

Rehabilitation Protocol for Shoulder Impingement

I. Phase I - Maximal Protection – Acute Phase

Goals: Relieve pain and inflammation
Normalize range of motion
Re-establish muscular balance
Improve posture
Patient education & avoidance of aggravating activities

Avoidance:

- The elimination of any activity that causes an increase in symptoms
- Range of Motion:
 - L-Bar
 - Flexion
 - Elevation in scapular plane
 - External and Internal rotation in scapular plane at 45o abduction
 - Progress to 90° abduction
 - Horizontal abduction/adduction
 - Pendulum exercises
 - AAROM – Limited symptom free available range of motion
 - Rope and pulley
 - Flexion

Joint Mobilizations:

- Inferior and posterior glides to the GH joint in scapular plane
- Goal is to establish balance in the glenohumeral joint capsular

Modalities:

- Cryotherapy
- Iontophoresis
- Laser

Strengthening Exercises:

- Rhythmic stabilization exercises for ER/IR
- Rhythmic stabilization drills Flex/Ext
- External rotation strengthening
- If painful isometrics (ER, IR, Abd)
- Scapular strengthening
- Retractors
- Depressors
- Protractors

Postural Exercises:

- Strengthen scapular muscles (depressors, retractors & protractors)
- Stretch pectoralis minor (corner stretch)
- Wall circles

Patient Education:

- Educate patient regarding activity level, activities
- Pathology and avoidance of overhead activity, reaching, and lifting activity

- Correct seating posture (consider lumbar roll)
- Seated posture with shoulder retraction, scapular ER & posterior tilting
- Consider postural shirt for patients with poor posture

Guideline for Progression:

- Decreased pain and/or symptoms
- Normal ROM
- Elimination of painful arc
- Muscular balance

II. Phase II - Intermediate Phase

Goals: Re-establish non-painful ROM
Normalize athrokinematics of shoulder complex
 Normalize muscular strength
Maintain reduced inflammation and pain
Increase activities with involved arm

Range of Motion:

- L-Bar
- Flexion
- External rotation at 90° of abduction
- Internal rotation at 90° of abduction
- Horizontal abduction/adduction at 90°
- Rope and pulley
- Flexion

Joint Mobilization:

- Continue joint mobilization techniques to the tight aspect of the shoulder (esp. inferior)
- Initiate self-capsular stretching
- Grade II/III/IV
- Inferior, anterior and posterior glides
- Combined glides as required

Modalities: (as needed)

- Cryotherapy
- Ultrasound/phonophoresis
- Iontophoresis

Postural Exercises:

- Continue with stretching of pectoralis minor & strengthening scapular muscles
- Continue use of postural shirt

Strengthening Exercises:

- Progress to complete shoulder exercise program
- Emphasize rotator cuff and scapular muscular training
- ER tubing
- Sidelying ER
- Full can
- Shoulder abduction
- Prone horizontal abduction
- Prone shoulder extension

- Prone rowing
- Prone horizontal abduction ER
- Biceps/triceps
- Lower trapezius muscular strengthening
- Scapular neuromuscular exercises

Functional Activities:

- Gradually allow an increase in functional activities
- No prolonged overhead activities
- No lifting activities overhead

III. Phase III - Advanced Strengthening Phase

Goals: Improve muscular strength and endurance
Maintain flexibility and ROM
Maintain postural correction
Gradual increase in functional activity level

Flexibility and Stretching:

- Continue all stretching and ROM exercises
- L-Bar ER/IR at 90o abduction
- Continue capsular stretch
- Maintain/increase posterior/inferior flexibility

Strengthening Exercises:

- Establish patient on the fundamental shoulder exercises
- Tubing ER/IR
- Lateral raises to 90o dumbbell
- Full can dumbbell to 90 degrees
- Sidelying ER
- Prone horizontal abduction
- Prone extension
- Wall slides
- Biceps/triceps
- Scapular neuromuscular control drills

Guideline for Progression to Phase IV:

- Full non-painful ROM
- No pain or tenderness
- Strength test fulfills criteria
- Satisfactory clinical examination

IV. Phase IV - Return to Activity Phase

Goals: Unrestricted symptom free activity

Initiate Interval Sport Program:

- Throwing
- Tennis
- Golf

Maintenance Exercise Program:

Flexibility Exercises

- L-Bar:
- Flexion
- External rotation and internal rotation at 90o abduction
- Self-capsular stretches

Isotonic Exercises

- Fundamental shoulder exercises
- Perform 3 times a week