MD PHYSIOTHERAPY SERVICES

YOUR GUIDE TO

ACROMIO-CLAVICULAR (A/C) JOINT SPRAIN

Contents

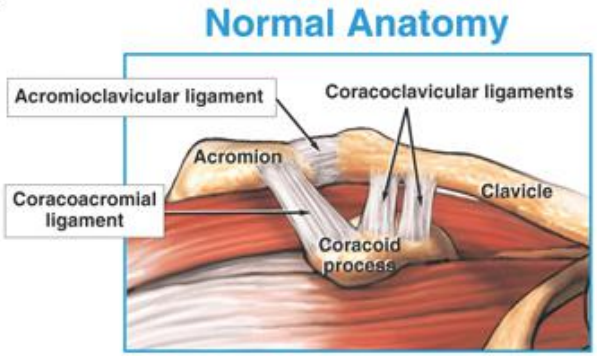
Introduction

Please take note of the following before starting any of the exercises in this guide:

- The information contained in this guide is intended to assist in managing your recovery.
- This guide is based on the latest medical research in the field and contains the best advice available to the best of our knowledge.
- This guide is complimentary to other medical services and is not intended as a substitute for a health care provider's consultation. Never disregard medical advice or delay in seeking advice because of something you have read in this guide.
- Many people have found quick and lasting relief from their pain by acting upon the information provided, but everyone decides for themselves what to do with this information. Should you doubt a particular exercise in your situation, please consult your health professional.

When consulting your health professional, it is wise to take this guide with you to show them.

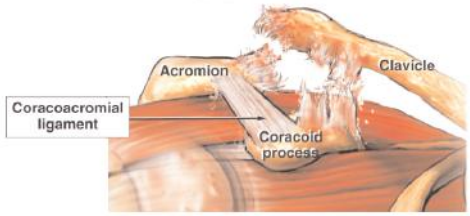
What causes an A/C joint sprain?



Enlarged view of the right acromioclavicular joint

The AC joint is part of the shoulder complex. It is situated at the outside point of the collar bone where it attaches to the front of the shoulder blade. This joint is kept stable by four ligaments. The AC joint ligaments are commonly damaged through; a fall onto the tip of the shoulder, a collision with an opponent or solid object such as during a motor vehicle accident, or from a fall onto an outstretched hand. The impact forces result in the ligaments around the A/C joint being stretched.
There are 3 basic types of injury:

- **Type I:** If the force is not great, a type I injury will occur, in which there is only a mild sprain of the ligaments.
- **Type II:** With more force, a type II injury occurs. This is a more severe sprain and the AC joint is slightly separated but still intact.
- **Type III:** The most severe injury is the type III injury, in which the ligaments of the AC joint are ruptured and there is a dislocation. In this situation, the collar bone becomes loose and can come to rest in several unorthodox positions.



Enlarged view of the right acromioclavicular joint

What treatment can I receive?

In the acute (early) stage of the injury pain-relieving medication is helpful.

1. Ice packs: These should be applied to the injured shoulder for 10 minutes every two hours (never apply ice directly to the skin). The ice pack serves to relieve pain and reduce bleeding in the damaged tissue.

PRECAUTIONS WHEN USING ICE THERAPY.

- **Ice treatment must be used carefully otherwise it may cause a skin burn.**
- **Never put an ice pack directly onto the skin, always use a damp towel or cloth to prevent an ice burn.**
- **Only apply an ice pack to areas of skin with normal sensation i.e. you must be able to feel hot and cold.**
- **Never put an ice pack over an open wound or graze.**
- **Do not apply an ice pack to an area with poor circulation.**
- **Never leave an ice pack on the skin longer than the time stated in this advice sheet.**
- **Adults should always supervise young children when using ice packs. Application may be reduced and extra care should be taken when checking the skin.**
- **Remember to check the skin underneath every 5 minutes for:**
  - Whiteness of the skin
  - Blueness of the skin
  - Blotchy and painful skin
  - Excessive numbness

If you get any of these symptoms remove the ice pack immediately.

