Study of the Composition of Lipids in Different Kinds of Packaged Food Products

Authors: Zineb Taidirt, Fathia Sebahi, Mohamed Karim Guarchani, Anissa Berkane, Noureddine Smail, Ouahiba Hadioudi Abstract: Cardiovascular diseases are one of the most important causes of death in Algeria. Several risk factors are responsible for this, including the consumption of foods containing saturated fat and trans fatty acids TFAs. This brief presents the results of a descriptive study of the lipid composition of 251 food products marketed in Algeria. The objective of the study is to describe the nature and composition of lipids and to verify the compliance of saturated and trans fatty acids intakes with the regulations. The study is based on data from the nutrition labelling of marketed food products. The results showed that the lipids in foodstuffs are diverse in nature and of varying amounts, but their nature is not specified on all products. In addition, the required content of saturated fatty acids is mentioned only in 29.48% of the products; 21.62% of them do not comply with the standard. Hydrogenation of fats, which produced Trans fatty acids, is common: 19.92% of products contain hydrogenated fats, and 74.89% may contain them according to the aspect of the lipid (solid fat). However, the trans fatty acid content is only mentioned in 5.18% of the products. The latter is above the limits set by Algerian regulations in 50% of the butter samples studied. The composition of lipids in mono- and polyunsaturated fatty acids essential for the body is insufficient: only 13.94% of the products inform their contents on their labels. It is necessary to adopt mandatory restriction of trans fatty acids, to ban the use of partially-hydrogenated oils, and to require required mandatory labeling of the TFAs and the other fatty acids on packaged foods, and to conduct more studies in order to appreciate the intake of TFAs and saturated fat and appreciate their effects on the Algerian population and to get more informed about the composition of the lipid in packaged foods.

Keywords: cardiovascular diseases, lipids, nutrition labelling, lipids, trans fatty acids

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