

# Department of Orthopaedic Surgery Sports Medicine and Shoulder Service

## **Rehab Guidelines for General Knee Pain**

## **PHASE I - ACUTE PHASE**

#### **GOALS:**

- Education
- Decrease pain
- Decrease swelling
- Decrease palpable tenderness
- Improve gait deviations
- Restore normal joint mechanics

#### **SUGGESTED TREATMENT:**

- Modalities to include:
  - 1. Ice
  - 2. Phonophoresis
  - 3. Moist heat
  - 4. Electric stimulation
- Taping
- Cane, crutches
- Initiate flexibility for hamstrings, quadriceps, and iliotibial band
- Initially start with isometrics only
- Incorporate opposite extremity and upper body exercises

#### **PRECAUTIONS:**

Program should not increase patient's symptoms

### PHASE II – SUB-ACUTE PHASE

Phase II begins when resting pain is resolved; swelling is decreased; and palpable tenderness is moderate to minimal

#### **GOALS:**

- Education
- Balance length and strength of lower extremity musculature
- Increase quadriceps strength (VMO control)
- Good patellar mechanics

#### **SUGGESTED METHODS:**

Strengthen weak muscles

- Suggested exercises quad sets, straight leg raises, wall squats, mini-squats, closed kinetic chain strengthening (ex. Slow motion walking, leg press, step ups, resistive bends in weight-bearing, be innovative with weight-bearing activities)
- Stretching tight muscles hamstring, glut, IT band, low back, calf, hip flexor
- Patellar mobilizations assistance of PT and instruction in self patellar
- mobilizations, medial glides and lateral tilts (only if needed)
- Electric stim to the VMO
- Temporary and/or permanent orthotics for balancing the foot
- Pain free biking (high seat, low resistance)
- Overall conditioning program (avoid open chain knee extension exercises)

#### **PRECAUTIONS:**

• Do not work through pain, the rehab program should not increase patient's symptoms

## **PHASE III - FUNCTIONAL PHASE**

#### **GOALS:**

- Pain free functional closed chain activities (steps, jogging, running, and sport specific activities)
- Return patient to unrestricted pain free activities

#### SUGGESTED METHODS:

- Functional activities in closed chain position
- Slow motion walking
- Squats
- Biking
- Leg press
- Stairmaster
- Jogging, Running
- Speed and agility drills progressing to curve cuts and sharp cuts and one-legged hops (for more athletic patients)

ADDITIONAL COMMENTS:	