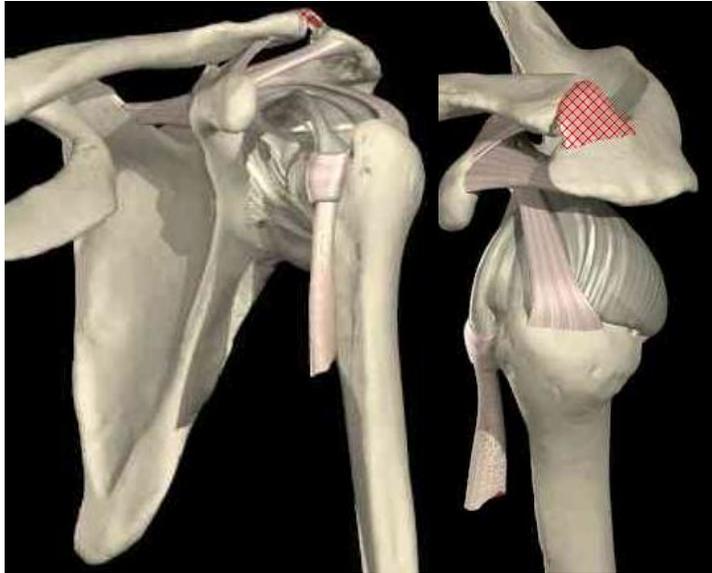


ACROMIO-CLAVICULAR JOINT SPRAIN.



What is an acromio-clavicular (AC) sprain?

It is a tear, damage or disruption of the ligament(s) that attaches the clavicle (collarbone) to the acromion process (part of the shoulder blade). There are three grades of injury, which vary from a mild sprain to the ligament, to disruption of the coracoclavicular ligament (see diagram below).

What Causes an acromio-clavicular sprain?

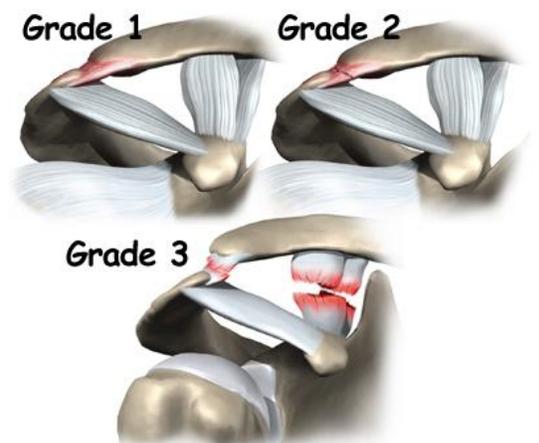
The classic cause is through **trauma**. *Direct* trauma to the joint results from a direct blow to the acromion, such as a heavy fall against a wall, or a rugby tackle. *Indirect* trauma may follow a fall on the outstretched arm or elbow.

What are the symptoms?

Main Symptoms – The degree of symptoms will differ depending on the type/ grade of sprain. Pain is usually felt directly over the joint, however, the top of the shoulders and above the shoulder blade may be painful. During physical examination there is usually pain at the extremes of all shoulder movements. A special diagnostic test called the “scarf test” is usually very tender as it compresses and shears the joint.

Other possible symptoms

Depending on how old (chronic) the condition becomes, there may be some limitation in shoulder movement and pain felt when using the shoulder.



What will physiotherapy consist of?

If left untreated injuries to the acromio-clavicular joint may become chronic leading to functional instability of the shoulder during sporting or everyday activities.

Physiotherapy will aim to reduce the inflammation and pain within the joint whilst optimising functional movement and strength at the shoulder complex. To achieve this any of the following treatment strategies may be employed:

Massage encompasses a variety of techniques and is given with sufficient pressure through the superficial tissue to reach the deep lying structures. It is used to increase blood flow, decrease swelling, reduce muscle spasm and promote normal tissue repair.

Deep Transverse Friction is an aggressive massage technique. It is applied across the tissue fibres. Pressure is given as deeply as possible. This technique is initially painful but can cause a numbing effect. It can be used to break down scar tissue, restore normal movement and prepare the injured structure for mobilisation or manipulation.

Mobilisation is a manual technique where the joint and soft tissues are gently moved by the physiotherapist to restore normal range, lubricate joint surfaces, and relieve pain.

Ultrasonic Therapy transmits sound waves through the tissues stimulating the body's chemical reactions and therefore healing process, just as shaking a test tube in the laboratory speeds up a chemical reaction. It reduces tissue spasm, accelerates the healing process and results in pain relief.

Interferential Therapy introduces a small electrical current into the tissues and can be used at varying frequencies for differing treatment effects. E.g. pain relief, muscle or nerve stimulation, promoting blood flow and reducing swelling/inflammation.

Exercise Programmes encompassing a wide range of techniques to stretch and strengthen muscles, lengthen tissues, improve postural alignment, develop co-ordination and balance.

Other treatments that could be used

Short Wave Diathermy emits electromagnetic waves deep into the tissues. This results in increased blood flow to the area to promote healing, gives pain relief and can produce a heating effect to soften the tissues in preparation for mobilisation/manipulation.

