

Take a Closer Look . . .

AT THE Antioxidant Advantage

Antioxidants are one of the hottest topics in the health field today. An abundance of published information emphasizes the importance of antioxidants in slowing the aging process and supporting good health. But what do we, as health-conscious consumers, know about them, and how do we choose the best source? Let's examine what the research shows.

Protect and maintain a strong immune system

Antioxidants are the body's major defense against free radicals, the electrically charged particles that cause oxidative damage to cells. Free radicals are partly responsible for negative changes associated with aging and various health problems. Some free radicals are produced in the body through normal daily activities, but increased levels may result from both internal and external stressors. Although we naturally produce some of the antioxidants we need, our ability to do so declines with age. Consuming antioxidants can help support the body's own defenses.

Numerous studies have demonstrated the link between human health conditions and free radical damage. Alcohol, cigarette smoke, strenuous exercise, inflammation, exposure to certain chemicals, radiation, air pollutants, and high-fat diets are all sources of these culprits. The stresses of modern living often create free radicals in quantities well beyond the body's natural ability to cope with them. The effect of free radical attack is called oxidative damage. Left unchecked, uncontrolled free radicals can have devastating health effects. Antioxidants fight free radicals by neutralizing them.

Healthy longevity with antioxidant nutrition

The human body is composed of over 75 trillion cells. In the course of life, these cells are under constant attack by unstable molecules (free radicals), which can do the kind of damage that leads to heart problems, various ailments, and aging. Their presence in the body sets off a chain reaction of molecular damage by reacting with your DNA and RNA, the blueprints by which your cells replicate themselves. As the natural by-product of metabolism and the result of environmental stress, even small numbers of these molecules can cause aging. Excessive

free radical damage, combined with insufficient natural defenses, contributes to the breakdown of the body. As we age, our bodies become less effective at combating oxidative damage, leading to both observable and invisible signs of aging. The National Institute on Aging sees a relationship between free radical damage and the decline in a healthy immune response as we age: "One age-related alteration in the immune system is the decrease in lymphocyte [white blood cell] response to antigens [foreign substances which may initiate disease]. A possible factor contributing to the decline in lymphocyte function is free radical damage."

The good news is that you can build resistance to free radicals with the use of antioxidant "cell-builders." Antioxidants change free radicals into stable oxygen and guard your cells against oxidative reactions. Antioxidants can also help with cellular repair, even if the DNA has been damaged by free radicals. Health and nutrition author Carlson Wade explains, "These youth-savers help replace the lipids otherwise damaged in your membranes. Antioxidants act as cleansers or scavengers by searching out and neutralizing free radicals, often before any molecular damage is done." Antioxidants can thus significantly delay, or even prevent, oxidation.

Choosing the right antioxidant


The four major antioxidant nutrients that we often hear about are vitamin A (beta-carotene), vitamin C, vitamin E, and selenium. Even more powerful are antioxidant enzymes that the body itself produces, and natural dietary antioxidant enzymes available

from whole food plant sources. It's important to get as many of our antioxidants as possible from natural whole food sources, such as sprouts and green foods.

Oxygen Radical Absorption Capacity (ORAC) is an assay that measures the total antioxidant power of foods and dietary supplements. Though several methods are used to measure the antioxidant capacity, ORAC is becoming the standard test method for this measurement. Super Blue Green® Algae (SBGA) contains 128 ORAC units per gram. In comparison, gram for gram, SBGA has five times more antioxidant capacity than blueberries, which are widely known to be high in antioxidant capacity.

The value of each individual antioxidant is important, but it is even more crucial to understand that antioxidants function most effectively when they are taken together. According to a 1999 article in Agriculture Research, Guohua Cao, a physician and chemist who developed the ORAC assay, proposed, "It may be that combinations of nutrients found in foods have greater protective effects than each nutrient taken alone."

Because antioxidant compounds are effective at very low concentrations, we can gain significant antioxidant protection from modest changes to our diet to include antioxidant and nutrient-rich whole foods such as sprouts, blue-green algae, coenzyme Q10, edible grasses, *Ginkgo biloba*, turmeric, green tea, essential oils, garlic, and soy.

Healthy variety in a diet, including colorful fresh fruits and vegetables as well as whole-food-based antioxidant supplements, is the key to supplying the body with important antioxidant nutrients. Antioxidant nutrition may be a key to optimal health and longevity. 

"It's not the passage of time that brings on aging. Instead, it is the destruction of your cells by free radicals that destroys your youth. Little by little, life and health slip through your fingers."

—Carlson Wade,
health and nutrition author