NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (646) 501-7223

INSTRUCTIONS FOR SURGERY

In order to make your admission and hospital stay smooth and more pleasant, please comply with the following instructions:

☐ If your surgery is on **MONDAY**, please report to:

NYU Hospital for Joint Diseases
301 East 17th Street
New York, NY 10003

If indicated by your physician, schedule your pre-surgical testing, located at

303 2nd Avenue, 1st Floor Suite 16
New York, NY 10003

☐ If your surgery is on **FRIDAY**, please report to:

NYU Langone Outpatient Surgery Center
339 East 38th Street
New York, NY 10016

If indicated by your physician, please call 212-263-5985 to schedule your pre-surgical testing, located at

240 East 38th St.
New York, NY 10016
Mezzanine Level

***One business day prior to your surgery, hospital staff will contact you to finalize your surgery time.**

A. Bring jogging/warm-up pants, shorts/skirt if having knee surgery.

B. Bring a shirt/blouse that buttons open in front instead of a pullover if having shoulder/elbow surgery.

C. If you own crutches, bring them with you, if having knee, ankle or hip surgery.

D. Bring all medications or a list of current medications you are taking with you. Also bring a list of any allergies.

E. Blood pressure medication should be taken as usual with a sip of water the morning of surgery. **DO NOT** take a diuretic or fluid pill. Seizure medications may be taken before surgery.

F. **DO NOT** take oral diabetes medications (pills) the night before or the day of surgery. If you are on insulin, **DO NOT** use insulin the morning of surgery unless you are a "problem diabetic" in which case you need to consult your physician regarding the proper insulin dose for you to use prior to surgery.

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (646) 501-7223

G. Please **DO NOT** wear makeup or nail polish the day of surgery. You will need to remove contact lens (including extended wear), denture, or bridges prior to surgery. Please bring your own containers for storage.

H. Leave all jewelry and valuables at home. The hospital will not take responsibility for lost or missing items.

I. You need to report any skin irritation, fever, cold, etc., to Dr. Jazrawi.

J. You will need to bring your insurance card/information with you.

K. DO NOT eat, drink (including water), chew gum, candy, smoke cigarettes, cigars, use smokeless tobacco, etc., after midnight the night before surgery or the morning of your surgery. The only exception is a sip of water to take necessary medications the morning of surgery.

L. You must arrange someone to drive you home when ready to leave the hospital. You will not be allowed to drive yourself home after surgery. We can assist you if you need transportation to the airport or hotel, however, you need to let us know in advance (if possible) so we can make the arrangement.

M. NOTE: DO NOT take any aspirin, aspirin products, anti-inflammatories, Coumadin or Plavix at least 5 days prior to surgery. You are allowed to take Celebrex up to your day of surgery. If your medical doctor or cardiologist has you on any of the above medications. Please check with him/her before discontinuing the medication. You may also take Tylenol or Extra-Strength Tylenol if needed.

Nonsteroidal Anti-Inflammatory (Arthritis) Medications:

Some of the most common names for frequently used NSAID's include: Motrin, Indocin, Nalfon, Naprosyn, Naprelan, Arthrotec, Tolectin, Feledene, Voltaren, Clinoril, Dolobid, Lodine, Relafen, Daypro, Advil, Aleve, Ibuprofen.

Your first follow up appointment is usually scheduled for approximately 2 weeks after your surgery at the 333 East 38th street office. The date and time of your follow-up is _____.

If you cannot make this appointment or need to change the time, please contact the office.

If you have any questions regarding your surgery, please contact the office at 646-501-7223 option 4, option 2 or via the internet at www.newyorkortho.com

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (646) 501-7223

Home Supplies For Your Surgery
Laith M. Jazrawi M.D.

Open Surgery

A. Open knee surgery (ACL reconstructions, ALL (Anterolateral ligament) reconstructions, Autologous Chondrocyte Implantation, PCL reconstructions, High tibial osteotomy, Distal femoral osteotomy, Posterolateral corner reconstruction, MCL reconstruction, OATS (osteochondral autograft), Osteochondral allograft,)
   a. You will need 4x4 (or similar size) waterproof bandages for fourteen days. **Bandage changes for open knee surgery done post-op day #3.**

B. Open shoulder surgery , (Biceps Tenodeis, Latarjet, Open capsulorrhaphy, Glenoid reconstruction using Distal tibial allograft):
   a. You will need 4x4 (or similar size) waterproof bandages for fourteen days. Also, a box of **Bandage changes for open shoulder surgery are done post-op day #3.**

