

MEDIAL COLLATERAL LIGAMENT INJURIES

What is the medial collateral ligament?

The medial collateral ligament (MCL) of the knee is a thick cable located at the inner side of your knee that connects the thigh bone to the shin bone and provides stability to the inner side of the knee.

Injuries to the MCL usually are the result of a direct blow or force to the outer part of your knee, causing the MCL on the inner side to stretch or tear. This is accompanied by pain and possibly a sense of instability along the inner part of your knee.

An injured MCL rarely requires surgery for a full recovery. Differences in the severity of the injury will dictate the treatment plan. Injuries to the MCL can range from a mild sprain to a complete tear of the ligament. The vast majority of all MCL injuries will heal without surgery, even complete tears. Occasionally, however, a torn MCL may not heal, and surgical repair or reconstruction will become necessary.

What is the immediate care for an MCL injury?

Remember the acronym RICE. Rest, ice, compression and elevation. Rest the knee, in other words avoid movements that would stress the inner side of your knee. Ice for 20 minutes at a time, 3-5 times per day. This will help control swelling and pain. Compression in the form of an elastic bandage will help control swelling and provide a little support. Elevation of the knee above heart level will utilize gravity to help drain swelling out of the knee. In cases of more severe MCL injuries, a knee immobilizer or a hinged brace may be necessary to help provide stability

What is the treatment for an MCL injury?

The treatment consists of physical therapy, to restore range of motion, strength and function while the ligament heals. A hinged knee brace may be worn as an adjunct to physical therapy. These are usually worn by patients who have a higher grade injury. MCL tears are graded 1, 2 and 3.

Grade 1 tears: These are considered mild sprains of the MCL. These usually resolve within several weeks. Treatment consists of icing, physical therapy and anti-inflammatory medications. Most patients will be able to get back to their pre-injury level of activity without difficulty. Stress testing results in less than 5 mm of "opening" or looseness when evaluated by your doctor.

Grade 2 tears: These are considered moderate or partial tears of the MCL. For this grade of tear a hinged brace is recommended to provide side-to-side stability. You may or may not need crutches, based on your comfort level. The remainder of the treatment plan is identical to that of a grade 1 injury. The time necessary for a patient to get back to

their pre-injury level of activity is usually four to six weeks. Grade 2 MCL sprains mean that on stress testing there is generally between 6 and 10 mm "opening".

Grade 3 tears: These are considered complete tears. Sometimes other structures within the knee can be damaged when one incurs a grade 3 MCL tear. An accurate assessment should be provided by an orthopedic specialist. If the injury is an isolated MCL tear, patients will usually need to use crutches for a week or so. A long leg hinged brace will be employed to provide stability to the knee while the MCL begins to heal. The remainder of the treatment plan is identical to that of a grade 1 or 2 injury. Generally, two to four months of treatment are required before one can return to their pre-injury level of activity. On clinical examination the "opening" is between 11 and 15 mm.

The location of the injury is important. Studies show that injuries of the MCL located closer to its origin on the femur (thighbone) take longer to recover knee motion.

Another important concept is that meniscal tears (cartilage tears) infrequently occur in conjunction with a MCL injury unless the anterior cruciate ligament is also injured.

Is surgery ever needed for an MCL tear?

Some severe MCL injuries involve more ligaments than just the MCL. Whether or not to repair the MCL surgically, even in these settings, is controversial. An orthopedic surgeon would base the decision for surgery on a myriad of factors including how many ligaments are torn and what other structures may be damaged. Since the early 1900's the majority of MCL injuries have been treated non-operatively. In chronic settings reconstruction with an Achilles tendon allograft (cadaver graft) can be helpful for restoring medial sided instability; this is infrequently required.