

ASES score from  $35.1 \pm 2.2$  to  $85.6 \pm 7.1$ ; pVAS from  $6.6 \pm 0.3$  to  $1.4 \pm 0.1$ . One study compared 33 shoulders undergoing concomitant RCR + CR against 30 shoulders undergoing staged preoperative rehabilitation, followed by CR, then RCR. Both groups underwent identical postoperative rehabilitation emphasizing early ROM. At final follow-up, no significant between-group differences in clinical outcomes (ROM, ASES, Constant, or pVAS) were reported. In most studies, postoperative rehabilitation comprised abduction braces (81.9%) and passive ROM (100%) in early postoperative periods, then active ROM (90.6%) and strengthening (89%). Return to activity was reported in 10 studies (59.2%) at  $21.6 \pm 1.9$  months. Postoperative complications included residual stiffness (41.7%), cuff re-tear (37.5%), multidirectional instability (8.3%), glenoid fracture (8.3%), and joint infection (4.2%), with no humeral fractures. Six re-tears (66.7%) required revision RCR, and 3 persistently stiff shoulders (30%) required CR.

**Conclusions:** Definitions of concomitant RCT + AC are inconsistent and may create undesired variability in this population. Nevertheless, this review supports MUA/CR and RCR for treatment of concomitant AC + RCT, with no apparent differences in outcomes for staged versus nonstaged interventions. Although residual stiffness and cuff re-tear are potential postoperative complications, a cuff repair rehabilitative protocol may be beneficial to ensure biological healing, and avoid the arguably more challenging revision RCR.

### Immediate Effects of Kinesiotaping on Acromiohumeral Distance and Shoulder Proprioception in Individuals With Symptomatic Rotator Cuff Tendinopathy

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**Objective:** To investigate the immediate effects of kinesiotaping on the acromiohumeral distance (AHD) and shoulder proprioception in individuals with rotator cuff tendinopathy (RCTe).

**Study design:** Observational study (cross-sectional design).

**Subjects:** Twenty-three individuals (14 men, 9 women; age:  $29.0 \pm 6.6$  years, height:  $1.77 \pm 0.12$  m; body mass:  $74.4 \pm 14.2$  kg) with symptomatic RCTe were recruited.

**Observation Technique:** Proprioception was measured through active joint repositioning in low-range (45-65 degrees) and mid-range (80-100 degrees) during shoulder flexion and abduction. A wireless inertial measurement unit system was used to quantify shoulder angles. The AHD was measured using an ultrasound scanner in 2 arm positions [at rest (0 degree) and 60 degrees shoulder abduction]. First, measurements were taken without kinesiotaping. Thereafter, therapeutic kinesiotaping for RCTe was applied on the symptomatic shoulder, and the same measurements were retaken. Two- or three-way repeated measures ANOVAs were used for statistical analyses.

**Results:** For AHD, a significant 2-way interaction between intervention and angle was found ( $P = 0.013$ ). Kinesiotaping

provided a significant improvement in AHD at 60 degrees shoulder abduction ( $\Delta$ AHD =  $0.94$  mm 95% CI:  $0.50$ - $1.38$ ,  $P < 0.001$ ), exceeding the minimal detectable change ( $0.70$  mm). There was no significant difference at rest ( $P = 0.299$ ). For active joint repositioning, the ANOVA for repeated measures revealed no significant 2-way or 3-way interactions among the factors examined in both low-range and mid-range ( $P > 0.05$ ).

**Conclusions:** The application of kinesiotaping had no immediate effect on low-range and mid-range active joint repositioning in individuals with RCTe, whereas it led to an immediate increase in AHD at 60 degrees shoulder abduction. Further studies are needed to determine how much these effects are clinically meaningful for symptomatic individuals with RCTe.

### Physical Activity Monitoring in Youth Following a Concussion

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**Objective:** The purpose of this study is to compare levels of physical activity and rest to determine if there is coherence between self-reported and objectively monitored (Actigraph) physical activity in youth ice hockey players following a concussion.

**Study Design:** Case-series nested within a cohort study.

**Subjects:** Twenty participants (16 males, 4 females, median age 14 years; range 12-16) diagnosed with a sport-related concussion while playing ice hockey were included in this study.

**Observation Technique:** Participants self-reported minutes spent in various activity intensities using the Modified Daily International Physical Activity Questionnaire (MDIPAQ) and wore an Actigraph accelerometer over the course of 3 days following the initial diagnosis of concussion by a sport medicine physician.

**Outcome Measures:** Time spent (minutes) in sedentary, light, moderate, and vigorous physical activity levels based on self-report using the MDIPAQ and Actigraph accelerometry.

**Results:** Pearson correlations between the Actigraph accelerometer and MDIPAQ for all 4 exercise intensities ranged from 0.09 for light intensity to 0.79 for vigorous intensity. Bland Altman plots with 95% limits of agreement show large intervals and poor agreement between Actigraph recording and participant self-report on MDIPAQ.

**Conclusions:** There is poor agreement between the Actigraph and MDIPAQ over the first 3 days of recovery for sedentary and light intensities, with higher levels of correlation ( $r = 0.57$ ;  $r = 0.79$ ) demonstrated for moderate and vigorous intensities respectively. Actigraph accelerometry is a more objective determinant of physical activity compared to self-report when