

## **ACL Reconstruction with Meniscus Repair Post-Operative Protocol**

**Christie Heikes, MD**

### **PHASE I – MAXIMUM PROTECTION (WEEKS 0 TO 6):**

- Use crutches for 4-6 weeks
  - 0-2 weeks: TTWB (toe touch weight bearing), TROM brace locked in extension while ambulating
  - 2-4 weeks: 50% WB, brace locked in extension while ambulating
  - 4-6 weeks: 75% WB, brace locked in extension while ambulating
- Goals:
  - Reduce inflammation
  - Normalize patella mobility with manual mobilizations
  - Gain full extension
  - Limit knee to 90° flexion x4 weeks
- Exercise Progression:
  - Quadriceps sets using NMES as needed
  - Multi-plane straight leg raising
  - Open and closed chain multi-plane hip strengthening after full weight bearing
  - Lower extremity stretching
  - Core strengthening
  - Proprioception drills
  - Gait training
  - Deep water pool program with 90° limit once incisions are healed

### **PHASE II – PROGRESSIVE STRETCHING AND EARLY STRENGTHENING (WEEKS 4 TO 6):**

- Goals:
  - Reduce inflammation
  - Full knee extension/hyperextension
  - Knee flexion- gradually progressing to full
  - Normalize patellofemoral joint and scar mobility
- Exercise Progression:
  - Multi-plane open and closed kinetic chain hip strengthening
  - Stationary biking
  - Proprioception drills

## PHASE III – ADVANCED STRENGTHENING AND ENDURANCE TRAINING (WEEKS 6 TO 12):

### Weeks 6-10:

- Goals:
  - Full knee flexion and extension
  - Progressive strengthening
  - Increase muscular endurance
- Exercise Progression:
  - Leg press, squats (above 90°)
  - Hamstring curls
  - Increase intensity of stationary bike program, treadmill walking and elliptical
  - Advanced intensity of deep water pool program; focus on endurance training

### Weeks 10-12:

- Exercise Progression:
  - Outdoor biking
  - Lunge progression (retro, walk and split) as indicated
  - Lateral lunge progression
  - Swimming free style
  - Forward/backward elevated treadmill walking

## PHASE IV – ADVANCE STRENGTHENING AND RUNNING PROGRESSION (WEEKS 12 TO 28):

### Weeks 12-24 (3-5.5 months):

- Exercise Progression:
  - Progress resistance with squat and lunge strengthening program, may add leg extensions at 30° - 0° (exclude patients with patellar or trochleargroove chondral pathology)
  - Shallow water pool running progression: week 12
    - Basic ladder series: week 12
  - Linear running progression: week 16
  - Basic plyometric box progression: week 16
  - Fit functional brace (if used): week 18

**Weeks 24-28 (5.5-6.5 months): Return to Sport and Functional Drills Phase**

- Exercise Progression:
  - Interval golf program
  - Advance ladder, hurdle and plyometric box progressions
  - Sport specific field/court drills with brace on
  - Non-contact drills
- Sports test and follow-up with physician:
  - Follow-up examination with the physician
  - Sports test for return to competition at 7-9 months

**Return to full sports participation without restrictions is anticipated at approximately 7-9 months depending on sport.**

\*Please feel free to contact Dr. Heikes' office with any questions or concerns. Dr.Heikes' care coordinator is available by phone at 952-456-7122.