

Knee Sprain

Knee sprains are injuries to the knee ligaments. Sprains can range from nothing more than a slight stretch of the ligament, to that of a complete tear of the ligament. Mild sprains simply stretch the ligament, which causes swelling and pain. Moderate sprains partially tear the ligament and tend to be a lot more disabling, with significant swelling and bleeding. Severe sprains are a complete rupture of the ligament and require surgical repair.

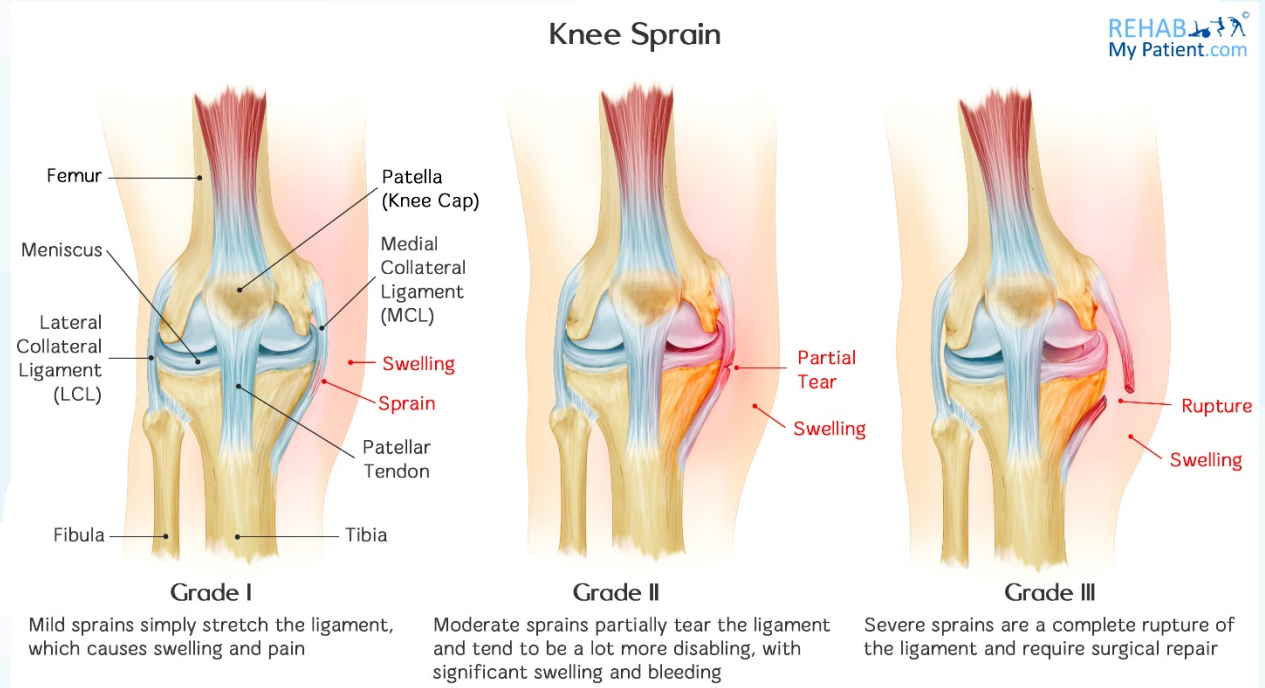
The most commonly sprained of all ligaments in the knee is the medial collateral ligament (MCL). It can be sprained from a blow to the outside part of the knee, especially when your foot is planted firmly on the ground when hit. The blow will cause the knee to move toward the inside part of the body and cause the ligament to stretch. Tenderness and pain will be felt inside of the knee, while the knee feels like it is giving way.

The second most common sprain is to the anterior cruciate ligament (ACL). These are typically traumatic and occur during sports when the knee is either twisted, or an impact is taken when another player collides with the leg. They can also be caused by jumping and landing awkwardly. The opposite ligament to the ACL is called the PCL, posterior collateral ligament, and is rarely sprained.

Sprains on the outside part of the knee lateral collateral ligament (LCL) are caused by blows to the inside part of the knee, which will force the knee to the outside. Since it is harder to get hit in this spot, these injuries are far less common than an MCL sprain. Most of the time, the leg gets in the way and absorbs the blow.

Knee Sprain 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. The collateral ligaments (medial and lateral) prevent the knee from opening up sideways.

How to Treat a Knee Sprain:

1. PRICE

Protect – if you have sprained the knee joint at some point you will experience instability as the ligament is not supporting your joint. So you can use a brace, knee support, or just be mindful of anything that could twist your knee.

Rest – resting your knee is important in the first 48 hours to let inflammation reduce and to make sure you don't re-injure the knee or make the problem worse.

Ice – Apply ice to reduce inflammation.

Compression – apply a compressive bandage or knee support to help reduce inflammation and protect the joint.

Elevation – can help reduce swelling in the knee.



2. Rehabilitation

The first step is to see a rehab therapist who can guide with what treatment is required as well as what exercises to do. In cases of a mild MCL sprain, rehabilitation with a stationary bicycle, curl exercises and leg extension exercises is often all you need to do. Ride the bicycle for a comfortable period of time on a low resistance with the seat high for minimal range of movement. Avoid putting drag on the bike. You are only interested in getting the knee moving.

3. Surgery

For those who are in the moderate to severe risk categories due to job, athletic or recreational demands, surgery might be required. Even if you aren't at risk, having symptoms during everyday activities necessitates surgery. It will need to be determined whether you have complete range of movement in the knee or not. If the quads and hamstrings show signs of significant atrophy, you might need to go through a period of retraining before the surgery can take place.

Tips:

- If an injury occurs, rest the affected area and give it the time it needs to heal.
- Apply ice to the area for 5-10 minutes at a time three to five times per day to help alleviate pain and swelling.
- Compression on the affected knee will help to reduce the amount of swelling sustained.
- Elevating the leg will help to minimize the swelling.
- When participating in sports, make sure to use the proper equipment.
- See an expert – go to your local sports rehab therapist.