MEDIAL COLLATERAL LIGAMENT SPRAIN

What is a medial collateral ligament sprain?

A sprain is a joint injury that causes a stretch or tear in a ligament, a strong band of tissue connecting one bone to the other. The medial collateral ligament is located on the inner side of the knee. It attaches the thighbone (femur) to the shinbone (tibia).

Sprains vary from minor tears in a few fibers of ligament to complete tears of entire ligaments. Complete tears make the joint very loose and unstable.

How does it occur?

This injury usually occurs when a blow to the outer side of the knee causes stretching or tearing of the medial collateral ligament. It can also be caused by twisting the knee.

What are the symptoms?

Symptoms may include the following:

- You have pain on the inner side of your knee.
- Your knee is swollen and tender.
- You have the feeling of your knee giving way.
- You hear or feel a pop or snap at the time of injury.

How is it diagnosed?

Your healthcare provider will ask how you injured yourself and will examine your knee. He or she will gently move your knee around to see if the joint is stable and if the ligament is stretched or torn. Your provider may order X-rays or a magnetic resonance image (MRI) of your knee.

How is it treated?

Treatment may include:

- applying ice to your knee for 20 to 30 minutes every 3 to 4 hours for 2 to 3 days or until the pain and swelling go away
- elevating your knee by placing a pillow underneath it (to help reduce swelling)
- taking an anti-inflammatory medicine or other drugs prescribed by your healthcare provider (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval)
- wrapping an elastic bandage around your knee to keep the swelling from getting worse
- wearing a knee immobilizer or knee brace to keep you from moving and further injuring your knee and to minimize the pain of moving your knee
- using crutches until you can walk without pain
- doing rehabilitation exercises

Torn medial collateral ligaments rarely need surgery.

While you are recovering from your injury, you will need to change your sport or activity to one that does not make your condition worse. For example, you may need to swim instead of run. Your provider may give you a brace to wear if you need to participate in sports or other activities while you are recovering.

When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you

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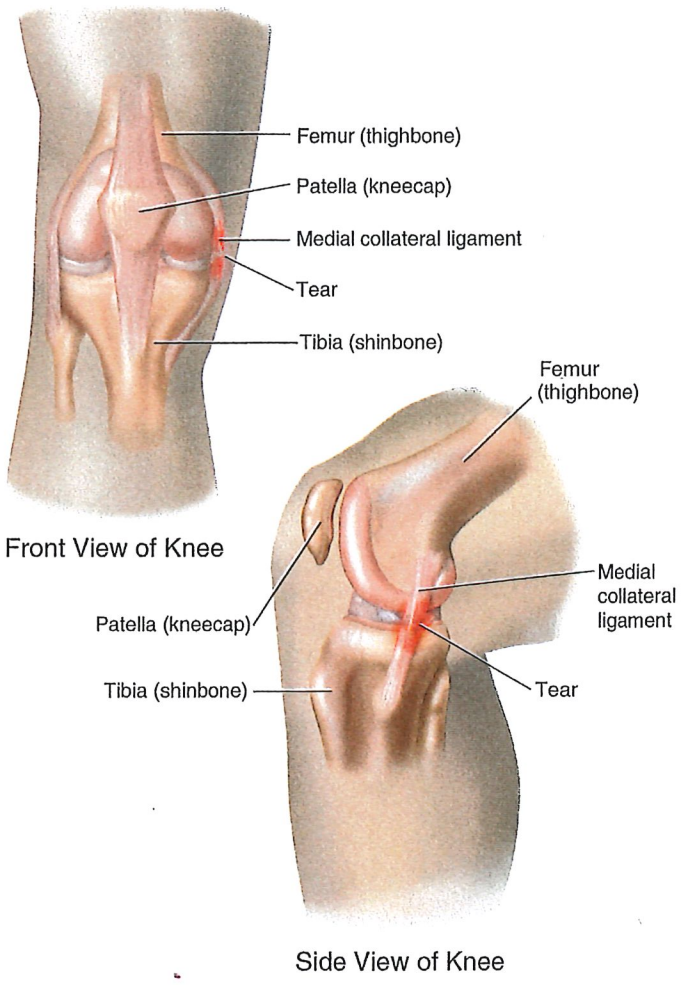


