



# ORTHOPEDICS & SPORTS MEDICINE

BAYCARE CLINIC®

**Dr. Awowale**

## **SLAP Repair, Bankart Repair, or Biceps Tenodesis**

### **Phase 1- Maximum Protection Phase (0-6 weeks)**

#### **Goals for phase 1**

- Minimize pain and inflammation
- Protect integrity of the repair
- Initiate shoulder PROM
- Prevent muscular inhibition

#### **Precautions**

- Sling x6 weeks
- NO resisted active isolated biceps activity (elbow flexion, supination) for 6 weeks; no biceps loading until week 10
- NO active external rotation, extension, or elevation

#### **Criteria for progression to Phase 2**

- Minimal pain with phase 1 exercises
- Passive flexion to  $\geq 125^\circ$
- Passive abduction to  $70^\circ$
- Passive ER and IR to  $40^\circ$  in scapular plane

#### **Immobilization**

- Immobilization in sling for 6 weeks or per physician
  - Sleep in sling for 3 weeks

#### **PROM**

- Initiate PROM in all planes of motion within limitations
  - Weeks 0-2: flexion and scaption to  $90^\circ$ ; IR to  $45^\circ$ ; ER to  $30^\circ$ ; Codman's
  - Weeks 3-4: advance IR to  $60^\circ$
  - Weeks 5-6: flexion and scaption to  $145^\circ$ ; IR to  $60^\circ$ ; ER to  $50^\circ$
- Full ROM should be achieved by 8-10 weeks

#### **AAROM**

- Gentle AAROM
  - Limit A/AAROM of shoulder to  $90^\circ$  during phase 1

#### **AROM**

- Weeks 0-2: Scapulothoracic AROM in all planes
- Weeks 5-6: active forearm supination (no resistance, elbow flexed)

#### **Manual Therapy**

- Initiate pain dominant glenohumeral joint mobilization (grade 1-2)
- Initiate scar mobilization, soft tissue immobilization, edema massage
- Initiate other shoulder, scapular, and cervicothoracic manual therapy techniques as needed

#### **Strengthening**

- Weeks 3-4: initiate scapulothoracic isometrics; gentle submax isometrics of shoulder musculature

#### **Neuromuscular Control**

- Weeks 3-4: initiate sub-maximal rhythmic stabilization drills

#### **Modalities**

- Cryotherapy as needed



## Phase 2 – Moderate Protection Phase (Weeks 7-12)

### Goals for phase 2

- Minimize pain and inflammation
- Restore full shoulder PROM
- Restore full shoulder AROM
- Initiate strengthening

### Precautions

- No biceps loading until 10 weeks

### Criteria for progression to Phase 3

- Minimal pain with phase 2 exercises
- Flexion to 160°
- Abduction to 150
- IR to 45° at 90° abduction; full motion in scapular plane
- ER to 45° at 90° abduction; 65° in scapular plan
- 4/5 MMT for scapular and rotator cuff muscles

### Stretching

- Initiate stretching exercises if ROM not full by 10 weeks
  - Flexion and scaption to 180°
  - ER to 90° at 90° abduction
  - IR to 70° at 90° abduction

### AAROM

- Continue shoulder AAROM
  - Wand, table slides, wall slides, UE Ranger, pulleys

### AROM

- Continue to progress shoulder AROM in all planes
- Gradually progress from gravity reduced to full gravity positions
- Gradually progress from below shoulder to above shoulder height
- Consider single-planar and multi-planar movement patterns
- Do NOT exercise through shoulder shrug sign

### Manual Therapy

- Continue pain dominant glenohumeral joint mobilization (grade 1-2) as needed
- Initiate stiffness dominant glenohumeral joint mobilization (grade 3-4) as needed
  - Utilize stiffness dominant glenohumeral joint mobilization to facilitate specific A/PROM deficits
- Continue other shoulder, scapular, cervicothoracic manual therapy techniques as needed

### Strengthening

- Initiate light isotonic scapular strengthening
  - Supine press, serratus press outs, prone row, horizontal abduction, extension
- Initiate isotonic rotator cuff IR/ER strengthening with light weight resistance (bands, weights)
- Open kinetic chain to closed kinetic chain exercises
- Week 10-12:
  - Initiate submaximal isometrics and AROM for biceps
  - Progress isotonic resistive exercises
  - Begin submaximal exercises above 90° of elevation
- Do not exercise through shoulder shrug sign



