Treating a Torn Posterior Cruciate Ligament (PCL)

Patient Information

What is the Posterior Cruciate Ligament (PCL), and what does it do?

The knee has 4 tough bands of tissue that connect the thigh bone (femur) to the shin bone (tibia). These bands are called ligaments. One of them is the posterior cruciate ligament (PCL).

The PCL:

- Helps keep the knee stable.
- Keeps the shin bone (tibia) from sliding too far backwards, so it stays connected to the thigh bone (femur).
- Helps keep your knee pointing the right way.

What can cause a PCL tear?

PCL tears often happen in car accidents or sports. A force hits the shin bone and pushes it backward while the knee is bent. We sometimes call this a “dashboard” injury.

Are there different types of PCL tears?

Yes. Tears can range from a very small rip to a full tear that goes all the way through. We divide tears into “grades.” Grade 1 tears are the mildest. Grade 3 tears are the worst. Your tear’s grade affects what treatment you need and how well you will heal.

How do doctors know if I have a torn PCL?

The doctor will:

- Ask about your health history.
- Check your knee by hand (physical exam).
- Order an MRI or other imaging test.

Part of your physical exam may be a “posterior drawer test”: The doctor pushes your shin backward while your knee is bent. This helps the doctor see if your PCL is doing its job.
What are the symptoms of a torn PCL?

Right after it happens, a PCL tear can be very painful. The knee may swell up a lot. It may be hard to bend the knee or put weight on it.

After the swelling and pain get better, many people do fine with a torn PCL. They may not have any problems at all.

Some people with long-term tears complain that the knee feels wobbly. They may have pain under the kneecap or inside the leg (medial knee).

What other injuries happen together with a torn PCL?

Other ligaments often get torn along with the PCL. We call these “multi-ligament” knee injuries. Here are 3 common ones:

**Combined ACL/PCL Injuries**

Bad knee injuries may cause tears to both the anterior cruciate ligament (ACL) and the PCL. You need both these ligaments to support the knee. So people with combined ACL/PCL injuries often feel wobbly, can't use their knees well, and can't do things they used to do. We often advise surgery to rebuild both ligaments.

**Posterolateral Corner Injuries**

An injury to the outside and back corner of the knee can tear the PCL, the popliteus tendon and the popliteofibular ligament. You need all 3 parts to keep your knee stable. We often advise surgery for an injury like this.

**Combined PCL/MCL Injuries**

The medial collateral ligament (MCL) attaches the thigh bone and shin bone on the inside of the knee. Both the MCL and PCL often heal on their own. So we usually try treating a combined PCL/MCL injury without surgery first. If the knee doesn't get better, we may advise surgery later on.

What are the treatment options?

Your treatment choices depend on a few things:

- The grade of your tear (1 to 3)
- How strong your other knee ligaments are
- If other parts of the knee are hurt
- Whether you can do the things you want to do, without pain
If only the PCL was hurt, we usually do not advise surgery. Treatment without surgery may include:

- Physical therapy. This helps get back movement and strength. It also helps with swelling.
- Wearing a brace.

If other ligaments were hurt along with the PCL, we usually advise surgery.

**Surgery for a Torn PCL**

**How long before I’m ready for surgery?**

We will do all we can for you without surgery first. So it may be weeks or months before we do surgery. We order surgery sooner for:

- Really bad injuries, especially to the outside of the knee.
- Knees that are very wobbly.

In these cases, we will order surgery within 2 or 3 weeks, or as soon as you are strong enough.

**How do you rebuild the PCL?**

We build a new PCL from a donated tendon. We usually get the tendon from a dead donor (cadaver). Donated tendons are closest to the size and shape of your PCL.

We start by drilling tunnels in the thigh bone and shin bone, which will hold the new ligament.

We then pull the graft into place using threads called sutures.

We use screws or buttons, or both together, to fasten the graft to the bones. The buttons and screws are designed to stay in place forever. They are very small and should **not** set off an airport metal detector.

**Dos and Don’ts after surgery**

- It’s OK to shower after the third day.
- Don’t bathe or soak the wound in water for 3 weeks.
- Don’t drive for the first 6 weeks.
- Don’t drive while you are taking prescription pain pills (narcotics).

**What is the recovery like after surgery?**

We will put a brace on your knee to keep it still for the first 1 to 2 weeks after surgery. This brace is called a knee immobilizer.

Then we will give you a brace called a PCL Jack brace. This brace presses gently on the knee to protect the new PCL graft. You will wear this brace for 3 to 6 months.
You can expect to:

- Use crutches for the first 6 weeks.
- Slowly start putting weight on your leg after 6 weeks.
- Get a special physical therapy program to follow.
- Go home the same day as your surgery. (A few patients stay 1 to 2 nights in the hospital if we have rebuilt more than one ligament.)
- Take blood thinner medicine for a short time, if you are at risk for blood clots.

**Recovery usually means:**

- Within 6 weeks: Using crutches and brace
- Starting at 6 weeks: Begin putting weight on leg
- Starting at about 4 months: Straight line running
- Starting at about 7 months: Side-to-side sports training
- 8 to 12 months after surgery: Return to playing cutting and pivoting games like soccer, football and basketball.

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**Why do I need physical therapy?**

You need physical therapy to heal your knee. It's also key to helping you feel well again.

Physical therapy:

- Starts about 1 week after surgery.
- Keeps the knee joint stretchy and helps with stiffness.
- Lessens scar tissue build-up in the joint.
- Works to keep the leg muscles strong.
- Be sure to follow your rehab program, daily exercises and stretching. They will make your knee stronger and help you get back to normal.

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**PCL Surgery Recovery Timeline**

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*Your own recovery may be different.