

ACL injury

what is an ACL?

The anterior cruciate ligament (ACL) is 1 of 4 major ligaments in the knee that is primarily responsible for holding the shin and thigh bone together. The ACL's primary responsibility is to stop the shin bone from sliding forward and away from the thigh bone.

how do you injure your ACL & what does it feel like?

Non-contact injury is the cause for most ACL sprains. Planting the foot and twisting your body is the most common way of tearing it, but it is also commonly injured from landing on a straightened knee and direct trauma to the knee. Having underdeveloped buttock, hip and thigh muscles will increase your risk of injury.



A strong pop is felt and sometimes even heard, sometimes so loud that spectators may hear it as well. The pain onset is almost immediate and is very strong. Swelling around the entire knee will begin right away as well. It is important to immobilize the knee and use crutches until you are evaluated by a doctor.



what will happen at the doctor appointment?

The doctor will evaluate your knee by looking at swelling, feeling for tender areas & moving your knee to test your range of motion and how much laxity (movement) there is in the ligament. They will most likely order an x-ray, MRI, and/or ultrasound scan to evaluate the tissue and bone to make a firm diagnosis. If you plan to be active, you will need to have surgery to repair the damaged ACL to restore stability and avoid further injury.

how soon can I return to my usual activities?

Your doctor will prescribe prehabilitation (exercises before surgery) to help strengthen your thigh muscles and help you straighten your knee. Research has shown that regaining thigh strength and being able to straighten your knee before surgery help speed recovery after surgery. Surgery usually occurs within 3-4 weeks after the initial injury. Rehabilitation after surgery takes 6-9 months on average before you are able to return to your previous activity levels. Below, there is a general timeline. It is important to continue to work on buttock, hip, and thigh strength after you have finished your rehabilitation process. Working on balance, agilities, and flexibility has also been shown to reduce your risk of ACL injury.

ACL rehab timeline

weeks 1-3	Control pain and inflammation, increase ability to bear weight on injured side, work on thigh strength, and ability to flex and straighten knee
weeks 4-12	Start to walk without crutches, increase intensity of exercises, and begin balance work, have full range of motion
months 3-4	Thigh muscles should have 75% of the strength of your uninjured side, begin exercises that are similar to your previous activity
months 5+	Your doctor and physical therapist will begin releasing you to do more and more exercises that are sport-specific while keeping your range of motion and closely monitoring your progress
3-4 months	begin exercises that are similar to your previous activity Your doctor and physical therapist will begin releasing you to do more and more exercises that are sport-specific while keeping your range

Every person is different and recovery times will vary from person to person. The following criteria needs to be met before full release to previous activity is achieved:

- You no longer have pain and swelling
- You have no feelings of instability during sport-specific activities, such as cutting, jumping, and landing
- Your quadriceps strength is 90% of that on your uninjured side
- Your performance of the 1-legged hop test is at 90% of that on the uninjured side.