# ORTHOPEDICS & SPORTS MEDICINE

BAYCARE CLINIC®

## **Neuromuscular Control**

- Rhythmic stabilization drills
  - Gradually progress shoulder flex from 100° to 90° to 60° to 30°
  - Gradually progress shoulder IR and ER from 30° to 60° to 90° of abduction
  - Slow speeds to fast speeds
  - Eyes opened to eyes closed

## **Modalities**

- Utilize cryotherapy, thermotherapy, and electrical modalities as needed



## Phase 3- Minimum Protection Phase (Weeks 13-20)

### Goals for phase 3

- Minimize pain and inflammation
- Restore full, pain-free A/PROM
- Improve shoulder, scapular, and total arm strength
- Improve neurodynamic stabilization of the shoulder
- No shoulder shrug sign with strengthening exercises

### Precautions

- No throwing or overhead sports until 20 weeks

### Criteria for progression to Phase 4

- AROM within 10° of contralateral upper extremity in all planes of motion
- Full, symmetrical posterior shoulder mobility
- Shoulder, scapular, and total arm strength 5/5

### Stretching

- Continue stretching exercises as needed

### Manual Therapy

- Continue stiffness dominant glenohumeral joint mobilization (grade 3-4) as needed
- Continue other shoulder, scapular, and cervicothoracic manual therapy techniques as needed

### Strengthening

- Progress isotonic rotator cuff strengthening
  - Progress from gravity reduced to full gravity positions
  - Consider single-planar to multi-planar movement patterns
- Progress isotonic scapular strengthening exercises
  - Progress from isolated to functional movement patterns
- Progress isotonic elbow flexion and forearm supination
- Progress closed-chain strengthening exercises
  - Progress from sub-body weight to full body weight positions
  - Progress from stable to unstable surfaces
- Initiate gradual progression of sub-body weight suspension training exercises
  - TRX, GTS, etc

### Neuromuscular Control

- Progress rhythmic stabilization exercises to more functional positions and dynamic movement patterns
  - Gradually progress from mid-range to end range positions
  - Gradually progress from open-chain to closed-chain positions
- Initiate gradual progression of other neuromuscular control exercises
  - Body blade, wall dribbles, ball flips, plyometrics, etc.

### Core Strengthening

- Incorporate core integrated exercises with strengthening and neuromuscular control progression

### Modalities

- Utilize cryotherapy, thermotherapy, and electrical modalities as needed



## Phase 4 – Advanced Strengthening, Return to Function (Weeks 21-26)

### Goals for phase 4

- Minimize pain and inflammation
- Maintain full shoulder A/PROM
- Restore shoulder, scapular, and total arm strength, power, and endurance
- Restore neurodynamic stabilization of the shoulder
- Safe and effective return to previous level of function for occupational, sport and desired activities

### Criteria for return to work, function, sport

- Minimal pain with phase 4 exercises
- Full, pain-free shoulder A/PROM and strength
- Complete return to function testing

### Stretching

- Continue stretching exercises as needed
- 

### Manual Therapy

- Continue stiffness dominant glenohumeral joint mobilization (grade 3-4) as needed
- Continue other shoulder, scapular, and cervicothoracic manual therapy techniques as needed

### Strengthening

- Continue phase 3 strengthening exercises
- Consider specific demands of occupational, sports, and desired activities

### Neuromuscular Control

- Continue phase 3 neuromuscular control exercises
- Consider specific demands of occupational, sports, and desired activities

### Core Strengthening

- Continue to incorporate core integrated exercises with strengthening and neuromuscular control progression

### Sport-Specific Training Program

- Progress interval sport programs
  - Weeks 24-28, begin throwing from mound

### Work Specialty Rehabilitation Program

- Transition to work conditioning if physical laborer
- Transition to work re-conditioning of specific occupational demands
  - Lifting requirements, overhead tasks, repetitive tasks, tool or machine work, etc.

### Modalities

- Utilize cryotherapy, thermotherapy, and electrical modalities as needed

**Return to Function Testing:** Aurora BayCare return to function for the upper extremity protocol to be used

- **Week 24: Return to function testing** per MD approval (appt must be scheduled with Aurora BayCare Sports Medicine department – East Side location to complete testing)
- **Criteria:** pain-free, 90% total arc of motion of contralateral arm, DASH  $\leq 10\%$  disability, isokinetic strength and functional testing at 90% compared to uninvolved, adequate scapular control with sport specific tasks