Comparing Contract-Relax Stretching Versus Dynamic Stretching on Latissimus Dorsi Extensibility and Throwing Velocity in High School Baseball Players

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This study explores the effects of stretching latissimus dorsi flexibility on shoulder range of motion (ROM) and their effects on throwing velocity.

Methods: Baseline measurements for ROM and throwing velocity were gathered in session one. During the second and third sessions, subjects performed general stretches followed by a series of dynamic (DYN) or contract-relax stretching (CRS) respectively. Post-intervention ROM and velocity measurements were taken. Our hypothesis was there would be no difference in ROM or throwing velocity based on stretching technique.

Statistical Analysis: A repeated measures ANOVA was used for stretch comparison. Alpha level set at $p <0.05$.

Results: Following stretching, no differences were seen for shoulder internal rotation ROM ($p = 0.49$); however, CRS showed difference for external rotation ($p = 0.005$) and flexion shoulder ROM ($p = 0.001$). CRS and DYN improved throwing velocity ($p = 0.049$).

Conclusions: CRS improved ROM. CRS and DYN improved throwing velocity.