



did you know? Fighting Free Radicals

Why are antioxidants important? The common answer to the question goes something like this - "antioxidants are important because they fight free radicals." But what does this really mean?

REACTIVE OXYGEN SPECIES AND OXIDATIVE STRESS | WHY ANTIOXIDANTS ARE ESSENTIAL



Acai berries - the super fruit of the acai palm - contain a greater variety of antioxidants than any other known food!

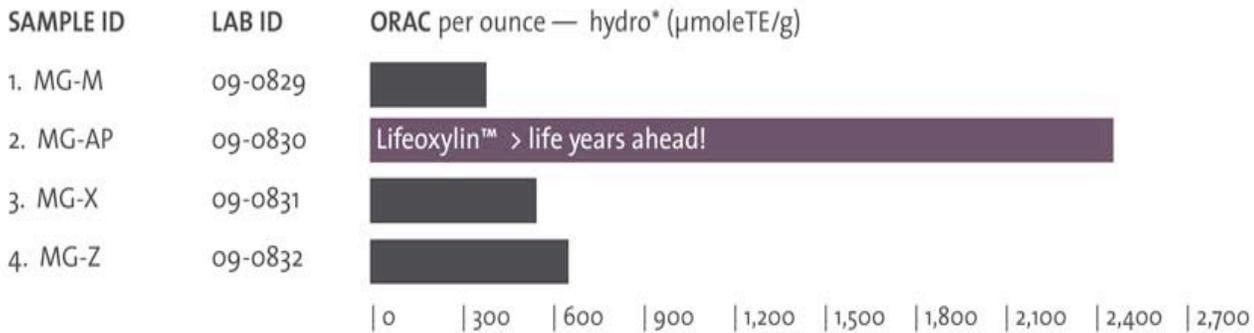
Oxygen is necessary to human life - we use it in the metabolic processes that create energy - but as a by-product of metabolism reactive oxygen species are formed. These molecules, which include free radicals, can harm cells by causing chemical reactions that damage proteins, DNA, and lipids. The physiological solution is a system of antioxidants which function to slow reactive oxygen species production or remove them before cell damage is done. So, if we produce them naturally, why do we need antioxidant supplementation?

OXIDATIVE STRESS HAS BEEN LINKED TO CELL DAMAGE, DISEASE, AND AGING. On a daily basis, exposure to pollution, UV radiation, poor diet choices, and many other environmental factors results in excess reactive oxygen species production. Put simply, we experience oxidative stress because antioxidant production in our body isn't 100% efficient - we're not capable of keeping up with the reactive oxygen species we're exposed to! Antioxidant production also declines with age, intensifying the need to acquire additional antioxidants from other sources, primarily fruits and vegetables.

Environmental exposure accelerates free radical production to the point where we experience oxidative stress - antioxidants combat the deleterious effects of reactive oxygen species overproduction.

ORAC VALUE | OXYGEN RADICAL ABSORBANCE CAPACITY

The oxygen radical absorbance capacity is the industry standard method for assessing the antioxidant strength of foods and juices - those with high ORAC values are capable of neutralizing high levels of free radicals. In a third party laboratory comparison of leading antioxidant drinks, the ORAC value of Lifeoxylin™ Elixir was 4 - 6 times higher than the competition. Now that's something to drink to!



