

# Olecranon Fracture

X-ray showing a fracture of the olecranon – the bony tip of the elbow.

Kieran Hirpara 4.0



## What you're feeling

You will feel sharp pain at the back of your elbow. This is where the pointy bone of your upper arm meets your forearm. The pain often flares up when you try to straighten your arm against resistance. You might notice swelling and bruising around the joint. It can be difficult to lift anything heavier than a cup of coffee. Simple tasks like reaching behind your back to fasten a bra or tucking in a shirt become very challenging.

Your elbow may feel stiff, especially when you first wake up in the morning. Moving the joint through its full range of motion can be painful. You might find it hard to sleep on the side of the injury. The pain can also worsen after you have been using your arm for daily activities. Resting with your arm supported often brings some relief. However, keeping the arm completely still for too long can make the stiffness worse.

Because the fracture involves the joint surface, you may feel a grinding sensation or hear clicking sounds when you move. This is due to the bones rubbing together where they should slide smoothly. In older adults, this wear-and-tear arthritis affects about 19% of patients within a few years. You might experience occasional aches that linger long after the initial injury has healed. These symptoms can come and go, often triggered by weather changes or heavy use.

If you are over 70, your surgeon may discuss non-surgical options. These approaches focus on managing pain and maintaining function rather than perfect bone alignment. Many patients report high satisfaction with this method, even if the bone does not heal in a perfect position. The goal is to help you perform daily tasks with minimal discomfort. Your surgeon will tailor the plan to your specific needs and activity level.

## What's actually happening

The olecranon is the bony tip of your elbow that you rest on a table. It is part of the ulna, one of the two bones in your forearm. When this bone breaks, it often disrupts the triceps tendon, which acts like a strong rope attached to the bone. This connection allows you to straighten your arm against gravity. If the break is displaced, that rope may pull away from the bone fragment, making it difficult or impossible to lift your hand or hold objects up.

Your surgeon's main goal is to restore the smooth surface where your upper arm bone meets your forearm bone. This joint surface must be even so the bones can glide past each other without grinding. If the break is not fixed securely, your elbow may become stiff. Early motion is critical to prevent this stiffness. Your surgeon will choose a fixation method that holds the bone steady enough to let you move your arm soon after surgery, while still protecting the healing bone.

Sometimes, the break is too complex or the bone quality is too poor for standard repair. In these cases, your surgeon might remove the broken fragment entirely and reattach the triceps tendon directly to the forearm bone. This approach avoids the complications of hardware and often leads to better function with less pain. For older patients with lower activity demands, non-surgical treatment may also be a safe and effective option.

Even with successful treatment, wear-and-tear arthritis can develop in the elbow joint over time. Data shows that 19% of patients develop this condition, with a median follow-up of 41 months. This means that for some, the smooth cartilage coating the bone ends wears down, potentially causing pain or stiffness later in life. However, most patients achieve good long-term function and satisfaction, regardless of whether they undergo surgery or conservative management.

## What we can do about it

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For many patients, especially older adults or those with lower physical demands, non-operative management is a safe and effective choice. Your surgeon may recommend rest, ice, and a splint to keep the elbow still while the bone heals. This approach focuses on comfort and allowing natural healing without surgery. Studies show that isolated displaced fractures in the elderly often result in satisfactory short-term and long-term outcomes with this method. You can expect to maintain a functional range of motion and experience minimal pain. Even if the bone does not fully knit together (non-union), many patients still achieve reasonable elbow function and rarely request surgery later. For younger patients or those with significant displacement, surgery is often the standard to restore stability.

Pain management is a key part of your recovery. Your surgeon may prescribe pain medication or anti-inflammatory drugs to help you stay comfortable during the healing process. While injections like cortisone, hyaluronic acid, or PRP are common for joint pain, the evidence for olecranon fractures primarily focuses on structural healing rather than these specific injections. The goal is to control pain so you can begin gentle movement as soon as it is safe. Early motion is critical to prevent the elbow joint from becoming stiff. If surgery is performed, the fixation must be secure enough to allow this early movement. Most patients keep their implants after surgery, and only 3% experience implant migration. Technical factors of the implant are less important than personal factors in deciding if a second surgery for removal is needed.

Surgery is considered when conservative care is not suitable or has failed. This is common for displaced fractures in younger, active patients or those with complex injury patterns. The operation aims to hold the bone fragments in place so they can heal correctly. Your surgeon will choose the method that best fits your specific fracture type and health status. Whether using plates, wires, or anchors, the goal is to restore the triceps mechanism and elbow function. In some cases with severe damage, removing the broken fragment and repairing the muscle may be preferred to reduce complications. If you have other injuries, the risk of limited

motion is higher, so your surgeon will discuss this openly. The timing of surgery does not significantly increase early complications, so you can proceed when you are ready.

## What to expect

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Your outlook depends largely on your age, activity level, and whether you choose surgery or rest. For older adults or those with lower activity demands, nonoperative management often leads to satisfactory short-term and long-term outcomes. You can expect reasonable elbow function even if the bone does not fully knit together. Most patients in this group do not request further surgery.

If you are younger and active, surgery is typically recommended to restore strength and motion. Operative fixation generally provides excellent functional results. You can expect to keep your implants in place; only 3% of patients experience implant migration. Technical factors matter less than personal choices when deciding if you want the hardware removed later.

Recovery is a gradual process. You may notice stiffness or aching as the joint heals. About 19% of patients develop post-traumatic osteoarthritis, a wear-and-tear condition, at a median follow-up of 41 months. This means you might feel occasional discomfort during weather changes or heavy use. Despite these changes, good long-term function is still possible.

Be aware that olecranon fractures in the elderly carry higher than expected one-year mortality rates. This risk is important to discuss with your surgeon when weighing treatment options. If you choose nonoperative care for a displaced fracture, you might face a non-union, but many patients remain satisfied with their results.

Timing of surgery does not significantly increase early complications or the need for reoperation. You do not need to rush into the operating room for safety reasons, though earlier fixation may help with comfort. Overall, most patients maintain their implants and achieve good function, whether treated with surgery or careful rest.

## When to see someone

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See your GP if you have persistent pain that does not improve with rest. Ask for a specialist review if you feel weakness or instability in the elbow. Watch for locking or giving way of the joint. Seek care if symptoms interfere with your sleep or work. Contact your surgeon if you notice a sudden worsening of your condition. Be aware that the incidence of these fractures increased by 29% over a 20-year study period. Post-traumatic wear-and-tear arthritis occurs in 19% of cases at a median follow-up of 41 months. Elderly patients face higher than expected one-year mortality rates. Early evaluation helps manage these risks effectively.