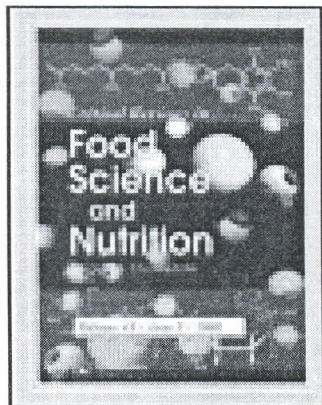


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### A Review on Factors Influencing Bioaccessibility and Bioefficacy of Carotenoids

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# ACCEPTED MANUSCRIPT

## A REVIEW ON FACTORS INFLUENCING BIOACCESSIBILITY AND BIOEFFICACY OF CAROTENOIDS

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**Keywords:** Carotenoids, Bioavailability, Bioaccessibility, Bioefficacy, Bioconversion, Dietary factors

## Abstract

Vitamin A deficiency is one of the most prevalent deficiency disorders in the world. As shown by many studies plant food based approaches have a real potential on prevention of vitamin A deficiency in a sustainable way. Carotenoids are important as precursors of vitamin A as well as for prevention of cancers, coronary heart diseases, age-related macular degeneration, cataract etc. Bioaccessibility and bioefficacy of carotenoids are known to be influenced by numerous factors including dietary factors such as fat, fiber, dosage of carotenoid, location of carotenoid in the plant tissue, heat treatment, particle size of food, carotenoid species, interactions among carotenoids, isomeric form and molecular linkage and subject characteristics. Therefore even when carotenoids are found in high quantities in plant foods their utilization may be unsatisfactory because some factors are known to interfere as negative effectors.

**Keywords:** Carotenoids, Bioavailability, Bioaccessibility, Bioefficacy, Bioconversion