

## Postoperative Rehabilitation Protocol for Latarjet (or Distal Tibia Allograft Augmentation)

*\*Patient will wear an abduction pillow sling for 6 weeks postoperatively*

*\*Unless otherwise specified, do not begin PT until patient has been seen for 2-week postoperative visit*

### Phase 1: Maximal Protection (0-4 weeks postoperatively)

- Elbow A/AROM: flexion and extension
- Protect anterior and posterior capsule from stretch, but begin PROM
  - Full flexion/elevation to tolerance
  - Abduction in scapular plane to tolerance
  - IR to 45 degrees at 30 degrees abduction
  - ER to 25 degrees (begin at 30-45 degrees abduction)
- **Do not force any painful motion. Respect anterior capsule integrity with ER.**
- Do **not** perform pendulums
- Modalities PRN
- Wrist and gripping exercises
- Removal of sling for showering: Maintain arm in a sling position

### Phase 2: Moderate Protection (4-6 weeks postoperatively)

- Progress shoulder PROM (**do not force any painful motion**)
  - Forward flexion to tolerance
  - Abduction in scapular plane to tolerance
  - IR to 45 degrees at 30 degrees abduction
  - ER to 45 degrees at 30-40 degrees abduction
- Glenohumeral joint mobilizations as indicated when ROM significantly less than expected. Mobilization done in direction of limitation and discontinue once adequate ROM achieved
- Address scapulothoracic and trunk mobility limitations.
- Introduce posterior capsular stretching as indicated
- Continue modalities PRN
- Deltoid isometrics
- Rhythmic stabilization drills
- Continue AROM elbow, wrist, hand
- Modalities PRN
- Discontinue sling at 6 weeks

### Phase 3: Minimal Protection / Mild Strengthening (6-12 weeks postoperatively)

- Progress PROM
  - Forward flexion and abduction to tolerance
  - IR as tolerated at multiple angles of abduction
  - ER to tolerance at multiple angles of abduction (only once has achieved at least 35 degrees ER at 0-40 degrees abduction)

- Progress to AA/AROM activities of the shoulder as tolerated with good mechanics
  - Quality movement only; Avoid forcing active motion with substitution patterns
  - Remember the effect of gravity on the limb. Do gravity eliminated motions first
- AROM all directions below horizontal, light resisted motions all planes
- AROM activities to restore flexion, IR, horizontal adduction as tolerated
- Exercises should be progressive in terms of muscle demand/intensity, shoulder elevation, and stress on anterior joint capsule
- All activities should be pain free and without substitution patterns
- Deltoid / Cuff isometrics progressing to isotonic
- PRE's for scapular muscles, latissimus, biceps, triceps
- PRE's work rotators in isolation
- Emphasize posterior cuff, latissimus, and scapular muscle strengthening using eccentrics
- Utilize exercise arc that protect anterior and posterior capsule from stress during PREs
- Keep all strength exercise below the horizontal plane in this phase

End of phase criteria:

- Forward elevation PROM at least 155 degrees and AROM 145 degrees with good mechanics
- ER PROM within 8-10 degrees of contralateral at 20 degrees abduction
- ER PROM at least 75 degrees at 90 degrees abduction
- Appropriate scapular posture at rest and dynamic scapular control
- Completion of phase 3 activities with minimal to no pain / difficulty

#### Phase 4: Strengthening (12-16 weeks postoperatively)

- Criteria:
  - Pain-free AROM
  - Pain-free with manual muscle test
  - Progress by response to treatment
- AROM activities to restore full ROM
- Restore scapulohumeral rhythm
- Joint mobilization
- Aggressive scapular stabilization and eccentric strengthening program
- Initiate isotonic shoulder strengthening exercises including: side-lying ER, prone arm raises at 0, 90, 120 degrees, elevation in the plane of the scapula with IR and ER, lat pulldown close grip, and prone ER
- Dynamic stabilization WB and NWB
- PRE's for all upper quarter musculature (begin to integrate upper extremity patterns). Continue to emphasize eccentrics and glenohumeral stabilization.
- All PRE's are below the horizontal plane for non-throwers
  - Begin isokinetics
  - Begin muscle endurance activities (UBE)
    - High seat and low resistance
    - Must be able to do active shoulder flexion to 90 degrees without substitution
  - Continue with agility exercises
  - Advance functional exercises
  - Isokinetic test
  - Functional test assessment

Phase 5: Overhead activities / Return to Activities phase (16-20 weeks postoperatively)

- Avoid excessive anterior joint capsule stress
- Avoid triceps dips, wide grip bench press, military press, or lat pull downs behind head. "Always see your elbows" when lifting
- No overhead or throwing athletic moves until 4mo post-op or cleared by MD
- Continue prior phase exercises
- Overhead strengthening if ROM and strength below 90 degrees elevation is good
- Shoulder stretching / strengthening at least 4x a week
- Return to upper extremity weight lifting program with emphasis on larger primary upper extremity muscles (deltoids, latissimus dorsi, pectoralis major).
- Push-up with elbows no flexing past 90 degrees
- Plyometrics/interval sports program if appropriate
- May initiate pre-injury activities / vigorous sports if appropriate / cleared by MD