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## **Post-operative Rehabilitation Protocol**

### **Knee Arthroscopy - General**

**(Partial Meniscectomy / Loose Body Removal / Shaving Chondroplasty)**

#### **Phase I – Acute Phase:**

Goals:

- Diminish pain, edema
- Restore knee range of motion (goal 0-115, minimum of 0 degrees extension to 90 degrees of flexion to progress to phase II)
- Reestablish quadriceps muscle activity/re-education (goal of no quad lag during SLR)
- Educate the patient regarding weight bearing as tolerated, use of crutches, icing, elevation and the rehabilitation process

Weight bearing:

- Weight bearing as tolerated. Discontinue crutch use as swelling and quadriceps recruitment dictates and normal gait mechanics are restored.

Modalities:

- Cryotherapy for 15 min 4 times a day
- Electrical stimulation to quadriceps for functional retraining as appropriate
- Electrical stimulation for edema control- high volt galvanic or interferential stimulation as needed

Therapeutic Exercise:

- Quadriceps sets
- SLR
- Hip adduction, abduction and extension
- Ankle pumps
- Gluteal sets
- Heel slides
- ½ squats
- Active-assisted ROM stretching, emphasizing full knee extension (flexion to tolerance)
- Hamstring and gastroc/soleus and quadriceps stretches
- Bicycle for ROM when patient has sufficient knee ROM. May begin partial revolutions to recover motion if the patient does not have sufficient knee flexion

#### **Phase II: Internal Phase:**

Goals:

- Restore and improve muscular strength and endurance
- Reestablish full pain free ROM
- Gradual return to functional activities
- Restore normal gait without an assistive device
- Improve balance and proprioception

Weight bearing status:

- Patients may progress to full weight bearing as tolerated. Patients may require one crutch or cane to normalize gait before ambulating without assistive device.

Therapeutic exercise:

- Continue all exercises as needed from phase one
- Cardio equipment- stairmaster, elliptical trainer, treadmill and bike.
- Lunges- lateral and front
- Leg press
- Lateral step ups, step downs, and front step ups
- Knee extension 90-40 degrees
- Closed kinetic chain exercise terminal knee extension
- Four way hip exercise in standing
- Proprioceptive and balance training
- Stretching exercises- as above, may need to add ITB and/or hip flexor stretches

### **Phase III – Advanced activity phase:**

Goals:

- Enhance muscular strength and endurance
- Maintain full ROM
- Return to sport/functional activities/work tasks

Therapeutic Exercise:

- Continue to emphasize closed-kinetic chain exercises
- May begin plyometrics/vertical jumping
- Begin running program and agility drills (walk-jog) progression, forward and backward running, cutting, figure of eight and carioca program
- Sport specific drills

Criteria for discharge from skilled therapy:

- 1) Non-antalgic gait
- 2) Pain free /full ROM
- 3) LE strength at least 4+/5
- 4) Independent with home program
- 5) Normal age appropriate balance and proprioception
- 6) Resolved edema