**UCL Reconstruction**

*Discharge Instructions*

Comfort

* Discomfort increases 1-2 days after surgery due to the injected medication wearing off. This can be helped by oral pain medication. It is safe and normal.
* **Cold therapy** – This will greatly reduce pain and will help with swelling for the first three days.
	+ You may use it 20 minutes on, 20 minutes off, as often as you wish.
	+ Always keep a cloth barrier, such as a towel, between the cold and your skin.

Medication

* For anticoagulation – if you are >19yo, you must take one 81mg aspirin twice a day for two weeks to help prevent blood clots
* For antiinflammation – meloxicam 15mg once a day for four weeks as tolerated for post-op inflammation
* For nausea – Zofran (ondansetron) as needed. This was sent to your pharmacy on file.
* For constipation – over the counter remedies such as Colace or Miralax as needed. Both the anesthesia and the pain medication can cause constipation.
* For pain – A narcotic pain medication (Norco) will be prescribed for you if it is deemed safe with your history and allergies. Due to risk of addiction, use only if needed. Try to manage your pain with ice, ibuprofen, and Tylenol and use the narcotic sparingly. Some patients find they do not need the narcotic at all. Common side effects such constipation, nausea and cognitive impairment may occur. Tylenol and ibuprofen can be used as stepdown medications and are recommended as soon as possible. It is very common to use the pain medication at night to help sleep better or around the time of therapy so you can participate more comfortably.

Activity

* Posterior mold splint and sling until first post-op visit
	+ Transition to hinged elbow brace at first post-op at weeks 2-4
	+ Physical therapy usually begins after first post-op visit
* Please restrict activity for the next several days to prevent unnecessary swelling and soreness.
	+ When resting, try to keep your knee elevated above the level of your heart.
	+ When sitting, we suggest ankle pumps and circles to help lower extremity circulation.
* No driving until further notice. We will discuss this at your next appointment.

Wound Care

* Your incisions are covered by several absorbent pads, gauze, a white cotton bandage, and an ACE wrap. Please leave this in place for at least 3-5 days post op.
	+ Do not get the bandages wet the first 3-5 daysafter surgery—so this means using a bag over the limb for showering, holding it out of the shower, etc.
	+ If the ACE wrap feels too tight, you can loosen it and rewrap it, but please leave the white dressing and other bandages in place until 3-5 days post op.
	+ The bandages were applied under sterile conditions in the OR, and we want to avoid bacteria near the incision.
* After 3-5 days, you can take off the bandages to check on the incision. Keep the surgical incisions clean, dry and covered. If you have any concerns about the incision (redness, draining, swelling, pain), you can call us and send a picture.
* Even after you take off the bandages at 3-5 days post-op, you must continue to use the brace at all times.

Diet

* You may eat anything you like, but it’s advisable to choose light, easily digestible foods and to drink plenty of water the day after surgery. Some people experience nausea as a temporary reaction to anesthesia.

**Call your physician if:**

* **You notice drainage on the cotton bandage or ACE wrap.**
* **You develop a temperature over 100.3 degrees.**
* **You have persistent pain and / or swelling in your calf.**
* **The knee becomes hot to the touch, red, intolerably painful, or swells suddenly. (Note some warmth, pain, and swelling are normal.)**
* **You have any questions or concerns. We are happy to talk to you at any time! If it is after hours, our answering service will page the PA on call and he or she will get in touch with you.**

*Physical Therapy Protocol*

PHASE I: Week 0-4

Immobilization: Post mold and sling until first post-op, then transition to hinged elbow brace (locked from 15 degrees extension to full flexion)

ROM: Limit from full flexion to 15 degrees extension

*Exercises*

* Grip strength in brace
* PROM from full flexion to 15 degrees extension

PHASE II: Weeks 4 to Month 4

Immobilization: d/c brace at 4w

ROM: Progress from PROM to full AROM and AROM

*Exercises*

* Strengthening for wrist, forearm, elbow, shoulder
	+ No aggressive weightlifting until 12 weeks post-op
	+ No chest flies or lifts stressing the ligament
	+ Avoid valgus stress on elbow until 2 months post-op
* Total body conditioning/aerobic training ok

PHASE III: Month 4

*Exercises:*

* Interval throwing program progressing from 45 ft up to 18 ft
	+ Pitchers limited to 120 ft, infielders limited to 160 ft
* May progress from one distance level to the next when the following are met:
	+ No pain/stiffness while throwing or after throwing
	+ Sufficient strength throughout final set with minimal fatigue
	+ Throwing motion effortless and fundamentally sound
	+ Accuracy consistent and throws are on line
* Mound program begins at completion of 120ft level for pitchers
	+ Cather is initially moved forward, but throwing with pitching motion reserved for the mound
	+ No flat ground pitching

*Throwing program:*

* Starting at 4 months, if there is no swelling and full pain free elbow ROM, may begin easy tossing (no wind-up), starting with 25-30 throws and building up to 70 and gradually increasing throwing distance as below.
* Throwing program begins 3-4 times/week, ice after each throwing session.

