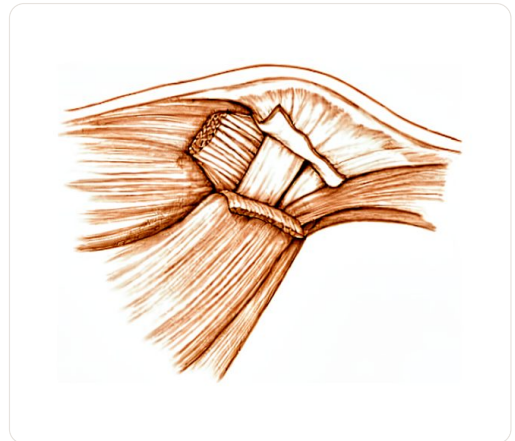


Thumb UCL injury

A torn ulnar collateral ligament of the thumb (skier's thumb).

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What you're feeling

You will likely feel pain and tenderness on the inner side of your thumb, right at the base joint. This is where the ulnar collateral ligament sits. You might notice swelling or bruising in that area. The pain often feels sharp when you try to move the joint, especially if you push against resistance.

Daily tasks can become difficult because this joint helps you grip and pinch. You may struggle to hold a coffee mug without it slipping. Opening a jar lid or turning a key in a lock might hurt or feel weak. Even simple things like typing on a keyboard or holding a phone can aggravate the area. You might find yourself avoiding using that hand for heavy lifting or precise movements.

The pain often flares up after you have been using your hand for a while. It may also be more noticeable in the morning when you first wake up, as stiffness sets in. Some people find the pain throbs at night, especially if they roll onto their arm or put pressure on the thumb. Resting the hand usually helps reduce the ache, but the underlying instability can make you feel like your thumb is giving way.

If the ligament tears completely, you might feel a sudden pop or snap at the time of injury. This can lead to a sense of looseness in the joint. You may notice that your thumb does not stay in place as firmly as it used to. This instability can make it hard to perform fine motor skills, like buttoning a shirt or picking up small coins.

We assess these symptoms using a physical exam and X-rays to check for any bone fragments or other issues. If you have a displaced bone fragment, known as a fleck sign, it often indicates that the ligament has moved out of place. This specific finding can influence whether we recommend surgery to repair the tear. Understanding what you are feeling helps us tailor the right treatment plan for your recovery.

What's actually happening

Your thumb has a small ligament on its inner side, known as the ulnar collateral ligament. Think of this ligament as a strong rope made of tough fibres. It holds the main joint of your thumb steady when you grip things or push against resistance. When you fall on an outstretched hand or twist your thumb suddenly, this rope can stretch or tear.

If the tear is partial, the joint may feel loose. If it is complete, the joint becomes unstable. This means the bones in your thumb do not line up correctly when you move them. Over time, this instability can lead to wear-and-tear arthritis in the joint. The pain and weakness you feel come from this mechanical failure. Your thumb simply cannot transfer force effectively when the stabilising rope is broken.

Sometimes, the torn end of the ligament flips out of place. This is called a Stener lesion. It acts like a doorstop, preventing the ligament from healing back to the bone on its own. In these cases, surgery is often needed to reposition the tissue. Your surgeon will look at X-rays to see if there is a small bone fragment, known as a fleck sign, which suggests this displacement has occurred.

Your thumb's shape also plays a role. Some people have a flatter joint surface at the base of the thumb. Research shows this flat shape is not linked to traumatic tears of this ligament. However, the way you use your hand matters too. Weakness in the muscles that control your fingers can put extra strain on this ligament. This is why rest and careful recovery are vital to reduce the risk of further injury.

When the ligament is repaired, we aim to restore that natural stability. We use techniques that tighten the joint without making it too stiff. Whether we use your own tissue or a synthetic tape, the goal is the same: to give your thumb a secure foundation so you can grip and move with confidence again.

What we can do about it

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. We begin by protecting the joint to allow healing. You may use a thumb spica cast or a stabilising splint. This keeps the thumb still and prevents painful movements. Physiotherapy helps restore strength and movement. Individual finger exercises can also support the joint. We usually recommend this approach for injuries that are not severely displaced.

If pain persists, we discuss medical management to help you stay active. Pain relief medications and anti-inflammatories can reduce swelling and discomfort. In some cases, we may suggest an injection. Cortisone injections calm inflammation, while hyaluronic acid injections lubricate the joint. Platelet-rich plasma (PRP) injections use your own blood elements to encourage healing. These treatments aim to manage symptoms and improve function without surgery.

Surgery is considered when conservative care does not provide enough improvement or if the injury is severe. We look for signs like a displaced bone fragment on X-ray, which suggests the ligament is trapped and needs repair. Surgical options include repairing the torn ligament or reconstructing it using your own tendon. These procedures aim to restore stability and allow you to return to your normal activities. Patients often see

significant improvements in pain and function within three to twelve months after surgery. We discuss all options with you to ensure the plan matches your specific injury and goals.

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. A clinic assessment, including history, examination, and imaging where needed, establishes the diagnosis. For structural or acute problems, surgery may be recommended straight away, without a preceding non-operative trial.

