

## Total Shoulder Replacement Postoperative Protocol

This rehabilitation program is designed to return the individual to their activities as quickly and safely as possible. It is designed for rehabilitation following a reverse total shoulder procedure. Modifications to the protocol may be necessary dependent on concomitant injuries or procedures performed. This evidence-based rehabilitation protocol is criterion-based and time frames in each phase will vary depending on many factors including patient demographics, goals, and individual progress. The therapist must modify the program appropriately depending on the individual's goals for activity following reconstruction.

This protocol is intended to provide the treating clinician with a guideline for rehabilitation. It is not intended to substitute for making sound clinical decisions regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

## **General Guidelines:**

- Rehabilitation progression should be based upon obtaining goals/milestones.
- Active Assisted ROM and Isometrics initiated at 4 weeks.
- Active ROM initiated at 6-8 weeks.
- Strengthening initiated at 10 weeks.

## Total Shoulder Arthroplasty Protocol

| Phase            | Intervention  | Goals/Milestones for   |
|------------------|---|--|
| progression      |   |  |
| Phase I -        | Precautions:  |  |
| Immediate Motion | No lifting of objects   |  |
|                  | <ul> <li>No excessive shoulder extension</li> <li>No excessive arm motions</li> </ul>   | <ol> <li>Allow healing of the capsule</li> <li>Increase passive ROM</li> </ol> |
| Phase            | <ul> <li>No excessive and motions</li> <li>No overhead motions</li> </ul>   | 3. Diminish pain and inflammation  |
|                  | <ul> <li>No excessive stretching or sudden movements</li> </ul>   | 4. Prevent muscular inhibition/atrophy   |
| Weeks 0-4        | <ul> <li>No supporting of body weight by hands</li> </ul>   |  |
|                  | Keep incision clean and dry   |  |
|                  | Weeks 0-2   |  |
|                  | Instruction:  |  |
|                  | Continue sling use  |  |
|                  | Treatment:  |  |
|                  | Elbow/wrist/hand AROM   |  |
|                  | Gripping exercise for hand  |  |
|                  | <ul> <li>Pendulum exercises</li> <li>Passive ROM</li> </ul>   |  |
|                  | <ul> <li>Passive ROM</li> <li>Flexion and scaption to tolerance (pain-free)</li> </ul>  |  |
|                  | <ul> <li>ER to 30 deg (in scapular plane)</li> </ul>  |  |
|                  | <ul> <li>IR to chest wall (in scapular plane)</li> </ul>  |  |
|                  | Cryotherapy for pain and inflammation control   |  |
|                  | Soft tissue mobilization  |  |
|                  | Weeks 3-4   |  |
|                  | Instruction:  |  |
|                  | <ul> <li>Continue to progress PROM</li> <li>Continue sling use</li> </ul>   |  |
|                  |   |  |
|                  | Treatment:  |  |
|                  | <ul> <li>Continue with exercises from above</li> <li>Progress PROM</li> </ul>   |  |
|                  | <ul> <li>Flexion and scaption to tolerance (pain-free)</li> </ul>   |  |
|                  | <ul> <li>ER to 30 deg (in scapular plane)</li> </ul>  |  |
|                  | <ul> <li>IR to chest wall (in scapular plane)</li> </ul>  |  |
|                  | <ul> <li>Initiate wand AAROM into all planes in supine at week 4         <ul> <li>Pulleys and unresisted UBE</li> </ul> </li> </ul> |  |
|                  | <ul> <li>Initiate rhythmic stabilization and submaximal isometrics at week 4</li> </ul>   |  |
|                  | • Flexion/extension   |  |
|                  | • ER/IR in scapular plane   |  |
|                  | <ul> <li>Scapular</li> <li>Dein central and ceft ticque mobilization techniques on peeded</li> </ul>                                |  |
|                  | Pain control and soft tissue mobilization techniques as needed  |  |

| Phase II –          | Precautions:  |    |                                   |
|---------------------|---|----|-----------------------------------|
|                     | No heavy lifting of objects   | 1. | Improve shoulder ROM              |
| Active Motion Phase | No carrying heavy objects   |    | Improve dynamic stabilization and |
|                     | <ul> <li>No supporting of body weight by hands and arms</li> </ul>                        |    | strength                          |
|                     | <ul> <li>No sudden jerking motions</li> </ul>   | 3. |                                   |
|                     |   | 4. |                                   |
| Weeks 5-12          | Weeks 5-8   |    | ,                                 |
|                     | Instruction:  |    |                                   |
|                     | <ul> <li>May begin AROM to the shoulder at weeks 6-8</li> </ul>                           |    |                                   |
|                     | Discontinue sling use at week 6 or as directed by physician                               |    |                                   |
|                     |   |    |                                   |
|                     | Treatment:  |    |                                   |
|                     | Progress PROM   |    |                                   |
|                     | <ul> <li>Flexion and scaption to tolerance (pain-free)</li> </ul>                         |    |                                   |
|                     | <ul> <li>ER to 45 to 60 deg at 6 weeks and as tolerated at 8 weeks (pain-free)</li> </ul> |    |                                   |
|                     | Continue shoulder and scapular isometrics   |    |                                   |
|                     | <ul> <li>Progress AAROM to include flexion and scaption and pulleys at 5 weeks</li> </ul> |    |                                   |
|                     | Initiate AROM at 6-8 weeks  |    |                                   |
|                     | <ul> <li>Supine flexion and scaption (start sidelying if unable)</li> </ul>               |    |                                   |
|                     | <ul> <li>Sidelying ER/IR</li> </ul>   |    |                                   |
|                     | Scapular retraction/depression active exercises   |    |                                   |
|                     | Gentle resisted biceps and triceps  |    |                                   |
|                     | Light resistance UBE  |    |                                   |
|                     |   |    |                                   |
|                     |   |    |                                   |
|                     | <u>Weeks 10-12</u>  |    |                                   |
|                     | Instruction:  |    |                                   |
|                     | May use heat prior to ROM exercises   |    |                                   |
|                     | • May begin strengthening at 10 weeks (slow and gradual progression beginning at 1-2#)    |    |                                   |
|                     |   |    |                                   |
|                     | Treatment:  |    |                                   |
|                     | Continue all exercises listed above   |    |                                   |
|                     | <ul> <li>Continue to progress PROM/AROM as tolerated</li> </ul>                           |    |                                   |
|                     | <ul> <li>Isotonic strengthening exercises in all planes</li> </ul>                        |    |                                   |
|                     | Bicep/triceps strengthening   |    |                                   |
|                     | <ul> <li>Progress scapular stabilization exercises</li> </ul>                             |    |                                   |
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|                     |   |    |                                   |

| <b>Phase III –</b><br>Activity Phase | Week 13-26<br>Instruction:<br>• Initiation of this phase begins when patient exhibits:<br>• Flexion and/or scaption to 160-deg | <ol> <li>Improve shoulder strength</li> <li>Neuromuscular control of shoulde<br/>complex</li> <li>Improve/progress functional</li> </ol> |
|--------------------------------------|--|--|
| Weeks 13-26                          | <ul> <li>ER to 75-deg</li> <li>IR to 60-deg</li> <li>4/5 muscle grade for ER/IR/abduction</li> </ul>                           | abilities  |
|                                      | Treatment  |  |
|                                      | <ul> <li>Progress all strengthening exercises</li> <li>Encourage HEP progression and compliance</li> </ul>                     |  |
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