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**Original article:
Correlation of anthropometric measurements with LDL levels in young adult females**

**1Dr Chandrashekhar D Mudabasappagol , 2Dr K F Kammar**

1Post Graduate student, Department of Physiology, Karnataka Institute of Medical Sciences, Hubli , India

2Professor and Head, Department of Physiology, Karnataka Institute of Medical Sciences, Vidyanagar, Hubli. Karnataka , India

**Corresponding author:** Dr Chandrashekhar D Mudabasappagol

**Abstract**

**Background**: Anthropometric measurements can easily reflect changes in lipid levels and can be a valuable screening method to detect raised Low Density Lipoprotein levels which is a major risk factor for Coronary Heart Disease, thus useful in primary prevention of CHD. In the previous studies done on Indian population there is no clear consensus as to which anthropometric measurement is the best in predicting lipid profile changes, and no study has exclusively targeted the young adult female population. An attempt as been made to find out the best anthropometric measurement to detect raised LDL levels.

**Objective**: To find out which anthropometric measurements best correlates with LDL levels in young adult females.

**Material and Methods**: LDL levels were measured in 60 apparently healthy young adult females. Health status and other personal data were obtained via comprehensive questionnaire. BMI, Waist circumference, Waist to Hip ratio, and Skin fold thickness was measured. The anthropometric measurements were correlated with LDL levels using Pearson’s correlation coefficient.

**Result**: Waist Hip ratio showed the strongest correlation with LDL levels(r = 0.7), followed by Waist circumference(r = 0.587), and BMI (r = 0.565). Skin fold thickness showed the least correlation (r = 0.284)

**Conclusion**: Central obesity has a higher impact on LDL levels, hence Waist Hip ratio and Waist circumference are better measures for predicting raised LDL levels compared to the traditionally used BMI.

**Keywords:** anthropometric measurements;LDL levels;waist hip ratio;obesity