

Fruits and stir-fried vegetables increase plasma carotenoids in young adults

YU-JU LIN, YI-WEN CHIEN, SHWU-HUEY YANG AND HSING-HSIEN CHENG
Lin YJ;Chien YW;Yang SH;Cheng HH

Abstract

We examined the plasma levels of carotenoids in young adults after a dietary intervention composed of increased intakes of fruits and stir-fried vegetables from a Taiwanese mixed diet. Thirty-four apparently healthy, non-smoking subjects who normally ingested less than two and a half servings of fruits and vegetables daily were selected for the study. Meals changed were lunch and dinner on weekdays for a period of 4 weeks. The test meal consisted of three servings of stir-fried vegetables and two servings of fresh fruits. Plasma carotenoid levels in subjects significantly increased from 19%-32% for β -carotene, 15%-47% for lycopene and 59%-88% for β -cryptoxanthin ($p < 0.05$) from week 1 to 4. However, these concentrations of β -carotene and lycopene significantly decreased after stopping the consumption of the test meals. This study reveals the importance of a continuous consumption of carotenoid rich foods in order to maintain high levels of plasma carotenoids for the potential prevention of chronic diseases in individuals.