

Antioxidants and its functions in human body

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ABSTRACT : Antioxidants are man-made or natural substances that may prevent or delay some types of cell damage. Antioxidants are found in many foods, including fruits and vegetables. Although oxidation reactions are crucial for life, they can also be damaging; plants and animals maintain complex systems of multiple types of antioxidants, such as glutathione, vitamin C, vitamin A, and vitamin E as well as enzymes such as catalase, superoxide dismutase and various peroxidases. Traditional herbal medicines and dietary foods were the main source of antioxidant for ancient peoples that protected them from the damage caused by free radicals. Antioxidants are widely used in dietary supplements and have been investigated for the prevention of diseases such as cancer, coronary heart disease and even altitude sickness. Although initial studies suggested that antioxidant supplements might promote health, later large clinical trials of antioxidant supplements including beta-carotene, vitamin A, and vitamin E singly or in different combinations suggest that supplementation has no effect on mortality or possibly increases it. These are also used in the food industry in the form of preservatives in foods and cosmetics and to prevent the degradation to rubber and gasoline.

Key Words : Antioxidants, type of antioxidants, source of antioxidants, role of antioxidants,