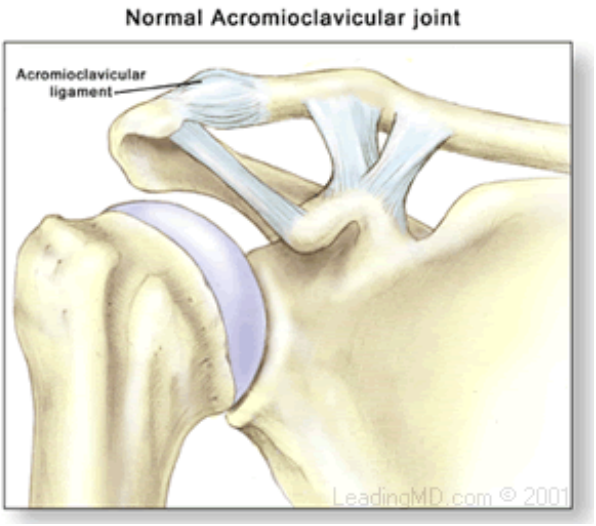
AC joint injury

The acromioclavicular joint (or AC joint), is the joint at the top of your shoulder between the tip of the clavicle (collar bone) and scapula (shoulder blade). The AC joint is important in supporting movement of the arm overhead and across the body, as well as in transferring forces from the arm to the thorax in activities such as pushing, pulling and lifting.



Injury to the AC joint may occur as degenerative changes over time due to repeated poor loading of the joint, resulting in osteoarthritic changes. Typically however, injury to the AC joint occurs result of trauma such as falling on the point of the shoulder, falling onto an outstretched arm or during a collision in sport. When this happens, the ligaments and capsule immediately surrounding the joint and in more severe cases, the coracoclavicular ligaments, which attach the shaft of the clavicle to the scapula, become stretched or torn.

The injury tends to be graded depending on the severity of the damage or stretch to the supporting ligament and capsule complex;

Grd I – There has been relatively minor stretch and strain to the AC joint capsule and ligament, without significant laxity of the joint or involvement of the coracoclavicular ligaments. These injuries present with tenderness over the AC joint, but no significant bump or prominence of the joint and will generally respond quite well to rest, taping, ice and anti-inflammatory medication and can generally return to sport quite quickly.

Grd II- This injury involves a complete rupture of the AC joint capsule and ligament, with partial tear to the coracoclavicular ligaments. This allows the clavicle to lift upwards and an obvious bump at the point of the shoulder will be present. More significant pain and restriction of shoulder movement will be present. These injuries will still typically respond well to rest, taping, ice and anti-inflammatory medication however return to sport will be much slower.

Grd III- This involves complete rupture of both the AC joint capsule and ligaments as well as complete rupture of the coracoclavicular ligaments. Generally the bump at the point of the shoulder is more pronounced than with a Grd II injury, due to complete dislocation of the joint. Again, return to play with these injuries will generally be slower than with lower grades of injury and in some cases surgical repair of the joint may be required.

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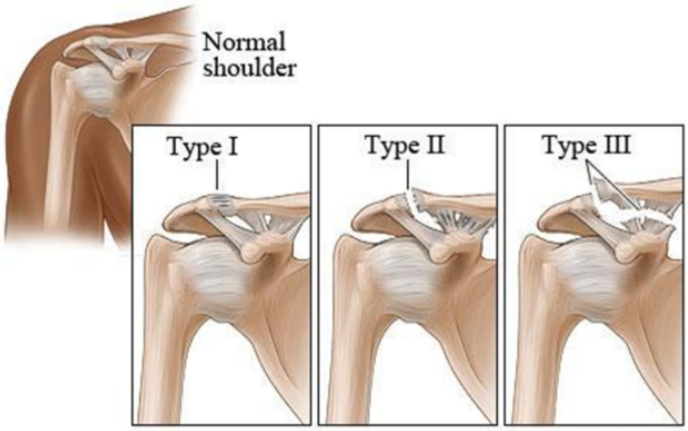

Signs and Symptoms

Injury to the AC joint will result in;

- Pain on the point of the shoulder.
- Loss of power and range with overhead and across body movements.
- A palpable or visible lump may be present depending on the grade of the injury.

Diagnosis and grading of the injury is generally quite simple in clinic, without the use of imaging, however as trauma is a common feature, x-ray to rule out clavicular fracture is often a good idea.

Management

The initial phase of treatment will always aim to offload the injured area to allow scar formation and healing of the ligaments. This generally takes to form of taping, bracing or on some occasions, even a period of complete immobilisation in a sling. Early gentle mobilisation and loading of the shoulder to decrease muscle wasting and excessive stiffness of surrounding joints is important, always being careful not to upset the underlying healing process which is taking place. During this early phase ice and use of anti-inflammatory medication is useful in settling sore, inflamed tissue.

The second phase of treatment will involve looking at gradually restoring full shoulder range of motion as well as provision of higher level strength and control exercises for the shoulder and arm generally.

The final stage of rehab involves preparation for full return to sporting activities. Generally in this phase, full shoulder mobility should have been achieved and treatment will involve high load and high level sports specific strength and control exercises to ensure adequate control and protection to the area of injury.

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