

Phalangeal Fracture Fixation

At-a-glance recovery. Pooled from 120 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
1-3 weeks Protected movement usually starts within the first few weeks, because stiffness is the main risk after a finger fracture. Screws placed inside the bone are used partly so that movement can begin early, and Green's Operative Hand Surgery notes that most phalangeal fractures are stable enough for protected movement by three to four weeks.	8-12 weeks Return to work averaged 9.3 weeks after intramedullary screw fixation of proximal phalanx fractures, and return to full duties or sport averaged 76 days (median 54) in a series of metacarpal and phalangeal fractures. The hard bone of the middle phalanx can take longer to heal than the proximal phalanx.	12 months Finger movement keeps improving for up to a year, and some stiffness can remain. In one series followed for a year, 43% of unstable proximal phalanx fractures fixed with plates or screws still had less than 80% of normal movement.

Why this operation has been suggested

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific injury. Broken finger bones are a common hand injury, and some breaks settle well without an operation. Others are shifted out of place, twisted, angled, or unstable, and these usually need surgery so the bone can heal straight. 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 has been broken.

Because this is an injury, the right treatment depends on the break itself. Some injuries heal without surgery, and others need an operation soon after they happen, so being seen promptly matters. When the bone ends are badly out of place or will not stay lined up on their own, surgery aims to hold the pieces steady while they heal. This lets you start moving your finger early, which can help you regain more finger movement. The goal is a finger that moves, grips, and looks close to the way it did before the injury.

Before the operation

Once your operation is booked, we will give you clear instructions to follow. You will need to stop eating and drinking seven hours before your operation. We ask for seven hours rather than a shorter time so your surgery can be brought forward if the theatre list runs early. Your surgeon will tell you which of your regular medicines to stop and when, so bring a written list of everything you take. Arrange for someone to drive you home afterwards, as you will not be able to drive yourself. Wear loose, comfortable clothing on the day. If you have other medical conditions, you may need blood tests or a review with the anaesthetist before surgery. Most people need neither.

On the day

You will arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You will meet the anaesthetist before your operation. 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. Afterwards, 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

There are two ways your surgeon can do this operation, and the choice depends on your fracture. With a closed approach, the bone is lined up without opening the skin. The repair is then held with fine wires or a screw passed in through small puncture wounds. With an open approach, your surgeon makes a single cut over the broken bone so the pieces can be seen and fitted back together. This is used when the break goes into a joint, breaks into several pieces, or will not line up on its own.

The aim is the same either way: to put the bone back in its normal position and hold it there while it heals. Your surgeon may use one of several ways to hold the bone, chosen to suit the shape and position of the break. Fine wires can be passed across the bone. A small screw can be placed down the inside of the bone, which is called an intramedullary screw, for some shaft and neck fractures. Small screws can be placed across a long oblique or spiral break, where the bone has snapped at an angle or twisted apart. Or a small plate with screws can be used to hold the pieces steady.

If wires are left sticking out through the skin, they are usually removed in the clinic after a few weeks, once the bone is stable. Screws and plates that sit under the skin are usually left in place unless they cause a problem.

The wound is closed with stitches. You will go home with a dressing on your hand, and your surgeon will tell you when it comes off.

After the operation

You will wake up in the recovery area, where nurses watch you as the anaesthetic wears off. Your hand will be in a dressing and a splint made by the hand therapist. If you had a nerve block, your fingers may feel numb or heavy for about 24 hours. This is expected. Once it wears off, call the clinic if you have numbness or cannot move your fingers. Pain relief will be arranged before you go home. Someone should stay with you for the first 24 hours. You may go home the same day or stay one night in hospital after this operation. Both are common, and your team will talk with you about which suits you. 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. Keeping your hand raised on a pillow, even while you sleep, helps the swelling settle. The pain relief you go home with eases the discomfort, and it usually improves steadily as the days pass.