What to expect

Your thumb's ulnar collateral ligament acts like a stabilising rope on the inner side of the joint. If this ligament tears, the joint can become unstable. Without proper care, this instability may worsen over time, making it difficult to grip or pinch. You might notice your thumb feels loose or weak during everyday tasks.

If you choose not to have surgery, the ligament may not heal correctly on its own. This can leave the joint permanently loose. However, many people manage well with conservative care, such as wearing a thumb spica cast to protect the area. This cast helps the ligament heal while allowing you to return to play earlier than if you kept the thumb completely still for longer. Be aware that casting can sometimes place extra stress on nearby joints, which might cause additional discomfort.

Surgery is often recommended if the ligament is displaced or if you want to restore full strength. Your surgeon will discuss whether repair or reconstruction is best for you. Reconstruction uses a tendon graft to replace the torn ligament. This approach has been shown to improve pain and function significantly at three and 12 months after the procedure. Some techniques use nonbiological materials, which can offer short-term results similar to biological grafts and may allow for faster rehabilitation.

Recovery is a gradual process. You will need to protect the thumb while it heals. Even with surgery, the repaired ligament is not as strong as it was before the injury. Your surgeon will guide you through exercises to regain movement and strength. Most patients see steady improvement in how their thumb feels and functions over several months.

For athletes, returning to sport is possible. Studies show that players who undergo thumb UCL surgery can play a similar number of games per season and have similar career lengths as those who do not have the injury. The key is balancing a quick return with long-term joint health. Rushing back too soon can risk re-injury.

Overall, the outlook is positive for most people. Whether you have surgery or not, the goal is to reduce pain and restore stability. With proper care and rehabilitation, you can expect to regain the use of your thumb for daily activities and sports. Your surgeon will tailor the plan to your specific needs and goals.

When to see someone

See your GP if you have persistent pain, weakness, or instability in your thumb after an injury. These signs suggest progressive joint instability. Ask for a specialist review if your thumb locks or gives way, or if symptoms interfere with sleep or work. Your surgeon will assess you with a physical exam and X-rays to check for

underlying issues. If an X-ray shows a displaced bone fragment, this often indicates a specific ligament tear that may need surgery. Do not ignore these signs, as early assessment helps protect your thumb's long-term function.

In more depth

This section goes further than you need for your own treatment decisions. Thumb ulnar collateral ligament injury is worth the extra reading because the whole decision turns on a single anatomical question – whether the torn ligament has flipped out of reach – and because there is now a clear answer about which scan to use to settle it.

THE STENER LESION, AND WHY IT CHANGES EVERYTHING

The ulnar collateral ligament stabilises the thumb against the sideways force of every pinch and grip. When it tears from its attachment, it usually stays where it can heal.

Sometimes it does not. A sheet of tendon called the adductor aponeurosis lies superficial to the ligament, and if the torn end retracts back over the top of that sheet, the aponeurosis interposes between ligament and bone. That is a **Stener lesion**, and it is the reason this injury is treated differently from most sprains: the ligament is no longer in contact with the bone it needs to heal to, so no amount of splinting will reattach it.

Everything about management follows from whether that has happened.

ULTRASOUND IS ENOUGH TO ANSWER IT

Because the decision is binary and consequential, the imaging question is unusually well defined – and it has been answered. Across **422** patients, **both ultrasound and MRI demonstrate high diagnostic accuracy in detecting Stener lesions**, and **ultrasound is an appropriate first-line imaging modality** [1].

That is a useful piece of practical information. Ultrasound is quicker, cheaper and more accessible than MRI, and where an experienced operator is available it does not need to be followed by an MRI to confirm what it has already shown. It is also dynamic – the thumb can be stressed during the scan.

WHERE THERE IS NO STENER LESION, LAXITY DRIVES THE DECISION

The British Society for Surgery of the Hand guideline sets out the pathway plainly. Patients with acute injuries should be assessed with **history, clinical examination and radiographs**. Those **without significant joint laxity can be treated non-surgically**, while those **with significant laxity may be treated with either non-surgical immobilisation or surgical repair, after a shared decision** [2].

Two things are worth drawing out. The first is that radiographs come before advanced imaging – partly to exclude an avulsion fracture, which changes the treatment again. The second is that even significant laxity does not mandate surgery: the guideline explicitly frames it as a shared decision between immobilisation and repair, which is a more honest position than presenting operation as the only route.

WHY THE CONSEQUENCES OF GETTING IT WRONG ARE SPECIFIC

An incompetent ulnar collateral ligament does not produce pain at rest or difficulty with most activities. It produces a thumb that gives way under sideways load – turning a key, opening a jar, holding a heavy pan by the rim – because pinch depends on a stable post to press against.

Left untreated, chronic instability leads to arthritis of that joint over years. This is the reason an injury that feels like a simple sprain warrants a definite assessment: the cost of missing it is not felt in the weeks afterwards, when the thumb settles and seems fine, but much later.

REFERENCES

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2. Dean B, Rodrigues J, Riley N, Rabey N, Donnison E, Challen K, et al. Guideline on managing thumb ulnar collateral ligament injuries: the British Society for Surgery of the Hand. J Hand Surg Eur Vol. 2024;49(10):1195-201.