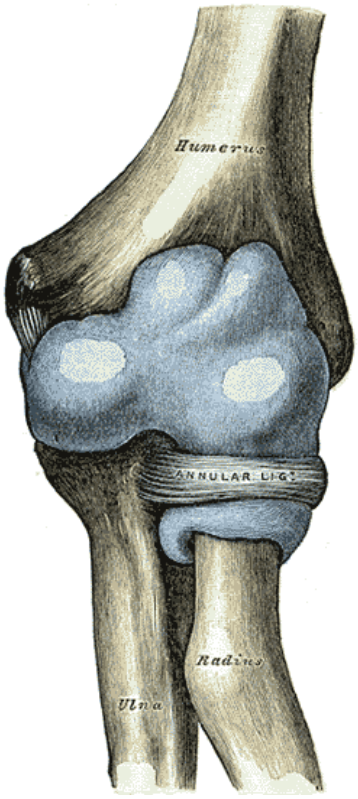
Elbow



The elbow is primarily a hinge joint important for increasing the flexibility of the arm, and also for providing a base for the many muscles controlling the wrist and hand. The joint is formed by the humerus articulating with both the ulna medially and the radius laterally. The humero-ulnar joint is a true hinge and is responsible for bending and straightening the elbow, while the humero-radial joint is an arthrodial (gliding joint) joint responsible for rotation at the wrist (the wrist joints are also important in this action).

Common problems:

- Lateral Epicondylalgia (Tennis Elbow)

Tennis elbow is a generic term for degeneration occurring in the extensors of the wrist and fingers. This is commonly a result of repetitive activities using the wrist and hand, particularly when there is insufficient strength in the muscles. The tendon degeneration may be occurring over a long period of time before major symptoms are felt. This condition is characterized by intense pain at the lateral epicondlye of the elbow, particularly with activities involving gripping or extending the wrist. Degeneration in the forearm can affect multiple muscles, including the supinator muscle, responsible for rotating the wrist. Physiotherapy treatment is likely to include electrotherapy, manual techniques, strapping, stretching, and most importantly strengthening of the muscles affected. Advice on ways to correct predisposing factors and techniques to avoid recurrence are also important components.

- Medial Epicondylalgia (Golfer's Elbow)

Golfer's elbow is similar in most ways to Tennis elbow except that it tends to affect the flexors of the wrist originating from the medial aspect of the elbow.

- Muscle Strains

It can be fairly common to injure a muscle of the forearm with a sharp jerking motion such as pulling or pushing a heavy weight. Muscle strains can be of varying severity, and may present initially with similar symptoms as the above degenerative problems. Treatment will include RICE, massage, stretching, strengthening, and electrotherapy.

- Ligament Sprains

The elbow is supported by three main ligaments, the ulnar collateral, which protects the medial aspect, the radial collateral on the lateral aspect, and the annular, which locks the radius into the radial notch on the ulna. These ligaments, particularly the collaterals, are susceptible to injury when the elbow is forced to bend laterally in either direction. This can occur during the cocking phase of throwing in high level athletes. Depending on the severity of injury, there may be instability at the elbow, along with pain exacerbated by elbow and wrist movements.

- Radial Tunnel Syndrome

It is possible for the posterior interosseous nerve to become compressed at several points as it passes through the proximal forearm. This is most commonly seen in patients who repetitively pronate and supinate (rotate) the forearm. Symptoms can present as almost identical to lateral epicondylalgia. Physiotherapy treatment will include massage and trigger point work with the supinator muscle at the site of entrapment and neural stretching.

- Olecranon Bursitis

A bursa is a small fluid filled sac which aids in reducing friction between structures, in this case the olecranon process of the ulna. This structure is most commonly injured by a direct blow or repeated trauma to the elbow, such as found in a student who rests their elbow on a table for prolonged periods, hence the name “student’s elbow”. Physiotherapy treatment can include electrotherapy, mobilisation, strapping, and compression.