

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	8-12 weeks	12 months
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.	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.	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. 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 broken and how it has moved.

A phalangeal fracture is a break in one of the small bones of your fingers. This operation holds the broken pieces in the right position while they heal. We usually suggest it when the bone has shifted out of place, the finger has twisted, or the break is not steady enough to hold itself together. For some fresh injuries we may recommend surgery straight away, without trying other treatments first. The goal is to restore the shape of the bone and let you start moving your finger early. This aims to give you a working, comfortable finger with good movement and a steady repair.

Before the operation

Your surgeon will give you clear instructions on what to do in the days before surgery. You will need to stop eating and drinking for seven hours beforehand. We ask for seven hours rather than six so that your operation can be brought forward if the theatre list runs early. You may also need to pause some of your usual medications, and your surgeon will tell you which ones and for how long. Bring a written list of everything you take, and arrange for someone to drive you home afterwards. Wear loose, comfortable clothing on the day. If you have other medical conditions, you may need blood tests or a review with the anaesthetist, the doctor who gives the anaesthetic. 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, the doctor who gives the anaesthetic. 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 will wake up in the recovery area, where nurses monitor you while the anaesthetic wears off. Once you are stable, you will either go to a ward or go home, depending on the procedure and how you recover.

What the operation involves

There are two ways your surgeon may do this, depending on the shape of your break.

With a closed approach, the bone is lined up without opening the skin. The surgeon uses the skin surface and X-ray images to guide the bone back into place. Fine wires or a screw are then passed in through small puncture wounds to hold it steady. Wires left sticking out through the skin are usually removed in the clinic after a few weeks, once the bone is stable. Screws buried inside the bone are usually left in place unless they cause a problem.

With an open approach, your surgeon makes a single cut over the broken bone. This is used when the break runs into the joint, when the bone has broken into several pieces, or when the pieces will not line up with a closed method. The surgeon can see the fragments directly and fit them back together before holding them with metal. Depending on your fracture, this may be fine wires, a screw placed down the hollow middle of the bone (an intramedullary screw), small screws across a long oblique or spiral break, or a small plate with screws. The choice depends on the shape and position of the break. Buried screws and plates usually stay in place unless they cause a problem.

The wound is closed with stitches. You will go home with a dressing on the finger, and your surgeon will tell you how to care for it.

After the operation

You will wake up in the recovery area, where nurses watch over you while the anaesthetic wears off. Your hand will be supported in a splint made by the hand therapist, and this stays on while the bone heals. 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. Someone should stay with you for the first 24 hours after you get home. Pain relief will be arranged before you leave, and your team will explain how to use it. 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. Keep your hand raised on pillows when resting to help settle swelling. You can move around the house as soon as you feel steady, but you will not drive while the splint is on, because it stops you gripping the wheel safely. Once the splint is off and your surgeon clears you, see our page on [Driving after upper-limb surgery](#).

Recovery

For the first few days your finger will be sore and swollen. This settles gradually. Keeping your hand raised on pillows helps, as does the pain relief your team arranged before you left hospital. The splint made by your hand therapist protects the finger while the bone heals.

Your recovery is guided by Ruby Doolan, our hand therapist at Extend Rehabilitation. She directs your exercises and makes any splint you need. Starting to move your finger early, once your surgeon says it is safe, helps you regain movement. You will do gentle exercises at home and build up as the swelling settles. You can manage light daily tasks around the house within the ranges shown in the table below, but you will not drive while the splint is on, because it stops you gripping the wheel safely. Once the splint is off and your surgeon clears you, see our page on [Driving after upper-limb surgery](#).

As movement returns, you will notice your grip getting stronger. Stiffness in the finger is common after this operation, and your therapist will work with you on it. Heavier tasks, sport and gym work come back later, once the bone is solid and your therapist is happy with your movement and strength.

Everyone heals at their own pace, so your timeline may differ. 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 finger can become stiff after surgery. You might notice it does not bend or straighten as far as it used to, and the joints feel tight when you try. Starting your exercises early, once your surgeon says it is safe, helps you regain movement. Bring any stiffness up with your hand therapist at your next visit, so your exercise plan can be adjusted.

Infection is a risk with any operation. Watch the wound for redness that spreads out from the stitches, swelling that gets worse rather than better, warmth, or a deep, throbbing pain that does not ease with simple painkillers. You might see fluid or pus leaking from the wound, or feel feverish. If you notice any of these, call the clinic straight away. If you cannot reach us and you feel unwell, go to the emergency department.

Sometimes the metal holding the bone irritates the tissues around it. You might feel a sharp edge under the skin, a clicking sensation, or tenderness when the finger presses against something. If this keeps bothering you, the metal can be taken out in a later operation. Mention it at your review and your surgeon will examine the finger.

Wires that pass through the skin need care while they are in place, because the track where the wire enters can become irritated or infected. Keep the area clean and dry, and follow the dressing instructions your team gave you. If the skin around a wire turns red or weeps, call the clinic.

Some hardware sits close to the joints, and metal placed near a joint can limit how far the finger moves. If your finger feels blocked or catches when you bend it, tell your therapist or surgeon so they can assess it.

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

When to call us

Call us if you feel feverish, if the skin around your wound or any wire turns red or weeps, or if pain gets worse instead of better. Go to emergency if you have sudden severe pain, calf swelling, or shortness of breath. Call us straight away if your fingers go numb, change colour, or you cannot move them. These signs need checking quickly. If you cannot reach us and you feel unwell, go to the 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