

## **A Comparative Study of Abdominal Strength between Sports Boys and Non Sports Boys**

**Dr. Pradeep Xalxo\***

\*Assistant Director Physical Education and Sports, University Sports board, BHU, Varanasi  
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### **Abstract:**

The purpose of the study was to compare the abdominal strength between sports boys and non-sports boys. The study was undertaken with another objective to judge the fitness level of sports and non-sports boys. 40 subjects for the study were randomly selected from state of Uttar Pradesh (20 sports boys and 20 non sports boys. Data were collected for Abdominal Strength with the help of Sit-Ups test. To find out significant difference between two groups ie., sports boys and non-sports boys t-test was applied. The analysis of data revealed no significant difference between the sports boys and non-sports boys. Further both seem to possess same level of abdominal strength

**Keywords:** Abdominal Strength

### **INTRODUCTION**

Fitness is the term, which is widely used in the present day health conscious society. The people have realized the importance of fitness in day to day routines and also in achieving sports excellence. Fitness denotes a person status of physique in relation to its physical achievements. The latest scientific evidence also edict the fact that for internal or physiological soundness physical fitness is necessary. Modern physical educators divided the factor of fitness into skill related and Health related physical fitness. It is also an undesirable fact, that the health related physical fitness, which is main concern for physical educationists, is depended on the skill related physical fitness of an individual. It is also a high concern for a coach to develop various skills and for this the sportsperson's skill related physical fitness should be upgraded and developed. Physical fitness refers to the capacity of an athlete to meet the varied physical demands of their sport without reducing the athlete to a fatigued state. The components of physical fitness are: Strength, Endurance, Speed, Flexibility and Coordination.

Abdomen is the largest cavity in our body and contains many important organs. Your stomach and other digestive organs, kidneys, bladder and most of your sex organs are all in your abdomen. Abdominal strength and endurance compresses these organs and keeps them in place by increasing intra-abdominal pressure. Weak abdominal muscles may impair digestive processes. The benefits of abdominal strength and endurance are similar to strength and endurance in other skeletal muscles. Greater abdominal strength increases the amount of force that your abdominal contractions can generate against resistance. Flexing your abs repetitively or sustaining abdominal contractions for longer periods of time requires greater abdominal endurance. The unique benefits of abdominal strength and endurance derive from the function of this muscle group. Abdominal muscles support your posture by supporting skeletal structures, such as your pelvis and lower back. Abdominal muscles surround more than 60 percent of your lower body, says The American Academy of Spine Physicians. Abdominal strength and endurance increases spinal stability and reduces your risk of spinal injury. Abdominal weakness imposes additional stress on your lower back muscles, which can hyperextend your lower spine and cause backache. **Abdominal** strength is most important in childhood because if he have more abdominal strength he able to do more work.

**MATERIALS AND METHODOLOGY:**

In this current study, a sample of 40 boys students ranging between 12 to 14 years from sports boys(20 students) and Non-sports boys (20 students) area of Varanasi was taken as subjects for this study. Sit up was used to measure flexibility Status of the subjects. To compare the mean differences between the sports boys and Non-sports boys’ t-test was applied using Statistical Product and Service Solution (SPSS) Software. The level of significance chosen was .05.

**RESULTS AND DISCUSSION:**

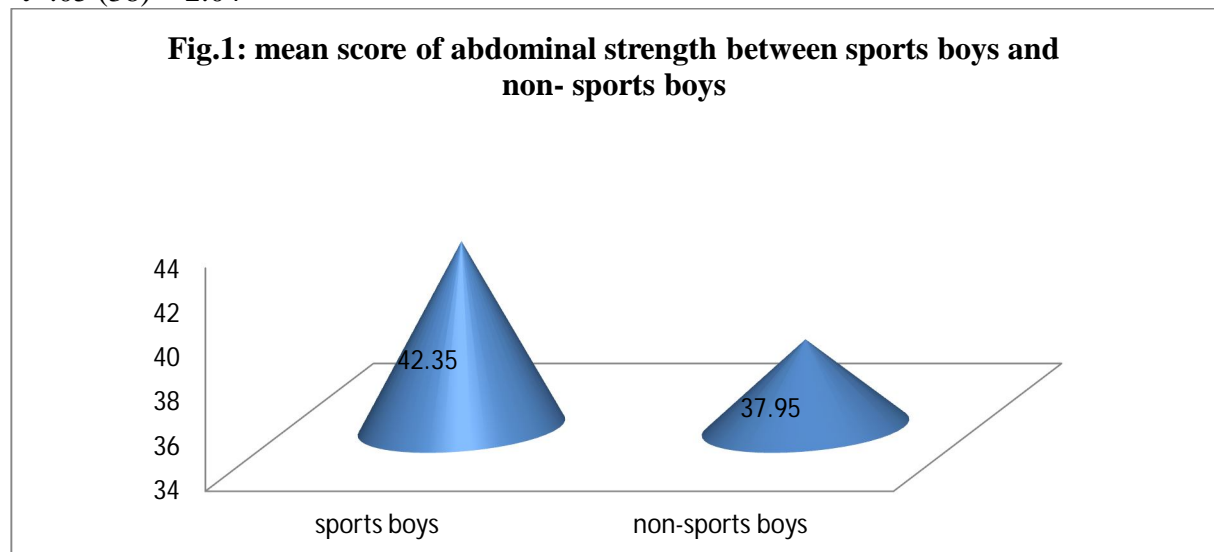
The data collected by adopting above procedure were statistically analyzed. The results are presented in the table for testing the significance in Sit-up. the level of significance chosen was .05. The comparison between the sports boys and Non-sports boys for the selected abdominal strength were statistically analyzed by using t- test. The data pertaining to the same is presented in Table 1.

**Table: 1**

Group	N	Mean	S.D	t-value
Sports boys	20	42.35	5.12	1.93
Non sport boys	20	37.95	8.78	

\*Significant at .05 level

‘t’ .05 (38) = 2.04



It is depicted from the Table 1 that the calculated t- values in case of sports boys and Non-sports boys on Sit-up were found to be statistically no significant as the value obtained were 1.93 (Sit-Up) whereas, the tabulated value was 2.04 which 38 degrees of freedom at .05 level of significant.

**DISCUSSION**

There were no significant differences obtained on sit-up between sports and Non-sports boys. The probable reason could be that the subjects of this study were during growth period and their physical fitness same because of their diet, infrastructure, daily routine, home

environment and way of living same. Hence, the sports and Non-sports boys were no significantly. The finding reveals that status of abdominal strength of sports and non-sports boys was same.

### **CONCLUSIONS**

In the light of the findings and limitations of the present study the following conclusions were drawn: There were no significant differences obtained on sit-up of sports and Non-sports boys.

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