

AC Joint Injury Rehabilitation

ACJ injuries are common due to falls on the point of the shoulder such as in falling of a bicycle and often result in a step deformity of the ACJ due to rupturing of the ligaments that support this structure.

Following a period of icing and immobilisation for grade 1 & 2 injuries, mobility exercises as below can be undertaken, but only once shoulder movement is pain free (normally 7-14 days for grades 1 and 2). Grade 3 injuries are now more frequently being treated with conservative treatment, rather than surgery. However, due to the extent of damage it is highly recommended to see a Sports Injury Specialist or Doctor.

Mobility

Pendulum Exercises

- Gently swing the arm forwards, backwards and sideways whilst lying on your front or bent over as per diagram.
- Gradually increase the range of motion.
- Repeat by swinging from side to side.
- Aim for 90° in any direction.



Front of shoulder against a wall or doorframe

- Place one forearm on a fixed point such as a doorframe or corner of a wall and gently turn away from it to stretch the FRONT of the shoulder.
- Hold position for 10-20 seconds and repeat 3 times.
- You should feel a gentle stretch in the front of the shoulder but no pain



External Rotation Stretch

- Lie on your back with the upper arm at 90° to the body.
- Bend the elbow so that the hand points to the ceiling.
- A partner rotates the arm at the shoulder so the palm is facing up as shown.
- Hold the position for 20-30 seconds and repeat 3-5 times.



Stretches can be done on a daily basis assuming there is no pain.

Stretching must be done regularly and continued throughout the rehabilitation process.

Strengthening

Strengthening of the muscles surrounding and supporting the shoulder can begin in line with the mobility exercises as shown above, as long as the shoulder remains pain free. Strengthening should initial be isometric meaning contracting the muscles without movement.

External rotation

- Stand side on to a wall with your upper arm by your side and the elbow bent to 90°.
- Place the back of the wrist against the wall and try to rotate the arm at the shoulder against the resistance of the wall so there is no movement.
- Start off applying a gentle pressure and gradually increase how hard you push.
- Hold for 10 seconds, rest for 3-5 seconds and repeat 10 times.



Apply the same principle to the following exercises:

Internal rotation

- With the arm in the same position, rotate your body to face the wall.
- Place the front of the wrist gently against the wall.
- Rotate your arm towards you.



Abduction

- Stand sideways to the wall
- Straighten the elbow.
- Place the back of the wrist and hand against the wall.
- Try to push the arm away as if lifting the arm away to the side.



After a week of pain free mobility and isometric strengthening exercises, strengthening can be progressed. Stretching should continue throughout this phase.

Isotonic exercises

An excellent piece of equipment to use to strengthen the shoulder is a resistance band. Exercises can be progressed to isotonic using resistance in a number of ways, with one piece of equipment.

External rotation

- Attach the band to something stable as shown.
- Hold the other end.
- Keep the upper arm against the body and the elbow bent.
- Pull the band so that the hand and forearm move away from the body whilst keeping the elbow against your side.
- Perform 3 sets of 10 repetitions with a minute between sets.



Internal rotation

- This is the exact opposite movement to the previous exercise.
- With the same starting position, pull your hand in towards your stomach.
- Remember to keep your elbow by your side.

Note: you will have to turn yourself around to apply resistance to the exercise so that you are pulling the band from your side, across your body.



Lateral raise

- Still using the resistance band, stand on one end of the band with the other end in your hand.
- Keeping the elbow straight, pull your hand up to level with your shoulder, ensuring you maintain a good posture.
- Perform 3 sets of 10 repetitions.



Return to sport

Before returning to any type of sport following an AC joint injury there should be a full pain-free range of motion.

On return to contact sports protection should be provided by padding the joint with a circular piece of padding with a hole cut in the middle which should be centred over the joint. This can be kept in place by strapping or by a guard.

Stretching, mobility and strength exercises should be continued throughout the return to sport phase.

Further reading:

http://www.oxfordradcliffe.nhs.uk/forpatients/patientinfoleaflets_updatedOct07/090320acjinjury.pdf