Knee Posterior Cruciate Ligament (PCL) Tear

The posterior cruciate ligament (PCL) is one of the four major ligaments in the knee. Ligaments attach bones to bones, and the PCL is found in the center of the knee. It is designed to stabilize the knee by preventing the shin bone from sliding backward relative to the thigh bone and limiting the twisting or pivoting motions of the knee.

PCL injuries usually occur by direct contact injuries. They are often found in association with another major knee ligament injury. This injury tends to occur in teens or older athletes. Boys appear to be at higher risk than girls for tearing the PCL.

Symptoms

Symptoms of an PCL tear include:

- Feeling or hearing a "pop" in the knee (at the time of injury)
- Initial sharp pain that resolves over a month
- Significant swelling within the first few hours after injury
- Unstable knee with a sense that it will "give out"

Diagnosis

A physical exam of the knee will often diagnose a PCL tear. X-rays should be done to rule out any fractures. An MRI should be done to confirm the exam findings, and to evaluate associated injuries such as meniscus tears or other ligament tears.

Treatment

Treatment is an initial period of ice and compression to reduce swelling and pain. Crutches and a brace locked straight are important to protect the knee during this period, and to give the PCL a chance to heal. This can be done if it is the only structure injured in the knee. If there are two major ligaments or an associated meniscus tear, surgery should be done.

Surgery is done to reconstruct or replace the PCL, which is followed by more bracing and about six months of physical therapy. The young athlete can then return to sports. Most athletes will not feel 100 percent for at least a year from the surgery date.