C. Open Ankle Surgery (Achilles Tendon Repair, Os Trigonum Excision, Ankle OCD, Modified Brostrom-Gould Procedure, Peroneus Longus/Brevis Repair)- You do not have to worry about dressing changes as your leg will be in splint/cast for the first two weeks

D. Open Elbow surgery (Distal Biceps Repair, LCL Reconstruction, Radial Head or Capitellum ORIF, Radial Head Replacement/Resection, Triceps Repair, UCL Reconstruction – Tommy John Surgery)- You do not have to worry about dressing changes as your arm will be in splint/cast for the first two weeks. **For Tennis Elbow surgery (lateral epicondylitis) and Golfer's Elbow Surgery (medial epicondylitis), dressing changes are are started on post-op day #3**. You will need 4x4 (or similar size) waterproof bandages for fourteen days.

E. Hamstring repair You will have a special dressing placed on at the time of surgery that will be kept on for the first 2 weeks after surgery. You will then need 4x4 (or similar size) Tegaderm or Telfa waterproof dressings. Also, a box of 4" by 4" gauze sponges if there is bleeding at the incision site.

Arthroscopic Surgery

A. For Arthroscopic shoulder, elbow, knee, or ankle surgery:
   a. Regular adhesive bandages ("Band-aids") can be used for arthroscopic portals x 2 weeks.
   b. If biceps tenodesis was performed, use 4x4 (or similar size) waterproof bandages on wounds.
   c. In general, dressing changes for arthroscopy are done on post operative day 3

Post-Operative Medication Administration

Knee Arthroscopy

- **Pain- Motrin 800mg. 1 tab three times daily, as needed**
- **Adjunctive pain: Percocet (Oxycodone/Acetaminophen) 10/325; One tab every 6 hours as needed for adjunctive pain**
- **DVT prophylaxis- Aspirin 325mg; One tab daily x 10 days**
- ******Aspirin starts post-operative day #1**
- **Patients on birth control or history of clotting; Xarelto 10mg x 14 days followed by Aspirin 325mg daily x 28 days (Xeralto starts POD #1)**

Knee Ligament Reconstruction

- **Pain- Percocet (Oxycodone/Acetaminophen) 10/325; One tab every 6 hours as needed.**
- **Breakthrough Pain – Dilaudid (Hydromorphone) 2mg; 2-3 tabs every 8 hours as needed for adjunctive pain.**
- **Antibiotic – Keflex 500mg; One tab 4 times daily x 4 days**
    - **Keflex allergy – Clindamycin 300mg; One tab twice daily x 7days.**
- **Constipation – Docusate (Colace) 100mg; 1 tab twice daily as needed.**
- **DVT prophylaxis- Aspirin 325mg; One tab daily x 10 days**
    - **Patients on birth control or history of clotting; Xarelto 10mg x 14 days followed by Aspirin 325mg daily x 28 days**
- ******Antibiotics and Xeralto or Aspirin start post-operative day #1**

Non-weight bearing Lower Extremity Surgery (Meniscal Repair, Meniscal Root Repair, Distal Femoral Osteotomy, High Tibial Osteotomy, Tibial Tubercle Osteotomy, Cartilage Transplant)

- **Antibiotic – Keflex 500mg; One tab 4 times daily x 4 days**
    - **Keflex allergy – Clindamycin 300mg; One tab twice daily x 7days.**
- **Pain- Percocet (Oxycodone/Acetaminophen)10/325; One tab every 6 hours as needed.**
- **Adjunctive Pain – Dilaudid (Hydromorphone) 2mg; 2-3 tabs every 8 hours as needed for adjunctive pain.**
- **Constipation – Docusate (Colace) 100mg; 1 tab twice daily as needed.**
- **DVT prophylaxis- Xarelto 10mg; One tab daily x 14 days followed by Aspirin 325mg daily x 28days.**
- ********Antibiotics and Xeralto or Aspirin start post-operative day #1**

Shoulder/Elbow Surgery

- **Antibiotic – Keflex 500mg; One tab 4 times daily x 4 days**
    - **Keflex allergy – Clindamycin 300mg; One tab twice daily x 7days.**
- **Pain- Percocet (Oxycodone/Acetaminophen)10/325; One tab every 6 hours as needed.**
- **Adjunctive Pain – Dilaudid (Hydromorphone) 2mg; 2-3 tabs every 8 hours as needed for adjunctive pain.**
- **Constipation – Docusate (Colace) 100mg; 1 tab twice daily as needed.**
- **Patients on birth control: Aspirin 325mg daily x 14 days.**

