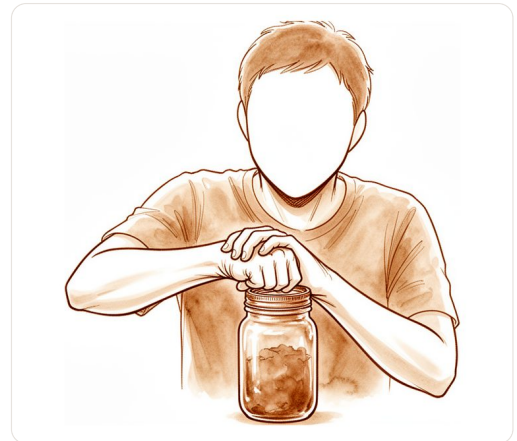


Wrist Osteoarthritis

Osteoarthritis of the wrist, with loss of the normal joint spaces.

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What you're feeling

You may notice a deep ache in your wrist that lingers after you have used your hand. This pain often feels worse when you try to lift heavy objects or push against resistance. Simple tasks like opening a jar, turning a key, or lifting a kettle can become difficult and painful. You might find that gripping things tightly causes sharp discomfort or weakness in your hand.

The stiffness in your wrist is likely most noticeable when you first wake up in the morning. It can take some time for the joint to loosen up as you start your day. You may also feel pain at night, which can disturb your sleep if you roll onto that arm. The discomfort tends to flare up after periods of activity, such as typing, gardening, or doing household chores. Resting your hand usually helps to ease the ache, but the stiffness often returns with movement.

As the wear-and-tear arthritis progresses, you might notice a grinding sensation or sound when you move your wrist. This is caused by the bones rubbing together where the protective cartilage has worn away. Your wrist may also feel less stable, making it harder to perform precise movements. You might avoid using your hand for certain tasks to prevent pain, which can lead to weakness in your fingers and forearm over time.

If you have rheumatoid arthritis, the pain and swelling may be more severe, especially if the joint is unstable or damaged. In these cases, the discomfort can be constant and interfere with daily life more significantly. You may also experience reduced range of motion, making it hard to bend or straighten your wrist fully. This limitation can affect how you hold objects or support your body weight when standing up from a chair.

It is important to understand that these symptoms vary from person to person. Some people find that over-the-counter pain relief helps manage the discomfort, while others may need more targeted treatment. Your surgeon will assess the severity of your symptoms and the condition of your joint to recommend the best course of action. Whether you are considering wrist fusion or joint replacement, understanding your current symptoms helps in planning your care.

What's actually happening

Your wrist is a complex cluster of small bones that slide against each other to give you movement. In osteoarthritis, the smooth cartilage lining these bones wears away. Think of this cartilage as the shock absorber in your car. When it thins out, the bones rub directly against one another. This friction causes pain and stiffness, making everyday tasks like turning a doorknob or lifting a cup difficult.

As the wear-and-tear progresses, the joint structure changes. The bones may shift slightly out of their normal alignment. This alters how force travels through your wrist. You might feel a grinding sensation or notice swelling. These changes are your body's response to the instability and increased pressure on the joint surfaces.

Your surgeon explains that this process is often gradual. Over time, the joint becomes less flexible and more painful. In some cases, the damage is severe enough that the joint becomes unstable. This is why you might experience weakness or a feeling of the wrist giving way. The goal of treatment is to address this mechanical breakdown.

We discuss two main paths forward. One option is to fuse the bones together. This removes the painful moving parts by creating a single, solid bone. It stops the pain but limits motion. The other option is joint replacement. This keeps some movement but carries different risks. The choice depends on your specific joint damage and daily needs.

No treatment can fully restore the wrist to its original, perfect state. However, we can significantly reduce pain and improve function. Understanding what is happening inside your wrist helps you make an informed decision. It allows us to tailor a plan that fits your lifestyle and expectations.

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 pain and keep your wrist moving. Simple changes to your daily activities can reduce strain on the joint. Physiotherapy or hand therapy aims to strengthen the muscles around your wrist and improve flexibility. We usually recommend giving this approach a fair try for several weeks to see if it provides enough relief.

If gentle movement and rest are not enough, we look at medical management. This may include pain relief medication or anti-inflammatories to calm the swelling and discomfort in your joint. We can also offer injections into the wrist. Cortisone injections reduce inflammation and can provide pain relief for a period of time, though the effect is temporary. Other options like hyaluronic acid or platelet-rich plasma (PRP) injections may be discussed to help lubricate the joint or support healing, depending on what is right for you.

