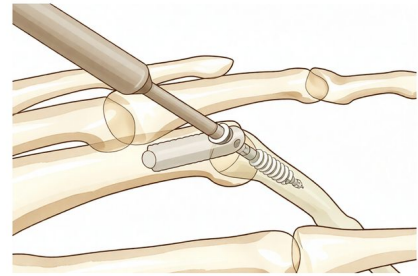


INFORMATION & CONSENT

PIP Joint Fusion

In a PIP joint fusion, a screw locks the middle joint of the finger at a comfortable angle. The bones knit together over six to eight weeks.

Kieran Hirpara © ⓘ ⓘ 4.0



At-a-glance recovery. Pooled from 15 published studies — your own pace will vary.

LIGHT DUTIES desk work, driving, daily tasks	MOST EVERYDAY ACTIVITIES manual work, sport, gym	FINAL OUTCOME PLATEAU pain and strength
4 weeks Published post-operative protocols for this fusion put return to everyday activities at about four weeks, with the finger supported in a splint until then and the neighbouring joints kept moving from the start. This is a recommended protocol rather than a measured return-to-work figure.	8-13 weeks Bony union is the endpoint that governs return to loading, gripping and pinching. Across published fusion series the average time to union is about 8 to 13 weeks, varying with the fixation used.	9-12 months Dr Hirpara's guidance is that the finger reaches its final settled state somewhere between nine and twelve months. The fused joint is permanently stiff by design, so what is still improving after the bone has joined is grip and pinch strength, scar comfort and confidence using the hand.

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. At your appointment we take a history, examine your hand, and arrange imaging if it is needed to work out what is wrong.

This operation is a fusion of the middle joint of your finger. The two bones forming that joint are joined together so they heal as one, and the joint no longer moves. We usually suggest it when the joint is painful, stiff or deformed, and when simpler care such as activity change, physiotherapy or hand therapy, and splinting has

not given you enough improvement. For some injuries or structural problems, surgery may be recommended straight away. The aim is to restore hand function by taking away the pain and holding the joint steady.

Before the operation

In the weeks before surgery we confirm the plan with fresh images of your finger, such as an X-ray, and sometimes an MRI or ultrasound scan. These show the surgeon what the joint looks like and help plan the fusion angle. Most people need nothing more than that. If you have other medical conditions, you may also need blood tests or a review with the anaesthetist, but this is not routine. In the days before your operation we will tell you which of your usual medicines to stop and when. Do not eat or drink for seven hours before surgery; we ask for a little extra time so your slot can be brought forward if the theatre list runs early. Arrange a lift home, as you will not be able to drive yourself. Bring a written list of your current medicines and wear loose, comfortable clothing.

On the day

You arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You will meet the anaesthetist there. This operation is done under general anaesthetic. You will be fully asleep for the operation. Some patients may also have a regional nerve block for post-operative pain relief; the anaesthetist decides on the day based on your individual circumstances. 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 makes a single cut over the middle joint of your finger. Through this cut, the joint is opened up and the worn, damaged surfaces of the two bones are prepared so they can grow together. The bone ends are shaped to fit against each other, and the finger is set at a bent position that lets your hand work well for gripping and pinching.

The bones are then held together while they heal. Your surgeon uses small metal implants, such as wires or screws, to keep the two bones still and in the right position. This holding is what allows the joint to fuse into one solid bone. Once the bones are lined up and fixed, the wound is closed with stitches and covered with a dressing.

The aim of all this is simple: the painful, moving joint is taken away and replaced with a steady, pain-free connection between the two bones. Because the joint no longer moves, the finger will be stiffer than before, but it should no longer catch or hurt with use.

After the operation

Most patients stay one night in hospital after this operation, though some are able to go home the same day. You wake up in the recovery ward, where nurses keep an eye on you while the anaesthetic wears off. Your hand will be dressed and may be supported with a splint, and we will give you pain relief to keep you comfortable. You can get up and move around as soon as you feel steady. Please arrange for someone to stay with you for the first 24 hours. We leave the dressing on for about 10 days; please do not take it off before then unless we tell you to. We change or remove it when we see you.

Recovery

Your finger will be sore and swollen for the first days and weeks. This is normal and settles gradually. Keeping your hand raised on a pillow, even while you sleep, helps bring the swelling down. The pain relief we give you keeps you comfortable while this happens.

You will wear a splint on your finger to protect it while the bones heal. Hand therapy after surgery is with Ruby Doolan at Extend Rehabilitation. Ruby is a hand therapist: she directs your exercises and makes any splint you need. Your therapy will focus on keeping the rest of your hand and fingers moving, so your grip and pinch stay strong while the fused joint settles.

You can do most light daily activities at home straight away, using your other hand to help. Avoid heavy lifting, gripping hard, or anything that puts strain on the healing finger until we clear you. Once the dressing comes off and the wound has healed, you can use your hand more freely for everyday tasks. Driving is not safe while the splint stops you gripping the wheel properly. Once the splint comes off and your surgeon clears you, see our page on [Driving after upper-limb surgery](#).

