Abstract

Title: Coconut fat’s effect on blood lipids - A systematic overview

Author: Linnéa Hult and Sandra Westling

Supervisor: Fredrik Bertz
Examiner: Ingrid Larsson
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Background: Coconut fat has recently been praised in the media. Amongst other things, coconut oil has been said to lower cholesterol (1, 2). This despite the fact that coconut oil contains of 92 % saturated fat, which strong scientific evidence support raises the blood lipids and thus increases the risk of cardiovascular disease (3).

Objective: To examine the scientific evidence for how blood lipids in adults are affected by an intake of coconut fat compared to an intake of other kind of fats.

Search strategy: PubMed and Scopus have been used in the literary search. Keywords used were "coconut fat", "coconut oil", "plasma lipids" and cholesterol [MeSH].

Selection criteria: Human studies of RCT or cohort type, published since 1983. Studies in healthy adults who consumed at least 15 grams of coconut fat per day for two weeks. Included measurements were fasting total cholesterol, LDL, HDL, triglycerides and LDL/HDL ratio.

Data collection and analysis: Studies were gathered according to the inclusion and exclusion criterias and the quality of the studies were examined using the SBU’s"Granskningsmall för randomiserad kontrollerad studie ". The studies were divided into two subgroups, unsaturated or saturated fats, depending on the comparison fat that had been used. Evidence was graded by GRADE.

Main results: Six randomized studies are included in the results. All studies compared coconut fat with unsaturated fat, and one of them also compared coconut fat with saturated fat. Five of the studies showed negative effects of coconut fat compared to unsaturated fats (about 1 mmol/L higher total cholesterol, 21 %), one study’s result was contradictory. When it comes to the comparison with saturated fats, the only included study showed that coconut fat has positive effects on the blood lipids in relation to butter.

Conclusions: Coconut fat increases the blood lipids more than polyunsaturated fat, evidence for this is moderate. The evidence for the LDL/HDL-ratio is low. The evidence for the difference between coconut fat and other saturated fats are very low and no further conclusion can be made, more research is needed on the subject.