KNEE

return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport or activity will be determined by how soon your knee recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- Your injured knee can be fully straightened and bent without pain.
- Your knee and leg have regained normal strength compared to the uninjured knee and leg.
- Your knee is not swollen.
- You are able to jog straight ahead without limping.
- You are able to sprint straight ahead without limping.
- You are able to do 45-degree cuts.
- You are able to do 90-degree cuts.
- You are able to do 20-yard figure-of-eight runs.
- You are able to do 10-yard figure-of-eight runs.
- You are able to jump on both legs without pain and jump on the injured leg without pain.

If you feel that your knee is giving way or if you develop pain or have swelling in your knee, you should see your healthcare provider.

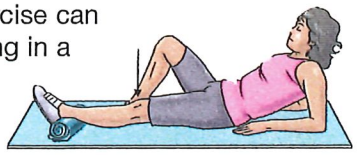
How can I prevent a medial collateral ligament sprain?

Unfortunately, most injuries to the medial collateral ligament occur during accidents that are not preventable. However, you may be able to avoid these injuries by having strong thigh and hamstring muscles, as well as by gently stretching your legs before and after exercising. In activities such as skiing, be sure your ski bindings are set correctly by a trained professional so that your skis will release when you fall.

MEDIAL COLLATERAL LIGAMENT SPRAIN REHABILITATION EXERCISES

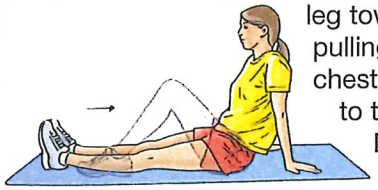
You may do the first 6 exercises right away. You may do the remaining exercises when the pain and swelling in your knee has decreased.

1. PASSIVE KNEE EXTENSION: Do this exercise if you are unable to fully extend your knee. While lying on your back, place a rolled-up towel underneath the heel of your injured leg so the heel is about 6 inches off the ground. Relax your leg muscles and let gravity slowly straighten your knee. You may feel some discomfort while doing this exercise. Try to hold this position for 2 minutes. Repeat 3 times. Do this exercise several times per day. This exercise can also be done while sitting in a chair with your heel on another chair or stool.



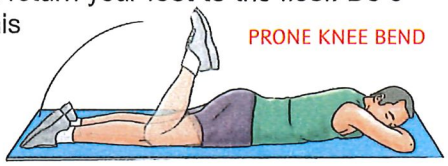
PASSIVE KNEE EXTENSION

2. HEEL SLIDE: Sit on a firm surface with your legs straight in front of you. Slowly slide the heel of one leg toward your buttock by pulling your knee to your chest as you slide. Return to the starting position. Do 3 sets of 10.



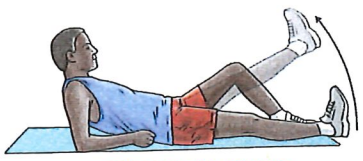
HEEL SLIDE

3. PRONE KNEE BEND: Lie on your stomach with your legs straight out behind you. Bend your knee so that your heel comes toward your buttocks. Hold 5 seconds. Relax and return your foot to the floor. Do 3 sets of 10. As this becomes easier you can add weights to your ankle.



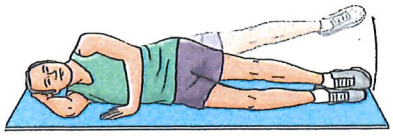
PRONE KNEE BEND

4. STRAIGHT LEG RAISE: Lie on your back with your legs straight out in front of you. Bend one knee and place the foot flat on the floor. Tighten up the top of your thigh muscle on the opposite leg and lift that leg about 8 inches off the floor, keeping the thigh muscle tight throughout. Slowly lower your leg back down to the floor. Do 3 sets of 10 on each side.



