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**Dr. Yeshbeer Singh**  
Dy. Director Physical Education  
and Sports, DAV University  
Jalandhar, Punjab, India

## Effect of eight: week aerobic training protocol on RBC count and hemoglobin level of judokas

**Dr. Yeshbeer Singh**

### Abstract

The purpose of present study was to make public the Effect of Eight - Week Aerobic Training Protocol on RBC Count and Hemoglobin Level among judokas of Judo Federation of India (JFI) Training Center Gurdaspur, Punjab. For achieving the purpose of the study, data was collected on ten (N=10) judokas of JFI Training Center Gurdaspur, Punjab. Two hematological variables namely hemoglobin and RBC (Red blood cells) were selected for the purpose of this study. Before and after exercise protocol, the hematological parameters were measured. The experimental group was subjected to a aerobic training program, consisting of five days per week evening session for the period of eight - weeks. To compare the effect of eight - week aerobic training program on selected hematological parameters among judokas students mean, standard deviation and t-test were employed with the help of statistical package of SPSS. To test the hypothesis the significance level was set at 0.05 percent. After statistical analysis, result showed that there were significant effect of eight week aerobic training programme on haematological variable namely haemoglobin and RBC (Red blood cells) of experimental group and insignificant effect was found in control group.

**Keywords:** eight, week aerobic training, RBC, count hemoglobin level

### Introduction

Physical wellness is a dynamic express that empowers a man to do ordinary exercises without being effectively drained, take part in relaxation exercises energetically and conquer troublesome circumstances. As indicated by cardiologists and games science specialists, physical movement can increment cardiovascular proficiency through expanding the working capability of lungs and heart that prompts the decrease of circulatory strain and destructive quick in the blood. These days open exercise, particularly morning exercise, strolling, running, cycling, running and working out, is prevalent among various gatherings of individuals because of its straightforwardness and accommodation.

Because of the notoriety of morning exercise, it is vital to do some exploration on whether it is valuable or not. Along these lines exploring the impacts of morning exercise is of imperative significance.

### Material & Methods

**Subjects:** For achieving the purpose of the study, data was collected on ten (N=10) judokas of JFI Training Center Gurdaspur, Punjab.

### Selection of Variables

The following hematological variables were selected for the purpose of this research and are presented in the table 1.

**Table 1:** Hematological Variables

S. No	Hematological variable	Tests For Measurement
1.	RBC (Red blood cells)	CBC (Complete blood count)
5.	Hemoglobin	CBC (Complete blood count)

**Correspondence**  
**Dr. Yeshbeer Singh**  
Dy. Director Physical Education  
and Sports, DAV University  
Jalandhar, Punjab, India

### Procedure of blood testing

Before and after exercise programme, the hematological factors were measured. All blood samples were taken by the lab technician and were examined in a fully computerized clinical laboratory.

### Schedule of eight - week aerobic training program:

The experimental group was subjected to an aerobic training program, comprising of five days for each week evening session for the time of eight - weeks. Day of activity, span and reiterations are displayed in table 2.

**Table 2:** Plan of eight - week aerobic training program

Day	Aerobic Exercise	Duration	Repetition
Monday	Walking	½ hour	1
Tuesday	Skipping rope	2 minute	6
Wednesday	Stationary cycling	5 minute	3
Thursday	Stair climbing	3 minute	4
Friday	Cross country skill for 3km	---	1
Saturday	Rest	---	---
Sunday	Rest	---	---

### Statistical Procedure

To know the effect of eight - week aerobic training program on selected hematological variables, t-test was employed on

mean values of pre and post tests with the help of SPSS 16.0. The level of significance was set at 0.05 percent.

### Results

**Table 3:** Mean and t-value of Pre and Post test of Hemoglobin of Experimental Group

Variable	Group	Pre-Test Mean	Post-Test Mean	t-Values
Hemoglobin	Experimental	12.28	14.05	3.52*

$t_{.05}(9) = 2.26$

The table statistically exposes that the calculated t value 3.52 for experimental group is greater than table value 2.26. It proves that, during eight – week aerobic training program the

hemoglobin level increased significantly in experimental group.

**Table 4:** Mean and t-Value of Pre and Posttest of RBC (Red blood cells) of Experimental Group

Variable	Group	Pre-Test Mean	Post-Test Mean	t-Values
RBC (Red blood cells)	Experimental	3.97	4.71	8.38*

$t_{.05}(9) = 2.26$

The table statistically shows that the calculated t value 8.38 for RBC (Red blood cells) of experimental group is greater than table value 2.26. Therefore it proves that, after the eight – week aerobic training program the RBC (Red blood cells) level increased significantly in experimental group.

### Discussion

After eight – week aerobic training program the hemoglobin level increased significantly in experimental group. On the other hand in the case of RBC (Red blood cells) during eight – week aerobic training program the RBC (Red blood cells) level also increased significantly in experimental group. Similar the present study, the study by Akbar Sazvar et.al. (2012) proves the same opinion that, aerobic training induced significant change in hematological parameters.

### Conclusions

In Concluding part results proves that the eight week aerobic training program is beneficial for the positive change in hemoglobin level and RBC (Red blood cells) count in human blood.

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