Antioxidants and Your Diet

What are antioxidants?

Antioxidants are nutrients found naturally in food, especially in dark and brightly coloured vegetables and fruits. An antioxidant can be a vitamin, mineral, or phytochemical (a naturally occurring plant substance).

Antioxidants protect your body's cells from damage caused by harmful molecules called free radicals. Some free radicals are made during normal body processes like breathing, exercising and digesting food. Others come from cigarette smoke and pollutants in air, water and food.

A diet rich in antioxidants helps to keep you healthy and prevent chronic diseases such as cancer, heart disease and age-related macular degeneration (AMD).



Steps you can take

1. Get your antioxidants from food

   Eating foods rich in antioxidants like vegetables, fruits, whole grains, legumes (peas, beans and lentils), nuts, seeds and spices is the best way to get antioxidants. Whole foods contain many different antioxidants that work together to provide the best protection for your health.

   Here are some common antioxidants and their food sources:

   - Vitamin C is found in guava, peppers (red, yellow, green), kiwifruit, strawberries, citrus fruits, papaya, Brussels sprouts, broccoli, leafy vegetables, tomatoes and potatoes.
   - Vitamin E is found in almonds, sunflower seeds, vegetable oils, leafy vegetables, peanuts and peanut butter, sweet potato and avocado.
   - Selenium is a mineral found in Brazil nuts, fish, shellfish, meat, poultry, grain products, wheat germ, wheat bran, beans, oat bran and eggs.

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- Carotenoids include beta carotene, lutein and lycopene. Carotenoids usually have a yellow, orange or red colour. They are found in kale, tomatoes and tomato products, spinach, sweet potato, carrot, leafy vegetables, pumpkin, squash, guava, watermelon, grapefruit, apricots, broccoli and cantaloupe. Some carotenoids, such as beta carotene, are changed to vitamin A in the body. These are best absorbed when eaten with a small amount of fat.
- Flavonoids include anthocyanidins, flavonols and isoflavonols, which are often yellow or blue in colour. They are found in berries (especially dark colored berries), cherries, red grapes, onions, apples, cocoa, tea (especially green tea), citrus fruit, legumes, celery, chocolate, olives, soybeans, soy products and whole grain whole wheat.
- Some other antioxidants and their food sources include:
  Co-enzyme Q10: meat, poultry, fish, olive and canola oils, nuts and seeds
  Glutathione: spinach, avocados, asparagus, okra
  Curcumin: turmeric
  Betalain: beets
  Lipoic acid: spinach, broccoli, tomatoes, peas, Brussels sprouts
  Resveratrol: grapes, blueberries, peanuts

2. Eat more plant-based foods

- Experiment by adding different types of vegetables and fruits in your meals and snacks. Eat more of the ones you enjoy.
- Fill at least ¾ of your plate with plant foods such as vegetables, fruits, whole grains, legumes, nuts and seeds.
- Prepare meatless meals often. Try different recipes using nuts, seeds, tofu and other soy foods, legumes, fish and eggs. Find your favourites.
- Use healthy fats such as nut or seed butters and avocado as well as liquid vegetable oils such as canola, olive, or soybean when you cook and prepare meals. Healthy fats and oils contain antioxidants and help you absorb some nutrients better.
- Use a small amount of water when steaming or microwaving vegetables. This helps prevent antioxidant losses into the water.

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3. Be cautious with antioxidant supplements

   Antioxidant supplements, especially in high doses, have not been shown to prevent chronic disease and may be harmful to your health. Speak with a registered dietitian or your health care provider before taking antioxidant supplements. Depending on your overall health, diet, and any medications or supplements you already take, an antioxidant supplement may do more harm than good.

Do antioxidants protect against inflammation?

Some foods that contain antioxidants may have anti-inflammatory properties. Rather than focusing on single foods and nutrients, it is best to follow a healthy eating plan. Examples include Canada's Food Guide, the Mediterranean diet, DASH diet or Portfolio diet. These eating patterns will ensure that you are getting a variety of nutrients, including antioxidants, that act together to support optimal health and well-being.



Additional Resources

- Health Canada, Canada's Food Guide https://food-guide.canada.ca/en/

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Notes

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