

# The Quality of Oils / Fats Used in Selected Deep Fried Snacks Sold by the Street Vendors in Guntur Town

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## ABSTARCT

Deep fat frying is one of the oldest and popular methods, which involves the process of rapid heat transfer when the food is placed in oil at high temperatures at 175 – 195 °C. Repeated frying leads to many oxidative and thermal reactions due to which physical, chemical and nutritional changes take place in oil that affects the quality of oil. Through a structured questionnaire the information related to vending practices by the vendors selling *samosa*, *bajji*, *punugu* and *jilebi* was collected. Three chemical parameters, namely, free fatty acids (FFA), Peroxide value (PV) and Iodine value (IV) of fresh and used oils were studied. The results showed that there was no significant difference in FFA among fresh oils ( $P = 0.758$ ) and also among used oils ( $P = 0.63$ ). There is no significant difference in the PV among the 4 fresh oils ( $P = 1.598$ ) and there was a significant difference in PV of used oils ( $P = 0.0195$ ). There is no significant difference in the IV among the 4 fresh oils ( $P = 0.203$ ) and also in IV of used oils ( $P = 0.103$ ). There was no significant difference ( $P > 0.05$ ) in the FFA content of the fresh oils of all foods except in case of *samosa* when compared to the standard FFA. The FFA content of used oils was highly significant. The PV of all fresh oils and all used oils were highly significant ( $P < 0.01$ ) when compared to the standard PV of palm oil. The  $P$  – values of IV of fresh oils and used oils were highly significant ( $P < 0.01$ ) when compared with the standard IV of palm oil. There was a significant difference ( $P < 0.01$ ) between the fresh and used oils with respect to FFA and IV while there is no significant difference ( $P = 0.41$ ) in the PV of fresh and used oils.

**Key words:** *Deep frying, Deep fried foods, Free fatty acids, Iodine value, Oils, Peroxide value, Quality of oil, Street foods*