

STEVEN CHUDIK MD

SHOULDER, KNEE & SPORTS MEDICINE

Acromioclavicular Joint Sprain (Separated Shoulder)

Acromioclavicular (AC) joint sprains are injuries to the ligaments at the joint where the clavicle (collarbone) attaches to the acromion (roof of the shoulder) of the scapula (shoulder blade). These injuries are commonly referred to as “shoulder separations.” The ligaments that run from the clavicle to the acromioclavicular ligaments or to the corococlavicular ligaments of the scapula help to anchor the collarbone to the scapula (shoulder blade). A sprain indicates that the ligament between the bones is either stretched or torn, thus disrupting the stability of the clavicle. AC joint sprains are graded I through VI, from least to most severe.



X-Ray of AC joint separation (Grade III)



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Frequent Signs and Symptoms

- Pain, swelling, and deformity on top of the shoulder at the AC joint (see pictures)
- Loss of strength and inability to raise the arm initially following the injury
- Bruising that appears at the site of injury and sometimes the chest, usually within 48 hours

Etiology (Causes)

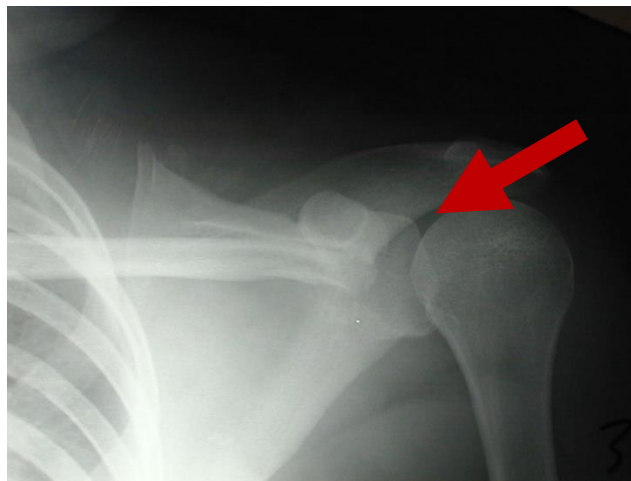
- Falling and landing on the tip of the shoulder (most common cause)
- Direct impact on the tip of the shoulder

Risk Factors

- Sports that involve contact or collision
- Racquetball, squash, cycling
- Poor strength in supporting musculature
- Inadequate protective equipment

Prevention

- Appropriate conditioning, including shoulder and arm flexibility, muscle strength, and endurance
- Proper protective equipment fit
- Proper technique (including falling and landing, tackling)



AC joint sprain, Grade VI



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Outcomes

The treatment and outcome depends upon the severity of the ligament injury. The time to return to activities varies by the type of sport and position, arm injured (dominant versus non-dominant), and severity of sprain. Most low grade I and II sprains do well and patients can return to activity within two to six weeks. Higher grade IV, V, and VI sprains require surgery and return to full activities requires four to six months. Intermediate grade III sprains may take six to 12 weeks to return or may have persistent symptoms requiring surgery and four to six months to return. Following these injuries, the AC joint can remain unstable and may continue to cause pain. The cartilage surface at the AC joint can also be injured and lead to premature post-traumatic arthritis of the AC joint (pain, swelling, etc.).

Potential Complications

- Weakness of shoulder
- Neurovascular injury is rarely associated with the injury
- Pain and inflammation of the AC joint may persist
- Prolonged healing time may be necessary if strenuous activities are resumed too quickly
- Prolonged disability occasionally occurs
- The AC joint may remain unstable or develop post-traumatic arthritis and cause pain

Treatment Considerations

Initial treatment of lower grade sprains (I, II, and most III's) consists of rest, ice, and anti-inflammatory medication to relieve pain. Gentle range of motion exercises help to prevent shoulder stiffness, and modification of activities. Higher grade IV, V, and VI sprains require surgery to reduce (re-locate) the AC joint and repair the torn ligaments. Return to full activities occurs four to six months after surgery. Intermediate grade III sprains may take six to 12 weeks to return but sometimes can cause persistent symptoms which require later surgery.

- Treatment of non-surgical patients involves a sling initially utilized for comfort, followed by gentle range of motion exercises and progressive strengthening as the pain and limitations resolve.
- Surgical treatment is usually reserved for those with severe sprains, particularly those who are heavy laborers, throwing athletes, or those whose condition has not improved after two to six months of conservative treatment. Surgery typically involves reducing the clavicle to the acromion, sometimes removing the end of the clavicle (if the cartilage surface is damaged), and repairing or reconstructing the acromioclavicular and coracoclavicular ligaments.



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Possible Medications

- Nonsteroidal anti-inflammatory medications, such as aspirin, ibuprofen, Motrin[®], Naprosyn[®], Aleve[®], or other minor over-the-counter pain relievers, such as acetaminophen or Tylenol[®], may be helpful. Do not take nonsteroidal anti-inflammatory medications within 10 -14 days of surgery or following surgery and stop these medications if they cause any bleeding or upset stomach.
- Pain relievers are not prescribed after this type of injury but may be prescribed after surgery as necessary. Use only as directed.

Modalities (Cold and Heat)

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.
- Heat may be used when the initial pain, swelling, and inflammation subsides. Your physical therapist or athletic trainer may prescribe heat to help warm-up the injured joint and surrounding soft-tissues before stretching and strengthening exercises.

Notify My Office if Symptoms Worsen



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