

Medial collateral ligament injury

What you're feeling

The medial collateral ligament sits on the inner side of your knee. It can be injured when your knee is pushed inwards, or when you twist without anything hitting you. Lower-grade injuries usually happen with a twist. Higher-grade injuries usually follow a direct hit to the outside of your thigh or upper leg.

You will feel pain on the inner side of your knee, along the line of the ligament. The knee may also feel loose or unsteady, especially when you put weight on it. Swelling that appears straight away is worth flagging to your surgeon, because it can point to other injuries inside the knee, such as a torn cruciate ligament, a fracture, or a kneecap that has slipped out of place.

Some tasks become harder with this injury. Walking on uneven ground can feel wobbly. Standing up from a low chair puts load through the inner knee. Turning or pivoting on the sore leg, like stepping around someone in a hallway, can bring the pain on. Stairs often need care, because each step asks the inner knee to hold steady.

The pain tends to flare after activity, once the knee has been working for a while. It can also ache at night, particularly in the first days after the injury. Resting the leg and avoiding twisting movements usually settles it down.

If your knee feels loose when it is slightly bent, that fits with this ligament being stretched or torn. If it feels loose when your leg is completely straight, that can mean other ligaments at the back or centre of the knee are involved too. Your surgeon will check both positions to work out how much of the knee is affected.

Scans help confirm what is going on. An MRI can show where the ligament is torn and whether the meniscus or other structures inside the knee are injured as well. X-rays are checked for fracture, small bone fragments pulled off by the injury, and calcification in the ligament from older injuries.

What's actually happening

The medial collateral ligament is a strong band of tissue running down the inner side of your knee, from your thigh bone to your shin bone. Think of it as one of the guy ropes holding a tent steady. When your knee is pushed inwards or twisted, that rope gets stretched or torn. The tear most often happens where the ligament

attaches to the thigh bone, and that spot has a good blood supply, which is why these injuries usually heal well on their own.

Doctors grade the injury by how loose the knee feels. A grade 1 injury means the ligament is stretched but still doing its job. Grade 2 means it is partly torn and the knee feels loose. Grade 3 means the ligament is torn right through and the knee feels very unsteady. Most grade 1 and 2 injuries settle without surgery. Higher-grade injuries are more likely to involve other ligaments in the knee, especially the cruciate ligament in the centre, and that combination is what often tips the decision towards surgery.

When the inner ligament is badly torn, the knee can open up on the inner side when stressed. Other structures, including the cruciate ligament, normally help hold things steady, so a tear in more than one place makes the knee feel much looser than a tear in one place alone. Some people also injure the padding between the bones, called the meniscus, though this is less common with this injury.

If the injury happened a long time ago and never healed properly, the body can lay down small deposits of calcium in the ligament near the thigh bone. That shows up on an X-ray and is a sign of an old, ongoing problem rather than a fresh one.

What we can do about it

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific injury. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. At the clinic visit we take a history, examine your knee and arrange imaging where it is needed.

Most medial collateral ligament injuries do not need surgery. We usually start with bracing and physiotherapy. A hinged knee brace supports the inner side of the knee while the ligament heals. Physiotherapy aims to settle pain, restore movement and rebuild the strength that keeps the knee steady. Many injuries settle over weeks rather than months, and we review how you are tracking along the way.

Pain relief is straightforward. Simple pain medication and anti-inflammatories, taken as directed, help you stay comfortable and keep moving while the ligament heals.

Surgery is considered when the knee stays unsteady despite bracing and physiotherapy, or when other ligaments inside the knee are injured at the same time. A badly torn ligament that has pulled off a piece of bone, or a knee that gives way because more than one ligament is torn, may need repair or reconstruction early rather than after a wait. In those cases we operate to reattach or rebuild the torn ligaments so the knee is stable again. The operation itself has its own page, and we will talk through what it involves before any decision is made.

What to expect

Most of these injuries settle well. Lower-grade injuries usually heal without surgery, over weeks rather than months. The pain eases first, then the strength and steadiness come back as you work through physiotherapy. Many people are back to normal walking and daily tasks well before the ligament is fully healed.

If the injury is more severe, or other ligaments in the knee are torn at the same time, the outlook depends on getting the right treatment early. When the inner ligament and a cruciate ligament are both injured, treatment aimed at both together gives results similar to treating a cruciate ligament injury on its own. Some people with this combination return to their previous level of sport.

If a knee that is loose in more than one direction is left alone, the looseness tends to persist. The knee can remain unsteady during twisting or pivoting, and the cartilage surfaces can wear unevenly over time. Surgery to rebuild the loose ligaments can restore steadiness, and many people return to daily activities and low-level sport afterwards.

Recovery after surgery takes longer than recovery from the injury itself. It is normal for the knee to feel stiff and tight in the early weeks, and it takes months of physiotherapy to rebuild strength. Some people are left with a knee that does not feel quite the same as before, even after a good result. Surgery on several ligaments at once carries more risk than surgery on one, including infection, stiffness, wound problems and injury to a nerve at the outside of the knee that can cause numbness or weakness in the foot.

Be wary of expecting a quick fix. The ligament usually heals reliably, but the knee can take months to feel strong and trustworthy again. If you have had knee ligament surgery before, your knee may not feel quite as steady as it once did. We will talk through your own outlook at your review appointments, once we know exactly which structures are injured and how you are tracking.

When to see someone

See your GP if you have pain on the inner side of your knee after a twist or a knock, and it is not settling with rest over the first couple of weeks. Ask for a specialist review if your knee feels loose or gives way when you walk, turn or pivot, or if it keeps swelling after activity. Go to an emergency department if your knee swells immediately after the injury, if it feels loose when your leg is completely straight, or if your foot feels numb, weak or cold, as these can point to other ligaments being torn, a fracture, a kneecap that has slipped out of place, or a nerve problem that needs checking straight away.