Rehabilitation Protocol for InSpace Balloon Implant

Phase I: Early Motion Phase (1-4 weeks)

PHASE 1 OVERVIEW

- Sling immobilization during the day and night for approximately 4 weeks. Afterwards, sling may be removed unless needed for comfort reasons (however, recommended while sleeping or during activities of daily living [ADLs]).
- Depending on patient progress, exercises may include passive shoulder (only) ROM and active elbow, wrist, and hand ROM therapy exercises. Recommended to begin immediately postoperatively, during which the sling may be removed.
- Forward flexion and abduction are recommended to be limited to no more than 60° (less if painful).

PHASE 1 EXERCISES

- Passive shoulder ROM:
 - Pendlum exercises
 - Supine elevation in the scapular plane, up to 140 degrees
 - External rotation to tolerance with arm at side:
 - Emphasize external rotation with a minimum goal of 40 degrees
 - Side-lying scapular stabilization exercises
- Active ROM (AROM):
 - \circ $\;$ Elbow, wrist, and hand exercises
 - Deltoid isometrics in a neutral (submaximal) position, as ROM improves, and as tolerated
 - Do not use pulley or canes until 6 weeks post-op

Phase II: ROM Progression Phase (4-6 weeks)

PHASE 2 OVERVIEW

- Sling use may be discontinued.
- Passive and active exercises are recommended to achieve functional ROM with slow steady stretching (without pain), beginning lightly and increasing over time.

PHASE 2 EXERCISES

- Begin Active Assisted ROM (AAROM) exercises and advance to AROM as tolerated
 - Elevation in scapular plane and external rotation, as tolerated
 - No internal rotation or movement of the arm recommended behind the back until 6 weeks post-op

Phase III: Dynamic Strengthening Phase (6-12 weeks)

PHASE 3 OVERVIEW

- By the end of this phase, the patient is expected to regain their preoperative ROM or at least continue to make steady gains weekly (including ROM and strengthening exercises) until return to normal activity.
- Please note with some of your patients in this stage it is expected to experience temporary discomfort or transient increase in shoulder pain.

If you have any problems or questions, please call your doctor's office (8am-5pm). Answering service for after hours. 250 S. MAIN STREET, SUITE 224A BLACKSBURG, VA 24060 P 540.552.7133 | F 540.552.7143 ORTHOVIRGINIA.COM

PHASE 3 EXERCISES

- Shoulder AAROM to AROM, as tolerated
- Maintain elevation in scapular plane and external rotation to tolerance
- Begin internal rotation, as tolerated
- Light stretching at end ranges
- Rotator cuff isometrics with the arm at the side
- Leverage an Upper Body Ergometer, as available, to support strengthening

Phase IV: Return to Activity Phase (>12 weeks)

PHASE 4 OVERVIEW

- Advance to full ROM (as tolerated) with passive stretching at end ranges
- Advance strengthening, as tolerated: Isometrics
 > Bands > Light weights (1–5 lbs)
 - 8–12 reps/2–3 sets per rotator cuff, deltoid, and scapular stabilizers
 - Strengthening exercises only 3x/week to avoid rotator cuff over use and tendonitis
- Begin sports related/more strenuous ADLs rehab at 4 ¹/₂ months, including advanced conditioning
- MRI is usually at 12 months post-op

References: Verma N, Srikumaran U, Roden CM, Rogusky EJ, Lapner P, Neill H, Abboud JA. (2022). InSpace implant compared with partial repair for treatment of full-thickness massive rotator cuff tears. J Bone JT Surg Am. Advance online publication. doi. 10.2106/JBJS.21.00667



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