Laser Therapy emits beams of light into the tissues of the body, stimulating chemical reactions and having a similar effect to ultrasound though using light energy instead of sound energy.

Acupuncture is an oriental technique of introducing needles into the skin to increase or decrease energy flow to promote pain relief and healing.

Injection Therapy is a specialist procedure, which needs the consent of your G.P. A non-harmful steroid and local anaesthetic are injected directly into the injured structure. It has a dramatic effect on removing inflammation and promoting healing.

Taping/Strapping may be used if thought necessary to restrict abnormal movement, prevent further damage, and enhance joint awareness.

What should the patient do to help their condition?

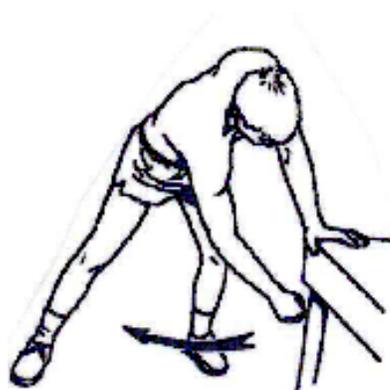
Active Rest – keep active but avoid activities that aggravate your condition. Resting the arm with it supported at 30 degrees is also helpful.

Apply an ice pack - for a maximum of 20 minutes. A bag of frozen peas wrapped in a damp cloth works well because it moulds to the shape of the arm/shoulder. Ensure that you do not apply ice directly to the skin as this can cause an ice burn.

Take ibuprofen/analgesia - according to the directions on the packet, up to the maximum daily dose. It is not suitable for people who have a history of stomach ulcers, or for some people with asthma. If in doubt, ask your pharmacist for advice.

Exercise/Postural programme – comply with the prescribed exercise/postural programme. Your physiotherapist will instruct you as to which of the exercises to begin with, when to add the others, as well as how to progress the exercises.

1. Pendulum Exercise.



2. Shoulder Circles



1: Allow the arm to hang freely then gently swing a) circular in both directions, b) side to side, c) forward and backward. Gradually increase motion ensuring no pain is felt. Perform 10 times in each direction.

2: Slowly rotate the shoulders in a clockwise direction ten times making as big a circle as possible and then repeat anti-clockwise. Do this exercise two to three times per day.

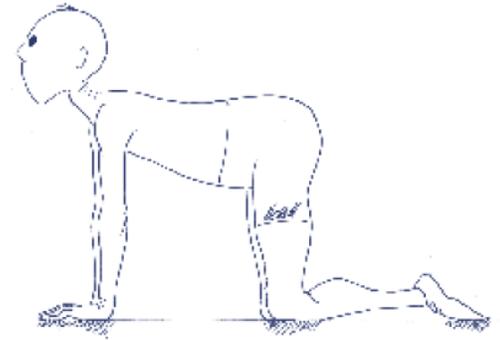
3. Stabilisation in standing

4. Stabilisation in 4 point kneeling

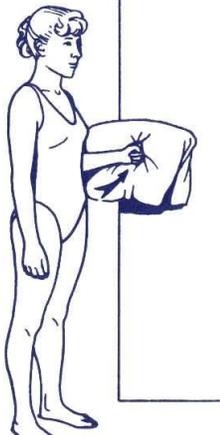
3. Stand leaning forwards slightly, with forearms on a wall so that the shoulders take a little weight. Shift your weight from side-to-side.

4. Starting on hands and knees, gently lean forward, backward, and side to side.

Repeat 10 times. Perform 3 sets.



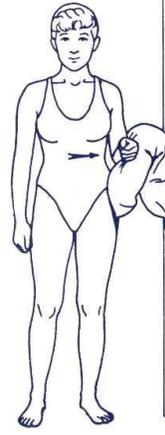
Internal Rotation



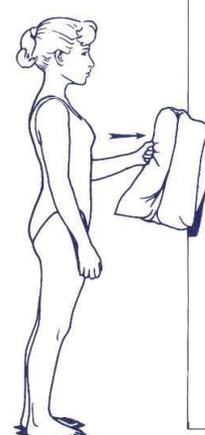
External Rotation



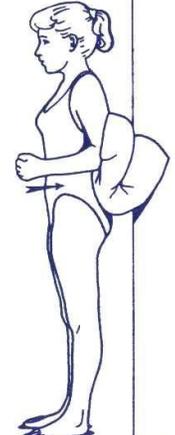
Adduction



Abduction



Flexion



Extension

With the elbow firmly at the side of the body and flexed to 90 degrees, begin by pushing very gently with the hand or elbow and then gradually increase the power until you reach maximum power without pain. Repeat 5 times and do once or twice daily. Your physiotherapist will instruct you as to which of the above exercises to begin with, when to add the others, as well as how to progress through the stages below;-

1. Using a pillow against a wall or your opposite hand as resistance
2. Using an elastic band with increasing resistance
3. Using a weight or pulley

What if physiotherapy does not help or resolve my condition? It is very rare that physiotherapy does not resolve this condition, in these cases a cortisone injection may be appropriate and in very extreme cases surgery is a possible option. These options can be discussed with your therapist if appropriate