

## **Antioxidants – benefit or bandwagon?**

**Antioxidants, it seems, are popping up everywhere... in our shops and supermarkets, added to foods and of course in the ever-swelling ranks of health supplements. But are they all they are cracked up to be...? This article raises some questions about whether antioxidants are the next frontier in nutritional health or just another bandwagon.**

### **Antioxidants – a quick resume**

If it wasn't bad enough that our bodies face attack from infections, pollution and starvation, we have to deal with the constant threat from nasty chemicals called free radicals. The body generates free radicals as byproducts of turning food into energy.

Free radicals come in many shapes, sizes and chemical configurations and are capable of damaging cells and genetic material. But all share a voracious appetite for electrons, stealing them from other cells and so radically altering the 'loser's' structure or function. Free radical damage can change the instructions coded in a strand of DNA, for example, making a low-density lipoprotein (LDL, sometimes called bad cholesterol) molecule more likely to get trapped in an artery wall. Or it can alter a cell's membrane, changing the flow of what enters the cell and what leaves it.

So how does the body defend itself? The current thinking is with 'antioxidants' also released from certain foods we eat. They work by generously giving electrons to free radicals without turning into electron-grabbing substances themselves.

### **Sources of antioxidants**

Antioxidant is a chemical property rather than a particular substance; the term really means an electron donor. In different chemical contexts, a substance could act as a pro-oxidant - grabbing electrons – rather than donating them.

Antioxidants are a relatively recent discovery and there may well be thousands of different types, still to be unearthed. The main ones are vitamin C, vitamin E, betacarotene and other related carotenoids, along with the minerals selenium and manganese. They're joined by glutathione, coenzyme Q10, lipoic acid, flavonoids, phenols, polyphenols, phytoestrogens, and many more.

Antioxidants do not act universally or interchangeably. Each one has unique chemical behaviors and biological properties. Which would indicate that we need an array of them rather than a few. So taking Vitamin C, E or betacarotene is not sufficient by itself... another reason for having a balanced diet.

### **Research – the jury is still out**

Studies of antioxidants have not supported their claimed disease-prevention properties very well. For example, here's an extract from a paper published by Harvard School of Public Health:

*In the Women's Health Study, 39,876 initially healthy women took 600 IU of natural source vitamin E or a placebo every other day for 10 years. At the study's end, the rates of major cardiovascular events and cancer were no lower among those taking vitamin E than they were among those taking the placebo. However, the trial did observe a significant 24 percent reduction in total cardiovascular mortality. Although this was not a primary endpoint for the trial, it nevertheless represents an extremely important outcome.*

There are other studies that are similarly inconclusive.

### **So what can we conclude?**

It is possible that individual antioxidants, by themselves, may not have a clear beneficial health effect. Evolution has created the human body to require a broad base of nutrients... a balanced diet. Fruits and vegetables that are the main sources of antioxidants are wholefoods that do not comprise single nutrients but rather an array with accompanying cofactors to aid absorption. If studies have been less than clear, it could be the antioxidant sources being used... synthetic products may not be well absorbed; isolated extracts, not in wholefood form, may equally not be up to the task.

Where does this leave supplements? In the same boat as normal food... good wholefoods should deliver a range of antioxidants. Therefore health enthusiasts should consider a selection of wholefood to ensure the body recognizes them as real food.

When it comes to individual antioxidant supplements, then it is probably wise not to take more than the recommended dosages and to take them alongside other antioxidants whether from fresh foods or wholefood supplements sources. In the end consumers needs to be discerning in what they believe, particularly with single antioxidants and isolated, synthetic nutrients that could be more bandwagon than beneficial.

### **The Xynergy range of antioxidants**

At Xynergy Health Products, we have always believed in balanced wholefood supplements and their selection includes:

**Pure Radiance C** – an elegantly crafted supplement delivering natural Vitamin C from Camu Camu, Amla, Acerola and Manioc Root but the beauty is, this supplement has all the natural co-factors re-introduced to ensure maximum absorption.

**Olive Leaf Complex** – polyphenols are also believed to have antioxidant properties and this supplement contains very powerful ones including Oleuropein and Hydroxytyrosol – the latter believed to be the antioxidant with the most free-radical scavenging capability.

**Blueberry Punch** – this health drink contains wholefood ingredients that have strong antioxidant properties including Olive Leaf, Green Tea and Turmeric as well as Blueberries.

**Spirulina** – most green superfoods contain levels of betacarotene, also thought to be an important antioxidant. Spirulina is a wholefood.