

Live Healthy and Be Well!

“The Fountain of Youth for Christmas?”

My good friend and Rabun photographer Peter McIntosh asked me about “anti-oxidants” one day, and wondered if that would be a good topic. Yes, it is, Peter! There is a lot of popular press about this topic, and it is often discussed on TV doctor shows, and used to sell nutritional foods and products. But, what is it really all about, and how much do they really help? Here is a basic primer about anti-oxidants as nutritional foods and supplements.

First of all, common anti-oxidant substances include Vitamins A, C, E; uric acid; a substance called glutathione, another called Coenzyme Q10 (Co-Q10, commercially), and other types of chemicals. Here is a brief table that lists some common anti-oxidants and their most common sources:

<b>Antioxidant compounds</b>	<b>Foods containing high levels of these antioxidants</b>
Vitamin C (ascorbic acid)	Fresh Fruits and vegetables
Vitamin E (tocopherols, tocotrienols)	<a href="#">Vegetable oils</a>
Polyphenolic antioxidants ( <a href="#">resveratrol</a> , <a href="#">flavonoids</a> )	Tea, coffee, <a href="#">soy</a> , fruit, <a href="#">olive oil</a> , chocolate, <a href="#">cinnamon</a> , <a href="#">oregano</a>
<a href="#">Carotenoids</a> (lycopene, carotenes, <a href="#">lutein</a> )	Fruit, vegetables and eggs

Notice that a common theme above is fresh fruits, vegetables, and even oils and things made from the same. Most of the better anti-oxidants are made in your body, or ingested with a healthy diet high in the above foods – so a lot of supplementation may not be necessary, and could even have a down side. For example, uric acid is a great anti-oxidant in the body, but too much can cause gout – therefore a balance is required. The following describes, in brief, how these healthy substances help us be better, faster, stronger, and hopefully live longer.

Our bodies need oxygen, of course. What we breathe in through our lungs diffuses into the bloodstream and is carried to the tissue through the circulatory system. It is used, along with nutrients, to fuel our cells, make our tissue viable, and to take away waste products and help repair damage. Damage to our tissue, cells, and DNA in particular all lead to aging and age related changes. So, what you must realize is that the same oxygen used to keep us going can be changed in these chemical reactions by our body into a different form known as “reactive oxygen species” (ROS) or “oxygen free radicals.” These substances represent “bad” forms of oxygen, and can lead to tissue damage, DNA damage, and even worse – can inhibit the natural repair of our DNA which leads to a multitude of disease states and unhealthy conditions.

The role that anti-oxidants play is that if your tissue is rich in these substances, they can “absorb” and reduce these bad forms of oxygen to be more harmless and do less damage – theoretically making us healthier, preventing disease, and slowing down the aging process. Okay, I hear what you are saying – “Where do I sign up? What do I take? How do you get on this bandwagon?” It sounds so simple...take some substance that “scavenges” up the ROS, and live longer, healthier,

and look and feel better! Finally, the magic bullet and the fountain of youth! And, this is exactly what a lot of people would have you believe, but...

One thing we learn through life is that if something sounds too good to be true, it usually is too good to be true. While we certainly do feel that eating a diet and possibly even taking some supplements or food sources rich in anti-oxidants is going to help with this process – it is far from the fountain of youth (sorry, Peter...but if you find it on one of your great hikes – let us know). Real scientific studies that are conducted properly have shown some controversy as to the overall effectiveness of adding anti-oxidant supplements to the diet.

People who eat fruits and vegetables have a lower risk of heart disease and some neurological diseases, and there is evidence that some types of vegetables, and fruits in general, may lower risk against some cancers. Since fruits and vegetables happen to be good sources of nutrients and plant derived chemicals, this suggested that antioxidant compounds in them might lower risk against several diseases...and it sounds good! But, this idea has been tested in a limited manner in several clinical trials and does not seem to be true, as antioxidant supplements have no clear effect on the risk of chronic diseases such as cancer and heart disease. This suggests that these health benefits come from other substances in fruits and vegetables (possibly dietary fiber) or come from a complex mix of compounds not yet fully understood. We hope, though, that with more testing, we can gather more information and possibly find direct linkages to some substances that are good for us and promote better health and slow down aging.

So, in summary, I am not saying that anti-oxidants don't work – no doubt they do and if you include them in your diet, you will benefit. However, as with weight loss and most aspects of good health – there are no “magic bullets” out there. Maintaining your health is a “big picture” that involves many important factors...discipline, healthy diet, regular exercise, and proper rest and hydration among them. Find some good sources of anti-oxidants and take them regularly, but also do the other healthy practices you know you should do, and limit or better yet, eliminate unhealthy habits (smoking, over-eating, not exercising), and your overall health will certainly improve and you will feel better and age more gracefully. To close, I must credit *Wikipedia* for some of the material presented in this article.

We really do enjoy hearing from you with any questions, concerns, or ideas for future columns and/or health and wellness related issues for the *Georgia Mountain Laurel*. Please send an email to [rabundoctor@gmail.com](mailto:rabundoctor@gmail.com), or call us at 706-782-3572, and we will be sure to consider your input. This and previous articles can be now be found on the web at [www.rabundoctor.com](http://www.rabundoctor.com) in an archived format. If you use Twitter, then follow us for health tips and wellness advice @rabundoctor. Accept our wishes for a Merry CHRISTmas and a happy and healthy New Year! Until next year, live healthy and be well!