



*Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists*

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### **REHABILITATION PROTOCOL- Total Shoulder Arthroplasty**

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

**Shoulder precautions-** Pillow or towel behind elbow while lying supine. No shoulder extension, excessive IR or ER. No supporting of body weight by hand on affected side. Maintain for 6-8 weeks postop.

### **INDIVIDUAL CONSIDERATIONS: S/p**

#### **PHASE 1- Surgery to 3 weeks**

REHAB GOALS	<ol style="list-style-type: none"><li>1. Protection of the post-surgical repair</li><li>2. Emphasize importance of sling usage</li><li>3. Minimize swelling &amp; pain</li></ol>
PRECAUTIONS	<ol style="list-style-type: none"><li>1. Sling immobilization for 4-6 weeks, use at all times except bathing &amp; ROM exercises</li><li>2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session once splint removed</li><li>3. No lifting or carrying objects, no supporting of body weight with involved extremity</li><li>4. No active ROM</li></ol>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"><li>○ Active &amp; passive wrist, hand ROM, ball squeeze, gripping</li><li>○ Gentle supine passive forward flexion</li><li>○ Gentle ER &lt;20 in scapular plane</li><li>○ Passive IR to chest</li><li>○ Pendulums</li></ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"><li>○ As above</li><li>○ Sub max pain free periscapular isometrics in scapular plane</li><li>○ Week 2- LE and core strengthening with sling on at all times</li></ul>
CARDIOVASCULAR EXERCISE	None
PROGRESSION CRITERIA	<ul style="list-style-type: none"><li>○ Tolerates PROM</li><li>○ Forward flexion/elevation 90</li></ul>

	<ul style="list-style-type: none"> <li>○ PROM ER 45 in plane of scapula</li> <li>○ PROM IR 70 in plane of scapula at 30 deg abduction</li> <li>○ If has not achieved above do not forcefully stretch</li> </ul>
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## PHASE 2- 4-6weeks

REHAB GOALS	<ol style="list-style-type: none"> <li>1. Protection of the post-surgical repair</li> <li>2. Prevent contracture of hand/wrist/elbow</li> <li>3. Minimize pain and swelling</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. Sling immobilization for 4-6 weeks, use at all times except bathing &amp; ROM exercises</li> <li>2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session once splint removed</li> <li>3. No lifting or carrying objects.</li> </ol>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Continue phase 1 exercises</li> <li>○ AAROM pulleys (flexion &amp; scapular elevation) if &gt;90 PROM</li> <li>○ Ok to begin active ROM in plane of scapular pain free ROM</li> <li>○ Assisted horizontal adduction</li> <li>○ ER in scapular plane to tolerance</li> <li>○ Glenohumeral/scapular mobilizations as needed</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Continue phase 1 exercises</li> <li>○ Glenohumeral &amp; scapulothoracic rhythmic stabilization</li> <li>○ Gentle resisted elbow, wrist, hand exercises</li> </ul>
CARDIOVASCULAR EXERCISE	Stationary bike at week 3 while wearing sling at all times
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ Tolerates PROM, AAROM, isometrics</li> <li>○ PROM 140 forward flexion &amp; elevation in scapular plane</li> <li>○ PROM 60 ER in plane of scapula</li> <li>○ PROM 70 IR in plane of scapula at 30 abduction</li> <li>○ Active elevation to 100 with good mechanics</li> </ul>

## PHASE 3- 7-12 weeks postop

REHAB GOALS	<ul style="list-style-type: none"> <li>○ Protect surgical repair</li> <li>○ Gradual restoration of ROM</li> </ul>
PRECAUTIONS	<ul style="list-style-type: none"> <li>○ Discontinue sling use</li> <li>○ No lifting heavier than cup of coffee, no supporting of body weight with involved extremity</li> </ul>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Continue exercises from phase 2.</li> <li>○ PROM as needed</li> <li>○ Progress PROM, AROM</li> <li>○ Assisted IR behind back</li> <li>○ Resisted IR/ER in scapular plane</li> </ul>

	<ul style="list-style-type: none"> <li>○ Gentle GH &amp; ST mobilizations</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Continue exercises from phase 2</li> <li>○ Supine active elevation with light weight</li> <li>○ Resisted flexion, elevation in plane of scapula, extension</li> <li>○ Week 9-progress ER &amp; IR strengthening</li> </ul>
CARDIOVASCULAR EXERCISE	Stationary bike increasing resistance
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ Tolerates light strengthening</li> <li>○ At least 140 AROM forward flexion/elevation supine, 60 ER plane of scapula supine, 70 IR plane of scapula supine in 30 abduction</li> <li>○ Able to actively elevate shoulder to at least 120</li> </ul>

### PHASE 4- 12+weeks postop

REHAB GOALS	<ul style="list-style-type: none"> <li>○ Enhance functional use</li> <li>○ Enhance mechanics, strength, endurance</li> </ul>
PRECAUTIONS	No sudden lifting or pushing Avoid anterior shoulder stress (ABER)
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Continue with flexibility exercises from previous phase</li> <li>○ Mobilizations as needed</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Continue phase 3 activities. Progress with resistance/load.</li> <li>○ 4 months- Return to recreational hobbies, sports</li> </ul>
CARDIOVASCULAR EXERCISE	Continue from phase 3, add stairmaster, elliptical ( noupper body).
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ Non painful AROM</li> <li>○ Maximized functional use, strength, endurance</li> <li>○ Patient returned to advanced functional activities</li> </ul>