AIM

PROANCYNOL® 2000

THE AIM COMPANIES™
Nutrition • Opportunity • Success

The immune system is the group of organs, tissues, cells, and cell products, such as antibodies, that protects us from invaders. It differentiates self from nonself and neutralizes potentially pathogenic organisms or substances. For example, it protects us from bacteria, viruses, and cancer cells. The immune system is perhaps the most important body system when considering living well and maintaining good health. A healthy immune system is better equipped to meet challenges.

Free radicals

Oxygen is necessary for all living things. However, as the body creates energy at the cellular level, oxygen is metabolized, changing its structure. Oxygen atoms that lose an electron and are therefore unpaired are called free radicals. Free radicals are highly reactive and have the ability to bind to and destroy other cells. This combination of oxygen with another substance—oxidation—is the major source of free radical damage in the body. Some of the more destructive oxygen radicals are hydroxyl, superoxide, and hydrogen peroxide.

Although the majority of free radicals are produced in the body, they can also be derived from the environment, which increases the free radical load in the body. Sources of external free radicals include food additives and preservatives, fried and barbecued foods, rancid fats, cigarette smoke, air pollutants, cleaners, radiation, even sunlight.

Free radicals have been linked to many age-related diseases. These include cancer, heart attack, stroke, rheumatoid arthritis, cataracts, asthma, and Alzheimer's disease.

Antioxidants

While we all produce free radicals, we also have naturally occurring antioxidants, such as glutathione and superoxide dismutase, that fight free radicals and protect us from age-related diseases. However, the number of antioxidants we produce diminishes as we age, and we have so many free radicals to contend with that our own supply often isn't enough.

AIM Proancynol® 2000

AIM Proancynol® 2000 combines the proven ability of seven antioxidant compounds—green tea extract, rosemary extract, grape seed extract, N-acetylcysteine, alpha-lipoic acid, lycopene, and selenium—to provide you the best antioxidant supplementation available. These components not only work individually but also synergistically in antioxidant cycling (see box on p. 3), the term that describes how antioxidants work together for an enhanced, combined effect.

Green tea

Green tea, unlike black tea, is made from leaves that are not fermented before they are dried. The primary constituents in green tea thought to provide the most health benefits are the polyphenols. Members of the flavonoid family, polyphenols are catechins made of several ringlike structures. Four are of particular interest: epicatechin, epigallocatechin, epicatechin gallate, and epigallocatechin gallate, the most potent.

In laboratory studies presented at a September 1997 meeting of the American Chemical Society, epigallocatechin gallate proved to be 100 times more effective at neutralizing free radicals than vitamin C and 25 times more effective than vitamin E.

Research does suggest that this antioxidant power may translate into helping to maintain immunity. In animal studies conducted in Japan in the early 1990s, green tea polyphenols increased activation of macrophages, B lymphocytes, T lymphocytes, and natural killer cells. All of these are white blood cells.

Studies indicate that green tea also helps lower blood pressure and cholesterol levels, helps reduce the risk of some forms of cancer, and helps reduce the formation of dental plaque. A recent study affirms that green tea is helpful with bone mineralization and therefore osteoporosis (Hegarty 2000).

Green tea also contains oligomers of proanthocyanidins (OPCs), also in the flavonoid family, that have been shown to have positive effects on blood vessels (Ursini et al. 1999, Sato et al. 1999).

Rosemary

Rosemary is increasingly under scrutiny for its antioxidant properties. Recent studies show that rosemary extract, and its constituents carnosol and ursolic acid, enhances the activity of enzymes that can detoxify carcinogens: animal studies show that the extract results in an increase in glutathione-S-transferase, one of these enzymes. Rosemary, an herb, also relaxes smooth muscle and may provide atherosclerotic protection. It is thought to have antifungal and antibacterial properties.

Grape seed

Like green tea, grape seeds contain the powerful antioxidant OPCs. Some studies indicate that OPCs are 20 times more powerful than vitamin C and 50 times more powerful than vitamin E. The two most common sources of OPCs are white pine bark and grape seed. Grape seeds contain 7 to 15 percent more OPCs than white pine bark and can be more potent (Sterling 2000).

