



## EFFECT OF CONDITIONING PROGRAM ON STRENGTH AMONG FOOTBALL, BASKETBALL AND VOLLEYBALL PLAYERS

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### **Abstract**

Conditioning is the training process through which athlete goes through to become physical fit. It is important to ensure that an athlete has proper comprehensive training for playing a particular position in specific sports. In addition to bring more physically fit, a well-conditioned athlete was less prone to injury when engaging in sporting activities. Conditioning refers to getting the individual exposed to certain activities (Predominantly Physical in Nature). The conditioning programme includes running, hopping, jumping and stretching exercise etcetera. For the purpose of this study Total thirty (30) subjects were selected from Department of Physical Education, Institute of Professional studies, Gwalior (M.P). Ten subjects from each game was randomly selected i.e. football, basketball and volleyball. Age group of athletes was 17 - 25 years. To carry out this study pre-post Random Group Design was used. The variables were selected for this study i.e.,g Leg strength, Arm strength and Abdomen strength In order to find out the Significance of analysing the effect of conditioning program on selected variables among football basketball and volleyball players between pre-test and post test scores. The statistical technique was used ANCOVA (Analysis of Covariance) was applied in this study and level of significance was set at 0.05. Results of the study shows that Arm strength and abdominal strength was significantly increased due to nine weeks of conditioning program but legs strength was significantly not increased due to nine weeks of conditioning program.

**Key Words:** Conditioning, Leg strength, Arm strength and Abdomen strength.

### **Introduction**

Lack of activity destroys the good condition of every human being while physical activity, yoga & meditation is able to save it & preserve it. Each and every athlete should focus on conditioning their body to prepare for the specific sport. Conditioning not only helps athletes be prepared for their sport it also plays a crucial role in injury prevention. When following a strong conditioning program, athletes will lower the risk of injuries by strengthening ligaments, tendons, and muscles while creating a higher level of flexibility.

### **Methodology**

The purpose of the study is to find out the effect of conditioning program on strength among football basketball and volleyball players. In this chapter selection of subjects, selection of variables, criterion measures, research design, procedure, administration of test, collection of data and statistical technique for the analysis of data are explained. Total thirty (30) subjects were selected from Department of Physical Education, Institute of Professional studies, Gwalior (M.P). Ten subjects from each game was selected randomly i.e. Football Basketball and Volleyball. Variables selected for the study were Leg strength, Arm strength and Abdomen strength. The research design use in this study was pre-post Random Group Design. The data was collected for each variable administrating their respective test. Total thirty (30) subjects ten (10) from each game that is football basketball and volleyball Male and female was selected as for this study who had participate in intercollegiate level tournament from department of physical education, Institute of Professional studies Gwalior (Madhya Pradesh). To ensure that the data collected was reliable, each subject was gives sufficient number of trials to perform the respective test for each variable. The test in all selected physical variables was administered in the Institute of Professional Studies Gwalior (Madhya Pradesh).



In order to find out the Significance of analysing the effect of conditioning program on selected variables among football basketball and volleyball players between pre-test and post test scores. The statistical technique and ANCOVA (Analysis of Covariance) was applied in this study and level of significance was set at 0.05.

### Findings and Results

For each of the chosen crew the result pertaining to significant difference, if any, between pre-test and post-test means of the three groups (football basketball and volleyball group) which were assessed by employing analysis of covariance have been given below.

TABLE NO.1  
ANALYSIS OF COVARIANCE OF STANDING BROAD JUMP AMONG DIFFERENT SPORTS

Sources of Variation	df	Sum of Square	Mean Square	'F' ratio
Between Group	2	0.008	0.004	0.07
Within Group	26	1.29	0.05	

\*Significant at 0.05 level of significance tab  $F_{0.05(2,26)} = 3.37$

Table no. 1 shows that there is no significant differences in standing broad jump due to conditioning program as the 'F' ratio obtained 0.07 is lesser than the value of 3.37 required for 'F' ratio to be significant as at 0.05 level with (2,26) degree of freedom.

TABLE NO.2  
ANALYSIS OF COVARIANCE OF SIT-UP AMONG DIFFERENT SPORTS

Sources of Variation	df	Sum of Square	Mean Square	'F' ratio
Between Group	2	265.96	132.98	8.42
Within Group	26	410.20	15.78	

\*Significant at 0.05 level of significance tab  $F_{0.05(2,26)} = 3.37$

Table no. 1 shows that there is no significant differences in standing broad jump due to conditioning program as the 'F' ratio obtained 8.42 is lesser than the value of 3.37 required for 'F' ratio to be significant as at 0.05 level with (2,26) degree of freedom.



TABLE NO.3  
 LSD POST HOC TEST FOR SIT-UP AMONG DIFFERENT SPORTS

Football	Basketball	Volleyball	Mean Differences	Critical Differences
33.31	41.32		8.01*	3.63
33.31		41.35	8.04*	3.63
	41.32	41.35	0.03	3.63

\*C.D. at 0.05 level of significance =3.36

Table no. 3 shows that there are significant differences football & basketball players and between football & volleyball players as the mean difference is greater than critical difference i.e. 3.36. But there is no significant difference between basketball and volleyball players as the mean difference (0.03) is lesser than critical difference.

TABLE NO.4  
 ANALYSIS OF COVARIANCE OF MEDICINE BALL THROW AMONG DIFFERENT SPORTS

Sources of Variation	df	Sum of Square	Mean Square	'F' ratio
Between Group	2	0.22	0.11	9.32*
Within Group	26	0.31	0.012	

\*Significant at 0.05 level of significance tab  $F_{0.05}(2,26) = 3.37$

Table no. 4 shows that there is no significant differences in standing broad jump due to conditioning program as the 'F' ratio obtained 9.32 is higher than the value of 3.37 required for 'F' ratio to be significant as at 0.05 level with (2,26) degree of freedom.

TABLE NO.3  
 LSD POST HOC TEST FOR SIT-UP AMONG DIFFERENT SPORTS

Football	Basketball	Volleyball	Mean Differences	Critical Differences
8.05	8.26		0.21*	0.098
8.05		8.10	0.05*	0.098
	8.26	8.10	0.16*	0.098

\*C.D. at 0.05 level of significance = 0.98



Table no. 4 shows that there are significant differences football & basketball players and between football & volleyball and between basketball & volleyball players as the mean difference is lesser than critical difference.

### Discussion of finding

The finding of this study revealed that conditioning program is effective as two out of this variable had positive impact. It is revealed that the training program in which the boys and girls had undergone resulted in bringing about significant changes because the amount and kind of conditioning was adequate to effect optional changes.

Further the findings revealed that football group was most affected from the conditioning program rather than basketball and volleyball group. The finding also shows that conditioning program was improved basketball group significantly better than the volleyball group.

On the basis of our finding it is clear that the conditioning program given to different sports group was not the same intensity and volume. Another possibility could however be that football group had put in more severe training during the match practice period because normally the training programme was footballer is more individualized which resulted in better improvement.

### Conclusion

Within the limitations and delimitations set for the present study and considering the result obtained, the following conclusions were drawn. Standing broad jump (legs strength) was insignificant due to nine weeks of conditioning program.

Set-up (abdominal strength) was significant due to nine weeks of conditioning program.

Medicine ball through (Army strength) was significant due to nine weeks of conditioning program.

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