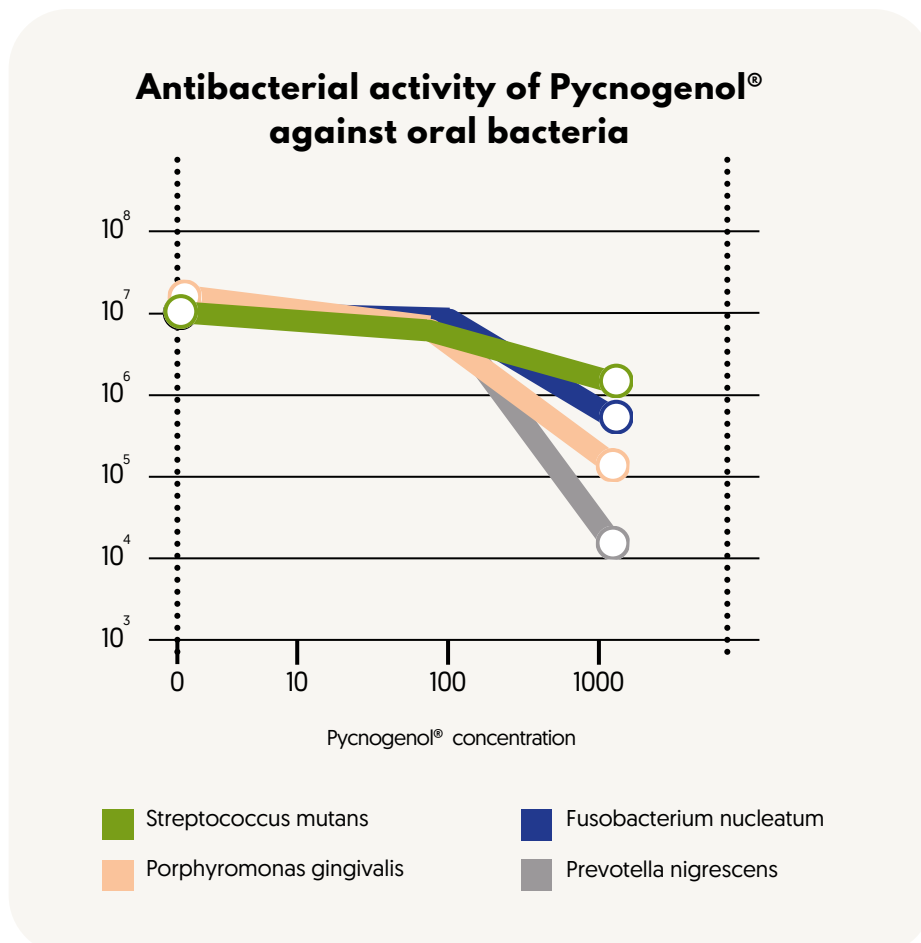
- Pycnogenol was shown to reduce muscular pain and cramps in competitive athletes.



# PYCNOGENOL

## FOR DENTAL HEALTH

- Pycnogenol was proven to control mucositis in children undergoing chemotherapy.
- Pycnogenol was shown to improve salivary secretion in both diabetic and non-diabetic patients with dry mouth syndrome (Xerostomia).
- Pycnogenol was found to minimize gingival bleeding and plaque formation.
- Pycnogenol prevents the development of periodontal disease.
- Pycnogenol effectively reduces oral malodour in people with halitosis or bad breath by controlling the growth of hydrogen sulfide-producing bacteria.



# PYCNOGENOL

## FOR IMMUNE HEALTH

- Pycnogenol was studied to lower symptoms in people with Systemic Lupus Erythematosus(SLE) without any side effects.
- Pycnogenol was significantly effective in reducing complications associated with Common Cold.
- Pycnogenol supplementation speeds-up recovery from the common cold and even more efficiently in combination with vitamin C and zinc.
- Pycnogenol has been shown to exert positive effects in reducing post-COVID-19 symptoms.
- An in vitro study has shown that Pycnogenol inhibits intracellular replication of HIV-1 as well as its binding to host cells.

# PYCNOGENOL

## FOR GASTROINTESTINAL HEALTH

- Pycnogenol was shown to significantly control symptoms associated with Irritable Bowel Syndrome(IBS).
- In an in vitro study, Pycnogenol was proven to inhibit the growth of Helicobacter pylori and its adherence to mucosal cells of the stomach.
- Pycnogenol was found to lower levels of inflammatory markers in children with Crohn's disease.
- Pycnogenol was found to be effective in reducing bleeding associated with Hemorrhoids.

# PYCNOGENOL

## FOR ENDOCRINE HEALTH

- Pycnogenol® prevents oxidative stress and side effects in patients with hypothyroidism during levothyroxine treatment

# PYCNOGENOL

## IN CANCER THERAPY

- Pycnogenol® helps to lower a wide range of typical side-effects patients suffer from during cancer chemotherapy and radiotherapy
- Pycnogenol reduces carcinogenesis in human ovarian and mammary cells in in vitro studies.

# PYCNOGENOL

## FOR KIDNEY HEALTH

- Pycnogenol was found to prevent recurrent Urinary Tract Infections[UTIs] and interstitial cystitis.
- Pycnogenol restores kidney function in patients with metabolic syndrome.

# PYCNOGENOL

## FOR PAIN MANAGEMENT

- Pycnogenol relieves symptoms associated with restless leg syndrome.
- Pycnogenol improves mobility and pain in people with idiopathic back pain.
- Pycnogenol helps to control and reduce the intensity of pain in fibromyalgia patients.
- Pycnogenol reduces pain and severity of symptoms in patients with migraine or moderate headaches.
- Pycnogenol helps to control pain in idiopathic, benign, transient neck pain.

# PYCNOGENOL

## FOR EAR HEALTH

- Pycnogenol was proven to significantly reduce symptoms associated with Meniere's disease, a disorder of the inner ear.

# PYCNOGENOL

## FOR GERIATRIC HEALTH

- Pycnogenol improved muscular strength in elderly people with symptoms of fatigue and signs of muscle mass loss.





