Most patients will start PT at 6 weeks post op

0-2 weeks post-op (may begin these the day after surgery):
- Keep arm in sling/immobilizer at all times
- Remove arm from sling three times per day for the following therapeutic exercises:
  - Fully bend and straighten your fingers, your wrist, and your elbow several times
  - Pendulums (directions and a picture of this can be found on the post-op instruction sheet
  - Work on finger straightening and use a foam ball to work on hand grip/strength

2-4 weeks post-op:
- Keep arm in sling/immobilizer during the day. It’s OK to take arm out of sling/immobilizer at night, but try to limit internal rotation. Keep arm out in front of you whenever out of the sling, and do NOT reach 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 with ATC or PT 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 manual resistance
- Ice, TENS, cross friction scar massage, other modalities as needed

6 weeks post-op:
- Most patients will start PT at 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 indicated

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)
  o Standing flexion, extension, abduction, and scaption with thumb down (dumbbells or Therabands)
  o Standing IR and ER with Therabands (use pillow under arm to keep 25° abduction)
• Scapular strengthening
  o Elevation with dumbbell shrugs
  o Depression with seated press ups (use hand blocks for greater ROM as tolerated)
  o Retraction with prone dumbbell rows or seated Theraband rows
  o Protraction with supine punches (using dumbbells or manual resistance)
• Neuromuscular control
  o 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…
  o …but limit 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
  o Prone scaption with thumb up and with thumb down
  o Prone horizontal adduction with thumb up and with thumb down
  o Prone extension
• Neuromuscular control
  o Supine dynamic/rhythmic stabilization in 90° flexion and 90° abduction with manual resistance
  o Body blade in 90° flexion and 90° abduction
• Begin isokinetic strengthening with 60° block
  o 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
  o At 12 weeks post op, can progress IR to full, with arm at 90° abduction
  o (ER can also be progressed to full if not already there)
• Advance neuromuscular control
  o 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
  o 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
  o 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°/second)

16-24 weeks post-op:
• If thrower, perform isokinetic testing as noted at the end of this protocol (if available)
  o If passes test, begin interval throwing program
  o Must pass test before beginning interval throwing program
  o Re-test monthly until passed
• Continue maintenance strengthening
• Return to sport/activity only if:
  o 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 of rest between test speeds)

Scores equal to or greater that 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%