

## ABSTRACT

### DOSE-RESPONSE OF POSTERIOR SHOULDER CAPSULAR STRETCHING IN COLLEGE-AGED BASEBALL PITCHERS

Acute effects of capsular stretching (CS) are unknown; therefore we examined no CS vs. CS on 15, 30, and 45 pitches (~70 mph) in nine pitchers. Active and passive range of motion (ROM) following warm-up, CS, and each set of pitches were evaluated with an electric inclinometer, whereas passive stretch force was measured with an electronic dynamometer. Each subject also performed an isokinetic test (60 °/sec) to determine optimum angle of external torque. A series of analyses of variance with repeated measures were used to explore for significant changes in ROM. Measures of ROM between no CS vs. CS and pitch number were not different and passive force-length was unaffected ( $p > 0.05$ ). Our findings indicate that CS has no acute effect on ROM in subjects with similar dominant versus nondominant optimum angles of external torque ( $p > 0.05$ ). Research on CS on subjects with different optimum angles is warranted.

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