

Item 1 of 1

1. Mol Nutr Food Res. 2010 Apr 27. [Epub ahead of print]

Systemic inflammatory load in humans is suppressed by consumption of two formulations of dried, encapsulated juice concentrate.

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Abstract

Chronic inflammation contributes to an increased risk for developing chronic conditions such as cardiovascular disease, diabetes, and cancer. A high "inflammatory load" is defined as elevated inflammation markers in blood or other tissues. We evaluated several markers of systemic inflammation from healthy adults and tested the hypothesis that two formulations of encapsulated fruit and vegetable juice powder concentrate with added berry powders (FVB) or without (FV) could impact markers of inflammatory load. Using a double-blind, placebo-controlled approach, 117 subjects were randomly assigned to receive placebo, FV, or FVB capsules. Blood was drawn at baseline and after 60 d of capsule consumption. We measured inflammatory markers (high sensitivity C-Reactive Protein, Monocyte Chemotactic Protein-1, Macrophage Inflammatory Protein 1-beta, and Regulated upon Activation, Normal T cell Expressed and Secreted), superoxide dismutase, and micronutrients (beta-carotene, vitamin C, and vitamin E). Results showed Monocyte Chemotactic Protein-1, Macrophage Inflammatory Protein 1-beta, and RANTES levels were significantly reduced and superoxide dismutase and micronutrient levels were significantly increased in subjects consuming both FV and FVB, relative to placebo. Data suggest a potential health benefit by consuming either formulation of the encapsulated juice concentrates through their anti-inflammatory properties.

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