Plant Sterols

Overview

- Phytochemicals, or "plant chemicals," have received attention for their beneficial effects on chronic diseases. Large scale studies showed that the consumption of fruits and vegetables may help prevent coronary heart disease.
- Phytochemicals make up three groups based on their chemistry: sterols, flavonoids, and sulfur compounds. Plant sterols are fat soluble and have been incorporated into margarine spreads.
- They are naturally occurring components of plant cell membranes, just like cholesterol is part of animal cell membranes.
- The three most abundant plant sterols are: Beta-sitosterol, Campesterol, and Stigmasterol.

Where can I find these?

- You can find plant sterols in products such as Take Control and Benecol, which are margarine-like spreads available in the dairy section of your local supermarket.
- These products have been authorized by the Food & Drug Administration (FDA) to include cholesterol-lowering claims on their labels.
- Authorization of these claims is based on the evidence that these spreads may help lower LDL cholesterol, which in turn, would reduce the risk of coronary heart disease in some individuals.

Future Research

Future areas of research will likely exist in the area of plant sterol consumption and cancer risk.

Proposed Health Effects

Since the 1950's it has been recognized that plant sterols reduce serum LDL cholesterol concentrations by an average of 10-15%. Plant sterols and their derivatives act in the intestinal track by *inhibiting* the intestinal absorption of cholesterol. Thus, when plant sterols are part of a regular diet, they lower serum cholesterol concentrations.

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