

## Estimation of Cholesterol Level in Different Brands of Vegetable Oils in Iraq

**Authors :** Mohammed Idaan Hassan Al-Majidi

**Abstract :** An analysis of twenty one assorted brands of vegetable oils in Babylon Iraq, reveals varying levels of cholesterol content. Cholesterol was found to be present in most of the oil brands sampled using three standard methods. Cholesterol was detected in seventeen of the vegetable oil brands with concentration of less than 1 mg/ml while seven of the oil brands had cholesterol concentrations ranging between 1-4 mg/ml. Low iodine values were obtained in four of the vegetable oil brands and three of them had high acid values. High performance liquid chromatography (HPLC) confirmed the presence of cholesterol at varying concentrations in all the oil brands and gave the lowest detectable cholesterol values in all the oil brands. The Laser brand made from rapeseed had the highest cholesterol concentration of 3.2 mg/ml while Grand brand made from groundnuts had the least concentration (0.12 mg/ml) of cholesterol using HPLC analysis. Leibermann-Burchard method showed that Gino brand from palm kernel had the least concentration of cholesterol (3.86 mg/ml  $\pm$ 0.032) and the highest concentration of 3.996 mg/ml  $\pm$ 0.0404 was obtained in Sesame seed oil brand. This report is important in view of health implications of cholesterol in our diets. Consequently, we have been able to show that there is no cholesterol free oil in the market as shown on the vegetable oil brand labels. Therefore, companies producing and marketing vegetable oils are enjoined to desist from misleading the public by labeling their products as "cholesterol free". They should indicate the amount of cholesterol present in the vegetable oil, no matter how small the quantity may be.

**Keywords :** vegetable oils, heart diseases, leibermann-burchard, cholesterol

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