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# Heart to Heart Talk

With Philip S. Chua, M.D.

## Antioxidants

### What are Free Radicals ?

Oxidants are Free Radicals which our body normally produces to a certain level.. They are molecular fragments that destabilize and destroy other molecular compounds in our system. Free Radicals, in the normal level, ward off diseases, viruses and some disease causing organisms, but when there is an excess of them, they damage our body cells and even our DNA.

### How do Free Radicals cause harm to our body?

When the level of Free Radicals in our body is abnormally high, it alters the natural balance between them and the antioxidants in us, and cause damage to our health. The sun, for instance, with its Ultra Violet rays, dramatically wrinkle and age our skin by increasing Free Radical production, surpassing our naturally occurring antioxidants in the body. The Free Radicals cause damage to our body by the process of "Oxidation." The substances and nutrients that counteract and deter the oxidation of these harmful Free Radicals is, as a group, called Antioxidants.

### Is there really a craze for Antioxidants?

Yes, currently, there is a craze in antioxidants and vitamin supplements all over the world in the peoples' attempt to be healthier and slow down the aging process. The theory is, if oxidation is bad for our body, then we must take something to slow down or minimize the oxidative process. Hence, the Antioxidants.

### What increase Free Radicals or Oxidants level in our body?

Smoking, emotional and mental stress, lack of rest and relaxation, radiation, high cholesterol and heavy metals in the food we eat, environmental pollution, inactivity, alcohol, and anything that lowers our resistance will increase the level of Free Radicals in the body. The opposite (healthier lifestyle), obviously, lowers the level of Free Radicals in our body to the point of a good harmonious balance (Homeostasis).

## **Where can we get Antioxidants from?**

Antioxidants come in various forms. The basic Antioxidants are Vitamin E, Vitamin C, Vitamin A (and its precursor, Beta-Carotene), which are all important in maintaining the integrity of our immune system. Carrots, spinach, broccoli, and other vegetables are rich in Beta Carotene. Claims have been made that they fight cancer, especially of the colon and lungs. Drug stores now carry “vegetables in capsules” but eating fresh (natural) vegetables are, by far, the best, and cheaper. Why pay more for these “capsules” when we do not even know if they are any good at all?

## **Are there other antioxidant substances?**

Yes. Selenium is one of them. It is a mineral supplement that is said to complement Vitamin E as an antioxidant and could, in itself, act as an antioxidant. It helps our immune system and is claimed to slow down the aging process, if taken in the recommended dose. It usually comes with multivitamins in a caplet or capsule, or by itself. Before taking extra dose of Selenium or any other supplement medications, consult with your physician first, since most of them have toxicity or adverse side-effects, if taken in excess of what is already in the formulated multivitamin pills.

## **How about St. John’s Wort?**

No, this popular over-the-counter medication is not an anti-oxidant. It is claimed to be an anti-depressant drug, one that elevates the mood. This is not a prescription drug and not approved by the Food and Drug administration of the United States. This, and other medications, like DHEA, etc., have become almost household names because of effective multi-million dollar marketing to the public. While these medications may have made some people feel “better,” there have not been double-blind scientific studies that we know of to prove their efficacy and safety. Again, consult your physicians before taking any of these drugs.

## **Where do we get natural antioxidants?**

Natural antioxidants abound in fruits and vegetables. These are the safest sources of antioxidants, with no overdosing or toxicity, even if you eat a lot of them. After all these years, we are now finding out, borne out by well supported scientific evidences the past 2 decades, that our parents were right after all in pushing us to eat fruits and vegetables when we are children. Indeed, we ought to listen to our parents more often.

## **What is Beta-Carotene?**

Beta-Carotenes are antioxidants. They are precursor of Vitamin A. They come from a variety of vegetables, like Broccoli, spinach, carrots, etc. Many soft drinks and food items now prominently advertise that they contain Beta-Carotene. The advertisers in these cases are capitalizing on the antioxidant element in it.

## **If not FDA approved, are these drugs really effective and safe?**

The fact of the matter is, we, the consumers, do not know for certain that these medications or drugs are effective or safe. The public is under the mercy of the many of the manufacturers and vendors of these medications, who are raking in billions of dollars from the sale of these “supplements.” Most of the so called “proofs” they have are anecdotal testimonials from “users who have benefited from these drugs” published in the lay magazines, not in medical journals. Indeed, consumers, beware!!!

## **So, what do we, the public, do?**

The smartest thing to do is to rely on and use only proprietary medications, or those manufactured by renowned pharmaceutical companies that carry FDA approved medications, or proven companies in the Philippines which have been around for decades of service and integrity. Your physicians can help guide you on this matter more intelligently.

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