# Effect of Quick Footwork Drills on Footwork and Quickness among Soccer Players

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**Abstract:** *This investigation post exercise consumption should improve the footwork and quickness among the young soccer players due to the effect of quick footwork drills programme. The main purpose of this study was to determine whether quick footwork drills programme was more efficacious for improving footwork and quickness in young players and to examine the difference between changes in footwork and quickness among intervention and control groups. Twenty four male soccer players were voluntarily participated from Tirunelveli District, Tamilnadu, India. A total of 24 active male soccer players aged 23.16 ± 1.52 years and having a BMI of 24.57 ± 1.01 were assigned to one of the two groups as quick footwork drills programme (Intervention group) and control (Control group). The training period continued for four days a week for eight weeks period. The initial and the final value of footwork and quickness were measured by Quick feet test and 3-Cone Shuttle Drill Test (L-Drill) and unit of measurement was in seconds. The intervention groups met four days per week for eight weeks of training programme and control group maintained their usual day to day activity during the course of this study. The data was collected during the year of 2019. The collected data was analysed by using paired sample t-test and analysis of covariance at the level of significance 0.05. Quick footwork drills training seems to be an appropriate training tool to enhance the footwork and quickness among the young soccer players. At the end of the training programme, there was a significant difference existed between intervention and control groups on footwork and quickness due to the effect of quick footwork drill programme. However, there was significant improvement occurs on footwork and quickness was found in intervention groups at level of significance ($p < 0.05$). The results suggest that our eight week of Quick footwork drills must improve both the footwork and quickness among male soccer players.*

***Keywords***: *Quick Footwork Drills, Footwork, Quickness, Soccer Players, Quick Feet Test, 3-Cone Shuttle Drill Test*

## 1. INTRODUCTION

Today athletes prepare themselves for a goal through physical training endeavours. The objectives of physical training are to increase the athlete`s physiological potential and to develop bio-motor abilities to the highest standards [1].

Football, or soccer, is a team game popular around the world with participants of all ages. The increasing competition between teams and search for new stars has lowered the age of discovering new footballers [2]. Training applied to individuals learning the sport at an early age significantly affects what type of star they will be in the future. Effective construction of sudden direction changes, jumps and kicks within the game of football determines a player's success. The success of these skills is affected by the strength, speed, balance and quickness traits of a players [3].

Soccer players must be able to effectively perform several complex dynamic movements with (i.e., passes, kicking, dribbling, heading) and without the ball (i.e., modulating running speed and changes of direction, accelerations, decelerations, jumps) in response to unpredictable environments conditioned by the ball, teammates and

opponents [4]. Performance of such complex dynamic movements is linked to coordination abilities, suggesting players with higher coordination levels have a higher ability to acquire sport-specific skills and quicker mastering of new movements [5].

Scientific literature indicates physical and technical components in soccer players are related to biological maturation [6]. In this sense, during the adolescent maturation stage, the accelerated growth in the length of limbs contributes to a transitory decline in motor coordination and physical performance in youth soccer players [7].

The quick footwork provides information on the presence of fast-twitch muscle fibre in the muscles involved in sprinting and indicates the potential to execute quick movements. Hereditary factors such as limb length, muscle attachments, and proportion of fast-twitch fibres do place a limit on one's maximum potential. Still, one can improve speed and quickness with proper training. For that, this study intends to execute quick footwork drills among young soccer players [8].

Exercise involving quickness, speed, agility and footwork drills is a training method aimed at developing motor skills and body motion control through the development of the neuromuscular system. It aims to improve the athlete's ability to perform multi directional explosive power movements by reprogramming the neuromuscular system, so it can work more efficiently [9].

## 2. METHODS

*2.1 Subjects and Procedures*

Twenty four male soccer players were voluntarily participated from Tirunelveli District, Tamilnadu, India. A total of 24 active male soccer players aged 23.16 ± 1.52 years and having a BMI of 24.57 ± 1.01 were assigned to one of the two groups as quick footwork drills programme (Intervention group) and control (Control group). The training period continued for four days a week for eight weeks period. The initial and the final value of footwork and quickness were measured by Quick feet test and 3-Cone Shuttle Drill Test (L-Drill) and unit of measurement was in seconds. The intervention groups met four days per week for eight weeks of training programme and control group maintained their usual day to day activity during the course of this study. The data was collected during the year of 2019.

*2.2 Training Protocol for Intervention Group*

The intervention group underwent quick footwork drills programme under the strict supervision of the investigators, prior to every training session the intervention group done proper warming-up exercises, which included jogging, stretching and fulfil the specific need of the training. The intervention treatment namely quick footwork drills were administrated for duration of 8 weeks and the number of session per week was confined to four days and each session lasted between 45-75 minutes includes warming up and cool down exercises.

The quick footwork drills programme consist of two foot forwards, two foot sideways, icky shuffle, backwards icky shuffle, in & out, single leg in & out, lateral in & out, crossover, foot exchange, reverse crossover, hip twist, carioca, two footed hop and one footed hop. Training load was fixed between 2-4 repetition with 2-5 sets and intensity was done between 75-100% range and volume of work between 45-75 minutes for eight weeks with four days per week and a session per day. The below table 1 shows that training plan for intervention group.

