

CLAVICLE FRACTURE SURGERY

## Physical Therapy, Strength and Conditioning

### PHASE I: MAXIMUM PROTECTION (WEEKS 0 TO 4)

#### Goals

- Reduce inflammation
- Decrease pain
- Postural education

#### Restrictions/Exercise Progression

- Sling x 4 weeks.
- Passive ROM internal, external rotation with arm at side, forward elevation to 90 degrees only x 4 weeks.
- No pendulums.
- Ice and modalities to reduce pain and inflammation.
- Cervical ROM and basic deep neck flexor activation (chin tucks).
- Active hand and wrist range of motion.
- Encourage walks and low intensity cardiovascular exercise to promote healing.

#### Manual Intervention

- STM—effleurage to forearm and upper arm as needed.

### PHASE II: PROGRESSIVE STRETCHING AND ACTIVE MOTION (WEEKS 4 TO 6)

#### Goals

- Discontinue sling as instructed.
- Postural education.
- Begin AROM—full all planes.

#### Exercise Progression

- Progress to full range of motion 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 shoulder extensions (stick off back).
- Serratus activation; Ceiling punch (weight of arm) may initially need assistance.
- Sub-maximal rotator cuff isometrics.
- Scapular strengthening—prone scapular series (rows and I's).  
Emphasize scapular strengthening under 90°.
- External rotation on side (no resistance).
- Sub-maximal isometrics.
- Cervical ROM as needed to maintain full mobility.
- DNF and proper postural positioning with all RC/SS exercises.
- Low to moderate cardiovascular work. May add elliptical but no running until 6 weeks.

### Manual Intervention

- STM—global shoulder and CT junction.
- Scar tissue mobilization.
- Graded GH mobilizations.
- ST mobilizations.
- Gentle CR/RS for ROM and RC-SS activation.

## PHASE III: STRENGTHENING PHASE (WEEKS 6 TO 12)

### Goals

- Full AROM
- Normalize GH/ST arthrokinematics.
- Activate RC/SS with isometric and isotonic progression.

### Exercise Progression

- Continue with combined passive and active program to push full ROM.
- Internal rotation with thumb up back and sleeper stretch.
- Continue with ceiling punch adding weight as tolerated.
- RC isotonics at 0 and 90° as strength permits.
- Advance prone series to include T's and Y's as tolerated.
- Add seated rows and front lat pulls.
- Biceps and triceps PRE.
- Scaption; normalize ST arthrokinematics.
- 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.
- 8-10 weeks—gym strengthening program to include chest fly and pressing motions.
- Supine progressing to standing PNF patterns, with resistance as appropriate.

### Manual Intervention

- STM and Joint mobilization to CT junction, GHJ and STJ as needed.
- CR/RS to gain ROM while respecting repaired tissue.
- Manual perturbations.
- PNF patterns.

## PHASE IV: ADVANCED STRENGTHENING AND PLYOMETRIC DRILLS (12-16 WEEKS)

### PRE/PSE

- Full range of motion 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 beginning with counter, knee then—gradual progression to full as appropriate.
- Initiate plyometric and rebounder drills as appropriate.

### RTS 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.
- RTS testing for interval programs using microfet dynamometer.
- Follow-up examination with the physician (3-4 months) for release to full activity.

**Manual Intervention**

- STM and Joint mobilization to CT junction, GHJ and STJ as needed
- CR/RS to gain ROM while respecting repaired tissue
- Manual perturbations
- PNF patterns