



# EFFECT OF WEIGHT TRAINING EXERCISES ON THE IMPROVEMENT OF LEG STRENGTH OF FOOTBALL PLAYERS

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## Abstract

The purpose of the present study was to analyse the effect of selected weight training exercises on the growth of leg strength of football players. The study was conducted on 40 male football interuniversity players, age ranged from 20 to 26 years who were randomly selected from Guru Ghasidas Vishwavidyalaya, Bilaspur(C.G.) were taken as the subjects. The selected group of subjects was divided into two groups viz. experimental and control. The weight training schedule which was administered on experimental group only, different weight training exercises were given (i.e., close grip bench press, squat, dumbbell lunges, standing leg curls, dumbbell dead lift, and leg press). This weight training programme were carried out for a period of 6 weeks for one hour every evening for 5 days in a week. Control groups were no treatment group and were engaged in their own daily activity programme. As delimited to measure the leg strength of the subjects standing broad jump (SBJ) tests was used. For the administration and scoring of these tests item procedure mentioned in AAPHER, youth fitness test (1958) was taken as the model. It was analyse from the results of the study that there was significant effect of the weight training exercise on the leg strength of the selected football players.

**Keywords:** Football players, Leg strength, Weight training

## Introduction

Training is mainly an art and like the artist a successful training programme must have two characteristics. The first one is creative training, which indicates success in any sports hinges on its ability to respond quickly of flexibly, strength, speed and reliably to player demands and well opportunities. The second attribute is technical mastery of the skills used (Shaker, 2007). Therefore, a systematic and proper training programme is a great asset for basketball players. Weight training is a common type of strength training for increasing the strength and size of skeletal muscles. It utilizes the gravity in the method of weighted bars, dumbbells or weight stacks in order to oppose the force generated by muscle through concentric or eccentric contraction. Weight training uses a variety of specialized equipment's to target specific muscle groups and types of movement. Sports where strength training is

central are bodybuilding, weightlifting, power lifting, and strongman, highland games, hammer throw, shot put, discus throw, and javelin throw etc. Many other sports use strength training as part of their training programme, notably: American football, baseball, basketball, football, hockey, lacrosse, mixed martial arts, rowing, rugby league, rugby union, track and field, boxing and wrestling. Push-Ups. One of the simplest yet most effective exercises for building your arm strength is doing regularly do push-ups. To perform push-ups, place your hands shoulder width apart with palms on the ground. Plant your legs with the balls of your feet touching the ground. Having a strong arm is critically essential for a good baseball player. The strength of your arm plays a central role in all baseball positions, including batting, pitching and fielding. You can hit home runs, pitch blazing fast baseballs and field with accurate and quick throws to the home plate, all by virtue of a strong arm. And it is incredibly simple to gain solid strength for your arm, although it requires diligence, hard work and persistence. In the weight training resistance equipment is used to stimulate muscle growth, increase tone and strength. The term weight training is also used interchangeably as resistance training. It could be treated as strength training for developing the arm strength of wrestlers, but weight training should not be confused with weight lifting, which is the lifting of heavy weights with the goal of lifting more pounds than the opponent can (Shaw, & Shaw, 2014). The confusion between weight lifting and weight training is probably the reason for the negative feelings about the use of weights in a boys training programme, since weight lifting is usually associated with powerful, muscled men, and has a masculine connotation.

Silverter (2000) compared the effect of various resistance and free hand weight training exercise on leg strength, of seventy-nine male students. He calculated that all the training systems cause strength gains in all strength measures. Response to five different weight training frequencies per week 75 male volunteers' high school subjects were randomly assigned to train either one day, two days, four days per week. All groups trained on an identical bench press for nine weeks. The results revealed a highly significant improvement in muscular strength in the group that trained five days per week, sequential strength improvement resulted from increased frequencies of training that means the more frequent the stress, great adaptation will be happen. However, one can use weight training to improve an individual's general fitness and to raise level of performance in particular sports while at the same time adding to his femininity by improving his fatigue and muscle tone, since his muscles are strengthened by carefully selected weight training exercise (Shaker, 2007). Objective of the present study was to analyse the effect of selected weight training exercises on the growth of leg strength of male football players.

## **METHODOLOGY:**

### **Selection of Subjects:**

The present study consisted of 40 male Football interuniversity Players were chosen as subjects. The ages of the subjects were from 20-26 years studying in Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) was selected as subjects.

### **Selection of Variables:**

After reviewing through all the scientific literature, journals, magazine and keeping feasibility criteria in mind the content weight training exercises was selected for the purpose of the present study.

