TACSM Abstract

Effects of Foam Rolling and Static Stretching on Flexibility and Performance Longevity

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ABSTRACT

Developing flexibility by improving both active and passive range of motion is crucial in many sporting activities. Flexibility aids in performance but it is unsure how long peak performance lasts. **PURPOSE:** To examine and compare how long the effects of foam rolling and static stretching last by measuring vertical jump performance and hip range of motion at different time increments**. METHODS:** Fourteen undergraduate division III athletes participated (20.0 ± 1.25 years) in a cross over design. Subjects were foam rolled and static stretched and then had their hip range of motion and vertical jump height measured. Measurements occurred at 5 different time increments: pre-foam or static stretching (pretest), after the progression(posttest), 5 minutes after, 10 minutes after, and 20 minutes after**. RESULTS:** After foam rolling subjects (100±7.52 degrees) had a significantly higher hip ROM ($p=0.04$, $\eta^2= 0.35$) than after static stretching (97.2±6.93 degrees). Participants who static stretched (58.5±0.73 cm) had significantly higher vertical jump measurements ($p=0.02$, $\eta^2= 0.43$) than after foam rolling (56.7±0.38 cm). Within 20 minutes hip ROM returned to baseline measurements, however vertical jump height was not affected by time. **CONCLUSION:** From these findings it can be concluded that foam rolling is most effective for increasing short term hip ROM and static stretching is most effective in increasing vertical jump height.