Arthroscopic Labral Repair
Type II, IV and Complex Tears

Repair of Type II SLAP Lesion:

- Generally the superior labrum should be reattached to the glenoid & the biceps anchor stabilized.
- Overhead-throwing athletes with this lesion often present with the biceps tendon detached from the glenoid rim.
- Peel-back lesions are also commonly seen.
- When developing a rehabilitation program it is important to determine the extent of the lesion, as well as the location & number of sutures.

Repair of Type IV SLAP Lesion:

- Similar to Type II repair: however, will involve biceps repair, resection of frayed area or tenodesis.
- Rehabilitation is similar to that for Type II repair except for biceps activity,
- Timeframes for active & resisted biceps activity will vary depending on the extent of bicipital involvement. Consultation with the surgeon regarding the progression of biceps activity based on the integrity of the biceps tendon repair is required.
- In cases where the bicep is resected, bicep muscular contractions typically may begin between 6-8 weeks post-op.
- In cases of repair to biceps tears or biceps tenodesis, no resisted biceps activities is typically advised for 3 months following surgery.
- Light isotonic strengthening for elbow flexion is initiated between weeks 12-16 post-op (in case with a biceps tenodesis surgeon & therapist may choose to wait until 16 weeks to begin)
- Full resisted biceps activity is not initiated until post-op weeks 16-20
- Progression to spot-specific activities, such as plyometrics & interval sport programs, follows similar guidelines to those outlined for Type II SLAP repairs

Phase I-Immediate Post-op Phase "protect motion"
(Day 1-week 6)

Goals:

- Protect the anatomic repair
- Prevent/minimize the side effects of immobilization
- Promote dynamic stability
- Diminish pain & inflammation

Post-op Day #1 to week 2:

- Sling for 4 weeks
- Sleep in sling for 4 weeks
- Wrist hand AROM/AAROM
- Hand-gripping exercises

- PROM/AAROM:
    - Flexion & elevation in the plane of the scapula to 60 degrees (week 2, flexion to 75 degrees)
    - ER/IR with arm in scapular plane
        - ER to 10-15 degrees
        - IR to 45 degrees
- No AROM ER, extension or abduction
- Submaximal isometrics for all rotator cuff, periscapular, & shoulder musculature
- **No isolated biceps contractions (i.e. no active elbow flexion)**
- Cryotherapy, modalities as indicated

Weeks 3-4:

- Discontinue use of sling at 4 weeks
- Continue gentle PROM/AAROM exercises (**Rate of progression based on patient's tolerance**)
    - Flexion & elevation in the plane of the scapula to 90 degrees
    - Abduction to 75-85 degrees
    - ER in scapular plane to 25-30 degrees
    - IR in scapular plane to 55-60 degrees
- No AROM ER, extension or elevation
- Initiated rhythmic stabilization drills within above ROM
- Initiated proprioceptive training within above ROM
- Progress isometrics as above
- Continue use of cryotherapy

Weeks 5-6:

- Begin AROM of shoulder (all planes, gravity eliminated positions then gravity resisted position once adequate mechanics):
- Gradually improve PROM & AROM
    - Flexion & elevation in the plane of the scapula to 145 degrees
    - Abduction to 145 degrees
    - ER 45-50 degrees at 45 degrees abduction
    - IR 55-60 degrees at 45 degrees abduction
    - Extension to tolerance
- May initiate gentle stretching exercises
- Gentle PNF manual resistance
- Initiate prone exercise program for periscapular musculature
- Begin AROM elbow flexion & extension
- **No biceps strengthening**

Phase II-Intermediate Phase-Moderate Protection Phase (Weeks 7-14):

Goals:

- Gradually restore full AROM & PROM (week 10)
- Preserve the integrity of the surgical repair
- Restore muscular strength & balance

Weeks 7-9:

- Gradually progress P/AROM:
  - Flexion, elevation in the plane of the scapula & abduction to 180 degrees
  - ER 90-95 degrees at 90 degrees abduction
  - IR 70-75 degree at 90 degrees
  - Extension to tolerance
- Begin isotonic rotator cuff, periscapular & shoulder strengthening program
- Continue PNF strengthening
- Initiate "Thrower's Ten" program except resisted biceps exercise
- Type II repairs: begin sub maximal pain free biceps isometrics
- Type IV & complex repairs: continue AROM elbow flexion & extension, no biceps isometrics or isotonic strengthening

Weeks 10-12:

- Progress ER P?AROM to thrower's motion
  - ER 110-115 at 90 degrees abduction in throwers (weeks 10-12)
- Progress shoulder isotonic strengthening exercises as above
- Continue all stretching exercises as need to maintain ROM.
- Progress ROM to functional demands (i.e. overhead athlete)
- Type II repairs: begin gentle resisted biceps isotonic strengthening at week 12
- Type IV & complex repairs: begin gentle sub maximal pain free biceps isometrics

Criteria for Progression to Phase III

- Full non painful ROM
- Good Stability
- Muscular strength 4/5 or better
- No pain or tenderness

Phase III: Minimal Protection Phase
(Weeks 14-20):

Goals:

- Establish & maintain full ROM
- Improve muscular strength, power & endurance
- Gradually initiate functional exercises

Weeks 14-16:

- Continue all stretching exercises (capsular stretches)
- Maintain thrower's motion (especially ER)
- Continue rotator cuff, periscapular & shoulder strengthening exercises
- Type II repairs; progress isotonic biceps strengthening as appropriate
- Type IV & complex repairs: progress to isotonic biceps strengthening as appropriate
- "Thrower's Ten" program with biceps exercise or fundamental exercises
- PNF manual resistance
- Endurance training
- Initiate light plyometric program
- Restricted sports activities (light swimming, hale golf swings)

Weeks 16-20:

- Continue all exercises listed above
- Continue all stretching
- Continue "Thrower's Ten" program
- Continue plyometric program
- Initiate interval sport program (e.g. throwing) **See interval throwing program**

Criteria for Progression to Phase IV

- Full no painful ROM
- Satisfactory static stability
- Muscular strength 75-80% of contralateral side
- No pain or tenderness

Phase IV-Advanced Strengthening Phase
(Weeks 20-26):

Goals:

- Enhanced muscular strength, power & endurance
- Progress functional activities
- Maintained shoulder stability

Weeks 20-26:

- Continue flexibility exercises
- Continue isotonic strengthening program
- PNF manual resistance patterns
- Plyometric strengthening
- Progress interval sports programs

Phase V-Return to Activity Phase
(Months 6-9)

Goals:

- Gradually progress sport activities to unrestrictive participation
- Continue stretching & strengthening program