

**REHABILITATION PROGRAM FOR
UCL REPAIR WITH GRACILIS AUTOGRAFT**

GENERAL GUIDELINES / PRINCIPLES

- Wear posterior splint at 90 degrees of elbow flexion and appropriate dressings for 5-7 days. Do not remove before this time unless ordered by MD. Lower leg graft site compression dressing for the same amount of time.
- Transfer from splint to brace after 5-7 days. Use waterproof dressings until 14 days post-op at which time the sutures will be removed.
- Wear brace unlocked for 6 weeks. Remove brace for physical therapy and showering only.
- Avoid resisted ER including isometrics for at least 2 weeks. You may start resisted ER with tubing at 3 weeks.
- You may start the interval throwing program for pitchers or position players at week 16 if they meet all functional criteria indicating they are safe to do so. Also, the surgeon should be made aware and agree before implementing the throwing program.
- This protocol, as well as most others, is a general guideline. Patients should not be progressed to the next phase until they demonstrate proper form with all activities and all criteria are met in the current phase.
- When clinically appropriate, properly assess the whole body and incorporate treatment for loss of mobility and stability. Not doing so can prevent optimal outcomes and increase risks of future injuries.

MAXIMUM PROTECTION PHASE (Weeks 0-6)

- **Goals:**
 - Protect repair and promote healing.
 - Diminish pain and inflammation.
 - Retard muscle atrophy
 - Assess and address ROM / stability needs of whole body to safely return to sport or activity.
- **Treatment (Days 1-7)**
 - Posterior splint at 90 degrees of elbow flexion
 - Wrist ROM
 - Hand gripping exercises
 - Shoulder isometrics (no shoulder ER)
 - Biceps isometrics
 - No involved leg exercise
 - Ice once out of splint
- **Treatment (Days 8-14)**
 - Continue all exercises modalities listed above
 - Initiate elbow extension isometrics
 - Initiate light scar mobilization over graft site incision
- **Treatment (Days 15-21)**
 - Initiate active elbow ROM with no resistance

- Initiate light hamstring stretching
- Initiate AROM for the shoulder
 - Full can
 - Lateral Raise
 - ER / IR with tubing
 - Elbow flexion / extension
- Initiate light scapular strengthening
- Initiate bicycle for LE RO and strength
- Initiate light hamstring isometrics

MODERATE PROTECTION PHASE (Weeks 4-7)

- **Goals:**
 - Restore full elbow ROM
 - Promote healing of repaired tissue
 - Regain and improve muscular strength
 - Restore full function of graft site
- **Treatment (Days 22-28)**
 - Light resistance exercises with 1# or 2#
 - Wrist curls / Wrist extension
 - Supination / Pronation
 - Elbow Extension / Flexion
 - Progress rotator cuff and scapular strengthening
 - Isometrics for hamstrings and calf muscles
- **Treatment (Weeks 5-7)**
 - **Discontinue brace after week 5**
 - Continue to progress all shoulder / UE exercises
 - Initiate PNF patterns
 - ER / IR with tubing and isotonic
 - Scapular isotonic and tubing – Ts, Ys, Ls
 - Biceps curls
 - Triceps extension behind head
 - Dynamic Hugs for serratus Ant.
 - Supination / Pronation
 - Initiate isotonic strengthening for graft site hamstrings / calf
 - Continue to assess and treat whole body flexibility / stability needs

MINIMAL PROTECTION PHASE (week 8-14)

- **Goals:**
 - Increase strength, power, endurance
 - Maintain full elbow ROM
- **Treatment (Weeks 8-9)**
 - Initiate eccentric elbow flexion / extension
 - Continue isotonic program for shoulder girdle, elbow, wrist
 - Manual resistance diagonal patterns
 - Initiate plyometric exercise program
 - 2 hand plyos
 - Chest pass
 - Side throw close to body
 - Continue light stretching and strengthening of calf and hamstrings
 - Continue to assess and treat whole body flexibility / stability needs

- **Treatment (Weeks 10-11)**
 - Continue all exercises listed above
 - Program plyometrics to hand drills away from body
 - Side to side throws
 - Soccer throws
- **Treatment (Weeks 12-14)**
 - Continue all exercises listed above
 - Initiate return to golf program if applicable
 - Initiate swimming if applicable
 - Initiate interval hitting program.

RETURN TO SPORT PHASE (Weeks 14-36 and beyond)

- **Goals:**
 - Continue to increase strength, power, and endurance of UE musculature.
 - To restore good mobility and stability throughout the body to ensure safe return to sport.
- **Treatment (Weeks 14-16)**
 - Continue strengthening program
 - Initiate on hand plyometric throwing (stationary throws)
 - Initiate one hand wall dribble
 - Initiate "rainbow throws" at 30 feet
- **Treatment (Weeks 16-21)**
 - Continue all exercises listed above
 - Initiate interval throwing program
- **Treatment (Weeks 22-29)**
 - Progress to phase 2 throwing once phase 1 is completed. It is usually during this time that the patient finishes phase 1.
- **Treatment (Weeks 30-32)**
 - Gradually progress to competitive throwing / sports
 - Phase 2 throwing with no pain
 - Able to pass return to sport / activity testing

DISCHARGE TESTING / PLANNING (usually after 8 months)

- Based on a patient's age, sex, specific sport / activity, and level (i.e. recreational, amateur, professional) that they are returning to, a decision is made to endorse their return to sport or to ask that the patient refrain from doing so. Currently we strive for the following criteria before fully endorsing going back to rigorous activities:
 - Demonstrate quality and symmetrical movement throughout the body evaluated with comprehensive movement screen or assessment process
 - Symmetrical and acceptable comprehensive scores on CKC UE testing
- Biomechanical assessment of their performance helps safe return to sport / higher level activity. Patient's may be videoed and analyzed doing activities such as throwing or hitting to see if sound body mechanics are being utilized.
- Not all patients who have undergone UCL repair are candidates for functional testing. Those undergoing these tests should be chosen with proper consideration given to what they plan to return to and their general fitness level.
- No matter how well a patient is doing with return to sport testing it is prudent to remember how important time is to full healing and safe return to sport / activity.
- Patients often schedule periodically during this phase to assess their progress and properly change their program until they are deemed safe to return to all activities.