

## FOOD-ANTI-INFLAM-Food ingredients with possible anti-inflammatory properties: A review

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Plant sterols or stanols are plant components found naturally in fruits, vegetables, nuts, seeds, cereals, legumes, vegetable oils and other plants. A few recent studies looked at the effect of plant sterols/stanols alone or in combination with other bioactive foods on pro-inflammatory cytokines. The anti-inflammatory effects of plant sterols are demonstrated in a study with a reduced-calorie, plant sterol-enriched orange juice beverage which reduced CRP (C-reactive protein) by 12%. On the contrast when plant sterols-enriched bread was consumed, there were no changes in CRP levels. Other studies examined the impact of plant sterols in combination with other anti-inflammatory food ingredients. It is well known that supplementation with omega-3 fatty acids is associated with a reduction in cardiovascular events through its hypotriglyceridemic, anti-aggregatory and anti-inflammatory properties. A group of researchers studied the combination of omega-3 fatty acids and plant sterols on inflammatory markers in a clinical trial. CRP was reduced by 30% and TNF by 10% when plant sterol was supplemented in conjunction with omega-3 fatty acids. In another research study, the combination of plant sterols with oat beta-glucan reduced cholesterol levels but did not influence inflammatory parameters. Overall, the anti-inflammatory role of plant sterols/stanols is still ambiguous. The health benefits of seafood have primarily been attributed to the marine lipids. Seafood consumption and intake of n-3 polyunsaturated fatty acids (PUFA) has been associated with positive effects on obesity, metabolic syndrome, insulin sensitivity and to reduce inflammatory markers. This work is a review on food ingredients with possible anti-inflammatory properties.

### Biography

Georgala has completed her Ph.D. on milk microbiology when 30 years old from Agricultural University of Athens (AUA), Department of Food Science & Technology. She is an Agriculturist (AUA) and a Biologist (University of Athens). Her postdoctoral studies were on microbiology/biotechnology. She works as a researcher for more than 16 years on the fields of milk/milk products microbiology/chemistry at the Laboratory of Dairy Research of the Agricultural University of Athens. She has published more than 35 papers/announcements in international, domestic journals and conferences.

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