In a review of the benefits of the OPCs found in grape seed extract, one study notes that the antioxidant activity of OPCs is generally credited for their other health benefits (Bombardelli and Morazzoni 1995). The authors note that these include an antimutagenic effect; that is, they inhibit the mutation of DNA. The authors point out that chronic degenerative diseases are believed to be a result of environmental mutagens (substances that cause mutation). OPCs may be able to counter these mutagens.

OPCs also have "cosmetic" value. They protect collagen and elastin, which are an important part of the makeup of skin. It is the interlacing of collagen and elastin that gives skin its strength, elasticity, and smoothness. When these two substances are damaged and the skin loses elasticity, the result can be wrinkles. OPCs help restore damaged collagen and elastin and protect them against further damage.

N-acetylcysteine

Although little known, N-acetylcysteine (NAC) is a powerful antioxidant and a powerful tool in maintaining immunity. It has been used since the 1960s as a mucolytic—that is, a substance that breaks up mucus, especially in lung tissue. It also has a positive effect on toxic chemical and drug reactions, and has been used for years in hospital emergency rooms to counteract acetaminophen poisoning.

Clinical trials in Europe have indicated that NAC may also offer protection against the flu and flulike symptoms. Other research indicates that it may enhance the production of human T cells, white blood cells with various immunity functions.

NAC is metabolized into compounds that can stimulate glutathione synthesis. The body produces glutathione, one of its most important and powerful antioxidants, to help it deal with the free radicals generated as part of its own metabolism.

Alpha-lipoic acid

When it was isolated 50 years ago, alpha-lipoic acid was identified as a vitamin. It has since been reclassified as an antioxidant, and can scavenge free radicals intracellularly and extracellularly. It is both fat- and water-soluble, which means that it can access all parts of our cells.

Numerous clinical trials have shown that supplementing with alpha-lipoic acid is beneficial in moderating blood sugar concentrations, symptoms of cardiovascular ailments, blurred vision, and liver complication (Packer 1995).

Individuals who display limitations in moderating blood sugar concentrations often have a serious problem with glycation caused by higher than normal levels of blood sugar due to low insulin production or insulin resistance. Glycation happens when blood sugar reacts quickly and spontaneously with proteins to form damaging cross-linking. This cross-linking causes severe tissue damage and leads to kidney ailments, plaque buildup in the arteries, and retinopathy. Lipoic acid curtails glycation and enhances the transfer of blood sugar into the cells by stimulating insulin activity. One of the more severe complications of noncontrolled blood glucose levels is reduced circulation to the lower extremities. Studies show that patients suffering from symptoms of diabetic neuropathy improved significantly when they supplemented with 600 mg of lipoic acid daily (Kahler et al. 1993).

Children treated with alpha-lipoic acid alone or in combination with vitamin E showed normalized organ function and less oxidative damage following radiation exposure in the Chernobyl incident (Korkina et. al 1993).

Current research indicates that alpha-lipoic supplementation may help increase human T lymphocytes.

Alpha-lipoic acid has the ability to regenerate other antioxidants, including vitamins C and E, glutathione, and coenzyme Q10.

Lycopene

Lycopene is a member of the carotenoid family. It is the pigment that gives fruits and vegetables its red color. Predominantly available in tomatoes, lycopene has been found to be twice as effective as beta carotene and 100 times more effective than vitamin E in counteracting the dangerous free radical singlet oxygen. Lycopene has been found to be a more potent inhibitor of human can-

cer cells than all other carotenoids. A study in Europe found that there was statistically significant association between high dietary lycopene and a 48 percent lower risk of cardiac disease (Kohlmeier et al. 1998).

Selenium

Selenium is an antioxidant mineral. It works together with antioxidant enzymes to fight free radicals. Selenium activates the antioxidant enzyme glutathione peroxidase, which recycles glutathione.

Selenium improves white blood cell proliferation, and a selenium deficiency will result in a depressed immune system.

