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Total Shoulder Replacement Post-Surgical Rehabilitation Protocol (Intact Rotator Cuff)

This is a protocol for individuals with an intact rotator cuff and no fractures (these individuals can be progressed more rapidly and aggressively than the tissue deficient group)

General considerations:

- 1. Wear sling for 4 weeks including sleep
- 2. No active / resisted IR for 6 weeks
- 3. No active or passive extension for 8 weeks
- 4. Begin Active ER early up to ROM limits (to promote relaxation of antagonistic internal rotators)

I. Phase One – Immediate Motion Phase (Week 0-4)

Goals: Increase passive ROM

Decrease pain

Minimize muscular atrophy and prevent rotator cuff shutdown

- 1. PROM
 - a. Flexion (Work to achieve 90° by week 2 and progress to 140° as tolerated)
 - b. ER $0-45^{\circ}$ as long as patient tolerates it (at 30° of ABD)
 - c. IR $0-45^{\circ}$ (at 30° of ABD) (Hand behind back reach to L5)
- 2. Pendulum exercises
- 3. AROM:
 - a. Elbow, wrist, and cervical
 - b. May do shoulder flexion (only) as pain allows
 - c. ER 0 to 45° (at 30° of ABD)

- 4. Grip and wrist strengthening
- 5. **Scapular PNF** (Week 0 2 PROM, Week 2 4 AROM)
- 6. Isometrics (Day 7) ER, Ext, Flex, and ABD
- 7. AAROM (Week 2)
 - a. Pulley for flexion
 - b. Cane exercises Flex, ER
- 8. Scapular Stabilization
 - a. S/L scapular clocks
 - b. Seated scapular retractions
- 9. Scapulothoracic joint mobilizations as needed
- 10. Modalities such as Cryotherapy or Electrical Stimulation as needed
- 11. Patient can generally use arm to eat, read, etc. in front of body (anterior to plane of scapula) without pain; lift nothing heavier than coffee cup

II. Phase Two – Active Motion Phase (Week 4-10)

Goals: Increase shoulder strength

Increase ROM (full ROM by Week 8)

Decrease pain and inflammation

Increase functional activities

Normalize scapular motion and increase stabilization

- 1. Continue previous PROM and AAROM exercises
- Pendulum exercises as needed
- 3. AROM
 - a. Supine flexion (full available range)
 - b. Wall walking for flexion
 - c. Seated flexion (short arc 45° to 90°) use uninvolved arm to assist
 - d. Seated abduction (0° to 90°)
 - e. Sidelying ER (week 6)
 - f. Serratus punches
 - g. Prone Extension and Rows (week 8)
 - h. Theraband ER (week 6)
 - i. Theraband IR (week 7 8)
- 4. Biceps and triceps strengthening (dumbbell less than 5 lbs.)
- 5. Scapulothoracic strengthening
 - a. Rhythmic stabilization
 - b. Scapular PNF resisted
- 6. Aerobic conditioning (i.e. bike)
- 7. UBE (week 6 to 8 do not allow elbow to extend beyond plane of body)
- 8. Joint mobilization (Grade I III GH and scapulothoracic)

III. Phase III – Strengthening Phase (begins at 8 – 10 weeks)

Criteria for progressing to phase III:

- 1. PROM: Flexion to about 140°, ER to about 55°, IR to about 60°
- 2. Strength 60 percent of uninvolved side or 3/5 for ER, IR, and ABD

Exercises

- 1. Continue to progress all elements from phase II
- 2. Continue theraband IR/ER: progress to 90 degrees ABD
- 3. Aggressive stretching exercises (doorway or table ER, static ER)
- 4. Dumbbell strengthening: add weight to all AROM exercises
- 5. Begin Supraspinatus strengthening (full to empty can)
- 6. Wall push-ups
- 7. Upright rows
- 8. PNF D2 progress from isometric holds to manual resisted
- 9. Begin functional progression for sports/activity specific tasks
- 10. Refer to physician regarding return to sports/work/high levels of function