

## **MEDIAL PATELLOFEMORAL LIGAMENT RECONSTRUCTION Postop Rehabilitation Program**

### **General considerations:**

- Patients are weightbearing as tolerated with crutch use as needed postoperatively.
- Range of motion will be blocked at 0° in a knee immobilizer for 4 weeks. They will wean to a patellofemoral neoprene brace first for sleeping, then around their house, and finally with all ADLs as soon as they are able to demonstrate adequate control of the lower extremity.
- Important not to push for flexion past 90° for 8 weeks postop to protect repair.
- Passive range of motion after the first 2 weeks once a day ONLY.
- Regular manual and self-mobilization of the patellar (superior and inferior only), patellar tendon, and portals should be performed to prevent fibrosis, improve range of motion, and functional mobility.
- Regular attention to proper VMO recruitment and patellofemoral mechanics will optimize outcome.
- \*Return to sports and activities is dependent on passing a functional sports test.

### **Week 1:**

- MD office visit at 1 day and 1 week postop.
- Gait training, pain and edema control, and muscle stimulation to improve quadriceps recruitment.
- Ankle exercises, quad, adduction, and gluteal sets, leg raises in multiple planes (except hip flexion).
- Extension stretching to hamstrings, calves, and lateral musculature to maintain extension range of motion.
- Well-leg stationary cycling and UBE. Upper body weight machines and trunk exercises.

### **Weeks 2-4:**

- Continue to progress weightbearing and functional mobility as able.
- Resistive band hip exercises (except flexion).
- Submaximal quad, gluteal, and abduction/adduction isometrics within the range restrictions.
- Hip flexion leg raises when able to demonstrate no quadriceps lag.
- Calf raises, weight shifting, ankle exercises, balance, and proprioception exercises.
- Patellar, suprapatellar pouch, and scar mobilization regularly.
- Pool walking and workouts as soon as incisions are well healed.

### **Weeks 4-6:**

- MD visit at 1 month postop.
- Wean from immobilizer first with sleeping, then around the house.
- Submaximal quad isometrics and ankle isometrics through multiple ranges.
- Abduction, adduction, and hip machines at the gym.
- Initiate weight shifting, short-arc knee bends and steps, and proprioceptive exercises within range.

**Weeks 6-8:**

- Functional exercises should focus on eccentrics. Increase depth of knee bends and add step-ups as able to demonstrate good motion and control.
- Continue to increase intensity and resistance of other exercises.
- Passive flexion to 90° for stretching.

**Weeks 8-12:**

- More aggressive passive flexion stretching to increase range of motion.
- Add lateral exercises (i.e., lateral stepping, lateral step-ups, etc.).
- Continue all exercises with emphasis on closed chain, functional, and proprioceptive program.
- Initiate two-legged stationary bicycling.
- Stair machine and Nordic Track in brace for cardiovascular.

**Weeks 12-16:**

- Goals are to increase strength, power, and cardiovascular conditioning.
- Sport-specific exercises and training program.
- Maximum eccentric-focused strengthening program.
- Increase resistance of cycling, stair machine, and pool programs.

**4-6 months:**

- Goals are to develop maximum strength, power, and advance to sporting-simulation activities.
- Resisted closed chain rehabilitation through multiple ranges.
- Begin light running program as able to demonstrate good strength and mechanics.

**6-9 months:**

- Running program, intensive balance drills, and agility program.
- Initiate plyometric training as able to demonstrate adequate strength and proper mechanics.