

## A Comparative Study of Selected Physiological Components Between National and State Level Atyapatya Players

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### Abstract

*The purpose of this study was to Measure and compare the Physiological components between National and State level Atyapatya Players. After due consideration of all the points, purposive sample technique was employed. Only male National and State level Atyapatya Players were selected purposely for the study. A total number of 120 samples were selected from the National and State level Atyapatya Players. In which 60 were National level Atyapatya Players and rest 60 were State level Atyapatya Players. This is a survey study under Descriptive Research. The criterion measures adopted for this study were Physiological components such Cardio vascular endurance, Breathe Hold Capacity and Pulse Rate. The data was collected from the senior national championship and State Level Championship of Atyapatya. After data collection, data of physiological of National and State level Atyapatya Players was compared and analyzed by using Independent 't-test to test the significance of the results. The level of significance was kept at 0.05 to test the hypothesis. The statistical analysis of physiological components of National and State level Atyapatya Players revealed that in the components such as Cardio vascular endurance, Breathe Hold Capacity and Pulse Rate, there was significant difference between National and State level Atyapatya Players. In the present study the results also showed that in components like Cardio vascular endurance and Pulse Rate the National level Atyapatya Players were found to be better than State level Atyapatya Players. While in the components like Breath Hold Capacity, the State Level Atyapatya Players were found to be better than the national level Atyapatya players.*

**Key Words:** Physiological Components, National and State Level Atyapatya Players

### Introduction

**H**ealth is the means of all the most sublime aspiration and achievements of mankind. It does not only mean to have a strong body and absence of diseases, but includes balanced mind, controlled senses, intellect and integrated ego to have perfect evolution of all important faculties (action, emotion, will and wisdom) of personality into state of self-realization. World Book Encyclopedia states health to be a state of physical, mental and social wellbeing. It involves more than just the absence of diseases. A truly healthy person not only feels good physically but also has a realistic outlook at life and gets along with other people. Good health enables to enjoy life and have the opportunity to achieve the goals they have set for themselves.

Physiology is the science of the function of living systems. This includes how organisms, organ

systems, organs, cells, and bio-molecules carry out the chemical or physical functions that exist in a living system. The highest honor awarded in physiology is the Nobel Prize in Physiology or Medicine, awarded since 1901 by the Royal Swedish Academy of Sciences.

Human physiology is the science of the mechanical, physical, and biochemical functions of humans, their organs, and the cells of which they are composed. The principal level of focus of physiology is at the level of organs and systems within systems. Much of the foundation of knowledge in human physiology was provided by animal experimentation. Physiology is closely related to anatomy; anatomy is the study of form, and physiology is the study of function. Due to the frequent connection between form and function, physiology and anatomy are intrinsically linked and are studied in tandem as part of a medical curriculum.

Physiology is, in broad terms, the study of how the body works. It is different from anatomy which refers to the structure of the body. We know, for example that when people feel sad or miserable they tend to hold their bodies in particular ways. Muscles become more relaxed and breathing and posture change. When we're sad we tend to look downwards or stare into space and over time our movements and even our thought processes slow down.

We also know that these physical changes produce chemical alterations. The neurotransmitters serotonin and nor adrenaline, or rather the lack of them seem to be most closely associated with low mood and inactivity (so far as medical science can ascertain). Inactivity appears to reduce levels of both these neurotransmitters in the central nervous system. We also know that reduction of nor adrenaline and serotonin appears to bring about a deepening of our misery in return. The purpose of this study was to Measure and compare the Physiological components between National and State level Atyapatya Players.

**Material and Methods**

After due consideration of all the points, purposive sample technique was employed. Only male National and State level Atyapatya Players were selected purposely for the study. A total number of 120 samples were selected from the National and State level Atyapatya Players. In which 60 were National level Atyapatya Players and rest 60 were State level Atyapatya Players. This is a survey study under Descriptive Research. The criterion measures adopted for this study were Physiological components such Cardio vascular endurance, Breathe Hold Capacity and Pulse Rate. The data was collected from the senior national championship and State Level Championship of Atyapatya. After data collection, data of physiological of National and State level Atyapatya Players was compared and analyzed by using Independent 't'-test to test the significance of the results. The level of significance was kept at 0.05 to test the hypothesis.

**Results**

**Table No.1  
Descriptive Statistics of Cardio Vascular  
Endurance, Breath Hold Capacity and Pulse Rate  
between National and State level Atyapatya  
Players**

Variable	National Level Atyapatya Players				State Level Atyapatya Players			
	N	Mean	Standard Deviation	St. Error Mean	N	Mean	Standard Deviation	St. Error Mean
Cardio Vascular Endurance	60	3121.7167	311.02123	40.15267	60	2951.4500	314.21877	40.56547
Breath Hold Capacity	60	.6247	.30086	.03884	60	.7788	.36419	.04702
Pulse Rate	60	68.1167	4.10907	.53048	60	69.9000	3.86948	.49955

**Table No. 2  
Independent sample 't' test of Cardio Vascular  
Endurance, Breath Hold Capacity and Pulse  
Rate.**

Physical fitness variables	't' value	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Cardio Vascular Endurance	2.983	118	.003	170.26667	57.07709
Breath Hold Capacity	2.528	118	.013	.15417	.06099
Pulse Rate	2.447	118	.016	1.78333	.72867

**Discussion of Findings**

The statistical analysis of physiological components of National and State level Atyapatya Players revealed that in the components such as Cardio vascular endurance, Breathe Hold Capacity and Pulse Rate, there was significant difference between National and State level Atyapatya Players. In the present study the results also showed that in components like Cardio vascular endurance and Pulse Rate the National level Atyapatya Players were found to be better than State level level Atyapatya Players. While in the components like Breath Hold Capacity, the State Level Atyapatya Players were found to be better than the national level Atyapatya players.

**Conclusion**

Finally the Researcher concluded that in components like Cardio vascular endurance and Pulse Rate the National level Atyapatya Players were found to be better than State level level Atyapatya Players. While in the components like Breath Hold Capacity, the State Level Atyapatya Players were found to be better than the national level Atyapatya players.

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