

**Carlton Houtz, M.D.**  
**Highland Clinic Orthopaedics and Sports Medicine**

**Medial Collateral Ligament (MCL) Rehabilitation Protocol**

**Grade I Injuries:**

- WBAT with crutches if necessary
- Active ROM exercises to achieve full ROM as tolerated
- Active strengthening exercises—open and closed chain as tolerated
- Progress agility, proprioceptive and sport specific drills as tolerated
- Return to sports when motion, strength, agility and proprioception are equal.
- Bracing is encouraged for contact sports to prevent valgus forces

**Grade II Injuries:**

- Long-leg brace with WBAT with crutches
- Brace may be locked 1-2 weeks depending on pain, alignment and opening.
- Active ROM exercises started immediately in brace (if opened) or out of brace if locked in extension
- E-stim, quad sets, SLR started immediately
- Brace is opened at end of post injury week 3 and FWB encouraged.
- Discontinuation of brace is dependent on pain, alignment and laxity.
- Week 3: Bike and progressive resistive exercises instituted as tolerated. Avoid exercises that place valgus force on knee and open chain exercises for 6 weeks.
- Week 4: Once full ROM and functional strength attained, agility and proprioceptive drills may begin, including straight line running.
- Week 5-6: Progress to sprinting and sports specific functional agility drills as tolerated.
- Return to sports when motion, strength, and proprioception are equal, can perform sports specific activities and valgus opening eliminated pending physician's exam. This is generally between 5 and 6 weeks post injury.
- Bracing is encouraged for contact sports or high risk sports to prevent valgus forces

## **Grade III Injuries:**

- Long leg brace locked in extension for 3-6 weeks depending on alignment. NWB for 3 weeks if significant valgus alignment. TTWB otherwise.
- Quad sets, SLR, E stim started immediately.
- Non-valgus aligned patients: Immediate ROM out of brace 2-3 times a day. Brace unlocked at 3 weeks and progressive weight bearing.
- Valgus-aligned patients: ROM after 3 weeks. Brace locked for 6 weeks for ambulation with weight bearing depending on degree of laxity.
- Closed chain exercises started depending upon patient's weight bearing status.
- Progressive ROM and strengthening similar to patients with grade II injuries.
- Bracing is encouraged for all sports for 6-12 months.