

## Improved Return to Play in Intercollegiate Contact Athletes Following Arthroscopic Stabilization for Anterior Shoulder Instability: A Prospective Multicenter Study

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### Summary:

Collegiate collision athletes with in-season shoulder instability are significantly more likely to successfully return to sport without subsequent instability events the following season if they undergo surgical repair in the off season.

### Abstract:

**Objectives:** Debate continues regarding the optimal treatment of intercollegiate contact athletes with in-season anterior shoulder instability. Comparative evaluation of successful return to play (RTP) without recurrence in subsequent seasons after the index instability event has not been prospectively evaluated in this patient population. The purpose of this study was to examine return to sport and recurrent instability in the season that follows the index anterior in-season instability event.

**Methods:** Over two academic years, 45 contact intercollegiate athletes treated nonoperatively or with arthroscopic stabilization were prospectively followed in a multicenter observational study to evaluate RTP and recurrent instability in the intercollegiate season following an initial in-season anterior glenohumeral instability event. The primary outcome of interest was successful RTP, defined as the ability to return to sport in the subsequent season without recurrent instability. Baseline data collection included sport played, previous instability events, direction of instability, type of instability (subluxation or dislocation), and treatment method (nonoperative or arthroscopic stabilization). The decision to pursue operative or nonoperative treatment was made at the discretion of the patient and surgeon. All nonoperatively treated athletes underwent a standardized accelerated rehabilitation program without shoulder immobilization. Surgical stabilization was performed arthroscopically in all cases and successful RTP was evaluated during the next competitive season after complete rehabilitation. All subjects were actively monitored during the course of their competitive season to determine return to play success and recurrent instability events.

**Results:** A total of 45 intercollegiate contact athletes treated for in-season anterior shoulder instability. Thirty-nine athletes had remaining NCAA eligibility and were followed through the subsequent competitive season available to play the following year. Of these, 10 elected to be treated nonoperatively while 29 elected for surgical repair. Of the group selecting nonoperative treatment, only 4 (40%) successfully RTP without recurrence during the subsequent season. Of the 29 athletes treated surgically, 26 (90%) were able to successfully RTP without recurrence the following season. Two athletes were cut from the team and one athlete sustained a recurrent instability event requiring revision stabilization. Athletes who underwent surgical reconstruction prior to the following season were 5.8 (95%CI: 1.77, 18.97,  $p=0.004$ ) times more likely to complete the subsequent season without recurrent instability. Of the 29 athletes electing surgical stabilization, there was no difference (RR=0.95, 95%CI: 0.10, 9.24,  $p=1.00$ ) in RTP between

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the 9 stabilized following a single instability event (90% RTP) and the 20 stabilized following multiple in-season recurrent instability events (89% RTP).

Conclusions: Collegiate collision athletes with in-season shoulder instability are significantly more likely to successfully return to sport without subsequent instability events the following season if they undergo surgical repair in the off season.