



MCL Knee Sprain

Grade III

General Principles:

This protocol was designed to provide the rehabilitation professional with a guideline of postoperative 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 - 2

Orthotics-

1. Knee Immobilizer until MCL-type functional hinged brace is available
2. Rigid hinged brace may be set to allow 45 to 90 degrees flexion only

Weight Bearing-

1. Toe Touch as tolerated with use of 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

ROM-

1. Progress active and passive ROM from 0 to 90° flexion

Exercises-

1. Quad sets, Hamstring sets
2. Heel slides / Wall slides to progress ROM within restrictions
3. Prone Hangs, calf and hamstring stretching, heel prop to improve extension
4. Ankle pumps
5. Isometric Quads
 - a. At 30, 60, and 90° flexion
6. May use Electrical stimulation if needed to assist with Quad firing

PHASE II (Intermediate)

Week 3 – 4

Orthotics-

1. MCL brace for all weight bearing activity and for exercise
2. ROM in the brace set from full extension to 90° of flexion

Weight Bearing-

1. Should progress to full weight bearing with normal gait in brace

Modalities (PRN)-

1. Continue Phase 1 modalities as needed



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ROM-

1. Active and passive ROM from 0 to 90° flexion

Exercises-

1. Progress Phase I exercises
2. Initiate straight leg raises (in brace), progress resistance as tolerated
 - a. Flexion, Extension, Abduction
 - b. NO Adduction
3. Eccentric / Concentric Hamstring exercises within ROM restriction
4. Short Arc Quad, progress resistance as tolerated
5. Multi-Hip machine
 - a. Resistance must be kept above knee height

PHASE III (Strengthening)

Week 5 – 6

Orthotics-

1. MCL brace for all weight bearing activity and for exercise
2. ROM should be gradually increased to full flexion, as tolerated

Weight Bearing-

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

Modalities (PRN)-

1. Continue as needed

ROM-

1. Progress active and passive knee ROM to full as tolerated

Exercises-

1. Advance Phase II exercises as tolerated
2. Standing proprioception exercises as weight bearing allows
3. Stationary Bike, Elliptical, Nu-Step
4. Closed Chain exercises
 - a. Shuttle / Leg Press (Bilateral only, low resistance)
 - b. Mini-Squats
5. Initiate Isotonic Open Chain hamstring exercises, light resistance
6. Aquatic exercise (see Aquatic protocol)

Week 7 – 8

Exercises-

1. Progress closed chain activities to include:
 - a. Step Ups
 - b. Lunges
2. Progress open chain exercises to full arc
 - a. LAQ, LAH
 - b. Weight stations



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3. Initiate Isokinetic strengthening
 - a. 180 to 300 degrees per second
4. Begin straight ahead jogging

PHASE IV (Advanced Strengthening)

Week 9+

Orthotics-

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

Modalities (PRN)-

1. Continue only as needed

Exercises-

1. Advance Phase III 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
4. Isokinetic Test at 180, 240, and 300 degrees per second for MD review and full release to sport activity