

Orthopedic Surgery • Sports Medicine
Neil Kumar, MD

Rotator Cuff Repair – Medium Tear with possible:

Subacromial Decompression, Distal Clavicle Excision, Biceps Tenodesis, Biceps Tenotomy

“As tolerated” should be understood to “perform with safety” for the repair. Pain, swelling, or other undesirable factors are indicators that you are doing too much too soon. If any of these should occur, decrease your activity level and ice your shoulder.

Ice should be applied to the shoulder for 15 to 20 minutes following each exercise, therapy, or training session. While your shoulder remains swollen, icing should also be done separate from exercise sessions at least three times per day.

All times and exercises are to serve as guidelines only. Progression through the protocol should be based upon criteria as opposed to dates listed and will vary depending on each individual patient. Progress should be agreed upon by the patient and his/her team of providers.

Pre-Operative

- ROM (range of motion) – Full, no restrictions
- Therapeutic Exercise - Learn exercises for post op regimen
 - Pendulums
 - Passive and active elbow ROM
 - Passive and active wrist ROM
 - Grip squeezes
- Modalities - Cryotherapy (Ice) six to eight times per for 15 to 20 minutes each time

- **Goals for Surgery**
 - Educate on proper sling positioning and management
 - Educate on safe technique for pendulums

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Post-Operative Phase I: Weeks 1 - 6

- Sling – *At all times*
- ROM
 - *Gentle, supine, passive ROM only within a non-painful range and progressed gradually*
 - Forward flexion to 145⁰
 - Abduction to 45⁰
 - External rotation to 30⁰ at up to 65⁰ abduction
 - Elbow and wrist full active and passive ROM
 - If biceps tenodesis, elbow ROM should be active-assisted
- Therapeutic Exercise
 - Pendulums
 - *Submaximal and subpainful exercises performed in supine position within a non-painful range and progressed gradually*
 - Abduction and Adduction
 - Internal and External Rotation
 - Shoulder flexors
 - Elbow flexors
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Cardio – Stationary bike without resistance

- **Goals for Phase II:**
 - Protection of repair
 - Reduced swelling
 - Decreasing pain

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Post-Operative Phase II: Weeks 6 - 12

- Sling
 - Weeks 6 – 8
 - At home for comfort
 - In public places, crowded areas, or uneven terrain at all times
 - Weeks 8 - 10
 - In public places, crowded areas, or uneven terrain for comfort
 - After Week 10 – no sling
- ROM
 - Passive and active-assisted ROM
 - Forward flexion to 160⁰
 - Abduction to 90⁰
 - External rotation to 45⁰ at up to 90⁰ abduction
 - Full active and passive elbow and wrist ROM
- Therapeutic Exercise – Continue Phase I exercises
 - *Active-assisted subpainful exercises performed within a non-painful ROM and progressed gradually*
 - L-bar and tubing exercises for ER/IR
 - Initiate humeral head stabilization
 - Periscapular isometrics
 - Progress shoulder isometrics
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Cardio
 - Stationary bike with resistance
 - Elliptical without arm handles
- **Goals for Phase III:**
 - Full ROM
 - Repair protection
 - Reduced swelling
 - Decreasing pain

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Post-Operative Phase III: Weeks 12 – 16

*****Include exercises on non-involved side*****

- Sling - none
- ROM
 - Active-assisted progressing to active ROM
 - Forward flexion to 180⁰
 - Abduction to 90⁰
 - External rotation to 90⁰ at 90⁰ abduction
 - Internal rotation to 90⁰ at 0⁰ - 90⁰ abduction
 - Full active elbow and wrist ROM
- Therapeutic Exercise – Continue Phase II exercises
 - L-bar and tubing exercises for ER/IR
 - Isotonic dumbbell exercises for rotator cuff, scapular and humeral head stabilizers
 - Isokinetic strengthening in scapular plane
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
- Cardio
 - Stationary bike with resistance
 - Elliptical
 - UBE (arm bike) with light resistance
 - Treadmill ambulation progressing to treadmill running
- **Goals for Phase III:**
 - Full ROM
 - Decreasing pain
 - Increasing strength and power
 - Improving scapular control

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Post-Operative Phase IV: Weeks 16 – 24

- ROM
 - Full active shoulder, elbow, and wrist ROM
- Therapeutic Exercise – Continue Phase III exercises
 - Progressive strengthening in all planes
 - Plyometrics and progress with closed chain exercises
 - Week 20 – initiate Thrower’s Ten program
- Cardio
 - Stationary bike with resistance
 - Elliptical
 - UBE (arm bike) with increasing resistance
 - Treadmill running
- **Goals for Phase IV:**
 - Return of strength, power, and control
 - Return flexibility in all planes
 - Return overhead functional activity

Post-Operative Phase V: After Week 24

Throwing Program for return to overhead sport activities during this phase with progression based upon patient progress through earlier protocol.

- Initiate Phase 1 return to throwing
- Progress as instructed
- Return to overhead sports with successful program completion

Initiate sport specific plyometric activities as tolerated such as:

Basketball/Volleyball: Two foot ankle hop, double-leg hop, squat jump, double-leg vertical jump, single-leg hop, single-leg vertical jump, power skip, backwards skip, double-arm alternate-leg bound, alternate leg push off box drill, and side-to-side push off box drill

Baseball/Softball/Overhead throwing sports: Two foot ankle hops, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double arm alternate leg bound, cycled split squat jump, and return to throwing program