



## **MENISCUS TRANSPLANT POSTOPERATIVE PROTOCOL**

### **GENERAL GUIDELINES:**

- CPM machine at 0°- 40° for the first few days, then increase by 5° increments every other day as tolerated until 90° is reached. Utilize CPM for at least 4-6 weeks unless otherwise instructed by M.D.
- Nonweightbearing to Toe Touch Weight Bearing with crutches in the brace for 6 weeks.
- Increase weight bearing gradually after 6 weeks and start weaning from crutches and the brace once gait presents without compensations or instabilities.
- Initially, brace should be locked at 0° and then unlocked to 60° when adequate quadriceps control is established. Unlock to 90° as tolerated at 4 weeks postop.
- Sleep in the brace unless otherwise instructed by M.D.
- Keep the entire leg elevated. Do not place pillows under the knee for long periods of time.
- Utilize cryotherapy for 20 to 30 minutes every hour for pain and swelling reduction.

### **WEEKS 0-3**

- Restore patellar mobility.
- Restore FULL knee extension within 2 weeks (low load-long duration stretching).
- Hamstring, gastrocnemius, and ITB stretching.
- Ankle ROM/strengthening for swelling and DVT prevention.
- PROM of knee (goal of 0°-90°)
- 4-way open chain straight leg exercises.
- *Focus on knee remaining locked in concentric and eccentric phase. Increase reps and hold time initially, before adding resistance. No ankle weight until extensor lag is eliminated.*
- Modalities as needed for pain and swelling.
- NMES for Quadriceps activation and re-education.

### **WEEKS 4-6**

- Increase ROM as tolerated (goal of 0°-120°)
- Continue to increase hip resistance during open chain exercises as tolerated (progress to multihip machine)
- Knee extension

- Calf raises
- May start light aquatic exercises once good Quadriceps control is established. (*Maintain 0-90° restriction*)
- Isometric hamstring strengthening on a ball.
- Initiate stationary bike for range of motion without resistance.

### **WEEKS 7-12**

- ROM as tolerated.
- Increase resistance with all exercises as tolerated.
- Hamstring curls to 90° with resistance as tolerated.
- Increase leg strength allow for normal gait and walking longer distances.
- Start closed chain exercises as tolerated in a protected range. (1/3 Partial Squats, proprioceptive exercises, BAPS board)
- Leg press (0°-60°) with light resistance and high repetitions. (9-12 weeks postop)
- Increase resistance with stationary bike for strength and endurance training.
- Edema control.

### **MONTHS 3-6**

- Low impact weight program increasing intensity of strength and functional training for a gradual return to normal activities.
- Elliptical trainer.
- Core strengthening.
- Regain Quad/hamstring girth and tone.

### **MONTHS 6-9**

- Sport specific training (if applicable).