

Rehabilitation following Arthroscopic Rotator Cuff Repair: Small Tears

Phase I: Immediate Postsurgical Phase (Days 1-14)

Precautions:

- No lifting of objects; No excessive shoulder extension; No excessive arm motions; No overhead motions; No excessive external rotation (ER)/internal rotation (IR) range of motion (ROM) for 6-8 weeks unless directed by physician; No excessive stretching or sudden movements; No supporting of body weight by hands.
- Keep incision clean and dry.

Goals:

- Maintain integrity of the repair
- Promote tissue healing
- Gradually increase passive ROM
- Diminish pain and inflammation
- Prevent muscular inhibition

Days 1 to 6

- 30° abduction pillow brace
- Table slides to tolerance
- Active assisted ROM exercises (L-Bar)
 - ER/IR in scapular plane at 45° of abduction (pain-free ROM)
- Passive ROM
 - Flexion to tolerance (painful ROM)
 - ER/IR in scapular plane at 45° of abduction (pain-free ROM) *
 - Limit ER and IR ROM to 25°-30°
- Elbow/hand gripping and ROM exercises: perform 4-6 times per day
- Submaximal pain-free shoulder isometrics (initiate days 4-5)
 - Flexion with elbow bent to 90°
 - ER
 - IR
 - Elbow flexors
- Cryotherapy for pain and inflammation
 - Ice 15-20 min, approximately 4-6 times per day, or as pain determines
- Sleeping
 - Sleep in pillow brace until instructed to discontinue

Days 7 to 14

- Continue use of pillow brace
- Pendulum exercises
- Progress passive ROM to tolerance
 - Flexion to at least 115°

- ER in scapular plane at 45° abduction to 30°-35°
 - IR in scapular plane at 45° abduction to 30°-35°
- Active assisted ROM exercises (L-Bar)
 - ER/IR in scapular plane at 45° abduction
 - Flexion to tolerance*
 - Therapist provides assistance by supporting arm, especially with arm lowering
 - Continue elbow/hand ROM and gripping exercises
 - Continue isometrics (submaximal and sub-painful) *
- May apply electrical muscle stimulation to shoulder external rotators for muscle re-education
 - Flexion with bent elbow
 - Extension with bent elbow
 - Abduction with bent elbow
 - ER/IR with arm in scapular plane
 - Elbow flexion
- Initiate rhythmic stabilization ER/IR at 45° abduction
- Continue use of ice for pain control
 - Use ice at least 6-7 times per day
- Sleeping
 - Continue sleeping in brace until physician instructs when to discontinue (6 weeks)

Phase II: Protection Phase (Day 15-Week 6)

Precautions:

- No heavy lifting of objects; No carrying heavy objects; No excessive behind the back movements; No supporting of body weight by hands and arms; No sudden jerking motions

Goals:

- Allow healing of soft tissue
- Do not overstress healing tissue
- Gradually restore full passive ROM (weeks 4-5)
- Re-establish dynamic shoulder stability
- Decrease pain and inflammation

Days 15-28

- Continue use of sling or brace (physician or therapist will determine when to discontinue)
- Passive ROM to tolerance
 - Flexion to 140-155°
 - ER at 90° abduction to 45-50°
 - IR at 90° abduction to 30-45°
- Active assisted ROM to tolerance
 - Flexion (continue use of arm support)
 - ER/IR in scapular plane at 45° abduction
 - ER/IR at 90° abduction
- Rhythmic stabilization drills
 - ER/IR in scapular plane

- Flexion/extension at 100° flexion and 125° flexion
- Continue all isometric contractions
- Initiate scapular isometrics
- Continue use of cryotherapy as needed
- Continue all precautions
 - No lifting
 - No excessive motion

Weeks 4-5

- Patient should exhibit full passive ROM by week 4
- Continue all exercises listed above
- Initiate ER/IR strengthening using exercise tubing at 0° of abduction (use towel roll)
- Initiate manual resistance ER supine in scapular plane (light resistance)
- Initiate prone rowing with arm at 30° of abduction to neutral arm position
- Initiate prone shoulder extension with elbow flexed to 90°
- Initiate ER strengthening exercises
- Initiate isotonic elbow flexion
- Continue use of ice as needed
- May use heat prior to ROM exercises
- May use pool for light AROM exercises
- Rhythmic stabilization exercises (flexion at 45°, 90°, 125° and ER/IR)

Weeks 5-6

- May use heat prior to exercises
- Continue active assisted ROM and stretching exercises, especially for movements that are not full
 - Shoulder flexion
 - ER at 90° abduction
- Initiate active ROM exercises
 - Shoulder flexion scapular plane to 90° of flexion
 - Shoulder abduction to 90° of abduction
- Progress isotonic strengthening exercise program
 - ER tubing
 - Side-lying ER
 - Prone rowing at 45° of abduction
 - Prone horizontal abduction (bent elbow) at 90° of abduction
 - Biceps curls (isotonics) (very light resistance)

Phase III: Intermediate Phase (Weeks 7-14)

Goals:

- Full active ROM (weeks 8-10)
- Maintain full passive ROM
- Dynamic shoulder stability
- Gradual restoration of shoulder strength

- Gradual return to functional activities

Week 7

- Continue stretching and passive ROM (as needed to maintain full ROM)
- Continue dynamic stabilization drills
- Progress active ROM and light strengthening program
 - ER/IR tubing
 - ER side-lying
 - Lateral raises to 90° of abduction*
 - Full can in scapular plane to 90° of elevation*
 - Prone rowing
 - Prone horizontal abduction
 - Prone extension
 - Elbow flexion
 - Elbow extension

*** Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonic; if unable, continue dynamic rhythmic stabilization glenohumeral joint exercises**

Week 8

- Continue all exercise listed above
- If physician permits, may initiate light functional activities

Week 10

- Continue all exercise listed above
- Progress to fundamental shoulder exercises
- Therapist may initiate isotonic resistance (0.5-kg weight) during flexion and abduction*
 - If non-painful, normal motion is exhibited and no substitution patterns

Weeks 11-14

- Progress all exercises
 - Continue ROM and flexibility exercises
 - Progress strengthening program (increase 0.5 kg/10 days if non-painful) *
 - Be sure when progressing patient, no residual pain is present following exercises

Phase IV: Advanced Strengthening Phase (Weeks 15-24)

Goals:

- Maintain full non-painful ROM
- Enhance functional use of upper extremity
- Improve muscular strength and power
- Gradual return to functional activities

Weeks 15-20

- Continue ROM and stretching to maintain full ROM
- Self-capsular stretches
- Progress shoulder strengthening exercises
 - Fundamental shoulder exercises
- Initiate interval golf program (if appropriate)

Weeks 20-24

- Continue all exercises listed above
- Progress golf program to playing golf (if appropriate)
- Initiate interval tennis program (if appropriate), week 24 (may wait until 6 mo. to initiate, physician will determine)
- May initiate swimming, week 26

Phase V: Return to Activity Phase (Weeks 24-36)

Goals:

- Gradual return to strenuous work activities
- Gradual return to recreational sport activities
- Maintain integrity of rotator cuff repair

Weeks 24-36

- Continue fundamental shoulder exercise program (at least 4 times weekly)
- Continue stretching, if motion is tight
- Continue progression to sport and/or work activity/participation
 - Should continue fundamental shoulder exercise program until 12 mo. following surgery or until instructed to discontinue