



**TITLE: EFFECT OF PLYOMETRIC TRAINING PROGRAMS ON AEROBIC CAPACITY, BLOOD PRESSURE, AND RESTING HEART RATE OF FOOTBALL PLAYERS**

**Name:** Dr. Laishram Santosh Singh

**Affiliation:** Associate Professor at Department of Physical Education and Sports Science  
Manipur University, Canchipur, Imphal, Manipur

**Country:** INDIA

**Email ID:** santoshlaishram@manipuruniv.ac.in

**ABSTRACT**

**Purpose:** The purpose of the study was to investigate the effect of plyometric training programs on cardiorespiratory endurance, blood pressure, and resting heart rate of football players. **Method:** A total of twenty male football players (age 18 – 24 years) were selected from Imphal East District, Imphal, Manipur (India) who participated in the national level competition. The subjects were randomly assigned into two equal groups, the experimental group (n=10) and the control group (n=10). The groups were measured before the intervention with the plyometric training programs. The parameters selected for the studies were cardiorespiratory endurance, blood pressure, and resting heart rate (Cooper's 12-minute run/walk test for cardiorespiratory endurance, sphygmomanometer for blood pressure, and radial artery method for resting heart rate). The plyometric training programs were carried out for a period of six weeks, five days of training (Monday to Friday), and 60 minutes for each session to the training group where no special exercise was administered to the control group. The pre and post-test scores were statistically examined by the analysis of descriptive statistics and the Analysis of covariance test (ANCOVA) was employed. The level of significance was set at a 0.05 level of confidence. **Result:** The experimental group showed improved scores in cardiorespiratory endurance, blood pressure, and resting heart rate compared to the control group (p<0.05). There were significant differences found between the experimental and control groups after plyometric training programs on cardiorespiratory endurance, blood pressure, and resting heart rate.

**Conclusion:** It was concluded that the plyometric training program group had shown significantly improved cardiorespiratory endurance, blood pressure, and resting heart rate, and the control group had insignificant improvement. It was confirmed that a six-week plyometric training program was effective in improving the cardio-respiratory endurance, blood pressure, and resting heart of football players.

**Keywords:** Plyometric Training, Cardiorespiratory Endurance, Blood Pressure, Resting Heart Rate and Football.

**BIOGRAPHY**

**Dr. Laishram Santosh Singh**, working as an Associate Professor at the Department of Physical Education and Sports Science, Manipur University, Canchipur, Imphal. He obtained his Ph.D. (2005-2008) from Manipur University, Canchipur, Imphal-Manipur entitled "*Effect of Training Load on Selected Physical and Physiological Variables of Soccer Players of Manipur*". Further, Dr. Singh completed his Diploma in Sports Coaching in Football (2002-2003) at Netaji Subhash National Institute of Sports (NSNIS) regular course, Salt Lake, Kolkata. Dr. Singh has been a prominent associate in the Journal such as a Member of the International Research Journal On Physical Education, Recreation and Sports Science, Foreign Advisory Committee and Life members of International Council of Sports Science and Physical Education, Member of Panel Review Committee/Advisory Board/ Editorial Board in International Refereed Research Journal of Sports Glimpses, Advisory Board Member International Journal of Disabilities Sports and Health Science ISSN 2645-9094 Period Biannually, Further, Dr. Singh has published seven books and published more than 80 research papers in the national and International Journal. He has presented more than 30 papers at National and International conferences.

**Presenter Name:** Dr. Laishram Santosh Singh

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**Contact number:** +918974376540



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