

## Shoulder Arthroscopy and Stabilization of Multi-Directional Instability (MDI) Rehabilitation Protocol

### General Notes

*As tolerated should be understood to include with safety for the surgical procedure; a sudden increase in pain, swelling, or other undesirable factors are indicators that you are doing too much too soon. If any of these occur, decrease activity level and ice.*

*During rehabilitation if there are any neurovascular findings please call the office.*

*Ice should be applied to the shoulder for 15-20 minutes following each exercise, therapy, or training session. Return to sport is based on provider team (physician, physician assistant, athletic trainer, and therapist) input and appropriate testing.*

*All times and exercises are to serve as guidelines. Progression through the protocol should be based upon criteria as opposed to dates listed and will vary depending on each individual patient. Progress should be agreed upon by the patient and his/her team of providers*

### **Post-Operative Phase I: Healing Phase - (Day 1 - Week 4)**

#### **Goals:**

- Minimize shoulder pain and inflammatory response
- Protect the integrity of the surgical repair: NO shoulder active range of motion (AROM)
- Gradually restore pain free passive range of motion (PROM)
- Enhance/ensure adequate scapular function

#### **Sling:**

- To be worn at all times except when bathing or performing therapy

#### **PROM:**

- Glenohumeral (GH) flexion to 90 degrees
- Abduction in the plane of the scapula to 90 degrees
- Internal rotation (IR) to 45 degrees at 30 degrees of abduction
- External rotation (ER) to 15 degrees at 30-40 degrees of abduction; respect anterior capsule tissue integrity with ER ROM.

#### **Therapeutic Exercises:**

- Pendulum exercises
- Scapular stabilization exercises
- Ball squeezes
- AAROM/AROM of wrist, fingers and supination/pronation with arm in sling (at 90 degrees of elbow flexion)
- Active elbow flexion/extension
- At week 3: initiate submaximal GH isometrics: flexion, extension, abduction, IR, ER

## Shoulder Arthroscopy and Stabilization of Multi-Directional Instability (MDI) Rehabilitation Protocol

### Modalities/Education

- Frequent cryotherapy for pain and inflammation
- Pre-modulated electrical stimulation to shoulder for pain reduction
- Patient education regarding posture, joint protection, positioning, hygiene, etc.

### Manual

- Scar and soft tissue mobilization as needed
- Joint mobilizations as needed

### Post-Operative Phase II: Motion Phase - (Week 4 - Week 6)

#### Goals:

- Minimize shoulder pain and inflammatory response
- Protect the integrity of the surgical repair
- Progress PROM
- Begin light waist level activities

#### Sling:

- Discontinue use of pillow as directed by physician after week 4.
- Begin to wean from sling between weeks 5-6 as directed by MD
- Discontinue sling as directed by physician after week 6

#### ROM:

- Progress shoulder ROM (do not force any painful motion)
  - Forward flexion to 140 degrees
  - Abduction in the plane of the scapula to 120 degrees
  - IR to 60 degrees at multiple angles of abduction
  - ER to 30 degrees at 0-40 degrees of abduction then progress to multiple angles of abduction

#### Therapeutic Exercises:

- Gentle posterior capsular stretching as needed
- Progress to AAROM/AROM exercises of the shoulder with the proper Gh rhythm
  - Full active elevation in the scapular plane should be achieved before beginning active elevation in other planes
- Continue AROM of elbow, wrist and hand
- Progress scapular stabilization exercises

#### Modalities

- Continue cryotherapy for pain and inflammation
- Pre-modulated electrical stimulation to shoulder for pain reduction

#### Manual:

- Scar and soft tissue mobilization as needed
- Joint mobilizations as needed

## Shoulder Arthroscopy and Stabilization of Multi-Directional Instability (MDI) Rehabilitation Protocol

### Post-Operative Phase III: Strengthening Phase - (Week 6 – Week 10)

#### Goals:

- Achieve normal GH and scapular rhythm
- Progress A/PROM
- Remain pain free for all exercises

#### ROM:

- Progress shoulder ROM (do not force any painful motion)
  - Forward flexion to 180 degrees
  - Abduction in the plane of the scapula to 160 degrees
  - IR to WNL degrees at multiple angles of abduction
  - ER to 60 degrees at 0-40 degrees of abduction then progress to multiple angles of abduction

#### Therapeutic Exercise:

- Progress as tolerated, concentric and eccentric exercises
  - Achieve PROM/AROM in a given plane before strengthening in that plane
- Initiate:
  - Closed chain activities
  - UBE: no resistance
  - ER/IR strengthening
    - Side lying ER with towel roll
    - Manual resistance to ER in supine in scapular plane
    - ER/IR with exercise tubing at 0 degrees of abduction (towel roll)
  - Prone rowing at 30/45/90 degrees of abduction to neutral arm position
  - Begin rhythmic stabilization drills at week 8
    - ER/IR in the scapular plane
    - Flexion/extension and adduction/abduction at various angles of elevation
- Progress AROM to isotonic: flexion, scaption, abduction

#### Manual:

- Scar and soft tissue mobilizations as needed
- Joint mobilizations as needed

#### Cardio:

- Stationary bike, Elliptical with light upper body, stair climber

#### Modalities:

- Continue cryotherapy for pain and inflammation
- Pre-modulated electrical stimulation to shoulder for pain reduction
- Continued patient education: posture, joint protection, positioning, hygiene, etc.

## Shoulder Arthroscopy and Stabilization of Multi-Directional Instability (MDI) Rehabilitation Protocol

### Post-Operative Phase IV: Activity Phase – (Week 10- Week 16)

#### Goals:

- Progress strength, endurance, neuromuscular control
- Begin shoulder height functional activities
- Gradual and planned buildup of stress to anterior joint capsule

#### ROM:

- Progress shoulder ROM to WNL (do not force any painful motion)

#### Precautions

- Do not overstress the anterior capsule with aggressive overhead activities/strengthening
- Avoid contact sports/activities
- Patient education regarding a gradual increase to shoulder activities

#### Therapeutic Exercise

- Continue A/PROM as needed
- Progress strengthening to focus on both upper and lower segments
  - PNF patterns
  - IR resistive band at 45, 90 degrees of abduction
- Increase resistance for UBE
- Progress isotonic strengthening if patient demonstrates no compensatory strategies, is not painful and has no residual soreness

#### Manual:

- As needed

### Post-Operative Phase V: Return to sport Phase (Week 16+)

#### Goals:

- Maintain full non-painful P/AROM
- Progress to full strenuous work, throwing, and overhead activities

#### Precautions:

- Avoid excessive anterior capsule stress
  - DO NOT PERFORM: tricep dips, wide grip bench press, military press or lat pulls behind the head.
  - Be sure to “always see your elbows”
- Do not begin plyometrics, throwing, or overhead athletic moves until 4 months post-op and cleared by MD.

#### Therapeutic Exercise:

- Continue to advance scapula and upper extremity strengthening as tolerated in all planes o Include: diagonal/functional patterns, 90/90 strengthening, and CKC exercises

## Shoulder Arthroscopy and Stabilization of Multi-Directional Instability (MDI) Rehabilitation Protocol

### Cardio:

- Stationary bike, Jogging/Running/Sprinting on treadmill, Elliptical, Rowing, Kick board in swimming pool, Stair climber

### Milestones for return to sport activities and clearance:

- Completion and passing of shoulder functional test at MD PT clinic
- No complaints of pain or instability
- Adequate ROM for task completion bilaterally
- Full strength and endurance of rotator cuff and scapular musculature for task completion bilaterally
- Regular completion of home exercise program