Your hand will be in a splint made by your hand therapist, Ruby Doolan at Extend Rehabilitation, who will also direct your hand therapy. You should not drive while the splint is on, because it stops you gripping the steering wheel safely. Once the splint is off and your surgeon clears you, see our page on [driving after upper-limb surgery](#). Early on, you can manage light daily tasks around the home within what your splint and comfort allow.

Hand therapy starts soon after surgery. Your therapist will show you gentle exercises to keep your fingers moving as the bone heals. Moving early matters, because fingers that stay still while a fracture heals can become stiff, and scar tissue can glue the moving parts of the finger together. Doing your exercises little and often is more useful than one long session.

As the swelling settles and movement returns, you will notice your grip getting stronger. Once you can grip without pain, heavier tasks and sport become possible again, and your therapist will guide the steps up to that point. Recovery varies between people, so your timeline may differ from someone else's. Your surgeon and your hand 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 commonest problem after a broken finger is stiffness. The finger may not bend or straighten as far as it used to, and it can feel tight or slow to warm up in the morning. Doing your hand therapy exercises little and often is the best way to limit this, so tell your therapist if the finger feels stiffer rather than looser week by week.

Infection can happen around the wound or where a wire comes out through the skin. Watch for redness that spreads out from the wound, fluid or pus leaking from it, or fever. Call the clinic the same day if you notice any of these. Pain that keeps getting worse despite your pain medicines also needs a same-day call.

Sometimes the metalwork shifts or fails before the bone has healed. You might feel a clunk, notice the finger looking angled or shortened, or feel pain returning where it had settled. Bring this up at your next review, or call the clinic if it comes on suddenly.

A screw or plate that sits close to a tendon can rub or catch. You may notice clicking, catching, or a grating feeling as the finger moves, or the tendon may not glide smoothly. Mention this at your review so it can be checked.

If a wire works loose, the finger can feel sore at the wire site and the bone may drift out of place. Tell the clinic if a wire looks bent, moves, or the finger changes shape.

Rarely, problems with healing mean the bone does not join. The finger stays painful and tender at the break site long after you expected it to settle. Raise this at your review.

If you cannot reach the clinic out of hours or on a weekend, go to your nearest emergency department.

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

When to call us

Most problems give warning signs you can spot at home. Call the clinic the same day if you have a fever, redness spreading around the wound, or fluid or pus leaking from it. Call us too if pain keeps getting worse despite your pain medicines. Go to the emergency department if your calf becomes swollen or painful, if you become short of breath, or if your fingers turn pale, cold, white, blue or dark. These can be signs of a blood clot or a problem with blood flow to the finger. Once the nerve block has worn off, after about 24 hours, call the clinic if your fingers stay numb or you cannot move them. Numbness in the first 24 hours is expected and is not a worry. If you cannot reach us out of hours or on a weekend, go to your nearest emergency department.

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Complication rates from published literature

Pooled from 120 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
stiffness, the finger not regaining its full movement	43%	32 of 75 unstable proximal phalanx fractures (43%) fixed with plates or screws, and a plate on the back of the bone was the main risk factor. It is the most important long-term problem after these fractures, which is why early movement and hand therapy matter.
the finger not straightening fully at the middle joint	41-68%	In long oblique proximal phalanx fractures, some loss of straightening at the middle joint was found in 41% after wires and 68% after lag screws. Reoperation and overall complication rates did not differ between the two methods.
a further operation	3-21%	Unplanned reoperation among 143 proximal phalanx fractures was 21% (9 patients) after plates, against 4.8% after wires and 2.7% after lag screws. In a meta-analysis a major complication needing another operation followed 17% of plates placed on the back of the bone and 4.2% placed on its side, and 6% of intramedullary screws.
a bent-down middle joint that will not straighten (flexion contracture)	12-15%	15% after wires and 12% after lag screws in long oblique proximal phalanx fractures.
an extra operation to remove wires buried under the skin	17%	Wires buried under the skin after metacarpal and phalangeal fixation needed a return to theatre for removal in 58 of 337 cases (17.2%). Wires left out through the skin are removed in the clinic, with no difference in infection.

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.

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PATIENT – PRINT NAME	SIGNATURE	DATE