**Posterior Shoulder Stabilization Rehab 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.
* 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 45°(arm at side), IR to neutral only (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 PROM to full
* 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 45° 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 to 45° both with arm at side and with arm in 90° of abduction
	+ Limit IR to 45° until 12 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 lmit IR to 45° until 12 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 to 45° until 12 weeks post-op
	+ At 12 weeks post-op, can progress IR to full, with arm at 90° abduction
	+ (ER can also be progressed to full if not already there)
* 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%