

# Antioxidant effects of extra virgin olive oil enriched by myrtle phenolic extracts on iron-mediated lipid peroxidation under intestinal conditions model

## Authors

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## Publication date

2017/12/15

## Journal

Food chemistry

## Volume

237

## Pages

297-304

## Publisher

Elsevier

## Description

Chelating and free radicals scavenging activities of extra virgin olive oil (EVOO) enriched by *Myrtus communis* phenolic compounds (McPCs),  $\alpha$ -tocopherol and Butylated hydroxytoluene (BHT) were evaluated using chemical assays, 2,2-diphenyl-1-picrylhydrazyl (DPPH) and Oxygen radical absorbance capacity (ORAC), and biological model as 2,2'-azobis (2-aminopropane) dihydrochloride (AAPH) or  $\text{Fe}^{+3}$ /Ascorbic acid ( $\text{Fe}^{+3}$ /AsA) system mediated peroxidation of L- $\alpha$ -phosphatidylcholine aqueous dispersions stabilized by bile salts (BS) under simulated intestinal conditions (pH 7.4). McPC-EEVOO increased significantly the neutralization of DPPH radical and AAPH-derived radicals in ORAC assay more than  $\alpha$ -tocopherol and BHT. The phospholipid stability increased by a factor of 33.6%, 34.8%, 19.3% and 10.7% for myrtle microwave assisted extraction (MAE) and conventional extraction (CE) extracts,  $\alpha$  ...