

Health Pearl # 25

The Essence of Antioxidants

Jacobus Hollewijn

The word “antioxidant” brings a smile to people’s face. It has a positive tone to it. They’re like bounty hunters: “Good Guys”, going after free radicals (“Bad Guys”).

Over forty years of studies have shown that any nutrient categorized as an antioxidant can protect against allergies, arthritis, cancer, cataracts and heart disease, as well as against disorders we are suffering from simultaneously, but which might be totally unrelated.

Free radicals are not really bad either. As a matter of fact they have many beneficial qualities; the problems comes when we have too many of them, because then they will attack our own immune system in order to survive.

Basically, a free radical is an incomplete molecule, highly reactive, because it is missing an electron. In order to survive it is now going after other cells in the body, trying to steal one of their electrons to become whole again. It is one thing if these free radicals go after free flowing bacteria (which is good), but it is another if they go after our own healthy and necessary cells. That will weaken our immune system, which can now cause all kinds of problems...

Antioxidants on the other hand are found in whole foods, and are also available through vitamins, minerals and herbs. Cooking, storing, microwaving and processing foods usually have a negative effect on these antioxidants. Now if our body becomes flooded with free radicals, and if it doesn’t get enough antioxidant help to fight them off, than we may go through an accelerated stage of decay.

Please let me explain. Our body is busy all day moving us from point A to point B, either leisurely or in the form of exercise; it is actively digesting nutrients, making our brain work, rejuvenating and repairing cells, as well as draining toxins from our cells and eliminating them from the body. That is a pretty responsible and elaborate job. Asking the body, on top of that, to go after the free radicals, we are creating an overwhelming task that resembles a candle burning at both ends. You literally will get burnout, a premature aging process, which will lead to a weakened immune system. This may cause fatigue, digestive problems, colds, flu, high blood pressure, hardening of the arteries, arthritis, stress, brain disorders and possibly cancer!

Aging can be described as the process that reduces the number of healthy cells in the body, or as the loss of extra reserves due to the decreasing amount of healthy cells in each organ. But we have to ask ourselves if this is because of the passage of time and we are just getting older, or because of a string of chemical reactions in the body? We have cellular aging actually beginning

before birth, which ends up being the ONE factor underlying the aging process of the entire body. Cells that are not functioning right have a hard time doing their function, because they are sick; we all know how that feels! Can we stop this entire process? Of course not! There are too many contributing factors as we move through life: we have a life to live, people to meet, places to see, etc... So eating fresh and organic foods, as well as taking nutritional supplements that contain antioxidants is a great way to relieve the body from this aging process and therefore start rejuvenation! We all like to rejuvenate and regenerate, because it brings back many abilities we had when we were younger!

The National Cancer Institute and the American Cancer Society have recognized the importance of the antioxidant nutrients. Vitamin C is one of them. All the research done on vitamin C, notably by Linus Pauling, but also more recently with cancer and AIDS patients, has made this vitamin a well accepted ingredient in many supplements and beauty items. Of course, therapeutic dosages by far exceed our FDA regulated RDA. Dosages up to 300 grams (300,000 mg!) daily are often needed to achieve necessary results.

There are a lot of great antioxidants, which is exciting because it gives us hope that we should be able to beat many of today's diseases, especially now as we understand that they are caused by a weakened immune system.

Vitamin A, which is fat-soluble, was first noticed back in 1925. Researchers discovered from that moment on that there was a relationship between a deficiency in vitamin A and cancer. More specifically: cancer-causing chemicals can react strongly with DNA in cells that are vitamin A deficient. They also found that animals nourished with this nutrient therefore had a hard time accepting implanted cancer cells. So, vitamin A deficiency doesn't cause cancer, but it makes the body less able to resist cancer.

Beta-carotene is also an antioxidant in its own right, which was demonstrated in 1981 when Dr. Eli Seifter of the Albert Einstein College Of Medicine reported that research with mice showed this nutrient could limit or prevent growth of cancer cells. But is primarily known for the fact that the body converts it into vitamin A. The body is able to split one molecule of beta-carotene in half to produce two molecules of vitamin A.

In another Health Pearl I will explain more specifically many of the great and some more obscure antioxidants, such as S.O.D. (Super Oxide Dismutase), Grape Seed Extract, Pycnogenol, Selenium, Magnesium, Zinc, Anthocyanidins, Curcumin (Turmeric), N-Acetyl Cysteine, Milk Thistle Extract, L-Glutathione, Green Tea and some good-ol' Vitamin E. You will also learn that antioxidant combinations are great because they work synergistically. And we'll discuss different foods that contain antioxidants!

Until then I wish you all a special fortnight!