

CAT: Return to Sport for Athletes with Anterior Shoulder Instability

Clinical Bottom Line(s):

1. Young athlete's goals should be kept in mind when deciding/planning treatment options
2. Most athletes were able to return to their sport and complete their seasons after an anterior shoulder dislocation or subluxation; however, a third had at least one additional instability episode during their season.
3. Almost half of those subjects who returned to sport had surgery after the season completion.

Citations: Buss, DD; Lynch, GP; Meyer, CP; et al. Nonoperative Management for In-Season Athletes with Anterior Shoulder Instability. *American Journal of Sports Medicine*. Vol. 32, No. 6, Sep 2004. pg. 1430-1433.

Three/four part clinical question. Will a 17 year old male basketball player return to play without requiring surgery after a shoulder dislocation?

The study:

- To determine if in-season competitive athletes can return to competition after anterior shoulder instability treated with nonoperative measures such as physical therapy and bracing.
- No period of immobilization was provided.
- Physical therapy included wand ROM exercises, free-weight rotator cuff strengthening with less than 1 lb weights and up to 40 repetitions, and scapular strengthening.
- Athletes returned to sport when had bilateral symmetric strength and functional ROM.
- Non-overhead throwing contact athletes were recommended Duke-Wyre brace; Overhead throwing athletes were recommended Sully brace.

The study patients:

- 30 varsity high school or college in-season athletes: 19 had anterior dislocations and 11 had subluxations
- Average age: 16.5 years (range 14-20 years)
- 24 males and 6 females
- 10 hockey players, 9 football players, 5 wrestlers, 1 downhill skier, 1 gymnast, 4 basketball players
- 21 injuries were primary episodes; 9 were recurrent episodes
- No patients with generalized ligamentous laxity

The evidence:

Outcome	Result
Return to Sport at same pre-injury level	26/30 subjects (19 fitted for brace: 15 Duke-Wyre & 4 Sully)
Average missed time	10.2 days (0-30 days)
Sport-related recurrent instability episodes	10/30 subjects
# of recurrent instability episodes	Avg 1.4 per athlete returning to sport (Range 0-8 episodes)
Further injuries related to shoulder instability	0/30 subjects
# of Surgeries post-season	16/30 subjects (12 had returned to sport & 4 had not; more primary dislocations vs subluxations required surgery)

Comments:

1. Even with no immobilization period, redislocation rate is lower in-season compared to study in which treatment was 4 week immobilization followed by rehab. However, to note the timeline is longer for the latter study at 36 months.
2. Two of the four basketball players were unable to return to their sport at all.
3. Small sample numbers for individual sports make conclusions difficult as to the effectiveness of the treatment.
4. To prevent future instability, over half the subjects underwent arthroscopic surgery. According to a Cochrane Systemic Review by Handoll, HH et al, evidence shows that surgery prevents the most recurrent dislocations.

Appraised by: Capt Linda Currier

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