

# ANTIOXIDANTS

## Fact sheet

### WHAT ARE ANTIOXIDANTS?

Antioxidants are chemicals that occur naturally in foods. They help fight the potentially harmful effects of unstable substances known as free radicals. Free radicals are chemicals that are formed during the body's normal metabolic processes and through general wear and tear on body cells. Infections, UV light (from both the sun and artificial tanning machines), cigarette smoke, pollution and even exercise can all generate free radicals<sup>1</sup>.

### WHAT DO ANTIOXIDANTS DO?

Antioxidants come to the rescue of healthy body cells by mopping up some of the free radicals which would otherwise damage them, thus helping to reduce their harmful action. Our bodies make their own antioxidants, but they also make use of antioxidants in the food we eat. Studies have shown there are many benefits from eating plenty of antioxidant-rich foods which, together with an active, balanced lifestyle, can help reduce the risk of certain cancers and heart disease<sup>2</sup>.

### WHICH ANTIOXIDANTS ARE FOUND IN FOOD?

Some of the best known antioxidants in food include<sup>3</sup>:

Type of antioxidant	Foods sources
Vitamin C	Oranges, blackcurrants, kiwi fruit, mangoes, strawberries, broccoli, spinach, capsicum
Vitamin E	Avocados, vegetable oils, nuts, seeds and whole grains
Carotenoids	Beta carotene is the orange colour found in orange, pumpkin, mangoes, apricots, carrots, and lycopene which gives tomatoes their red colour
Polyphenols	Flavonoids including: <ul style="list-style-type: none"> <li>&gt; Isoflavones - soy beans, tofu, lentils, peas and milk</li> <li>&gt; Flavonols - tea, green tea, citrus fruits, red wine, onion and apples</li> <li>&gt; Catechins - cocoa, dark chocolate, tea</li> <li>&gt; Anthocyanins found in cranberries, red wine, blueberries</li> </ul> Phenolic's including: <ul style="list-style-type: none"> <li>&gt; Chlorogenic acid - instant and brewed coffee</li> </ul>
Melanoidins	Formed during dry roasting of coffee beans
Indoles	Cruciferous vegetables such as broccoli, cauliflower and cabbage

### WHICH FOODS CONTAIN ANTIOXIDANTS?

The good news about antioxidants is that it's easy to get more into our diets - there are many foods we eat each day that contain antioxidants.

- > Fruits - berries, citrus fruits, apricots, mangoes and red grapes
- > Vegetables - broccoli, spinach, tomatoes, carrots and capsicum
- > Legumes - kidney beans, pinto beans and soy beans
- > Nuts - pecans, walnuts, pistachios and hazelnuts
- > Beverages - coffee (instant and brewed), tea (especially green tea) and red wine
- > Dark chocolate



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## TIPS FOR BOOSTING ANTIOXIDANTS IN YOUR DIET

It's easy to get enough antioxidants by choosing a balanced diet rich in fruits, vegetables and wholegrains. Here are some tips on boosting the antioxidants in your diet:

- › Top your breakfast cereal with sliced strawberries and kiwi fruit
- › Make sure you have two pieces of fruit every day
- › Drink coffee in moderation, as a source of antioxidants
- › Pack fruit salad for a vitamin and antioxidant-rich school snack
- › Keep canned or frozen berries on hand for smoothies, or add to yoghurt for a delicious dessert
- › Use tomato-based sauces and tinned tomatoes with your pasta
- › Have tomatoes or mushrooms on toast
- › Go Mexican and use red kidney beans in your bolognaise sauce
- › Snack on mixed dried fruit and nuts
- › Include carrots, pumpkin, eggplant, onion, garlic and capsicum in your Sunday roast
- › Pile your plate high with red, yellow and green vegetables
- › If you want to indulge occasionally, enjoy a small amount (about 20g) of high cocoa dark chocolate or hot cocoa/ hot chocolate.

## DISPELLING THE MYTHS

**Q:** Coffee is a natural source of antioxidants - true or false?  
**A:** True. Coffee is a natural source of antioxidants. It contains even more antioxidants than green tea, black tea and cocoa<sup>4</sup>. Drink coffee in moderation.

**Q:** De-caffeinated coffee has less antioxidants than ordinary coffee - true or false?  
**A:** False. It contains antioxidants that are found naturally in green beans or are formed during roasting. Instant decaffeinated coffee is made exactly the same way as other coffee except the caffeine is removed. Nothing is added and only caffeine removed using a gentle non-chemical process.

**Q:** Should I take antioxidant supplements?  
**A:** Some research suggests antioxidant supplements are less effective than a well-balanced diet, which includes antioxidants from whole foods<sup>5</sup>.

**Q:** I've heard red wine has antioxidants, does that mean I should drink it?  
**A:** Red wine does contain antioxidants and there is evidence to suggest that drinking moderate quantities of wine, particularly red wine, may help to protect against heart disease. However, there is also a lot of evidence that excessive consumption of alcohol leads to increased risk of disease and injury.

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Nestlé has always maintained a commitment to advances in nutrition and is continuing this through its partnership with the Dietitians Association of Australia (DAA) and the Australian Institute of Sport (AIS)

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- 5 Better Health Channel. Food Fact Sheets: Antioxidants. <http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Antioxidants?open> (10 March 2008).

***This fact sheet contains general information. Please consult your healthcare professional for specific advice for your personal situation.***

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