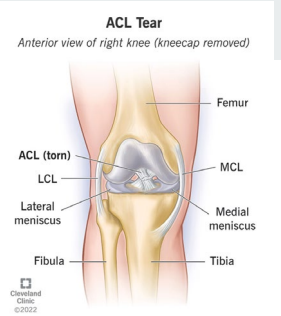
# Diagnosing and Treating ACL Injuries Using MRI

**Objectives:** Understanding the extent of various ACL injuries + Diagnosing and identifying ACL injuries

## Anatomy of Anterior Cruciate Ligament:

The ACL is a ligament behind the patella that, in tandem with PCL, controls the anterior and posterior movement of the knee. Also prevents the tibia from sliding out in front of femur.




## How injuries can occur:

Injuries can occur very easily from event such as stopping suddenly, changing direction suddenly, from direct collision or even landing wrong. These injuries all occur from sudden pressure on the ligament and the knee.

## Diagnosing ACL Tears:

In the event of an injury, the patient will have x-rays and an MRI scan performed. The x-rays will show if there was any bone damage for the reported injury. The MRI scan will allow any other ligament or tissue injuries to be seen. MRI will also help show the extent of the injury

## Symptoms of ACL Tears:

In most cases, people will realise they have torn their ACL, whether that's from a sudden popping sound or intense pain. Symptoms include swelling, loss of range of motion, and pain while walking. In many cases, the person would not tolerate putting pressure on their knee.

## Conclusion:

Not every ACL injury is the same, but they could easily have been more severe based on the amount of pressure that was applied during the injury. With using medical imaging in X-ray and MRI, we are able to visualise the extent of the injuries and help determine the best course of action for treatment.

## Types of ACL Injuries:

Most ligament injuries will have Grades to describe severity of injury. Grade 1: slightly stretched & mild damage. Grade 2: ligament becomes slightly loose or partially torn. Grade 3: more common, result in complete tear of ligament.

## Treatment of ACL Tears:

Treatment of a tear will be dependent on who the patient is. If they will want to continue to be active in sports, surgery would be best to repair the ligament. If a person is older, then surgery may not be as great of an option. Though this would leave the patient with decreased mobility.