

## 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.