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SLAP Debridement (Type I and III) Rehabilitation Protocol

Revised 2023

***** Please refer to written prescription for any special instructions for each case *****

This protocol guides a progressive return to full activity beginning at 3 months if all the criteria are achieved. If the criteria are met sooner, the patient must restrict their activity level until the appropriate timeframe based on this protocol. If the patient has a concomitant surgical procedure, treatment will likely vary. Please consult with surgeon.

Weeks 0 to 2: (Initial PT evaluation is usually scheduled within 2 weeks from surgery date)

Precautions:

- Wear sling at all times (including sleeping), except for bathing and while performing physical therapy exercises
- No biceps activation

Goals:

- Promote capsule-ligamentous-labral healing
- Minimize effects of immobilization
- Decrease pain and inflammation
- Facilitate distal UE circulation and prevent distal swelling
- Re-establish non-painful range of motion
- No weight bearing/closed chain exercises through involved UE

Interventions

- Supported pendulums (no weight)
- Shoulder PROM and AAROM using pulley or rod
 - Flexion/Extension
 - Abduction/Adduction
 - ER/IR (begin at 0°, progress to 45° and 90° in plane of scapula)
- Shoulder isometrics in 0° elevation (all directions)
- Scapula retraction to neutral (avoid UE movements posterior to frontal plane)
- Grade 1-2 anterior and posterior mobilizations for pain modulation
- PROM elbow flexion and extension with help from uninvolved UE (no biceps activation)
- Wrist/hand: ball squeezes/gripping exercises, AROM
- Ice for 15 minutes, 5 times per day
- Home exercise program

Weeks 2 to 4:

Precautions:

- Gradually progress shoulder PROM/AROM as tolerated
 - If patient is hypermobile, avoid aggressive stretching
- Light biceps strengthening is permitted
- No weight bearing/closed chain exercises through involved UE

Goals:

- **Discontinue sling no sooner than 4 weeks post-op**
- Decrease pain and inflammation
- Normalize shoulder arthrokinematics and neuromuscular control
- Increase muscle strength

Interventions:

- Continue range of motion and stretching exercises in all directions as tolerated
- Grade 3-4 glenohumeral mobilizations as needed (only if capsular restriction is limiting motion)
- Shoulder strengthening (IR/ER/Extension/Abduction/Scaption/Forward Elevation) with bands/weights (begin with non-provocative positions) **at week 3**
- Scapula stabilizing exercises, avoid UE movements posterior to frontal plane
- Lower extremity stretching and strengthening
- Core stabilization

CRITERIA TO ADVANCE

- **Full functional pain free ROM**
- **Minimal pain or tenderness**

Weeks 4 to 7:**Goals:**

- Improve muscular strength, endurance and power
- Improve neuromuscular control
- Initiate ER and IR strengthening at 90° in plane of scapula
- Initiate isokinetic shoulder strengthening (if available) starting in less provocative positions
- Initiate closed chain/full weight-bearing exercises
 - May initiate free weights/gym machines, but start with light weight and higher repetitions initially
 - Avoid motion extremes (arms moving posterior to frontal plane of body)
 - Avoid overhead lifting (e.g. military press, overhead triceps extensions, etc.)
- No power lifting (e.g. bench press, back squats, etc.)
- Begin jogging

Interventions:

- Continue strength/ROM exercises as above
- Rotator cuff strengthening: supraspinatus (full can), IR/ER (0° and 90° in plane of scapula)
- Progress scapular stabilization exercises
- Resisted diagonal patterns (PNF)
- Thrower's Ten
- Non-provocative neuromuscular and proprioceptive activities (e.g. body blade, rhythmic stabilization)
- Lower extremity strengthening and stretching
- Core stabilization

CRITERIA TO ADVANCE

- Full pain-free shoulder AROM with normal arthrokinematics
- Objective UE shoulder strength $\geq 75\%$ limb symmetry using hand-held dynamometer or isokinetic testing
- Push-up test: 5 push-ups with good symmetry and pain free
- Upper Quarter Y balance Test (medial reach only): $\geq 90\%$ of limb length (measure C7 to middle fingertip)

Weeks 7+:

Goals:

- Initiate UE plyometrics if above criteria are met
- Enhance muscle performance and functional motion specific to sport demands
- Maximize neuromuscular control
- Maintain full shoulder ROM
- May gradually advance intensity using gym machines and free weights
 - Avoid motion extremes (arms moving posterior to frontal plane of body)
- Initiate sport specific training
- Prepare patient for gradual return to sport once criteria below are achieved

Interventions:

- Begin UE plyometric: double arm initially (chest pass, side throws, and overhead throws, plyo wall/counter push-ups, etc.), progress to single arm (wall ball dribbles, weighted ball drills, pre-throwing drills, etc.)
- Address ongoing UE strength deficits (based on objective measurements)
- Continue neuromuscular control training
- Power lifting if appropriate based on age of patient, skeletal maturity, and sport demands (increasing weights with less repetitions)
- Continue to address core/lower extremity strengthening and flexibility deficits
- Initiate long toss throwing program with progression to position specific throwing program if criteria below are achieved

CRITERIA FOR RETURN TO FULL SPORT ACTIVITIES – No sooner than 3 months post-op

- **Pain free**
- **Full shoulder AROM based on sport specific demands**
- **Normal and symmetrical scapulohumeral rhythm with adequate scapular control**
- **Objective shoulder strength testing > 90% limb symmetry (measured using hand-held dynamometry)**
- **Functional testing:**
 - **Upper Quarter Y-Balance Test (best of 3 trials)**
 - **Medial reach distance \geq 95% of limb length**
 - **\leq 4 cm difference between limbs in all directions**
 - **\geq 90% limb symmetry**
 - **Composite score 70-80%**
 - **Single-Arm Seated Shot Put Test (average of 3 trials)**
 - **\geq 90% limb symmetry if non-dominant arm is involved**
 - **\geq 105% limb symmetry if dominant arm is involved**
 - **Closed Kinetic Chain Upper Extremity Stability Test (average of 3 trials, 15 sec each)**
 - **\geq 17 touches with good neuromuscular control**
 - **Testing parameters:**
 - **Push-up position**
 - **Tape width:**
 - **\leq 11 years old: 24 inches**
 - **\geq 12 years old: 36 inches**
- **Additional Criteria for Throwers**
 - **Shoulder ROM**
 - **Total arc of motion/rotation at 90° within 5° of non-throwing shoulder**
 - **\leq 20° loss of internal rotation ROM at 90° compared to non-throwing shoulder**
 - **\leq 5° loss of flexion ROM compared to non-throwing shoulder**
 - **\leq 15° loss of horizontal adduction ROM compared to non-throwing shoulder**
 - **Strength**
 - **ER/IR strength ratio between 66% to 76%**

This protocol is designed to be administered by a licensed physical therapist and/or certified athletic trainer. Please do not hesitate to contact our office should you have any questions concerning the rehabilitation process. Protocol adapted from Wilk et al, JOSPT, 2005.

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