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## Cardiovascular efficiency and strength between rural and urban school girls

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### Abstract

The purpose of the study is to compare the cardiovascular efficiency and strength – leg, back and grip of urban and rural high school girls. Cardio vascular efficiency was estimated with the help of Harvard step test, leg and back strength were measured with the help of dynamometer and grip strength was measured by using grip dynamometer.

**Keywords:** cardiovascular efficiency, strength between rural, urban school girls

### Introduction

Both strength and cardiovascular efficiency are influenced by age, sex, habits, and style of life. People mostly live in either urban area or rural area. The geographical and environmental factors and the nature of life may influence the development and maintenance of strength and cardiovascular efficiency especially among the high school girls. Therefore, the author was motivated to under take a study on this aspect.

### Methodology

The study on hand purpose to make a difference in cardio vascular efficiency and strength aspects between rural and urban high school girls.

### Estimation of cardiovascular efficiency

Cardio vascular efficiency of the subjects was measured as explained in Harvard step test.

### Measurement of grip strength

Grip strength was measured with the help of grip dynamometer.

### Samples

25 rural and 25urban high school girls were selected as a subject.

### Analysis of data

**Table 1:** Mean and t-value of cardiovascular efficiency

Statistic	Rural	Urban
Mean	16.23	14.75
t-value	1.60	

Significant at 0.05 level

**Table 2:** Statistics of strength of urban and rural girls

Statistic	Right hand grip strength		Left hand grip strength		Leg strength		Back strength	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Mean	7.48	7.54	6.61	6.73	50.91	50.35	24.81	24.51
t-value	0.088		0.112		0.09		0.08	

Significant at 0.05 level

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### **Conclusion**

1. The mean cardiovascular efficiency index of rural high school girls is better than that of urban high school girls. This fact indicates that rural high school girls have better cardiovascular efficiency, which fact reflects the better status of health related physical fitness.
2. In the area of grip strength the urban high school girls were found to be marginally superior to the rural high school girls. However, the statistics is not significant to say that the urban sampling is superior.
3. In the leg strength and back strength aspects also though the figures are not statistically significant the rural high school girls are found to be having an edge over the urban high school girls.

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