Edmonton Region Shoulder Rehabilitation Guidelines - Total Shoulder Arthroplasty

Surgery Date: __________________  Surgeon: __________________  Patient Information: __________________

Procedure: __________________

ROM Limitations: External Rotation: 0 Degrees ___________ 15 Degrees ___________ 30 Degrees ___________

Other: __________________________________________________________

Additional Information: __________________________________________

<table>
<thead>
<tr>
<th>PHASE I – Immediate (0 – 7 days)</th>
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<tr>
<td><strong>GOALS OF PHASE</strong></td>
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<tr>
<td><strong>Primary:</strong></td>
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<tr>
<td>• Education re: surgical outcomes / post-operative expectations</td>
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<tr>
<td>• Optimize / Protect healing tissue (especially subscapularis)</td>
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<tr>
<td>• Maintain integrity of replaced joint</td>
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<tr>
<td>• Decrease Pain and Inflammation</td>
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<td>• Protected GH joint ROM</td>
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<td><strong>Secondary:</strong></td>
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<tr>
<td>• Address Kinetic Chain (adjacent joints, posture, etc.)</td>
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<tr>
<td>• General Health / Wellness</td>
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<td><strong>Cautions:</strong></td>
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<tr>
<td>• No external rotation (or other) ROM beyond limits set above</td>
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<tr>
<td>• No active internal rotation ROM &amp;/or strengthening</td>
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<tr>
<td>• No active abduction and external rotation</td>
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<td>• No excessive stretching</td>
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<tr>
<td>• No lifting, pushing and/or pulling with affected arm</td>
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# Phase II – Early (Week 1 – 6)

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<tr>
<th>GOALS OF PHASE</th>
<th>SPECIFIC TREATMENT INTERVENTION</th>
<th>CRITERIA FOR PROGRESSION TO PHASE II</th>
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</table>
| **Primary:**  | • Immobilization in sling/swath as dictated by surgeon/PT  
• Out of sling several times/day for washing / PT exercises / ADL activities  

*Dosage for all exercises are dictated by pain and patient being able to perform without compensation*  

- Gentle PROM into forward flexion, scaption and external rotation to limits set above  
- AAROM → AROM forward elevation / scaption in supine & standing (stick, pulleys, wall walking, ball on wall)  
- AAROM → AROM external rotation (shld adducted) to established limit in supine or sitting (using contralateral limb or stick)  
- Standing pendular ROM exercises  
  - unweighted & supported with hand on physio ball  
- Scapular setting exercises in sitting (retraction/retraction & depression)  
  - May progress to sitting on physio ball or standing  
  - May add in small distal arm motions with scapular setting (e.g. ball on bed)  
- Isometric exercises with shld in adducted position  
  - Flexion/abduction/extension/external rotation (NO internal rotation)  

| **Secondary:** | • Wrist / hand / elbow ROM and hand gripping exercises  
• C-spine/T-spine ROM exercises (as directed by PT)  
• Posture exercises (as directed by PT)  
• CV exercises with shoulder in sling (recumbent stationary bike, walking)  
| **Cautions:** | • Tissue healing i.e. no sign of abnormal / disruption to repair / adherence to external rotation ROM precautions  
• Patient able to actively elevate shoulder to a minimum of 90° flexion or scaption and ER to neutral  
• Patient able to perform prescribed dosage of exercises with good technique/control and without reproducing pain and/or symptoms  
• Improved strength of shoulder girdle musculature from initial assessment (outcome measure: resisted isometric testing)  
• Patient reports overall increase in use of affected arm in ADL activities and overall decrease of pain (associated mostly with use)  

- No external rotation (or other) ROM beyond limits set above  
- No active internal rotation ROM &/or strengthening  
- No active abduction and external rotation  
- No excessive stretching  
- No lifting, pushing and/or pulling with affected arm  
- General Health / Wellness
**PHASE III – Intermediate (Week 7 – 12)**

