

What is the recommended conservative management following isolated sprain of the knee medial collateral ligament (MCL)?

To answer this question, we performed a comprehensive search of the PubMed database (June 2012) for papers that addressed this specific research question.

At the time of the literature search, no clinical trials had been conducted comparing conservative management approaches following an isolated MCL sprain. However, several clinical opinions exist on the topic, with many of the approaches based on case series published 20-30 yrs ago. Similarities exist between the clinical opinions; therefore, this newsletter will provide a summary of the most recent reviews (1-3).

MCL injuries are the most common ligamentous knee injuries and occur twice as often in males (2). Injuries result from valgus stress such as in contact sports or activities that involve cutting or pivoting motions (1). MCL provides primary resistance to valgus stress and includes superficial and deep portions as well as the posterior oblique ligament that supports the posteromedial corner of the knee capsule (1-3). Multiple classification systems exist

for grading MCL injuries, though most involve quantifying the amount of joint laxity in response to valgus stress applied to knee while in 30° of flexion (1-3). For example, grade I is characterized by minor tear, localized tenderness, and 0-5mm opening; grade II is an incomplete tear accompanied by generalized tenderness and 5-10mm opening; and grade III is a complete tear with >10mm opening (3).

Consistency regarding injury classification and treatment outcomes is needed to establish evidence-based treatment protocols (1). In general, non-operative treatment is the preferred option for grade I and II injuries and includes reduction of pain and swelling, use of hinged brace to prevent valgus stress, and immediate range of motion and exercise (1-3). Return to activity following grade I and II injuries is typically 10 days to 4 wks (1). For grade III injuries and multiple ligament damage, it is recommended to first complete about 6 wks of rehabilitation to improve motion and allow MCL healing before determining the need for surgery (1,3).

Based on this review, it can be concluded that evidence-based rehabilitation guidelines are needed for conservative management of MCL sprain. Sample exercises from VHI PC-Kits have been provided that are consistent with recommendations from these articles.

Check with the provider of this newsletter to learn more about exercises appropriate for this condition.

1. Marchant MH Jr, Tibor LM, Sekiya JK, Hardaker WT Jr, Garrett WE Jr, Taylor DC. Management of medial-sided knee injuries, part 1: medial collateral ligament. *Am J Sports Med.* 2011 May;39(5):1102-13. Epub 2010 Dec 8. Review. PubMed PMID: 21148144.
2. Wijdicks CA, Griffith CJ, Johansen S, Engebretsen L, LaPrade RF. Injuries to the medial collateral ligament and associated medial structures of the knee. *J Bone Joint Surg Am.* 2010 May;92(5):1266-80. Review. PubMed PMID: 20439679.
3. Chen L, Kim PD, Ahmad CS, Levine WN. Medial collateral ligament injuries of the knee: current treatment concepts. *Curr Rev Musculoskelet Med.* 2008 Jun;1(2):108-13. PubMed PMID: 19468882; PubMed Central PMCID: PMC2684213.