Ankle fracture surgery

- **Antibiotic – Keflex 500mg; One tab 4 times daily x 4 days**
    - **Keflex allergy – Clindamycin 300mg; One tab twice daily x 7days.**
- **Pain- Percocet (Oxycodone/Acetaminophen)10/325; One tab every 6 hours as needed.**
- **Adjunctive Pain – Dilaudid (Hydromorphone) 2mg; 2-3 tabs every 8 hours as needed for adjunctive pain.**
- **Constipation – Docusate (Colace) 100mg; 1 tab twice daily as needed.**
- **DVT prophylaxis- Xarelto 10mg; One tab daily x 14 days followed by Aspirin 325mg daily x 28days.**
- ******Antibiotics and Xeralto start POD #1**

Ankle arthroscopy +/- Microfracture and Achilles repair

- **Pain- Percocet (Oxycodone/Acetaminophen) 10/325; One tab every 6 hours as needed.**
- **DVT prophylaxis- Aspirin 325mg; One tab daily x 10 days**
- ******Aspirin starts post-operative day #1**
- **Patients on birth control or history of clotting; Xarelto 10mg x 14 days followed by Aspirin 325mg daily x 28 days (Xeralto starts POD #1)**

Hamstring repair

- **Antibiotic – Keflex 500mg; One tab 4 times daily x 4 days**
    - **Keflex allergy – Clindamycin 300mg; One tab twice daily x 7days.**
- **Pain- Percocet (Oxycodone/Acetaminophen)10/325; One tab every 6 hours as needed.**
- **Adjunctive Pain – Dilaudid (Hydromorphone) 2mg; 2-3 tabs every 8 hours as needed for adjunctive pain.**
- **Constipation – Docusate (Colace) 100mg; 1 tab twice daily as needed.**
- **DVT prophylaxis- Xarelto 10mg; One tab daily x 14 days followed by Aspirin 325mg daily x 28days.**
- ******Antibiotics and Xeralto start POD #1**

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (212) 598-6784

Post-Operative Instructions
Open Elbow Surgery, Ulnar Collateral Ligament Reconstruction
"Tommy John" Surgery

Day of Surgery

A. Diet as tolerated.
B. Pain medication as needed every 6 hours.
C. Icing is important for the first 5-7 days post-op. While the post-op dressing is in place, icing should be done continuously. Once the dressing is removed on the first or second day, ice is applied for 20-minute periods 3-4 times per day. Care must be taken with icing to avoid frostbite.
D. Make sure you have a physical therapy post-op appointment set up for the first week-10 days after surgery.
E. If you have a splint or half cast, you will start PT after the splint is removed in the office at your first postoperative appointment which is usually at 2 weeks

First Post-Operative Day

A. Continue icing
B. You will need to keep your incision dry when taking a shower. Do this for about 2 weeks after surgery. If you have a splint or half cast (hardshell) leave it dry. No need to do dressing changes until your first follow-up visit at 2 weeks post-op.

