

**Orthopaedic and Sports Injuries Services "OASIS"**  
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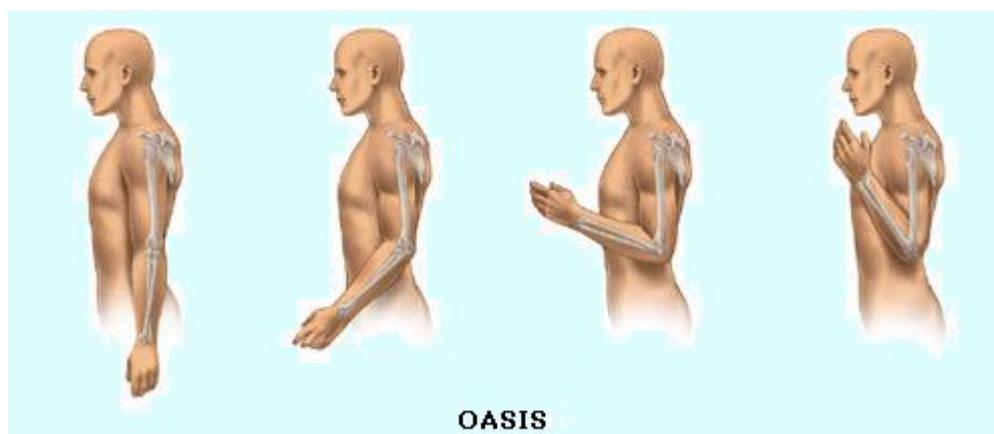
## Elbow Impingement (Posterior)

### What is elbow impingement?

Elbow impingement is a condition characterized by compression and damage to soft tissue (such as cartilage) situated at the back of, or within the elbow joint.

The elbow joint primarily comprises of the articulation of two bones, the humerus (upper arm bone) and the ulna. Shock absorbing cartilage lies between these joint surfaces cushioning the impact of one bone on another.

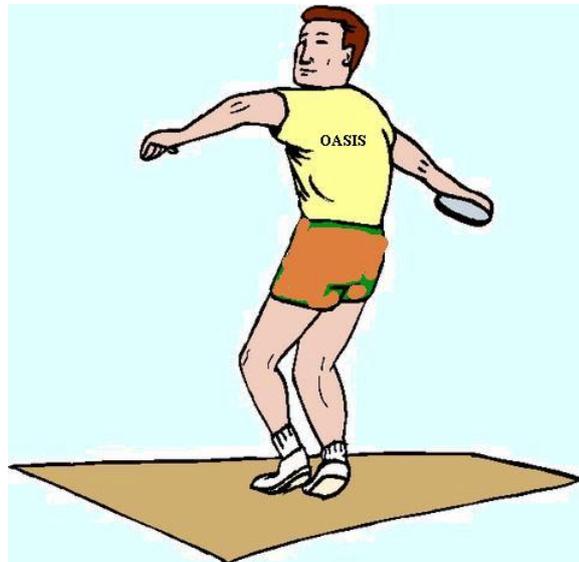
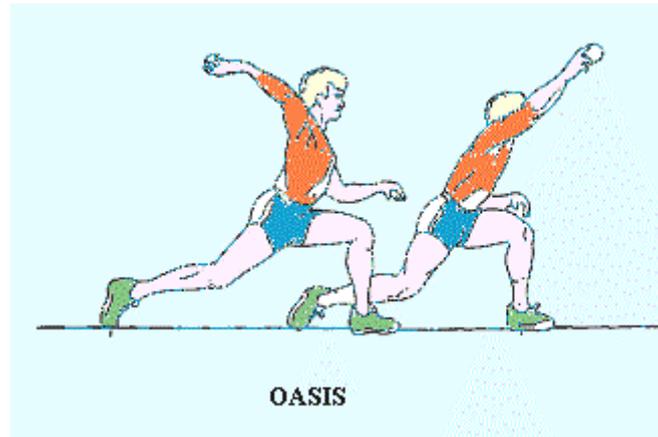
When the elbow is straightened fully soft tissue is compressed at the back of the joint. If these compressive forces are excessive or too repetitive and beyond what the joint can withstand, damage and inflammation of the cartilage and/or soft tissue at the back of the elbow joint may occur. This condition is known as elbow impingement. Occasionally, bony spurs may develop within the elbow joint contributing to the problem.



