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## Effect of warming up exercise on the selected physiological variable of boys and girls

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### Abstract

For this study 40 (20 boys and 20 girls) state level players were selected randomly. The age of the subjects was 14-16 years. Physiological variables and test items, weight - measured with the help of digital weighing machine, resting pulse rate taken with the help of digital heart rate monitor, vital capacity- measured with the help of digital dry spirometer after that 45 minutes warming up activity. Pre-test and post-test were conducted for fore week. The conclusion of statistical t-test was found 45 minutes regular warming up exercise decreased the weight and pulse rate are became normal and increased the vital capacity in boys and girls students.

**Keywords:** Warming up, weight, resting pulse rate, vital capacity

### Introduction

It has been observed and reported by so many researchers that following regular warming up physical exercise improves the physiological variable of sports men or women. Athletes and coaches often wonder if stretching and warming up before a game has an impact on injury prevention or on performance. For most of people taking part in sports, pre practice schedules including a vigorous warm up and extending are ordinarily polished before participating in physical action. The warm-up ought to delicately set up the body for practices by bit by bit expanding the pulse and dissemination; this will relax the joints and increment blood stream to the muscles.

Extending the muscles sets them up for physical movement and averts wounds. Extending builds the scope of movement of the joints and is viable for the support and upgrade of activity execution and adaptability, just as for damage avoidance. Nonetheless, extending as a warm-up action may briefly diminish muscle quality, muscle power, and exercise execution. Extending is normally seen to be valuable to athletic execution, yet late research shows proof of "static stretch-instigated impedances to resulting execution" (Samson, Button, Chaouachi, & Behm, 2012) [6].

Warming up is basic and assume dynamic job in setting up the player to play out his active activities in preparing. Player execution is improved when the muscles and organs of the body have taken abundant measure of warm-up before the presentation of train or the game. Latent/dynamic warm-ups increment adenosine triphosphate turnover, which strengthens strong capacities, muscle cross-connect cycling rate, and oxygen take-up energy, which altogether influences practice execution (McGowan *et al.*, 2015) [5]. Specialists found that improvement in sport action can be accomplished utilizing different games exercises, especially games field to heat up, thinking about it as a type of activities and exchanges that can prompt redesign aptitudes and physical level.

Warming up is the sole wellspring of physiological improvement of the individuals and direct connection between deliberate warming up and execution. The motivation behind the present examination was to decide the impact of warming up on the human assemblage of sports so be it and ladies. This investigation might be as a significant and fundamental guide to the mentors and physical educationists to oversee wringing up action before going into the presentation.

### Methodology

To achieve the purpose of the study, 20 boys and 20 girls' state level players were selected for this study. The age of the subjects was 14-16 years.

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Physiological variables and test items, weight - measured with the help of digital weighing machine, resting pulse rate taken with the help of digital heart rate monitor, vital capacity-measured with the help of digital dry spirometer after that 45 minutes warming up activity. Pre-test and post-test were conducted for fore week. The statistical model used for calculation of the data was paired 't' test which was calculated by SPSS by version 20.0.

**Table 1: Weight**

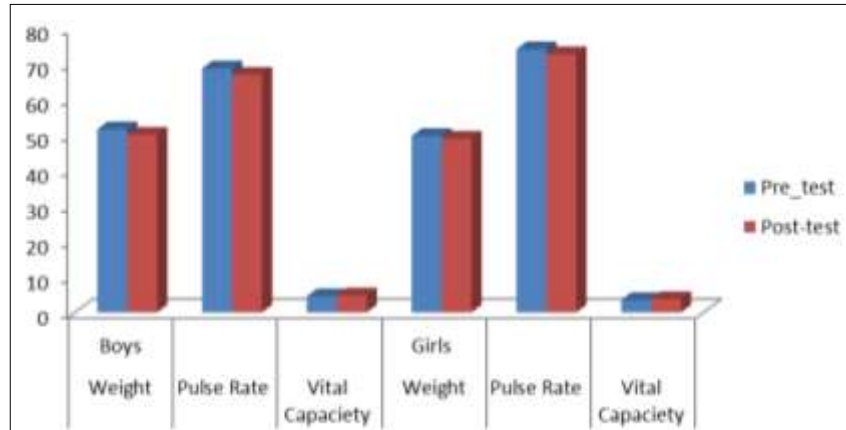
Group		Pre-test	Post-test	t-value	Sig. (2-tailed)
Boys	Men	51.53	50.00	7.95	0.00
	S.D	5.04	5.01		
Girls	Men	49.67	48.88	6.08	0.00
	S.D	5.37	5.49		

**Table 2: Resting Pulse Rate**

Group		Pre-test	Post-test	t-value	Sig. (2-tailed)
Boys	Men	68.65	66.85	9.66	0.00
	S.D	3.71	3.29		
Girls	Men	74.05	72.65	8.30	0.00
	S.D	2.48	1.95		

**Table 3: Vital Capacity**

Group		Pre-test	Post-test	t-value	Sig. (2-tailed)
Boys	Men	4.55	4.76	7.13	0.00
	S.D	0.34	0.37		
Girls	Men	3.50	3.73	8.32	0.00
	S.D	0.30	0.28		



**Fig 1: Showing pre-test and post-test**

**Discussion**

Table show the result of the level of weight in boys and girls after statistical analysis which was taken after imparting four week 45 minutes warming up exercise daily in the morning session to both the subjects' boys and girls. In Weight t-ratio of boys' subjects is 7.95 and girls' subjects is 6.08, Resting Pulse Rate t-ratio of boys subjects is 9.66 and girls subjects t-ratio is 8.30 and Vital Capacity t-ratio of boys subjects is 7.13 and girls subjects t-ratio is 8.32 are significant at 0.05 level of significance.

Hence, the means value of both the subjects collectively is showing decreases in the level of weight and pulse rate and increase the vital capacity. The reason for decrease in the weight and resting pulse rate and increase the vital capacity may be due to warming up exercise helps to the body to deliver oxygen to the exercising muscle groups, increase body temperature, increases blood flow to the muscles involved in the activity.

**Conclusion**

The regular warming up exercise decreased the weight and pulse rate are became normal and increased the vital capacity in boys and girls students.

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