Multi-Directional Instability

This multi-phased program is designed to allow the patient/athlete to return to their previous functional level as quickly and safely as possible. Each phase will vary in length for each individual depending upon the severity of injury, ROM/strength deficits, and the required activity demands of the patient.

PHASE I – ACUTE PHASE

Goals:
Decrease pain/inflammation
Re-establish functional range of motion
Establish voluntary muscular activation
Re-establish muscular balance
Improve proprioception

Decrease Pain/Inflammation
Therapeutic modalities (ice, electrotherapy, etc.)
NSAIDS
Gentle joint mobilizations (Grade 1 and II) for neuromodulation of pain

Range of Motion Exercises
Gentle ROM exercises – no stretching
Pendulum exercises
Rope and pulley
Elevation to 90 degrees, progressing to 145/150 degrees flexion
L-Bar
Flexion to 90 degrees, progressing to full ROM
Internal rotation with arm in scapular plane at 45 degrees abduction
External rotation with arm in scapular plane at 45 degrees abduction
Progressing arm to 90 degrees abduction

Strengthening Exercises
Isometrics (performed with arm at side)
Flexion
Abduction
Extension
External rotation at 0 degrees abduction
Internal rotation at 0 degrees abduction
Biceps
Scapular isometrics
Retraction/protraction
Elevation/depression
Weight shifts with arm in scapular plane (closed chain exercises)
Rhythmic stabilizations (supine position)
External/internal rotation at 30 degrees abduction
Flexion/extension at 45 and 90 degrees flexion

****Note:** *It is important to refrain from activities and motion in extreme ranges of motion early in the rehabilitation process in order to minimize stress on joint capsule.*

Proprioception/Kinesthesia
Active joint reposition drills for ER/IR

II. PHASE II – INTERMEDIATE PHASE

Goals: Normalize arthrokinematics of shoulder complex
Regain and improve muscular strength of glenohumeral and scapular muscle
Improve neuromuscular control of shoulder complex
Enhance proprioception and kinesthesia

Criteria to Progress to Phase II:

Full functional ROM
Minimal pain or tenderness
"Good" MMT

Initiate Isotonic Strengthening
Internal rotation (sidelying dumbbell)
External rotation (sidelying dumbbell)
Scaption to 90 degrees
Abduction to 90 degrees
Prone horizontal abduction
Prone rows
Prone extensions
Biceps
Lower trapezius strengthening

Initiate Eccentric (surgical tubing) Exercises at Zero Degrees Abduction
Internal rotation
External rotation

Improve Neuromuscular Control of Shoulder Complex
Rhythmic stabilization drills at inner, mid, and outer ranges of motion (ER/IR, and Flex/Ext)
Initiate proprioceptive neuromuscular facilitation
Scapulothoracic musculature
Glenohumeral musculature
Open kinetic chain at beginning and mid ranges of motion
PNF
Manual resistance
External rotation
Begin in supine position progress to sidelying
Prone rows
ER/IR tubing with rhythmic stabilization
Closed kinetic chain
Wall stabilization drills
Initiated in scapular plane
Progress to stabilization onto ball
Weight shifts had on ball
Initiate core stabilization drills
Abdominal
Erect spine
Gluteal strengthening

Continue Use of Modalities (as needed)
Ice, electrotherapy

III. PHASE III – ADVANCED STRENGTHENING PHASE

Goals: Enhance dynamic stabilization Improve strength/endurance Improve neuromuscular control Prepare patient for activity

Criteria to Progress to Phase III:

Full non-painful ROM
No pain or tenderness
Continued progression of resistive exercises
Good to normal muscle strength

Continue Use of Modalities (as needed)

Continue Isotonic Strengthening (PRE's)
Fundamental shoulder exercises II

Continue Eccentric Strengthening

Emphasize PNF Exercises (D2 pattern) With Rhythmic Stabilization Hold

Continue to Progress Neuromuscular Control Drills
Open kinetic chain
PNF and manual resistance exercises at outer ranges of motion
Closed kinetic chain
Push-ups with rhythmic stabilization
Progress to unsteady surface
Medicine ball
Rocker board
Push-ups with stabilization onto ball
Wall stabilization drills onto ball

Initiate Isokinetics
Abduction/adduction
Internal/external rotation

Program Scapular Neuromuscular Control Training
Sidelying manual drills
Progress to RS and movements (quadrant)

Emphasize Endurance Training
Time bouts of exercise 30-60 sec
Increase number of reps
Multiple boots bouts during day (TID)

IV. PHASE IV – RETURN TO ACTIVITY PHASE

Goals: Maintain level of strength/power/endurance
Progress activity level to prepare patient/athlete for full functional return to activity/sport

Criteria to Progress to Phase IV:

Full non-painful ROM
No pain or tenderness
Satisfactory isokinetic test
Satisfactory clinical exam

Continue all exercises as in Phase III

Initiate Internal Sport Program (if appropriate)

Patient Education

Continue Exercise on Fundamental Shoulder Exercise II