

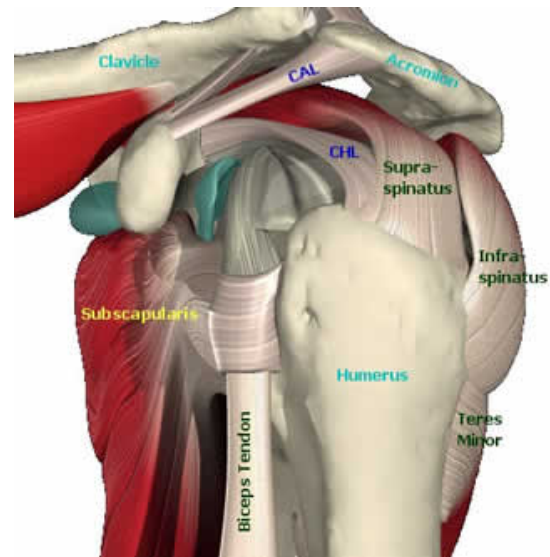
# Shoulder tendonitis and impingement



This is the most common soft tissue injury of the shoulder for which an athlete seeks treatment.

## What is impingement?

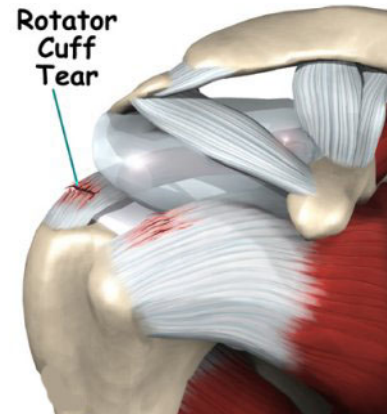
The shoulder is a very mobile joint and its movement is controlled by the rotator cuff and deltoid muscles. The rotator is a group of four deep flat tendons that blend together to surround the shoulder joint and hold the ball (humeral head) firmly within the socket (glenoid). [This provides a solid base for the arm when reaching overhead under the influence of the larger outside muscle (deltoid)]. Any problem with these muscles and their tendons function can cause the shoulder to ride up and rub against the bone on the top of the shoulder (acromion) causing jamming of the tendons (impingement).



## What causes impingement?

There are three main causes:

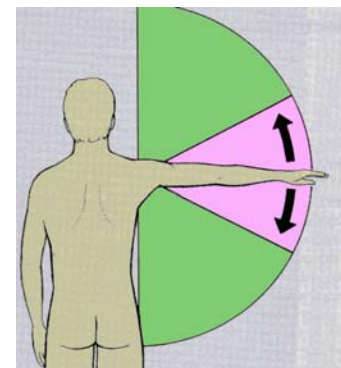
- 1. Lack of rotator cuff muscle strength** or control due to :
  - (a) partial tear / strain causing pain and weakness
  - (b) complete tear
  - (c) muscle imbalance due to incorrect technique / training
- 2. Loss of shoulder flexibility** (especially the capsule at the back of the shoulder) causing the shoulder to hinge forward and jam on movement.
- 3. Lack of space between the humeral head and the acromion** due to:
  - (a) inflammation in the rotator cuff tendons (tendonitis)
  - (b) uneven rotator cuff surface due to a partial tear
  - (c) bone spurs that can dig into and can tear the tendon
  - (d) thickening of the coracoacromial ligament
  - (e) calcium deposits in the tendon



to:

## Common symptoms

1. Deep pain in the shoulder, especially at night.
2. Pain particularly on elevation of arm between 60-120°. (right)
3. Restricted movement of the shoulder.
4. Weakness of shoulder musculature.



## Rotator cuff tendonitis and impingement

Shoulder impingement and tendonitis are common problems in the shoulder but usually settle with time, simple exercise and avoidance of aggravating activities. Some people are more prone to developing these problems due to the type of activities they do, the shape of the bones in the shoulder, or muscle imbalance.

The rubbing of the rotator cuff on the undersurface of the acromion can cause pain that runs down the arm to below the elbow and is often worse at night or with certain activities.

These activities such as overhead work and forward reaching can produce symptoms, which interfere with daily activities and duties.

## Wakefield Sports Clinic

Crows – 36ERS – United – Thunderbirds – Olympic & Commonwealth Games Teams  
270 Wakefield St, Adelaide 8232 5833 [www.wakefieldsports.com.au](http://www.wakefieldsports.com.au)

The treatment for shoulder impingement involves:

time (often months) and rest to avoid repeated aggravations

- 
- general shoulder rehabilitation exercises
- steroid injection into the space between the acromion and rotator cuff to reduce the swelling of the tendons
- anti-inflammatory medications (sometimes helpful) and pain tablets
- ultrasound and other physiotherapy modalities may be helpful to control pain but rehabilitation exercises are more important
- surgery if not responding

Most problems will settle with this programme but progress can be frustrating and slow.

### Conservative management

Non-surgical treatment of these problems incorporates the following principles:

- avoidance of repeated aggravating activities
- restoration of normal flexibility
- restoration of normal strength
- aerobic exercises
- modification of work, home duties and sport

### Operative management

If the non-surgical treatment does not correct the problem an operation may be required to

- repair a tear in the rotator cuff
- remove a large spur that is digging into the rotator cuff
- remove the coraco-acromial ligament to make more space for the rotator cuff tendons
- remove the outer end of the clavicle (collar bone) due to arthritis
- combination of the above procedures

Surgery should generally only be considered after other options have been tried for an appropriate time period. Surgery should be considered earlier in the case of a complete rotator cuff rupture as this will not generally recover with conservative management.



#### Wakefield Sports Clinic

Crows – 36ERS – United – Thunderbirds – Olympic & Commonwealth Games Teams  
270 Wakefield St, Adelaide 8232 5833 [www.wakefieldsports.com.au](http://www.wakefieldsports.com.au)