

Content of *trans*-Unsaturated and Saturated Fatty Acids in Various Food Products and Its Nutritional Evaluation

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The high intake of *trans*-unsaturated and saturated fatty acids (SFA) is widely accepted as one of fundamental risk factors of many non communicable diseases, in the first place cardiovascular. From this point of view, *trans*-unsaturated fatty acids (TFA) are most harmful after the recent changes in the focus on their health effects. Their negative impact is on diabetes type 2 and obesity as well.

We are monitoring content of TFA and SFA in food products on the Czech market (many items are products of international companies) from the year 2002 and we presented our results on previous Euro Fed Lipid Congresses. There are positive changes in the content of TFA in some food products. All spread fats (margarines) and shortenings do not contain more TFA than is amount present in milk fat. On the other hand there are many new spread products on the base of milk and vegetable fat mixture with TFA content of about 15%.

The positive trend in TFA content is in bakery products (cakes, pies, croissants etc.) as well. Only 5 products from 32 had TFA content in range 5-10% from total FA, one croissant contain 19.6% TFA. The TFA content in chocolate products with vegetable fats added instead cocoa butter was up to 2% (only one product had 42% TFA). However, most of these products had extremely high content of saturated fatty acids (up to 99.3%) with high content of most atherogenic myristic acid indicative of using of fats like coconut, palm kernel etc. Similar trends are in fatty acids composition of fat icing on müsli bars etc.

It is no restriction of TFA content by law in the Czech Republic, but due to promotion in the media and education the TFA content is decreasing in many products.

A restriction of coconut and palm kernel etc. fats usage (as a source of atherogenic myristic fatty acid) in food products in large quantities would be desirable by law or publicity in media as well.