

ACL Tear

The ACL stabilizes the knee by resisting hyperextension and anterior dislocation of the tibia during flexion. Injuries typically occur during non-contact sports such as basketball and soccer, but can also occur from trauma.



PLAY PICMONIC

Mechanism

Non-contact

Nun-contact-sports

Injury often occurs in non-contact sports such as basketball and soccer. These sports involve cutting and pivoting, which can lead to damage to the ACL due to sudden deceleration during high-speed movements.

Popping

Party-popper

Patients often give a history of hearing a popping noise during injury.

Sudden Stop

Stop-sign

Sudden deceleration during high-speed movements can place pressure on the ACL and lead to damage.

Change in Direction

Changing Direction

A change in direction can place pressure on the ACL and lead to damage.

Unhappy Triad

Unhappy Triangle-triad

The unhappy triad describes the sequelae from trauma to the lateral aspect of the knee and is common in football. ACL tear is part of the unhappy triad which also includes damage to the MCL and medial meniscus.

Sign

Lachman Test

Lock-man doing Lachman test

Though definitive diagnosis is made with MRI, the Lachman test can be used in a clinical setting. In this test the knee is placed in 30 degrees of flexion and the examiner places anterior pressure on the tibia to assess for anterior displacement of the tibia. This test is distinct from the anterior drawer test in which anterior pressure is placed on the tibia while the knee is in 90 degrees of flexion.



Treatment

Reconstruction if Severe

Construction-worker Reconstructing

Surgery is the definitive treatment and is indicated in severe cases and younger individuals with a high activity level.