

SLAP Repair Procedure

Phase 1: immediate postoperative phase "protected motion" (day 1-week 6)

Goals:

- Protect the anatomic repair
- Prevent negative effects of immobilization
- Promote dynamic stability
- Diminish pain and inflammation

Week 0-2

- Sling for 4 weeks
- Sleep in immobilizer for 4 weeks
- Elbow/hand PROM
- Hand-gripping exercises
- Passive and gentle shoulder active assistive ROM exercise
 - Flexion to 60° (week 2, flexion to 75°)
 - Elevation in scapular plane to 60°
 - ER/IR with arm in scapular plane
 - \circ ER to 10^o-15^o
 - \circ IR to 45°
 - No active ER or extension or abduction
- Submaximal isometrics for shoulder musculature
- No isolated biceps contractions
- Cryotherapy, modalities as indicated

Week 3-4

- Discontinue use of sling at 4 weeks
- Sleep in immobilizer until week 4
- Continue gentle ROM exercises (PROM and AAROM)
 - \circ Flexion to 90^o
 - \circ Abduction to 75°-85°
 - ER in scapular plane to $25^{\circ}-30^{\circ}$
 - IR in scapular plane to 55°-60°
 (Note: rate of progression based on evaluation of the patient)
- No active ER, extension, or elevation
- Initiate rhythmic stabilization drills
- Tubing ER/IR at 0^o abduction

- Continue isometrics
- Continue use of Cryotherapy

Week 5-6

- Gradually improve ROM
 - \circ Flexion to 145^o
 - \circ ER at 45° abduction: 45°-50°
 - IR at 45° abduction: $55^{\circ}-60^{\circ}$
- May initiate stretching exercises
- May imitate light (easy) ROM at 90⁰ abduction
- Continue tubing ER/IR (arm at side)
- PNF manual resistance
- Initiate active shoulder abduction (without resistance)
- Initiate "full can" exercise (weight of arm)
- Initiate prone rowing, prone horizontal abduction
- No biceps strengthening

Phase 2: intermediate phase: moderate protection phase (weeks 7-12)

Goals:

- Gradually restore full ROM (week 10)
- Preserve the integrity of the surgical repair
- Restore muscular strength and balance

Week 7-9

- Gradually progress ROM
 - \circ Flexion to 180^o
 - \circ ER at 90° abduction: 90°-95°
 - \circ IR at 90° abduction: 70°-75°
- Continue to progress isotonic strengthening program
- Continue PNF strengthening
- Initiate thrower's ten program
- May begin AROM biceps
- May initiate slightly more aggressive strengthening
- Progress ER to throwers motion
 - ER at 90[°] abduction: 110° -115[°] in throwers (weeks 10-12)
- Progress isotonic strengthening exercises
- Continue all stretching exercises
 - Progress ROM to functional demands (ie, overhead athlete)
- Continue all strengthening exercises

Phase 3: minimal protection phase (weeks 12-20)

Goals:

- Establish and maintain full PROM and AROM
- Improve muscular strength, power, and endurance
- Gradually initiate functional activities

Criteria to enter Phase 3:

- Full non-painful AROM
- Satisfactory stability
- Muscular strength (good grade or better)
- No pain or tenderness

Weeks 12-16

- Continue all stretching exercises (capsular stretches)
- Maintain throwers motion (especially ER)
- May begin resisted biceps and forearm supination exercises
- Continue strengthening exercises
 - Throwers ten program or fundamental exercises
 - PNF manual resistance
 - Endurance training
 - Initiate light plyometric program
 - Restricted sport activities (light swimming, half golf swings)

Weeks 16-20

- Continue all exercise listed above
- Continue all stretching
- Continue throwers ten program
- Continue plyometric program
- Initiate interval sport program (throwing, etc.)

Phase 4: Advanced strengthening phase (weeks 20-26) Goals:

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 - Enhance muscular strength, power, and endurance
 - Progress functional activities
 - Maintain shoulder mobility

Criteria to enter Phase 4:

- Full non-painful AROM
- Satisfactory static mobility
- Muscular strength 75%-80% of contralateral side
- No pain or tenderness

Weeks 20-26

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

Phase 5: Return-to-activity (months 6-9)

Goals

- Gradual return to sport activities
- Maintain strength, mobility and stability

Criteria to enter Phase 5

- Full functional ROM
- Muscular performance isokinetic (fulfills criteria)
- Satisfactory shoulder stability
- No pain or tenderness

Exercises

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

Abbreviations: ROM, range of motion; ER, external rotation; IR, internal rotation; PROM, passive range of motion; AAROM, active assisted range of motion; PNF, proprioceptive neuromuscular facilitation.