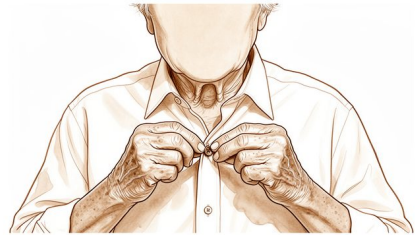


DIPJ arthritis

X-ray of DIPJ arthritis: the joint space at the tip of the finger has narrowed and small bone spurs are forming around the worn cartilage — the pattern that produces Heberden nodes.

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What you're feeling

You may notice pain and stiffness in the very tip joint of your finger. This is the distal interphalangeal joint, or DIPJ. The discomfort often starts as a dull ache after you use your hand. It can become sharp when you grip objects or press against surfaces. Many people find the pain worse in the morning or after resting for a long time.

As the wear-and-tear arthritis progresses, you might see changes in your finger's shape. A common change is a 'swan neck' deformity, where the tip joint bends inward while the middle joint bends outward. This happens because the tip joint loses its ability to straighten fully. You may also feel that the joint feels unstable or shifts out of place, especially if you had an injury to the finger in the past.

Daily tasks can become difficult. Simple actions like buttoning a shirt, typing on a keyboard, or holding a coffee cup may hurt. You might struggle to pinch small items between your thumb and index finger. If the arthritis is severe, you may find it hard to make a full fist or straighten your finger completely.

Some patients report that the pain flares up at night, making it hard to sleep comfortably. Others notice that the stiffness improves slightly as they move their hand more throughout the day. However, overuse can lead to increased swelling and tenderness by the end of the day.

If you have had a previous injury to this joint, such as a mallet finger, the arthritis may develop slowly over time. You might not have noticed significant changes at first. But as the cartilage wears down, the bone-on-bone contact causes more inflammation. This can lead to a decrease in your range of motion. You may find it harder to bend or straighten the tip of your finger than before.

In rare cases, you might feel lumps under the skin near the joint. These can be caused by small pieces of cartilage breaking loose. If you notice these lumps, or if the pain becomes constant and severe, it is important to discuss your symptoms with us. We can help determine the best way to manage your discomfort and improve your hand function.

What's actually happening

Your fingertip joint is a small hinge that lets you grip and pinch. Inside, two bones meet at a smooth surface covered in cartilage. Think of this cartilage like a shock absorber or a gasket. It cushions the bones so they slide past each other without grinding. In arthritis, this protective layer wears down. The bones lose their smooth glide. Instead, they rub against each other with every movement.

This wear-and-tear changes how the joint moves. You might notice stiffness or pain when you bend your finger. The joint can also change shape over time. Sometimes the tip bends inward more than usual. This is called a flexion contracture. It happens because the tissues tighten and the joint structure shifts. The deformity often progresses slowly as the arthritis continues.

The tendons that move your finger are attached to the bone near this joint. They act like ropes pulling your fingertip into a fist. When the joint surface is damaged, these ropes can pull unevenly. This imbalance can make the joint feel unstable or weak. In some cases, the bone at the end of the finger may shift slightly out of place. This is known as subluxation. It usually happens if a significant part of the joint surface is injured.

Your surgeon looks at these changes to decide the best path forward. If the pain is severe and limits your daily tasks, fusion may be recommended. This joins the bones together so they no longer move. It stops the grinding pain but removes the joint's flexibility. For some patients, we may suggest a motion-preserving option. This involves removing the rough bone edges to create more space. It aims to keep the joint moving while reducing pain.

We also consider the size of your finger. The bones in some fingers, especially the small finger or in women, are very small. This can limit the types of hardware we can safely use for fusion. We choose methods that fit your specific anatomy. Whether we fuse the joint or preserve motion, our goal is to restore comfort and function. We tailor the plan to your needs, ensuring the solution fits your hand's unique structure.

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 guide you through a clear pathway starting with non-operative care. 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. Our assessment includes a history, examination, and imaging to confirm the diagnosis. For long-standing wear-and-tear arthritis, we usually begin with conservative measures before considering surgery.

You can start by changing how you use your hand to avoid painful positions. Splinting the distal interphalangeal joint (the small joint at the tip of your finger) reduces pain and improves extension. This splinting does not cause stiffness or restrict your movement. Hand therapy aims to keep the rest of your hand strong. Please note that immobilizing this joint reduces your overall grip strength, with the effect being more pronounced in the index finger than the little finger. We advise you to give these measures time to work.

If pain persists, we discuss medical management options. These include pain medication and anti-inflammatories to manage symptoms. We may also offer injections. Cortisone injections can reduce inflammation and pain for a limited time. Hyaluronic acid injections aim to lubricate the joint. Platelet-rich plasma (PRP) injections use your own blood components to support healing. The duration of relief varies by individual and the specific treatment chosen.

Surgery is considered when conservative care has not provided enough improvement. We view this as a shared decision based on your symptoms and goals. Surgical options depend on the severity of your arthritis and whether other joints in the same finger are affected. For severe pain in both the middle and tip joints of one finger, we may recommend treating both simultaneously. The goal is to relieve pain while preserving as much function as possible.

