



*New England Shoulder and Elbow Center*

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## Anatomic Total Shoulder Arthroplasty Physical Therapy Guidelines

The following are guidelines for Anatomic Shoulder Arthroplasty (TSA) and progression is both criteria based and patient specific. Phases and time frames are designed to give the clinician a general sense of progression. The program should balance the aspects of tissue healing and appropriate interventions to maximize flexibility, strength, and pain-free performance of functional activities.

### **POST – OPERATIVE PHASE I (WEEKS 0-6)** **\*\*MAXIMUM PROTECTION PHASE\*\***

#### **GOALS:**

- Patient education
- Pain and edema control
- Full distal ROM
- Promote healing: reduce pain, inflammation and swelling
- Elevation in plane of scapula: to 120°
- External Rotation: to 30°
- Independent Home Program AND Independent sling use and light ADL's

#### **PRECAUTIONS:**

- Sling Immobilizer to be worn at all times except when exercising (Protection during ADLs)
- External Rotation to  $\leq 30^\circ$
- Avoid painful positions/ranges of motion

#### **TREATMENT STRATEGIES:**

- Sling immobilization for \*2-4 weeks\* except for exercises and light ADL's
- Hand, wrist, forearm, elbow ROM exercises
- Pendulum exercises out of sling
- Passive shoulder elevation in plane of the scapula (0-90 degrees 1st 4 weeks, 0-120 degrees 5th and 6th week depending on patient presentation/tolerance)
- Active Assist ROM ER (supine with wand in scapula plane)
- Scapular strengthening (sidelying with manual resistance, sitting)
- Cryotherapy/TENS

#### **MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE:**

- Elevation in plane of scapula: to 120°
- External Rotation to 30°
- Independent Home Exercise Program AND Independent light ADL's
- Minimal pain or inflammation

#### **Emphasize:**

- PROTECTING SURGICAL REPAIR
- Patient compliance with sling immobilization



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## Anatomic Total Shoulder Arthroplasty Physical Therapy Guidelines

### POST – OPERATIVE PHASE II (WEEKS 6-12)

#### GOALS:

- Pain control
- Elevation in plane of scapula: to 150°
- External Rotation: to 45°
- Independent Home Exercise Program
- Begin to restore scapula and rotator cuff strength

#### PRECAUTIONS:

- Avoid painful positions

#### TREATMENT STRATEGIES:

- Ensure D/C sling/immobilizer (MD directed- typically 2-4 weeks only)
- Passive and Active Assist ROM FF and ER (using wand)
- Pulleys (ROM > 120 with good humeral head control)
- AROM (including internal rotation towel pass)
- Humeral head control exercises (Rhythmic Stabilization at 120)
- Sub-maximal isometrics Flex/Ext/ER/IR
- Closed kinetic chain exercises (ball stabilization)
- Scapular stabilization
- Scapula retraction and extension with elastic bands
- Cane extension
- IR stretch using strap
- Airdyne Workout Bike (if possible)
- Modalities for pain and edema, Cryotherapy
- Progress Home Exercise Program

#### MINIMUM CRITERIA FOR ADVANCEMENT:

- Minimal pain with activities of daily living
- ROM: Elevation in plane of scapula to 150°, External rotation to 45°;
- Independent home exercise program

#### Emphasize:

- Increase flexibility first and foremost
- Then progress to gently restoring strength



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### POST – OPERATIVE PHASE III (WEEKS 12-16)

#### GOALS:

- Elevation in plane of scapula: to 160°
- External Rotation: to 60°
- Internal rotation to T12
- Restore normal scapulohumeral rhythm < 90 elevation
- Upper extremity strength 4/5
- Upper extremity endurance
- Independent Home Exercise Program

#### TREATMENT RECOMMENDATIONS:

- Progress ROM as appropriate
- Flexibility exercises (IR stretch using opposite hand, posterior capsule stretch)
- Strengthening Periscapular and RC muscles: Scaption, ER & IR with elastic band
- Rhythmic humeral head stabilization
- Progressive resistive exercises for scapula, elbow: bicep curls
- Elevation in scapula plane
- Progressive resistive equipment (row, chest press)
- Unilateral cable column Latissimus Dorsi pull down
- Proprioceptive Neuromuscular Facilitation patterns as tolerated
- Continue Upper Extremity endurance (Airdyne Bike)
- Modalities prn
- Progress Home Exercise Program

#### PRECAUTIONS:

- Avoid painful activities of daily living
- Avoid movements that encourage scapula hiking or poor body mechanics
- Avoid stiff posterior capsule

#### MINIMUM CRITERIA FOR ADVANCEMENT:

- Minimal pain and inflammation
- Elevation in plane of scapula: to 160°
- External Rotation: to 60°
- IR to T12
- Muscle strength 4/5
- Normal scapulohumeral rhythm (< 90 elevation)

#### Emphasize:

- Continuing to increase flexibility
- Restoring strength



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## Anatomic Total Shoulder Arthroplasty Physical Therapy Guidelines

### **POST – OPERATIVE PHASE IV (WEEKS 16-22)**

#### GOALS:

- Restore normal neuromuscular function
- Maximize ROM, strength and flexibility
- Normal scapulohumeral rhythm > 100-degree elevation
- Independent in Home/Gym therapeutic exercise program

#### TREATMENT RECOMMENDATIONS:

- Tailor any remaining deficits in ROM, strength and flexibility
- Active and passive ROM exercises
- Flexibility program- posterior capsule stretch, towel stretch (IR)
- Progressive resistive exercises- Theraband, dumbbells
- Rhythmic stabilization
- Proprioceptive Neuromuscular Facilitation patterns
- Sports- specific training
- Discharge planning for maintenance and advancement of gains achieved during rehabilitation

#### PRECAUTIONS:

- Avoid painful activities of daily living
- Avoid movements that encourage scapula hiking or poor body mechanics
- Avoid stiff posterior capsule

#### CRITERIA FOR DISCHARGE:

- Maximize ROM
- Independence in ADLs
- Normal scapulohumeral rhythm > 100-degree elevation

Patient Name: \_\_\_\_\_

Physician's Signature: \_\_\_\_\_ M.D. Date: \_\_\_ / \_\_\_ / \_\_\_\_