# Rehabilitation Protocol\*

### **MPFL Reconstruction**

## Tibial Tubercle Osteotomy - yes or no

ORTHOPAEDIC CENTER

## Phase I – Acute Phase: 0-2 Weeks

#### Goals:

- Diminish pain, edema
- If post-op brace applied it should be locked in extension (TTO has brace)
- Reestablish quadriceps muscle activity/re-education (goal of no quad lag during SLR)
- May perform quad work out of brace
- 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 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
- Hamstring and gastroc/soleus and quadriceps stretches

#### Phase II: 2-6 weeks

#### Goals:

- Restore and improve muscular strength and endurance
- ROM 0-90
- Open brace to 0-90 degrees
- Work toward normal gait
- 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.

<sup>\*</sup> adapted from University of New Mexico Sports Medicine

### Therapeutic exercise:

- Continue all exercises as needed from phase one
- Lateral step ups, step downs, and front step ups
- 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 – 6-12 weeks

### Goals:

- Discontinue brace
- Enhance muscular strength and endurance
- Full ROM
- Improve quad control and strength

### Therapeutic Exercise:

- Continue to emphasize closed-kinetic chain exercises
- Advance quad and hamstring strengthening
- Core control and kinetic chain exercises

### Phase IV - 3-6 months

#### Goals:

- Enhance muscular strength and endurance
- Core control
- Advance to full activity

## Therapeutic Exercise:

- Continue to emphasize closed-kinetic chain exercises
- Begin running and sports specific drills
- Advance to agility drills
- Continue Core control and kinetic chain exercises