

## **SHOULDER SUPERIOR LABRUM ANTERIOR TO POSTERIOR (SLAP) TYPE II REPAIR POST-OPERATIVE GUIDELINES**

The following post-operative shoulder SLAP stabilization guidelines were developed by HSS Rehabilitation and are categorized into five phases with the ultimate goal for returning the overhead athlete to full competition. They can be used for patients undergoing superior labral procedures with attention given to exact location and size of repair as well as any concomitant procedures. It is important that full range of motion is restored while respecting soft tissue healing. Classification and progression are both criteria-based and time based due to the healing constraints of the human body. The first phase is focused on soft tissue healing and maintenance of pain-free ROM. Phases two and three are focused on building foundational strength and stability which will allow the athlete to progress to phase four which includes plyometric exercises. With the completion of phase four the athlete will be able to start the final phase which includes interval sports programs. Cardiovascular endurance, hip and core strengthening should be addressed through the rehabilitation process. The clinician should use their skilled judgement and decision making as the athlete advances as all progression may not be linear.

**FOLLOW SURGEON MODIFICATIONS AS PRESCRIBED**

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### Phase 1: Recovery (Week 1)

#### PRECAUTIONS

- Sling for 3 weeks (as per surgeon guidelines)
- No biceps strengthening for 6 weeks
- If combined with biceps tenodesis, no biceps strengthening for 8 weeks
- No forced stretching
- Avoid painful activities

#### ASSESSMENT

- Quick Disabilities of Arm, Shoulder & Hand (Quick DASH)
- American Shoulder and Elbow Surgeons Shoulder Score (ASES)
- Numeric Pain Rating Scale (NPRS)
- Shoulder passive range of motion (PROM)
- Distal upper extremity mobility
- Cervical mobility
- Palpation
- Static scapular assessment (Kibler Grading)
- Posture assessment

#### TREATMENT RECOMMENDATIONS

- Patient education
- Gripping and hand active range of motion (AROM)
- Postural awareness
- Scapular retraction
- Elbow AROM
- Wrist AROM: flexion/extension/pronation/supination
- Range of motion (ROM)
  - Week 1: PROM: external rotation (ER) to neutral, elevation in scapular plane to 60°

#### CRITERIA FOR ADVANCEMENT

- Decreasing discomfort at rest

## **EMPHASIZE**

- Protection of repair
- Reduction of tissue irritability
- Prevention of muscle atrophy

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### Phase 2: Intermediate (Weeks 2-5)

#### PRECAUTIONS

- Sling for 3 weeks (as per surgeon guidelines)
- Monitor for shoulder stiffness
- No forced PROM
- No painful activities

#### ASSESSMENT

- Quick DASH
- ASES
- NPRS
- Cervical mobility
- Thoracic mobility
- Shoulder PROM
- Palpation
- Static/dynamic scapular assessment (Kibler grading)

#### TREATMENT RECOMMENDATIONS

Range of motion (ROM) Goals – Do not force ROM but do assess for stiffness

- Week 2-3
  - Elevation in scapular plane: 90°
  - ER in scapular plane: 5°-10°
  - Internal rotation (IR) in scapular plane: 30°-45°
- Week 4
  - Elevation in scapular plane: 90°-100°
  - ER in scapular plane: 25°-30°
  - IR in scapular plane: 50°-60°
- Week 5-6
  - Elevation in scapular plane: 120°-145°
  - ER in scapular plane: 40°-60°
  - IR in scapular plane: 50°-60°
- Abduction
  - 0°-90° first 6 weeks (gentle motion)

## Exercises

- Week 2
  - Scapular Isometrics
  - Elbow AROM
  - Shoulder active assisted ROM
- Week 3
  - Rotator cuff (RC) isometrics
    - Rhythmic stabilization ER/IR with physical therapist
- Week 4
  - Continue RC isometrics
  - Elastic band row, elastic band extension
- Weeks 5-6
  - RC isotonic if arthroscopic; if open start week 6
  - Scapular strengthening
    - Prone row, prone extension, supine serratus punch

## CRITERIA FOR ADVANCEMENT

- No pain at rest
- PROM: 120° shoulder elevation; 45° ER in scapular plane
- Tolerance of scapular and RC exercises without discomfort