2. Taping: Tape can be applied to the joint to help push the collar bone downwards, and the shoulder should then be placed in a sling and rested.

3. Range of Movement (ROM) Exercises: Whilst the shoulder is in a sling it is important to keep the fingers, wrist and elbow mobile by going through their full ROM every four hours or so.

4. Rehabilitation: Rehabilitation exercises for the entire shoulder girdle muscle complex should continue until pre-injury power, strength, endurance and flexibility are regained. Attaining full shoulder range of motion is the first goal of rehabilitation. Static contraction exercises for all planes of motion can be started early and later progressed to resisted strengthening for all shoulder movements in straight planes and diagonals. Rotator cuff

(group of muscles that stabilize the shoulder joint) and scapula stabilisation muscle strengthening will be an important part of the rehabilitation process. Resistance for exercise may be in the form of elastic tubing, weights, and isokinetic exercises

MANAGEMENT

The management of an AC sprain depends on the severity of the injury

Type I
Rest and application of ice usually result in cessation of discomfort within two weeks. Full return to activity should not be allowed until the patient has full pain-free range of motion. A sling should be applied initially. This is then followed by rehabilitation exercises to restore normal shoulder function. Gentle pendulum exercises for the shoulder should be initiated and the range of movement in the shoulder can be gradually increased within the limits of pain. Heavy lifting should be avoided until there is full pain-free range of movement in the shoulder and the tenderness has subsided

Type II
At the onset of the injury, the application of ice and rest are indicated as for type I injuries. The joint needs to be immobilized in a sling for two to four weeks, depending on the severity of the injury. After a week, gentle range of movement exercises should be started. Twice a day the sling should be removed to perform these movements within the limits of pain. The shoulder should be used as normally as possible for washing and dressing activities, but contact sports and heavy lifting should be avoided for at least 6 weeks. The athlete will also require extensive rehabilitation and may not return to sports for up to eight weeks.

Type III
The management of type III injuries remains controversial. In the acute phase, ice application and rest are important. These injuries have been managed with surgical and non-surgical treatment. Support for non-operative treatment is well documented in medical literature, and the current trend is reflective of this. In general, the use of a sling is recommended for approximately four weeks, followed by gentle movement and strengthening. Guarded return to work and sports is allowed over the subsequent three months, dependent upon the return of full, pain-free range of motion and stability of the joint. Participation in contact sports is usually permitted three to five months after the injury, depending upon functional recovery. Operative management of acute injuries is generally reserved for athletes partaking in a high level of sport or patients with open injuries, nerve damage or severe dislocations.

COMPLICATIONS

1. Pain, disability and decrease in shoulder range of motion may occasionally be troublesome

2. Degenerative changes may involve the acromion, resulting in extra bone formation which leads not only to pain in the AC joint, but impingement of the rotator cuff.

3. Calcification can develop over the end of the collar bone and render this area painful.

4. An injury to the AC joint which is not manipulated back into position may result in cosmetic deformity, consisting of a bulge over the end of the clavicle.

Exercises phase 1

These exercises can be started when you have been advised by your health professional that it is safe to start exercising. All exercises in phase 1 should be performed in a pain free range of motion.

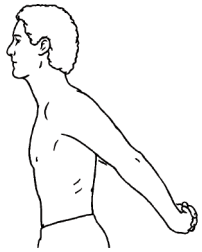
STRETCHES

- Perform each exercise **2-3 times**, holding the stretch for **30 seconds**.
- There should not be any pain when performing a stretch. You should feel a comfortable pull.

POSTERIOR CUFF

Take one arm across your chest, taking care to keep your shoulders level. Use the other hand to pull your arm across your body. You may find this too painful to do initially. Be guided by your pain and if it makes it worse then **don't do it!**

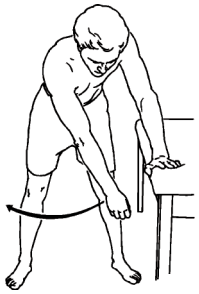
Exercises phase 1 (continued)



ANTERIOR CUFF
Grasp your hands together behind your back, keeping your arms straight as you raise them. Be careful not to drop your head forward.

