

26 April 2007 - FACT BEHIND THE SUPER FOODS

Everywhere you look and every page you turn there is something about **antioxidants, free radicals, and the latest trendy super food.** **WeightMatters** wants to help you understand the information that concerns your health and well-being that floods the media. So enter the mysterious world of free radicals and antioxidants and discover what they mean for your health and long life.

diet



Antioxidants. We know that these are good for us. **Free radicals.** Well, we think those are perhaps not so good for us. Just why are super foods all that super? It all comes down to biochemistry and while the science surrounding these new buzzwords can be quite complicated, the basic concepts are not.

Let's start with the bad-guys, free radicals. These are naturally produced in the body through the normal metabolism of amino acids and fats. These **free radicals are unstable molecules that can freely react with and destroy healthy cells.** They can bind to and alter the structure of DNA thus leading to mutations and eventually to cancer. Besides cancer, this **oxidative stress** on the cells can lead to heart, eye, and neurological diseases.

Here is where the good-guys, those much touted antioxidants, come to the rescue. **Antioxidants refer to chemicals contained in certain food and produced by the body that reduce the rate of oxidation reactions within your body's cells.** These chemical compounds can bind to free oxygen radicals and thus prevent these radicals from damaging healthy cells.

So what are some of these antioxidants that have been found in such goodies as red wine and dark chocolate? Glutathione, lipoic acid, and CoQ10 are antioxidants formed naturally by the body but **their levels decline with age.** Vitamins C and E are necessary anti-oxidants but not produced by the body and must be obtained from the foods we eat.

The most common antioxidants are the vitamins A, C, and E. Some additional antioxidants are natrol, found in grapes and wine; and selenium, found in mushrooms.

Flavonoids consist of a large family of antioxidant compounds found in fruits and vegetables. Among the well-studied flavonoids in terms of cancer prevention are **catechins from green tea, genistein from soy, curcumin from turmeric, and anthocyanosides from blueberries.**

One of the reasons that there seems to be a new super food hitting the news each week is that, up to this point, not many foods have been thoroughly tested in terms of their effective antioxidant value. As research continues to increase dramatically in this area of nutrition, look for the list of super foods to continue to grow!

Sources: Moss, Ralph W. Antioxidants Against Cancer. Brooklyn, NY: Equinox Press, Inc., 2000 and "Update on Antioxidants." Nutrition Today January-February 2004: 25-31.

exercise



Weekend Warriors not only have increased likelihood of injury but now research shows that the person **who only participates in intense exercise sporadically increases free-radical damage.**

It is a true puzzle. We know exercise is good for us. It is suppose to help us stave off age and inevitable death. But yet when we exercise, our muscles consume more oxygen than when we are at rest. Increased oxygen consumption leads to increased production of free radicals.

So what do we do? Like much of life, it seems that nature likes to work with balanced equations. As it turns out, research on endurance athletes has shown that regular **physical exercise enhances the antioxidant defence system and protects against exercise induced free radical damage.** This is an important finding because it shows how smart the body is about adapting to the demands of exercise.

On the other hand, intense exercise in untrained individuals overwhelms defences resulting in, not only increased free radical production but also, increased free radical damage. Thus, the "weekend warrior" who is predominantly sedentary during the week but engages in vigorous bouts of exercise during the weekend may be doing more harm than good. To this end there are many factors which may determine whether exercise induced free radical damage occurs, including degree of conditioning of the athlete, intensity of exercise, and diet.

If you are not already fit, does this excuse you from starting an exercise regime? Absolutely not! **Start slowly and build strength and endurance bit by bit, day by day, week by week.**

Exercise does much to improve the quality of our lives. Understanding how our body responds to exercise, even on the molecular and cellular levels, can help us train better, be stronger, and avoid injury and, possibly, long term illness.

mind



Oxygenate the mind and **take another look at yoga.** Yoga has become so popular in the last decade that what was once seen by a majority of people as a fringe practice for hippies and vegetarians is now offered at every local YMCA and even in church basements. Mostly we think of it as a good stretch, or a way to relax. But if we take a more serious look at the practice, it centers on oxygen.

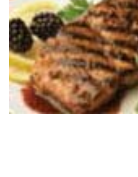
One of the most important concepts or elements to nearly every form of yoga is the breath. **The breath or controlled breathing in yoga is called Pranayama.** This term is derived from two Sanskrit words - Prana (life force) and Ayama (control). Therefore, in its broadest description, Pranayama would mean the control of the flow of life force.

It is important to remember that without oxygen, cells throughout our bodies begin to starve and eventually die. Prolonged oxygen deprivation (hypoxia) is otherwise known as suffocation and results in death. Consider also that **the brain is the body's single largest consumer of oxygen.** Although the brain represents only about 2% of the body's weight, it utilizes about 20% of the body's oxygen. As a result the brain is especially sensitive to hypoxia. After only 4 minutes without oxygen, large numbers of brain cells begin to die.

So discovering and practising Pranayama enhances our bodies' ability to collect, as it were, and fully utilize the oxygen from our atmosphere. And here's how in very simple terms -- during breathing (Pranayama), inhalation (puraka) stimulates the system and fills the lungs with fresh air. Retention (kumbhaka) raises the internal temperature and plays an important part in increasing the absorption of oxygen. Exhalation (rechak) causes the diaphragm to return to the original position and air, now mostly carbon dioxide and other impurities, is forced out.

Sounds easy enough but there is actual technique and practice involved in getting the full benefit of Pranayama. So check out a class or pick up a DVD and take some time each day to oxygenate your brain. Most of all, remember to breathe.

Recipe of the month



Cooking meals and including ingredients that contain high levels of antioxidants couldn't be easier. Start with wild, fresh, and/or organic ingredients and you are heading in a healthy direction.

Alaskan Halibut with Strawberry, Tangerine & Fresh Basil Salsa

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Fresh, tender Halibut combined with tangy strawberry and tangerine and a touch of fresh basil. Serve with a green salad or vegetable and a light white wine.

Prep time: 15 minutes, Cook time: 15 minutes, Serves 4

Four 250 gram Alaskan halibut fillets

Kosher salt, to taste

Black pepper, to taste

For Salsa:

450 grams organic strawberries, diced medium

3 fresh tangerines, peeled, seeded, diced medium

1 Tbsp. fresh basil, shredded

1/2 tsp. balsamic vinegar

1/4 tsp. cayenne pepper

1/4 tsp. kosher salt

1. Combine the strawberries, tangerines, basil, vinegar, pepper, and salt in a mixing bowl. Toss to completely mix, and allow to marinate for 30 minutes prior to using.

2. Preheat an oven to 150°C. Season the fish lightly with salt and pepper and grill over medium heat, or prepare in the oven. Remove the cooked fish, arrange on dinner plates or serving platter, and ribbon the salsa over the top of the fish.

Quote of the month

"I find the great thing in this world is not so much where we stand, as in what direction we are moving."

Oliver Wendell Holmes

Events

'Exploring how weight can lead to Size Discrimination'

Do you ever get discriminated against for being overweight, obese or even underweight? Are you working in an environment where someone's weight and size is a laughing matter? This seminar will give you greater understanding of how our weight, size and body image are affected by the environment in which we live. You will learn empowering intervention techniques to counter size and weight discrimination. The course is presented by the NCBI and WeightMatters on Tues 14th May 6.30-8.30pm, Wimpole Street W1G. Please call 0845 301 0470 to reserve a place. Numbers limited to 15.

THIS SEMINAR IS FREE

WM Fact #37

"We help you understand the core reasons for your current weight, and empower you to make the changes that are right for you!"

