

Tennis Elbow

Tennis elbow: irritation where the forearm tendons attach to the outer elbow.

Kieran Hirpara © ⓘ ⓘ 4.0



What you're feeling

You are likely feeling a dull ache or sharp pain on the outside of your elbow. This area is called the lateral epicondyle. The discomfort often starts near the bony bump on the outside of your elbow and may travel down your forearm. You might notice that the pain feels stiff when you first wake up in the morning.

The pain usually gets worse when you use your arm to lift things. Simple daily tasks can become difficult. You may struggle to lift a kettle from the bench. Turning a doorknob or shaking hands can send a sharp sting through your elbow. Holding a cup of coffee or using a screwdriver may also cause discomfort. These actions put stress on the tendons that connect your forearm muscles to your elbow bone.

In most cases, this condition is self-limiting. This means it tends to get better on its own over time. Symptoms have a steady half-life of three to four months. This means the intensity of your pain often reduces significantly within that period. Approximately 90% of people with untreated tennis elbow achieve symptom resolution by 1 year. The probability of recovery remains fairly constant over this timespan, regardless of how long you have had symptoms. Longer symptom duration does not indicate a poorer prognosis without surgery.

Tennis elbow is a common problem that resolves by 6 months in most cases no matter what treatment is used. However, if your symptoms persist, it is important to understand that persistent tennis elbow symptoms are a poor indication for surgery. The majority of patients experience symptom resolution without it. Surgeons are unable to reliably predict who will or will not improve with nonoperative treatment of chronic tennis elbow.

If you find that your pain is interfering with your sleep or daily activities, you should discuss this with your surgeon. They will examine your elbow to confirm the diagnosis. Physical examination of the elbow is a critical component in formulating an accurate diagnosis. Nearly half (46.5%) of patients presenting with lateral elbow pain receive a diagnosis other than lateral elbow tendinopathy (LET). Your surgeon will ensure that your symptoms match the condition and rule out other causes.

What's actually happening

Tennis elbow is a wear-and-tear injury to the tendons on the outside of your elbow. These tendons act like strong ropes, connecting your forearm muscles to the bony bump on the outside of your elbow joint. When you grip objects or lift things, these ropes pull tight. Over time, this repeated stress can cause tiny tears in the tendon fibres.

Think of the tendon origin as a frayed rope anchor. Instead of a smooth, strong connection to the bone, the tissue becomes irritated and inflamed. This causes pain when you extend your wrist or grip items. The pain is often worst when you try to lift a cup or shake hands.

Your body tries to heal these micro-tears, but the constant strain can outpace the repair process. This leads to a cycle of ongoing irritation. The tendon may also become less sensitive to position, making your elbow feel less stable. This loss of proprioception means your brain receives less clear information about where your arm is in space.

In some cases, the body deposits extra bone in the area as it attempts to stabilise the joint. This is called heterotopic ossification. It can further limit movement and cause discomfort.

Most people recover without surgery. About 90% of people with untreated tennis elbow achieve symptom resolution by 1 year. Symptoms have a steady half-life of three to four months. This means the pain gradually fades over time for many patients. Longer symptom duration does not indicate a poorer prognosis without surgery.

However, if your symptoms persist, the tendon damage may be significant. Surgery aims to remove the damaged tissue and stimulate healing. Arthroscopic tennis elbow release provides symptomatic improvement in most patients with lateral epicondylitis. For the small percentage of patients who do not respond to nonoperative approaches, surgery provides near 90% satisfaction rates.

We focus on addressing the root cause of the irritation. This includes assessing the tendon and surrounding structures to ensure a comprehensive treatment plan.

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. Tennis elbow is a common condition with a self-limiting course of 12 to 18 months. Most people find relief through simple self-care and physiotherapy. You can expect symptoms to have a steady half-life of three to four months. This means your pain should gradually ease over time. We recommend activity modification to avoid movements that strain the outer elbow. Physiotherapy aims to strengthen the forearm muscles and improve tendon health. You should give this approach a fair trial, as approximately 90% of people with untreated tennis elbow achieve symptom resolution by 1 year. Longer symptom duration does not indicate a poorer prognosis without surgery.

If self-care is not enough, we may discuss medical management. This can include pain medication and anti-inflammatory treatments to help manage discomfort. We also consider injections to reduce inflammation and

support healing. However, the evidence shows that platelet-rich plasma or autologous blood injections do not reduce pain or improve function in patients with lateral tennis elbow. Cortisone or hyaluronic acid injections may provide short-term relief, but all nonsurgical treatments for this condition provide only small pain relief while increasing the odds of adverse events. We focus on treatments that actively improve pain relief or accelerate soft tissue healing. You should discuss which injection type suits your specific situation during your consultation.

Surgery is considered only when conservative care has reached its limit. Persistent tennis elbow symptoms are a poor indication for surgery as the majority of patients experience symptom resolution without it. Surgeons are unable to reliably predict who will or not improve with nonoperative treatment. For the small percentage of patients who do not respond to nonoperative approaches, surgery provides near 90% satisfaction rates. Arthroscopic tennis elbow release provides symptomatic improvement in most patients with lateral epicondylitis. This procedure involves making small incisions to remove damaged tissue and relieve pressure on the tendon. We view this as a shared decision, ensuring you understand the benefits and risks before proceeding.

