



What are antioxidants?

Antioxidants are nutrients found in certain foods that can halt oxidation in body cells. Oxidation causes free radical damage to our cells and our DNA. For that reason it is important to maintain a strong antioxidant defense system.

Benefits of antioxidants

- Antioxidants neutralize free radicals which are molecules in our bodies that cause degenerative disease and aging by causing oxidation of our cells.
- Antioxidants enhance periodontal health
- Antioxidants promote liver protection
- Antioxidants enhance eye health
- Antioxidants improve immune system function
- Antioxidants offer protection from cancer and diabetes
- Antioxidants improve cardiovascular health and prevents atherosclerosis, heart attacks and strokes
- Antioxidants can lower cholesterol levels blood pressure

How antioxidants work?

Antioxidants work in combination with other antioxidants.

There is a connection between oxidative damages and the occurrence of some diseases. For example the LDL oxidation by free radicals results in inflammation, which may lead to cardiovascular disease. If you increase the consumption of foods high in antioxidants, you will be able to reduce the potential damages from free radicals.

Sources of natural antioxidants

The best sources of natural antioxidants are the **plants**. Colorful fruits and vegetables are the best source of antioxidants. We can also get antioxidants from other sources :

Dietary supplements –Pharmaceutical grade supplements can provide the nutrients we are not able to get from our diet

Antioxidant food additives - ascorbic acid (vitamin C), citric acid, acetic acid (found in vinegar) and pectin are used in food industry for the prevention of food deterioration.

Green tea contains one of the most powerful antioxidants, which is commonly used for the production of antioxidant supplements for weight loss and anti-aging products.

Nutritional antioxidants

Antioxidant vitamins

- Vitamin A (synthesized from beta-carotenes) – carrots, squash, broccoli, sweet potatoes, tomatoes, kale, peaches and apricots
- Vitamin C (ascorbic acid) – citrus fruits, green peppers and leafy vegetables, broccoli, strawberries, blueberries, cabbage, tomatoes
- Vitamin E - whole grains, wheat germ, nuts, seeds, green leafy vegetables, vegetable oil

Antioxidant vitamin cofactors and minerals

- Coenzyme Q10
- Selenium (reduces the risk of male prostate cancer; should be taken in controlled amounts - large doses can be toxic) - grains, eggs, sunflower seeds, fish, shellfish, red meat, chicken, turkey
- Zinc – protects red blood cells from oxidation
- Manganese – has antioxidant properties as part of the SOD enzyme

Carotenoids: alpha-carotene and beta-carotene

Flavonoid polyphenolics (bioflavonoids)

- Green tea - one of the best antioxidant sources; green tea polyphenols are one of the most potent antioxidants
- Bioflavonoids are also found in pomegranate, blueberries, blackberries, other types of tea and some coffee types

Best antioxidant foods

In the list of **beverages and foods highest in antioxidants** White tea takes 3rd place, Green tea takes 5th place and Black tea takes 8th place.

Here's the full list of the top 20 best antioxidant foods:

1. Small red beans
2. Wild blueberries
3. Kidney beans
4. Pinto beans
5. Blueberries
6. Cranberries
7. Artichokes
8. Blackberries
9. Prunes
10. Raspberries
11. Strawberries
12. Red Delicious and Granny Smith apples
13. Pecans
14. Sweet cherries
15. Black plums
16. Russet potatoes
17. Black beans
18. Plums
19. Gala apples
20. Walnuts

The consumption of antioxidant-rich foods lowers the risk of certain diseases caused by cellular oxidative damages. The National Institute of Health recommends 9-12 servings of fruits and vegetables of high antioxidant value every day as part of a healthy diet to prevent cancer.