

# LARRY S. "CHIP" BANKSTON, JR., M.D.

BOARD CERTIFIED ORTHOPAEDIC SURGEON

## MPFL Reconstruction Rehabilitation Protocol

Dr. Chip Bankston-Baton Rouge Orthopedic Clinic

### Immediate Post-Operative Phase (Day 1-7)

**Brace:** Brace will be locked at 0 degrees and worn 23 hours per day.

**Weight Bearing:** WBAT with Hinge Brace Locked in Extension.

**ROM:** 0-60 degrees by the end of week 1

#### **Recommended Rehabilitation:**

Knee extension mobs, patella mobs (superior/inferior only),  
PROM/AAROM only in knee flexion/extension.

Gentle stretching of hip flexors, hamstring, and gastroc/soleus complex.

Quadriceps setting isometrics with muscle stimulation, Straight Leg Raises in flexion only. No ADD or ABD. Start AAROM and progress to AROM. Concentrate on full extension with SLR.

Ice, compression, and elevation. Do a minimum of 4x per day for 20 minutes per session. Wear compression when not actively rehabbing.

### Acute Post-Operative Phase (Week 2-4)

**Brace:** Brace will be locked at 0 degrees and worn 23 hours per day.

**Weight Bearing:** Weight-Bearing as tolerated for weeks 2-4 with crutches and brace locked at 0 degrees.

**ROM:** Progress to full range of motion. Primary emphasis is extension.

#### **Recommended Rehabilitation:**

Knee extension mobs, patella mobs (superior/inferior), PROM/AAROM only in knee flexion/extension.

Gentle stretching of hip flexors, hamstring, and gastroc/soleus complex.

Quadriceps setting isometrics with muscle stimulation, Straight Leg Raises in flexion only. No ADD or ABD. Continue AAROM if needed and progress to AROM. Concentrate on full extension with SLR. Begin isometric Hip Abduction/Adduction (Ball squeezes and Band Presses), Abdominal/Core strengthening, Double leg calf raises, and light closed chain TKE's 0-30 degrees.

Ice, compression, and elevation. Do a minimum of 2x per day for 20 minutes per session. Wear compression when not actively rehabbing.

### **Post-Operative Phase III (Week 5-8)**

**Brace:** At one month mark-Discontinue Postop Hinge Brace and transition into patellar stabilization/lateral padded knee sleeve for daytime use

**Weight Bearing:** Full weight bearing

**ROM:** The emphasis of this phase is to regain all of pre-surgery range of motion. Progress to AROM in sitting, prone, and standing with patient gaining active motion.

PROM: 0-110 by week 5

PROM: 0-120 by week 6

PROM: 0-135 by week 8

### **Recommended Rehabilitation:**

Knee extension mobs, patella mobs (can begin gentle medial and lateral patellar mobs), and soft tissue mobs to all structures around the knee.

Stretching of hip flexors, hamstring, gastroc/soleus complex, and gentle quadriceps.

Quadriceps setting isometrics with muscle stimulation, Hamstring isometrics, Straight Leg Raises in all planes. Total Hip, Abdominal/Core strengthening program with knee precautions. Double/Single leg calf raises, Light double leg press, supine double leg bridging, and closed chain TKE's 0-30 degrees. Begin bike for warm-up and/or cardio and initiate BFR if available and swelling is controlled. Begin single leg balance progress around week 7. If patient has good quad control, begin treadmill walk program.

Ice, compression, and elevation. Do a minimum of 1x per day for 20 minutes per session. Wear compression when not actively rehabbing.

### **Strengthening Phase IV (Week 9-16)**

The goal of this phase is to increase strength and girth of the surgical side, primarily the quad. ROM should be 0-120 degrees to begin this phase. If not, get permission from operating surgeon to advance.

**Brace:** Discontinue patellar stabilization/lateral padded knee sleeve @ week 10

#### **Recommended Rehabilitation:**

Knee extension mobs, patella mobs, and soft tissue mobs to all structures around the knee.

Stretching of hip flexors, adductors, hamstring, gastroc/soleus complex, and quadriceps.

#### **Suggested Strengthening Exercises:**

**Leg Press** (Double and Single)

**Squats** (Wall squats, kettle bell squats, back squats) 0-75 degrees. Nothing below 90 degrees.

**Lunges** (Front lunges, lateral lunges, reverse lunges) Do not let toes go over the toes!

**Step-ups** (Crossover step-ups, lateral step-ups, forward step-ups)

**RDL's** (Double and single leg)

**Wall Sits** (Double and single)

**Bridging** (Supine double/single leg, physioball bridging)

**Open Chain Hamstring Curls and Knee Extension** strengthening with light-weight and high reps. Do not overload PF joint!

**Begin running program in the Alter-G/Boost at 50% BW around the 12 weeks post-surgery. Normalize running gait and gradually progress to land-based running over a four-week period of time. There should be a heavy emphasis on single leg balance training with sports specific controlled drills.**

Ice, compression, and elevation. Do for 20 minutes per session as needed. Wear compression as needed.

### **Return to Sport Phase V: (4-6 Months)**

Functional return to sport specific drills.

**Patient should demonstrate the following:**

1. Full range of motion
2. Strength 85-90% of non-involved lower extremity
3. Girth equal or close to non-involved lower extremity
4. Return to play Special Test less than 15% difference.

**Workouts:**

1. Full weight room workouts with emphasis on strength and power.
2. Continued stretching/flexibility program.
3. Fieldwork with progression to full activity.