

## ACROMIOCLAVICULAR JOINT INJURIES

AC joint injuries are among the most common injuries of the arm and shoulder.

Injury to the AC joint commonly involves a sprain (bash), partial dislocation-subluxation or complete dislocation (completely out of joint). Dislocation is further divided up into minimally displaced dislocation (just out) and grossly displaced dislocation, with the end of the clavicle sometimes poking through the neck muscles (trapezius) or down into the front of the shoulder.

An AC joint injury is most often seen after a fall on the shoulder in contact or collision sports, usually football or falls from motor or mountain bikes, and in snowboarders.

### Classification

Injuries are classified according to displacement of the joint and divided into acute or chronic (longer than 6 weeks).

### Management

Management of the acute injury includes exclusion of other associated injuries including neck especially in a high-energy injury and occasionally damage to the arm nerves (brachial plexus palsy).

### Sprains and subluxations

Treatment of grade 1 and grade 2 including sprains and subluxation includes cold pack, a supportive sling for several weeks and a gentle range of motion therapy. Commonly sprains settle over the first 3 to 4 weeks and rarely have ongoing problems.

Subluxations mostly settle, but occasionally go on to give superior pain about the AC joint, which is due to injury to the joint cartilage meniscus or bony changes to the end of the clavicle itself, which leads to early arthritis. If the pain, which is worse with bringing the arm across the body (adduction) or on full forward elevation then excision of the last 1cm of the clavicle (arthroscopically or open) is a common and successful operation. In this case the joint is not severely unstable and ligaments do not need to be reconstructed.

### Acute management of type 3 dislocations

In type 3 dislocations the clavicle end sits just above the acromion and is not severely displaced into the neck muscles and down into the shoulder. For many people these are best treated by a sling, analgesia and ice.

In the long term the ACJ will be slightly prominent but most patients will have no or minimal discomfort and no subjective loss of shoulder strength.

Attempts to reduce the bump by way of taping or bracing is often painful and doesn't work anyway. For the same reason surgical pinning (with subsequent removal of the pins) results in re-dislocation shortly after the pins are removed at 6 weeks, because the ligaments remain ruptured and have not been repaired.

Acute reconstruction by way of repair of the ligaments is indicated in sportsmen who require upper limb strength: cyclists, gymnasts and weight lifters and overhead workers like electricians, plumbers and carpenters/builders.

However for most people, especially footballers, don't need surgery as the injury rapidly settles down with no significant pain or weakness.

Occasionally at 2-3 months there can be continuing discomfort from the dislocated joint and or overhead weakness, and surgery is then required.

#### Severe ACJ dislocations

In severely displaced dislocations with the clavicle protruding into the neck muscles or down into the shoulder, for the comfort of the patient alone these are best treated straightaway with surgery.

The long term results of AC joint reconstruction, with excision of the clavicle and ligament repair or replacement has been good with most series showing patient satisfaction upwards of 90%, continued AC joint stability and resumption of contact sports.

#### Summary

AC joint injuries are common and for the most part do not require operative treatment. High demand athletes or patients with significantly displaced dislocations may require surgical reconstruction and rarely patients with type 2 or type 3 injuries may require delayed surgery in the rare case of on going symptoms after non-operative treatment.

What if you have more questions?

Please feel free to give me a call at my rooms on (02) 9409 0500 and I will call you back as soon as I can.

**GREGGORY BURROW**