General Rehabilitation Guidelines

Protocol for Subacromial Decompression with or without Distal Clavicle Resection

**Considerations:**

- Impingement syndrome may have several extrinsic causes including scapular dyskinesis, poor posture, rotator cuff weakness, tightness in the posterior capsular of the shoulder and subtle glenohumeral instability. These must be corrected and addressed through a comprehensive rehabilitation program.
- Impingement syndrome is often accompanied by rotator cuff tendinosis. Healing and remodeling of the rotator cuff is a slow process. Persistent pain during the early rehabilitation may be an indication that further rest is needed.
- Subacromial decompression generally involves a thorough removal of the subacromial bursa. In addition, the periosteum on the undersurface of the acromion is removed prior to the decompression. As these tissues reform, the shoulder is prone to developing scar tissue in the humeroscapular motion interface: This motion involves the rotator cuff moving under the acromion as well as the humerus moving under the deltidoid. Immediate motion is necessary to prevent hypertrophic bursal scarring.
- Arthritis of the acromioclavicular joint may require a distal clavicle excision if pain in this region has failed to respond to non-operative measures.

**NOTES:** if biceps tenodesis is included in the surgery then no resistive elbow flexion or supination for 6 weeks
  - PROM and AROM okay
  - Rehab otherwise dictated by cuff procedure

**Prehabilitation**

- Instruct in application of ice and encourage use as much as tolerated within a 24 hour period for first week. If using ice packs, encourage to ice 20-30 minutes every 3-4 hours while awake.
- Instruct in pendulum exercises to be performed 2-3 times per day starting immediately following surgery
  - These should be followed by cryotherapy session
- Instruct in basic progression of rehabilitation program and expectations for time course to recovery
- Arrage follow-up physical therapy appointment on 7th-10th day post-op to correspond with physician’s post-operative evaluation

**Outpatient Phase 1:** (Weeks 1 – 4)

**ROM**

- Pendulum exercises
- Instruct in home program, and begin, self-assisted and active ROM
  - Forward elevation in scapular plane
    - Perform with palm up to externally rotate repair from under acromion
  - External rotation in adduction to 40° with stick/wand
  - IR in scapular plane as tolerated
  - Cross body adduction below, at and above shoulder level
• If distal clavicle excision performed then no cross body adduction for until Week 5
  - Sleeper stretch for posterior capsule starting Week 3
  - **NOTES on ROM:**
    - PROM is tolerated in all planes
    - AROM is limited secondary to pain and weakness of rotator cuff. Should be performed in pain free range without substitution and progressed as tolerated
      - May use pulleys for flexion and abduction
        - Keep forearms supinated to clear greater tuberosity from acromion
      - Joint mobilization of glenohumeral joint and scapulothoracic junction grades I/II as dictated by patient’s tolerance.
      - Instruct in home program and begin cervical, elbow and wrist ROM and grip strengthening
        - If biceps tenodesis performed then no resistance with elbow flexion
  - **Strength**
    - Instruct in home program and begin scapular retraction and depression
    - Instruct in home program and begin postural control exercises
    - Instruct in home program and begin submaximal isometric exercises (flexion, extension, abduction, IR/ER)
      - Start in non-impingement positions and progress to multi-angle as tolerated
      - May increase to maximal resistance as tolerated
    - Can start IR/ER isotonics with theraband or light dumbbell at Week 3
    - Can start biceps/triceps isotonics with theraband or light dumbbell at Week 3 unless biceps tenodesis
    - Can start scapular strengthening with theraband or light dumbbells (rows, shrugs, punches)
    - May use UBE in forward and reverse
      - Start at low level and elevate as tolerated
    - **NOTES on Strength**
      - Focus on muscle hypertrophy initially by high repetition with low resistance/weights.
  - **Sling**
    - The sling is provided for comfort during the first 1-2 weeks but should be worn for no longer than 2 weeks. Patients should wean from use of sling between weeks 1 and 2 as tolerated
  - **Other**
    - Incision mobilization and desensitization techniques
    - Modalities to decrease pain, swelling and inflammation
    - Cryotherapy
  - Notes: home exercise program should be done 2-3 times per day with cryotherapy 15-20 minutes after each session

**Outpatient Phase 2:** (Weeks 5 - 8)
- **ROM**
  - Progressive return to full ROM
  - Increase AROM above horizontal as tolerated
  - May begin active ER in progressive degrees of horizontal abduction
  - Emphasis on posterior and inferior capsule
Anterior chest wall stretches
Joint mobilization of glenohumeral joint and scapulothoracic junction. Can progress to Grades III/IV as dictated by patient's tolerance.
If DCR: may begin cross body adduction stretch

**Strength**
- UBE in forward and reverse for warm-up
- Standing dumbbell routine: flexion, scaption, empty can
  - Assess for upper trapezial substitution patterns and limit degree of abduction based on compensation
- Continue to emphasize ER/IR force couple with strength ratio of 65-70%
- At Week 7 add prone horizontal abduction and scaption in neutral and ER and prone posterior deltoid
- If biceps tenodesis can begin isotonic biceps and triceps strengthening at Week 7 starting with low resistance and progressing as tolerated
- Continue isotonic scapular strengthening
  - Diagonals, dumps, punches
  - Rows, shrugs, lat pull downs
- Closed chain scapular stabilization
  - Wall washes
  - Table top ball roll
  - Scapular clocks
- Push-up progression: wall, counter, table, knees
- PNF patterns: start with manual resistance and progress to theraband
- Lower body aerobic conditioning

**NOTES on Strength:**
- Start with eccentric and progress to concentric strengthening. As endurance improves, increase resistance and decrease repetitions to build strength

**Other**
- Continue modalities as necessary
- Continue cryotherapy

**Notes:** home exercise program should be done 2-3 times per day with cryotherapy 15-20 minutes after each session

**Outpatient Phase 3:** (Weeks 9 – 12)

**ROM**
- Progressive return to full ROM
- Continue ER in progressive degrees of abduction
- Continue joint mobilization as indicated

**Strength**
- Continue previous exercise regimen
- IR and ER at 90/90° position
- Plyometrics
  - Ball toss (chest pass, overhead soccer throw)
- One-handed plyometrics
- Sport and work specific functional activities
- Continue lower extremity aerobic conditioning

**Outpatient Phase 4:** Maintenance HEP

**ROM**
- Home program for capsular flexibility in all planes with emphasis on posterior capsule (Cross-body, sleeper stretch, roll-over sleeper)

**Strength**
- Progressive cuff and scapular strengthening with increased resistance
- Large muscle strengthening: lat pull downs, bench press, military press
- Work and sport functional rehabilitation