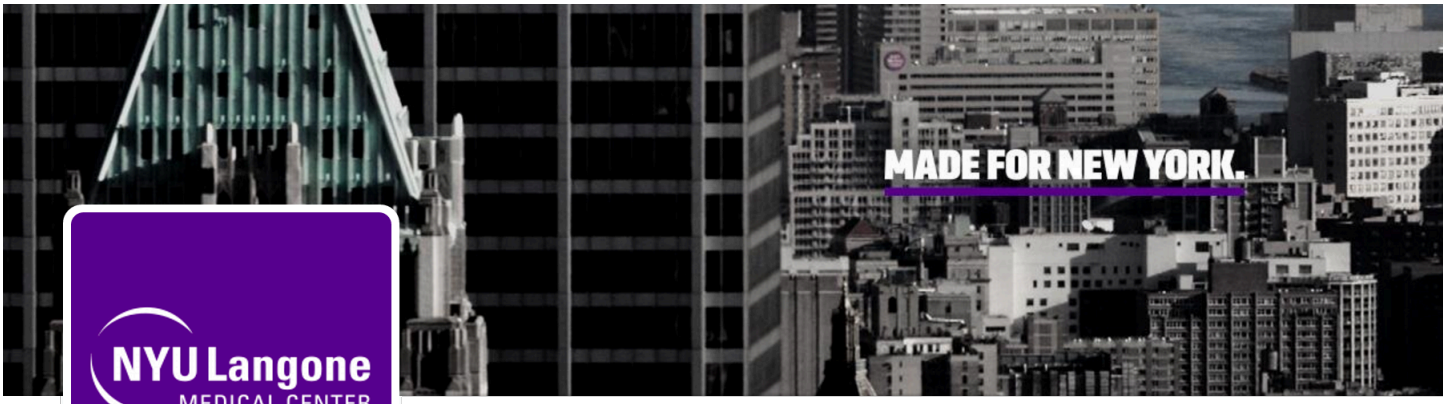
Second Post-Operative Day

A. Continue icing

Third Post-Operative Day Until Return Visit

A. Continue ice pack as needed**.**
B. If you don't have a split or half cast, you may remove surgical bandage after you shower and apply a waterproof bandage (may be purchased at your local pharmacy) to the wounds. Please ensure that the bandage is large enough to completely cover the incision. Apply a fresh waterproof bandage after each shower. If you have splint you do not need to change anything. Keep extremity dry

Call our office @ 646-501-7223 option 4, option 2 to confirm your first postoperative visit, which is usually about 1-2 weeks after surgery. If you are experiencing any problems, please call our office or contact us via the internet at www.newyorkortho.com.



NYU Langone MEDICAL CENTER

Dr. Laith M. Jazrawi

Chief, Division of Sports Medicine
Associate Professor Department of Orthopaedic Surgery

Rehabilitation Protocol Following Ulnar Collateral Ligament Reconstruction Using Autogenous Graft

The elbow is a complex system of three joints formed from three bones; the humerus (the upper arm bone), the ulna (the larger bone of the forearm, on the small finger side), and the radius (the smaller bone of the forearm on the thumb side). This complex system allows a hinging action (bending and straightening) and a rotation action. The stability of the elbow joint is maintained by the bony congruency, the muscular attachments and the ligaments.

There are several important ligaments in the elbow. Ligaments are soft tissue structures that connect bones to bones. The ligaments around a joint usually combine together to form a joint capsule. A joint capsule is a watertight sac that surrounds a joint and contains lubricating fluid called synovial fluid. In the elbow, two of the most important ligaments are the ulnar collateral ligament (UCL) and the lateral collateral ligament (LCL). The UCL is also known as the medial collateral ligament. The UCL is on the medial (the side of the elbow that's next to the body when your arms are at your side with your palms up or facing out in front of you) side of the elbow and LCL is on the outside of your elbow. The ulnar collateral ligament is a thick band of tissue that forms a triangular shape along the inside of the elbow. It has an anterior bundle, posterior bundle, and a thinner, transverse ligament. These ligaments can be torn when there is an injury or dislocation of the elbow. If the injury to the ligament(s) affects the stability of the joint, it is possible that the function of the elbow will be compromised. Injury to the UCL in overhead athletes has been widely reported. Normal activities of daily living rarely place enough stress on the UCL to create instability; however throwing sports place high stresses on the elbow supporting structures. Over time, the high repetitive stresses associated with throwing and overhead activity may create overload to the supporting ligamentous support, resulting in a UCL tear. Typically, athletes with UCL injury report a history of repetitive throwing with complaints of pain at the medial (inside) aspect of the elbow during or after their activity. Onset occurs from either one traumatic incident or can develop throughout a long period of time due to repetitive elbow stress. Eventually the athlete loses their velocity and accuracy of throwing. More than 40% of athletes with UCL injury also report symptoms of ulnar nerve irritation from friction or snapping of the nerve during activity.

The overhead thrower often experiences pain with the arm fully cocked (shoulder in full external rotation or the arm rotated all the way back) and as it accelerates through the throw and release of the ball. While throwing, the elbow can straighten at speeds of over 2300 degrees per second and may have a valgus (side) force that exceeds the ultimate strength of the normal uninjured UCL. Therefore, proper mechanics and optimal strength and endurance of the muscles of the upper extremity are needed to assist with injury prevention. Trauma or injury to the UCL results in significant functional limitations including medial elbow pain, loss of velocity and accuracy with throwing, instability, neurologic (nerve) symptoms, and decreased muscular strength.

