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# **Arthroscopic SLAP Repair Rehabilitation Protocol**

### **Overall Goals**

- Control pain and inflammation
- Regain normal strength, endurance and range of motion
- Achieve the level of function based on patient goals

This protocol is based upon goal-orientated progression. Each patient is different and should be treated according to their tolerance in therapy.

## Phase I: Protected Motion (Weeks 0 to 6)

#### Goals

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

# Day 1 to Week 2

#### **Brace**

- Sling for six weeks
- Sleep in sling for six weeks

#### **Modalities**

Cryotherapy, modalities as indicated

## Range of Motion

- Wrist/hand active range of motion/active assisted range of motion
- Hand-gripping exercises
- Passive range of motion/active assistive range of motion
  - Flexion and elevation in the plane of the scapula to 60 degrees (week two, flexion to 75 degrees)
  - External rotation/internal rotation with arm in scapular plane
  - External rotation to 10 to 15 degrees
  - Internal rotation to 45 degrees
- No active range of motion, external rotation, extension or abduction

## **Exercise**

- Submaximal isometrics for all rotator cuff, periscapular and shoulder musculature
- No isolated biceps contractions (i.e. no active elbow flexion) for six weeks

## Weeks 3 to 4

### **Modalities**

Continue use of cryotherapy, modalities as indicated

#### Range of Motion

- Continue gentle passive range of motion/active assistive range of motion exercises
  - (rate of progression based on patient's tolerance)
  - Flexion and elevation in the plane of the scapula to 90 degrees
  - Abduction to 75 to 85 degrees

- External rotation in scapular plane to 25 to 30 degrees
- Internal rotation in scapular plane to 55 to 60 degrees
- No active range of motion external rotation, extension or elevation

### **Exercise**

- Initiate rhythmic stabilization drills within above range of motion
- Initiate proprioceptive training within above range of motion
- Progress isometrics as above

## Weeks 5 to 6

### **Brace**

• Discontinue sling at six weeks

## Range of Motion

- Begin active range of motion of shoulder (all planes, gravity eliminated positions then gravity resisted position once adequate mechanics)
- Gradually improve passive range of motion and active range of motion
- Flexion and elevation in the plane of the scapula to 145 degrees
- Abduction to 90 degrees
- External rotation 45 to 50 degrees at 45 degrees abduction
- Internal rotation 55 to 60 degrees at 45 degrees abduction
- Extension to tolerance

#### Exercise

- May initiate gentle stretching exercises
- Gentle proprioceptive neuromuscular facilitation manual resistance
- Initiate prone exercise program for periscapular musculature
- Begin active range of motion elbow flexion and extension
- No biceps strengthening

## Phase II: Moderate Protection (Weeks 7 to 14)

#### Goals

- Gradually restore full active range of motion and passive range of motion at week 10
- Preserve the integrity of the surgical repair
- Restore muscular strengthening and balance

## Weeks 7 to 9

# Range of Motion

- Gradually progress passive range of motion/active range of motion
  - Flexion and elevation in the plane of the scapula to 180 degrees
  - Abduction to 90 degrees until week eight, then gradually increase to full
  - External rotation 90 to 95 degrees at 90 degrees abduction
  - Internal rotation 70 to 75 degrees at 90 degrees abduction
  - Extension to tolerance

#### Exercise

- Begin isotonic rotator cuff, periscapular and shoulder strengthening program
- Continue proprioceptive neuromuscular facilitation strengthening
- Type II Repairs: Begin sub maximal pain free biceps isometrics
- Type IV and complex repairs: Continue active range of motion elbow flexion and extension, no biceps isometric or isotonic strengthening

### Weeks 10 to 12

## Range of Motion

- Progress external rotation passive range of motion/active range of motion to thrower's motion
- External rotation 100 to 115 degrees at 90 degrees abduction in throwers at weeks 10 to 12
- Progress shoulder isotonic strengthening exercises as above
- Continue all stretching exercises as needed to maintain range of motion
- Progress range of motion to functional demands (i.e. overhead athlete)

#### **Exercise**

- Type II repairs: Begin gentle resisted biceps isotonic strengthening at week 12
- Type IV and complex repairs: Begin gentle sub maximal pain free biceps isometrics

## Phase III: Minimal Protection (Weeks 14 to 20)

## Criteria for Progression to Phase III

- Full non-painful range of motion
- Good stability
- Muscular strength at 4 to 5 or better
- No pain or tenderness

#### Goals

- Establish and maintain full range of motion
- Improve muscular strength, power and endurance
- Gradually initiate functional exercises

### Weeks 14 to 16

#### Exercise

- Continue all stretching exercises (capsular stretches)
- Maintain thrower's motion (especially external rotation)
- Continue rotator cuff, periscapular and shoulder strengthening exercises
- Type II repairs: Progress isotonic biceps strengthening as appropriate
- Type IV and complex repairs: Progress to isotonic biceps strengthening as appropriate
- Proprioceptive neuromuscular facilitation manual resistance
- Endurance training
- Initiate light plyometric program
- Restricted sports activities (light swimming, half golf swings)

## Weeks 16 to 20

### Exercise

- Continue all exercises listed above
- Continue all stretching
- Continue plyometric program
- Initiate interval sport program (e.g. throwing)

# Phase IV: Advanced Strengthening (Weeks 20 to 26)

# Criteria for Progression to Phase IV

- Full non-painful range of motion
- Satisfactory static stability
- Muscular strength at 75 to 80 percent of contralateral side
- No pain or tenderness

#### Goals

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

## Weeks 20 to 26

## Exercise

- Continue flexibility exercises
- Continue isotonic strengthening program
- Proprioceptive neuromuscular facilitation manual resistance patterns
- Plyometric strengthening
- Progress interval sports programs

# Phase V: Return to Activity (Months 6 to 9)

### Goals

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