Implementing phytosterols into medical practice as a cholesterol-lowering strategy: overview of efficacy, effectiveness, and safety.

AbuMweis SS¹, Marinangeli CP², Frohlich J³, Jones PJ⁴.

Author information

1 Department of Clinical Nutrition and Dietetics, Faculty of Allied Health Sciences, The Hashemite University, Zarqa, Jordan.

2 Richardson Centre for Functional Foods and Nutraceuticals, University of Manitoba, Winnipeg, Manitoba, Canada.

3 Pathology and Laboratory Medicine, University of British Columbia, St. Paul's Hospital, Vancouver, British Columbia, Canada.

4 Richardson Centre for Functional Foods and Nutraceuticals, University of Manitoba, Winnipeg, Manitoba, Canada. Electronic address: peter_jones@umanitoba.ca.

Abstract

More than 200 clinical trial reports and several meta-analyses have demonstrated that phytosterols (PSs), natural components of plants, induce clinically relevant reductions in blood low-density lipoprotein cholesterol levels. Here we review data regarding the biochemical effects and potential cardiovascular benefit of PSs as part of the dietary management of dyslipidemia. In addition to discussing the efficacy, effectiveness, and safety of PSs as hypocholesterolemic agents, this review provides an overview of PSs as an adjunctive therapy to cholesterol-lowering pharmaceuticals. Given this lack of evidence regarding the benefits of PSs for reducing cardiovascular end points, this review also discusses the present knowledge that exists about the ability for therapeutic dosages of PSs to confer protection from cardiovascular-related mortality and morbidity. Finally, this review summarizes the factors that affect PS efficacy and the Canadian regulations that govern the use of PSs as cholesterol-lowering agents in foods and supplements.

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