Proanthocyanidins and Antioxidant Herbs Protect and Repair Cells to Fight Aging

Optimal Supply of Antioxidants Protect Cells from Free Radicals to Help Avoid Premature Aging

Research over the past three decades has demonstrated that molecules called *free radicals* may hasten the aging process. To combat these destructive molecules, scientists have discovered a number of nutrients and herbs which appear to act as <u>anti-aging agents</u>, through their antioxidant effects.

Antioxidants scavenge free radicals, attracting them and neutralizing their charge before they can do damage to cellular structures. By protecting cells from the onslaught of free radicals, an optimal supply of antioxidants can help the body avoid premature aging.^(1,2)

PRO-ANTHO FORTE™ Dietary Flavonoid Antioxidant Complex

Fill Size: 60 vegetable capsules Product No. 898 Each all-vegetable capsule contains: Pycnogenol® - - - - -Grape Seed Extract (Vitis vinifera) (5:1 Concentrate)-----Ginkgo Biloba (24:1 Extract)-----Green Tea Extract (Camellia sinensis) (65% Standardized Extract) - - - - -Milk Thistle (Silybum marianum) (seed) (80% Standardized Extract) - - - - - - 10 mg. Other ingredients: rice flour, magnesium stearate. Pycnogenol is the registered trademark of Horphag Research Ltd. Pycnogenol is an extract of the bark of French Coastal Pine (Pinus maritime). U.S. Patent #4,698,360. Recommended Use: 2 capsules daily.

Proanthocyanidins Are 50 Times More Effective than Vitamin E and 20 Times More Effective than Vitamin C

The most potent antioxidants are the proanthocyanidins derived from both grape seeds (*Vitis vinifera*) and French maritime pine bark (*Pinus maritime*). Research on proanthocyanidins has indicated that they are 50 times more effective than vitamin E and 20 times more effective than vitamin C in scavenging free radicals.⁽³⁾

Proanthocyanidins work with vitamin C to help regenerate collagen and shield it from free-radical attacks. Together these nutrients strengthen and restore permeability of capillaries to allow more oxygen, nutrients, enzymes and hormones to pass through cell membranes to renew and feed all 60 trillion of the body's cells. (4) This "protect and repair" function promotes smoothness and elasticity of skin, improved circulation in the eyes and extremities and increased memory capacity (since proanthocyanidins cross the blood-brain barrier).

Proanthocyanidins have been shown to have a positive effect in heart disease, varicose veins and edema, diabetic retinopathy and other degenerative processes. (4) These powerful antioxidants have been called "the atherosclerosis antidote".

Although proanthocyanidins were first discoverd in the bark of French maritime pine trees, most studies have been conducted using proanthocyanidins from grape seed extract. <u>Grape</u> seeds provide a richer source of proanthocyanadins, yielding 10% more activity per gram than pine bark. Grape seeds, a by-product of the wine industry, also provide a cleaner and more economical source of proanthocyanidins.

Standardized Extract of Ginkgo Biloba Has a Remarkable Effect on Circulatory and Nervous Systems

Ginkgo (*Ginkgo biloba*) has long been associated with longevity. In clinical research, a concentrated 24:1 standardized extract of ginkgo has demonstrated remarkable effects on circulatory and nervous system functions, including:

- Enhanced energy
- Increased cellular glucose uptake
- Inhibition of platelet aggregation (reducing "stickiness" within arteries)
- Increased blood flow to the brain
- Improved transmission of nerve signals
- Free radical scavenging activity

Improved cerebral blood flow provides increased oxygen and glucose to the brain to relieve many of the presumed "side effects" of aging. Ginkgo biloba extract (120 mg. per day) has displayed sta-

tistically significant regression of major vascular insufficiency symptoms including:

- Short-term memory loss
- Tinnitis (ringing in the ears)
- Lack of vigilance
- Vertigo
- Headache
- Depression

The Chinese have used ginkgo biloba for over 5,000 years for respiratory disorders.^(1,4)

Green Tea Extract Demonstrates Antioxidant and Anti-Tumor Properties

Green tea (Camellia sinensis), another anti-aging herb used for centuries by the Chinese and Japanese, has demonstrated potent antioxidant and anti-tumor properties due to its very high polyphenol content. Whereas black tea (the fermented form of green tea) may increase the risk of certain tumors, green tea consumption may:

- Inhibit the formation of nitrosamines during a meal
- Increase the activity of antioxidant enzymes
- Inhibit mutagenesis and carcinogenesis by chemopreventive action

Green tea extract also helps block the formation of tumors. Consumption of green tea is believed to be a major reason for the lower cancer rate in Japan and China.⁽⁴⁾

Silymarin from Milk Thistle Prevents Free Radical Damage in the Liver

Silymarin, an extract from the herb **milk thistle** (*Silybum marianum*), is a potent antioxidant complex composed of three flavonoid molecules. As an antioxidant, silymarin prevents free radicals damage, particularly within the liver. Its administration may:

- Reduce mortality from cirrhosis
- Aid detoxification of harmful environmental chemicals
- Exert significant protection for the liver against hepatitis and chemical or alcohol induced fatty liver.

Silymarin has been shown to increase the glutathione content of the liver by more than 35% in healthy subjects. Since glutathione is responsible for detoxifying a wide range of toxic chemicals, silymarin not only protects the liver from damage, but also increases its capacity for detoxification of many substances including pesticides and heavy metals.⁽⁴⁾

The milk thistle extract may also improve immune function in immuno-compromised patients. Other possible applications for milk thistle may include atherosclerosis, gallbladder disease and psoriasis. Silymarin is many times more potent in antioxidant activity than vitamin E.⁽⁴⁾

Quercetin Appears to Reduce Allergy and Inflammation

Quercetin, another flavonoid, appears to reduce allergic processes, inhibit the infectiousness and/or replication of both RNA and DNA viruses and inhibit mast cell degranulation which causes tissue destruction in rheumatoid arthritis. It inhibits the release of histamine and other inflammatory mediators by stabilizing mast cells and basophils; inhibits several enzymes to prevent inflammation; and decreases leukotriene formation, lipid peroxidation and collagen breakdown. Most studies on quercetin also show it to suppress tumor formation. (5)

WARNING: This information is provided for health care professionals only. This publication and the product contained herein have not been approved or evaluated by the Food and Drug Administration. This publication, and the product contained herein are not intended to diagnose, treat, cure or prevent any disease. The product relates to nutritional support only.

REFERENCES

- Carper, Jean. Stop Aging Now! NY: Harper Collins Publishers, 1995.
- Levine, Stephen A., Ph.D. and Kidd, Parris M., Ph.D. Antioxidant Adaptation: Its Role in Free Radical Pathology, San Leandro, CA: Allergy Research Group, 1986.
- "New antioxidant defends against free radical damage", Nutrition News, 1989.
- Werbach, Melvyn R., M.D. and Murray, Michael T., N.D. Botanical Influences on Illness: A sourcebook of clinical research, Tarzana, CA: Third Line Press, 1994.
- Werbach, Melvyn R., M.D. Nutritional Influences on Illness: A sourcebook of clinical research, 2nd ed., Tarzana, CA: Third Line Press, 1993.