MOBILITY

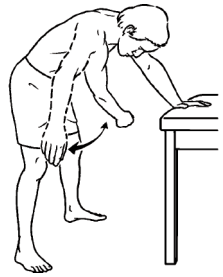
- Perform each exercise **10 times** aim to repeat this **4-5 times a day**.
- These exercises should not make your pain worse. They should be undertaken within a pain-free range.



FORWARDS/BACKWARDS PENDULUM
Supporting body weight with other hand, gently move arm forwards and backwards by rocking body weight forwards and backwards. Let arm swing freely.

CLOCKWISE/ANTI-CLOCKWISE PENDULUM
Let arm move in a circle clockwise, then anti-clockwise by rocking body weight in a circular pattern.

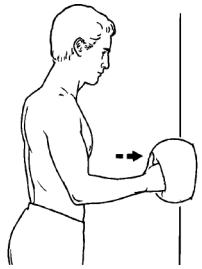
SAWS
Supporting body weight with hand on table, reach out in front of you. Pull arm back pinching shoulder blades together.



SIDE TO SIDE PENDULUM
Supporting body weight with other hand, gently move arm from side to side by rocking body weight from side to side. Let arm swing freely.

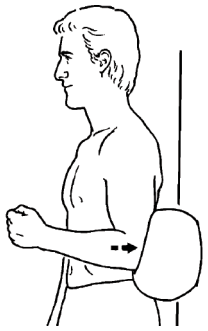
STRENGTHENING

- You should be aiming to hold these contractions for 10 seconds. If you can only manage 5 seconds to begin with that's fine, aim to build it up to 10 slowly.
- Repeat each exercise 10 times, again aiming to do this 4-5 times a day.

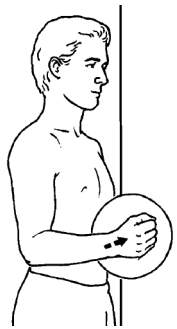


STATIC FLEXION
Using a wall to provide resistance, press fist into wall as shown, using light / moderate resistance.

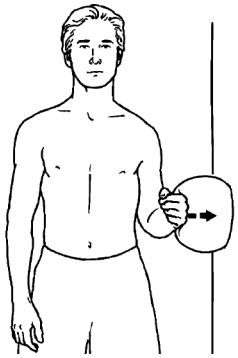
Exercises phase 1 (continued)



STATIC EXTENSION
Press back of arm into wall using light / moderate resistance.



STATIC INTERNAL ROTATION
Stand with your arm close to your side, with a pillow placed between your side and your elbow, and your elbow at a right angle. Push the palm of your hand against the other hand inwards. Hold for 10 sec. Repeat 10 times on each arm.



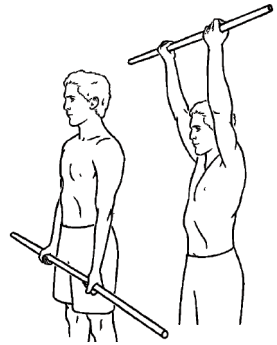
STATIC EXTERNAL ROTATION
Stand with your arm close to your side, with a towel placed between your side and your elbow, and your elbow at a right angle. Push the back of your hand against a wall. Hold for 10 sec. Repeat 10 times on each arm.

Exercises phase 2

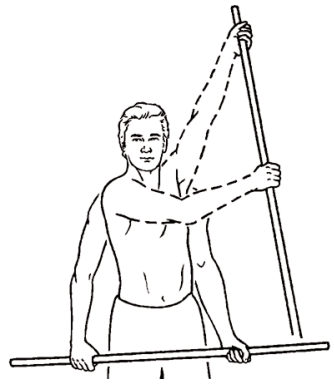
Phase 2 exercises can be started when you are able to do all the Mobility and Strengthening exercises in Phase 1 with no adverse effects. Again make sure that you work within your pain limit and if the pain persists for a long time after exercising, you have tried to do too much and should reduce this in the next session.

