

# Antioxidants

*“But the fruit of the Spirit is love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, self-control; against such things there is no law.”*  
Galatians 5:22-2

## What is an Antioxidant?

Antioxidants are organic substances found in many fruits and vegetables. They include vitamins A, C, and E, a mineral called Selenium, and beta-carotene—the thing that gives orange vegetables their color. In our bodies, antioxidants “deactivate” free radicals. Free radicals usually are in the form of an oxygen molecule inside our body, and are produced as a byproduct of many of the body’s natural processes. They may also be created by exposure to certain environmental factors, such as tobacco and radiation. When left unchecked, free radicals can damage cell walls, and the DNA in the cells. Go back to basic chemistry, and you will recall that O<sub>2</sub> molecules want to be oxidized, which is to say that they want to carry out a chemical change with oxygen. This process can sometimes create cancer cells. The role of antioxidants is to neutralize these free radicals that may lead to cell damage. The human body cannot produce its own antioxidants, also known as micronutrients. It is a simple matter to include antioxidants in our diet, but some people believe that we need to augment our diets with large dietary supplements. While scientific studies have shown that people who eat a good supply of fruits and vegetables have lower rates of cancer, none of these large, reputable studies have shown that dietary supplements give us the same results.

## Why eat antioxidants?

Solid research has shown that a good supply of antioxidants in our diet is good for the health of our eyes. They can actually prevent macular degeneration and cataracts (Paul Harvey has been telling us this for years). They support our immune system, and are thought to prevent age related declines of the brain and nervous system. By preventing DNA damage, they reduce the likelihood of cancer, and help prevent heart disease and strokes.

## Where can we find them?

Vitamin E is a fat soluble vitamin found in nuts, seeds, vegetables and fish oils, whole grains, fortified cereals, and apricots. The daily values (DV’s, formerly known as Recommended Dietary Allowances or RDA’s) is 15 units per day for men and 12 units a day for women. Beta-carotene produces Vitamin A. Beta-carotene can be found in liver, egg yolk, milk, butter, spinach, carrots, squash, broccoli, jam, tomato, cantaloupe, peaches, and whole grains. There is no set requirement for these. The CAUTION with these two is that Vitamin A and E are fat soluble, so any excess of these vitamins cannot simply be excreted in the urine. Instead, they are stored in the liver and fatty tissues, and pose a risk for creating toxic levels in the body.

Vitamin C is a water soluble vitamin found in citrus fruits and juices, green peppers, cabbage, spinach, broccoli, kale, cantaloupe, kiwi, and strawberries. The DV for this is 60 mg per day.

## Studies

According to the wikipedia web site, high dose supplements may increase the number of free radicals, causing the very damage they are taken to prevent. Studies of those who took antioxidant supplements showed no significant increase for overall survival for heart disease or cancer. However, there is a clear, positive connection between a diet consisting of at least five serving a day of fruits and vegetable and better, overall health.

## Conclusion

As with most things in life, the best course is balance and moderation. Your safest and healthiest approach is to eat a diet rich in fruits, vegetables, whole grains, and forget the mega supplements unless ordered by a physician for a specific need.

God has provided us with the resources we need to lead a healthy, productive life. It's up to us to use common sense and wholesome nature to support and sustain us.

Check out: [www.wikipedia.org](http://www.wikipedia.org)

[www.goaskalice.columbia.edu](http://www.goaskalice.columbia.edu)