



Christopher Kim, MD, Minh-Ha Hoang, MD, Scott G. Kaar, MD, William Mitchell, MD, Lauren Smith, PA-C

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: _____

Concerns or questions:

Duncan (clinical nurse specialist – Dr. Kaar) at **(314) 577-8525** / email: **dmchardy@slu.edu**

Julia (clinical nurse specialist – Dr. Kim) at **(314) 577-8524** / email: **santiago@slu.edu**

General office at (314) 256-3850 (SLUH South Campus Clinic); (314) 768-1050 (St Mary's Clinic);

Cardinal Glennon (314) 577-5640

Physician Signature: