

**ANTI-INFLAMMATORY AND LIPID-LOWERING DIETARY
SUPPLEMENTS FOR REDUCING THE RISK OF CARDIOVASCULAR
DISEASE**

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Abstract

For the past 3-4 decades, the focus of public health strategies for reducing the risk of cardiovascular disease (CVD) have been aimed at lowering blood cholesterol levels. However recent findings have highlighted that not only cholesterol but also circulating triglycerides are a risk factor for CVD. In addition, elevated inflammation has emerged to be a major risk factor for the development of coronary heart disease. A suite of diet and lifestyle changes are used for the management of dyslipidaemia and have been shown to modestly lower LDL-C. Long-term compliance, complexity of adopted diet/lifestyle changes, poor motivation, lack of clinical follow-up and food aversions can impede the ability to achieve and sustain target blood lipid levels. Subsequently, pharmacological interventions are often indicated, however, cost, adverse health effects and intolerance, lack of effectiveness, patient perceived concern of long-term side effects and complex drug regimens are barriers for long-term compliance. Consequently, nutraceuticals such as phytosterols, soluble fibres and other bioactives have been recognised as adjunct and/or alternative lipid-modulating therapies for optimising dyslipidaemia. Dietary strategies to reduce not only circulating lipid levels, but also those lowering inflammation and/or increasing resolution of inflammation are desirable and are currently being sought, which may be able to offer long-term safe and efficacious comparable with effective drug treatments. Human intervention studies involving a combination of lipid-lowering and anti-inflammatory nutraceuticals have provided evidence for favourable health outcomes and is paving way for the development of functional foods fortified with healthful bioactive compounds.

Keywords

Dietary supplements, functional foods, nutraceuticals, dyslipidaemia, inflammation, cardiovascular health