



## Effect of Ladder Training on Speed and Endurance Among Women Handball Players

**Dr. C. Jubilet Gnanachellam**, Assistant Professor, Department of Physical Education and Sports Sciences, SRM Institute of Science and Technology, College of Science and Humanities, Kattankulathur, Chengalpattu, Tamilnadu, India.

**Deepak Siby**, M.Phil Research Scholar, Department of Physical Education and Sports Sciences, SRM Institute of Science and Technology, College of Science and Humanities, Kattankulathur, Chengalpattu, Tamilnadu, India. [deepaksiby07@gmail.com](mailto:deepaksiby07@gmail.com)

**ABSTRACT-** The purpose of the study was to find out the effect of ladder training on female Handball players on physical variables like speed and endurance for this study we have taken 10 players from Assumption College Changanacherry. Their age group was between 18-25. The chose basis factors were estimated utilizing standard test and strategy. The subjects were isolated into single gatherings comprising of 10 subjects. In the experimental group. The subjects were given training programme for three days per week for six weeks. Tuesdays, Thursday and Saturdays were given training as per the schedule The obtained data were subjected to statistical treatment using t test .in all cases 0.05 level of was fixed to test the hypothesis of this study. It was inferred that the ladder training will improve speed and endurance in great manner.

**Keyword: Ladder training, Speed, Endurance.**

### I. INTRODUCTION

Handball is a team game, another nickname is feildball, team handball, European handball etc. It include seven players each side. The ball will pass using their hands its main aim is to throwing it into the goal post of the opponent team it combines of attacking as well as defense. A match has a duration of 30 mins each half. The game was developed in Denmark in Europe as indoor game.

Training is simple on ladder. Ladder training works on the principal of developing general athletic skill, which can then be transferred to sport specific skills. One critical element to improving overall athletic performance is teaching the neurological system to activate more motor units. Ladder training will improve our speed, coordination, timing, balance and endurance.

#### 1.1 Statement of the Problem

Exercise and actual work benefits each aspect of our life. it assists with keeping up and improve your actual strength and wellness, assists with improving your capacity to would things you like to do assists with improving your equilibrium, assists with overseeing and forestall illnesses like diabetes, coronary illness, bosom and colon malignant growth and osteoporosis, assists with lessening sensations of sadness, may improve temperament and generally prosperity and may improve or keep up certain parts of psychological capacity, like your capacity to move immediately between errands, plan an action and overlook unimportant data. The purpose of the study was to find out the Effect of Ladder Training on speed and Endurance among women Handball Players.

#### 1.2 Objectives of the study

1. To evaluate the Effect of Ladder Training on speed and Endurance among women Handball Players.
2. To find out difference in pre and post test scores of experimental group on speed and endurance of handball players.

### II. MATERIALS AND METHODS

For the purpose of the study we have taken ten handball players from assumption college Changanacherry in the age group of 18-25.they were into one single group consisting of 10 each subjects.

#### 2.1 Training Intervention

The experimental group subjects has undergone ladder training thrice in a day of a week for six weeks the day are Tuesdays, Thursday and Saturdays. Session start at morning 6.30 am after 30 minutes warm up and stretching exercises subjects has undergone Ladder training for 45 minutes of duration it include

varieties of exercise simple to complex. Exercises like single foot in each square, two feet, lateral stepping, jumping jack feet, in out, cross overs, icky shuffle etc. And the session end with proper cool down and stretching exercise.

## 2.2 Statistical Techniques

In order to find out the effect of Ladder training on speed and endurance among women Handball players. The descriptive statistics, paired sample 'T' test was used to find out the significance if any all the cases, level of significance was fixed at 0.05 level.

### III. RESULT AND DISCUSSIONS

Table 1: Table showing Descriptive Statistics and Obtained 't' value on speed Due to Ladder training

Test	N	Mean	SD	T value	Sig.
Pre Test	10	6.36	0.26	9.75*	0.00
Post Test	10	6.10	0.20		

The above table reveals 't' ratio for the experimental group. Its Mean and SD observed for speed 6.36 and 0.26 respectively. The post test mean and standard deviation was 6.10 and 0.20 respectively. It is seen that there was significant difference between pre and posttest of the experimental group ( $t=9.75$ ,  $p=0.00$ ),  $p<0.05$ ) from this it was clear that there was a significant improvement in speed among women handball players after ladder training.

Table 2: Table showing Descriptive Statistics and Obtained 'T' value on Endurance Due to Ladder training

Test	N	Mean	SD	T value	Sig.
Pre Test	10	2300	294.39	7.58*	0.00
Post Test	10	2510	317.80		

The above table reveals 't' ratio for the experimental group. Its Mean and SD observed for endurance 2300 and 294.39 respectively. The post test mean and standard deviation was 2510 and 317.80 respectively. It is seen that there was significant difference between pre and posttest of the experimental group ( $t7.58$ ,  $p=0.00$ ),  $p<0.05$ ) from this it was clear that there was a significant improvement in endurance among women handball players after ladder training.

### 3.1 Discussion on Findings

The study was conducted to find out the effect of ladder training on speed and endurance on women handball players. Similarly lot of studies had already done in the world that ladder training can improve physical variables in a good manner finding of our study were in agreement with Srinivasan & Sathishkumar (2015) found the effect of ladder training on selected physical fitness variables on school volleyball players. To accomplish the reason fifteen school volleyball players were haphazardly chosen from the SRKV High school, Ramakrishna Mission Vidyalaya, Periyanaickenpalayam, and Coimbatore. The subject's age was gone from 15 to 17 years. The chose subjects were considered as just one gathering. The accompanying basis factors were chosen for the examination, for example, actual wellness factors to be specific, deftness and unstable force. The preparation period was for about a month and a half, three days per week two meetings every day. Information were gathered from each subject when a month and a half of preparing. The assembled data were truly examined by using 't' test. It is presumed that there is a huge improvement because of stepping stool preparing on nimbleness, touchy force of school volleyball players.

### IV. CONCLUSION

1. There is an incredible improvement in the physical variables among all players in experimental group
2. There was a significant improvement for Speed and Endurance among the Female Hand ball players
3. It was discover that six weeks training will unquestionably improve speed and Endurance perseverance among Women Handball Players

## REFERENCES

1. Arazi, Hamid and Abbas Asadi, "Effects of 8 weeks equal -volume Resistance training with Different workout Frequency on Maximal Strength, Endurance and Body composition". *International Journal of Sports Science and Engineering*. 5:2, (2011), p.112-118.
2. Bompa, T. et al., (2005). *Periodization Training for Sports*. 2nd ed. USA: Human Kinetics.
3. *Foundation of physical education and sports (12Ed)* D.A Wuest and C.A Bucher (1995). St. Louis ; Mos. by company
4. Kumaravelu P, Govindasamy K. Efficacy of SAQ drills on selected bio-motor abilities among inter collegiate athletes. *International Journal of Yogic, Human Movement and Sports Sciences*. 2018;3(1):160-1.
5. Janusz, C., Frantisek, T. (1997). *Basic Handball, methods /tactics/technique*, Austria: European handball federation.
6. Srinivasan & Sathishkumar December (2015). *International journal of advanced computer research*.
7. Kumaravelu P, Govindasamy K. Impact of circuit resistance training on leg strength among University players from different discipline. *International Journal of Yogic, Human Movement and Sports Sciences*. 2018;3(1):158-9.