

## عنوان مقاله:

Determining the fatty acid content of the most common meat products in Kermanshah, Iran

## محل انتشار:

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## خلاصه مقاله:

**Background and objectives:** High consumption of trans fatty acids is associated with increased risks cardiovascular diseases, insulin resistance, lipid disorders, diabetes, and possibly cancer. Therefore, most developed countries produce food products with trans fatty acid content of ۰%-۲% to support the consumers. This study sought to determine the amount of fatty acids in meat products and kebabs served in restaurants of Kermanshah, Iran. **Methods:** In order to determine the percentage of fatty acids, ۶۹ samples were randomly taken from ۱۴ kinds of meat products and kebabs served in restaurants of Kermanshah. To extract the ۱۴ types of fatty acids, Folch and methylation methods were applied based on the guidelines of the American Oil Chemists' Society (AOCS). A gas chromatograph equipped with an ion-flame sensor and a ۱۰۰ m capillary column was used to measure trans fatty acids. **Results:** While the highest level of trans fatty acids was found in loghmeh-kebab (۲.۳%), the lowest level was detected in breaded shrimp (۰.۱%) and chicken schnitzel (۰.۱۳%). Palmitic acid (C<sub>16:0</sub>) was the most common saturated fatty acid in restaurant kebabs and had the highest amount in loghmeh-kebabs (in convenience foods). Unsaturated fatty acids had the lowest concentration in restaurant kebabs (۳۹.۸-۴۹.۴۴%). Their levels in convenience foods varied from ۴۹.۹۹% in loghmeh-kebab to ۷۶.۱۱% in sausages. Among all unsaturated fatty acids, oleic acid (C<sub>18:1c</sub>) and linoleic acid (C<sub>18:2c</sub>) had the highest concentrations in the studied samples. **Conclusion:** Loghmeh-kebab had the highest tans and saturated fatty acid contents among all the evaluated meat products. It can thus be a threat to the consumers' health. Careful monitoring of food products in terms of fatty acid types, use of food labeling, and education .to change consumption pattern in the country are recommended for public health promotion

## کلمات کلیدی:

,Fatty Acid, Gas Chromatography, Convenience Foods, Meat Products, Composition of Fatty Acids

اسیدچرب، گازکروماتوگرافی، غذاهای آماده، فرآورده های گوشتی، ترکیب اسیدهای چرب

