

Distal Radioulnar Joint Surgery

Why this operation has been suggested

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. 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 establishes the diagnosis. For long-standing problems we usually try non-operative care first and consider surgery when that has not given enough improvement. For structural issues, surgery may be recommended straight away.

We suggest this operation to restore stability and congruency to your wrist joint. This allows for painless, full motion when the joint is damaged or unstable. The procedure aims to relieve pain and improve function by correcting the alignment of your bones and ligaments.

Before the operation

Please fast for seven hours before your surgery. This allows your surgeon to bring you forward if the list runs early. You do not need routine blood tests or an anaesthetist review unless you have other medical conditions. Please arrange a lift home and bring a list of your current medications. Wear comfortable clothing. Your surgeon will use X-rays to plan the operation. If the X-rays are unclear, a high-resolution MRI may be needed to check the ligaments and bones in your wrist. This detailed imaging helps ensure the best possible outcome for your distal radioulnar joint.

On the day

You will present to the hospital's surgical admissions unit. Here, you are checked in and prepared for theatre. You meet the anaesthetist to discuss your care. This operation is done under general anaesthetic. A regional nerve block is sometimes added for post-operative pain relief – the anaesthetist will discuss this with you on the day.

You are then taken into the operating theatre, where the operation is performed. You wake up in the recovery area, where nurses monitor you while the anaesthetic wears off. Once you are stable, you either go to the ward or go home, depending on the procedure and your recovery.

What the operation involves

Your surgeon will begin by assessing whether your joint can be stabilised using soft-tissue repairs or if a more structural change is needed. In many cases, the goal is to prevent future instability or restore painless movement. If your ligaments are torn but can be repaired, your surgeon may tighten the tissue around the joint to restore stability. This often involves stitching the torn structures back together to secure the bones in their correct position.

If the joint surfaces are severely damaged or previous repairs have failed, your surgeon may discuss replacement options. This involves removing the worn-out or damaged parts of the joint and replacing them with artificial components. These replacements are designed to mimic the natural movement of your wrist, helping to reduce pain and improve grip strength. In some instances, a small portion of the ulna bone may be shortened or adjusted to relieve pressure on the joint, ensuring the bones align correctly without the need for prolonged immobilisation.

The procedure is tailored to your specific anatomy and the cause of your instability. Your surgeon will choose the technique that best addresses your condition, whether that is repairing existing tissues, adjusting bone alignment, or replacing joint surfaces. The aim is to create a stable, congruent joint that allows for full, pain-free motion. After the procedure, your wrist will be dressed and supported while you begin your recovery.

After the operation

You will wake up in our recovery ward. We manage your pain using standard methods to keep you comfortable. Your arm will be in a soft dressing and a sling to protect the joint. We do not use rigid braces for this procedure. Please arrange for someone to stay with you for the first 24 hours to help you. Your team will tell you whether you go home the same day or stay one night in hospital. Rest your arm and keep the dressing clean and dry. You can move your fingers and wrist gently as tolerated. Avoid lifting anything heavy until we review your progress at your follow-up appointment.

Recovery

In the early days after your surgery, some swelling and discomfort is normal. We manage this with rest, elevation, and prescribed medication. Keeping your hand raised above heart level helps reduce the swelling. This is a key part of your healing process.

You will wear a protective dressing or cast to keep the joint stable. We do not use hinged braces or abduction pillows for this procedure. Your hand therapist, Ruby Doolan at Extend Rehabilitation, will guide your care. She directs your exercises and makes any splint you need. You will not see a physiotherapist for your rehabilitation.

As the swelling settles, we focus on gentle movement. You will perform specific hand therapy exercises to restore motion. These activities are designed to be safe for your healing tissues. You can return to light daily tasks as comfort allows. Avoid heavy lifting or forceful gripping until your surgeon clears you.

Pain should gradually ease as your tissues heal. If you experience sharp pain or increased swelling, contact us. Your recovery is unique. Your timeline may differ from others; your surgeon and hand therapist will guide you based on your progress. We aim for painless, full motion in the long term.

If you plan to drive, remember the universal rules: no driving while in a sling or cast, and only when you can react quickly in an emergency. For full details on when you can return to driving, please visit our guide on [Driving after upper-limb surgery](#).

What can go wrong

Most patients do well, but problems can occasionally happen. Your surgeon and the team monitor you closely to spot any issue early.

If you have had surgery for instability in the wrist, you might notice that pain or swelling does not settle down as expected. Sometimes the joint feels loose or unstable again. This can feel like the wrist is giving way or clicking when you turn your hand. If this happens, call the clinic. We can check if your healing is on track or if further treatment is needed.

