

AC JOINT INJURIES MAY RESULT FROM EXTENSIVE WEIGHT LIFTING



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Although a less common condition among soccer players, AC joint injuries may occur among athletes who frequently lift weights. Seasoned goalkeepers also are most likely to suffer AC joint injuries resulting from repeated long throws during matches.

What is the AC joint?

The AC (acromioclavicular) joint is a joint in the shoulder where the collarbone (clavicle) meets the shoulder blade (scapula). The specific part of the scapula, adjacent to the clavicle, is called the acromion, hence the name AC joint. This is in contrast to the glenohumeral joint, the man "ball and socket" shoulder joint.



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Problems that occur at the AC joint

The most common problems that occur at the AC joint are arthritis, fractures and "separations." Arthritis is a condition that involves loss of cartilage in the joint. Like arthritis at other joints in the body, it is characterized by pain and swelling, especially with activity. Over time, the soccer player's joint can wear out, leading to swelling and formation of spurs around the joint. These spurs are a symptom of the arthritis and not the primary cause of the pain. Motions that aggravate arthritis at the AC joint include reaching across a soccer player's body toward the other arm, as goalkeepers often do. AC joint arthritis is common among athletes who regularly lift weights, especially resulting from using the bench press, and to a lesser extent, the military press. AC joint arthritis also may be present if soccer players have rotator cuff problems.



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Treating arthritis of the AC joint

Cartilage damaged by arthritis cannot be replaced. Thus, soccer players can best control the symptoms by modifying their activities to prevent the condition from being aggravated. Applying ice to the joint helps decrease pain and inflammation. Medication, including aspirin, acetaminophen and non-steroidal drugs anti-inflammatory drugs (NSAID's), also are commonly used.

If rest, ice, medication, and modifying activity don't work, then a cortisone shot may be needed. One shot into the joint sometimes alleviates the pain and swelling permanently, although the effect is unpredictable and may be only transient. Surgery may be necessary if non-surgical measures fail. Since pain results from the ends of the bones making contact with each other, the treatment involves removing a portion of the end of the clavicle. This outpatient surgery can be performed through a small incision about one inch long or arthroscopically, using several small incisions. Regardless of the technique utilized, soccer players' recovery and results are about the same. Most soccer players have full motion by six weeks and return to the field by 12 weeks.



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What Is an AC separation?

When the AC joint is "separated," it means that the soccer player's ligaments connecting the acromion and clavicle are damaged, and the two structures no longer line up correctly. AC separations can be mild or severe. They are "graded" depending upon the ligaments that are torn and how badly they are torn.

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- **Grade I Injury:** the least damage is done, and the AC joint still lines up.
- **Grade II Injury:** damage to the ligaments that reinforce the AC joint. In a grade II injury, these ligaments are stretched, but not entirely torn. When stressed, the soccer player's AC joint is painful and unstable.
- **Grade III Injury:** AC and secondary ligaments are completely torn and the soccer player's collarbone is no longer tethered to the shoulder blade, resulting in a visible deformity.

Treatment for AC separation

AC separations can be painful injuries, so the initial treatment is to decrease soccer player's pain. Decreasing pain is best accomplished by immobilizing the arm in a sling, and placing an ice pack on the soccer player's shoulder for 20-30 minutes every two hours as needed.

Acetaminophen and non-steroidal anti-inflammatory drugs also can help the pain. As the pain starts to subside, soccer players should begin moving the fingers, wrist and elbow, and eventually the shoulder to prevent a stiff or "frozen" shoulder. A physician, physical therapist or certified athletic trainer will instruct soccer players on when and how much to move the shoulder. The length of time needed to regain full motion and function depends on the severity or grade of the soccer player's injury. Recovery from a Grade I AC separation usually takes ten to 14 days, whereas a Grade III may take six to eight weeks.

When surgery necessary

Grade I and II separations rarely require surgery. Even Grade III injuries usually allow soccer players to return to full activity with few restrictions. In some cases, a painful lump may persist, requiring partial clavicle excision among high caliber throwing athletes, such as goalkeepers. Surgery can be successful in these cases, but as always, the benefits must be weighed against the potential risks.

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