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## Selected natural agents used for cholesterol controls

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### NUTRITION & FOOD SCIENCE

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### Abstract

Purpose Various studies suggest that some of natural agents create a specific action of hypocholesterolemic effect. Considering this fact, the aim of this paper is to work on describing selected natural agents that may reduce cholesterol concentrations by different mechanism of actions.

Design/methodology/approach The advantages, phytochemical components and the mechanisms of the agents were reviewed and supported from the findings of the in vitro, double-blind and clinical studies from published journals, books and articles. The journals used in this review were published between 1987 and 2016, and are available from PubMed, ScienceDirect and Google Scholar.

Findings Plant stanols and sterols, turmeric, fenugreek, avocado, tomato, artichoke, red yeast rice and garlic showed a positive effect in maintaining cholesterol levels by specific mechanisms or actions. These agents each had a specific action in creating a hypocholesterolemic effect either by inhibition of the enzyme significant to the synthesis process, disturbing the absorption of cholesterol, conversion of cholesterol to other related forms and through the reduction of the oxidative stress.

Research limitations/implications However, this field still needs more studies as, currently, there is not any detailed information regarding the main active ingredients responsible for the mechanism to reduce cholesterol levels in humans.

Originality/value This paper enlightens the authors' understanding of some natural agents that have the potential to be used in controlling cholesterol.

### Keywords

**Author Keywords:** Health foods; Food

**KeyWords Plus:** RED-YEAST-RICE; LOW-DENSITY-LIPOPROTEIN; ARTICHOKE LEAF EXTRACT; PLACEBO-CONTROLLED-TRIAL; FENUGREEK SEEDS; CYNARA-SCOLYMUS; FATTY-ACIDS; ANTIOXIDANT ACTIVITY; PLASMA-CHOLESTEROL; OXIDATIVE STRESS

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