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**Medial Collateral Ligament (MCL) Injuries**

**By Matthew DeWall, MD**

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The medial collateral ligament (MCL) is the most commonly injured ligament in the knee. MCL injuries are common sports injuries, often occurring with a direct blow to the lateral, or outside of the knee. This forces the knee into a “valgus” or knock-kneed position, and can tear the MCL. Examples of common causes include: getting hit from the outside of the knee in football or twisting while skiing.

The MCL lies on the inner, or medial side of the knee. It runs from the inside of the femur, across the knee joint, becoming wider as it attaches to the tibia or shin bone. There are multiple layers to the MCL and it is closely related to several other structures on the medial side of the knee, including the medial meniscus, and the hamstring tendons. It can be injured at any point along its course, including the mid-portion of the ligament, but the most common location is a disruption of the ligament at its attachment to the femur, or thigh bone. The MCL may be injured alone, or as part of a larger injury, involving the other ligaments of the knee, such as the ACL (Anterior Cruciate Ligament).

Evaluation and diagnosis of an MCL injury begins with a description of the nature of the injury, as mentioned above, often a direct blow to the outside of the knee, causing it to buckle inwards. Clinical examination by your doctor will also play an important part. Since the MCL prevents the knee from buckling inward, when it is injured, the knee will feel loose in this position. MCL injuries are divided into 3 grades, with grade 1 being the most minor sprain, and grade 3 being a complete disruption. The different grades will allow the joint to open up differing distances, and this is important information for your doctor to determine. Another portion of the exam is to determine where along the course of the ligament the injury has occurred. It is usually possible to tell, based on the location of the most tenderness. X-rays will likely be done to rule out any associated fractures, and to ensure normal over-all alignment to the joint. MRI scans can be done as well, and will show the MCL injury, including the location of the injury, but are often not necessary. Often MRI scans will be ordered if there is suspicion of other associated injuries, or if the injury seems quite severe, when the chance of other injuries is much higher.

Treatment of MCL injuries can vary, but typically will not require surgery. Isolated MCL injuries, even the higher grade, more severe injuries, will respond well to non-operative treatment. Treatment will



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usually consist of a period of protection with a hinged brace that allows the knee to flex and extend, but protects from stress on the ligament in a side to side fashion. This is usually coupled with some early work with a physical therapist or trainer, to keep the knee from becoming stiff, and to prevent loss of strength. The period of bracing will vary with the severity of injury, but most commonly will be for a period of a few weeks, and then there will be gradual return to full activity. Return to sports in all but the most severe cases can be accomplished in several weeks. Operative treatment of MCL injuries is typically carried out when this injury is combined with other injuries such as an ACL rupture. However, in some cases non-operative treatment will still be recommended. Later reconstruction is occasionally necessary in cases where chronic MCL injury leads to problems with instability of the knee. In these cases, the ligament has not healed in the correct position, and simple bracing will not be able to overcome this. In cases of reconstruction for chronic laxity, the rehabilitation and recovery is typically much longer than for acute injuries.

Matthew DeWall, M.D. specializes in all aspects of knee surgery, including sports injuries, knee replacements and arthroscopic surgery at Des Moines Orthopaedic Surgeons in West Des Moines. To reach Dr. DeWall or to schedule an appointment please call 515-224-5223.