

COMMENTS

Comment on *Citrus aurantium* Minireview

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The *Citrus aurantium* minireview published in the September 2004 issue mistakenly implies that bitter orange supplements are likely to affect drug metabolism (Fugh-Berman A, Myers A. *Citrus aurantium*, an ingredient of dietary supplements marketed for weight loss: current status of clinical and basic research. *Exp Biol Med* 29:698–704, 2004). The authors cite research on bitter orange juice, which is not relevant to the plant parts used in dietary supplements. The fact is that while the juice may have this

property, there is no reason to believe that bitter orange extracts, made from the dried fruit or peel, have any such effect. In fact, a study of 12 human volunteers taking a supplement containing bitter orange found no effect on drug metabolism (1).

It should also be noted that the clinical effect of continuous intravenous administration of synephrine at 4 mg/min, the authors' evidence for hemodynamic changes caused by synephrine, is not directly applicable to oral consumption of bitter orange extracts in dietary supplements, which would be expected to deliver considerably less of this compound.

In order for a critical review of a dietary supplement ingredient to be meaningful, consideration must begin with proper identification of the ingredient that consumers are actually taking. Research on one part or constituent of a plant should not be assumed to be relevant to all other parts of that same species.

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1. Gorley BJ, Gardner SF, Hubbard MA, Williams K, Gentry B, Carrier J, Edward D, Khan I. Assessment of botanical supplementation on human cytochrome P450 phenotype: *Citrus aurantium*, echinacea, milk thistle, saw palmetto. *Clin Pharmacol Ther* 75: P35, 2004.