Summary

Overuse injuries of the elbow commonly occur in both the athletic and lay population. the elbow joint is a common site of injury in the overhead athlete, due to the repetitive microtraumatic injuries observed during the act of throwing. These injuries involve a wide spectrum of disorders, including tendinopathies, tendon ruptures, nerve entrapments, osteochondral lesions, and stress fractures. A detailed physical examination is necessary to define the area or structure that is injured and should include not just the involved extremity, but also the entire body.

Tennis elbow, or lateral tendinosis (epicondylitis), is or fairly common elbow disorder. There are a variety of nonoperative measures that have been used to treat the disorder—each with some success. Most surgeons initially attempt one of more of these measures to see if the patient's symptoms improve. Given enough time, symptoms resolve in most patients. For patients who don't have resolution of the disease, surgery is an option. Excellent results have been reported with open, arthroscopic and percutaneous techniques.

The ulnar collateral ligament is commonly injured; however, injury may not always be manifest by gross laxity or pain at the ligament. The athlete who has UCL injury may present with symptoms related to secondary overload of other areas about the elbow accentuated by UCL laxity, such as medial epicondylitis, ulnar neuritis, lateral elbow pain due to radiocapitellar overload, posterior elbow pain due to valgus extension overload, or loose bodies. The soft tissues about the elbow are placed under tremendous loads with each throw. This leads to bone and soft-tissues adaptive changes (such as ligamentous laxity, muscular hypertrophy and neural fibrosis) that increase the risk of entrapment neuropathies about the elbow. The broad spectrum of neuropathies that can occur are usually responsive to nonsurgical management, but this is varies with the nerve involved. If appropriate nonoperative treatment has failed, the authors advocate an aggressive approach to surgical release in the competitive thrower who cannot continue to perform at the desired level.

Recurrent and persistent instability of the elbow has long been a source of confusion and dismay for both patients and physicians. Early recognition after elbow injury and careful attention to soft tissue repair during lateral elbow surgery may diminish the incidence of this condition.

Biceps and triceps tendon ruptures at the level of the elbow are rare events. Early recognition and prompt surgical repair provide the most predictable, optimal results for complete injuries.

Rehabilitation of the elbow, whether postinjury or postsurgical, must follow a progressive and sequential order to ensure that healing tissues are not overstressed. A rehabilitation program that limits immobilization, achieves full range of motion early, progressively restores strength and neuromuscular control, and gradually incorporates sport-specific activities is essential to successfully return athletes to their previous levels of competitions as quickly and softly as possible.