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 (history, examination, and imaging where needed) establishes the diagnosis. For degenerative or long-standing problems we usually try non-operative care – activity change, physiotherapy or hand therapy, splinting, and injections – and consider surgery when that has not given enough improvement.

What to expect

Tennis elbow, also known as lateral epicondylitis, is a condition where the tendons on the outside of your elbow become irritated. The good news is that this condition often settles on its own. Approximately 90% of people see their symptoms resolve within one year, even without any specific treatment. Your symptoms have a steady half-life of three to four months, meaning they tend to improve gradually over time. About three-quarters of patients recover within 52 weeks.

It is important to know that the length of time you have had pain does not predict how long it will take to heal. The probability of recovery remains fairly constant regardless of how long your symptoms have persisted. Tennis elbow typically resolves by six months in most cases, no matter what treatment approach is used. Because the natural history of this condition is so positive, persistent symptoms are generally a poor indication for surgery. Most patients experience symptom resolution without needing an operation.

Your surgeon is unable to reliably predict which specific patients will or will not improve with non-surgical treatment. Therefore, failed non-surgical treatment should not be used as the sole reason for surgery unless reliable predictors of non-recovery are identified. For the small percentage of patients who do not respond to non-surgical approaches, surgery provides near 90% satisfaction rates. Surgical interventions may be performed with a high rate of success when conservative measures are unsuccessful.

Recovery feels like a gradual return to normal activity. You may notice a steady improvement in function over weeks to months. While there is some controversy regarding the optimal modality for the quickest recovery,

focusing on the upper segments of your arm in addition to the elbow is essential for management. Whether you choose non-surgical management or surgery, the goal is to reduce pain and restore your ability to use your arm without discomfort.

When to see someone

See your GP if your elbow pain does not improve with rest. Most people recover within six months without surgery. Your symptoms have a steady half-life of three to four months. Longer duration does not mean a poorer outcome. Ask for a specialist review if you have weakness, instability, or locking. Seek help if pain interferes with sleep or work. Sudden worsening also warrants assessment. Physical examination is critical for an accurate diagnosis. Nearly half of patients with lateral elbow pain receive a different diagnosis. Do not assume surgery is needed if non-surgical treatments fail. Approximately 90% of people achieve symptom resolution by one year without it.

In more depth

This section goes further than you need for your own treatment decisions. Tennis elbow is worth the extra reading because it is one of the conditions where the treatment that feels most effective in the first month is the one that does worst by the end of the year.

THE CONDITION MOSTLY CURES ITSELF, SLOWLY

Left alone, tennis elbow settles. In the trial discussed below, the group randomised to simply wait and see – no injection, no physiotherapy – was reassessed at 52 weeks, and **56 of 62 (90%)** reported themselves either much improved or completely recovered [1].

That figure is the yardstick every treatment has to be measured against. An intervention is only worth having if it beats getting better on your own, and getting better on your own is what usually happens.

THE CORTICOSTEROID PARADOX

A landmark randomised trial compared corticosteroid injection, physiotherapy, and simply waiting, following people for a full year [1].

At six weeks the injection looked excellent. Success was reported by **51 of 65 (78%)** of the injection group against **16 of 60 (27%)** of those waiting – a number needed to treat of 2 [1].

Then it reversed. Of those early successes, **47 of 65 (72%)** subsequently regressed. By 52 weeks the injection group was significantly worse than the physiotherapy group on every outcome, and worse than the people who did **nothing** on two of the three primary measures [1].

The authors' own explanation is worth repeating: the injection relieves pain so quickly that people resume loading a tendon that has not actually healed. The trial's conclusion was that corticosteroid "should be used with caution" in tennis elbow – a striking thing to say about the treatment most people expect to be offered.

This is why an injection here is a considered decision about short-term function, not a default, and why it is not a substitute for the loading programme.

SO WHAT IS WORTH DOING

Physiotherapy beat waiting at six weeks on every measure, and by 52 weeks the two were indistinguishable because nearly everyone in both groups had recovered [1]. Its value is therefore in getting you through the painful months faster, not in changing the destination. Notably, the physiotherapy group also sought less additional treatment along the way [1]. Given that, the sensible plan is load management and a progressive tendon programme, accepting that the timeline is measured in months.

Surgery is reserved for the small minority still disabled after a genuine and prolonged trial of non-operative care. The reason that threshold is set high is precisely the natural history above: operate early and you are competing against a condition that was, in nine cases out of ten, going to resolve anyway.

REFERENCES

1. Bisset L, Beller E, Jull G, Brooks P, Darnell R, Vicenzino B. Mobilisation with movement and exercise, corticosteroid injection, or wait and see for tennis elbow: randomised trial. *BMJ*. 2006;333(7575):939.