

## **Anatomic Total Shoulder Arthroplasty Rehabilitation Protocol**

Physical therapy after a total shoulder arthroplasty (TSA) should begin within the first week following surgery. Physical therapy should be 2-3 time per week through 12 weeks post-operatively.

### **Phase 1: (post-operative-2 weeks)**

<b>Goals</b>	<ul style="list-style-type: none"> <li>• Minimize pain</li> <li>• Minimize swelling</li> <li>• Begin passive range of motion exercises</li> <li>• Educate patient on home exercise program for days not in PT</li> </ul>
<b>Precautions/ Sling Use</b>	<ul style="list-style-type: none"> <li>• Must wear sling (all components) at all times, except during home exercises and physical therapy</li> </ul>
<b>Range of Motion</b>	<ul style="list-style-type: none"> <li>• Pendulum exercises (3x/day)</li> <li>• Passive supine forward flexion (limit to 120°)</li> <li>• Passive supine external rotation (limit to 30°)</li> <li>• Passive internal rotation (limit to belly)</li> <li>• Assisted elbow flexion and extension</li> </ul>
<b>Strengthening</b>	<ul style="list-style-type: none"> <li>• Peri-scapular strengthening exercises</li> <li>• Deltoid isometrics</li> <li>• Wrist and hand exercises</li> </ul>
<b>Home Instructions</b>	<ul style="list-style-type: none"> <li>• Keep surgical dressings clean and dry</li> <li>• Change surgical bandages on the 5<sup>th</sup> day after surgery. Maintain mesh and skin glue in place</li> <li>• Can shower on the 3<sup>rd</sup> day after surgery (do not scrub, soak, or submerge the incisions)</li> <li>• Must sleep in the sling</li> <li>• May type or write with surgical side hand, but only while in the sling</li> <li>• May come out of sling for elbow range-of-motion three times a day</li> </ul>

### **Phase 2: (2 weeks-6 weeks)**

<b>Goals</b>	<ul style="list-style-type: none"> <li>• Minimize pain</li> <li>• Continue to improve PROM</li> <li>• Begin AAROM</li> </ul>
<b>Precautions/ Sling Use</b>	<ul style="list-style-type: none"> <li>• Continue to wear sling (all components) at all times until week 4, then may remove pillow for weeks 4-6</li> </ul>

<b>Range of Motion</b>	<ul style="list-style-type: none"> <li>• Passive range of motion <ul style="list-style-type: none"> <li>◦ Forward Flexion advance to full ROM</li> <li>◦ External Rotation to 60° for 2 weeks, then advance as tolerated</li> <li>◦ Abduction to 120°, advance as tolerated</li> </ul> </li> <li>• Active assisted forward flexion using pulleys or cane to 90°</li> <li>• Elbow extension and flexion</li> <li>• No cross-body or internal rotation resistance</li> </ul>
<b>Strengthening</b>	<ul style="list-style-type: none"> <li>• Peri-scapular strengthening exercises</li> <li>• Shoulder sub-maximal (pain free) isometrics</li> <li>• IR, ER, biceps, triceps isometrics starting week 4</li> </ul>
<b>Home Instructions</b>	<ul style="list-style-type: none"> <li>• Continue to sleep in sling</li> <li>• Can submerge incision in water after first post-op visit only when incision is completely healed</li> <li>• Can continue to write or type with operative hand while in sling</li> <li>• No lifting with operative shoulder</li> <li>• Do not support bodyweight with operative shoulder</li> </ul>

### Phase 3: (6-12 weeks)

<b>Goals</b>	<ul style="list-style-type: none"> <li>• Advance PROM in all planes</li> <li>• Full AROM</li> <li>• Begin light shoulder resistance exercises</li> </ul>
<b>Precautions/ Sling Use</b>	<ul style="list-style-type: none"> <li>• Discontinue sling use at around 6 weeks</li> </ul>
<b>Range of Motion</b>	<ul style="list-style-type: none"> <li>• Progress PROM as tolerated to full</li> <li>• Being resisted internal rotation and cross-body motion</li> <li>• AROM exercises in all directions (flexion, extension, external rotation and internal rotation, salutes, prone extension), progress as tolerated limiting excessive IR</li> </ul>
<b>Strengthening</b>	<ul style="list-style-type: none"> <li>• Continue isometric contractions in all directions</li> <li>• Begin light resistive exercises (bicep curls, tricep extensions)</li> <li>• Theraband exercises to increase forward flexion, extension, and external rotation strength (limit IR strengthening at this point)</li> <li>• Muscular endurance: IR/ER, sport cord rows, prone lower trap, punches with a plus</li> </ul>
<b>Home Instructions</b>	<ul style="list-style-type: none"> <li>• No longer need to wear the sling</li> <li>• No lifting pulling or pushing greater than 3 pounds</li> <li>• No overhead work</li> <li>• No repetitive motions with the shoulder</li> </ul>

### Phase 4: (12+ weeks)

<b>Goals</b>	<ul style="list-style-type: none"> <li>• Advance end range PROM and AROM (goal AROM FE160, Abd 150, Ext Rot 45)</li> <li>• Restore normal scapulothoracic rhythm/motion</li> <li>• Advance muscular strength</li> <li>• Transition therapy to a home exercise program</li> </ul>
<b>Precautions/ Sling Use</b>	<ul style="list-style-type: none"> <li>• No sling use</li> <li>• Proceed with strengthening gradually</li> </ul>

<b>Range of Motion</b>	<ul style="list-style-type: none"> <li>• Progress to full AROM as tolerated</li> <li>• Teach patient flexibility exercises to continue at home to encourage full ROM</li> </ul>
<b>Strengthening</b>	<ul style="list-style-type: none"> <li>• Increase resistive exercises: bear hugs, statue of liberty, push-up plus progression</li> <li>• external rotation at 45 and 90 degrees</li> <li>• Slow progress to power</li> </ul>
<b>Home Instructions</b>	<ul style="list-style-type: none"> <li>• Work on restoring normal activities of daily living</li> <li>• Discuss specific activity/sport restrictions with your surgeon</li> </ul>

For any questions about operative details or rehabilitation guidelines, please contact the respective surgeon's Athletic Trainer at 205-930-8339, or via direct email with [williamgunnett@uabmc.edu](mailto:williamgunnett@uabmc.edu)