Sports-related elbow injuries can often be diagnosed clinically. However, the origin of elbow pain may be complex, particularly if symptoms are poorly localized. MRI can be an invaluable tool in the diagnostic work-up of common traumatic and overuse injuries of the elbow. The development of high field strength magnets, new pulse sequences and improved surface coil technology has improved depiction of ligaments, tendons, nerves and muscles, as well as allowing direct visualization of bone marrow and articular cartilage. MR arthrography is also extremely helpful in the evaluation of articular cartilage pathology, osteochondral injuries, capsular disruption or subtle partial undersurface tears of ligaments.

A number of MRI cases illustrating a variety of common sports-related pathology of the elbow will be presented including:

- Valgus stress injuries resulting in medial traction and lateral compression forces
  - Medial collateral ligament injuries
  - Common flexor tendon pathology
  - Ulnar neuropathy
  - Osteochondral injuries

- Lateral ligamentous injuries

- Complex injuries of the elbow including osseous pathology

- Lateral epicondylitis

- Biceps and brachialis tendon pathology

- Triceps tendon pathology

- Arthropathies

- Entrapment neuropathies

The cases will reinforce some of the material presented in the previous didactic lectures and emphasize some of the key teaching points.