

## ANTERIOR CRUCIATE LIGAMENT (ACL) RECONSTRUCTION & MENISCUS REPAIR REHABILITATION PROTOCOL

This protocol is a general outline. "As tolerated" refers to no increased sharp pain, swelling, or other undesirable factors. If any of these occur, decrease activity level and ice. Progression and return to sport may vary between individual patients, and will be guided by your provider's team (physician, physician assistant, athletic trainer, and therapist) input and appropriate testing. The following weight bearing, brace and range of motion guidelines are dependent upon your specific meniscus repair and will be reviewed with you at your first post-operative visit.

### WEEKS 0-2: HEALING PHASE

#### **Weight-bearing:**

- Weight bearing as tolerated (WBAT) with crutches for comfort
- Touchdown weight bearing for \_\_\_ weeks
- Non-weight bearing for \_\_\_ weeks

#### **Brace:**

- Knee Immobilizer until first post-op visit
- Hinged knee brace locked in extension for ambulation until adequate quad control

#### **Range of Motion (ROM):**

- As tolerated
- 0-50 x 2 weeks, 0-70 x 2 weeks, 0-90 x 2 weeks
- 0-90 x \_\_\_ weeks

#### **Therapeutic Exercises:**

- Strengthening/Neuromuscular training:
  - Quad, glute, hamstring sets,
  - Open chain hip strengthening
  - core strengthening

#### **Manual Therapy and Modalities:**

- Scar, soft tissue, and patellar mobilizations
- Cryotherapy (ice), compression, e-stim

#### **Stationary Bike:**

- Begin immediately if WBAT
- Begin postop week \_\_\_ if TDWB
- Begin at postop week \_\_\_ if NWB

#### **Progression Criteria:**

- Full passive knee extension
- Minimal joint effusion

### WEEKS 2-6: ADVANCED/AGGRESSIVE HEALING PHASE

#### **Weight-bearing:**

- As described in first phase

#### **Brace:**

- Hinged knee brace until post-op week 4 if indicated

#### **Range of Motion (ROM):**

- 0-90 for 6 weeks
- Maintaining full knee extension

#### **Therapeutic Exercises:**

- Gait & balance training following weight bearing restrictions
- Eccentric quad strengthening
- Hip/glute strengthening (4-way SLR, band walks, step ups, step downs, bridges, etc.)
- Core strengthening
- Stationary bike-as described above

#### **Manual Therapy and Modalities:**

- Scar, soft tissue, and patellar mobilizations
- Cryotherapy, compression, e-stim as needed

#### **Progression Criteria:**

- Knee ROM 0°-90°
- Minimal effusion
- No pain
- Good quad strength

## WEEKS 6-12: STRENGTHENING PHASE

### **Weight-bearing:**

- Progress weight bearing based on initial restrictions

### **Range of Motion (ROM):**

- Progress ROM to full

### **Therapeutic Exercises:**

- Progress ROM and flexibility to full
- Closed Kinetic Chain (CKC) multi-plane activities
- Continue hip and core strengthening
- Continue gait and balance training
- Preparing for 3-month evaluation (Y balance, anterior step down for time, elevated bridge, and timed plank)
- Stationary bike

### **Manual Therapy and Modalities:**

- Scar, soft tissue, and patellar mobilizations
- Cryotherapy and compression as needed

### **Progression Criteria:**

- No swelling, no pain
- 3-month evaluation will be performed at ESM (60-minute testing)
- NO running or plyometric/jumping activities until cleared by surgeon

## WEEKS 12-24: ADVANCED STRENGTHENING PHASE

### **Therapeutic Exercises:**

- Advance impact activities based on results from 3-month testing
- Continue with single leg strengthening & eccentric quad control
- When cleared, initiate sagittal plane double leg plyometrics, progressing double leg and single leg landing drills
- Initiate/continue running as determined by surgeon
- Box Drill- walk→jog→sprint progressing 4 cones from 5 yards apart to 10, 20 then 40 yards apart. Clockwise/counter-clockwise
  - This can progress to more sport specific skills (i.e. dribbling basketball, kicking soccer ball)
- May begin PEP Program at 5 months

## MONTH 7-12: RETURN TO SPORT:

### **Therapeutic Exercises:**

- Continue sport specific skills and drills
- Return to Sport Functional Test performed prior to clearance at ESM (90-minute testing, then follow-up visit with surgeon for discussion)
- Test includes: Drop vertical jump, single leg (SL) hop, timed SL hop, SL triple hop, and SL crossover hop, isometric and isokinetic strength testing