

KC Royals Rehab Protocol

Post-Op Ulnar Collateral Ligament (UCL) Reconstruction

Surgery day – 1 week Post-Op (Days 0–7)

- Splint is worn for one week at 90°
- Start gripping exercises with a soft ball or rolled towel first day post-operative
- Start finger and wrist AROM (NO RESISTANCE) if splint allows.
 - Full non-painful AROM: supination, pronation, radial & ulnar deviation
 - Very light stretch of wrist & fingers is okay.
- Start shoulder isometrics (with NO ER)
- Start bicep isometrics
- Start knee PROM (if gracilis graft)
- Use crutch PRN for 3 5 days (if gracilis graft)
- Day 3 5 PO initiate recumbent bike very lightly (no sweating to decrease risk of getting perspiration in or on the wound, increasing the risk of infection)
- Day 5 7 PO initiate Brace ROM 30–100° and compression dressing to elbow
 Gradually increase ROM 10° (5° if brace style allows) Extension & 10° Flexion every 5 7 days as ROM allows.
- Day 7 10 PO initiate compression dressing to wrist or calf (if gracilis or Palmaris longus)

1 week PO - 2 weeks PO (Days 7-14)

- Initiate elbow extension isometrics
- Initiate light scar massage over graft site/distal incision as soon as incision is closed for two days
- Initiate low-level, supine, hook-lying TrA exercises (feet on table activities only)

2 weeks PO - 3 weeks PO (Days 14-21)

- Remove stitches day 10-14
- 5-7 days after initiating the elbow brace at $20-110^{\circ}$ increase to $10-120^{\circ}$.
- Initiate light hamstring stretch (if gracilis graft)
- Initiate light hamstring isometrics (if gracilis graft)
- Progress to light wrist stretching (if Palmaris longus)
- Progress TrA exercises as able (No load through upper extremities)
- Initiate other abdominal & lumbar activities (No load through upper extremities)
- AROM of the shoulder (With brace on NO WEIGHT)
 - 1. Full can
 - 2. Abduction
 - 3. ER/IR (Wrist neutral very light/yellow to red theraband)
 - 4. elbow flexion/extension (1 lb)
 - 5. Table top (forearms on table, wrist in neutral) scapular retraction-row)

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- Initiate light scapular strengthening
- Initiate upright, stationary bike (may start sweating during activity)
- Initiate lower extremity exercises (NO RESISTANCE THROUGH THE ARM)
 - 1. straight leg raise
 - 2. seated straight leg raise
 - 3. hip abduction
 - 4. hip adduction
 - 5. hip internal rotation
 - 6. hip external rotation
 - 7. calf raises

3 weeks PO – 4 weeks PO (Days 21–28)

- Initiate isometrics for calf (if gracilis graft)
- Initiate Program 1: Shoulder Exercises 1, 2 & 7 (0-1 lb only)
- Initiate Program 4: Scapula Exercises 5-8 (Prone "Y," "T," & "A")
 Palm down/forearm neutral (arm weight only)
- Initiate Program 2: Shoulder Exercises 1-3 (arm weight only)
- Initiate stabilization for shoulder and wrist
- Initiate shoulder motions
- Initiate leg machine exercises (THERE SHOULD BE NO FEELING OF PRESSURE OR PULSING IN THE SURGERY ARM. NO HOLDING ON WITH THE SURGERY ARM)
- Initiate wrist exercises
 - 1. flexion
 - 2. extension
 - 3. supination
 - 4. pronation
 - 5. radial deviation
 - 6. ulnar deviation
- Progress to 2 lb elbow flexion and extension

4 weeks PO - 5 weeks PO (Days 28-35)

- Discontinue brace (except for crowded situations)
- Progress previous Shoulder & Scapular Exercises by 1 lb
- Progress elbow flexion and extension to 3 lb
- Initiate UBE with no resistance

5 weeks PO - 6 weeks PO (Days 35-42)

- Discontinue brace
- Initiate rice bucket
- Progress previous Shoulder & Scapular Exercises by an additional 1 lb
- May progress other allowed exercises to 4-5 lb
- Increase lower extremity exercises to medium intensity (reps of 20 30)

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• Initiate lower extremity exercises (if gracilis graft). Progress at pt tolerance.

5 weeks PO - 6 weeks PO (Days 35-42) [continued]

- May initiate elliptical machine conditioning
- Progress UBE into resistance gradually per patient tolerance

6 weeks PO - 7 weeks PO (Days 42-49)

- Initiate light manuals with elbow protected (<u>SHOULD NOT HAVE PAIN</u>)
 - 1. shoulder
 - 2. elbow
 - 3. wrist/forearm
- Progress elbow flexion and extension to 5-7 lb weights
- Initiate shoulder ER exercises to compliment existing shoulder/scapular exercises
- Can now perform all exercises for Program 1 Shoulder
- Can now perform all exercises for Program 4 Scapula

<u>7 weeks PO - 8 weeks PO (Days 49-56)</u>

- May progress manuals to medium intensity
- May initiate eccentric loading
- May initiate treadmill jogging

8 weeks PO - 9 weeks PO (Days 56-63)

- Initiate 2-hand plyometrics
 - 1. chest pass
 - 2. side-to-side
- May progress treadmill jogging into treadmill & outdoor running.

<u>9 weeks PO – 10 weeks PO (Days 63–70)</u>

- May initiate outside agility & low-level, lower body plyometric activities
- May initiate bodyblade exercises ONLY BELOW 90° of shoulder flexion &/or abduction & with elbow straight (Can do shoulder ER/IR at 0° of shoulder flexion & abduction)

<u>10 weeks PO - 11 weeks PO (Days 70-77)</u>

- Progress 2-hand plyometrics
 - 1. Overhead soccer throws
 - 2. Overhead throw downs
 - 3. Side chops

<u>11 weeks PO – 13 weeks PO (Days 77–91)</u>

- May initiate machine ex's of big muscle groups (bench press, lat pull down)
- May initiate running if no swelling or pain.
- May initiate swimming.

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<u>13 weeks PO - 14 weeks PO (Days 91–98)</u>

- May initiate high rep(30), light weight dumbbell exercises for the upper extremity
- May progress upper extremity machine work to medium weight and reps of 20.
- May initiate golf.

14 weeks PO - 15 weeks PO (Days 98-105)

- May initiate 90/90 and empty can into T-ten program
- Can now perform all exercises for Program 2 Shoulder
- Can now perform all exercises for Program 3 Shoulder
- May initiate 1-hand plyos
 - 1. wall dribble
 - 2. deceleration catch
 - 3. 90/90 throw
 - 4. external rotation into physio ball

<u>15 weeks PO – 16 weeks PO (Days 105–112)</u>

• May initiate medium weight dumbbell exercises and reps of 20.

<u>16 weeks PO – 17 weeks PO (Days 112–119)</u>

- May initiate interval hitting program (position player)
- May do normal training (week 17 PO [Day 119])

20 weeks PO (Days 140 & beyond)

• Initiate Kansas City Royals rehab throwing program