

Pycnogenol® Complex

The next generation of antioxidant protection

If there's one factor that has the greatest negative impact on our health, it is the damage done to our cells by free radicals. These highly unstable molecules disrupt the biochemical processes that regulate life. Although a natural product of oxygen metabolism in the body, free radicals are also produced in vast quantities by modern technology. Our bodies' natural defenses simply have not been able to keep up with the onslaught of these dangerous products of civilization.

On the other hand, technology has offered help by

identifying some of nature's most powerful weapons

against free radical attack. Source Naturals

Pycnogenol® Complex is an unprecedented

combination of these extremely potent plantbased antioxidants, or Plantioxidants™. Consider

them your antidote to the industrial revolution.

xygen both makes life, and takes life. The energy that animates us comes from the biochemical reactions that burn oxygen within our cells. And though carefully regulated by the body, this biological combustion, over time, inevitably leads to cellular damage.

If oxidation is not carefully controlled, tissues are damaged faster than the body can repair them. This is caused by an excess of over-reactive, electron hungry molecules called oxidants or "free radicals," which tend to disrupt normal cellular activity. Free radicals attack a cell's membrane and can even damage its hereditary blueprint (DNA).

How free radicals are formed and their effect on the body Since free radicals are a natural result of certain metabolic reactions, the body synthesizes several types of antioxidant enzymes to neutralize them. In addition, we get essential antioxidants from the foods we eat. Vitamins C, E and beta carotene are the ones found most often in our diet.

During this century, our environment has become a perpetual source of free radical contamination, primarily from radiation and the chemical pollution in our air, water and food. Today, we are literally overwhelmed with more free radicals than our bodies are accustomed to handling.

Fortunately, science has found that certain plants contain special antioxidants that are far more powerful than the vitamins we typically get in our diet. With this knowledge, Source Naturals formulated Pycnogenol® Complex, the most advanced combination of Plantioxidants available today in one product. Pycnogenol® is the proprietary name of a natural plant product made from the bark of the European coastal pine, *Pinus maritima*.

Pycnogenol® Complex - A Cornucopia of Health

Our knowledge of pine bark goes back nearly 500 years, to when the French explorer, Jacques Cartier, reported that a tea made from pine tree bark by Native Americans saved the lives of his crew who were dying of scurvy.

Nutrition scientists have since isolated the extraordinary antioxidant compounds of pine bark. They have also discovered many other unique antioxidants throughout the plant kingdom. Plants have evolved *bioflavonoids* to protect themselves from free radical damage. One of the most abundant compounds in the plant kingdom, bioflavonoids are found in the pigments of bark, rinds, seeds, leaves and flowers.

The active ingredients of Source Naturals Pycnogenol® Complex are derived from a diverse range of nature's plenty: pine bark, green tea, turmeric spice, rosemary, grape seeds, milk thistle seeds, bilberries, hawthorn berries and ginkgo leaves.

Each of these Plantioxidants is an exceptional free radical scavenger, and each has a tendency to concentrate in a different organ of the body, thus providing targeted protection. And since their primary function is to capture free radicals, these Plantioxidants free up vitamin C, so it can perform its many other vital functions.

Defense Plants

The two headliners of Source Naturals Pycnogenol® Complex are the pine bark extract, **Pycnogenol®**, and an extract from grape seeds, **Proanthodyn™**. Their unsurpassed antioxidant activity – up to 20 times

Natural protection against free radicals

Natural antioxidants in Pycnogenol® Complex that of Vitamin C and up to 50 times that of Vitamin E – comes from a high concentration of *proanthocyanidins*.

These highly bioavailable flavonoids are able to cross the Blood-Brain Barrier, and can stay in the bloodstream for up to 72 hours. Few other nutritional antioxidants cross this barrier, and none do it as well. Proanthocyanidins therefore offer the brain and central nervous system unparalleled antioxidant protection.

In particular, proanthocyanidins may help reduce the formation of *lipofuscin*, a brown waste material made of free radical-damaged proteins and fats. Over time, lipofuscin deposits form in the brain, heart, and skin. The "age" or "liver" spots that develop on the backs of some elderly peoples' hands are made of lipofuscin.