The consequences of this injury usually leave the athlete who has a torn UCL with two options: 1) rehabilitation with activity modification (i.e. avoidance of pitching and performance throwing) or 2) surgical reconstruction with post-operative rehabilitation prior to return to pitching and performance throwing.

UCL reconstruction surgery is performed through an incision on the medial (inside) side of the elbow joint. The damaged ulnar collateral ligament is replaced with a tendon taken from somewhere else in the body. The tendon graft can come from the patient's own forearm, hamstring, knee or foot. This is called an autograft. This tendon is weaved through drill holes in the humerus and ulna to re-create the triangular shape of the UCL.

Rehabilitation Protocol After Elbow UCL Reconstruction

One common technique used to replace the damaged ulnar collateral ligament is called the docking technique. The surgeon drills two holes in the ulna and three in the medial epicondyle of the humerus (the small bump of bone on the inside of the elbow at the bottom of the upper arm). The two holes in the ulna form a tunnel that the tendon graft will be looped through. The three holes in the medial epicondyle form a triangle. The bottom hole will be bigger than the top two holes, so that the surgeon can slide the end of the tendon graft into the bottom hole. The two top holes are used to pull the tendon graft into the tunnel using sutures that are attached to the graft and threaded through the two holes. After the tendon is harvested, sutures are attached to both ends. The tendon is looped through the lower tunnel formed in the ulna, and stretched across the elbow joint. The two sutures attached to the ends of the graft are threaded into the larger bottom tunnel in the medial epicondyle and each is threaded out one of the upper, smaller holes. Using these two sutures, the surgeon pulls the end of the graft farther into the upper tunnel until the amount of tension is correct to hold the joint in position. The surgeon carefully puts the elbow through its full arc of motion and readjusts the tension on the sutures until satisfied that the proper ligamentous tension is restored. The two sutures are tied together to hold the tendon graft in that position.

Another common technique to reconstruct the UCL is called the figure of eight technique. In this technique, the tendon graft is threaded through two pairs of holes - two drilled in the medial epicondye of the humerus and two in the ulna. The graft is looped through the holes in a figure of eight fashion. The two ends of the tendon are sutured to the tendon itself.

Previously the muscles on the inside of the elbow joint and forearm (the flexor muscles of the wrist) were completely detached from the humerus. Now, the flexor muscles are not detached, but are split and retracted to allow the surgeon to see the areas of the elbow joint required to perform the operation successfully. If there is any concern that the ulnar nerve has been stretched and damaged due to the instability (as mentioned above), it may be re-routed so that it runs in front of the elbow joint rather than through the cubital tunnel in the back of the elbow. The incision is sutured together and the elbow is placed in a large bandage and splint.

Rehabilitation following surgical reconstruction of the UCL begins with range of motion and initial protection of the reconstruction, along with resistive exercises to keep the shoulder and core strong. This is followed by progressions for resistive exercise that attempt to fully restore strength and muscular endurance to allow for a safe return to throwing and overhead functional activities. These guidelines also include aerobic training throughout the rehabilitation process and, for many, a later stage an interval throwing program. This multi-faceted rehabilitation approach often includes biomechanical video analysis to ensure proper throwing mechanics before an athlete returns to their sport.

The early phases of post-operative care for UCL reconstructions involve specific time frames, restrictions and precautions to protect healing tissues and the surgical fixation/reconstruction. The later phases of rehabilitation are presented in a criterion based progression, where advancement to subsequent levels is based on strength and control. Return to competitive throwing will take 8-12 months. Not all athletes will be able to return to competitive throwing. The athlete should ice the elbow for 15-20 minutes after their rehabilitation program to help decrease pain and swelling.

Rehabilitation Protocol After Elbow UCL Reconstruction

Phase I (Surgery to 4 weeks after surgery)

Goals	○ Protect healing tissue ○ Retard muscle atrophy ○ Decrease pain/inflammation
Week 1	○ Posterior splint at 90° elbow flexion for 7 days ○ Brace: application of functional brace set at 30-100° at day 7-10 after splint removed ○ ROM: wrist AROM extension/flexion ○ Elbow compression dressing 2-3 days ○ Exercises: gripping, passive wrist ROM, shoulder isometric (no shoulder ER), biceps isometrics, cryotherapy
Week 2	○ Brace: elbow ROM 25-100° in brace ○ Gradually increase ROM 5° extension and 10° flexion per week ○ Exercises: continue all exercises listed above ○ Initiate elbow extension isometrics
Week 3	○ Brace: elbow ROM 15-110° ○ Exercises: continue all exercises listed above, elbow ROM in brace, initiate active ROM wrist and elbow (no resistance)

