

PIP Joint Arthritis

A hand affected by arthritis — visible swelling and deformity at the finger joints.

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What you're feeling

You may notice a deep ache in the middle joint of your finger. This is the proximal interphalangeal joint, or PIP joint. The pain often comes from wear-and-tear arthritis or damage from an old injury. You might feel stiffness when you first wake up in the morning. This stiffness usually eases as you move your hand throughout the day.

The pain tends to flare after you use your hand for tasks. Simple daily activities can become difficult. You might struggle to grip a cup firmly without it slipping. Buttoning a shirt or turning a key in a lock may feel painful or awkward. If you have inflammatory arthritis, the joint may feel warm or swollen. This discomfort can interfere with your ability to perform routine tasks that require fine motor skills.

Your surgeon will assess whether this pain is invalidating your daily function. If conservative treatments do not help, joint replacement may be an option. This procedure aims to relieve pain and restore movement. However, you should be aware that range of motion in the joint can deteriorate over time. Serial casting may be recommended to help correct stiffness if you develop a flexion contracture.

We understand that living with hand pain is frustrating. Our goal is to help you regain comfort and function. We will discuss the best approach for your specific situation. This may include surgery or other management strategies. We aim to minimize complications and support your recovery. You can expect to return to work after a median of 8 weeks following surgery. We will guide you through each step of this process.

What's actually happening

Your finger joints are designed to work as a team. When one part changes, the others must adjust. This is called interdependency. In hand arthritis, the smooth surfaces that let your bones glide become rough and worn. This wear-and-tear reduces your grip strength by about 30%. You may find your fingers move through a smaller range of motion during daily tasks.

The tendons that pull your fingers are like ropes of fibres. They cross multiple joints to create movement. When arthritis develops, these tendons and their supporting structures change early on. This is the main cause of finger deformities. The tendons no longer pull evenly. This imbalance leads to the crooked or stiff appearance often seen in advanced arthritis.

At the base of your thumb, the joint faces high compressive and shear forces. Over time, these forces wear down the cartilage. This is known as basal joint arthritis. It is a progressive condition. The ligaments that stabilise this joint may stretch or weaken. This allows the bone to shift out of place. The result is pain and instability when you pinch or grip objects.

For joints higher up in your fingers, such as the middle knuckle, the internal structure of the bone affects how stress is distributed. Arthritis here can limit your ability to bend or straighten the finger fully. While some treatments aim to replace the damaged joint surface, the underlying issue remains the breakdown of these delicate structures. Understanding this mechanical failure helps explain why simple rest often isn't enough. The joint needs support to restore function and reduce pain.

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 symptoms through simple changes to your daily activities and targeted hand therapy. Your therapist will guide you through exercises to maintain movement and strengthen the surrounding muscles. In some cases, we may use serial casting to gently correct stiffness if your finger tends to stay bent. We usually recommend giving this non-operative care a fair trial before considering more advanced steps.

If symptoms persist, we discuss medical management to help you stay comfortable. This may include pain relief medication and anti-inflammatory drugs to reduce swelling and ache. We can also offer injections into the joint. Cortisone injections are commonly used to calm inflammation and provide temporary relief. Hyaluronic acid or platelet-rich plasma (PRP) injections are other options that aim to support the joint environment. These treatments do not cure the arthritis, but they can help you function better for a period of time while you continue with your therapy.

Surgery is considered when conservative care has not given enough improvement or when pain is severely limiting your life. We offer joint replacement (arthroplasty) to remove damaged joint surfaces and replace them with an implant. This can provide reliable, long-term pain relief and help maintain function. Patients typically return to work after a median of 8 weeks following this procedure. Some implants offer good pain relief and satisfaction, while others may see a gradual change in movement over time. We also use techniques like fusing the joint (arthrodesis) in specific cases to provide stability. 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. For structural or acute problems, surgery may be recommended straight away, without a preceding non-operative trial.

CQ HAND + UPPER LIMB

Dr Kieran Hirpara – Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

What to expect

You can expect reliable, long-term pain relief and maintained hand function from this procedure. Most patients report good overall satisfaction with their results. The implant integrates well with your bone, and studies show stable integration at five years with no late loosening. You will likely find your hand remains essentially pain-free and well-functioning for many years.

