



Comparison of the phenolic-dependent antioxidant properties of coconut oil extracted under cold and hot conditions

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ABSTRACT

The antioxidant activities of coconut oil extracted under hot and cold conditions were compared. The coconut oil extracted under hot conditions (HECO) contained more phenolic substances than the coconut oil extracted under cold conditions (CECO). The antioxidant potential of HECO was higher than that of CECO as demonstrated by DPPH assay, deoxyribose assay and *in vivo* assay of serum antioxidant capacity. It is the common belief that virgin coconut oil extracted under cold conditions preserves several thermally unstable antioxidants and, as a result, better beneficial qualities can be expected for virgin coconut oil. However, high temperatures used in the hot extraction of coconut oil favour the incorporation of more thermally stable phenolic antioxidants into coconut oil. Therefore, the consumption of HECO may result in the better improvement of antioxidant related health benefits compared with the consumption of CECO.