## STEVEN CHUDIK MD

## SHOULDER, KNEE & SPORTS MEDICINE

# **Tunnelless Posterior Cruciate Ligament Reconstruction** *Under Development*

#### **Indications for Surgery**

A posterior cruciate ligament (PCL) tear is a tear of one of the four major ligaments of the knee. The PCL is a ropelike structure that helps maintain the normal relationship of the femur (thigh bone) and the tibia (leg bone), so that the tibia (leg bone) does not slide backwards relative to the femur (thigh bone). This ligament is the largest and strongest within the knee. When torn, this ligament may heal in a lengthened (stretched out) position, or it may attach to other structures of the knee via scar tissue. Often, the PCL can be treated without surgery (if isolated), but if pain and instability persist or other ligaments are damaged, PCL reconstruction may be indicated.





Torn PCL on MRI

Normal PCL on MRI

## **Contraindications to Surgery**

- 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.
- Persons with severe knee arthritis.





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#### **Potential Surgical Risks and Complications**

- Infection
- Injury to nerves (numbness) in the skin around the knee. It is not uncommon to have some small areas of numbness, temporary or permanent, around incisions.
- A post-operative infection can require the graft to be removed to treat the infection.
- Re-rupture or stretching of the reconstructed ligament, causing recurrent instability
- Knee stiffness (loss of knee motion) requiring prolonged rehabilitation or repeat surgery
- Pain from the fixation device used to hold the graft (rare)
- Clot in the veins of the calf or thigh (deep venous thrombosis, phlebitis) that may break off
  in the bloodstream and go to the lungs (pulmonary embolus which is rare)

#### **Hospitalization and Anesthesia**

- Outpatient surgery (you go home the same day)
- General anesthetic, femoral block (See Your Surgical Experience booklet)

#### **General Surgical Technique**

Dr. Chudik is developing techniques for tunnelless PCL surgery. This surgery is a less invasive procedure that reconstructs the PCL without drilling large tunnels in the bones of the femur and tibia and better reproduces the normal anatomy and function of the PCL. He has been able to perform successful tunnelless PCL surgery on the tibial side. There still is further development needed to address the femoral side. PCL reconstructive surgery can be performed as an outpatient procedure (go home the same day) with general anesthesia and an adductor or femoral nerve block. The torn PCL is replaced by a graft that is aligned and secured in its anatomic position with special fixation devices. There are different PCL graft options and each has its own risks and benefits. Prior to surgery, Dr. Chudik will discuss the type of graft that is best for you.

## **Preoperative Instructions**

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin<sup>®</sup>, Lovenox<sup>®</sup>, Xarelto<sup>®</sup> according to the prescribing doctor's directions
- Stop anti-inflammatory medicines such as ibuprofen, Advil<sup>®</sup>, Motrin<sup>®</sup>, Naprosyn<sup>®</sup>, Alleve<sup>®</sup>, 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 from midnight, the evening before surgery





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#### **Post-Operative Course**

- Crutches and non-weight bearing for approximately 6 weeks for an isolated PCL reconstruction
- Hinged knee brace for four weeks with knee locked straight, then gradually open brace to allow more motion (total brace time is eight weeks)
- Keep the wound clean and dry for the first ten to 14 days after surgery. Showering lightly is allowed after two weeks but wounds cannot be submerged under water for 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 PCL 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 injuring their PCL
  reconstruction or their other knee) are corrected and the patient can return to activities safely.

#### **Return to Activity**

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

#### **Scheduling Surgery**

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

- Schedule the date and location of surgery (the hospital will call the day before with the confirmed arrival time)
- Schedule a pre-operative appointment
- Schedule a post-operative appointment for ten to 14 days after surgery to remove sutures and review post-operative instructions

**Notify My Office if Symptoms Worsen** 



