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## Comparative study of cardiovascular efficiency of wrestlers and boxers players

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### Abstract

The purpose of this study was to compare the cardiovascular efficiency of Wrestlers and Boxers players of university and national level players of Haryana state. A sample of 100 male players of age group of 18-23 years was randomly selected and compares the cardiovascular efficiency. For assessing cardiovascular efficiency the Harvard Step test were used. The t-test in spss statistics software was applied for comparing the both group at the .05 level of significant. Significant difference was found between the Wrestlers and Boxers Male player of cardiovascular efficiency.

**Keywords:** Wrestling, boxing, cardiovascular efficiency

### Introduction

Physical Exercise is the basic requirement for most of the task to be undertaken by an individual in his daily life. Physical Fitness is the capacity to carry out reasonable well; various forms of physical activities must be carried without being unduly tried. A person had to perform many tasks in his day to day life. Generally these tasks, being of routine nature, are performed easily, with little effort. But sometimes, one has to face emergency because of some sudden attack. Then one has to run with great amount of strength and speed to save his or her life. Physical fitness is also the ability to face reasonable stress situation in life. Performance in different games is supported to be related to better physical fitness. More and more stress is being laid on conditioning and practicing of skill and the use of other valuable devices to achieve better physical fitness by players. As the level of performance increases the players attain high degree of physical fitness.

In the words of Charles A Bucher, "If you are physically fit, your body system functions efficiently. You have sufficient strength to engage in vigorous physical activity. You recover quickly from fatigue. You have reserves of strength, energy and stamina for emergencies" Physical fitness is one's richest possession. To be a totally fit person one must also possess emotional maturity, high ethical standards and ability to get along with others <sup>[1]</sup>.

According to the expert committee of the world health organization "Physical Fitness as the ability to undertake muscular works satisfactory.

Bernard (1966) reported that physical fitness improves in those who take regular physical exercise. Regular participation in game significantly contributes to higher level of performance and great degree of physical fitness among the player.

Acc to president's council on physical fitness & sports (1981), physical fitness is the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure time pursuits and to meet unforeseen emergencies". Thus physical fitness is the ability to last, to bear up, to with stand stress and to preserve under difficult circumstances where an unfit person would quit <sup>[2]</sup>. The present study concentrated on the various Cardio-vascular Efficiency. The Cardio-vascular Efficiency is very important consideration while selecting the players. The researcher compared the Cardio-vascular Efficiency of Wrestlers and Boxers players. In the present study the following Cardio-vascular Efficiency was taken and compares between Wrestlers and Boxers players.

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<sup>1</sup> M.L. Kamlaish "History and Principles of Physical Education" friends publication, New Delhi 2005.

<sup>2</sup> I.bid

**Cardio-vascular Efficiency**

Cardio-vascular Efficiency was measured by Harvard Step Test. (Lucien Brouha 1943) [1]

**Objectives of the study**

The objective of the present study was as under:-  
 To study the Cardio-Vascular Efficiency of male Wrestlers and Boxers players.  
 To find out the significant difference of Cardio-Vascular Efficiency of male Wrestlers and Boxers players.

**Procedure**

Only 100 (50 Wrestlers and 50 Boxers) male Wrestlers and Boxers players of Haryana were selected for the study. The age of all subjects were ranged from 18 to 23 years. The Cardio-Vascular Efficiency was measured by Harvard Step Test. (Lucien Brouha 1943) [1]. Only those male subjects were selected who have participated at minimum National or Inter-University level tournament of Haryana.

**Sources of the data**

The sources of the data for the present study the male Wrestlers and Boxers players of Haryana were selected for the study. The male players who have participated minimum at National or Inter-University Level Tournaments was considered as sources of the data.

**Procedure for collection of data**

The investigator met the subjects, whom were to be tested, in their respective training centres & camps and during the Interuniversity & National tournament and explained and guided to them the purpose of the present investigation. He demonstrated them the various tests items, which the subjects had to took, so that the subjects form a mental prepare of various tests they was going to attempt. The subjects were asked to clarify their doubts by asking questions and quires.  
 The research scholar also took the help of other research scholars, classmates, coaches and other professional friends to record the data of different test items in a require manner.

**Criterion Measures**

The criterion measure was used to collect the data in a deal and systematic way to record in a correct unit and style for each test item.  
 Cardio-Vascular Efficiency of the subjects was measured with the help of Harvard Step Test for the study.

**Statistical Procedures**

For the present study, the mean value, standard deviation, ‘t’-test was applied to analyze the data, different steps in ‘t’ – test was used in spss software and the final conclusion was drawn and it was also be compared with the significant value at.05 level of confidence.

**Table 1:** Comparison of Cardio-Vascular Efficiency between Male Wrestlers and Boxers Players

Groups	Mean	Std. Dev.	d.f.	S.E.D.	‘t’-Ratio
Wrestlers	62.35	10.99	38	3.44	2.86*
Boxers	54.86	10.77			

Significant at 0.05 levels significance

**Conclusions of the Study**

The researcher analysis of data for Cardio-vascular efficiency Wrestlers and Boxers players in the above table. The interpretation of data show that the male Wrestlers players was better than male Boxers players in Cardio-vascular efficiency and it was significant different at 0.05 level of significant.

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