**Criterion measures:**

The pre design weight training programme was carried out for a period of 6 weeks for one hour every evening. In this the time required for conducting pre-test and post-test is excluded. The subjects underwent the weight training program for five days in a week that is, on Monday to Friday. Control group was treated as no treatment and was not subjected to any experimental training. The control group was allowed to engage themselves in their daily routine physical activities.

**Statistical analysis of data:**

To find out the effects of weight training exercise on legs strength of football players, student t-test was used between the pre-test and post-test data. The level of significance was set at 0.05 level. All statistical function was performance with the help of SPSS v.20.0 software.

**RESULT AND DISCUSSION:****Table - 1**

Mean, SD and T Value between Pre-Test and Post-Test Score of the Leg Strength for the both Control and Experimental Groups.

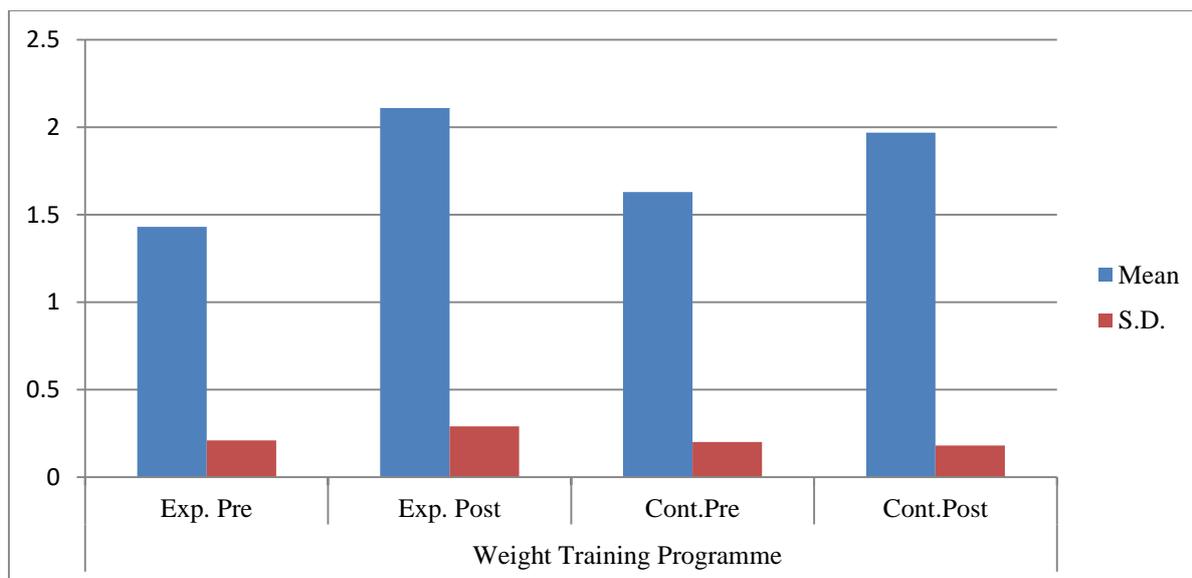
Groups	N	Mean	S.D.	t-value
Experimental (Pre-test)	20	1.43	0.21	4.15*
Experimental (Post-test)	20	2.11	0.29	
Control (Pre-test)	20	1.63	0.20	0.26
Control (Post-test)	20	1.97	0.18	

\*significant at 0.05 level.

Readings of Table 1 showed that there is significant difference existed between pre-test and post-test score of leg strength of experimental group. For control group it was observed from the table that no significant difference existed between pre-test and post-test score of leg strength. It indicates that there is a significant effect of the weight training exercise on the leg strength of the football players. Table 1 showed the analysis of leg strength of pre -test and post-test scores of experimental and control groups. The mean values of experimental group was 1.43, S.D. was 0.21 for the pre-test, and 2.11, S.D. was 0.29 post-test respectively.

**Figure 1**

Graphical Representation of Pre-test and Post-test of the Leg Strength for the both Control and Experimental Groups



## CONCLUSION:

On the basis of present findings of the study following conclusions were made:

- Significant difference was observed between experimental group and no significant between control groups on the variable leg strength.
- It is found that prescribed weight training was effective on the leg strength of the football players. Treatment of weight training exercises increase in leg strength.
- It has been found that prescribed weight training Exercises increase the foot strength of the football plyers, leading to excellent performance of the players during the game
- Finally, it is concluded that there is significant effect of the 6 weeks weight training exercise programme on leg strength football players.

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