

# Antioxidants: An Army for Your Body

## What are antioxidants?

Antioxidants protect our cells by preventing them from becoming damaged. Our cells can become damaged by a process called oxidation. Oxidation is a natural process that occurs when oxygen interacts with our cells. In general, our bodies are good about controlling the oxygen and not allowing it to interact with our cells in a way that damages them. However, occasionally, the oxygen damages our cells, and these damaged cells are called "free radicals" or "oxidants". Free radicals can go on to damage additional cells in our bodies, and this chain reaction of cell damage can lead to diseases. Antioxidants bind to these free radicals to make them unable to damage other healthy cells. You can think of antioxidants as an army working in your body to fight against free radicals and diseases.



## Where do they come from?

Antioxidants are naturally found in the foods we eat- fruits, vegetables, grains, meats, and nuts, to name a few examples. Different antioxidants are found in different foods. We can also get antioxidants in the form of supplements or pills.

## Food or Supplements: Which is a better source of antioxidants?



Supplements can contain higher amounts of antioxidants than is present in food, so overdosing can become a problem; overdosing on antioxidants can actually lead to the diseases we are trying to prevent. For example, if men who already have a high amount of selenium (which is one of the antioxidants) in their bodies take additional selenium supplements, this increases their risk for prostate cancer.

Also, there are thousands of antioxidants that are naturally found in our food, and there is no way you can get all these different antioxidants and their individual benefits by taking supplements. We build a more effective "army" of antioxidants by getting them from our food. And, after all, isn't it more enjoyable to eat food than to take a pill?

## Different Foods, Different Antioxidants:

The main way we can tell that foods contain different antioxidants is by looking at the color of the food, because different antioxidants produce different colors in our food, especially in fruits and vegetables.



**Red Foods:** The antioxidant "lycopene" produces a red color in foods. This antioxidant helps protect our bodies against cancer and heart disease. Good sources of lycopene include: tomatoes, watermelon, and pink grapefruit.



**Orange/Yellow Foods:** An antioxidant called "beta-carotene" turns foods yellow and orange colors. This antioxidant helps protect us against tissue damage. Good sources of beta-carotene include: Sweet potatoes, apricots, cantaloupe, winter squash, and carrots. "Vitamin C" is another antioxidant that is found orange and yellow foods, especially citrus fruits like

lemons and oranges. Vitamin C is an antioxidant that helps to boost our immune system and protect us against infections.



**Green Foods:** The antioxidant that turns foods a green color, “lutein”, helps protect our eye health. Good sources of lutein include kale, spinach, turnip greens, Brussels sprouts, broccoli, and peas. Pistachios also contain lutein.



**Blue/Black/Purple Foods:** The main antioxidants found in these foods, “anthocyanins”, help protect us from heart disease, cancer, and memory loss. Sources of anthocyanins include: berries (strawberries, blueberries, cranberries, and raspberries), eggplant, blood oranges, red cabbage, red wine, black beans, red beans, and coffee. Tea and dark chocolate also contain types of antioxidants related to anthocyanins. The four main types of tea (white, oolong, black, and green), all come from the same antioxidant-rich tea leaf. As for dark chocolate, look for a kind with at least 70% cocoa content to get the most antioxidant benefits.



**White Foods:** “Anthoxanthins” in white foods may help reduce blood pressure and cholesterol and may help protect against heart disease and cancer. Sources include: cauliflower, bananas, mushrooms, white potatoes, pears, onions, and garlic.



**Seafood/Meats/Grains:** These foods are good sources of “selenium”, an antioxidant that helps protect our bodies from cancer. Sources include: tuna, sardines, lean beef, pork, and chicken and whole grains. Brazil nuts are especially high in selenium. Just one serving, or about 4-6 nuts, contains 700% of your selenium needs! Brazil nuts are one of the few food examples that you are encouraged to limit.



**Nuts:** Nuts are good sources of “Vitamin E”, an antioxidant which helps protect us against heart disease. Good sources include: nuts such as almonds, hazelnuts, pecans, and peanuts, as well as almond butter and peanut butter.



**Spices:** These flavorful spices are rich with antioxidants: clove, oregano, ginger, cinnamon, garlic, and turmeric. Add some to foods whenever you can!

\*\*\*Remember to eat a variety of foods and colors to get a variety of benefits from antioxidants!

The RAMP Home Delivered Meal Program provides free nutrition counseling for all registered diners. Perhaps you’ve been instructed by your doctor to follow a specific diet or have some questions about your daily eating. Our registered dietitian would be happy to chat with you. To set up an appointment or for more information on any nutrition topic, contact: *Linda*

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