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## **Anatomic Total Shoulder Arthroplasty Rehabilitation**

*These guidelines, treatments, and milestones have been established to assist in guiding rehabilitation based on the most current available evidence. They are not intended to be substitute for sound clinical judgement with consideration of the individual contextual features of the patient and the demands of various functions/sports*

Sling or immobilizer at all times except to exercise, and shower/bathe

Home program: perform minimum of 3 times/day: AROM cervical spine, elbow, wrist, hand

### **Initiation of Mobility – Phase 1 (weeks 2 – 6)**

#### **Suggested Interventions**

Scar mobility, Diaphragmatic breathing, MLD of the UE for edema management PROM

Aerobic conditioning

Scapular retraction

Recommended precautions:

Limit passive ER to 30°, horizontal abduction and extension to neutral

Limit passive FF to the scapular plane

Limit passive IR to the scapular plane

#### **Milestone to advance to next phase:**

Passive ER to 30°

Passive FF in scapular plane to 130°

Discontinue use of sling or immobilizer

Minimal pain and inflammation

## Progression Toward Functional ROM - Phase 2 (weeks 6-10)

### Suggested Interventions:

Passive & Active assisted ROM

FF AROM in supine

Manually resisted scapular side-lying stabilization exercises

Initiate PNF patterning supported such as wall slides

Isometrics:

Deltoid in neutral

ER (modified neutral) ROM < 30°

IR (modified neutral)

Aerobic conditioning including UBE

Recommended precautions:

FF in scapular plane (wall slides & wand exercises, pulleys)

ER (gentle beyond 30° to respect subscapularis healing)

**Milestone to advance to next phase:**

Passive FF to 150°

Passive ER to 60°

Active supine FF to 90°, ER to 45°

## Optimizing Functional ROM/Early Strengthening - Phase 3 (weeks 10-16)

### Suggested Interventions

Progress ROM as tolerated

Uniplanar flexibility exercises into extension and internal rotation

PNF patterning

Recommended precaution: in supine or supported until week 12

Isotonic strengthening:

Emphasis on axioscapular muscles (scapular rows)

Continued attention to humeral head control and scapulohumeral rhythm with as load progresses

**Milestone to advance to next phase:**

Axioscapular muscle strength grades 4/5  
MMT

Optimal scapulohumeral rhythm to 90°  
elevation

Minimal pain and inflammation with  
application of the soreness rules for  
intensity of exercise

## Return to Full Function - Phase 4 (weeks 16+)

### Suggested Interventions

Flexibility exercises: towel stretch (IR), posterior capsule stretch

Progressive resistive strengthening:

Dumbbells

Progressive resistive equipment

Elastic band IR/ER

### Milestone to discharge:

Optimal ROM

Full Independent ADLs

Optimal scapulohumeral rhythm to > 120° elevation

Home program with dosing per application of the soreness rules for intensity of exercise

## Appendices of referenced assessments

Soreness Rules	
Criterion	Action
1. Soreness during warm-up that continues	2 days off, drop down 1 step
2. Soreness during warm-up that goes away	Stay at step that led to soreness
3. Soreness during warm-up that goes away from redevelops during session	2 days off, drop down 1 step
4. Soreness the day after lifting (not muscle soreness)	1 day off, do not advance program to the next step
5. No soreness	Advance 1 step per week or as instructed by healthcare professional