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 20 | 20 (warm-up phase) |
| 25-40 | 30-40 |
| 10 | 20 (cool down phase) |

* 4-5 months, continue throwing program by tossing the ball with an easy wind-up on alternate days

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 20 (warm-up phase) |
| 10 | 30-40 |
| 30-40 | 50 |
| 10 | 20-30 (cool down) |

* 5-6 months, continue increasing throwing distance to a max of 60 feet
	+ Continue tossing the ball with an occasional throw at no more than half speed

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| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 30 (warm up) |
| 10 | 40-45 |
| 30-40 | 60-70 |
| 10 | 30 (cool down) |

* 6-7 months, gradually increase distance to 150 ft max
	+ Phase I

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 40 (warm up) |
| 10 | 50-60 |
| 15-20 | 70-80 |
| 10 | 50-60 |
| 10 | 40 (cool down) |

* + Phase II

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 40 (warm up) |
| 10 | 50-60 |
| 20-30 | 80-90 |
| 20 | 50-60 |
| 10 | 40 (cool down) |

* + Phase III

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 40 (warm up) |
| 10 | 60 |
| 15-20 | 100-110 |
| 20 | 60 |
| 10 | 40 (cool down) |

* + Phase IV

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 40 (warm up) |
| 10 | 60 |
| 15-20 | 120-150 |
| 20 | 60 |
| 10 | 40 (cool down) |

* 7-8 months, progress to throwing off the mound at ½ to ¾ speed. Focus on proper body mechanics, especially when throwing off the mound (stay on top of the ball, keep elbow up, throw over the top, follow through with arm and trunk)
	+ Phase I

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| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 60 (warm up) |
| 10 | 120-150 (lobbing) |
| 30 | 45 (off the mound) |
| 10 | 60 (off the mound) |
| 10 | 40 (cool down) |

* + Phase II

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 50 (warm up) |
| 10 | 120-150 (lobbing) |
| 20 | 45 (off the mound) |
| 20 | 60 (off the mound) |
| 10 | 40 (cool down) |

* + Phase III

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 | 50 (warm up) |
| 10 | 60 |
| 10 | 120-150 (lobbing) |
| 10 | 45 (off the mound) |
| 30 | 60 (off the mound) |
| 10 | 40 (cool down) |

PHASE IV: Months 9-12

*Exercises:*

* Forward running program without pivoting/twisting when 8” step down is satisfactory
* Advance sport-specific agility drills
* Start plyometric program

*Throwing program*

* At 9-10 months, if pitcher has successfully completed above phases without pain or discomfort and is throwing approx ¾ speed, pitching coach and trainer may allow pitcher to proceed to next step of “up/down bullpens” which is used to simulate a game situation. Pitcher rests in between a series of pitches to reproduce rest period between innings.
* Up/down bullpens (½ - ¾ speed)
	+ Day 1

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 warm up | 120-150 (lobbing) |
| 10 warm up | 60 (off the mound) |
| 40 pitches | 60 (off the mound) |
| REST 10 MIN | REST 10 MIN |
| 20 pitches | 60 (off the mound) |

* + Day 2: OFF
	+ Day 3

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 warm up | 120-150 (lobbing) |
| 10 warm up | 60 (off the mound) |
| 30 pitches | 60 (off the mound) |
| REST 10 MIN | REST 10 MIN |
| 10 warm up | 60 (off the mound) |
| 20 pitches | 60 (off the mound) |
| REST 10 MIN | REST 10 MIN |
| 10 warm up | 60 (off the mound) |
| 20 pitches | 60 (off the mound) |

* + Day 4: OFF
	+ Day 5

|  |  |
| --- | --- |
| ***# of throws*** | ***Distance*** |
| 10 warm up | 120-150 (lobbing) |
| 10 warm up | 60 (off the mound) |
| 30 pitches | 60 (off the mound) |
| REST 8 MIN | REST 8 MIN |
| 20 pitches | 60 (off the mound) |
| REST 8 MIN | REST 8 MIN |
| 20 pitches | 60 (off the mound) |
| REST 8 MIN | REST 8 MIN |
| 20 pitches | 60 (off the mound) |

* At 10-12 months, if pitcher has successfully completed the above throwing program, he is ready to begin a normal routine from throwing, batting practice, to pitching in the bullpen.