We consider surgery when non-operative care has not given you enough improvement. Surgical options such as fusion or joint replacement are selected based on the specific joint involved, your personal demands, and the risk of complications. There is no single preferred option for everyone, so we discuss the best path for your unique 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 (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 wrist will likely settle into a stable, pain-free state, though it will not move as it did before. Total wrist fusion is the most common approach for severe wear-and-tear arthritis. It reliably reduces pain and restores grip strength. You can expect good functional outcomes, particularly if your arthritis is at an advanced stage. While you will regain the ability to use your hand for daily tasks, no procedure can restore entirely full wrist function. You will notice a reduction in disability, but some stiffness will remain.

If you have had a joint replacement that fails, conversion to fusion is a safe and effective option. This salvage technique reliably improves wrist function compared to living with a failed implant. Similarly, if fusion is considered in the future, conversion back to a modern joint replacement is feasible. This can yield significant pain relief and stable implants. The decision between these paths depends on your activity levels and your willingness to accept different risks. Fusion offers predictable stability, while replacement aims for more motion but carries higher complication rates.

Without treatment, pain and stiffness often persist or worsen as the joint surface deteriorates. Managing the condition well typically involves accepting limited motion in exchange for comfort. You may require therapy to regain functional range of motion in your forearm and wrist. Starting this early helps you recover function sooner with fewer visits. Some patients experience radiographic changes over time, but clinical results often remain good. You should anticipate a gradual improvement in your ability to perform daily activities. The goal is a stable wrist that supports your hand function, rather than a fully mobile joint. Your surgeon will guide you toward the approach that best balances pain relief with your specific functional needs.

When to see someone

Ask for a specialist review if you have persistent wrist pain that does not improve with rest. Seek help if you notice weakness, instability, or a locking sensation. Symptoms that interfere with sleep or work also warrant assessment. Sudden worsening of pain is another clear sign to act. Your surgeon will evaluate these issues to determine the best path forward. This may involve discussing options like wrist fusion or joint replacement. These procedures aim to relieve pain and restore function. Early consultation helps manage symptoms effectively and prevents further joint damage.

In more depth

This section goes further than you need for your own treatment decisions. Wrist osteoarthritis is worth the extra reading because it contains one of the clearest examples in hand surgery of a sensible-sounding idea that

made outcomes worse – and because the choice between fusing and replacing the joint is closer than it is usually presented.

CUTTING MORE NERVES MAKES THE RESULT WORSE, NOT BETTER

Wrist denervation treats pain without altering the joint. The nerve branches carrying pain sensation from the wrist capsule are divided, leaving the joint mechanically unchanged. It preserves movement and does not preclude anything later, which makes it an attractive option.

The commonest version divides the posterior interosseous nerve alone. Since the anterior interosseous nerve also supplies the capsule, dividing both should logically give more complete relief.

It does not. Across **325** patients, **anterior plus posterior interosseous neurectomy does not offer greater advantages** compared with isolated posterior neurectomy – and, more strikingly, the combined procedure **seems to be associated with a paradoxical increase in the failure rate** [1].

An intervention that does more and achieves less is worth pausing on. Whatever the mechanism, the finding is a caution against reasoning from anatomy to outcome, which is exactly the kind of reasoning that makes the combined operation sound better.

The broader evidence for denervation itself is encouraging but soft: a trend towards positive outcomes for pain relief, return to work and satisfaction, with heterogeneity across the literature and a call for standardised outcome reporting [2].

FUSION AND REPLACEMENT ARE CLOSER THAN THEY SOUND

For advanced arthritis, the two definitive options are presented as opposites: fuse the wrist and lose all movement, or replace it and keep some. The evidence puts them nearer together than that framing suggests.

Across **961** patients, **both wrist arthrodesis and wrist arthroplasty were effective at alleviating pain and improving grip strength**, with **comparable complication rates of 17% and 19%** – functional improvement was observed after arthroplasty, but robust long-term follow-up data for replacement were lacking [3]. A network meta-analysis of **359** patients found replacement significantly improved DASH, pain and PRWE scores against pre-operative values in both inflammatory and non-inflammatory arthritis [4].

So both work, and both carry roughly a one-in-five complication rate. The real difference lies in what each leaves you with and how it fails. A fusion is durable and predictable, and its failure mode is nonunion – a defined problem with a defined solution. A replacement preserves motion, and its failure mode is loosening over years, in a joint at the end of a long lever with limited bone stock for revision.

The long-term data gap is the honest limitation, and it is the reason age and demand weigh so heavily: a wrist replacement needs to outlive the person's need for it.

UNION RATES AFTER FUSION ARE RELIABLE

Where fusion is chosen, the technical variations do not appear to matter much. Across **3,517** patients, there was **no difference in union or complication prevalence** between total wrist arthrodesis techniques, or

between different treatments of the carpometacarpal joint – though the authors note the included studies were of low quality with high heterogeneity, limiting confidence [5].

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