

## **Changes in Fatty Acid Composition of Foodstuffs During Conventional and Microwave Heat Treatment**

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In our experiments we have determined the fatty acid composition of cow's milk (fat contents 3.6%), "Dalia" cheese (fat contents 44%), butter (fat contents 80%) and margarine (fat contents 24%) before and after heat treatment performed on a cooking plate and microwave treatment, respectively of different durations. The biggest difference were obtained in the case of oleic and elaidic acid (excepted margarine) in each case the amount of the cis-configured oleic acid decreased, while the trans-configured elaidic acid increased. For the other fatty acids present in the examined foodstuffs no such differences were obtained, regarding to the change in fatty acid composition. The observed differences could influence healthy nutrition to considerable extent, therefore we can consider as a fact that neither heat treatment performed on a traditional cooking plate nor microwave treatment affects the composition of food fats in a considerable way.

**Seasonal Influences on the Fatty Acid Composition Content of Raw  
Milk especially on the Conjugated Linoleic Acid**

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The purpose of the research was to determine the fatty acid composition of milk of common breeds from Hungary: Hungarian Simmenthal, Red Holstein Friesian and Black Holstein Friesian. Also the changes in the fatty acid composition of their milk fat throughout the year with special respect to the conjugated linoleic acid content was determined. The amount of unsaturated fatty acids (oleic, linoleic and linolenic acid) including conjugated linoleic acid was higher in summer than in winter. In the case of the saturated fatty acids (butyric, caproic, caprylic, capric, myristic, palmitic and stearic acid) the opposite tendency was shown. The amount of conjugated linoleic acid ranged from 0,8 to 1,4%, with an average value of 1,1%.