**Table-1: Training Plan for Intervention Group**

| Week | Training Means | Method | Load | | |
|---|---|---|---|---|---|
| | | | Rep x Set / Rest/set | Intensity | Volume |
| 1&2 | Warming-up exercises<br>Two Foot Forwards, Two Foot Sideways, Icky Shuffle, Backwards Icky Shuffle,<br>In & Out, Single Leg In & Out, Lateral In & Out, Crossover, Foot Exchange, Reverse Crossover, Hip Twist, Carioca,<br>Two Footed Hop, One Footed Hop.<br>Cool down exercises | Repetition | 4 x 2 / 30 Sec | 75-80% | 45-75 mins |
| 3&4 | | | 4 x 3 / 45 Sec | 80-85% | |
| 5&6 | | | 3 x 4 / 60 Sec | 85-90% | |
| 7&8 | | | 2 x 5 / 90 Sec | 90-100% | |

*2.3 Determination of Footwork and Quickness*

To measure the footwork of the players, the quick feet test was used. This test requires the subjects to run along a 20 rung rope ladder, stepping between each rung and without touching the rungs, as fast as possible. The assistant starts the clock when the subject's foot touches the ground between the first and second rung. The assistant stops the clock when foot contact is made with the ground beyond the last rung and records the time in seconds. The test is repeated, and the fastest time used to access the player's performance [10].

To measure the quickness of the players, the 3-Cone Shuttle Drill Test (L-Drill) was used. This test requires the subject to touch a series of cones set out in "L" shape as fast as possible. The assistant places three cones (A, B, C) in the form a "L" shape where the distance from cone A to cone B is 5 metres and the distance from cone B to cone C is 5 metres. Cone A is the start and finish of the test. The subject stands at the cone A facing cone B. The assistant gives the signal to 'Go', starts the clock, and the subject commences the test. The subject runs to and touches cone B, turns and runs back to and touches cone A. The subject turns and runs to and around cone B, keeping it to the left side of the body, to cone C and touches it. Then the subject turns and runs to and around cone B, keeping it to the right side of the body, to cone A. when the researcher stops the clock and records the time in seconds when the subject completes the course on passing cone A [11 & 12].

*2.4 Statistical Tools*

For analyzing the collected data, the researcher gone through paired sample-'t' test to find out the significant improvement of mean score between pre and post-test of the selected groups. And the researcher chose analysis of covariance (ANCOVA) to find out the significance difference between both groups at the 0.05 level of confidence was fixed to test the level of significance difference.

## 3. RESULT AND FINDINGS

The effect of quick footwork drills on footwork and quickness were analyzed and presented in the below table,

**Table-2: Computation of 't' - ratio between Pre and Post-Test Means of Intervention and Control Groups on Footwork and Quickness (seconds)**

| Criterion Variables | Test | Intervention Group | | Control Group | |
|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD |
| Footwork | Pre test | 3.71 | 0.21 | 3.72 | 0.22 |
| | Post test | 3.14 | 0.14 | 3.69 | 0.19 |
| | 't'test | **14.07*** | | 1.92 | |
| Quickness | Pre test | 7.56 | 0.35 | 7.55 | 0.34 |
| | Post test | 7.42 | 0.26 | 7.53 | 0.37 |
| | 't'test | **9.83*** | | 0.74 | |

*Significant at 0.05 level. (Table value required for significance at .05 level for 't'-test with df 11 is 2.20)

The table 2 shows that the pre-test mean values on footwork and quickness among intervention and control groups were 3.71 & 3.72 and 7.56 & 7.55 respectively and post-test mean values are 3.14 & 3.69 and 7.42 & 7.53 respectively. The obtained dependent t-ratio values between pre and post-test means of intervention and control groups are 14.07 & 1.92 and 9.83 & 0.74 respectively. The table value required for significant difference with df 11 at 0.05 level is 2.20. Since, the obtained-'t' ratio value of intervention group was greater than the required table value, it was concluded that intervention group had significantly improved on footwork and quickness due to the effect of quick footwork drill programme. However, the control group has not improved significantly. The obtained 't' value is less than the table value, as they were not subjected to any specific training.

**Table-3: Analysis of Covariance on Footwork and Quickness of Intervention and Control Groups**

| Test | Intervention Group | Control Group | SOV | SS | Df | MS | F-ratio |
|---|---|---|---|---|---|---|---|
| Adjusted Post-Test Mean | | | | | | | |
| Footwork | 3.11 | 3.70 | B.M | 43.48 | 1 | 43.48 | 51.76* |
| | | | W.G | 17.64 | 21 | 0.84 | |
| Quickness | 7.41 | 7.53 | B.M | 70.24 | 1 | 70.24 | 16.45* |
| | | | W.G | 89.67 | 21 | 4.27 | |

** Significant at 0.05 level. Table value for df 1, 21 was 4.32.*

From the table 3 shows that the adjusted post-test mean values on footwork and quickness. The obtained f-ratio for selected dependent variables was 51.76 and 16.45 and the required table value of df 1 and 17 was 4.32. It shows that the obtained f ratio values were greater than the required table value at 0.05 level of confidence. The result of the study indicated that there was significant mean difference existed between the intervention and control groups on footwork and quickness. The below figure 1 & 2 shows the pre, post and adjusted post-tests mean values of intervention and control groups on footwork and quickness.

