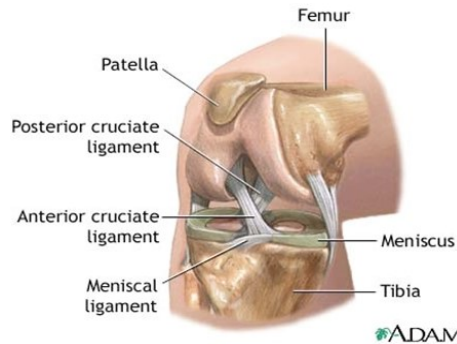


Definition—The ACL is the most commonly injured ligament in the knee. The ACL functions as the primary stabilizer of the knee joint which limits forward motion of the tibia on the femur in the knee joint. When this ligament is injured the person affected will most likely feel as though his or her knee is unstable and has a feeling of “giving out” in the knee.

Mechanism of Injury:

The ACL can be injured several different ways, but noncontact injury mechanisms are the most common such as planting the foot and rotating the leg at the same time, which is common in cutting in most sports. Most people will explain that they heard a “popping” sound during the time of the injury.



Criteria for Return to Sports and/or Work:

In general the following criteria for return appear to be the most widely accepted:

- No joint effusion (swelling inside the joint capsule)
 - There is full ROM and strength in the injured leg
 - The patient has successful performance during work- or sports-specific functional testing
- It is not recommended to begin to return to play until 9 months after surgical repair.

Operative vs. non-operative:

The decision as to whether the ACL-deficient knee is best treated non-operatively or surgically is dependent on each patient. Each case is unique and depends on the level of activity one undergoes. It is best to consult with your physician, as well as your physical therapist, to determine the best treatment for your case.

Nonoperative Rehab:

It is more appropriate to choose this approach if one has a more sedentary lifestyle. If a nonoperative approach is chosen, it is important to note that the inside aspect of the knee has a tendency to progressively degenerate and repetitive activities should be avoided.

Initial care- If the ACL-deficient knee is to be treated non-operatively, initial treatment should involve controlling swelling, pain, and inflammation through the use of cold, compression, and electrical stimulation modalities. Other exercises that can begin immediately are:

Physical Therapy

Quad Sets – Tighten your quad muscle pushing the knee down and pointing the toe up.

Glut Sets – Tighten your glut muscles together.

Knee Slides – With a towel under your heel bend and straighten your knee.

As pain subsides, range of motion (ROM) will improve and the patient will be able to incorporate more exercises, as tolerated. It is important to know that regaining quadriceps strength is key. Dynamic activities can be introduced once quadriceps strength and ROM have entered an acceptable stage.

Post-surgical Rehab:

Initial care- Controlling swelling, pain, and inflammation through the use of cold, compression, and electrical stimulation again needs to be introduced immediately after surgery. All exercises mentioned above in initial care should be implemented in post-surgical ACL rehabilitation as well as instructed by your physician and in the proper time frame. Once pain and swelling have been controlled, our PTs and PTAs will begin to focus on strengthening more of the muscles surrounding the knee.

Progression to normal strength and walking is a slow process which can take up to 1 year to fully regain strength in the injured leg. Jogging and eventually running is not recommended until 9 months post-surgery. More dynamic strengthening will be incorporated as one progresses and the knee becomes more stable. This will include:

Balance Machine - Contraction of quad and glut muscles will to help achieve proper balance needed.

Single-Leg Work – Strength shown in exercises like single-leg squats help in functional stability.

Jumping/Jogging – These actions are specific to many sports and lifestyles.

*Note: One may not progress to more demanding exercises until his or her physical therapist and/or athletic trainer allow it. Progressing oneself without the PT’s or AT’s permission may cause more damage to the joint and delay healing.

Works Cited

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