## EMPHASIZE

- Reduction of tissue irritability
- Activation of RC and scapular stabilizers

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### Phase 3: Advanced (Weeks 6-15)

#### PRECAUTIONS

- No forced PROM
- Avoid undue stress to anterior shoulder joint
- No painful activities

#### ASSESSMENT

- Quick DASH
- ASES
- NPRS
- Cervical mobility
- Thoracic mobility
- Shoulder PROM/AROM
- Palpation
- Static/dynamic scapular assessment (Kibler grading)
- Grip strength

#### TREATMENT RECOMMENDATIONS

##### ROM Goals

- Week 6-7
  - Initiate light and pain-free ER at 90° shoulder abduction
    - Progress to 30°
- Week 7-9
  - Shoulder flexion 160°-180°
  - ER at 90° shoulder abduction: 75°-90°
  - IR at 90° shoulder abduction: 70°-75°
- Week 9-12
  - Shoulder flexion 180°
  - ER at 90° shoulder abduction: 100°-115°

##### Flexibility

- Shoulder: posterior capsule stretch at physical therapist's discretion

## Exercises

- Progress above
- Throwers Ten
- Advanced Throwers Ten
- Scapular stabilization
  - Closed chain quadruped double arm protraction
  - Prone “T, I” and progress to “Y” and “W” as ROM allows
- End range stabilization using exercise blade/perturbations
- Shoulder endurance exercise
- UE ergometry (if ROM allows)
- Core strength/kinetic linking
- Weeks 10-16
  - ER/IR strengthening at 90 degrees of shoulder abduction

## CRITERIA FOR ADVANCEMENT

- Full shoulder AROM
- Shoulder MMT: 4/5 below shoulder height

## EMPHASIZE

- Full shoulder PROM and AROM
- Restoration of scapular and RC muscle balance and endurance

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### **Phase 4: Plyometric Progression (Weeks 16-19)**

#### **PRECAUTIONS**

- No painful activities
- Full ROM

#### **ASSESSMENT**

- Quick DASH
- ASES
- NPRS
- Cervical mobility
- Thoracic mobility
- Shoulder PROM/AROM
- Elbow PROM/AROM
- Palpation
- Static/dynamic scapular assessment (Kibler grading)
- Shoulder manual muscle testing (MMT)
- Grip strength

#### **TREATMENT RECOMMENDATIONS**

- Continue shoulder RC and scapular stabilization exercises
- Continue and progress all Advanced Thrower's Ten exercises
- Initiate plyometrics as tolerated
  - Plyometric progression (over a 4 week period)
    - Double hand chest pass
    - Double hand overhead soccer pass
    - Double hand chops
    - Single hand IR at 0° shoulder abduction
    - Eccentric catch
    - Single hand 90/90 IR
  - Endurance progression
    - Double hand overhead wall taps
    - Single arm 90/90 wall taps
    - Single arm 12 o'clock to 3 o'clock wall taps
    - Exercise blade at multiple angles

## **CRITERIA FOR ADVANCEMENT**

- Full shoulder AROM
- Symptom free progression through plyometrics and endurance program

## **EMPHASIZE**

- Shoulder flexibility, strength and endurance
- Pain free plyometrics
- Kinetic linking

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### Phase 5: Return to Performance Progression (Weeks 16+)

#### PRECAUTIONS

- All progressions should be pain-free
- Monitor for loss of strength and flexibility

#### ASSESSMENT

- Quick DASH
- ASES
- NPRS
- Shoulder PROM/AROM
- Palpation
- Static/dynamic scapular assessment (Kibler grading)
- Cervical mobility
- Thoracic mobility
- Shoulder MMT
- Grip Strength

#### TREATMENT RECOMMENDATIONS

- Initiate interval sports programs at 5 months
- Continue with all upper and lower extremity flexibility exercises
- Continue with advanced shoulder and scapular strengthening exercises
- Gradually progress sports activities
- Monitor workload

#### CRITERIA FOR RETURN TO SPORTS PARTICIPATION

- Symptom free progression through interval sports program
- Independent with all maintenance exercises
- Assess need for HSS Throwing Analysis

#### EMPHASIZE

- Return to sports participation

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