Because they're rich in unsaturated fatty acids, cell membranes are the primary site of free radical attack. Proanthocyanidins are able to protect against both water- and fat-soluble free radicals. Also, their chemical structure is incorporated within cell membranes, making proanthocyanidins very effective in preventing damage to the cell's interior. This is vital, because if a cell's DNA is disrupted, it could lead to the abnormal reproduction of that cell.

For many years now, Europeans have used pine bark and grape seed extracts to maintain vein and capillary health. Proanthocyanidins support the circulatory system by helping to keep collagen and elastin, the essential constituents of vessel walls, from breaking down during times of imbalance. And most importantly, proanthocyanidins can help prevent the oxidation of LDL cholesterol in the bloodstream. Scientists now recognize that it's not cholesterol itself, but the oxidation of cholesterol that can be problematic.

The Power of Diversity

In addition to the broad protection offered by Pycnogenol® and Proanthodyn, Source Naturals Pycnogenol® Complex offers an outstanding array of other Plantioxidants. Each has unique abilities to protect the body from oxidants.

For several thousand years, **Green Tea** has been enjoyed in the Orient, not only for its taste, but also as a health tonic. Upon analysis, it contains several strong antioxidants, called **Polyphenols**, with exceptional free radical scavenging abilities. Polyphenols have been shown to be over 200 times more effective than vitamin E in preventing oxidative damage to brain cells. Source Naturals uses a potent extract of green tea that concentrates 2,000 pounds of fresh green tea leaves into one pound of finished product. This extract has been awarded 30 patents for its protective effects.

The ancient **Ginkgo Biloba** tree has long been prized for its beneficial qualities. Like proanthocyanidins, ginkgo's compounds are able to cross the Blood-Brain Barrier, and support cell membrane and capillary integrity. Its particular antioxidant constituents have been associated with superior oxygen transport to the brain. This is important because the brain uses 20% of all inhaled oxygen. Source Naturals Pycnogenol® Complex uses a superior 50 to 1 extract, providing 24% **Ginkgoflavoneglycosides** and 6% **Terpenoids**.

Bilberries were first studied for their capacity to heighten visual acuity in normal subjects under poor light conditions. In fact, to increase their

Why
Pycnogenol®
Complex is
formulated with
extracts of
pine bark and
grape seed

The biochemical action of antioxidants

How Plantioxidants benefit different organs in the body The wide range of natural antioxidants in Source Naturals PYCNOGENOL® COMPLEX night vision, RAF pilots ate bilberry jam during WW II. Its antioxidant compounds, **Anthocyanosides**, have an affinity for delicate eye tissues, where it quenches free radicals and supports capillary strength. Source Naturals utilizes a standardized bilberry extract with 25% anthocyanosides, 80 times more potent than regular bilberry.

Milk Thistle Seed Extract has been researched and used for over 20 years in Europe. Its antioxidant compound, called **Silymarin**, has a special preference for the liver. It's one of the few nutrients that can support the liver's natural regenerative processes. By enhancing DNA activity, liver cells can regenerate up to five times faster.

Turmeric Extract contains 95% **Curcumin**, the active ingredient of this traditional East Indian spice. Curcumin promotes the body's own production of antioxidant enzymes, including glutathione peroxidase, an important protector of the liver. Curcumin also increases the production and secretion of bile, which is used to remove cholesterol from the body.

Quercetin has been well-researched for its free radical scavenging activity. Because of its ability to stabilize cell membranes, quercetin helps prevent damage and discomfort from reactionary (histamine- and eukotriene-related) processes in the body. Source Naturals quercetin has been isolated from plant sources.

Rosemary and Hawthorn Berries both contain bioflavonoid antioxidants that have the unique ability to neutralize the hydroxyl radical, a particularly dangerous type of free radical. Hydroxyls are produced by exposure to excessive radiation and pollution from burned fossil fuels. The body has no innate defense system against it.

Vitamin C is one of the most active and abundant antioxidants in the body, so it must be frequently replenished. Since it works in conjunction with bioflavonoids, each tablet of Source Naturals Pycnogenol® Complex contains 500 mg of vitamin C, bound to **Magnesium** for increased bioavailability.

A World of Help

As we better understand how free radicals affect our health and well being, it's important that we take advantage of the wonderful protective qualities found in certain plants. These Plantioxidants provide the appropriate means to counteract the destructive effects of excessive free radicals, which have become part and parcel of modern life. Source Naturals Pycnogenol® Complex brings the diverse and concentrated power of the plant world into your world of wellness.

References

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