Your recovery timeline varies, but most people return to work after a median of 8 weeks. This means half of patients go back sooner, and half take longer. You should plan for a gradual return to daily activities rather than an immediate restart. While you may achieve good range of motion initially, it is important to know that joint movement tends to deteriorate over time. This is a natural part of the process for many patients, so your surgeon will discuss how to manage this expectation.

If left untreated, arthritis in this joint often leads to persistent stiffness and pain. Treatment with an anatomically neutral implant provides a reliable option for symptomatic degenerative, post-traumatic, or inflammatory arthritis. For some patients, silicone implants or surface replacement arthroplasty are also good options for pain relief. In selected cases, serial casting can help correct flexion contractures. However, treatment of the long finger may be a relative contraindication to this surgery, so your surgeon will assess if you are a suitable candidate.

Diabetes and surgeon experience are factors that can influence the risk of postoperative complications. Minimizing these risks is key to a smooth recovery and lower healthcare costs. While some patients may experience a decline in range of motion over the long term, the primary goal of pain relief and functional maintenance is typically achieved. You should feel confident that this is a good and reliable option when performed in the proper clinical setting.

When to see someone

Ask for a specialist review if you have persistent pain in your finger joint that does not improve with rest. Seek care if you notice weakness, instability, or if the joint locks or gives way. See your GP if symptoms interfere with your sleep or work. Sudden worsening of pain is also a reason to seek help. PIP joint arthroplasty is indicated for osteoarthritis or posttraumatic arthritis. It may be proposed if arthritis causes invalidating functional pain. However, treatment of the long finger may be a relative contraindication to PIPJ arthroplasty. Early diagnosis is important for conditions like rheumatoid arthritis.

In more depth

This section goes further than you need for your own treatment decisions. Arthritis of the middle finger joint is worth the extra reading because the choice between fusing it and replacing it is decided by something most people would not think to ask about – whether the joint is stable – and because which finger it is matters as much as what the X-ray shows.

STABILITY, NOT SEVERITY, CHOOSES THE OPERATION

Two operations are available. Fusion sets the joint permanently in a chosen position, reliably removing pain at the cost of all movement. Replacement preserves movement.

The comparison across **1,868** patients defines when each is appropriate. **Silicone implants remain a valuable option for stable joints**, while **surface-replacing implants might be better for unstable or deviated joints – although they carry a higher risk of reoperation** [1].

The important variable there is stability. A silicone implant is a flexible spacer rather than a hinge; it works by sitting between the bone ends and allowing them to move around it, which requires the surrounding ligaments to provide the stability. Where those ligaments have failed and the joint deviates sideways, a spacer has nothing to work against – hence the move to a surface-replacing design, and hence the higher reoperation rate that comes with a more constrained implant.

WHICH FINGER IT IS CHANGES THE RECOMMENDATION

This is the part rarely explained. The index finger takes a large sideways force in pinch – pressing against the thumb – and that force is exactly what a replaced joint tolerates least. The ring and little fingers are used mainly for grip, where the loads run along the finger rather than across it.

The practical consequence is that replacement is generally better suited to the ulnar fingers, and fusion is often preferred at the index, where a stable post to pinch against is worth more than movement. Two identical-looking joints on an X-ray can therefore attract different recommendations based only on their position in the hand.

FUSION IS RELIABLE, AND THE TECHNIQUE MATTERS LESS THAN EXPECTED

Where fusion is chosen, the technique debate is modest. Across **1,923** patients, **all described techniques can achieve the goal of fusing an osteoarthritic joint**, with a trend in more recent literature towards compression techniques [2]. Comparing techniques directly across **286** patients, they had **similar fusion time, nonunion and complication rates** – with screw arthrodesis showing a lower nonunion rate than wire fusion, though the data carry significant limitations [3].

WHERE THE JOINT HAS BEEN DESTROYED BY INJURY RATHER THAN WEAR

A fracture through the base of the middle bone destroys the joint surface directly. Where more than half the surface is involved, one option is to rebuild it with a graft taken from the hamate bone in the wrist, whose contour resembles the lost joint surface.

Hemi-hamate autograft **can be considered reliable for acute and chronic fracture-dislocations with joint involvement greater than 50%**, though longer-term follow-up is required – particularly to establish the rate of later arthritis [4]. A separate review of **235** patients found it affords symptomatic relief and functional restoration [5].

That outstanding question about later arthritis is the honest caveat: the graft restores the shape of the joint, and whether a reconstructed surface wears at the same rate as a native one is not yet answered.

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