



## **Advanced Orthopedics and Sports Medicine Rotator cuff repair-Treatment Guideline**

### **Phase I: Immediate post Surgical Phase (IPSP)**

#### **Goals:**

1. Maintain integrity of the repair.
2. Decrease pain and inflammation.
3. Gradually increase PROM.
4. Restore active range of motion of the elbow/wrist and hand.

#### **Precautions:**

1. Maintain arm in brace, remove only for exercise.
2. No lifting of objects.
3. No excessive shoulder extension (diamond zone of safety).
4. No excessive and aggressive stretching or sudden movements.
5. No supporting body weight by hands.
6. Keep incision clean and dry.
7. Ice 6-7 times daily (10-15 minutes each session).

#### **Treatment Summary:**

1. Modalities: Cryotherapy, Electrical stimulation, Ultrasound as needed for pain relief.
2. MFR and gentle mobs as tolerated. Passive range of motion within protocol limits.
3. Shoulder passive range of motion exercises within range of motion goals include (but not limited to): Therapist assisted passive range of motion, seated forward flexion/abduction/ER, pendulum, sawing/cradle rocks.
4. Neck range of motion/stretching includes (but not limited to): Active range of motion all directions, neck and shoulder rolls, stretching of the upper trapezius, levator scapula, sternocleidomastoid, scalenes.
5. Other joint exercises includes (but not limited to): Elbow and hand gripping exercises and range of motion exercises.

#### **Criteria for progression:**

1. Achieving passive range of motion goals
2. Pain and swelling within tolerance.

### **Phase II: Protection Phase (PP)**

#### **Goals:**

1. Allow healing of soft tissue.
2. Decrease pain and inflammation.
3. Do not overstress healing tissue.
4. Prevent muscular inhibition.
5. Gradually restore passive range of motion.
6. No excessive shoulder extension (diamond zone of safety).

#### **Precautions:**

1. No lifting objects
2. No supporting body weight with the hands.
3. No sudden jerking movements.

#### **Treatment Summary:**

1. Modalities: Electrical stimulation, Ultrasound as needed for pain relief. Heat pre and cold post treatment.
2. MFR and mobs as tolerated. Passive range of motion within protocol limits. Initiate rhythmic stabilization at 45° abduction, manual scapular re-education techniques.
3. Progress with shoulder passive range of motion exercises within range of motion goals (but not limited to): Therapist assisted passive range of motion, seated forward flexion/abduction/ER, pendulum, sawing/cradle rocks.
4. Continue neck range of motion/stretching includes (but not limited to): Active range of motion all directions, neck and shoulder rolls, stretching of the upper trapezius, levator scapula, sternocleidomastoid, scalenes.
5. Initiate sub-maximal pain free Isometrics of the scapula and shoulder with elbow bent.

6. Initiate shoulder active assisted range of motion-AAROM (not but limited to): Pulley flexion/abduction and wand flexion/abduction/ER, and finger ladder.
7. Other joint exercises includes (but not limited to): Elbow and hand gripping exercises, isotonic elbow exercises and range of motion exercises.
8. Physician/physical therapist will determine when to discontinue the sling.

**Criteria for progression:**

1. Achieving passive range of motion goals.
2. Pain and swelling within tolerance.

**Phase III. Intermediate Phase (IP)**

**Goals:**

1. Gradually restore full shoulder passive range of motion.
2. Reestablish dynamic shoulder stability.

**Precautions:**

1. No lifting anything heavier than a coffee mug.
2. No excessive behind the back motion (within pain tolerance).
3. Patient must be able to elevate arm without shoulder hiking before progressing to overhead active range of motion and light isotonic.

**Treatment Summary:**

1. Progress on protection phase with Manual stretching, MFR, decrease modalities (PRN), progress with dynamic stabilization exercises (progress to overhead ranges of motion).
2. Capsular stretching: Initiate shoulder stretching behind the back after 8-10 weeks.
3. Initiate isotonic exercises (but not limited to): sidelying ER, prone extensions, prone rows, prone horizontal abduction, prone ER 90/90, prone flexion, overhead ball rolls, scaption (full can), lateral raises

**Criteria for Progression:**

1. Full passive range of motion of the shoulder within pain tolerance.
2. Shoulder active range of motion shoulder elevation without scapular hiking.
3. Pain within tolerance.
4. Good dynamic stability of the glenohumeral joint.

**Phase IV: Advanced Strengthening Phase (ASP)**

**Goals:**

1. Maintain full nonpainful active range of motion.
2. Gradual restoration of shoulder strength and power.
3. Enhance functional use of the upper extremity.
4. Gradual return to functional activities.

**Treatment Summary:**

1. Progress on Intermediate phase with Manual stretching/strengthening, MFR (PRN), decrease modalities (PRN), progress with dynamic stabilization exercises (progress from isometric to isotonic, below 90 to overhead ranges of motion, single plane to combined movements), and isotonic exercises with weights.
2. PRE progression based on Holten curve (and patient response) or 1 lb if patient can do 3 sets of 15 with proper form and min-no pain: Progress on strengthening exercises: diagonal D1/D2 patterns, tubing exercises ( progress IR/ER from 0° abduction to 45 ° to 90 ° abduction, slow to fast speeds), tubing/cable column functional patterns, rows, latissimus dorsi and lower trapezius pull downs, bear hugs, press ups (dips), and push ups.

**Phase V: Return to Activity phase (RAP)**

**Goals:**

1. Gradual return to strenuous work activities.
2. Gradual return to recreational sports activities.

**Treatment Summary:**

1. Continue with exercise program at least 4 times a week.
2. Continue stretching if motion is tight.
3. Initiate and progress on interval golf/swimming/tennis if appropriate
4. Remember 6 months to have motion and 12 months to have the power to use the motion.