MOBILITY

- Perform each exercise 10 times aim to repeat this 4-5 times a day.
- These exercises should not make your pain worse. They should be undertaken within a pain-free range.

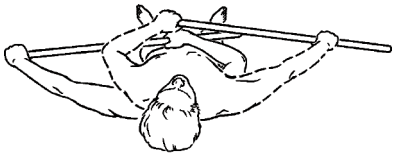


FLEXION WITH STICK
Bring stick up as far as you can, leading with the uninvolved hand, until you feel a stretch. The movement should be slow, controlled and pain free.



ABDUCTION WITH STICK
Holding stick with involved side palm up, push wand directly out from your side with uninvolved side (palm down) until you feel a stretch. The movement should be slow, controlled and pain free.

Exercises phase 2 (continued)

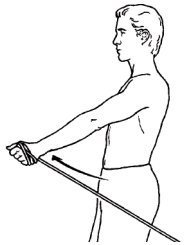


INTERNAL/EXTERNAL ROTATION WITH STICK

Hold stick with involved side palm up, push with uninvolved side (palm down) out from body while keeping elbow at side until you feel a stretch. Then pull back across body leading with uninvolved side. Be sure to keep elbows bent.

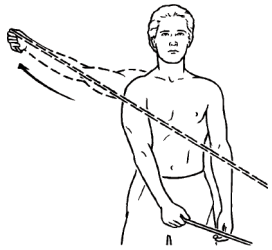
STRENGTHENING

- You should be aiming to perform these exercises slowly, concentrating on controlling the movement in all directions. Try counting to 5 as you perform the movement, it should take you this long to do one repetition of one exercise!
- Repeat each exercise 10 times, again aiming to do this 4-5 times a day.



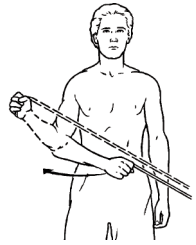
RESISTED SHOULDER FLEXION

Using elastic tubing / band start with arm at side and pull arm outward and upward. Move shoulder through pain free range of motion.



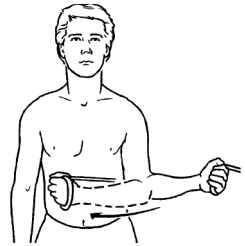
RESISTED SHOULDER ABDUCTION

Using elastic tubing / band start with arm across body and pull away from side. Move through pain free range of motion.



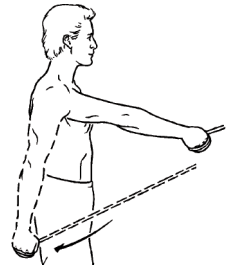
RESISTED SHOULDER EXTERNAL ROTATION

Using elastic tubing / band and keeping elbow in at side, rotate arm outward away from body. Be sure to keep elbow bent at 90°.



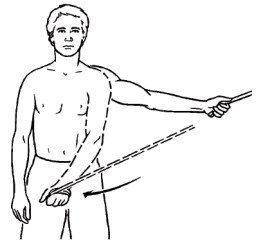
RESISTED SHOULDER INTERNAL ROTATION

Using elastic tubing / band and keeping elbow in at side, rotate arm inward across body. Be sure to keep elbow bent at 90°.



RESISTED SHOULDER EXTENSION

Using elastic tubing / band pull arm back. Be sure to keep elbow straight.



RESISTED SHOULDER ADDUCTION

Attach elastic tubing / band to a door handle (ensuring it is stable) and pull arm in toward buttock (away from door/attachment). Do not twist or rotate trunk.

Contact us

This guide is designed to assist you in the self-management of your injury/condition.

We are here to assist your recovery in the shortest but safest possible time. If you have any uncertainties or queries regarding the information, please do not hesitate to contact us on:

Phone 017890400999 / 07870166861
www.mdphysiotherapy.co.uk