

# **Reverse Total Shoulder Arthroplasty**

\*\*Adjunctive exercises

## **Phase I (Protective Phase)**

<u>Goals</u>: Maintain stable prosthesis Minimize pain and inflammatory response Achieve staged ROM goals Establish stable scapula Initiate pain free rotator cuff and deltoid strengthening

## Days 1 to 3

- i. Elbow, wrist and hand AROM (EWH)
- ii. Supine passive forward elevation in plane of scapula (PFE) to 90
  - 1. 10-20 reps, 2 x day
  - 2. Supine PFE by family member or using opposite arm
- iii. Supine passive external rotation (PE) to neutral
  - 1. T-stick in  $20^{\circ}$  flexion and  $20^{\circ}$  abduction
  - 2. 5-10 reps, 2x day
- iv. Codman's pendulum exercises
- v. C-spine AROM
- vi. Ice
- vii. Positioning full time in sling
- viii. Cautions:
  - 1. Assure normal neurovascular status
  - 2. No lifting of involved arm
  - 3. Shoulder extension is limited. Elbow not to go behind midline of body

#### Weeks 1 to 2

- i. Continue EWH
- ii. Shoulder shrugs and retractions (no weight)
- iii. Continue PFE. Progress to full as tolerated
- iv. Continue T-bar PER at 20° abduction
  - 1. Limit ER to 30 degrees if subscapularis repair performed
- v. Isometrics, keeping elbow flexed to  $90^{\circ}$  (sub maximal, pain free)
- vi. \*\*Manual scapula strengthening
- vii. \*\*Pain control modalities PRN / Polar Care
- viii. Complications/Cautions:
  - 1. If pain level is not dissipating, decrease intensity and volume of exercises
  - 2. Continue to limit shoulder extension past midline of body

#### Weeks 2 to 6

- i. Heat/Ice PRN to help obtain motion
- ii. D/C sling at week 2 if no subscapularis repair

- 1. Week 4 if subscapularis repair performed
- iii. Progress passive and AAROM ER exercises to full after week 3
- iv. Start AROM
- v. Theraband scapula retractions
- vi. Progressive serratus anterior strengthening (isolated)
- vii. AAFE
- viii. Continue isometric abduction
- ix. \*\*Pain control modalities PRN
- x. \*\*Aquatics AAROM $\rightarrow$  AROM
- xi. \*\*Trunk stabilization/strengthening
- xii. Cautions:
  - 1. Do not initiate dynamic rotator cuff strengthening
  - 2. Assure normal scapulohumeral rhythm with AAFE

## Phase II (Progressive Strengthening)

Goals:Maintain stability of prosthesisAchieve staged ROM goalsEliminate shoulder painImprove strength, endurance and power

## Weeks 6 to 9

- i. Theraband ER strengthening (pain free, elbow by side)
  - 1. Week 7 or after
  - 2. Very light with high repetitions.
  - 3. Continue self stretching all planes to obtain PROM WFL
- ii. Advance scapula strengthening
- iii. AFE as tolerated to full
- iv. \*\*Mobilizations PRN
- v. \*\*Aquatics\*\* AROM
- vi. \*\*Trunk stabilization/strengthening
- vii. Cautions:
  - 1. Strengthening program should progress only without signs of increasing inflammation
  - 2. Strengthening program should emphasize high repetitions, very light resistance and should be performed a maximum of 2 x day

## Weeks 9 to 12

- i. Continue stretches PRN for PROM WFL
- ii. Advance theraband strengthening of cuff and scapula below shoulder level
- iii. Initiate isotonic dumbbell exercises for deltoid, supraspinatus
  - 1. Up to 2 lbs max (once nearly full AFE achieved)
- iv. \*\*Mobilizations PRN
- v. \*\*Trunk stabilization/strengthening

#### Phase III (Return to activity/Advanced conditioning)

Goals: Maintain stability of prosthesis Normalize strength, endurance and power for age Return to full ADL's and recreational activities

## Months 3 to 6

- i. Light PFN or manual resistance for cuff/deltoid/scapula
- (rhythmic stabilization or slow reversal hold) in pain free and comfortable range
- ii. Stretching PRN
- iii. Continue deltoid/cuff/scapula strengthening. Avoid overuse of deltoid.

## Discharge/Return to sport criteria

- 1. PROM WFL for ADL's/work/sports
- 2. MMT 5/5 shoulder girdle
- 3. Successful return to functional activities