Phase II (4 weeks to 7 weeks following surgery)

Goals	○ Gradual increase to full ROM ○ Promote healing of repaired tissue ○ Regain and improve muscular strength
Week 4	○ Brace: elbow ROM 0-125° ○ Exercises: begin light resistance exercises or arm (1 lbs), wrist curls, extensions, pronation, supination, elbow extension/flexion ○ Progress shoulder program to emphasize rotator cuff strengthening, avoiding eternal rotation until week 6
Week 5	○ ROM: elbow ROM 0-135° ○ D/C brace ○ Continue all exercises
Week 6	○ ROM: 0-145° without brace or full ROM ○ Exercises: progress elbow strengthening exercises, initiate shoulder external rotation strengthening
Week 7	○ Initiate Thrower's Ten Program ○ Progress light isotonic program

333 38th St. ▪ New York, NY 10016 ▪ (646) 501 7047 ▪ newyorkortho.com

Rehabilitation Protocol After Elbow UCL Reconstruction

Phase III (8 weeks to 13 weeks following surgery)

Goals	○ Improve strength/power/endurance ○ Maintain full elbow ROM ○ Gradual return to functional activities
Weeks 8-10	○ Exercises: initiate eccentric elbow flexion/extension, ○ Continue isotonic program (forearm and wrist), ○ Shoulder program (Thrower's Ten), ○ Stretching program (especially elbow extension)

Phase IV (14 weeks to 32 weeks following surgery)

Goals	○ Continue to increase strength, power and endurance of upper extremity musculature ○ Gradual return to activities
Week 14	○ Exercises: continue strengthening program, emphasis on elbow and wrist strengthening and flexibility exercises ○ Maintain full elbow ROM
Week 16	○ Exercises: initiate interval throwing program (Phase I), continue all exercises ○ Stretch before and after throwing
Weeks 22-24	○ Exercises: progress to Phase II Throwing Program (once Phase I complete)
Week 30	○ Exercises: progress to competitive throwing

References

1. Ulnar Collateral Ligament Reconstuction in High School Baseball Players: Clinical Results and Injury Risk Factors. *AJSM* 32(5), pp 1158-1164, 2004.
2. Current Concepts in the Rehabilitation of the Overhead Throwing Athlete. *AJSM* 30, pp 136-151, 2002.
3. Cain EL, Dugas JR, Wolf RS, Andrews JR. Elbow injuries in throwing athletes: a current concepts review. *Am J Sports Med.* 2003; 31(4):621-635.
4. Conway JE, Jobe FW, Glousman RE, Pink M. Medial instability of the elbow in throwing athletes: surgical treatment by ulnar collateral ligament repair or reconstruction. *J Bone Joint Surg Am.* 1992; 74:67-83.
5. Ellenbecker TS, Wilk KE, Altchek DW, Andrews JR. Current concepts in rehabilitation following ulnar collateral ligament reconstruction. *Sports Health.* 2009; 1(4):301-313.
6. Flesig GS, Andrews JR, Dillman CJ, Escamilla RF. Kinetics of baseball pitching with implications about injury mechanisms. *Am J Sports Med.* 1995; 23:233-239.
7. Vitale MA, Ahmad CS. The outcome of elbow ulnar collateral ligament reconstruction in overhead athletes: a systematic review. *Am J Sports Med.* 2008; 36:1193-1205.

333 38th St. ▪ New York, NY 10016 ▪ (646) 501 7047 ▪ newyorkortho.com

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, M.D.
Chief, Division of Sports Medicine
Associate Professor of Orthopaedic Surgery

Tel: (646) 501-7223 option 4, option 2
Fax: (646) 501-7234
Web: newyorkortho.com
orthosurgery.med.nyu.edu/sports-medicine

Post-Operative Rehabilitation Protocol Following Ulnar Collateral Ligament Reconstruction Using Autogenous Graft

