Rehabilitation Consultants Inc.

Posterior Cruciate Ligament (PCL) Tears

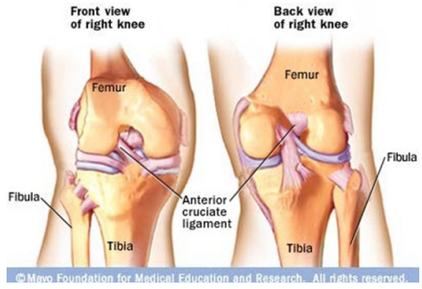
Isolated tears of the PCL are not common but can occur. It is more common to see the PCL injured along with the ACL, MCL, LCL, or menisci. The PCL is the strongest ligament in the knee and functions with the ACL to control rolling and gliding of the knee joint that has been called the primary stabilizer of the knee.

OPERATIVE VS. NONOPERATIVE:

The decision as to whether the PCL-deficient knee is best treated nonoperatively 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.

MECHANISM OF INJURY:

In athletics the most common mechanism of injury to the PCL is with the knee in a position of forced hyperflexion with the foot plantarflexed. Outside of athletics, the most common mechanism is a direct blow to the front portion of the knee forcing the tibia backwards, such as the knee hitting the dashboard from a car crash.



RETURNING 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**
- **Testing indicates that strength of the quadriceps is equal to the uninvolved leg**
- **The patient has successful performance during work- or sports-specific functional testing**

Physical Therapy

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 medial aspect of the knee has a tendency to progressively degenerate and repetitive activities should be avoided.

Initial care- If the PCL-deficient knee is to be treated nonoperatively, 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:

Quad sets (Throughout the day to help regain motor control)	Straight-leg raises (SLRs)
Knee slides – To regain knee flexion (bending) and extension (straightening)	Stationary bike (With the seat adjusted to the appropriate height to permit as much bending of the knee as tolerated)

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 PCL rehabilitation as well.

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 gait 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:

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Balance machine	Single-leg work	Ladder drills
Jogging	Sports/Work-related activities	Running

Works Cited

Prentice, W. E. (2011). Rehabilitation Techniques for Sports Medicine and Athletic Training (5th ed.). Chapel Hill, NC: McGraw Hill.