

PCL (Posterior Cruciate Ligament)

There are two stabilizing ligaments inside the knee, the front knee ligament (the anterior or ACL) and the back knee ligament (the posterior or PCL). The ACL prevents the lower leg from going too far forward on the upper leg, and the PCL prevents the lower leg from shifting too far backward in the upper leg. Injury to the PCL is not as common as injury to the ACL and frequently occurs due to a blow to the front of the knee. When this occurs, the ligament can get stretched or tear completely. If the PCL is injured, the tibia (shinbone) can sag backwards, as there is little structure to help bring the lower leg forward into a straightened position. This can cause cartilage of the knee to wear down, resulting in pain. While most people who sustain ACL tears require surgical reconstruction of the ligament, many PCL tears can be treated non-surgically. The prognosis of a PCL tear is generally good and many athletes can continue their athletic careers without surgery after a PCL tear. Despite the ability to continue sports in most cases, some people may develop arthritis in the knee after a PCL tear, particularly under the kneecap.

When other knee ligaments are injured in addition to the PCL, surgery is more likely to be necessary.

While any serious injury requires individualized medical attention, there are some common treatment options for PCL injuries used by NKSC. Initially, a conservative treatment approach may be used. This involves simple techniques to reduce pain and swelling, such as rest and ice. Once the swelling and pain are under control, a rehabilitation program that focuses on strengthening the front thigh (quadriceps) muscles would begin. Rehabilitation focusing on the quadriceps muscles can help with the backward sag that develops from the injured PCL because the quadriceps muscles pull the lower leg forward. This differs from an ACL rehabilitation program that focuses on the back thigh or hamstring muscles, which help pull the lower leg backward. Once full range of motion of the knee is achieved and there is good control and strength of the quadriceps muscles, the injured individual may be able to return to sports-related exercises (for example, running, jumping, and throwing).

If the knee is unstable and gives way, surgery may be necessary. Sometimes the ligament pulls off the shinbone with a piece of bone and can be repaired. However, often the ligament pulls away and can not be repaired. When this is the case, the PCL may be reconstructed. In PCL reconstruction the ligament is replaced with tissue from another part of the body or with tissue from a donor. PCL surgery does not make the knee entirely normal again, but may decrease the instability and may eliminate the feeling that the knee is giving way.

State of the art treatment of PCL injuries is still evolving, and specific treatment must be individualized. It is important to consult with a physician who has expertise in these kinds of injuries, as proper diagnosis and knowledge of the surgical and non-surgical treatment options are the keys to obtaining appropriate treatment of PCL injuries.