Name: _____ **Date:** _____

Diagnosis: _____ **Date of Surgery:** _____

☐ **Phase I –Immediate Post-Operative Phase**

- **Goals**
  - Protect healing tissue
  - Retard muscular atrophy
  - Decrease pain/inflammation
- **Week 1**
  - Posterior splint at 90° elbow flexion for 7 days
  - Brace: application of functional brace set at 30-100° at day 7-10 after splint removed
  - ROM: wrist AROM ext/flexion
  - Elbow compression dressing 2-3 days
  - Exercises
    - Gripping
    - Wrist ROM (passive only)
    - Shoulder isometrics (no shoulder ER)
    - Biceps isometrics
    - Cryotherapy
- **Week 2**
  - Brace: Elbow ROM 25-100° in brace
    - Gradually increase ROM 5° ext and 10° of flexion per week
  - Exercises
    - Continue all exercises listed above
    - Elbow ROM in brace
    - Initiate elbow extension isometrics
- **Week 3**
  - Brace: Elbow ROM 15-110°
  - Exercises
    - Continue all exercises listed above
    - Elbow ROM in brace

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, M.D.
Chief, Division of Sports Medicine
Associate Professor of Orthopaedic Surgery

Tel: (646) 501-7223 option 4, option 2
Fax: (646) 501-7234
Web: newyorkortho.com
orthosurgery.med.nyu.edu/sports-medicine

- Initiate active ROM wrist and elbow (no resistance)

☐ **Phase II –Intermediate Phase (Week 4-7)**

- **Goals**
  - Gradual increase to full ROM
  - Promote healing of repaired tissue
  - Regain and improve muscular strength
- **Week 4**
  - Brace: elbow ROM 0-125°
  - Exercises
    - Begin light resistance exercises or arm (1 lbs)
    - Wrist curls, extensions, pronation, supination
    - Elbow ext/flexion
  - Progress shoulder program to emphasize rotator cuff strengthening
    - Avoid external rotation until week 6
- **Week 5**
  - ROM: elbow ROM 0-135°
  - Discontinue brace
  - Continue all exercises
- **Week 6**
  - ROM: 0-145° without brace or full ROM
  - Exercises
    - Progress elbow strengthening exercises
    - Initiate shoulder external rotation strengthening
- **Week 7**
  - Initiate Thrower's Ten Program
  - Progress light isotonic program

☐ **Phase III –Advanced Strengthening Program (Week 8-13)**

- **Goals**
  - Improve strength/power/endurance
  - Maintain full elbow ROM
  - Gradual return to functional activities
- **Week 8-10**
  - Exercises
    - Initiate eccentric elbow flexion/extension
    - Continue
      - Isotonic program –forearm and wrist

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, M.D.
Chief, Division of Sports Medicine
Associate Professor of Orthopaedic Surgery

Tel: (646) 501-7223 option 4, option 2
Fax: (646) 501-7234
Web: newyorkortho.com
orthosurgery.med.nyu.edu/sports-medicine

- Shoulder program –Thrower's Ten
- Stretching program –especially elbow extension

- **Week 11-13**
  - Exercises
    - Continue all exercises listed above
    - Initiate plyometric exercise program

☐

Phase IV –Return to Activity (week 14-32)

- **Goals**
  - Continue to increase strength, power, and endurance of upper extremity musculature
  - Gradual return to activities
- **Week 14**
  - Exercises: continue strengthening program
    - Emphasis on elbow and wrist strengthening and flexibility exercises
    - Maintain full elbow ROM
- **Week 16**
  - Exercises
    - Initiate interval throwing program (phase I)
    - Continue all exercises
    - Stretch before and after throwing

- **Week 22-24**
  - Exercises
    - Progress to Phase II Throwing Program (once completed Phase I)

- **Week 30**
  - Exercises
    - Progress to competitive throwing

Comments:

Frequency: _____ times per week **Duration: _____ weeks**

Signature: _____ **Date: _____**

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (646) 501-7223

PHYSICAL THERAPY LOCATIONS

Please schedule your post-operative physical therapy appointments BEFORE your surgery

Manhattan Sports and Manual Physical Therapy
10 East 33rd Street, 2nd Floor
New York, NY 10016
(646) 487-2495
www.msmpt.com

Center for Musculoskeletal Care PT
333 E 38th St, 5th Floor
New York, NY 10016
(646) 501-7077

Other Locations:

BROOKLYN				
R.P.T. Physical Therapy	335 Court Street	Cobble Hill	11231	(718) 855-1543
One on One PT	2133 Ralph Ave	Flatlands	11234	(718) 451-1400
One on One PT	17 Eastern Parkway	Prospect Heights	11238	(718) 623-2500
One on One PT	9920 4th Ave	Bay Ridge	11209	(718) 238-9873
One on One PT	1390 Pennsylvania Ave	Canarsie	11239	(718) 642-1100
One on One PT	1715 Avenue T	Sheepshead Bay	11229	(718) 336-8206

