Megan R. Wolf, MD
Sports Medicine/Foot & Ankle

www.meganwolfmd.com

Adapted from: Kathy Coyner, MD
www.DrCoyner.com

NONSURGICAL REHABILITATION FOR MULTIDIRECTIONAL SHOULDER INSTABILITY

The program will vary in length for each individual depending on several factors:

- Severity of injury
- Acute versus chronic condition
- ROM/strength status
- Performance/activity demands

Return to sport criteria:

- Absence of pain
- Full range of motion
- Little to no apprehension
- Imaging with magnetic resonance imaging (MRI) may be considered in the patient evaluation, depending upon individual presentation

Phase 1: Acute Motion Phase

Goals

- Reestablish nonpainful ROM
- Retard muscular atrophy
- Decrease pain/inflammation

Decrease Pain and Inflammation

- Therapeutic modalities (e.g., ice, electrotherapy)
- Gentle joint mobilization

Range of Motion Exercises

- Pendulums
- Circumduction
- Rope and Pulley
  - Flexion
  - Abduction to 90 degrees, progress to full ROM
- L-Bar
  - Flexion
  - Abduction
  - Internal rotation with arm in scapular plane

    - External rotation with arm in scapular plane (progress arm to 90 degrees of abduction as tolerated)
- Posterior capsular stretching
- Upper extremity ergometer

Shoulder hyperextension is contraindicated.

Strengthening Exercises
- Isometrics
    - Flexion
    - Abduction
    - Extension
    - Internal rotation (multi-angles)
    - External rotation (scapular plane)
- Weight shifts (closed-chain exercises)

Criteria for Progression to Phase 2
- Full ROM
- Minimal pain of tenderness
- "Good" MMT of internal rotation, external rotation, flexion, and abduction.

Phase 2: Intermediate Phase

Goals
- Regain and improve muscular strength
- Normalize arthrokinematics
- Improve neuromuscular control of shoulder complex

Initiate Isotonic Strengthening
- Flexion
- Abduction to 90 degrees
- Side-lying external rotation to 45 degrees
- Shoulder shrugs
- Extension
- Horizontal Adduction
- Supraspinatus
- Biceps
- Push-ups

Initiate Eccentric (Surgical Tubing Exercises at 0° Abduction)
- Internal rotation
- External rotation

Normalize Arthrokinematics of the Shoulder Complex
- Continue joint mobilization
- Patient education of mechanics and activity modifications of activity/sport

Improve Neuromuscular Control of Shoulder Complex

- Initiation of PNF
- Rhythmic stabilization drills

Continue Use of Modalities (As Needed)

- Ice, electrotherapy modalities

Criteria for Progression to Phase 3

- Full nonpainful ROM
- No palpable tenderness
- Continued progression of resistive exercises

Phase 3: Advanced Strengthening Phase

Goals

- Improve strength, power and endurance
- Improve neuromuscular control
- Prepare patient/athlete for activity

Capsular Stretches

- Address joint imbalances as necessary

Continue Use of Modalities (As Needed)

Continue Isotonic Strengthening (Progressive Resistance Exercises)

Continue Eccentric Strengthening

Emphasize PNF

Initial Isokinetics

- Flexion-extension
- Abduction-adduction
- Internal-external rotation
- Horizontal abduction/adduction

Initiate Plyometric Training

- Surgical tubing
- Wall push-ups
- Medicine ball
- Boxes

Initiate Military Press

Precaution - avoid excessive stress on anterior capsule

Criteria for Progression to Phase 4

- Full ROM
- No pain or palpable tenderness
- Satisfactory isokinetic test
- Satisfactory clinical examination

Phase 4: Return to Activity Phase

Goals

- Maintain optimal level of strength, power and endurance
- Progressively increase activity level to prepare patient for full functional return to activity/sport

Continue All Exercises as in Phase 3

Continue Capsular Stretches

Initiate Interval Program

Continue Modalities (As Needed)

Follow-up

- Isokinetic test
- Progress interval program
- Maintenance of exercise program

This protocol provides you with general guidelines for the nonsurgical or in-season rehabilitation of the patient with multidirectional glenohumeral instability

The frequency of visits may be determined mutually by the patient, therapist, and athletic trainer depending upon patient comfort level, progress, and understanding of the home program.

Specific changes in the program will be made by the physician as appropriate for the individual patient. Patients with persistent instability may be candidates for further evaluation and/or surgical intervention.

Questions regarding the progress of any specific patient are encouraged, and should be directed to Dr. Coyner at **214-645-3300**.

REFERENCE:

Clinical Orthopaedic Rehabilitation, 2nd edition. SB Brotzman, KE Wilk. Mosby 2003.