

Rehabilitation following Arthroscopic Rotator Cuff Repair: Massive Tear / Superior Capsular Reconstruction

Phase I: Immediate Postsurgical/Protection Phase (Days 1 – 8weeks)

Precautions:

- No lifting of objects; No excessive arm motions; No excessive external rotation (ER) or internal rotation (IR) motions; No excessive shoulder extension; No excessive stretching or sudden movements; No supporting of body weight by hands
 - Keep incision clean and dry.
 - Precautions isolated supraspinatus repair.
 - Caution with excessive* (>25-35°) passive and active IR range of motion (ROM) for 4 weeks.
 - Precautions combined supraspinatus and infraspinatus repair.
 - Caution with excessive* (>25-35°) passive and active IR ROM for 4 weeks.
 - Precautions isolated/combined subscapularis repair.
 - No ER AROM for 4 weeks; Avoid excessive* (>25-35°) ER PROM
 - No IR AROM for 6 weeks.
 - Progress ER slowly from 4 weeks until 6 weeks.
- Precautions if patient had Bicep Tenodesis procedure. Please refer to BT rehab packet for guidelines.

Goals:

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

Day 1 – 8 weeks

- Elbow/hand gripping and AROM/PROM exercises: perform 4-6 times per day (bicep tenodesis precautions if applicable)
- Cryotherapy for pain and inflammation
 - Ice 15-20 min approximately 4-6 times daily
- Sleeping
 - Sleep in pillow brace until instructed to discontinue. (8 weeks for Massive tears)
 - Wear sling 24/7 except to shower and dress

Weeks 8 – 10

- 30° abduction pillow brace; D/C use of pillow brace progressively (weeks 9-12)
- Progressive Table Slides to 90° (pain-free/slide to tolerance)
- PROM
 - Supine passive forward Flexion to 90° (pain-free ROM)
 - ER/IR in scapular plane at 45° of abduction (pain-free ROM, use towel rolls or therapist assisted hold for support) *
 - Limit ER and IR ROM to 25°-35°; See precautions above

- Submaximal pain-free isometrics (initiate week 10)
 - Flexion with elbow bent to 90°
 - ER
 - IR
 - Elbow flexors
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Phase II: Protection/Intermediate Phase (Weeks 10-12)

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 PROM weeks 10-12
- Re-establish dynamic shoulder stability
- Decrease pain and inflammation

Weeks 10 – 12

- Continue progressive PROM
 - Flexion 90° to Full if tolerated (Table Slides, supine passive forward elevation)
 - ER at 45-90° abduction to 60°+
 - IR at 45-90° abduction to 60°+
 - AAROM exercises (L-Bar/Cane/Golf Club) (Begin week 12)
 - ER/IR in scapular plane at 45° abduction
 - Flexion to tolerance
 - Rhythmic stabilization drills (minimal sub-maximal force) ER/IR in scapular plane
 - Flexion/extension at 100° and 125° flexion
 - Continue all isometric contractions
 - Initiate scapular isometrics (minimal; pain-free)
 - Continue use of cryotherapy as needed
 - Continue all precautions
 - No lifting
 - No excessive motion
 - Progress PROM to tolerance (pain-free ROM)
 - ER in scapular plane at 45° abduction to 50°+
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Phase III: Intermediate Phase/Early Strengthening phase (Weeks 12-16)

Goals:

- Regain Full PROM and AAROM (weeks 12 – 14)
- Begin AROM week 14-16 if AAROM is full and minimal to no substitution is present.
- Dynamic shoulder stability
- Gradual restoration of shoulder strength
- Gradual return to ADL's and light functional activity

Weeks 12 – 14

- Continue all exercises listed above but progress if tolerated
- Initiate isotonic elbow flexion (biceps tenodesis?) week 12
- Initiate ER/IR strengthening using exercise tubing at 0° of abduction (use towel roll, minimal)
- Initiate manual resistance ER supine in scapular plane (light resistance)
- Initiate prone rowing with arm at 30° abduction (towel roll) to neutral arm position
- Initiate prone shoulder extension with elbow flexed to 90°
- 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 at multiple angles)
- Shoulder flexion in scapular plane in side-lying at week 14 (no weight)
- Shoulder abduction at week 14 (if no substitution pattern or pain is present)
- Continue use of ice as needed

Weeks 14-16

- Continue AAROM/AROM and stretching exercises to full
 - Especially for movements that are not full
 - Shoulder flexion stopping at 90° in side-lying (gravity eliminated position)
 - ER at 90° abduction
- Progress isotonic strengthening exercise program
 - ER tubing
 - Side-lying ER
 - Prone rowing
 - Prone horizontal abduction (bent elbow)
 - Biceps curls (isotonics) very light weight (Bicep tenodesis?)
- Continue stretching for PROM (as needed to maintain full ROM)
- Continue dynamic stabilization drills
- Progress AROM “light” strengthening program
 - ER/IR tubing
 - ER side-lying
 - Lateral raises to 90° of abduction*
 - Full can in scapular plane to 90° of flexion*
 - 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 isotonics.**

If unable, continue glenohumeral joint stabilization drills and exercises

- Continue all exercises listed above
 - If physician permits, may initiate light functional activities
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Phase IV: Early Strengthening/Advanced Strengthening Phase (Weeks 16-24)

Goals:

- Maintain full non-painful AROM/AAROM
- Maintain integrity of repair

- Enhance functional use of upper extremity
- Improve muscular strength and power
- Gradual return to functional activities

Weeks 16-20

- Progress all exercises
- Continue ROM and stretching exercises to maintain full ROM
- Progress strengthening program (increase 0.5 kg/10 days if non-painful) *
 - Be sure when progressing patient, no residual pain is present following exercises
- Self-capsular stretches
- Progress shoulder strengthening exercises
 - Fundamental shoulder exercises
- Initiate interval golf program (if appropriate) week 24
- Continue all exercises 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 pattern is present

Weeks 20-24

- Continue all exercises listed above
 - Gradually increase resistance but patient should exhibit no pain during or after exercise and no substitution pattern
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Phase V: Return to Activity Phase (Weeks 24-32)

Goals:

- Gradual return to strenuous work activities
- Gradual return to recreational sport activities

Weeks 24-32

- Continue fundamental shoulder exercise program (at least 4 times weekly) *
- Progress golf program to playing golf (if appropriate)
- Initiate interval tennis program (if appropriate)
- May initiate light swimming (if appropriate), weeks 26-29
- Continue stretching if motion is tight
- Continue progression to sport or work activity
 - Should continue fundamental shoulder exercise program until 12 mo. following surgery or until instructed to discontinue.