The Effect of Static versus Dynamic Stretching Programs on the Lower Body Power Assessments of the Broad and Vertical Jumps on Male Collegiate Football Players

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Abstract

Football is a sport that requires power to be successful. The broad and vertical jumps are used for talent identification as it relates to power. Increases in range of motion should increase power and therefore better performance on the broad and vertical jumps. This study analyzed dynamic versus static stretching and its effects on jumping performance, determining which had a greater positive effect on performance. This study used skill players from the Gardner-Webb University football team. The participants participated in the study during the course of their off-season training (15 weeks), but their respective stretching protocols were implemented into the training. To determine which stretching protocol was more beneficial, the study looked at percentage of change.

Purpose

- The purpose of this study was to determine which stretching protocol would be more beneficial to power and jump performance.
- It was hypothesized that static stretching that occurs during an off-season workout will lead to greater increases in power assessed by the broad and vertical jumps.

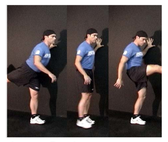
Selection Criteria

Skill Players	No Hospitalization for Lower Body Injury	Completion of at least One Year of Winter/Spring Collegiate Training

Methods

Time Period	Action
Selection	Volunteers from team meeting
Pre-Test	Questionnaire, familiarization to jumps, range of motion assessments, initial jump performances
Intervention	Performance of respective stretching protocol, implemented into training program
Post-Test	Range of motion assessments, final jumps

Procedures

Dynamic Stretching	Static Stretching	Broad Jump	Vertical Jump
			
Leg Swings Active Dorsi- and plantar flexion High Knees	Hamstring Stretch Calf Stretch Hip Flexor Stretch	Jump for horizontal distance measured by tape measure Three jumps performed	Jump for vertical distance measured by portable force plate Three jumps performed

Data Analysis

- Descriptive Statistics
- Independent Groups t-Tests: broad jump and percentage of change, vertical jump and percentage of change
- Pearson Product-Moment Correlation: total range of motion and sum of jump performance

Discussion

- This study could have a potential application to the training of collegiate football players and other athletes.
- Limitations of the study are small sample size, mass gain from training, and genetic ability.
- Further research could expand the findings from this study. Future research could be conducted on other athletes that participate in different types of training.

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