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Anatomic Total Shoulder Arthroplasty (aTSA) Rehabilitation Protocol (Subscapularis Peel & Repair)

Key Surgical Considerations

Rehabilitation after anatomic TSA with a subscapularis peel is governed by subscapularis protection. External rotation must be limited early, with no active internal rotation. The repair typically requires 8–12 weeks before active IR strengthening is safe.

PHASE I — Protection & PROM (0–4 Weeks)

- PROM only: FE 0–100°.
- ER limited to 20–30°.
- No active IR or behind-the-back motion.
- Sling with abduction pillow full time.
- No pushing up from a chair or bed.

Goal: protect subscapularis repair and limit strain.

PHASE II — AAROM → Early AROM (4–8 Weeks)

- Begin AAROM: wand, pulleys, wall slides.
- Gradual AROM: supine → incline → seated elevation.
- Continue ER restriction ≤30°.
- No active IR or extension past neutral.

Goal: restore controlled mobility.

PHASE III — AROM Normalization & Early Strength (8–12 Weeks)

- Progress AROM to tolerance.
- Begin deltoid strengthening (1–3 lbs).
- Scapular strengthening: rows, serratus punches.
- Light ER strengthening.
- **Still NO resisted IR.**

Goal: restore functional shoulder elevation.

PHASE IV — Strengthening Phase (12–20 Weeks)

- Begin IR strengthening (bands → light weights).
- Progress ER, scaption, and prone Y/T/W.
- Closed-chain stability: wall push-ups.
- Gradual overhead strengthening.

Goal: normalized strength and endurance.

PHASE V — Return to Activity (20–26 Weeks)

• Sport- or work-specific progression.
• Overhead strengthening.
• Full ADLs and recreational activity.

Goal: full, pain-free return to function with stable implant and subscapularis integrity.

Selected References

1. Levine WN, et al. Rehabilitation after total shoulder arthroplasty. J Bone Joint Surg Am. 2. Miller SL, et al. Subscapularis management in TSA: clinical outcomes. J Shoulder Elbow Surg. 3. Parsons BO, et al. Early vs delayed motion after TSA with subscapularis repair. 4. Wilcox RB, et al. Shoulder arthroplasty rehab guidelines and biomechanics.