

Physical Therapy Protocol: Total Shoulder Arthroplasty

Philosophy:

Total shoulder arthroplasty is meant to relieve pain and restore function to a joint with end-stage arthritis. In patients with fracture or rotator cuff damage, shoulder hemiarthroplasty is designed to relieve pain in the shoulder. Successful results in shoulder surgery can only be accomplished through the cooperation and team approach of the surgeon, therapist and patient. Pre-op planning should include help around the home arranged prior to surgery, even with activities such as eating, dressing, and personal cares. A strong, pain-free shoulder with functional range-of-motion only comes about through an anatomic reconstruction of the shoulder with appropriate soft-tissue releases done at the time of surgery, and aggressive (but appropriate) physical therapy. A positive mental attitude and strong desire to return to activities is needed for best outcome.

Post-Op 0-4 Weeks

OSMS Appointments:

- Medical appointment at 2 weeks, with films
- Physical therapy will begin as directed by your physician and as indicated on your physical therapy order

Rehabilitation Goals:

- Pain control and one-handed ADLs
- Gentle ROM
- Donning and doffing the sling
- Protect the surgical reconstruction

Precautions:

- Strict sling use (only off for therapy) for 6 weeks
- Recommend use of small pillow or towel behind the elbow when supine to avoid hyperextension
- NWB on surgical side (no pushing up from chair)
- Avoid active adduction, IR, shoulder extension
- ER limited to neutral in scapular plane

Suggested Therapeutic Exercises:

- Transfer and gait training with NWB on surgical side
- Hand/Wrist/Elbow ROM exercises
- Codman's or pendulum exercises TID

- Scapular clocks
- Scapulothoracic mobilizations
- After 4 weeks, initiate AAROM with T-bar/pulleys
- Deltoid submaximal isometrics in neutral
- Grade I-II shoulder joint mobilizations

Cardiovascular Exercises:

- Walking (with sling on)

Progression Criteria:

- After 6 weeks, with pain-free PROM

Phase II, (after Phase I criteria met, usually 4-8 Weeks)

OSMS Appointments:

- Medical appointment at 6 and 12 weeks, with films
- Physical therapy continues twice weekly

Rehabilitation Goals:

- Sling strict for 6 weeks
- Minimize pain
- Optimize shoulder strength

Range-Of-Motion Exercises:

- Target to achieve FROM by 8 weeks
- No active IR until 6 weeks post-op

Suggested Therapeutic Exercises:

- Progress PROM
- Initiate PROM of IR to tolerance (do not exceed 50°) in scapular plane
- AROM, and progress to light deltoid, biceps, and triceps strengthening
- Isometrics with progression to TheraBands
- Light bent over rows
- Light serratus punches
- Light side-lying ER
- At 6 weeks, progress ER stretching under tension is allowed (no stretching into pain) and IR on light pulleys

Cardiovascular Exercises:

- Walking, Stairmaster, or stationary bicycle

Phase III, (after Phase II criteria met, usually 8-24 weeks)

Rehabilitation Goals:

- Progress functional strength and endurance

Precautions:

- No heavy lifting until after 12 weeks (5# max)
- No sudden lifting or pushing activities

Suggested Therapeutic Exercises:

- Add PREs, no restrictions
- Side-lying ER or light band ER for RTC strengthening
- Initiate IR strengthening (isometrics progressing to isotonic)
- Begin gentle extension beyond neutral and IR up the back
- Begin functional progression for sports and activity-related tasks

References:

- Brown DD, Friedman RJ. Postoperative rehabilitation following total shoulder arthroplasty. *Orthop Clinic North Am.* 1998; 29(3): 535-547.
- Wilcox RBIII, Arslanian LE, Millett PJ. Rehabilitation Following Total Shoulder Arthroplasty. *J Orthop Sports Phys Ther.* 2005;35(12):821-835.