



P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (ISRA): 5.38  
IJPESH 2021; 8(3): 470-473  
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[www.kheljournal.com](http://www.kheljournal.com)  
Received: 12-03-2021  
Accepted: 16-04-2021

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## Analysis and evaluation of physical fitness among the government and private high school students of Bulandshahar

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### Abstract

Physical fitness is one of the facts of a person's all round harmonious development. Physical fitness is the cultural phenomenon of great complexity and magnitude, which is historically, preconditioned level of health and comprehensive development of a person. The aim of the study is to compare physical fitness among the government and private high school students of Bulandshahar district. For this study experimental method and test of physical fitness (Speed (50-Yard Dash), Endurance (12-Minutes Run Walk) Strength (Standing Broad Jump), Agility (Shuttle Run Test), Flexibility (Scott French Bobbing Test) is applied to high school students of Bulandshahar district to collect the data. 50 high school students from Govt., and 50 private high school students from Bulandshahar district selected were selected randomly for the study. The result reveals that overall physical fitness performance of Govt. School students was higher than the private high school students of Bulandshahar district.

**Keywords:** physical fitness, speed, endurance, strength, high school

### Introduction

"A sound mind in a sound body" is a good mean that has stood the best test of time. There have been a number of studies tending to show that mind and body are inseparable. Ancient thinkers of Greek, Aristotle, combined moral intellectual and physical excellence. At Athens an uneducated body was as much a disgrace as an untrained mind. Physical fitness is one of the facts of a person's all round harmonious development. Physical fitness is the cultural phenomenon of great complexity and magnitude, which is historically, preconditioned level of health and comprehensive development of a person. Physical fitness adds grace to the young, wealth to the poor, ornament to rich acts as a consoling factor to the old. The place of physical fitness in any society reflects something of that society's characteristics. Today almost every country in the world gives importance to development of sports in order to improve the nation's health and for the wellbeing of the future generation. Every individual must know the importance of physical fitness in other words one must have a fundamental knowledge of anatomy and physiology. This fundamental knowledge enables person to understand physical fitness. Physical fitness is the capacity of a person to function steadily and smoothly when a situation arises.

Physical fitness is the ability to carry out daily tasks with vigour and alertness without undue fatigue and with ample energy in leisure time pursuits and to meet the above average physical strength, stress, muscular, endurance and circulatory endurance, muscular power, agility, speed and flexibility and added to compose physical fitness. Then kinetic, arm-eye co-ordination is needed for general motor ability. Physical fitness is generally judged by the performance and this performance is based on composite of many factors. The following factors have generally been conceded is being most commonly mentioned component of physical fitness. Higher level of physical fitness and physical fitness is fundamental to success in all types of games and sports. To become a top-level performance in any games and sports, it is essential that he should have a sound fit body. It is considered a matter of fact that when all other contributing factors are considered the level of fitness or physical fitness shall definitely lead to improvement in the performance level of the sportsman participant in a variety of games and sports. The activities such as running, jumping, leaping are considered as

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fundamental human movements but at the same time are considered basis to all types of games and sports. There is no such game, which does not involve activities like running, jumping, leaping. Thus, it automatically becomes clear that the degree to a particular game or sports training, excessive concentration would be given on the fitness because high level of fitness would be more helpful in emergency conditions. Physical fitness is a positive and dynamic quality, which extends from birth and death. Since an individual is indivisible and full of totality his all-discrete parts will be affected by all the phases of human existence.

Physical fitness refers to maximum functional capacity of all system of the body. We are exercising whenever we move and keeping our body tuned and in a good running order. The body of human is framed in such a way that it can jump, climb, bend, stretch and do more tedious work. The human body becomes more stronger as it exerts more and muscles involvement matters a lot in shaping it. Exercise helps in improving our health and builds up our energy and stamina.

Physical fitness is a state of health and well-being and, more especially, the ability to carry out daily task with vigor and alertness, and to meet unforeseen emergencies without undue fatigue. Fitness can also be defined as any form of physical movement that utilizes multiple muscle groups in the body.

