

Nonoperative Program for Multidirectional Instability or Multidirectional Hyperlaxity with Unidirectional or Bidirectional Instability

Precautions:

- ***Basis***

- o Many patients will have a component of impingement due to improper scapular mechanics and cuff weakness resulting in poor humeral depression

- o All patients will have some degree of scapular dyskinesia

- ***Precautions***

- o Assess patients for impingement type symptoms and scapular dyskinesia.

- o If impingement present then exercises must start in pain free range and progress toward increasing scaption as time progresses

- o Cannot progress through stages until scapula is stable on chest wall

General Principles and Guidelines

- ***ROM:*** passive ! active assisted ! active

- o Restore normal proprioception and movement patterns (especially scapulothoracic)

- ***Strengthening***

- o Should be pain free

- o Train muscle groups (force couples) rather than individual muscles

- o Incorporate contralateral therapy

- o Isometric ! eccentric ! concentric

- ***Scapula Based Rehabilitation Program***

- o Evaluate and correct postural alignment (lumbopelvic, thoracolumbar, scapulothoracic)

- o Clear soft tissue restrictions

- o Establish scapulothoracic stability focusing on scapular position and control

- ***See attached exercise list***

Outpatient Phase 1: (Weeks 1 - 6)

- ***ROM***

- o Joint mobilization of, AC joint, and scapulothoracic junction

- o Correct any capsular asymmetry through PROM and AROM

- o Posture

- Correct postural abnormalities and scapular position through muscle reeducation including lumbopelvic and scapulothoracic stability

- Include anterior chest wall stretching
- Isometric scapular retraction and depression
- Trunk extension/scapular retraction
- Emphasize lower trapezius activation (elbow in back pocket)
- o Upper quarter pivots
 - **Strength**
 - o Cuff
 - Begin with closed-chain static and short arc isometrics in pain free range including flexion, abduction, extension, ER and IR
 - Facilitate muscular co-contraction to improve dynamic joint stabilization
 - Progress to isotonic cuff strengthening through wider range of motion
 - Rubber tubing for sidelying internal rotation, sidelying external rotation, prone posterior deltoid, internal rotation and external rotation at 90° abduction, biceps, and triceps
 - Supraspinatus program: flexion, scaption in IR, prone horizontal abduction and press-ups
 - o Scapula
 - Isometric and eccentric scapular stabilization
 - Rubber tubing for shrugs, retraction, depression, D2 flexion, D2 extension, prone and seated rows, chair press-ups, supine serratus anterior, lat pull downs, push-ups with a plus
 - Scapular clocks with hand stabilized on wall at 90° (elevation, depression, protraction, retraction)
 - Closed chain axial load (ball rolls on table top) to emphasize scapular positioning
 - As healing progresses and ROM returns may progress to wall wash
 - o Core
 - Core body strengthening exercises to emphasize lumbopelvic and thoracolumbar stability
- **Other**
- o Decrease pain and inflammation and muscles guarding
- o Teach icing techniques
- Other modalities
- Home exercise program

Functional Phase: (Weeks 7 - 12)

- **Strength**
- o Improve strength, power and dynamic stability
- o Advance concentric and stress eccentric cuff strengthening per upper extremity strengthening program
- o **Muscle Ratios**
 - ER/IR: 65-70%
 - ER/Deltoid: 65-70%

- Scapular retractor/protractor: 100%
- o Advance eccentric and concentric scapular stabilization
- Reverse corner pushups, wall angels
- Lat pull downs with free weights,
- Push-up plus
- Scapular punches with various weights and positions
- Shoulder dumps and diagonal punches with light hand weights
- o Dynamic strengthening at 90-90 position for external and internal rotation
- o Core based muscle synergy
- o Progress PNF patterns
- o Start upper extremity plyometric program
- **Endurance**
- o Begin upper body ergometers beginning at low resistance and height below 90° and slowly progress to height at 140° flexion

Return to Activity: (Weeks 13 -)

- Develop sport or work specific ROM
- Plyometric, neuromuscular control and dynamic stabilization drills
- Initiate isokinetic rotator cuff strengthening at high speeds for muscular endurance; i.e. 240 degrees/second X 30 second bout with 30 second rest, 300 degrees/second X 30 second bout with 30 second rest, etc.
- Sport or work specific kinematics and exercises
- Sport or work specific drills for quickness and agility, endurance and power
- Return to play