

## **NONSURGICAL POSTERIOR GLENOHUMERAL INSTABILITY REHABILITATION PROTOCOL**

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
- Note: Functional bracing (i.e. “reversed-strap” Sully or Duke-Wyre) may be considered on an individual basis, depending upon sport and/or position
- Imaging with magnetic resonance imaging (MRI) may be considered in the patient evaluation, depending upon individual presentation

### **Phase 1: Acute Phase**

#### **Goals**

- Decrease pain and inflammation.
- Reestablish nonpainful ROM.
- Retard muscle atrophy.

#### **Decrease Pain and Inflammation**

- Therapeutic modalities (e.g., ice, heat, electrotherapy).
- NSAID's
- Gentle joint mobilization.

#### **Range of Motion Exercises**

- Pendulum.
- Rope and pulley
- L-bar
  - Flexion
  - Abduction
  - Horizontal abduction
  - External rotation
- Weight shifts (closed-chain exercises).

**Note: Avoid any motion that may place stress on the posterior capsule such as excessive internal rotation, abduction, or horizontal adduction.**

### **Criteria for Progression to Phase 2**

- Full ROM.
- Minimal pain and tenderness.
- “Good” MMT.

### **Phase 2: Immediate Phase**

#### **Goals**

- Regain and improve muscular strength.
- Normal arthrokinematics.
- Improve neuromuscular control of shoulder complex.

#### **Initiate Isotonic Strengthening**

- Flexion
- Abduction to 90 degrees.
- External rotation.
- Internal rotation (from full external rotation to 0 degrees).
- Supraspinatus.
- Extension.
- Horizontal abduction.
- Push-ups.

#### **Initiate Eccentric (Surgical Tubing) Strengthening**

- External rotation (from 0 degrees to full external rotation).
- Internal rotation (from full external rotation to 0 degrees).

#### **Normalize Arthrokinematics of Shoulder Complex**

- Continue joint mobilization.
- Patient education of mechanics of activity/sport.

#### **Improve Neuromuscular Control of Shoulder Complex**

- Initiate 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 athlete for activity.

## **Continue Use of Modalities (As Needed)**

## **Continue Anterior Capsule Stretch**

## **Continue Isotonic Strengthening**

## **Continue Eccentric Strengthening**

## **Emphasize PNF (D2 Extension)**

## **Initiate Isokinetics**

- Flexion-extension.
- Abduction-adduction.
- Internal and external rotation.
- Horizontal abduction-adduction.

## **Initiate Plyometric Training**

- Surgical Tubing
- Medicine ball
- Wall push-ups

## **Initiate Military Press**

## **Criteria for Progression to Phase 4**

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

## **Phase 4: Return to Activity Phase**

## **Goals**

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

## **Continue All Exercises as in Phase 3**

## **Initiate and Progress Interval Program**

This protocol provides you with general guidelines for the nonsurgical or in-season rehabilitation of the patient with posterior 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. Lervick at **952-456-7111**.

**REFERENCE:**

Clinical Orthopaedic Rehabilitation, 2<sup>nd</sup> edition. SB Brotzman, KE Wilk. Mosby 2003.