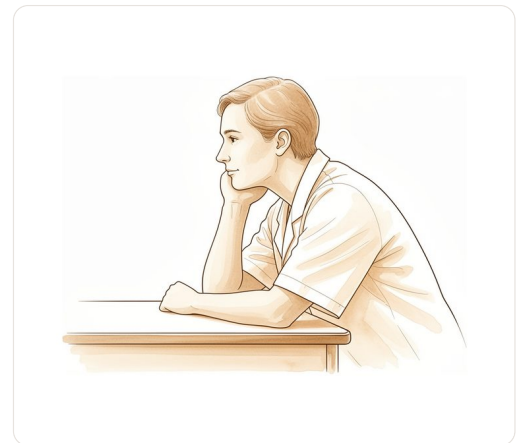


Olecranon Bursitis

Olecranon bursitis: the fluid-filled cushion (bursa) over the bony tip of the elbow swells, producing the characteristic 'goose egg' lump seen here.

Kieran Hirpara © ⓘ ⓘ 4.0



What you're feeling

You will likely notice a swollen lump at the tip of your elbow. This swelling sits over the olecranon bursa, a small fluid-filled sac that cushions your bone. The area may feel warm or tender to the touch. In some cases, the skin over the swelling can become red or irritated. You might also feel a general ache in the elbow joint itself.

The pain often worsens when you lean on your elbow or bend it fully. Simple daily tasks can become difficult. You may struggle to rest your arm comfortably on a table while working. Lifting objects, such as a heavy shopping bag or a child, can cause sharp discomfort. You might find it hard to sleep if you roll onto that side of your body. Waking up with a stiff, painful elbow is common if you have been resting on it during the night.

In some cases, the swelling persists for a long time. If the lump does not go away, or if it keeps coming back, you should let your surgeon know. This could suggest an underlying issue that needs specific attention. You might also notice that the skin over the elbow becomes thin or breaks open. This is less common but requires careful monitoring.

If you have a history of repeated swelling, your surgeon may look for less common causes. These can include specific types of infection or changes in the bone itself. Your surgeon will examine the area to distinguish between simple inflammation and other conditions. They will check for signs of infection, such as increased heat or spreading redness.

It is important to report any changes in your symptoms. Tell your surgeon if the pain becomes severe or if the swelling grows rapidly. This helps ensure you receive the right care. Most cases improve with non-invasive treatments first. Your surgeon will guide you through the best steps for your specific situation.

What's actually happening

At the tip of your elbow sits a small, fluid-filled sac called the olecranon bursa. Think of it as a tiny shock absorber or gasket. It sits between the sharp point of your elbow bone and your skin. Its job is to let your skin slide smoothly over the bone when you bend your arm.

When this sac becomes irritated, it fills with extra fluid. This causes the visible swelling you see and feel. The pressure from the fluid can make the area tender, warm, or stiff. You might notice pain when you lean on your elbow or bend it fully.

This swelling usually starts from repeated pressure, a direct knock, or general wear and tear. In some cases, bacteria enter the sac, causing an infection. This is known as septic bursitis. It often brings redness and significant heat. Sometimes, a specific type of bacteria called nontuberculous mycobacteria causes a long-lasting swelling that does not go away quickly.

If the swelling lasts for a long time, the tissue can change. You might feel a firm cord under the skin. This is scar tissue forming around the swollen sac. Patients with these cords often report less satisfaction after surgical removal compared to those without them.

Your surgeon will look at what is causing the swelling. For simple, non-infected swelling, we often start with rest and compression. This avoids the risks of injections or surgery. If the swelling is infected, we may treat it with antibiotics first. In many cases, this clears it up without needing to touch the bursa.

If conservative care does not work, we consider other options. We might drain the fluid or use a procedure called endoscopic debridement. This involves cleaning out the irritated tissue through small cuts. It is minimally invasive and helps you recover faster. In some cases, we might use a sclerotherapy injection to shrink the sac. This avoids the need for full surgical removal.

Surgical removal, or bursectomy, is an option for recurrent cases. However, it carries a risk of the problem returning. The revision rate after this surgery is 11.5%. We weigh these risks carefully against the benefit of removing the persistent swelling. Our goal is to reduce your pain and restore your elbow's function with the least invasive approach possible.

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 helping you manage the swelling and pain at home. You can try resting your elbow and avoiding direct pressure on the tip. Applying ice packs for short periods may help reduce inflammation. Physiotherapy can guide you through gentle movements to keep your joint flexible without aggravating the bursa, which is the fluid-filled sac at the back of your elbow. We usually advise giving this non-operative approach a fair chance for several weeks before considering further steps.

If simple rest does not bring enough relief, we may discuss medical management. This can include pain medication or anti-inflammatory drugs to help you feel more comfortable. In some cases, we might consider an injection into the bursa. While injections are sometimes used, recent evidence suggests they can have adverse

effects compared with noninvasive care for initial treatment of non-septic bursitis. For recurrent cases that do not settle with rest, we may explore minimally invasive options like sclerotherapy, which involves injecting a solution to shrink the sac, or hydrothermal ablation, which uses controlled heat to treat the tissue. These options aim to reduce the need for open surgery and often have fewer complications.

We consider surgery only when conservative care has reached its limit and your symptoms persist. Surgical excision, or bursectomy, removes the inflamed bursa tissue. This is typically recommended if you experience recurrent swelling or if non-surgical treatments have failed to provide improvement. For recalcitrant cases, endoscopic debridement combined with a compression suture offers a minimally invasive alternative with minimal postoperative pain and a low recurrence rate. The revision rate after bursectomy is 11.5%, meaning the majority of patients do not require further surgery for this issue. We will discuss whether surgery is the right shared decision for your specific situation.

