

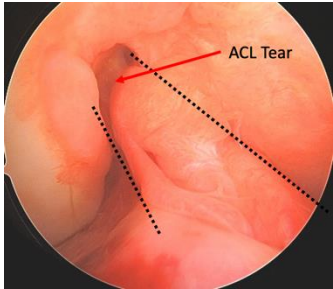


ACL Reconstruction

Frequently Asked Questions

What is the ACL?

The anterior cruciate ligament (ACL) is an important stabilizer of the knee. It is located in the center of the knee joint and connects the femur to the tibia, along with several other ligaments. The ACL is critical to the stability



of the knee while an athlete pivots or changes direction while playing sports, exercising, or even in daily activity. By keeping the knee stable during these activities, the ACL helps to prevent injury to other structures in the knee, particularly the menisci and cartilage. If the knee is unstable and the meniscus tears, a patient has a higher risk of osteoarthritis. For

this reason, Dr. Curtis typically recommends surgery for young, active patients with ACL tears to improve the stability of their knee and to prevent subsequent injury to the menisci or cartilage.

Quick Facts:

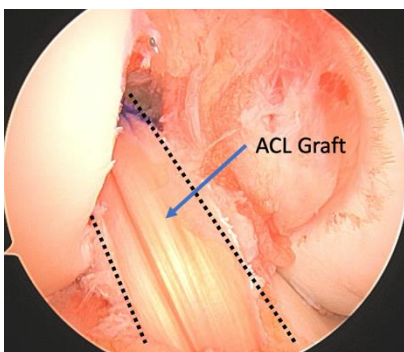
- The ACL is critical for the stability of the knee
- ACL tears can lead to meniscus tears and arthritis
- ACL reconstruction is the surgical treatment for symptomatic ACL tears
- There are several graft options for ACL reconstruction
- Recovery: ~4-6 weeks in a brace, ~3-4 months until jogging, ~1 year to return to sports
- Physical therapy is essential!

What does ACL surgery involve?

The ACL lacks adequate blood supply to heal itself in the vast majority of cases. Therefore, ACL “repair” (relying on the reattachment of the ACL and its own intrinsic healing capacity) is rarely performed. Instead, the ACL is typically “reconstructed” using a “graft” tissue. The graft is placed in the knee across the specific anatomic attachment sites of the ACL on the femur and the tibia. The graft is held in place using high strength suture material and metal buttons or screws (fixation devices). Over time, the graft will heal or incorporate into the surrounding bone and will no longer be reliant on the fixation devices.

What are the graft options?

There are several different types of tissue that can be used in ACL reconstruction. The two major categories are autograft and allograft tissue. Autograft means that the tissue is harvested from the patient and is the most common method. Allograft means that the tissue is harvested from a donor – typically a cadaver tissue. In general, autograft tissue carries lower risks of re-rupture or infection, but has greater “donor site morbidity”. Donor site morbidity means that there is a cost to harvesting tissue – usually some weakness or risk of injury to the donor site. The primary benefit of allograft tissue is no donor site morbidity – so patients recover more quickly with less pain. Allograft tissue is most often used in older patients because they have a lower baseline



risk of re-rupture and because the patient’s own tissue is much weaker than that of a younger patient.

Autograft tissue options include bone-patellar tendon-bone, hamstring tendon, and quadriceps tendon. The bone-patellar tendon bone, or BTB, graft is the historical gold standard. It is believed to have the lowest re-rupture risk of all graft options. However, it also has the most donor site morbidity, with higher risks of stiffness, fracture of the patella, or anterior knee pain. BTB grafts are used most often in contact or collision athletes, as well as hypermobile

patients with extensive soft tissue laxity. Hamstring tendon grafts have the highest re-rupture risks of the autograft options, albeit with less donor site morbidity (hamstring weakness). The primary concern with hamstring grafts is that the size is highly variable and difficult to predict. If the graft is too small, an allograft may have to be used to augment it. Quadriceps tendon grafts represent a newer technique in ACL surgery. Recent studies suggest that these grafts have a similar re-rupture risk to BTB grafts, but with less donor site morbidity. The primary risk is quadriceps weakness, which in most patients results in knee extension strength of about 90% of the contralateral side.

What does the day of surgery involve?

ACL reconstruction is an outpatient surgery and is typically performed at the surgery center or at the hospital. Patients will receive information from the facility the day before about when they should arrive. When you arrive for surgery, pre-operative nurses will prepare you by cleaning and shaving your knee. The anesthesiologist will most often perform a nerve block that provides partial pain control during and after surgery (for about 10-12 hours, although this is variable). You will be brought back for surgery and will receive a general anesthetic. This is important to make sure that you are fully relaxed and asleep during surgery. Any movement during surgery could result in injury to your cartilage or other structures in the knee.

After surgery you will be in the recovery room. Your knee will be covered by several layers. There will be a soft dressing covered by a white compression stocking. Over these will be a hinged knee brace. The brace will be locked straight and should remain straight whenever you are walking. You will be allowed range of motion post-operatively, with the amount dependent on whether a meniscus repair was performed. After the majority of ACL surgeries, patients can put full weight on their leg with the brace locked straight and may move their knee when they are seated or laying down. You will be given 2 medications post-operatively. One is a pain medication, which can be used as the block is wearing off. Patients should wean off of this medication as they are able to. The second is baby Aspirin (81 mg tablets), which is a mild blood thinner. It should be taken to minimize the risk of blood clots post-operatively: twice per day for 2 weeks, starting the morning after surgery.

What is the post-operative recovery?

Post-operative rehabilitation is more than half the battle in ACL surgery! It is absolutely critical that patients are treated by a physical therapist post-operatively to maximize their recovery. The goals in physical therapy are to control swelling, reactivate the quadriceps, mobilize the patella, achieve full knee extension, and regain knee flexion.

Patients should typically start physical therapy within 2-3 days after surgery. Patients will most often see their therapist 2-3 times per week. The brace will be worn until the quadriceps muscle is activating well and patients can perform a straight leg raise. Occasionally, if a meniscus repair was performed, the brace will be worn for 6 weeks in total. Most patients begin a running progression at 3-4 months post-operatively and start to perform agility drills at 6-8 months post-operatively. The goal of returning to sports is 9-12 months post-operatively.



Important Contacts:

Surgery Scheduler: Amber Stegall 775-785-3432
Medical Assistant: Itzel Perez 775-333-7865

The MyChart patient portal can also be used to contact Dr. Curtis or Itzel Perez