In some cases, the bones may not heal in the perfect position. You might feel a sharp pain or notice that your wrist does not move as freely as it should. This can happen if the bone ends do not knit together properly. If you experience persistent pain or a loss of movement, bring it up at your next review. We can assess whether additional support or therapy is required to help the joint function better.

If you have had a replacement of the ulnar head (the small bone at the end of your forearm), you might feel discomfort or stiffness in the wrist. This can make everyday tasks like turning a doorknob difficult. If the pain becomes severe or the joint feels unstable, contact us. We can evaluate if the replacement is working as intended or if adjustments are needed to improve your comfort and function.

The complications table on this page lists typical rates if you want the specifics.

When to call us

Call us if you have fever, increasing wound redness or discharge, or sudden severe pain. Go to emergency if you have calf swelling, shortness of breath, loss of sensation, or cannot move your limb. We want to check these signs quickly. Early action helps protect your recovery and keeps you safe while your wrist heals.

In more depth

This section goes further than you need for your own treatment decisions. The distal radioulnar joint is worth the extra reading because it is the joint in the wrist we are worst at measuring, the one most often blamed prematurely, and the one where waiting is most often the right answer.

WE CANNOT RELIABLY MEASURE THE PROBLEM

Instability of this joint is diagnosed largely by feel – the examiner shifts the ulna against the radius and forms an impression. A 2025 review of assessment strategies concluded plainly that reliable, quantifiable methods for analysing distal radioulnar joint instability remain an unmet need, and that developing them is essential to improving management [1].

That has a direct consequence for you. When the diagnosis rests on a subjective test, the threshold for calling a joint unstable varies between examiners, and so does the threshold for operating on it. A second opinion here is not distrust; it is a reasonable response to a test with known limits.

MOST ULNAR-SIDED PAIN AFTER A WRIST FRACTURE SETTLES

This is the single most useful finding for anyone with a painful wrist after a distal radius fracture. A comprehensive review concluded that **most** ulnar-sided wrist problems following distal radial fractures can be treated **non-operatively initially – typically for over a year** – in anticipation of substantial improvement with time [2].

A year is longer than most people expect to be told to wait, and the temptation to intervene earlier is strong on both sides of the consultation. The exception named in the same review is important and specific: early marked subluxation of the joint that physically blocks forearm rotation does need addressing rather than observing [2].

So the default is patience, with a defined reason to abandon it.

WHEN SALVAGE IS NEEDED, THE CHOICE IS FINER THAN IT LOOKS

If the joint is destroyed and non-operative management has genuinely failed, the classic options are the Darrach procedure – removing the end of the ulna – and the Sauvé-Kapandji, which fuses the joint and creates a gap more proximally to allow rotation.

A systematic review comparing them found **comparable satisfaction** regardless of the underlying pathology, with similar improvement in range of motion, strength and overall function. The difference was in the **reoperation rate, which was higher with the Sauvé-Kapandji** [3].

That is a clean discriminator. Where two operations produce the same result, the one requiring fewer further operations has the advantage – though the Sauvé-Kapandji retains a role where preserving the ulnar support of the carpus matters, which is precisely why it was devised.

ULNAR IMPACTION IS A DIFFERENT PROBLEM WITH ITS OWN ANSWER

Ulnar-sided pain from the ulna being relatively too long – ulnar impaction syndrome – is treated by shortening the load path, either by cutting and shortening the ulnar shaft or by arthroscopically removing the dome of the

ulnar head. A meta-analysis of **311** patients found both effective, with the **arthroscopic wafer procedure showing fewer complications and a lower reoperation rate** [4].

The shaft osteotomy involves a plate, a healing bone and the possibility of the osteotomy failing to unite; the arthroscopic procedure avoids all three. Where the anatomy suits it, that is a meaningful difference.

REFERENCES

1. Christy M, Wright DJ, Goldfarb CA. Assessment strategies for distal radioulnar joint instability: current state and a need for improved tools. *J Hand Surg Am.* 2025;50(12):1505-14.
2. Giddins G. The distal radioulnar joint after distal radial fractures: when and how do we need to treat pain, stiffness or instability? *J Hand Surg Eur Vol.* 2023;48(3):230-45.
3. Lamont S, Debkowska M, Johnsen P, Froehle A, Cotterell IH, Isaacs J. Outcomes of Darrach and Sauvé-Kapandji procedures: a systematic review. *Hand (N Y).* 2022;19(1):68-73.
4. Shi H, Huang Y, Shen Y, Wu K, Zhang Z, Li Q. Arthroscopic wafer procedure versus ulnar shortening osteotomy for ulnar impaction syndrome: a systematic review and meta-analysis. *J Orthop Surg Res.* 2024;19(1).