

## **ARTHROSCOPIC ROTATOR CUFF REPAIR REHAB PROTOCOL**

**Aim of surgery:** To achieve a functional cuff capable of centering the humeral head during dynamic upper limb activity.

**Possible complications:** Failure of repair to heal, secondary impingement due to rotator cuff insufficiency.

**Expected long-term outcome RCR:** Patient reports a relatively pain-free shoulder that facilitates light to moderate upper limb activity between waist and shoulder height. Some patients are able to achieve an excellent outcome involving the functional use above shoulder height.

It may take 12-24 months for patients to realise their full potential following RCR.

Before implementing this protocol consider individual, patient specific variables which affect rehab. Variables such as:

- Size of repair and number of tendons involved
- Age and activity level of patient
- Tissue integrity (DM, hypercholesterolaemia, central adiposity....etc)
- Tension and quality of the repair

Large or poor quality repairs should follow a more conservative exercise regime

The goals of rehab following RCR are

- Protect the integrity of the Tendon repair
- Minimise pain and inflammation
- Restore Passive range of movement
- Restore strength and dynamic stability of the shoulder
- Restore active range of movement
- Return functional/sporting activity



## **Phase 1 (Protection Phase) Week 1-3/4**

REMEMBER THE REPAIR IS ONLY AS STRONG AS THE ANCHORS ATTACHING IT TO THE BONE

### **From Day 1 post-op**

- Change dressings. Keep portal sites or incision clean and dry.
- Stay in Sling except for exercises

#### Therapeutic Exercise:

- Table slides into flexion, external rotation, and abduction (in scapular plane) within safe range
- Supine opposite arm assist flexion (or use stick)
- Supine using a stick for ER (within safe range) at 45 degrees abduction
- Posterior shoulder rolls or scapular squeezes
- Cervical active range of motion
- Elbow active range of motion
- Hand squeezes (can type/use ipad etc)
- Rhythmic stabilisation CKC
- Encourage general cardiovascular exercises to encourage normal tissue homeostasis
- Ball and floor exercises for core stability
- Kinetic chain exercises in sling

### **Manual**

- Passive range of motion into all ranges to patient tolerance, careful on internal rotation.
- Grade I-II Joint mobs to glenohumeral joint with emphasis on posterior and inferior directions
- Scapular manual resistive exercises (MRE) - In sidelying (contralateral side), resist scapular protraction and retraction with depression
- Ice every 1 to 2 hours for first 72 hours, then 3-4 x/day

### **Precautions**

- No active use of shoulder
- No putting weight through shoulder
- No reaching behind back
- No combined abduction/external rotation



## **Phase 2 (Early Activity Phase) from Week 3**

- Wean from sling
- Increase cuff activity, closed chain exercises with increased speed also with rhythmic stabilisation
- Push for further ROM into elevation, initially CKC progressing to OKC once appropriate level of strength/control, again care of ER/IR – no stretching
- Increase ball floor work
- No combined abduction/external rotation

## **Phase 3 (increase function) Week 6**

- Start open chain strengthening
- Progress speed / direction changes and add load (increase load at low speed then reduce load when increasing speed)
- Push for ROM try for full ER/IR
- Start sport specific rehab endurance training

## **Phase 4 (return to normal activity) Week 12**

- FROM
- Heavier free weights and resistance
- Increase speed movements, plyometrics and reflex movements
- Ensure scapula control through active range of motion
- Emphasise correction of movement pattern during A.D.L.
- Commence combined abduction/external rotation

## **Milestones**

- Dressings removed 7-10 days post op
- Sling for 3 weeks (unless otherwise stated in op notes)
- Driving approx. 6-8/52
- Passive range of flexion at least 50% of pre-operative level @4/52
- Passive range of motion equal to pre-operative level and active range of motion at least 50% of pre-operative level @8/52
- Active range of motion equal to pre-operative level @12/52



## **Failure to progress**

If a patient is failing to progress, then consider the following:

<b>Possible problem</b>	<b>Action</b>
Pain inhibition	<ul style="list-style-type: none"> <li>• Adequate analgesia</li> <li>• Keep exercises pain-free</li> <li>• Return to passive ROM if necessary until pain controlled</li> <li>• Progressing too quickly – hold back</li> <li>• If severe night pain/resting pain – refer to Shoulder Unit</li> </ul>
Patient exercising too vigorously, patient not doing home exercise programme (HEP) regularly enough	<ul style="list-style-type: none"> <li>• Increase or reduce physiotherapy/ (HEP) (max 2-4x/day) for few days/weeks and assess difference</li> <li>• Ensure HEP focuses on key exercises and link to function</li> </ul>
Returned to activities too soon	Decrease activity intensity
Cervical/thoracic pain referral	Assess and treat accordingly
Unable to gain strength	Passive ROM may need improving – need 90° passive flexion to start eccentric deltoid work
Altered neuropathodynamics	Assess and treat accordingly
Poor rotator cuff control	<ul style="list-style-type: none"> <li>• Ensure passive range gained first</li> <li>• Consider isometrics through range</li> <li>• Rotation dissociation through range with decreasing support and increasing resistance</li> <li>• Ensure not progressing through Therabands too quickly</li> </ul>
Poor scapula control	Work on scapula stability through range without fixing with pec major/lat dorsi
Poor core stability	Work on improving core stability
Secondary frozen shoulder (more likely with RCR).	Maintain passive ROM as able