Fitness is the condition of being physically fit and healthy and involves attributes that include, but are not limited to mental acuity, cardiorespiratory endurance, muscular strength, muscular endurance, body composition, and flexibility. While there is a standard definition for fitness, each individual can have their own personal understanding of what fitness means. To some individuals, being fit means the ability to complete a marathon or lift a lot of weight. To another, it could mean walking around the block without becoming short of breath. Your definition of fitness will be influenced by your interests, physical abilities, and goals. No matter what the definition, it is important for every individual to keep their personal definition of fitness within a healthy framework this means you should have realistic expectations and maintain balance and moderation in all aspects of life. Set small, attainable goals and avoid giving too much power to the numerical measurements of fitness. This can help your journey to fitness seem much less daunting and much more enjoyable.

Physical fitness is generally achieved through proper nutrition, sufficient rest and moderate-vigorous physical exercise. Physical fitness is one of the most important keys to a healthy body. It is the reason, a state of general well-being marked by physical health and mental stability. A person who is fit is capable of living life to its fullest extent. People who are physically fit are less prone to medical conditions and are more able to function at the peak of intellectual capacity.

There are different views regarding physical fitness. Modern definition of fitness says either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. To the ancient Greeks, being physically fit was of primary importance, equal to intellectual fitness.

Physical fitness can mean many things. To a physician, physical fitness may simply mean the absence of disease. To a weight lifter, it may be synonymous with large bulging muscles. To a health or physical educator, physical fitness may mean the ability to perform a specific number of calisthenics activities or to run or walk one mile in a certain time. To a health fitness professional, physical fitness means being able to acquire and maintain specific health standards.

When people are asked to define or to describe the term

fitness, their most common replies deal only with the physical part of fitness. Two other parts of fitness that are often overlooked are mental-emotional fitness and social fitness. Total fitness is said to be achieved when people possess all three parts of fitness - mental-emotional, social and physical. Mental-emotional fitness is a combination of many qualities. Two of these qualities are the ability to control emotions and the ability to handle stress. A positive self-concept and the ability to feel and to show love and concern for others are other qualities of mental-emotional fitness. Social fitness is the ability to get along with people in many kinds of situations. Behaving in ways that are socially acceptable are signs of social fitness. Physical fitness is achieved when people are able to carry out their daily activities with vigour, alertness and without undue fatigue. Physically fit people also have enough energy to participate in leisure activities and to meet the stresses that are part of many emergency situations.

### **Cardiorespiratory Endurance**

In the most general terms, a fit person is able to perform tasks with more sustainable energy and for longer periods than an unfit person. But, fitness is more than just the ability to work longer; in fact, it includes a number of components, one of which is cardiorespiratory endurance. This is a measure of the circulatory and respiratory systems' ability to deliver oxygen and nutrients to and eliminate waste products from cells. Your cells need oxygen and nutrients in order to fuel your muscles during periods of physical activity. When your cells work they produce wastes that need to be transported away. How efficiently your body does these tasks is a measure of your cardiorespiratory endurance.

You can build your cardiorespiratory endurance through aerobic exercise, which is a type of exercise that uses oxygen to meet energy demands. The word aerobic means using oxygen, so aerobic exercise is literally exercise that uses oxygen. This is the type of exercise that we might consider with activities performed over time at low to moderate intensity, such as taking a comfortable jog around the neighborhood, riding your bicycle or rowing a boat. Aerobic exercise is important because it strengthens your heart and lungs by making them work harder. Did you ever hear that really fit athletes have very low resting heart rates? That's because a high level of fitness leads to a strong heart, which is able to pump a lot of blood with fewer heartbeats.

### **Techniques of physical fitness**

A human body is an ingenious creation and it is our duty to keep it healthy, for its potential to achieve is huge. For everything that humans have created, invented and discovered, his initial investment has been his brain, his blood, his body, and his mind. In a previous article, we observed how the body complements our thinking capacities, our emotional faculties and so on. Yet, more than 8 million people suffer only from heart attacks annually.

