

## **MEDIAL COLLATERAL LIGAMENT REHABILITATION PROGRAM**

The physical therapy rehabilitation for medial collateral ligament (MCL) injuries of the knee will vary depending on the following factors:

- Degree of ligamentous instability (Grade I, II or III)
- Other injuries involved
- Performance/activity demands
- Origin or insertional tears
- Age

Please keep in mind that this is a guideline. Patients may progress at different rates depending on the above factors. Those patients with tears at the femoral attachment site typically have difficulty attaining flexion. Patients with tears at the tibial insertion have more instability. The patient's age may affect the time of immobilization. The younger patient may require a longer immobilization period.

The physical therapy program for MCL injuries consists of three phases. The goals of Phase I include pain modulation, inflammatory control, normalizing gait, and restoring range of motion (ROM). Phase II rehabilitation focuses on ROM, gait status, and strength using a combination of open kinetic chain and closed kinetic chain exercises. Phase III consists of a progressive return back to functional activities.

### **Phase I: 0 – 1 Week**

#### **Clinical Goals**

- Minimize pain and swelling
- Full weight bearing with normal gait in brace or cast/immobilizer

#### **Testing**

- Bilateral ROM

#### **Exercises**

- Application of ice as much as possible throughout the day for pain and swelling control
- Tubigrip stockinette can be worn to help control swelling
- Immobilization is dependent on instability and pain. Typically tears that occur at the tibial insertion are immobilized in a 20 degree splint. A hinged brace can be used in all other cases. Immobilization time varies depending on severity of the instability
- Range of motion is addressed by doing prone hangs, heel props, wall slides and heel slides 3x/day
- NSAIDS can be taken as directed by physician
- The patient may be WBAT with immobilizer/cast or brace depending on pain status

## **Phase II: 1 to 4 Weeks**

### **Clinical Goals**

- Full range of motion
- Full weight bearing and normal gait
- Begin strengthening
- No swelling
- Pain free activities of daily living

### **Testing**

- Bilateral ROM

### **Exercises**

- By the end of Phase II, the patient should be able to achieve full ROM (terminal extension to 140 degrees of flexion)
- Brace continued
- At this time, initial strengthening can be implemented. The following exercises may be begun bilaterally and progressed to a unilateral exercise:
  - 1/4 squats
  - toe raises
  - 1/2 full leg extension
  - bike
  - StairMaster
- Continue using ice after exercise and for pain control as needed

## **Phase III: 4 to 8 Weeks**

### **Clinical Goals**

- Pain free activities of daily living without brace
- Strengthening in weight room
- Complete functional progression
- Return to sport/work

### **Testing**

- Pass functional progression

### **Exercises**

- At this time, the patient should be pain free with daily activity.
- A hinged knee brace may be used for return to higher activity levels (i.e. work/sports)

- Strengthening should be performed unilaterally with Phase II exercises. Phase III exercises include:
  - Unilateral leg press to 90 degrees
  - Step downs (2" to 4" step height)
  - Unilateral leg extensions
  - Squats to 90 degrees in the rack
  - Lunges until knee covers toe
  - StairMaster
- Easy agilities can be initiated at the end of the third week. These may be completed with the hinged brace on
  - Jump rope
  - Jog
  - Backward jog
  - Defensive slides
  - Cariocas
- A functional progression must be completed prior to return to sports. The patient will be braced depending on sport/work activity.

\*\*\* Patients with Grade III MCL sprains (tears) will progress slower than those with Grade I & II sprains. Similarly patients with Grade I sprains may progress faster than the above program.