<table>
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<tr>
<th>GOALS OF PHASE</th>
<th>SPECIFIC TREATMENT INTERVENTION</th>
<th>CRITERIA FOR PROGRESSION TO PHASE III</th>
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<tbody>
<tr>
<td><strong>Primary:</strong></td>
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<td><strong>Patient able to actively elevate shoulder to a minimum of 90° flexion or scaption and ER to neutral</strong></td>
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</table>
| • Increase shoulder girdle strength and endurance | • Pendular ROM exercises (unweighted; increase ROM as pain allows)  
  o Add scapular retraction / protraction | **Patient able to perform prescribed dosage of exercises with good technique/control and without reproducing pain and/or symptoms** |
| • Increase GH joint ROM (AROM → AROM w/ light resistance) | • Patient can progress to all shoulder active ROM (including abduction, IR and ER) when able to move through range without pain and without compensation | **Improved strength and endurance of shoulder girdle musculature from initial assessment (outcome measure: resisted isometric testing)** |
| • Protect healing tissue and maintain integrity of replaced joint | • AAROM → AROM exercises → AROM with light resistance (1-2 lbs or light tubing)  
  • Functional / U/E Kinetic Chain Exercises (wall washing, ball on the bed or wall, functional movement patterns, PNF patterns) | **Patient reports overall increase in use of affected arm in ADL activities and overall decrease of pain (associated mostly with use)** |
| • Minimize shoulder pain | • Scapular stabilization exercises (retraction / retraction & depression AND protraction)  
  o Progress from arms at side → waist → shld height, short arc/short lever dynamic movements (rowing, ball on bed ex.) | | |
| | • Closed Kinetic Chain (CKC) exercises  
  o Weight-bearing onto large physio ball/table, quadruped position, serratus punch-up ex., wall push-ups *all done with proper scapular positioning | | |
| | **Shoulder Girdle Strengthening (emphasis on scapular stabilizers, deltoid & ER)**  
  **NO internal rotation strengthening** | | |
| | • Progress from isometrics → isometrics in varied positions → isotonics  
  • Begin with flexion, scaption planes of movement → progress to abduction with low load and short lever arm only  
  • Begin with shoulder in neutral at side then gradually progress to performing exercises at waist level  
  • Progress to combined, functional movement patterns vs. isolated movements  
  • Dosage should reflect strength & endurance goals  
  • Avoid long lever positions for all strength exercises | | |
| | • Ice and EPAs as needed for pain relief | | |
| | **Secondary:**                     | | |
| | • Continue wrist / hand / elbow / spine ROM and posture exercises as required  
  (especially C-spine side flexion & T-spine extension and rotation ROM)  
  • Elbow/biceps curls with light weight (arm at side)  
  • Progress CV exercises (directed by PT)  
  • Educate/advise on appropriate and safe return to ADL/sport activities | | |
| **Secondary:**   | | |
## PHASE IV – Return to Activity (12 – 24+ Weeks)

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<tr>
<th>GOALS OF PHASE</th>
<th>SPECIFIC TREATMENT INTERVENTION</th>
<th>CRITERIA FOR RTA / HOME PROGRAM</th>
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<tr>
<td><strong>Primary:</strong></td>
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| • Functional ROM of GH joint and entire U/E kinetic chain | **Primary:** Range of Motion / Stretching  
  • Continue AROM – focus on combined, functional ROM exercises  
  • Gentle PT assisted PROM/stretching as required  
  • Shoulder Girdle Strengthening (emphasis on scapular stabilizers, deltoid & rotator cuff)  
  **Gentle internal rotation strengthening allowed**  
  • Begin IR strengthening with isometrics → isometrics in varied positions → isotonics  
  • Continue flexion, scaption & abduction exercises → progress load and dosage  
  • Progress to performing exercises at waist level, shoulder level, etc.  
  • Progress to combined, functional movement patterns vs. isolated movements  
  • Dosage should reflect strength & endurance goals  
  • Avoid long lever positions for all strength exercises  
  *All exercise progressions based on patient being able to perform prescribed dosage with good technique (ie. scapular control) AND without reproducing pain and/or other symptoms*  
  • Functional/U/E Kinetic Chain Exercises  
    o Progress from Phase III - dosage, ROM, functional positions, speed, reaction time, L/E challenge  
  • Closed Kinetic Chain exercises (as in Phase III)  
    • Progress by slowly increasing weight bearing through U/E, adding perturbations, endurance, functional positions, etc.  
  *All kinetic chain exercises should be performed Painfree with Proximal Stability (proper spine posture and stable scapula) and progressed only if patient can maintain this position while performing the exercise*  
  **Secondary:**  
  • Activity-specific exercises to address functional goals for returning to allowed ADL/work/recreational activities  
  • Advise on limitations of joint replacement procedure (i.e. contraindicated activities/sports)  
|                                 | • Functional GH joint AROM AROM should be painfree and performed with proper scapulohumeral rhythm | • Improved strength and endurance of shoulder girdle musculature (compared to beginning of Phase IV)  
  • Patient able to demonstrate proper scapular control with dynamic testing (ie. GH joint ROM and/or functional movement pattern)  
  • Patient able to use affected arm in most to all ADL activities  
  • Return to work/sport as directed by surgeon & PT |
| **Secondary:**  |                                 |                                 |
| • Full return to all ADLs, work and recreational activities allowed with joint replacement  
  • Protect healing tissue and maintain integrity of replaced joint |                                 |                                 |
| **Cautions:**  |                                 |                                 |
| • No excessive stretching  
  • Gentle strengthening into internal rotation  
  • No heavy lifting, pushing and/or pulling with affected arm |                                 |                                 |

For more information on these guidelines please go to:

http://rehabilitation.ualberta.ca/research/research-groups/shoulder-and-upper-extremity-research-group-of-edmonton/shoulder-rehabilitation-guidelines