### **5 Ways to improve your physical fitness**

When blood does not reach the entire body equally, the enzymes and hormones secretion from the brain gets imbalanced, leading to various micro-effects which we rarely notice. These micro-effects pile up over the years, and they show up one day as a fatal disease. We repeat what we don't repair and repairing is a must. Here are the 5 very simple techniques to improve your physical fitness, all of which takes a tiny amount of your schedule but shall prove to be a boon in your later life.

### 1. Cardiovascular endurance (CE) exercises

As mentioned in one of the previous articles, Cardiovascular Endurance means our body's capability to reach oxygenated blood to the entire body without getting fatigued too soon. They are also known as aerobic exercises. Cardiovascular fitness is of utmost importance to prevent heart diseases, lung infections, stomach infections, indigestion and other micro-harming aspects which take a toll on our lives at a later stage. Prolonged indigestion if kept unchecked may lead to stomach ulcers and foodies should take note of this! There are various kinds of cardio training or aerobic exercises, ranging from mild to heavy. Depending on your health conditions and age, your fitness trainer shall prescribe you the perfect CE module. Some of the best methods to increase your cardiovascular endurance irrespective of your age are cycling, swimming, jogging, skipping and walking.

Some of the extreme cardio exercises are the following:

- Mountain climbing.
- Punching,
- Heavy running (about 400-500 meters every day) and
- Vertical Jump.
- Rowing.
- Karate or Judo Practice,

### 2. Strength Training

The world has got obsessed with how you look naked! Is that all that is strength training about? Well, a big NO! Strength training is greater than just building muscles or having a very good shape. Strength training is the second-most important method in your fitness module. Have you ever wondered how laborers without any gym training or fitness module manage to have such good body posture and tight biceps and triceps? One of the main reasons is strength training and muscular endurance exercises built in the very job they do all day.

Strength training involves weight training routines, ones which you can also practice at your home. Just manage some bricks and you are set. No dumbbells, gyms and heavy training machines. Losing excess fat is the most visible effect of weight-training workouts. Although CE training and strength training merge at some points, and that needs to be kept in mind. For instance, practicing dips every day is a very efficient way to boost your CE as well as work on your overall body strength.

Apart from improving your shape and posture, strength training decreases the fatigue time of your muscles. With practice, your muscles would be able to bear greater strain over extended periods of time. On the road to improve your physical fitness, strength training is a must.

### 3. Body Stretching

Along with strength training, body stretching also increases your muscles' endurance strength and capacity to handle the strain. In your fitness module, this is perhaps the most painful series of exercises. The basic stretching exercises are those athletes practice in their warm-ups.

Stretching increases flexibility, and the more it hurts, the better it is for your muscles. Stretching for all muscles smoothens the joint movements and significantly decreases the chances of sprains, lower back pains, waist pains and so on. For the best stretching exercises suited for your body, a fitness trainer should be contacted. Sudden pressure on account of stretching can cause serious injuries.

### 4. Proper diet and drinking plenty of water

A famous saying goes like this: We are what we eat. While you finish reading this sentence, 50000 cells of your body died and were replaced. But what are they replaced with?

Each organ of our body sheds the outdated cells to renew them with new ones. The cells are made from the nutrients our stomach churns out from the food we intake. Thus, the food we consume in a way defines us.

This is the reason doctors harp on having a balanced diet. A balanced diet is the best diet to keep your body and mind together on the road to the development and improvement of your physical fitness. Along with a vegetarian diet, the consumption of fair amounts of meat is also necessary. Fish has a large number of phosphor lipids which are necessary for maintaining the sodium/potassium levels of our bodies. Good diet foods are those which help maintain our chemical balance and body composition. We understand a diet chart and healthy eating guidelines suited for you is something you are looking for long. Here at Fitness Priority, we shall provide you with one, keeping your age, weight, medical history in mind.

