

Tomato Lycopene: Functional Properties and Health Benefits

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Abstract : The growing concerns for physical wellbeing and health have been reflected in the way we choose food in our table. Nowadays, we are all more informed consumers and choose healthier foods. On the other hand, stroke, cancer and atherosclerosis may be somehow minimized by the intake of some bioactive compounds present in food, the so-called nutraceuticals and functional foods. The aim of this work was to make a revision of the published studies about the effects of some bioactive compounds, namely lycopene in human health, in the prevention of diseases, thus playing the role of a functional food. Free radical in human body can induce cell damage and consequently can be responsible for the development of some cancers and chronic diseases. Lycopene is one of the most powerful antioxidants known, being the predominant carotenoid in tomato. The respective chemistry, bioavailability, and its functional role in the prevention of several diseases will be object of this work. On the other hand the inclusion of lycopene in some foods can also be made by biotechnology and represents a way to recover the wastes in the tomato industry with nutritional positive effects in health.

Keywords : tomato, lycopene, bioavailability, functional foods, carotenoids, cancer and antioxidants

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