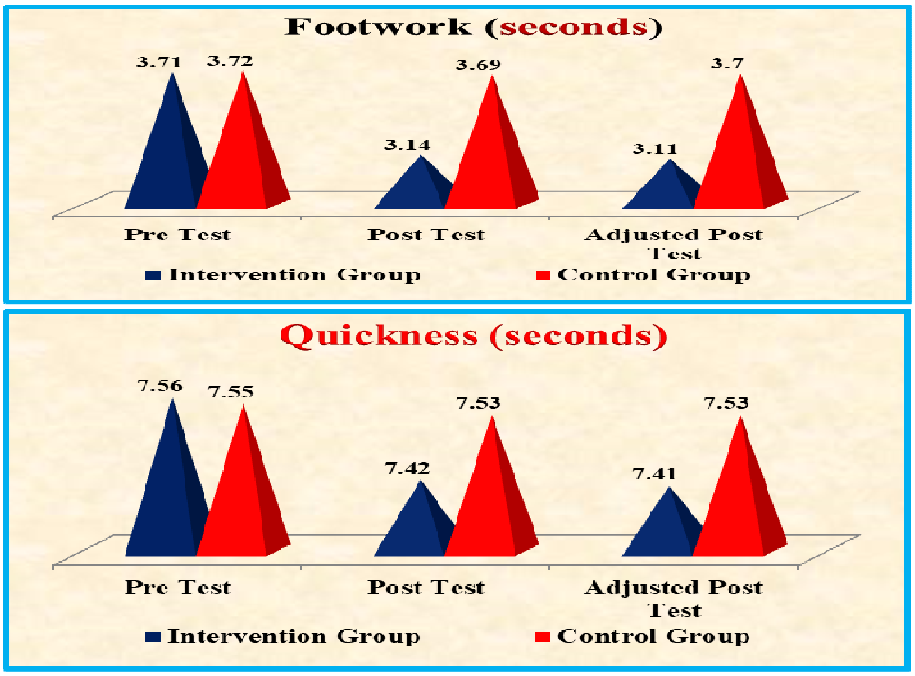


**Fig 1 & 2:** Pre, Post and Adjusted Post Tests Mean Values of Intervention and Control Groups on Footwork and Quickness.

## 4. DISCUSSION ON FINDINGS

The aim of the present study was to observe significant improvement on the selected variables such as footwork and quickness performance of the young soccer players due to effect of quick footwork drills program. The result of study indicates that there were significant differences between intervention and control groups on footwork and quickness among young soccer players. Regular exercises are improving over-all fitness. Footwork drills are the dynamic, compound movement that requires a great deal of speed, balance and strength. This increases muscles strength, neuromuscular coordination, explosive power, quickness and endurance. The following studies are supported to the result of this investigation. Nirendan & Murugavel, (2019) conducted a study on effect of selected footwork drills on motor fitness variables of badminton players [13]. Lanuez & Jacob-Filho, (2008) evaluated the effect of two programs of physical exercise in the motor fitness of sedentary elderly subjects [14]. Arumugam & Suriya, (2018) determined the study on the effect of sprint training on speed and agility among soccer players [15]. Suriya & Arumugam, (2020) evaluated the study on effect of strength-based training on anaerobic power and fatigue index among soccer players [16]. Kumar & Arumugam, (2019) conducted the study on the change of direction with short quick sprint training on acceleration and agility among women soccer players [17]. Kumar, (2020) conducted the study on effect of sled training on acceleration and maximum running speed among athletes [18]. From above those supportive studies I intent to conduct this study, this study shows positive support for quick footwork drills among young soccer players. This shows, the result of my study indicates that there was a significant improvement on footwork and quickness due to the effect of eight weeks of quick footwork drills among soccer players when compared to control group.

## 5. CONCLUSIONS

Quick footwork drills has positive effects on footwork and quickness. After eight weeks of Quick footwork drills programme, the footwork and quickness of male soccer players has enhanced their performance at level best. These data suggest that investigators Quick footwork drills programme has caused the positive changes in the sleeted variables among male soccer players. These observations may point to potential changes, so the coaches are encouraged to use more footwork drill training with male soccer players.

1. There was significant improvement on footwork due to the effect of eight weeks of quick footwork drills among soccer players.
2. There was significant improvement on quickness due to the effect of eight weeks of quick footwork drills among soccer players.
3. There was a significant difference between intervention and control groups on footwork and quickness due to the effect of eight weeks of quick footwork drills among soccer players.
4. However the control group had not shown any significant improvement on any of the selected variables.

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