

THE EFFECTS OF DIFFERENT STRETCHING TECHNIQUES OF THE QUADRICEPS MUSCLES ON AGILITY PERFORMANCE IN FEMALE COLLEGIATE SOCCER ATHLETES: A PILOT STUDY

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ABSTRACT

Background. Stretching has long been an integral component of pre-performance activities for a multitude of athletic endeavors. Previous research has demonstrated that stretching may have detrimental effects on performance. Specific knowledge of the precise effects of stretching may influence the decision to appropriately apply stretching techniques in the sport and therapeutic settings.

Objective. The purpose of this pilot study was to examine the effects of static stretching, proprioceptive neuromuscular facilitation (contract-relax) stretching, and no stretching of the quadriceps muscle group on agility performance.

Methods. Twelve healthy, female, collegiate soccer players aged 18 – 25 performed one of the three stretching protocols (static, contract-relax, no stretch) and the agility test (T-test) on three non-consecutive days. Agility times were recorded and compared based on stretching technique and day that each test was performed.

Results. No significant difference was found among the means of the different stretching techniques. The t-test agility performance times were as follows: control, =9.7 seconds; static stretch, =9.73 seconds; and contract-relax, =9.62 seconds.

Conclusion. The results of this study suggest that agility performance may be independent of stretching technique of the quadriceps performed in female collegiate soccer athletes. It is recommended that female soccer athletes about to engage in agility activity may perform either no stretch, static stretch, or contract-relax stretching according to individual preference.

Key words: agility performance, contract-relax stretching, static-stretching, female athletes.

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