

Great Greens for Health, Heart, and Head

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Eating an abundance of fruit and vegetables may reduce cancer incidence by up to 50 percent. In fact, consuming more unprocessed plant food prevents the onset of many diseases, including cardiovascular disease, diabetes and its complications, obesity, and arthritis.

Even conventional health authorities recognize the invaluable benefits of eating our fruits and veggies. They recommend we eat up to 10 or more servings daily of these important foods. Nevertheless, most people consume only two to three servings daily, far from the amount needed for health protection.

Loads of Health Protection

Plant foods, including fruit, vegetables, whole grains, and legumes, are rich in vitamins, minerals, essential fats, and dietary fibre, all important nutritional components essential to our nutrition. The rich levels of dietary antioxidants in these foods appear to play a particularly important role in warding off degenerative diseases.

Antioxidants are Age Inhibitors

A free radical is a highly reactive molecule with an unpaired electron at its orbital. Consequently it is unstable and may potentially react with and damage any cell, tissue, or organ.

Our bodies naturally produce free radicals such as singlet oxygen, superoxide radicals, nitric oxide, and peroxyl radical as a byproduct of metabolism, immune responses, and other physiological reactions. Free radicals serve important roles within our bodies at a normal physiological level. For example, our immune cells release free radicals to destroy infections or viruses that have invaded our bodies and help with immune defences.

Fortunately, over millions of years the human body has evolved natural antioxidant systems to help deal with naturally produced free radicals and keep them in check, preventing them from damaging healthy cells and tissues. These systems include copper- and zinc-dependent superoxide dismutase, selenium-dependent glutathione peroxidase, catalase, uric acid, albumin, and other plasma proteins that bind trace elements.

However, the number of external free radicals found in the environment is rising dramatically. UV radiation, pollution, cigarette smoke, and pesticides all cause excess environmental exposure to free radicals. Also known as oxidants, they exhaust our supply of internal antioxidants and put our bodies at increased risk of oxidative stress.

Simply put, oxidative stress causes the cells, tissues, and organs to age more quickly, which may speed the development of many diseases. Oxidative stress increases the risk for many cancers, cardiovascular disease, arthritis, diabetes complications, and even Alzheimer's. Virtually every disease may have some connection to higher levels of oxidative stress.

Antioxidants As Radical Check

Dietary antioxidants support our internal antioxidant defences against free radical damage. As environmental oxidants increase, these low molecular weight phytonutrients become increasingly important. Dietary antioxidants found chiefly in plant foods include vitamins C and E, beta-carotene, lycopene, zinc, selenium, and magnesium.

They also include a multitude of phytochemicals, the natural pigments found in plant food that not only act as a built-in shield to resist disease but give plants their characteristic colours, flavours, and aromas. Thousands of phytochemicals exist in plant foods, including chlorophyll, beta-carotene, lycopene, proanthocyanidins, catechins, ferulic acid, and lutein. These phytochemicals exert potent antioxidant properties that may be much stronger than the commonly known antioxidant vitamins C and E.

Zinc Booster

Zinc is an essential mineral needed to activate an important antioxidant blood enzyme called copper-zinc dependent superoxide dismutase. This enzyme is responsible for quenching the superoxide free radical, thereby reducing oxidative stress. A low dietary intake of zinc has been found to depress the activities of this antioxidant enzyme.

High-quality green food concentrate supplements may support antioxidant defences. A clinical trial to evaluate the antioxidant potential of a high-quality plant food concentrate was published in the Journal of the American College of Nutrition in 2003. It found that supplemental intake of greens significantly increases the activity of the antioxidant enzyme superoxide dismutase, increases plasma levels of the antioxidant mineral zinc, and reduces the levels of lipid oxidation in the majority of participants.

In line with the improvements in antioxidants in the body, total plasma cholesterol and LDL cholesterol levels were significantly reduced while the ratio of HDL (good) cholesterol to LDL (bad) cholesterol had improved. The cholesterol-modifying effects most likely resulted from the rich levels of water soluble fibre and the phytosterols contained within the supplement.

Interestingly, these results were found after only four weeks of supplementation, suggesting that green food supplements may help to improve antioxidant status and reduce cholesterol levels. Future long-term studies are warranted to further elucidate the health potential of plant food concentrates.

The Take-Home Message

So what does this mean? First and foremost: start consuming more plant food on a daily basis. Load your shopping cart with organically-grown fruits and vegetables, choosing a variety of super-antioxidant vegetables such as broccoli, kale, spinach, cauliflower, tomatoes, carrots, romaine lettuce, garlic, onions, and sweet potatoes. Aim for at least five servings daily. Also, start eating a minimum of three daily servings of antioxidant-rich fruit such as blueberries, raspberries, strawberries, oranges, limes, grapefruit, and grapes. Select beverages such as green, black, or white teas, which are rich in super-antioxidant phenolic compounds. Last but not least, consider sensible supplementation with a high-quality green food supplement.