

Phytonutrients

Polyphenols

Polyphenols are a category of antioxidants that help to protect against harmful reactions in human cells.

Polyphenols are classed in subcategories, which consist of (bio)flavonoids (the most abundant group), phenolic acids, stilbenes and lignans. Several thousand flavonoids have been identified, which provide much of the flavour and colour in fruits, vegetables, berries and flowers.

As a group with other polyphenols, flavonoids have been linked to potential health benefits as a result of their antioxidant, antibacterial, antiviral, anti-inflammatory and anti-allergenic properties.

Vegetables, fruits and green tea are good sources of polyphenols.

Lutein

The phytonutrient, lutein, is another member of the carotenoid family and is a natural pigment found in a number of plant sources.

Lutein offers antioxidant protection against oxidative and free radical damage in various organs, and plays an especially important role in promoting eye health.

Lutein has been the subject of considerable research on its role in maintaining eye health and reducing the risk of age-related macular degeneration. Lutein can be found in collard greens, kale, spinach and egg yolk.

Zeaxanthin

The phytonutrient, zeaxanthin, is a rarer chemical cousin of the carotenoid lutein, but is actually quite different in molecular structure.

The eyes are repositories for carotenoids with lutein and zeaxanthin concentrated in the retina and lens.

Some research suggests that a combination of lutein with zeaxanthin offers even greater antioxidant properties in protecting the eyes, than lutein alone. Some food sources for zeaxanthin are collard greens, kale, spinach and egg yolk.



Sources of polyphenols

Type	Source
Plant	Cranberries, red grapes, dark chocolate, green tea, some spices



Sources of lutein

Type	Source
Plant	Collard greens, kale and spinach
Animal	Egg yolk



Sources of zeaxanthin

Type	Source
Plant	Collard greens, kale and spinach
Animal	Egg yolk