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Total Shoulder Replacement Post-Operative Rehabilitation

This protocol was developed for patients who have undergone an anatomic total shoulder replacement for glenohumeral arthritis with an intact and functioning rotator cuff. The goal of this protocol is to advance range of motion and strength as directed while protecting the subscapularis tendon repair to ensure optimal healing. The specific etiology of the glenohumeral arthritis has a major impact on the eventual outcome of a total shoulder replacement. Patients with glenohumeral osteoarthritis usually have a good rotator cuff and can be expected to have excellent range of motion and strength. The outcome for patients with post-traumatic arthritis is more variable. Patients with more humeral bone deformity, pre-operative contracture and prior scarring may not regain as much shoulder motion or function. The outcome of total shoulder replacement for patients with rheumatoid arthritis is dependent upon the integrity of the rotator cuff. These patients often have substantial involvement of the rotator cuff. This protocol is not applicable to patients with reverse total shoulder replacement.

Please contact the physical therapy department at (401) 457-1590 if there are any questions. You may also refer to www.universityorthopedics.com and go to Dr. Green's section to see video of specific shoulder exercises.

The dressing is removed three days after surgery. Leave the steri-strips on the incisions until the first post-operative office visit. After the dressing is removed the patient may shower quickly and gently pat the shoulder dry with a clean towel. When in the shower a sling is worn to protect your shoulder from injury. (an extra sling can be provided) If a sling is not worn in the shower the arm is left to hang at the patient's side. If there is any drainage or concern about the healing of the incisions do not shower and just gently clean the surface of the shoulder with rubbing alcohol and call the office.

These patients were instructed in a home exercise program during their hospital stay by the therapists.

Weeks 1-5:

- Pendulum circumduction exercises (no weights)
- Begin passive self-assisted supine forward elevation, supine external rotation supine horizontal adduction, and standing internal rotation behind the back
- Each stretch should be done for 5 repetitions, holding 10-15 seconds for each repetition
- Range of motion exercises are done 5 times each day.

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-Begin postural exercises with serratus anterior, rhomboid and trapezius contraction

-Neck range of motion to prevent cervical spine soreness

-Unless otherwise indicated in the post-operative therapy referral the sling should be worn at all times except to perform home exercises five times per day. The hand can be used for very light activities with the arm in the sling.

Weeks 5-6:

-Discontinue use of the sling at the end of week 5 and begin light active use

Range of Motion Goals Week 6

	Wk 6
Passive forward elevation	140°
Active forward elevation	Above shoulder level
Passive external rotation	40°
Passive internal rotation	Lower lumbar

Week 7:

-Pulleys for assisted elevation to begin gentle strengthening and elevation patterning

-Continue passive self assisted range of motion stretching exercises to regain motion.

-Active range of motion exercises

-Begin active elevation in the supine position to minimize gravity affect

Weeks 7-8:

-Isometrics deltoid, internal rotation, external rotation

-Supine deltoid exercises

-Scapula stabilization°

Week 12:

-Theraband strengthening as tolerated by patient.

-Continue passive self assisted stretching to achieve full range of motion

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Range of Motion Goals Week 12

	Wk 12
Active forward elevation	140°
Active external rotation	40
Passive internal rotation	Upper lumber

End result:

It can take up to 12 months (1 year) to achieve the final result of a total shoulder replacement. Most patients are very comfortable and functional after 3 months.

Notes:

No UBE exercises

No abduction stretching or strengthening. Elevation motion and strengthening is to be performed in the scapular plane.

If stiffness develops, strengthening is to be delayed

Heat can be used after 2 weeks post-op to warm up prior to stretching

Ice is used for pain control and after stretching