**270+ Labral Repair: Post Operative Rehabilitation Protocol**

**0-2 weeks post-op (may begin these the day after surgery):**

* Keep arm in sling/immobilizer at all times
* Remove arm from sling 3x per day for these exercises:
	+ Fully bend and straighten your fingers, wrist and elbow several times
	+ Passive Shoulder Pendulums
	+ Squeeze the foam ball several times for grip strength and blood flow

**2-4 weeks post-op:**

* Keep arm in sling/immobilizer during the day. Its OK to take arm out of sling/immobilizer at night, but try to limit internal rotation. Keep the arm out in front of you whenever out of the sling and do NOT reach the arm behind your back.
* Sub-maximal isometrics for rotator cuff in immobilizer (flexion/extension/abduction/adduction/IR/ER)
* Begin chin tucks for cervical ROM
* Passive ROM under therapist’s supervision (no shoulder pulleys without supervision).
	+ Flexion to 60°, extension neutral, abduction to 90°, ER to 10°(arm at side), IR to 10° (arm at side).
* Begin scapular strengthening
	+ Elevation with shrugs, depression/retraction/protraction with minimal resistance.
* Ice, TENS, cross friction scar massage and other modalities as needed.

**4-6 weeks post-op:**

* Discontinue sling/immobilizer
* Continue therapeutic exercises as above
* Advance ER and IR PROM to 30°
* Begin light Theraband ER strengthening with elbow at side
* Passive ROM with shoulder pulleys or with wand
	+ Flexion to 90° and abduction to full overhead as tolerated
	+ Extension to 30°
	+ ER to 30° with arm at side and in 90° of abduction
	+ IR to 30° with arm at side and in 90° of abduction.
* Begin standing or supine AAROM with wand
* Begin wall walks in forward flexion and abduction
* Moist heat, thermal ultrasound, TENS, other modalities as needed

**6-8 weeks post-op:**

* Continue therapeutic exercises as above
* Advance ROM to full as tolerated, except limit IR and ER to 45° both with arm at side and with arm in 90° of abduction
	+ Limit IR and ER to 45° until 10 weeks post-op
	+ Strive for glenohumeral : scapular movement of 2:1
* Begin UBE
* Begin wall push-ups
* Begin isotonic rotator cuff strengthening (progress weight/resistance as tolerated up to 6-8 lbs).
	+ Standing flexion, extension, abduction and scaption with thumb down (dumbells or Therabands).
	+ Standing IR and ER with Therabands (use pillow under arm to keep 25° of abduction)
* Scapular strengthening
	+ Elevation with dumbbell shrugs
	+ Depression with seated press ups (use hand blocks for greater ROM as tolerated)
	+ Retraction with prone dumbbell rows or seated Theraband rows
	+ Protraction with supine punches (using dumbells or manual resistance)
* Neuromuscular control
	+ PNF patterns D1 and D2 with no more than 3 lbs.

**8-10 weeks post-op:**

* Continue therapeutic exercises as above
* Continue to advance ROM if needed…
	+ …but limit IR and ER to 45° until 10 weeks post-op
* Continue scapular strengthening and standing isotonic rotator cuff strengthening until motion is full
* Begin prone dumbbell strengthening
	+ Prone scaption with thumb up and with thumb down
	+ Prone horizontal adduction with thumb up and thumb down
	+ Prone extension
* Neuromuscular control
	+ Supine dynamic/rhythmic stabilization in 90° flexion and 90° abduction with manual resistance
	+ Body blade in 90° flexion and 90° abduction
* Begin isokinetic strengthening with 60° block.
	+ Speeds of 180°, 150°, 120°, 90° and 60°/second (8-10 reps at each speed).

**10-12 weeks post-op:**

* Continue therapeutic exercises as above
* Advance rotator cuff strengthening to 8-10 lbs in all directions
* Continue to advance ROM if needed…but limit IR and ER to 45° until 10 weeks post-op
	+ At 12 weeks post-op, can progress IR and ER to full, with arm at 90° abduction
* Advance neuromuscular control
	+ PNF patterns D1 and D2 with manual resistance
* Standing dynamic/rhythmic stabilization in 90° flexion and 90° abduction with ball against wall and manual resistance.
* Continue isokinetic strengthening but advance to 15 reps at each speed

**12-14 weeks post-op:**

* Continue therapeutic exercises as above
* Advance rotator cuff strengthening to eccentric manual resistance
* Advance neuromuscular control
	+ PNF patterns D1 and D2 with manual resistance
* Advance isokinetic strengthening to full ROM
* Begin traditional weight training with machines and progress to free weights as tolerated.

**14-16 weeks post-op:**

* Continue therapeutic exercises as above
* If thrower, begin light tennis ball tossing at 60% velocity for 20-30 feet max
	+ Work on mechanics (wind-up, early cocking, late cocking, acceleration, and follow through)
* If thrower, begin isokinetics at higher speeds (240°, 270°, 300°, 330°, 360°/sec)

**16-24 weeks post-op:**

* If thrower, perform isokinetic testing as noted at the end of this protocol (if available)
	+ If passes test, begin interval throwing program
	+ Must pass test before beginning interval throwing program
	+ Re-test monthly until passed
* Continue maintenance strengthening
* Return to sport/activity only if:
	+ Pass strength test
	+ Completed throwing program
	+ No pain with activity
	+ Surgeon’s OK
	+ No less than 5 months post-op for return to contact sports.

**Isokinetic Testing Protocol for Throwing Shoulders**

* Patient is seated
* Test uninvolved shoulder first
* Position: shoulder in scapular plane at 90° abduction and 30° flexion, with dynamometer at 0° tilt and 90° rotation
* Use 3 sub-max reps and 3 max reps for warm-up
* Do 6 reps at 60°/second, then 12 reps at 300°/second (allowing at least one minute o rest between test speeds)

Scores equal to or greater than the following are considered passing:

* ER/IR unilateral ratio: 70%
* ER bilateral ratio: 98%
* IR bilateral ratio: 105%
* ER peak torque/BW ratio: 18%
* IR peak torque/BW ratio: 28%