Selenium is reported to mimic the blood sugar regulatory functions of insulin in laboratory studies and to play a role in reducing the oxidative stress associated with diabetes. Selenium may also protect against cancers and cardiovascular disease by increasing HDL cholesterol levels.

Antioxidant cycling

In antioxidant cycling, antioxidants work together for an enhanced, combined effect.

When the antioxidant vitamin E disables free radicals, it becomes a minor free radical. Both vitamin C and alpha-lipoic acid convert the radical form of vitamin E back to its antioxidant-self. However, when vitamin C recycles vitamin E, it changes to a free radical. Alpha-lipoic acid and glutathione can both "recycle" vitamin C back into a potent antioxidant.

Glutathione not only recycles vitamin C, but is the cells' primary antioxidant. According to Lester Packer, Ph.D., maintaining high levels of glutathione is critical for life—low glutathione levels are a marker for death at an early age. Glutathione diminishes as we age and cannot be boosted significantly through supplements.

N-acetylcysteine manufactures glutathione, and alpha-lipoic acid regenerates glutathione, ensuring that the body has an adequate supply. Selenium is part of the enzyme glutathione peroxidase, which recycles glutathione.

OPCs also play a role in cycling as they sacrifice themselves in order to neutralize harmful free radicals. In doing so, they make it possible for vitamins C and E and selenium to do less "antioxidant" work, allowing these nutrients to perform their other functions in the body.

You can see how the ingredients found in AIM Proancynol® 2000 work together to provide optimum free radical protection.

How to use AIM Proancynol® 2000

- Take 2 capsules per day. Best taken with meals.
- Close tightly after opening and store in a cool, dry, dark place (70-75 °F; 20.1-23.8 °C). Do not refrigerate.

Q & A

Who should use AIM Proancynol® 2000?

Anyone who is concerned with overall health and a healthy immune system. AIM Proancynol® 2000 is especially suited to those who have a lifestyle that may generate more free radicals than normal. This would include living in polluted environments, smoking, or participating in extensive exercise (exercise creates free radicals).

Is there anyone who should not take AIM Proancynol® 2000?

There are no known safety considerations concerning the ingredients in AIM Proancynol® 2000. However, due to the alpha-lipoic acid present, diabetics should monitor their blood sugar levels. Pregnant women and people who are using other medications or who have serious health problems should always consult their health practitioners when adding new substances to their diets.

Does the green tea extract contain caffeine?

The green tea used in AIM Proancynol® 2000 is decaffeinated using a water filtration-decaffeination process. Like all decaffeinated products, some amounts of caffeine remain (3.1 mg per capsule).

What can you tell me about the ingredients in AIM Proancynol® 2000?

The extracts (green tea, grape seed, and rosemary) are obtained by using an alcohol and water extraction process. Although the original plants are not organically grown, any impurities that were present in the raw materials are not present in the finished product. The grape seeds are derived from both red and white grapes. The rosemary is standardized to 6 percent carnosic acid. The alpha-lipoic acid is derived from potatoes.

References

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Suggested Reading

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Packer, Lester, Ph.D., and Carol Colman. *The Antioxidant Miracle*. New York: John Wiley & Sons, 1999.

Passwater, Richard, Ph.D. *Lipoic Acid: The Metabolic Antioxidant*. New Canaan, CT: Keats Publishing, Inc., 1995.

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Ask About

AIM Proancynol® 2000: The Secret Weapon audio

AIM Proancynol® 2000 video

Benefits & Features

Benefits

- Helps maintain immuno health
- Powerful antioxidant
- Anti-aging effect
- Quick absorption into bloodstream

Features

- 100 mg of green tea extract, 100 mg of rosemary extract, 50 mg of grape seed extract, 30 mg of N-acetylcysteine, 26 mg of alpha-lipoic acid, 2 mg of lycopene, and 200 mcg of selenium per serving of 2 softgel capsules
- Antioxidant cycling—ingredients work together to improve each other
- No harsh solvents used in extraction process
- Softgel delivery system means quicker absorption
- 60-count softgel capsules

AIM Proancynol® 2000 is an Immuno Health product. Use this product to help maintain your immuno-respiratory health.

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