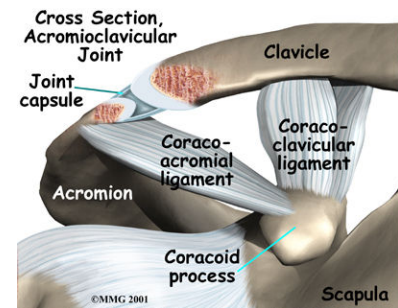


The Acromioclavicular (AC) Joint

The AC joint

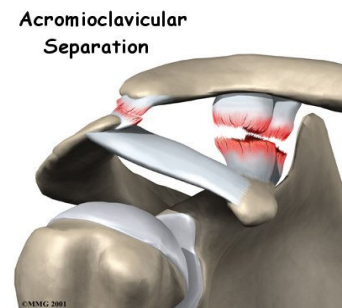
The AC joint is formed by the union of the shoulder blade (scapula) to the collar bone (clavicle). These two bones are held together by ligaments. One group of ligaments envelope the joint to form a capsule that covers the joint; these ligaments are termed the acromioclavicular ligaments. Another set of ligaments stabilize the shoulder by holding the clavicle in place by attaching it to a bony knob on the surface of the shoulder blade called the coracoid process. These ligaments are called the coracoclavicular ligaments.



Shoulder Separation Injury

When these ligaments are stretched (strained) or torn, either partially or completely, more commonly when the athlete falls on to the point of the shoulder, the outer end of the collarbone may slip out of place, keeping it from its proper fit with the shoulder blade. Acromioclavicular separation or strain is another term for shoulder separation. Shoulder separation injuries typically are classified into 6 different types, depending on the severity of the separation of the collarbone from the shoulder blade. Accurate diagnosis and extent of tissue damage may require the use of X-ray.

- Type I: The joint capsule and ligaments are bruised or strained but there is no actual separation at the AC joint. There is a localized tenderness over the joint and pain with movement especially when bringing the arm across the body. Return to sport is estimated from 7 to 14 days.
- Type II: Involves a complete tear the AC ligaments around the joint with a sprain of the coracoclavicular ligament. The cartilage in the AC joint may also be injured. There is a slight separation of the shoulder blade from the collarbone. A lump may appear at the AC joint. Return to sport is estimated from 6-8 weeks.



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- Type III and IV: Consist of separation occurs when the acromioclavicular ligaments and the coracoclavicular ligaments are torn, the collarbone is no longer attached to the shoulder blade, and a prominent deformity or bump may appear at the joint. Similar to a Grade II injury, the cartilage may also be injured. A Type III can be managed conservatively in some cases and can take up to 12 weeks for full recovery. Most commonly these two types require surgery.
- Type V and VI: Complete separation of the shoulder as above. The difference lies between the positions of the collar bone on imaging. Type V and VI injuries require surgical repair.

Management (Type I, II & III)

Initial

Pain should be controlled early in rehabilitation with

- Rest & avoidance of aggravating movements
- Local icing to minimize the degree of damage
- Stabilization to the AC joint by taping techniques (Type I injury)
- Immobilization of the injured limb in a sling to support the injured tissues (Type II & III)
- Ultrasound therapy can be used to assist with the healing of the injured tissues at the AC joint
- Anti-inflammatory medications can be taken as needed in the first 24-72 hours after injury if true signs of inflammation are present

In some cases, a cortisone injection into the AC joint may relieve pain.

Physiotherapy and Rehab

- Gentle mobilization of the injured joint
- Shoulder Range of motion exercises should be started as pain eases.
- A strengthening and stabilization program is commenced involving strength exercises for the rotator cuff and shoulder blade muscles.
- Functional retraining of the injured shoulder will allow the athlete to strengthen the arm in specific movements corresponding to their sport.
- Day to day stabilization/protection can be provided upon return to sport by applying tape to the AC joint.

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