

AC Joint Separation

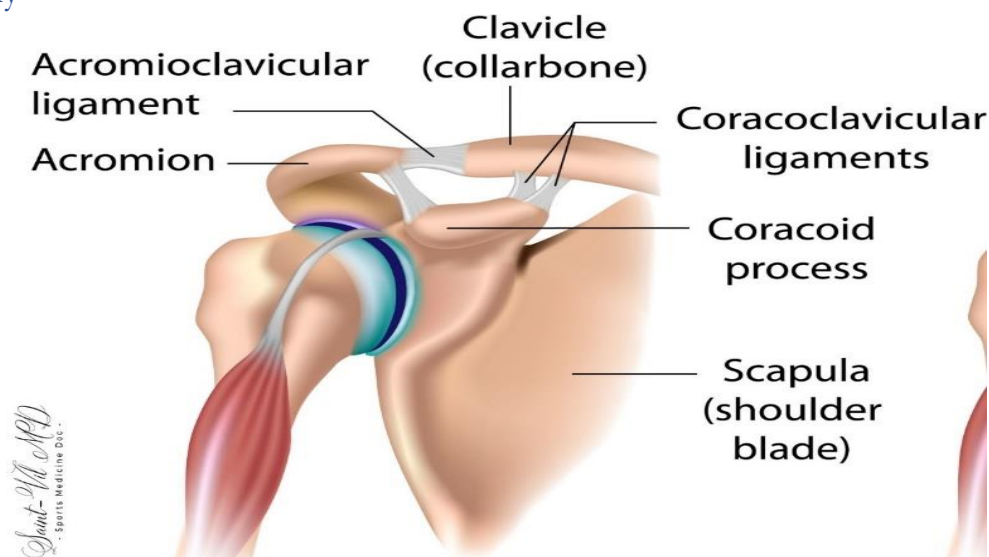


Overview

An acromioclavicular separation is among the common injuries affecting the collar bone. In this condition, the collar bone or **clavicle** is separated from the shoulder blade or **scapula**. It is a relatively common injury caused by a fall or hit directly to the shoulder. However, it is more common in certain sports like football and cycling.

The AC joint separation results in the instability of the joint and thus causing pain and disability. It affects the activity of the shoulder and entire arm.

Anatomy



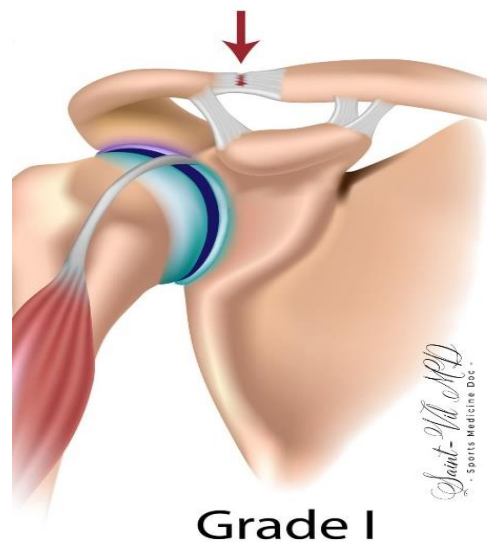
The shoulder is one of the most mobile joints in the human body. It also undergoes regular stress. However, the AC joint is relatively less mobile. Therefore, it does not play many roles in the movement of the arm. However, it attaches the scapula to the thorax and plays a vital role in shoulder abduction and flexion.

Like any joint, bones are connected with the help of multiple ligaments to each other. Acromioclavicular, conoid & trapezoid ligaments are the primary ligaments providing joint stability.

Signs and Symptoms

Signs and symptoms of the condition depend on the severity of the injury. Generally, it is divided into three grades.