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 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

Your outlook depends largely on whether the swelling is caused by infection or simple irritation. For most cases of non-septic bursitis, your surgeon will likely recommend non-invasive management first. This approach often resolves the issue without the need for injections or surgery. In contrast, older methods involving direct injections into the bursa have been shown to carry higher risks of adverse effects compared to conservative care.

If you have an uncomplicated infection, empirical management is effective. Evidence shows that no patients in this group required surgical removal of the bursa. However, if traditional aspiration is used instead, a significant number of patients—8 out of 11—went on to require bursectomy. This highlights why careful initial management matters.

For recurrent or chronic cases that do not settle, several options exist. Endoscopic bursectomy, a minimally invasive procedure, has resulted in no recurrences or wound-healing complications requiring a return to the operating room. Patients undergoing this procedure reported a high level of satisfaction. Another option is hydrothermal ablation, which uses controlled heat between 50°C and 52°C. This method is safe and has fewer complications than open bursectomy, while offering comparable effectiveness.

It is important to note that not all outcomes are identical. The revision rate after bursectomy is 11.5%, meaning a small proportion of patients may need further intervention. Additionally, patients with olecranon cords—thickened tissue bands—tended to be less satisfied after surgical excision compared to those without them.

In rare instances, such as infections with unusual bacteria or spontaneous bone changes, the course can be protracted. If your swelling persists despite standard care, your surgeon will investigate these less common

causes. Overall, with appropriate management, most patients achieve acceptable short- to mid-term outcomes and functional recovery.

When to see someone

See your GP if you notice a swollen elbow that does not improve with rest. Seek urgent care if you develop a fever, spreading redness, or warmth, as these may signal a serious infection. Go to an emergency department immediately if you have severe pain, inability to move the elbow, or signs of systemic illness like chills. These symptoms require same-day assessment to rule out urgent conditions. For persistent swelling or pain that lasts weeks, ask for a specialist review. This ensures accurate diagnosis and appropriate treatment before complications arise.

In more depth

This section goes further than you need for your own treatment decisions. Olecranon bursitis is worth the extra reading because two of the things most instinctively done about it – draining the swelling with a needle, and injecting steroid into it – have evidence against them.

DRAINING IT CAN BE THE THING THAT CAUSES THE PROBLEM

The intuition is strong: there is fluid, so remove the fluid. The trial data point the other way. In a comparison of management strategies for **uncomplicated septic** olecranon bursitis, empirical treatment **without aspiration** was effective, with **no patients requiring bursectomy** – while in the traditional aspiration group, **8 of 11 patients** went on to need surgical removal of the bursa [1].

That is a striking difference from a small series, and it should be read with that caution. But the mechanism is not mysterious. The bursa sits directly under thin skin over a bony point that takes every knock and every lean on a desk. Putting a needle through that skin creates a tract, and a tract over a pressure point is slow to seal and can keep discharging.

The general reviews agree on direction. Based primarily on level IV evidence, **non-surgical management is significantly more effective and safer than surgical management** [2].

STERIOD INJECTION CARRIES RISK WITHOUT IMPROVING THE OUTCOME

This one is stated unusually plainly in the literature. For aseptic bursitis, **corticosteroid injection is associated with significant risks without improving the outcome** [2].

The risks are specific to the site: skin atrophy and depigmentation over a subcutaneous bony prominence, and infection introduced into a space that is difficult to clear. Elsewhere in the upper limb a steroid injection is a reasonable step when simpler measures fail. Here the evidence does not support it, and that difference is worth knowing if it is offered.

SURGERY IS A GENUINE LAST RESORT, WITH A MEASURABLE FAILURE RATE

Where bursectomy is performed, it does not reliably end the story. The **revision rate after bursectomy was 11.5%**, and revision was more frequent in patients with **rheumatoid arthritis, diabetes**, a history of bursitis on either elbow, and in women [3].

Those risk factors describe the situations in which the bursa is likely to reform: an inflammatory or metabolic driver that surgery does not remove, or a demonstrated tendency of that individual's tissue to produce the problem. For recurrent cases, intrabursal doxycycline sclerotherapy – deliberately scarring the space closed rather than excising it – has been described as an alternative in a series of **45** elbows [4].

WHAT ACTUALLY SETTLES IT

The unglamorous answer is protection and time. Because the bursa is irritated mechanically by pressure on the point of the elbow, the treatment that addresses the cause is removing that pressure: padding, and changing the habit of resting on the elbow, sustained for longer than feels necessary. Most cases settle [5], and the interventions above are largely attempts to shorten a course that resolves anyway – which is precisely why an intervention carrying its own risk needs to clear a high bar here.

REFERENCES

1. Deal JB, Vaslow AS, Bickley RJ, Verwiebe EG, Ryan PM. Empirical treatment of uncomplicated septic olecranon bursitis without aspiration. J Hand Surg Am. 2020;45(1):20-5.
2. Sayegh ET, Strauch RJ. Treatment of olecranon bursitis: a systematic review. Arch Orthop Trauma Surg. 2014;134(11):1517-36.
3. Germawi L, Westenberg RF, Wang F, Schep NW, Chen NC, Eberlin KR. Factors associated with revision surgery for olecranon bursitis after bursectomy. J Shoulder Elbow Surg. 2021;30(5):1135-41.
4. McDermott D, Wakefield D, Kowalsky M, Sethi P, Vitale MA, Morrey BF. Intrabursal doxycycline sclerotherapy for recurrent olecranon bursitis of the elbow. J Hand Surg Glob Online. 2024;6(4):504-9.
5. Nchinda NN, Wolf JM. Clinical management of olecranon bursitis: a review. J Hand Surg Am. 2021;46(6):501-6.