

STEVEN CHUDIK MD
SHOULDER, KNEE & SPORTS MEDICINE

Tunnelless Anatomic Arthroscopic Anterior Cruciate Ligament Reconstructive Surgery

Indications for Surgery

- Athletes with an anterior cruciate ligament (ACL) tear who regularly perform sports that require pivoting, cutting, and jumping and landing
- Patients with recurrent giving way or knee instability, despite an adequate rehabilitation program
- Patients with an ACL tear and a repairable meniscus or articular cartilage tear
- Patients with an ACL tear combined with other ligament injuries in the same knee
- Young patients who are physically active regardless if they have open growth plates
- Patients with failed previous ACL reconstructions



Normal ACL on MRI



ACL tear on MRI



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Surgery is typically performed after the injured knee regains full range of motion and proper muscle control, generally three to four weeks following the injury. During ACL surgery, the torn ligament typically is replaced (reconstructed) with a graft because the ligament is so damaged that a simple repair usually is not possible. Common grafts used to replace the torn ligament include the hamstring tendons, bone-patellar tendon-bone, quadriceps tendon or allografts from cadavers. Tunnels are drilled into the femur and tibia, bones of the knee in which the graft is secured and replaced. The goals of the surgery are to reconstruct the torn ligament, repair any other damaged structures (including meniscus, other ligaments, or cartilage) and restore function and stability to the knee

Contraindications to Surgery

- Individuals who do not need to perform sports/activities requiring frequent pivoting, cutting, jumping and landing may consider conservative management
- Persons who demonstrate an inability or unwillingness to complete the necessary postoperative rehabilitation program should not have surgery
- Infection of the knee, current or previous, is a concern, but not an absolute contraindication
- Severe knee arthritis

Potential Surgical Risks and Complications

- Infection
- Nerve injury (numbness) in the skin around the knee. It is not uncommon to have some small area of numbness, temporary or permanent, around the incisions
- A post-operative infection often requires ACL graft removal to treat the infection.
- Re-rupture or stretching of the reconstructed ligament, causing recurrent instability (more common with allografts)
- Knee stiffness (loss of knee motion) requiring prolonged rehabilitation or repeat surgery
- Rupture of the patellar tendon, patellar fracture, patellofemoral arthritis, kneeling pain for bone-tendon-bone grafts
- Pain from the fixation device used to hold the graft (rare)
- Rarely, a clot in the veins of the calf or thigh (deep venous thrombosis, phlebitis) that can break off in the bloodstream and go to the lungs (pulmonary embolus)



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Hospitalization and Anesthesia

- Outpatient surgery (go home the same day)
- General anesthetic, femoral nerve block, or adductor canal block (See *Your Surgical Experience* booklet)

General Surgical Technique

Dr. Chudik is developing techniques for tunnelless ACL surgery. This surgery is less invasive procedure that reconstructs the ACL without drilling large tunnels in the bones of the femur and tibia, and better reproduces the normal anatomy and function of the ACL. It will be performed as an outpatient procedure (go home the same day) with general anesthesia and an adductor or femoral nerve block. The nerve block involves injecting numbing medicine around the nerves of the leg by the anesthesiologist just prior to the surgery. The torn ACL is replaced by a graft that is aligned and secured in place with special fixation devices on the bone surface where the original ACL was connected and without drilling large tunnels in the femur and tibia as done with traditional ACL reconstruction techniques. Each graft type has its own risks and benefits. Prior to surgery, Dr. Chudik will discuss the type of graft that is best for you.

Post-Operative Course

- Crutches and partial weight bearing for approximately four weeks for an isolated ACL reconstruction
- A post-op knee brace for only 24 hours if a nerve block was used, or six weeks if the meniscus is repaired, or if another ligament also had to be repaired/reconstructed
- Keep the incisions clean and dry for the first 10 to 14 days after surgery. Showering lightly is allowed after two weeks but wounds cannot be submerged under water for at least three weeks
- Driving after six weeks if right lower extremity is involved
- Return to school/sedentary work in less than one week as long as the extremity can be elevated
- Physical therapy to restore motion, strength, and proprioception (balance) for up to four to six months
- After the knee is fully rehabilitated, **Dr. Chudik's ACL Functional Capacity Evaluation** is performed to determine that the knee is fully rehabilitated and more importantly, that any errors in movement patterns known to put patients at risk for knee injury are corrected and the patient can return to activities safely



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Return to Activity

- Return to walking and regular daily activities once off crutches (usually about four to six weeks after surgery)
- Return to light running at about three months post-op
- Return to sports at four to six months post-op

Preoperative Instructions

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin[®], Lovenox[®], Xarelto[®] according to the prescribing doctor's directions
- Stop anti-inflammatory medicines such as ibuprofen, Advil[®], Motrin[®], Naprosyn[®], Alleve[®], etc.)
- Stop nutritional supplements and drinks like Vitamin C, ginseng, ginkgo biloba, etc.
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper tissue healing

Do not eat or drink anything after midnight the evening before surgery

Scheduling Surgery

Contact Dr. Chudik's surgery scheduler at 630-324-0402 or email contactus@chudikmd.com/ to:

- Schedule the date and location of surgery; the hospital will call the day before with the arrival time
- Schedule an appointment with Dr. Chudik's physician assistant to complete pre-operative surgical education and other requirements
- Schedule a post-operative appointment with Dr. Chudik's team to remove sutures and review post-op instruction.

Notify My Office if Symptoms Worsen



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