

## Comparative Study of Serum Lipid Profile of Obese and Non-Obese Students of Al-Jouf University

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**Abstract :** The prevalence of obesity has risen dramatically in past several decades. Hormonal and genetic factors are rarely the cause of childhood obesity. Because obese adult may suffer life-long physical and emotional consequences, it is imperative to discuss prevention with parents during well-child examinations. Purpose of the study was to compare the serum lipid profile of obese and non-obese males. Twenty two male students were selected from Al-Jouf University. Their age ranged from 19 to 29. They were divided into groups. One group (N=15) having more than 20% fat was considered as obese group, another group (N=7) was considered as non-obese group. Fasting blood samples were analysed for blood cholesterol, triglycerides, low density lipoprotein cholesterol (LDL-C) and high density lipoprotein cholesterol (HDL-C). Independent test was applied to compare mean difference. In obese group, significantly higher cholesterol and triglycerides were observed. On the contrary, obese group had significantly lower HDL-C concentration than the non-obese group. The adult obese has relatively larger changes in serum lipids at any given level of obesity. On the average, higher amount of fat makes it more likely for an individual to be dyslipidemic and to express elements of the metabolic syndrome. Increased triglycerides level in obese impaired lipolysis which reduced the HDL-C concentrations.

**Keywords :** obesity, serum lipid profile, Al-Jouf, HDL, LDL

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