MANHATTAN-DOWNTOWN				
Health SOS	594 Broadway	New York	10012	(212) 343-1500
Occupational & Industrial Orthopaedic Center	63 Downing Street	New York	10014	(212) 255-6690
Promobility	401 Broadway	New York	10013	(646) 666-7122

MANHATTAN –EAST SIDE				
Harkness Center for Dance (PT Service)	614 Second Ave	New York	10003	(212) 598-6054
RUSK at the Men's Center	555 Madison Ave	New York	10022	(646) 754-2000
RUSK Physical Therapy	240 E. 38th Street	New York	10016	(212) 263-6033
STAR Physical Therapy	160 E. 56th Street	New York	10022	(212) 355-7827

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (646) 501-7223

Therapeutic Inspirations	144 E. 44th St	New York	10017	(212) 490-3800

MANHATTAN UPPER EAST SIDE				
Health SOS	139 E. 57th Street	New York	10022	(212) 753-4767
Premier PT	170 E. 77th Street	New York	10021	(212) 249-5332
Rusk PT at Women 's Health Center	207 E. 84th Street	New York	10028	(646) 754-3300
SPEAR PT	120 E. 56th Street	New York	10022	(212) 759-2211
Sports PT of NY	1400 York Ave	New York	10021	(212) 988-9057

MANHATTAN UPPER WEST SIDE				
Premier PT	162 W. 72nd Street	New York	10023	(212) 362-3595
Sports PT of NY	2465 Broadway	New York	10025	(212) 877-2525

MANHATTAN WEST SIDE				
Sports Medicine at Chelsea	22 West 21st Street Suite 400	New York	10010	(646) 582-2056
Chelsea Physical Therapy & Rehabilitation	119 W. 23rd Street	New York	10011	(212) 675-3447
SPEAR Physical Therapy	36 W. 44th Street	New York	10036	(212) 759-2280

QUEENS				
Ergo Physical Therapy P.C.	107-40 Queens Blvd	Forest Hills	11375	(718) 261-3100
Susan Schiliro, PT (Hand & Upper Extremity only)	99-32 66th Road	Rego Park	11374	(718) 544-1937

STATEN ISLAND				
One on One PT	31 New Dorp Lane 1st, Floor	Staten Island	10306	(718) 979-4466
One on One PT	33 Richmond Hill Rd	Staten Island	10314	(718) 982-6340

LONG ISLAND				
Health SOS	375 Deer Park Ave	Babylon	11702	(631) 321-6303

NYU Hospital for Joint Diseases
NYU LANGONE MEDICAL CENTER

Laith M. Jazrawi, MD
Associate Professor of Orthopaedics
Chief - Division of Sports Medicine
Tel: (646) 501-7223

Hand in Hand Rehabilitation (Hand & Upper Extremity only)	346 Westbury Ave	Carle Place	11514	(516) 333-1481
Home PT Solutions	111 W. Old Country Rd.	Hicksville	11801	(516) 433-4570
Bi-County Physical Therapy & Rehabilitation	270-03 Hillside Ave	New Hyde Park	11040	(718) 831 - 1900
Bi-County Physical Therapy & Rehabilitation	397 Willis Ave	Williston Park	11596	(516) 739-5503

WESTCHESTER				
Health SOS	1015 Saw Mill River	Ardsley	10502	(914) 478-8780
Premier PT	223 Katonah Ave	Katonah	10536	(914) 232-1480
PRO Sports PT of Westchester	2 Overhill Road	Scarsdale	10583	(914) 723-6987
Westchester Sports Physical Therapy, PC	672 White Plains Road	Scarsdale	10583	(914) 722-2400
Rye Physical Therapy and Rehabilitation	411 Theodore Fremd Ave	Rye	10580	(914) 921-6061
Rye Physical Therapy and Rehabilitation	15 North Broadway; Suite K	White Plains	10601	(914) 686-3132

CONNECTICUT				
Premier PT	36 Old Kings Hwy S	Darien	06820	(203) 202-9889

NEW JERSEY				
Jersey Central Physical Therapy & Fitness	21 47 Route 27	Edison	08817	(732) 777-9733
Jag PT	34 Mountain Blvd	Warren	07059	(908) 222-0515
Jag PT	622 Eagle Rock Ave	West Orange	07052	(973) 669-0078