Recovery varies from person to person. Your timeline may differ, and your surgeon and therapist will guide you at each review.

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.

The main risk with a fusion is that the two bones fail to join. If that happens, the finger may stay painful, and you might feel a click or movement where there should be none. Tell us at your next review if the pain does not settle as expected.

The metal implants holding the bones can also cause trouble. A wire or screw can work loose, break, or press on the skin. You might notice a sharp edge under the skin, or the finger looking out of line. Bring this up at your review so we can check it.

Infection is uncommon but needs fast attention. Watch for a deep, throbbing pain that does not ease with simple painkillers, redness spreading out from the wound, or fluid leaking from it. You may feel hot and

generally unwell. If you see any of these signs, call the clinic straight away. If it is after hours or the redness is spreading quickly, go to the emergency department.

Infection can also reach a finger joint from a cut or puncture wound to the finger, from a nearby skin infection, or through the bloodstream from elsewhere in the body. Signs of infection in a small hand joint often start within days of the injury. See your GP promptly if a finger becomes hot, swollen and painful after a knock or wound, so it can be treated early.

Stiffness and ongoing pain can happen even when the fusion heals well. If your finger stays very stiff or painful after the expected recovery period, we will assess it and discuss what can be done.

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

When to call us

Call us straight away if you have a fever, if the skin around your wound becomes more red or starts leaking fluid, or if you have sudden severe pain that simple painkillers do not settle. Go to the emergency department if you have calf swelling or pain, or shortness of breath, as these can signal a blood clot. Also go to emergency if your fingers go numb, lose colour, or you cannot move them at all. If it is after hours and you are worried, go to emergency rather than waiting for the clinic to open.

Where to read more about the condition

This page is about the operation itself. The condition it treats, including what the evidence shows about when surgery helps and when it does not, is covered in more detail on the [PIP Joint Arthritis](#) page.

PIP Joint Fusion

Complication rates from published literature

Pooled from 15 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
Reoperation	15.0%	62 of 415 proximal interphalangeal joint fusions required a further operation: 39 isolated hardware removals, 9 washouts, 8 amputations, 5 revision fusions and 1 corrective osteotomy.
Nonunion	1.8-10.0%	Failure of the bone to join. In the largest single series the rate was 10% (40 of 415). Pooled by fixation technique the rates are 1.8% for screws, 3.0% for plates and 8.4% for wires, with screw fixation significantly lower than wire. Risk depends far more on the underlying diagnosis than the technique, and smoking, diabetes and inflammatory arthritis increase it.
Cold intolerance	—	Fingers that have had surgery on their small joints often feel the cold more than they did before, and may ache in cold weather. This is a general feature of small-joint hand surgery rather than something specific to this fusion, and it typically eases over the first six to twelve months.
Hardware removal or prominent hardware	0-23%	Wires or screws sitting prominently under the thin skin on the back of the finger can be uncomfortable and are often removed once the bone has joined. Reported rates across series span 0% to 23%, and about 9% of fusions need an operation purely to take the hardware out. Tension-band wire constructs account for most of these; buried headless screws for very few.
Adjacent joint stiffness	5-10%	DIP and MCP joint stiffness from immobilisation; responds to hand therapy.
Hyperextension deformity	7.1%	24 of 339 wire fusions developed hyperextension at a neighbouring joint in the same finger. It is the single most frequently reported complication of wire-fixed fusion.
Delayed union	2.7%	9 of 339 wire fusions took longer than expected to join, needing a longer period of protection before loading.

COMPLICATION	REPORTED RATE	NOTES
Pain	5-10%	Persistent discomfort at the fusion site.
Infection	0-4%	Superficial wound infection occurs in 0% to 3% of fusions and settles with oral antibiotics. Deep infection or bone infection is rarer at 0% to 4% and may need a washout, hardware removal and revision fusion; a washout was required after 2.2% of fusions in the largest series.
Malunion or poor fusion angle	0-4%	The joint joins in a position that does not suit the hand. Reported in 0% to 4% of fusions, around 1% in summary series, and may need revision if it interferes with function.
Amputation	1.9%	8 of 415 fusions ended in amputation of the finger. These were salvage situations, concentrated in severe trauma and in conditions that compromise the soft tissues such as scleroderma.
Wound healing problems	Rare	Dorsal skin necrosis or dehiscence; risk with smoking and diabetes.
Hardware failure or implant breakage	Rare	Implant breakage before fusion is complete.
Recurrent deformity	Rare	Swan-neck or boutonniere may recur if tendon imbalances not addressed.

I have read this information and have had the opportunity to ask Dr Hirpara questions about the procedure, its expected recovery, and the complications listed above.

PATIENT – PRINT NAME

SIGNATURE

DATE