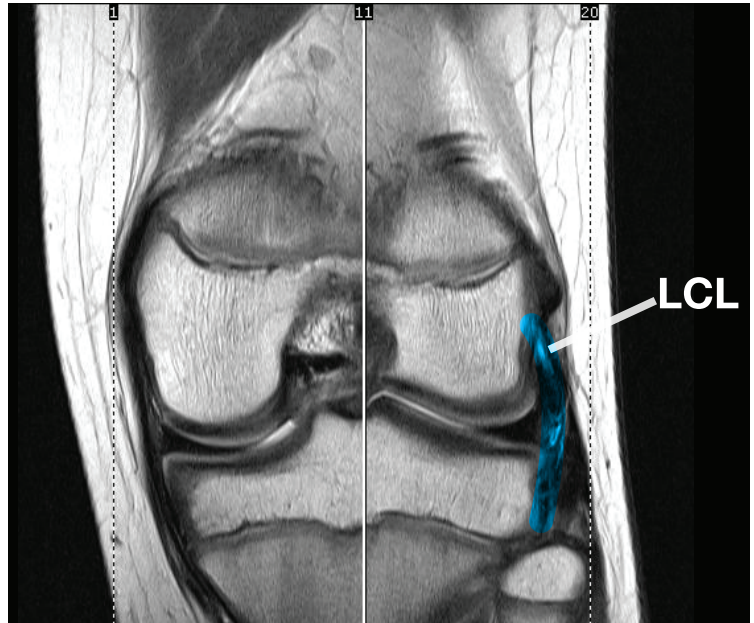


# Lateral collateral ligament injury

## What is a lateral collateral ligament injury of the knee?

The knee contains the lateral collateral ligament (LCL), one of four ligaments (tough band of tissue) connecting the femur (thigh) bone to the tibia (lower leg) bone. In combination with the medial collateral ligament (MCL), the ligament on the inside of the knee, the LCL lies on the lateral (outside) of the knee joint and provides stability to the knee for side-to-side movement. When the ligament is stretched beyond its normal range of movement, it can become sprain or torn. LCL injuries may involve other knee structures, such as the medial or lateral meniscus, which can present as pain on the opposite side (inside) of the knee. Other ligament tears can also occur, such as the posterior cruciate ligament (PCL), when the LCL is injured.



## Mechanism of injury:

- LCL injuries usually occur with force from the inside of the knee pushing to the outside.
- Any activity where force pushes the knee out or the foot inward can create stress on the LCL.

## Who is at risk?

- Children/adolescents in non-contact or contact sports can be at risk.
- Commonly in contact sports, LCL injuries are caused by blows from other players on the opposite side of the body (a blow to the inside of the knee from the opposite side of the body).

## What are the symptoms?

- May have pain in the knee over the lateral aspect (outside), but frequently there is less pain than expected, and varies from athlete to athlete.
- May experience pain walking or bending the knee.
- May have swelling with severe injury, but often there is little swelling.
- May report feeling the knee buckle or give out if they try to stand on it or report feeling the knee is unstable.

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## What are the treatment options?

### Conservative/non-surgical treatment:

- Rest from activities that cause pain or “relative rest.”
- Ice after activities and/or for swelling/pain for 10 to 20 minutes, once an hour as needed.
- A knee brace may help stabilize the knee during activities.
- Physical therapy to address pain, swelling, range of motion, flexibility, strength, gait, bracing and sport training will usually improve symptoms.
- Muscle stretching to improve flexibility and knee alignment:
  - Concentrate on stretching the hamstring (back of thigh) and gastrocnemius/soleus (calf).
  - Focus on strengthening the leg, emphasizing the inside quadriceps muscle, the vastus medialis (VMO) muscle. It is recommended to avoid deep squats, leg presses and long/short arc exercises.
  - The child/adolescent may benefit from a progressive core/balance program to provide sport-specific retraining.

### Surgical treatment:

- Only needed in the most severe cases of instability (increase mobility in the joint).
- There are a number of techniques depending on the patient’s age and activities.
- Reconstruction options may be limited in children with open growth plates (the cartilage area at the end of bones that allow for growth).

## What is the time frame for returning to activity/sport?

- If a conservative/non-surgical treatment is an option, the athlete may return back to sport/activities with a hinged knee brace within three to six months post injury.
- If surgery is required, it typically takes six to nine months after surgery and rehab to return to sport/activities.

## What are the long-term side effects of a lateral collateral ligament injury of the knee?

- May not be able to return to same level of activity, compared to before injury.
- Increased potential for arthritis in adulthood.
- May have instability of knee.