

Fingertip Repair and Reconstruction

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. A clinic assessment establishes the diagnosis. For acute injuries, we may recommend surgery straight away. For long-standing problems, we usually try non-operative care first and consider surgery when that has not given enough improvement.

We tailor the treatment to your specific injury. Fingertips are vital for hand function, and secondary deformities can cause significant inconvenience. Our goal is to restore a functional and aesthetic fingertip. We aim to preserve finger length, protect sensation, and maintain nail function. Replantation or flap reconstruction offers better functional results than revision amputation for suitable injuries. We discuss the best approach with you to ensure you regain the use of your hand.

Before the operation

Please fast for seven hours before your procedure so we can start early if needed. Bring a list of your current medications and wear comfortable clothing. Arrange a lift home, as you cannot drive yourself. Your surgeon will advise which medicines to stop. Imaging such as X-rays may be needed to plan the repair. Blood tests and an anaesthetic review are not routine for everyone. You will only need these if you have other medical conditions or specific concerns.

On the day

You will present to the hospital's surgical admissions unit. Here, you are checked in and prepared for theatre. You meet the anaesthetist to discuss your care. This operation is done under general anaesthetic. A regional nerve block is sometimes added for post-operative pain relief – the anaesthetist will discuss this with you on the day.

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 begins by assessing the exact nature of your injury to decide on the best approach. The decision-making process moves from simpler techniques to more complicated ones. For small or moderate wounds without exposed bone, the open method is often ideal. Larger wounds may require a skin graft. If bone is exposed, your surgeon may use local tissue advancement to preserve length, or a regional flap for more complex injuries. In some cases, shortening the finger and closing the skin directly is the most suitable option.

When replantation is possible, your surgeon reattaches the severed fingertip. This is technically demanding and requires a longer recovery time than simple revision amputation, but it offers better functional results. If replantation is not feasible, your surgeon may use various flaps to cover the defect. For injuries with exposed bone, a parallelogram flap is often preferred over other options. Medium-sized defects can be repaired using triangular advancement flaps or digital artery perforator flaps. For extensive thumb injuries, tissue from the index finger may be used to provide durable coverage.

Your surgeon aims to restore the shape of your nail and the length of your finger to improve cosmetic appearance. Techniques such as using artificial dermis combined with toe skin grafts can restore nail appearance without damaging the toenail. Cross-finger flaps or reversed flow flaps from adjacent fingers may also be used to restore sensation and cover large defects. Meticulous management of these structures generally leads to a functional and aesthetically pleasing result.

After the operation

You will wake up in the recovery ward with your hand dressed and elevated. We manage your pain with standard medication. Your team will tell you whether you go home the same day or stay one night in hospital. Keep the dressing clean and dry. Do not move your fingers until we advise it is safe. Someone should stay with you for the first 24 hours to help you. We monitor your healing closely to ensure the best possible result.

Recovery

Your hand will likely feel swollen and sore for the first few days. This is normal. Keeping your hand elevated above your heart helps reduce the swelling. You may need to rest your hand more than usual while the initial discomfort settles.

You will wear a protective dressing or splint to keep the area stable. We advise keeping it dry and clean. Avoid using the injured finger for gripping or lifting heavy items until your surgeon gives you the clear signal. Simple tasks like typing or eating may feel awkward at first. Be patient with your dexterity as sensation and strength return.

Rehabilitation is led by hand therapy, not general physiotherapy. You will work with Ruby Doolan at Extend Rehabilitation. Ruby is a hand therapist who directs your exercises and creates any splints you need. She guides you through gentle movements to restore flexibility and protect the repair. Your progress depends on how your body heals, so your timeline may differ. Your surgeon and hand therapist will adjust your plan based on your specific recovery needs.

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.

Infection is a risk with any surgery. You might notice increasing redness, warmth, or swelling around the fingertip. The area may feel tender or throb. You could see pus or notice a bad smell. If you see these signs, contact the clinic right away. Early treatment helps prevent the problem from spreading.

Your surgeon will discuss the best approach for your injury. Replanting a severed fingertip is more complex than a simple revision amputation. It also takes longer to heal. You should expect a longer recovery period if replantation is chosen. This means more time with dressings and careful movement restrictions.

Some patients worry about the nail growing back incorrectly. The outcome measures for these injuries vary. Some focus only on wound healing. Others look at long-term function or nail shape. You might notice the nail growing in a curved or thickened way. This can happen even if the wound heals well. Discuss these potential changes with your surgeon before the procedure.

Antibiotics are sometimes given to prevent infection. However, the rate of infection is very low. There is little difference in outcomes with or without them. Your surgeon will decide if you need them based on your specific case. They will explain their reasoning clearly.

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

When to call us

Call us if you notice fever, increasing redness, or discharge from your wound. Seek urgent care for sudden severe pain, loss of sensation, or inability to move your finger. Go to emergency immediately if you experience calf swelling or shortness of breath. These signs need prompt assessment to protect your recovery and overall health.