

Could Too Many Antioxidants be as Bad as Too Few?

Posted by [Dr. Mercola](#) | August 13 2007

Despite the popular notion that antioxidants, such as vitamins C and E, offer health-promoting benefits by protecting against damaging free radicals, a new study in the August 10 issue of the journal *Cell* reveals that, in fact, balance is the key.

In a study on laboratory mice, researchers found that an overload of natural antioxidants could actually lead to heart failure. They're hoping that their research may pave the way for a new class of drugs to treat or even prevent heart disease caused by "reductive stress."



Reductive stress is a condition caused by excessive levels of reduced glutathione, which is one of your body's most powerful antioxidants. When your cells work properly, they produce just the right amount of reduced glutathione, which is healthy for your body. However, in some people, a mutated gene can disrupt the fine balance, causing the cells to produce too much.

The researchers found that by lowering the level of reduced glutathione in mice with failing hearts, they were able to increase their rate of survival dramatically.

"Basically, we prevented them from getting heart failure," said Dr. Ivor J. Benjamin, the study's lead author.

Oxidative stress is associated with a variety of deadly diseases, including heart disease, Alzheimer's, and Parkinson's.

[Cell August 10, 2007, 130\(3\):427-39](#)

[EurekAlert August 9, 2007](#)

Dr. Mercola's Comments:

The health of your body is dependent upon achieving and maintaining a delicate balance within your cellular environment, so it's not that surprising to find that too much of a good thing is, well, too much.

Many studies have demonstrated that antioxidants play a vital role in maintaining good health and reducing the risk of diseases like [heart disease](#), Alzheimer's, Parkinson's, and cancer, and may contribute to slowing down [the aging process](#) itself. However, other studies have found antioxidants to

have a neutral effect at best and a harmful effect at worst. However, many of these studies were flawed and used isolated synthetic supplements rather than those found in whole foods.

Nevertheless, the recommendation to simply supplement your diet with antioxidants isn't as simple as those who make them would have you believe.

Do You Really Need Antioxidants?

It is generally recognized that [antioxidants](#) are powerful nutrients that protect your health by fighting against free radicals in your body, preventing damage from oxidation. Free radicals are highly reactive molecules that steal electrons from the first thing they encounter, such as a cell wall, or a strand of DNA. The loss of an electron, in turn, oxidizes these cells, which makes them unstable and easily breakable.

As this free-radical damage continues, cells can no longer perform properly, and hence, tissues begin to degrade and disease sets in.

And yet, you still need a certain level of free radicals, as your body uses the chain reaction of the free radicals to turn air and food into chemical energy. They also play a vital role in your immune response, attacking foreign invaders and bacteria.

Eliminating or dramatically reducing them, might actually lead to **more** problems than not having them would solve.

Free radicals are a natural byproduct of breathing; antioxidants mop up the excess, and leave the rest to fulfill their other functions. This fine balancing act can be easily tipped to the point of either too much or too little.

Ah yes, isn't that the ticket? The Goldilock's equation, where we need just the right amount to achieve optimal health, not too much and not too little. Fortunately your body can do a phenomenal job of self-regulating many of these levels if you supply it with wholesome, healthy foods and dramatically limit your intake of processed foods, which are loaded with artificial chemicals. It also helps quite a bit when you normalize your insulin levels, as elevated insulin levels cause absolute havoc in your body, and disrupt nearly every major part of your physiology for the worse. When you have elevated insulin levels, the negative effects of free radicals are dramatically increased.

So what's the answer?

The answer is, "Yes, you do need antioxidants," but you need to make sure you're getting them from the right sources -- from the food you eat. A diet rich in fruits, vegetables, and nuts will usually supply you with the antioxidants needed to walk this fine line.

How to Get the Maximum Benefit From Your Antioxidants

One reason why a varied diet works [better than simply taking antioxidant supplements](#) is the fact that the isolated antioxidant may not be the exact one your body needs at that moment. Many supplements are also made from synthetic versions of the antioxidants, which will not synthesize properly within your body. Fruits and veggies, however, are rich in antioxidants, but they also contain hundreds of other chemicals, creating a synergistic effect where the total benefit is far greater than the sum of its parts.

Among the top ranked antioxidant-rich foods are:

- Berries (wild [blueberries](#), cranberries, blackberries, raspberries, strawberries, and [cherries](#))
- Beans
- Artichokes

Since your body has its own unique metabolism and nutritional needs, selecting fruits and vegetables that work best for [your particular nutritional type](#) will help you get the maximum health benefit. One of the quickest and easiest ways to boost the healthy antioxidants in your diet is to make a [vegetable juice tailored to your nutritional type](#), adding some fresh blueberries or other berries.

Feel free to eat fresh berries as well, however, take care not to eat too many, as berries are high in sugar and may cause your insulin levels to rise if eaten in excess. When buying vegetables, fruits, and berries, I strongly recommend you try to find locally grown, [organic produce](#), as they often contain greater concentrations of vital nutrients.

Lutein, from a group of antioxidants that includes vitamins A, C, and E, is one antioxidant that has been shown to help reduce your risk of developing heart disease. These lutein-rich foods can help you increase your intake of this beneficial antioxidant:

- Spinach
- Carrots
- Eggs (particularly raw egg yolks from organic eggs)

Under normal circumstances, your body is fully capable of neutralizing excess free radicals. However, your body may become overwhelmed, allowing free radical damage to occur if you:

- Eat a mostly junk food/processed food diet
- Don't get enough [sleep](#)
- Are under a lot of [stress](#)
- Are exposed to a high number of free radicals (via pollution, smoking, and so on.)

Additionally, free radical damage does accumulate with age, so the longer your lifestyle and/or environment permits free radical damage, the greater the consequences will be later on. Making a few simple lifestyle changes, however, can help you prevent free radical damage from taking its toll on your health.

Related Links:

- » [Important News You Need to Know About Heart Disease](#)
- » [Antioxidant Lutein Decreases Heart Disease](#)
- » [Vitamin E Reduces Heart Disease](#)
- » [Just One Extra Serving of Vegetables Lowers Heart Disease Risk](#)

Reference website: <http://articles.mercola.com/sites/articles/archive/2007/08/13/could-too-many-antioxidants-be-as-bad-as-too-few.aspx>