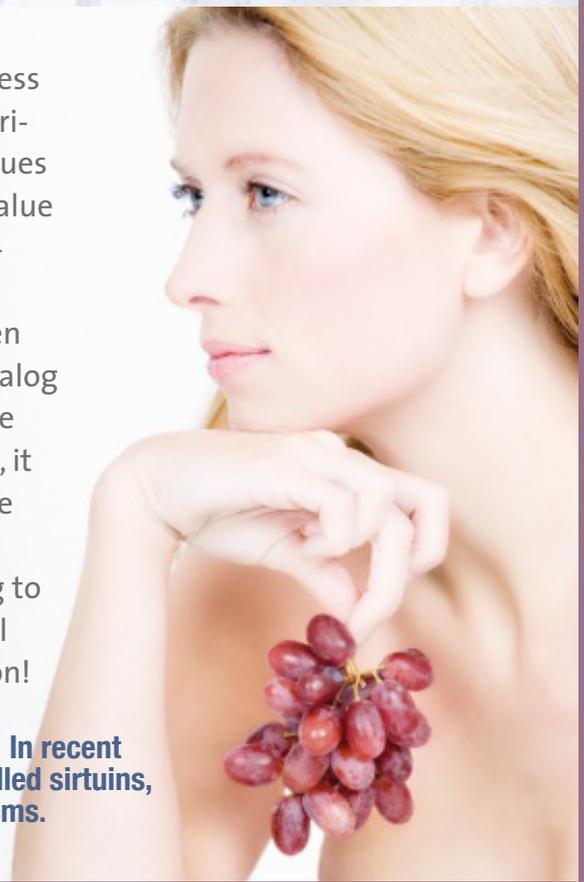
SOURCE: Brunswick Labs, Inc. 04/09

The ORAC analysis provides a measure of the scavenging capacity of antioxidants against the peroxy radical, which is one of the most common reactive oxygen species (ROS) found in the body. ORACHydro reflects water-soluble antioxidant capacity. Trolox, a water-soluble Vitamin E analog, is used as the calibration standard and the ORAC result is expressed as micromole Trolox equivalent (TE) per gram. The acceptable precision of the ORAC assay is 15% relative standard deviation.

The USDA recommends a minimum intake of 3000 ORAC units daily - that's more than 2 times the amount most people get from their normal diet!

HOW IS ORAC VALUE CALCULATED? Understanding the process is important when assessing the antioxidant capabilities of various foods and drinks - serving sizes and measurement techniques must be taken into account to accurately compare the ORAC value of different products! ORAC value is determined using an analytical method that measures the scavenging capacity of antioxidants against the peroxy radical (a common reactive oxygen species). The standard metric for comparison is a Vitamin E analog called Trolox, and results of the test are measured in micromole Trolox per gram (µmolTE/g). Instead of referring to this metric, it is common to describe the test results in "ORAC units" or as the "ORAC value." In tests of Lifeoxylin™ Elixir, the ORAC value (in µmolTE/g) was 86. Converting the value from a 1 gram serving to the suggested serving size of 1 ounce (28.3 grams) gives a total ORAC value of 2434 - that's light years ahead of the competition!

Grapes are a major source of the powerful antioxidant, Resveratrol. In recent studies, resveratrol has been found to boost anti-aging enzymes called sirtuins, which are universal regulators of aging in virtually all living organisms.



LIFEOXYLIN™ ELIXIR . . . DRINK YOUR COLORS | The pigments in food very frequently contain phytochemicals - including many with antioxidant properties - that are essential for overall health in terms of the way we look and the way we feel. Diets high in antioxidant rich fruits and vegetables provide a wide array of health benefits; in addition to protecting cells from oxidative stress, antioxidants are known to strengthen immune system function, reduce cancer risk, prevent muscular degeneration, and protect against heart disease. Eating a variety of different colors ensures that you are ingesting the same variety of antioxidants and nutrients. What colors do you get from Lifeoxylin™ Elixir?

Blueberry, Concord Grape, Purple Carrot, Acai, Noni, Blackberry, Mangosteen, Beet, Escobillo, Goji Berry, Pomegranate, Apple, Cranberry, Strawberry, Mango, Quebracho Extract, Yellow Carrot, Pineapple, Pear, Aloe Vera, Polypodium, Broccoli, Olive Leaf Extract, Spinach PLUS! Resveratrol, CoQ10, and ATP



“Take care of yourself inside and out and even aging can be beautiful!”

HAND-IN-HAND | DIETARY SUPPLEMENTS AND COSMETICS

It's obvious that our skin shows the signs of exposure to deleterious environmental conditions, but addressing the problem doesn't need to only take place on the outside. Because the skin is our largest organ and the link between our internal and external environments, ingredients designed to address oxidative stress - a major cause of aging - on the molecular level can be very effective in both topical applications and internal supplementation. This is supported by a growing body of research that suggests external and internal treatment go hand in hand in helping us prevent premature aging from exposure to environmental stresses. That's why the Celloxylin™ skin care line is jam packed with free radical fighting ingredients such as Resveratrol, Caffeine, Vitamin E, Vitamin A, Rhodiola Rosea Root Extract, and Angelica Polymorpha Sinensis Root Extract to name just a few! Take care of yourself inside and out with the Celloxylin™ + Lifeoxylin™ system and even aging can be beautiful!

Apriori Beauty™ . . . making life beautiful!