

TOTAL SHOULDER REPLACEMENT  
POST-OPERATIVE REHABILITATION PROTOCOL  
Chase D. Smith, MD

The goal of the rehabilitation process is to provide greater mobility to the patient than before the surgery. In addition, stability of the shoulder is vital and essential to normal non-painful shoulder function. The key to the success of the rehabilitation following total shoulder replacement is compliance to your exercise program.

**Precautions:** In hospital use immobilizer  
Discontinue immobilizer at Day 1-3 and use sling for comfort for a few days  
No forceful internal rotation for 6 weeks for fear of disrupting subscapularis repair

**PHASE ONE - IMMEDIATE MOTION PHASE (Week 0-4)**

**Goals:** Allow early healing of capsule  
Increase passive range of motion  
Decrease shoulder pain  
Retard muscular atrophy and prevent RTC inhibition

**WEEKS 1- 2**

Sling for Comfort and Sleep (May discontinue sling as tolerated)

Exercises:

- \* Continuous Passive Motion (CPM)
- \* Passive Range of Motion
  - a. Flexion (0-75 degrees)
  - b. ER (in scapular plane at 30 to 0 degrees)
  - c. IR (in scapular plane at 30 degrees to 25-30 degrees)
- \* Pendulum Exercises
- \* Elbow/Wrist ROM
- \* Gripping Exercise for Hand
- \* Ice & Modalities
- \* Isometrics (Day 10)
  - a. Abductors
  - b. ER/IR
  - c. Elbow flexors
- \* Electrical Muscle Stimulation (if needed)
- \* Rope and Pulley (POD 5-7) – Flexion

**CAUTION:** Do not stressfully actively IR arm against resistance for possibility of pulling subscapularis repair for 4-6 weeks

**WEEKS 3-4**

Sling as Needed

Exercises:

- \*Continue all ROM exercises
  - a. Initiate AAROM exercises

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- b. Progress flexion to 90-100 degrees
- c. ER scapular plane at 45 to 25 degrees
- d. IR scapular plane at 45 degrees to side
- \*Initiate AAROM ER/IR supine with L-bar
- \*Initiate rhythmic stabilization exercises
  - a. Flex/Ext
  - b. ER/IR in scapular plane
- \*Isometrics
  - a. ER/IR
  - b. Flex
  - c. Ext
  - d. Abd
- \*Rope and Pulley

**PHASE TWO - ACTIVE MOTION PHASE (Week 4-10)**

Goals: Improve dynamic stabilization and strength  
Improve Range of Motion  
Decrease pain/inflammation  
Increase Functional Activities

**WEEKS 5-8**

Exercises:

- \* Active Assisted ROM Exercises with L-Bar (Begin week 2)
  - a. Flexion to tolerance
  - b. ER in scapular plane at 90 degrees abduction
  - c. IR in scapular plane at 90 degrees abduction
- \*All motions to tolerance
- \* Rope and Pulley
  - a. Flexion
- \* Pendulum Exercises
- \* AROM Exercises
  - a. Supine Flexion if unable sidelying flexion
- \* Strengthening Exercises
  - a. Tubing ER/IR
  - b. Rhythmic stabilization Flex/Ext and ER/IR
  - c. Sidelying ER
  - d. Sidelying flexion
  - e. Scapular strengthening exercises
  - f. Prone rowing
  - g. Prone extensions
  - h. Biceps/triceps
  - i. Isometrics for deltoid

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**WEEKS 9-12**

- \*Continue all exercises listed above
- \*Prone goal:
  - Flexion 160 degrees
  - ER at 90 degrees Abd: 75-80 degrees
  - IR at 90 degrees Abd: 60-65 degrees
- \*Continue to emphasize AROM and strength
- \*Progress strengthening exercises
- \*Pool exercises and swimming

**PHASE THREE - ACTIVITY PHASE (WEEKS 13-26)**

\*Initiation of this phase begins when patient exhibits:

- 1) PROM:
  - Flexion 0-160 degrees
  - ER 75 degrees
  - IR 60 degrees
- 2) Strength level 4/5 for ER/IR/ABD

Goals: Improve strength of shoulder musculature  
Neuromuscular control of shoulder complex  
Improve functional activities

Exercises:

- \*AAROM and stretching exercises
  - a. Flexion with L-bar
  - b. ER/IR at 90 degrees abduction
- \*Strengthening exercises
  - a. ER/IR tubing
  - b. Full Can
  - c. Lateral raises
  - d. Prone rowing
  - e. Sidelying ER
  - f. Prone extension
  - g. Biceps
  - h. Initiate interval sport program if appropriate (weeks 20-26)