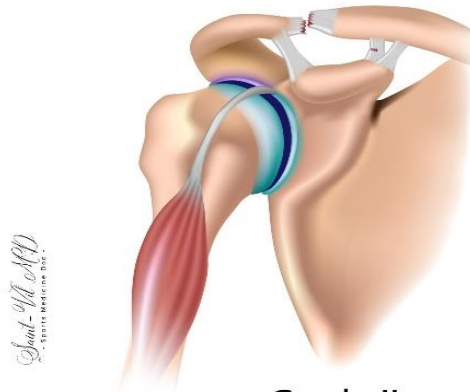
Grade 1



It is mainly about some tears in acromioclavicular ligaments. However, not a complete separation. And thus, milder symptoms and a better prognosis.

There is generally mild pain in the shoulder, along with some swelling. Pain may worsen on moving the arm. In addition, one may feel tenderness on touching the end of the clavicle.

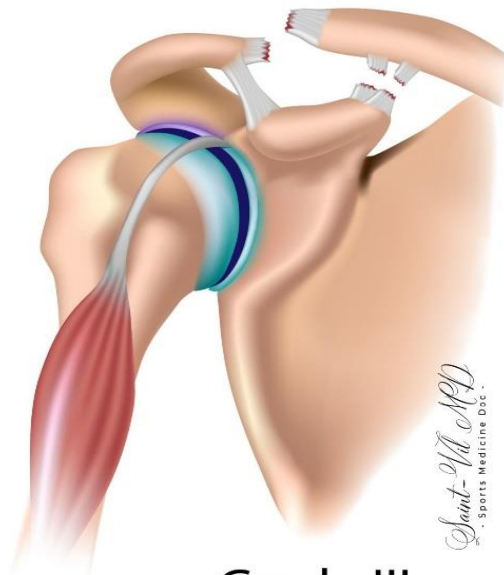
Grade 2



Grade II

It is a complete tear or detachment of acromioclavicular ligaments. Thus, there is moderate to severe pain in the shoulder and swelling. Pain in the arm is felt sharply on movement. One may even see a bump on the shoulder. The clavicle moves more than usual and is very painful when touched during the examination.

Grade 3



Grade III

There is a complete tear in acromioclavicular, conoid & trapezoid ligaments. It means difficulty in holding the shoulder in place and severe pain even without movement. A person would need to support the arm or elbow. Pain is present in just any kind of arm motion, and swelling is visible

on the shoulder. During the movement of the arm, there may be a popping movement. In this condition, the AC joint becomes considerably unstable.

Causes & Risk factors

It is mainly caused by a fall in sports like football, hockey, etc. Its risk is also higher in impact sports.

Diagnosis

Physical examination

On physical examination of the shoulders, the doctor can see asymmetry and change in the position of the injured shoulder. Since the joint is superficial, it is readily examined. There could be pain and swelling of the AC joint, and the clavicle would be unusually mobile.

Imaging

Imaging is needed in most musculoskeletal conditions. Thus, imaging like x-ray and MRI can help confirm if there is a fracture of the clavicle or other bones or if it is an injury of soft tissues or ligaments.

Treatment

Treatment is generally non-surgical, meaning rest and giving ample time to the shoulder to heal. Generally, Grade 1 injury may get well in a month, grade 2 in about six weeks, and grade 3 in about 12-weeks.

Home remedies

Home remedies include measures to reduce pain and swelling like the use of ice. Rest and a protective sling helps reduce motion and promote healing. In addition, one may take over-the-counter anti-inflammatory medications like ibuprofen.

Non-surgical treatment

Non-surgical treatment mainly involved immobilization of the joint with the help of a sling. Pain killers can be prescribed to lower pain and swelling. Finally, gentle exercise may help increase the range of motion once the acute phase is over.

Surgical treatment

In only a few cases, surgical treatment is needed if the pain does not subside after 2-3 months. In some cases, early surgical treatment may be required (as decided by the doctor). Early surgery may be needed for young patients. The surgeon would often go for resection of the distal clavicle, which may increase the range of motion of the shoulder, but also make it less stable.

Prevention

Utmost care to prevent falls in sports may help. Additionally, raising awareness about the injury in contact sports is the way.



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