Along with food, one of the most crucial aspects necessary not only for your health but also for your survival is water. Keep this in mind: Whenever in doubt, always drink water. A study showed that Indians lag behind in their daily water intake by about 40%. The recommended daily water intake is 4 liters.

### 5. Sleep

The last, but one crucial element of healthy living is proper sleep. A sound sleep of about 7 hours is necessary for your body to repair all the damages and to keep the damage repair balance up and running. During sleep, all information that we intake is processed and kept in secluded areas in our brains. Doctors suggest a minimum of 6 hours of sleep every day to ensure a balanced body and mind.

Insomnia is a very common disorder nowadays. It results in a lack of sleep despite extreme tiredness. You are just unable to sleep after a long day at the office. It occurs due to hypertension, stress and intense wakefulness when the brain thinks it is not yet time to go to sleep and keeps all our senses wide awake. Insomnia, depression, and anxiety are intricately linked. And in this world which is designed to depress us, it is very easy to contract insomnia.

### Statement of the problem

The aim of the study is to compare and analyse the study of physical fitness among the Government and Private High School students of Bulandshahar district.

### Hypothesis

There may be differences in physical fitness between Govt., and private secondary school students.

### Significance of the study

1. This study will help to compare the order of dominance components of physical fitness of Govt., and private Bulandshahar district students.
2. This study will help to physical education teachers for picking up talented person for training them according to requirements.
3. It may be helping in determining the student's weakness in a particular component.

### Methodology

The researcher has used experimental method to compare the physical fitness between the Govt., and Private High School students. For this experimental method and test of physical fitness is applied to high School students of Bulandshahar district to collect the data. 50 high school students from Govt.,

and 50 Private high school students from Bulandshahar district were selected randomly for the study.

**Speed:** (50-Yard Dash)

**Endurance:** (12-Minutes Run-Walk)

**Strength:** (Standing Broad Jump)

**Agility:** (Shuttle Run Test)

**Flexibility:** (Scott French Bobbing Test)

### Result and discussion of the study

**Table 1:** Physical fitness performance of high schools

High Schools		Strength	Speed	Agility	Endurance	Flexibility
Govt.	M	1.91	8.70	12.32	2114.2	11.68
Students	SD	0.34	1.20	1.81	420.27	2.56
Private	M	1.79	9.01	14.93	2012.2	10.69
Students	SD	0.29	1.61	1.47	299.84	2.19
t-Value		1.90	1.08	7.88**	1.38	2.96**

\*\* Significance at 0.01 level

Results present in the above Table represent the scores of Govt., and Private high school students of physical fitness components it can be observed that, strength scores of Govt., school students are higher (1.91) than Private high school students (1.79). The 't' value (1.90) were not significant. There is a significant difference between Govt., school students (8.70) and Private students (9.01) speed component the 't' values were (1.08) not significant. The scores of agility test of (12.32) Govt., school are higher than and Private high school students (14.93). The 't' values were (7.88) significant at 0.01 level. The endurance scores of Govt., school students are higher (2114.2) than Private high school students (2012.2). The 't' values were (1.38) not significant. The flexibility of Govt., school students (11.68) are higher than Private high school students (10.69). The 't' values were (2.96) significant at 0.01 level of significance.

### Conclusion

On the basis of the results, the following conclusion drawn

- Strength scores Govt., school students are higher than Private high school students. The 't' values were not significant at 0.01 level of significance.
- There is a significant difference between Govt., school students and private high school students in speed component the 't' values were not significant at 0.01 level of significance
- The scores of agility test of Govt., school students are higher than private high school students. The 't' values were significant at 0.01 level of significance
- The endurance scores of Govt., school students are higher than private high school students. The 't' values were significant at 0.01 level of significance
- The flexibility scores of Govt., school students are higher than private high school students. The 't' values were significant at 0.01 level of significance.
- Overall physical fitness performance of Govt., school was higher than the private high school students of Bulandshahar district.

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