

James D. Kelly, II, M.D.  
jkelly@calpacortho.com

## **Total Shoulder Rehab Protocol (LTO)**

**For Physical Therapist Use Only**

### ***General Guidelines:***

- Maintain surgical motion early, but don't push it.
- No internal rotation resistance until 3 months for LT osteotomy
- Strengthen the surrounding musculature.
- Alternate between pool and land therapy.
- Minimize heavy, excessive cyclic loads for the first 6 months.
- No pulleys in first 6 weeks.
- **Most patients will only perform self directed therapy at home and then begin supervised PT at 6 weeks postoperative**
- **At three months the implants and LTO (lesser tuberosity osteotomy) are likely stable enough to advance activities as tolerated. An xray is scheduled about that time, and once that is done, it is usually permissible to have the patient advance as tolerated.**
- **Pool is optional but encouraged (depending on availability)**

This is a gradual progression, not a stepped progression!!

### **Outpatient Rehab**

#### ***Phase I: 0-3 weeks post op***

- SLING:
  - o On except for:
    - Exercises
    - Dressing
    - Eating
    - Shower: Okay to shower if dressing is intact. Once dressing is removed at 10-14 days, it is ok to shower without any dressing.
    - Reading
    - Brushing Teeth and Shaving
- PROM (may be performed judiciously by Therapist)

- FLEX, ER to neutral – minimize reps (5-10)
- Therapist PROM should NOT be excessively painful. If it is STOP!!!
- Encourage Patient PROM
- Pendulums and Codman's ex's
- Towel Slides or equivalent
- Pool for PROM.
- General conditioning (stationary bike, treadmill, etc)
- Maintain hand strength
- Maintain normal motion at the elbow/wrist
- Maximum ER to Neutral

***3-6 weeks post op.***

- SLING
  - Wear at night and when out of house, ok to remove for reading, eating, teeth brushing, sitting in chair
  - Don't use arm to push up out of chair!!!
- Supine AAROM
  - FLEX, ABD, ADD, IR with towel, start ER at 6 weeks (minimize reps 5-10).
- Pool (if available) for PROM and AAROM (water is the assistance)
  - Use combined motions and teach fluidity of movement.
  - 10 reps with combined movements in pool.
- Light scapular strengthening (i.e. scapular setting, gentle MR scap protraction and retraction).
- Gentle joint mobilization and soft tissue mobilization to restore normal scapular mobility.
- Nerve glides as necessary

See pt 1-2x/week; mainly in the pool. Develop HEP for pt to work on PROM both in the pool and on land.

***Phase II: 6-12 weeks***

- Discontinue sling
- Continue with PROM.
- More AAROM on land
  - Progress from SUPINE to SEATED, then to STANDING position.
- At 6 *weeks* begin AROM on land, against gravity (straight planes only, no combined motions.)

- Pool – continue
  - o AAROM and AROM
- Can begin pulley work and NOT BEFORE.
- Progress to some light closed-chain proprioceptive ex's (wall washing)
- Arm bike with no resistance.
- Gentle jt mobs to restore normal accessory glide motion in shldr girdle if necessary.

See 1-2x/week, (increase frequency to 3x/week if ROM is not progressing.)

***Phase III: 12-18 weeks post op***

- Can begin AROM with COMBINED MOTIONS at 3 months (on land, against gravity).
- Begin light strengthening
  - o Begin strengthening for lats, rhomboids, biceps/triceps, pecs, and deltoids.
- Pool – continue
  - o Use floats and paddles for resistive work in the pool.
- Increase scapular strengthening with theraband and light weights.
- Add more advanced proprioceptive ex specific for work, ADL's and sport.
- For patients with lesser tuberosity osteotomy, may progress to IR strengthening.

See pt 2x/week, then transition to independent home ex program.

Please contact Dr. Kelly's Medical Assistant with any questions.

Olivia Stepp, Medical Assistant  
Phone: (415) 668-8010 x 1020  
Fax: (415) 928-1035  
Email: ostepp@calpacortho.com