What to expect

Your symptoms will likely persist and may worsen if left untreated. Wear-and-tear arthritis in the joint at the tip of your finger often leads to a progressive change in shape known as a swan neck deformity. This happens because the joint stiffens in a bent position over time. You may also notice a decrease in how far you can straighten your finger. However, this loss of movement usually does not stop you from doing daily tasks or affect your overall satisfaction with your hand's function.

If you choose treatment, the goal is to relieve pain and restore stability. There are several paths we can take. One option is to fuse the joint. This stops motion at the tip but provides strong pain relief. Another option is a motion-preserving procedure that removes bone spurs and nerves to reduce pain while keeping some movement. You might also be a candidate for a silicone spacer, which can provide excellent pain relief and allow for about 30–40 degrees of movement.

Recovery feels different depending on the path chosen. If you have a fusion, your surgeon will discuss the best approach for you. Some techniques involve smaller cuts and fewer major complications. If you have a silicone spacer, the complication rate is low, at 5%. You may need to wear a splint to reduce pain and improve extension. This splinting does not cause stiffness or non-compliance issues.

If you have diabetes, your risk of postoperative complications is higher. Your surgeon's experience with these specific procedures also plays a role in your outcome. If you have arthritis in both the middle and tip joints of the same finger, we often recommend treating both at the same time. This helps achieve better flexibility and healing.

If a previous spacer procedure does not work, we can use custom bone grafting to rebuild the joint. This approach has shown reliable healing and high patient satisfaction. Ultimately, your outlook depends on the severity of your arthritis and the specific technique we choose together. We aim for a hand that is pain-free and functional, allowing you to return to your normal activities.

When to see someone

Ask for a specialist review if you have persistent pain that does not improve with rest. Seek care if you notice weakness or instability in the finger joint. See your GP if the joint locks or gives way during use. Medical attention is important if symptoms interfere with your sleep or daily work. Sudden worsening of pain or swelling also warrants a check-up. Early assessment helps manage conditions like wear-and-tear arthritis or deformities such as a swan neck shape. Your surgeon can determine if imaging is needed to spot issues like joint subluxation or radiological osteoarthritis. Timely evaluation supports better long-term function and comfort for your hand.

In more depth

This section goes further than you need for your own treatment decisions. Arthritis of the fingertip joint is worth the extra reading because fusion – the standard operation, usually described as straightforward – has a higher complication rate than its reputation suggests, and because a motion-preserving alternative exists that is rarely mentioned.

FUSION IS NOT AS UNEVENTFUL AS IT SOUNDS

Fusing the fingertip joint is presented as a reliable operation, and in terms of pain relief it is. The complication profile is less benign. A review of risk factors across **173** patients states it directly: **arthrodesis of the distal interphalangeal joint often leads to complications**, with **osteoarthritis, revision arthrodesis and smoking** identified as risk factors [1].

Smoking appearing on that list is worth acting on, because it is the one factor a patient controls. Bone union depends on blood supply, and this is a small joint with a thin soft-tissue envelope at the end of the finger's blood supply.

THE IMPLANT THAT UNITES BETTER ALSO CAUSES PROBLEMS THE CHEAPER ONES DO NOT

The fixation debate has an unusually clean answer, and it is a trade rather than a winner. Across **1,125** patients, **headless compression screws appear to have increased union rates but are associated with complications not seen with other well-established and cheaper techniques** – and other than union, there is **insufficient evidence to show the screw is superior** [2].

The complications specific to the screw follow from the anatomy. The screw runs down the axis of the fingertip, so it passes close to the nail bed and can produce nail deformity, and in a very small distal phalanx there may be inadequate bone to hold it. Wires are cheaper and avoid those particular problems while uniting slightly less reliably.

Where union alone is the priority – a revision fusion, or a smoker – the screw's advantage is most relevant. Where the bone is small and the nail matters, it is less clearly the right choice.

THE ALTERNATIVE THAT PRESERVES MOVEMENT

Fusion is not the only option, and the alternative is not widely discussed. In patients whose main complaint is the bony lumps and the pain from them rather than the arthritis throughout the joint, the prominent osteophytes can be removed while leaving the joint intact.

Open cheilectomy of the fingertip joint is described as a **safe and effective alternative to arthrodesis in patients with symptomatic osteoarthritis who wish to preserve joint motion**, across **78** patients [3].

This matters because the fingertip joint contributes little to grip strength but a good deal to fine manipulation and to the appearance of the hand. For someone whose symptoms are driven by the Heberden's nodes themselves, trading them for a permanently stiff fingertip is a larger concession than it may sound, and there is a middle option.

THE CYST THAT OFTEN ACCOMPANIES IT

Arthritis at this joint frequently produces a mucous cyst – a small fluid-filled swelling arising from the arthritic joint, usually beside the nail. Because it is driven by the underlying joint, it behaves like the wrist ganglion in that respect: draining it addresses the swelling and not the source. It is covered separately, but the connection is worth knowing, since a recurring cyst is a sign of the arthritis beneath rather than an isolated problem.

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