



**Austin Cole, MD**

## **Clavicle ORIF Post-Operative Protocol**

### **Phase I – Maximum Protection – Passive Range of Motion**

#### **Week 0 to 4:**

- Sling for 2 weeks.
- PROM to 90 degrees flexion and abduction at 2 weeks.
- Pendulums

#### Goals

- Reduce inflammation
- Decrease pain
- Postural education

#### Manual therapy

- STM to forearm and upper arm as needed.

#### Exercise progression

- Ice and modalities to reduce pain and inflammation.
- Cervical range of motion and basic deep neck flexor activation.
- Active hand and wrist range of motion.
- Passive elbow flexion/extension for 6 weeks.
- Low intensity cardiovascular exercise to promote healing. No running or elliptical

### **Phase II – Progressive Stretching and Active Motion**

#### **Weeks 4 to 6:**

#### Goals

- Begin AAROM – full all planes with the exception of extension.

#### Manual therapy

- STM – global shoulder and neck. Scar tissue mobilization as needed
- Graded GH mobilizations, ST mobilizations.

#### Exercise progression

- Progress to full PROM flexion and external rotation as tolerated.
  - Use a combination of wand, pulleys, wall walks or table slides to ensure compliance.
- Gradual introduction to internal rotation
- Serratus activation: Ceiling punch (weight of arm) - may initially need assistance.
- Sub-maximal rotator cuff and GH isometrics
- Scapular strengthening – prone scapular series (rows and I's) no resistance.
  - Emphasize scapular strengthening less than 90 degrees.
  - External rotation on side.
- Thoracic mobility as needed.
- DNF and proper postural positioning with scapular exercises.
- Low to moderate cardiovascular work. May add elliptical but no running until 6 weeks.

### **Phase III – Strengthening Phase**

#### **Weeks 6 to 12:**

##### Goals

- Full AROM, extension limited to neutral until 8 weeks
- Normalize GH/ST arthrokinematics.
- Rotator cuff/scapular stabilization isotonic progression.

##### Manual therapy

- STM and joint mobilization as needed.
- Manual perturbations.
- PNF patterns.

##### Exercise progression

- Push to full passive and active range of motion including internal rotation thumb up and full extension week 8
- Continue with ceiling punch adding weight as tolerated.
- Rotator cuff isotonics at 0 and 90 degrees as strength permits, advance prone series to include T's and Y's as tolerated.
- Add seated rows and front lat pulls.
- Progressive resistance exercise: biceps and triceps week 6
- CKC progression: quadruped, ball compression, counter weight shift, knee scapular push-ups, knee push-ups; all as tolerated.
  - Therapist directed RS and perturbations in quadruped – bilateral progressing to unilateral-tri pod position.
- Weeks 8 to 10: gym strengthening program to include chest fly and pressing motions.
- Supine progressing to standing PNF patterns, with resistance as appropriate.

### **Phase IV – Advanced Strengthening and Plyometric Drills**

#### **Weeks 12 to 16:**

##### Manual therapy

- Continue as needed

##### Exercise progression (PRE/PSE)

- Full range of motion in all planes – emphasize terminal stretching.
- Advance strengthening at or above 90° with prone or standing Y's and 90/90 as scapular control and ROM permit.
  - Patient health, physical condition and goals/objectives determine.
- Gym strengthening program; gradual progression with pressing and overhead activity.
- Progress closed kinetic chain program to include push-up progression to full as appropriate.
- Initiate plyometric and rebounder drills as appropriate.

##### Return to sport program

- Continue to progress RC and scapular strengthening program.
- Continue with closed chain quadruped perturbations. Add open chain as strength permits.
- Advance gym strengthening program.
- Return to sport testing for interval programs using dynamometer.
- Follow-up examination with the physician (3-4 months) for release to full activity.