**The Importance of Antioxidants in Fruits and Vegetables**

by Leigh Erin Connealy, M.D., citizen journalist  
  
(NaturalNews) Fall has arrived and with the crisp weather comes a cornucopia of delightful fruits and vegetables that not only taste great but are excellent health boosters, as well! Fruits and vegetables are packed with powerful antioxidants that can lower your risk of heart disease, cancer, diabetes-related damage and even slow down the body's natural aging process. So grab an apple and read on…  
  
What exactly are antioxidants and why do we need them? Antioxidants are nature's way of fighting off potentially dangerous molecules in the body. Such molecules come in the form of synthetic chemicals such as pesticides, plastics, and chlorine byproducts and are called free radicals. Free radicals are unstable molecules that essentially feed off of otherwise healthy molecules in order to survive. Every day tens of thousands of free radicals are generated within the body, causing cell damage that can lead to chronic and degenerative diseases if left unchecked.  
  
The body sometimes creates its own free radicals in order to destroy viruses or bacteria. To balance out these unruly molecules, the body also creates antioxidants, which have the sole purpose of neutralizing free radicals. The body is only designed to create a certain amount of antioxidants on its own however, and as we are faced with an ever-growing number of environmental toxins, the body is less capable of fighting off the unwanted harmful invaders.  
  
Fruits and vegetables provide the body with an added source of antioxidants that is needed to properly wage war against free radicals. Without the necessary intake of healthy fruits and vegetables, free radicals can spread and eventually lead to stroke, heart attack, arthritis, vision problems, Parkinson's disease, Alzheimer's disease and various types of cancer.  
  
The benefits of getting your daily dose of fruits and vegetables are numerous! The antioxidant, Vitamin E, is wonderful for your heart. Vitamin E has the ability to essentially "mop up" the LDL ("bad") cholesterol in your arteries, allowing for the necessary elasticity and blood pressure levels to keep your heart pumping safely. Cholesterol, if left untreated, builds up as plaque on the inside walls of the arteries, impeding blood flow LDL and forcing the heart to work overtime to continue functioning. Eventually, plaque buildup can become so severe that it can create a blockage in the artery, leading to heart attack or stroke. By getting enough Vitamin E in your diet you can give your body the necessary antioxidants to prevent your LDL cholesterol levels from getting out of control.  
  
Antioxidants can protect you against diabetes related damage. Free radicals thrive in the altered metabolic states of diabetics. But with the necessary antioxidants that fruits and vegetables can provide, free radicals can be neutralized, protecting your kidneys, blood vessels, eyes and heart from harmful damage.  
  
Free radicals cause cancer cells to grow. Many studies have linked cancer, including those of the stomach, prostate, colon, breast, bladder, esophagus and pancreas, to free radicals. Eating your fruits and vegetables may not prevent cancer altogether, but can give your body the fighting chance that it needs. Antioxidants can neutralize cancer cells before they develop into a mass. A recent study at Harvard University found that men who ate the most tomato based foods (rich in antioxidants) had a 35% lower risk of developing prostate cancer than those who ate the least amount of tomato based foods.  
  
Antioxidants slow the effects of aging! Free radicals damage the cells within our body that are vital to a youthful appearance and good health. Eating fruits and vegetables can slow down the loss of muscle elasticity that leads to wrinkles, boost your immunity making you less susceptible to illness, and put the breaks on memory failure, as free radicals injure the brain cells necessary for retaining information. Antioxidants are available in supplement form but are the most powerful when found in whole foods. The best practice is to combine a "greens" supplement (containing vitamins, minerals and antioxidants found in produce) with the recommended 5 to 9 servings of fruits and vegetables each day. Leafy vegetables, like spinach and collard greens, and orange colored fruits and vegetables such as mangos, oranges, cantaloupe, sweet potatoes and carrots are all excellent sources of the antioxidant beta-carotene. Fruits and vegetables containing lycopene, such as tomatoes, watermelon, guava, papaya, apricots and pink grapefruit, are also packed with antioxidants.  
  
It is important that when you are purchasing fruits and vegetables for yourself and your family that you shop in the organic section. The produce available in most stores no longer contains the level of nutrients that it did 100 years ago. Because of pesticides and the diminished mineral levels in soils used today, eating non-organic produce will not provide you with the antioxidants (or vitamins and minerals) that your body needs. On average, organic produce contains nearly 30% more nutrients than non-organic and is grown without using harsh chemicals that can lead to further free radical exposure. Autumn is a great time to start a new healthy habit that your family will love, and eating 5 to 9 servings a day of scrumptious organic fruits and vegetables really can keep the doctor away.

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**Article Assignment**

**By: Leigh Connealy**

**Part I: Individual Read**

*As you read the assigned article, use the codes listed below to indicate where you experience confusion, find an important idea, need clarification, react or connect to ideas, or can visualize what you are reading. Use the margins to note your code.*

|  |  |
| --- | --- |
| **?** | Question |
| **\*** | Important Idea |
| **C** | Confusion (need to clarify ideas or meaning) |
| **R** | Reminds me of…(react and connect to text) |
| **V** | Visualize |

**Part II: Small Group Discussion**

After reading the article answer the flowing questions in complete sentences.

Fruits and Vegetables

How does eating Fruits and Vegetables Slow down the aging process?

Why is Vitamin E so important?



What Health problems can be prevented by eating Fruits and Vegetables?



What Do Free Radicals Do to the Body?



What Are Antioxidants?

**Part III Large Group Discussion**

*As a class, share the ideas you organized in your chart. If necessary, add notes or ideas to your chart.*

**Part IV Written Reflection**

*Respond to one of the following prompts with detailed information and examples from what you have read. Explain how this relates to your own experiences and prior knowledge of this topic. You should have at least 2-3 solid paragraphs.*

***Prompt One:***

*Why is purchasing organic fruits and vegetables so important?*

***Prompt Two:***

*The current Food Guide Pyramid emphasizes eating 5 serving of fruits and vegetables a day; this article recommends 5 to 9 servings. What can you personally do to ensure that your body gets the antioxidants it needs to maintain a healthy body?*