### Causes of elbow impingement

Elbow impingement typically occurs due to activities that excessively or repetitively straighten the elbow often in combination with a sideways (valgus) force. This may

occur suddenly, due to a specific incident involving a hyperextension force, or, more commonly, due to repetitive strain associated with overuse such as repetitive throwing. In the throwing athlete, the "winding up" or "cocked" phase of the throwing motion (just prior to throwing) may hyperextend the elbow and place significant strain on the elbow joint. As a result, elbow impingement may occur due to overuse associated with repetitive throwing (especially in throwers who 'open up too soon' or throw with a low arm) and are particularly common in baseball pitchers, cricketers and javelin throwers. Elbow impingement may also occur in martial arts due to repetitive punching, forcing the elbow into hyperextension.



Occasionally, elbow impingement is seen in contact sports and may occur due to a collision to the back of the elbow forcing the elbow to bend in the wrong direction (such as another player falling across the back of the elbow).

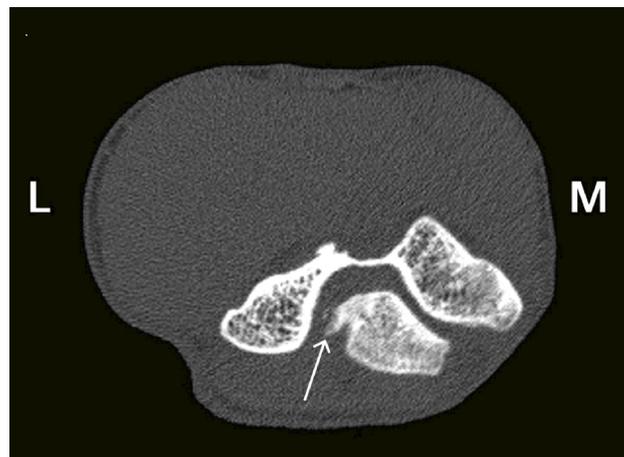
### **Signs and symptoms of elbow impingement**

Patients with this condition typically experience pain at the back of the elbow that increases with forced hyperextension of the elbow. Pain may also increase on firmly touching the affected area. In those patients whose injury occurs from overuse, symptoms usually develop gradually and progressively over a period of time.

In minor cases of elbow impingement (whether traumatic or due to overuse), patients may be able to continue activity only to experience an increase in pain, swelling and stiffness in the elbow after activity with rest (particularly first thing in the morning). As the condition progresses (particularly in the throwing athlete), pain may increase during activity and can eventually prevent activity performance. Patients may also experience a loss of elbow movement, in particular, an inability to fully straighten the elbow due to stiffness and pain.

### **Diagnosis of elbow impingement**

A thorough subjective and objective examination from a physiotherapist is usually sufficient to diagnose elbow impingement. Investigations such as X-rays, ultrasound, CT scan or MRI may be indicated to assist with diagnosis and rule out other conditions



### **Treatment for elbow impingement**

Some patients with elbow impingement heal well with appropriate physiotherapy treatment. The success rate of treatment is largely dictated by patient compliance. A vital aspect of treatment is that the patient rests sufficiently from any activity that increases their pain (a brace or protective taping may be required).

Activities placing large amounts of stress on the elbow should also be minimized, particularly throwing or hyperextension activities. Resting from aggravating activities ensures the body can begin the healing process in the absence of further tissue damage. Once the patient can perform these activities pain free a gradual return to these activities is indicated provided there is no increase in symptoms.

Ignoring symptoms or adopting a 'no pain, no gain' attitude is likely to lead to the condition becoming chronic. Immediate, appropriate treatment in patients with elbow impingement is essential to ensure a speedy recovery. Once the condition is chronic, healing slows significantly resulting in markedly increased recovery times and an increased likelihood of a poor outcome.

Patients with this condition should perform pain-free flexibility and strengthening exercises as part of their rehabilitation to ensure an optimal outcome. The treating physiotherapist can advise which exercises are most appropriate for the patient and when they should be commenced.

A graduated return to activity or sport as guided by the treating physiotherapist is required in the final stages of treatment for this condition. Correction of throwing technique is particularly important in those cases where faulty throwing biomechanics have contributed to the development of the condition. Upon return to sport, the use of taping or a protective brace may also be required to reduce the likelihood of recurrence.

In those patients who do not respond adequately to physiotherapy treatment, corticosteroid injection or arthroscopic surgery may be indicated to treat or remove the structures causing the impingement.



If you are interested in making an appointment to discuss a treatment, please click here to [contact us](#), or telephone 01215807406

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A diagram of a knee joint showing surgical instruments. The femur and tibia are visible, and several surgical tools, including a retractor system and a drill, are positioned around the joint.