

# NONOPERATIVE TREATMENT FOR INJURIES TO THE IN-SEASON THROWING SHOULDER: A CURRENT CONCEPTS REVIEW WITH CLINICAL COMMENTARY

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## ABSTRACT

Repetitive overhead throwing generates tremendous demands on the shoulder joint of the overhead athlete. Clinicians, therapists, and medical staff are charged with optimizing a throwing athlete's shoulder mobility and stability to maximize performance and prevent injury. Modifiable risk factors such as strength asymmetry, glenohumeral range of motion deficits, and scapulothoracic joint abnormalities contribute to the overhead athlete's predisposition to shoulder injury. Most shoulder injuries in the overhead thrower can be successfully treated nonoperatively to allow in-season return to sport. The optimal rehabilitation program must be based on an accurate evaluation of historical and physical information as well as diagnostic imaging. Return to play decisions should be individualized and should weigh subjective assessments along with objective measurements of range of motion, strength, and function. The purpose of this clinical commentary is to summarize the current literature regarding the nonoperative treatment options for these common injuries, and to present a treatment plan to safely return these athletes to the field of play.

**Level of evidence:** 5

**Key words:** Internal impingement syndrome, plyometric exercise, rehabilitation, shoulder, throwing shoulder

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