

# Knee Medial Collateral Ligament Rupture

Medial collateral ligament (MCL) injuries are sprains or tears to the medial collateral ligament. This band of tissue runs along the inside part of your knee. It connects the bone in the lower part of the leg to the thighbone. The MCL is responsible for keeping the knee from being able to bend inward.

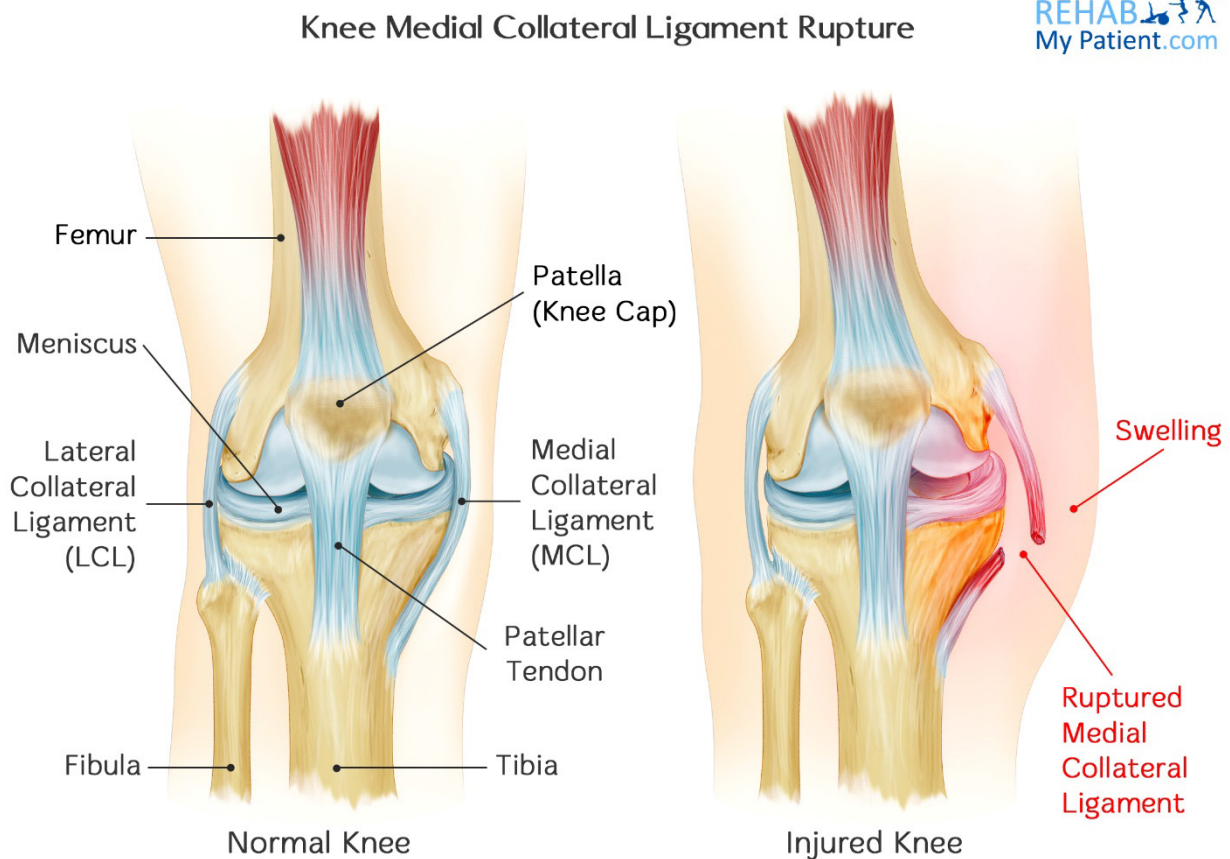
The MCL can be hurt from any activity that involves twisting, bending or quick changes in direction. As an example, the MCL can be injured when playing soccer or football when the outside part of the knee is hit. This particular injury can also happen when skiing, as well in other sports that involve a great deal of jumping, stop-and-go movements and weaving.

Ligament ruptures are full tears through the whole part of the ligament, so that the ligament is now not joined together and in two parts. Sometimes a MCL rupture is also called a Grade III tear.

This is a significant knee injury and may require surgery although rehabilitation is usually tried for several weeks first as the MCL is known to be a very resilient ligament and does tend to repair quite well. However, often it is not just the MCL that's torn, there is often other damage to the knee such as an ACL tear and a medial meniscus tear. Rehabilitation can be long as well, and following ligament rupture normal stability to the knee can be compromised.

## Knee Medial Collateral Ligament Rupture Anatomy

The knee is one of the biggest and most complex of all joints found in the body. It joins the shin bone and the thigh bone together. The smaller bone running alongside of the tibia and the kneecap are the two other bones that complete the knee joint. Tendons keep the leg muscles and knee bones connected to enable the knee joint to move. Ligaments join all of the knee bones and deliver stability to the knee.



The anterior cruciate ligament is the one that prevents the femur from sliding backward along the tibia. The medial and lateral collateral ligaments make sure the femur doesn't slide from one side to the other. It is the posterior cruciate ligament that prevents the femur from sliding forward along the tibia.

Collateral ligaments are found on either side of the knee. The medial ligament connects the tibia to the femur, while the lateral ligament connects the fibula to the femur. Collateral ligaments control movement of the knee sideways and brace it against any unusual movements.

There are also two pads in the knee, like cushions, and they are known as a "meniscus". The meniscus is like a shock absorber in the knee, to dampen forces. Meniscus injuries often occur with MCL ruptures.

### How to Treat a Knee Medial Collateral Ligament Rupture:

#### 1. Cast

To prevent the knee from moving, you might need to wear a brace or lightweight cast that allows the knee to move forward and backward, but limits movement from side-to-side. This is often advised for 72 hours. Based upon how well the swelling and pain is, you might be able to enter into a rehabilitative program within a few days.

#### 2. Strengthening Exercises

Once the swelling and pain has gone down, you can begin participating in exercises that will restore your strength and normal movements in the knee. If you are sore while participating in exercises, you might want to proceed slowly to prevent any additional irritation. It can take anywhere from one to eight weeks for the knee to recover fully.

#### 3. Surgery

It is likely you may need to undergo surgery, often due to the other damage in the knee joint. The ligament can be repaired either by stitching it together, or re-attaching the ligament to the bone using staples. If the ligament is very badly damaged, then a ligament reconstruction may need to be used to form a new ligament using a tendon or other tissues.

#### 4. Physical Therapy

It shouldn't come as any surprise that therapy is vital following MCL rupture. Seek professional advice right the way throughout your rehabilitation. Therapy will help improve range of movement, speed up tissue repair, and ensure full healing. It will also help with guidance on how to progress back into sport.

### Tips:

- Preventative treatments include muscle strengthening around the knee to provide more stability and support to the knee joint.
- Make sure to follow any safety guidelines for sporting activities, regardless of how old you are.
- Before beginning any athletic activities, make sure to stretch properly.
- Ski bindings need to be adjusted properly to prevent the leg from twisting.
- Try to avoid any direct blows to the knee when participating in any sporting activities.