

# **The effects of Conventional Frying on Chemical Properties of Frying and Sunflower Oils**

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## **Abstract**

Deep fat frying is a method of food preparation which has been popular for quite a number of years. During deep frying the quality of oil and the finished product is decreased as the result of heat treatment of the oil exposed to air at high temperature. In this research the effects of conventional frying on the changes in the quality indices of used oil have been investigated. To achieve this potato slices were fried in both frying and sunflower seed oils by application of gas treatment for 45 min for five consecutive days, three times a day and oil samples were removed for analysis. The results obtained from the chemical tests demonstrated that used frying oil had lower polar compounds, higher induction period, and more saturated fatty acids as compared to sunflower seed oil. The interesting point observed was that peroxides formed as the result of oxidation chain reactions were broken down due to the high temperature and long period of frying in both oils, but the level of these compounds in sunflower seed oil were higher than frying oil. Data showed that frying oil was stable as a frying medium compared to sunflower seed oil. Therefore frying oil might be considered as a suitable media during conventional frying.