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## Comparison of diet-induced thermogenesis of foods containing medium- versus long-chain triacylglycerols.

[Kasai M](#), [Nosaka N](#), [Maki H](#), [Suzuki Y](#), [Takeuchi H](#), [Aoyama T](#), [Ohra A](#), [Harada Y](#), [Okazaki M](#), [Kondo K](#).

Research Laboratory, Nisshin Oil Mills, Ltd., Shinmei-cho, Yokosuka, Kanagawa 239-0832, Japan. [m-kasai@nisshin.oilligroup.com](mailto:m-kasai@nisshin.oilligroup.com)

The purpose of this study was to investigate the effect of 5-10 g of medium-chain triacylglycerols (MCT) on diet-induced thermogenesis in healthy humans. The study compared diet-induced thermogenesis after ingestion of test foods containing MCT and long-chain triacylglycerols (LCT), using a double-blind, crossover design. Eight male and eight female subjects participated in study 1 and study 2, respectively. In both studies, the LCT was a blend of rapeseed oil and soybean oil. In study 1, the liquid meals contained 10 g MCT (10M), a mixture of 5 g MCT and 5 g LCT (5M5L), and 10 g LCT (10L). In study 2, the subjects were given a meal (sandwich and clear soup) with the mayonnaise or margarine containing 5 g of MCT or LCT. Postprandial energy expenditure was measured by indirect calorimetry before and during the 6 h after ingestion of the test meals. Diet-induced thermogenesis was significantly greater after 5M5L and 10M Ingestion as compared to 10L ingestion. Ingestion of the mayonnaise or margarine containing 5 g MCT caused significantly larger diet-induced thermogenesis as compared to that of LCT. These results suggest that, in healthy humans, the intake of 5-10 g of MCT causes larger diet-induced thermogenesis than that of LCT, irrespective of the form of meal containing the MCT.

Publication Types:

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