STRAIGHT LEG RAISE

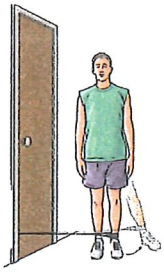
5. SIDE-LYING LEG LIFT: Lying on your side, tighten the front thigh muscles on your top leg and lift that leg 8 to 10 inches away from the other leg. Keep the leg straight. Do 3 sets of 10.



SIDE-LYING LEG LIFT

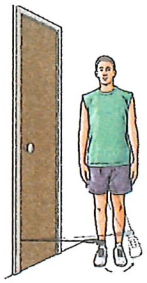
6. KNEE STABILIZATION: Wrap a piece of elastic tubing around the ankle of one leg. Tie a knot in the other end of the tubing and close it in a door.

A. Stand facing the door on the leg without tubing and bend your knee slightly, keeping your thigh muscles tight. While maintaining this position, move the leg with the tubing straight back behind you. Do 3 sets of 10.



B. Turn 90° so the leg without tubing is closest to the door. Move the leg with tubing away from your body. Do 3 sets of 10.

C. Turn 90° again so your back is to the door. Move the leg with tubing straight out in front of you. Do 3 sets of 10.

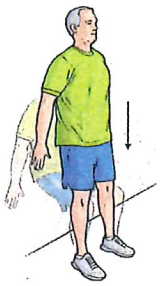


KNEE STABILIZATION

D. Turn your body 90° again so the leg with tubing is closest to the door. Move the leg with tubing across your body. Do 3 sets of 10.

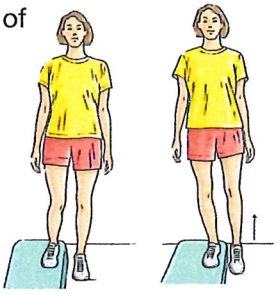
Hold onto a chair if you need help balancing. This exercise can be made even more challenging by standing on a pillow while you move the leg with tubing.

7. WALL SQUAT: Stand with your back, shoulders, and head against a wall and look straight ahead. Keep your shoulders relaxed and your feet 1 foot away from the wall and a shoulder's width apart. Keeping your head against the wall, slide down the wall, lowering your buttocks toward the floor until your thighs are almost parallel to the floor. Hold this position for 10 seconds. Make sure to tighten the thigh muscles as you slowly slide back up to the starting position. Do 3 sets of 10. Increasing the amount of time you are in the lowered position helps strengthen your quadriceps muscles.



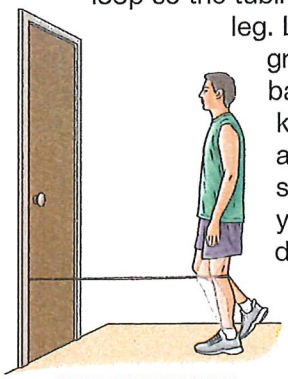
WALL SQUAT

8. STEP-UP: Stand with the foot of one leg on a support (like a block of wood) 3 to 5 inches high. Keep your other foot flat on the floor. Shift your weight onto the leg on the support and straighten the knee as the other leg comes off the floor. Lower your leg back to the floor slowly. Do 3 sets of 10.



STEP-UP

9. RESISTED TERMINAL KNEE EXTENSION: Make a loop from a piece of elastic tubing by tying a knot in both ends, and closing both knots in a door Step into the loop so the tubing is around the back of one leg. Lift the other foot off the ground. Hold onto a chair for balance, if needed. Bend the knee on the leg with tubing about 45 degrees. Slowly straighten your leg, keeping your thigh muscle tight as you do this. Do this 10 times. Do 3 sets. An easier way to do this is to perform this exercise while standing on both legs.



RESISTED TERMINAL KNEE EXTENSION