Hays Medical Center

MCL Sprain (Grade I-II)

General Principles:

This protocol was designed to provide the rehabilitation professional with a guideline of care. It should be stressed that this is only a protocol and should not be a substitute for clinical decision making regarding a patient's progression. Actual progression should be individualized based upon your patient's physical examination, progress, and presence of any complications.

PHASE I (Immediate)

Week 1

Orthotics-

- 1. Knee Immobilizer until MCL-type functional hinged brace is available
- 2. Wear at all times for Week 1

Weight Bearing-

- 1. Progress weight bearing to full as tolerated.
- 2. Patient must have normal gait to discontinue crutches

Modalities (PRN)-

- 1. Electrical Stimulation
- 2. Compression and elevation for pain and edema control
- 3. Ice for 10-20 minutes post-activity
- 4. May begin use of heat and/or pulsed Ultrasound after 48 hours

<u>ROM</u>-

1. Progress active and passive ROM to full as tolerated

Exercises-

- 1. Quad sets, Hamstring sets
- 2. Heel slides / Wall slides to progress ROM as tolerated
- 3. Prone Hangs, calf and hamstring stretching, heel prop to improve extension
- 4. Ankle pumps
- 5. Straight Leg Raises
 - a. Flexion, extension, abduction
 - b. NO adduction
- 6. Proprioceptive exercises (In brace) once weight bearing is full
- 7. May use Electrical stimulation if needed to assist with Quad firing

MCL Sprain (Grade I-II)

PHASE II (Strengthening)

Week 2 – 4

Orthotics-

1. MCL brace for all weight bearing activity and for exercise

Weight Bearing-

1. Should be full weight bearing with normal gait in brace

Modalities (PRN)-

1. Continue Phase 1 modalities as needed

Exercises-

- 1. Progress Phase I exercises
- 2. Stationary Bike, Stair Stepper, or Elliptical runner
- 3. Closed-Chain exercises
 - a. Shuttle / Leg Press
 - b. Mini-Squats, Lunges, etc
- Isotonic Open Chain exercises, progress resistance as tolerated 4.
 - a. Short Arc quads, progress to full-arc as tolerated
 - b. Hamstring curls
 - c. Hip flexion, extension, abduction, NO adduction
- 5. May progress to Isokinetic strengthening if full, pain-free ROM and tolerates Isotonic strengthening well
 - a. 180 to 300 degrees per second
- 6. Aquatic exercise (refer to aquatic protocol)
- 7. May progress to running program when approved by Physician

PHASE III (Advanced Strengthening)

Week 5 – 8+

Orthotics-

- 1. May discontinue brace for daily activity
- 2. Continue use of MCL brace for rehabilitation, sport, and high-risk activity

Exercises-

- 1. Advance Phase II exercises as tolerated
- 2. Aggressive Isotonic strengthening
- 3. Initiate functional sport activity
 - a. Bounding, Jumping, Plyometrics
 - b. Interval Running or sports programs
 - c. Progress to lateral sport movements and cutting activities
 - d. DIME warmup
- 4. Criteria to be released for return to sport
 - Isokinetic Test at 180, 240, and 300 degrees per second for physician review and full a. release to sport activity (Goal: 90% strength or better)
 - b. Lower extremity functional tests at 90% or better

(See Lower extremity functional test protocol and form)