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Fatty acid profiles of food of animal origin as affected by current changes

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Nutritional quality of food is related to its content of nutrients and their bioavailability. The fact that there is a link between diet and human health has increased consumers’ interests in healthy food and thereby the nutritional quality of food especially for fats. The effect of the fats on human health depends not only on their quantity, but also on their composition in specific fatty acids. The dietary factors promoting and protecting against diseases (i.e. cardiovascular diseases) are directly correlated to qualitative aspects of food lipids in relationship to the amount of some specific SFA, MUFA and PUFA of the series Ω-3 and Ω-6. Three hundred samples of food of animal origin including egg, salami, pork lard, fresh and cured meat from different species, cooked ham and fish, collected during the last five years, were investigated for their total lipid content, total fatty acid composition, thrombogenicity index (IT) and atherogenicity index (IA) (Ulbricht and Southgate, 1991). These indices have been used as a tool to compare the healthy benefits of lipids of different food. Beef and goat products were characterised by the highest values of IT and IA followed by fresh pork meat, salami and pork lard. Among food of aquatic origin, rainbow trout showed the lowest value of IT and IA. Ω-6/Ω-3 ratio was the highest in wild pork meat, followed by cured goat meat and pork meat, while wild gilthead seabream had the lowest value.

Keywords: fatty acids, Ω-3 and Ω-6; thrombogenicity index (IT); atherogenicenicity index (IA)