

Pronator and AIN Release

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. We recommend this procedure when conservative care has not provided enough relief. For pronator syndrome, we consider surgery if symptoms persist for more than 6 months. For anterior interosseous nerve syndrome, we look for a minimum of 12 months with no motor improvement.

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. We usually try non-operative care first, such as rest and anti-inflammatory medication. Conservative management helps 50–70% of patients with pronator syndrome. Surgery is appropriate when these measures fail. The operation aims to relieve pressure on the median nerve in your forearm. This can reduce pain and restore hand function. Pronator teres symptoms disappeared in 93% of cases following decompression.

Before the operation

Please fast for seven hours before your procedure. This allows your surgery to start early if the list runs ahead. Arrange a lift home, as you cannot drive yourself. Wear comfortable clothing and bring a list of your current medications. We may request imaging like X-rays, MRI, or ultrasound to plan the release. Blood tests and an anaesthetic review are not routine. If you have other medical conditions, you may need these checks. Otherwise, your surgeon will guide you on stopping specific medications. Please follow their exact instructions regarding any drugs you take.

On the day

You present to the hospital's surgical admissions unit, where you are checked in and prepared for theatre. This operation is usually done under general anaesthetic, sometimes with a regional nerve block added for post-operative pain relief – the anaesthetist will discuss this with you on the day. An isolated lacertus release may instead be done under local anaesthetic while you are awake. 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 will release the pressure on the median nerve or the anterior interosseous nerve in your forearm. This nerve runs through tight tunnels of tissue that can sometimes squeeze it, causing pain or weakness. The goal is to create more space so the nerve can move freely again.

The release is done through a small incision on the front of the elbow or forearm, placed over the structures that are compressing the nerve. Often this includes releasing the lacertus fibrosus, a band of tough tissue at the elbow crease. When the lacertus band is the only structure involved, the release can sometimes be done through a short incision under local anaesthetic while you are awake, which allows the strength of the affected muscles to be checked immediately – Dr Hirpara will discuss which approach fits your situation. If a persistent median artery is present and causing the problem, we may remove a small segment of it.

For anterior interosseous nerve syndrome, we also use minimally invasive decompression. We carefully dissect along the side of the nerve to protect it while we clear away any compressing structures. In chronic cases where scar tissue is thick, we may take a more direct approach to ensure the nerve is fully freed.

Once the pressure is relieved, we close the small cuts with sutures (stitches). The procedure is typically done as an ambulatory surgery, meaning you can go home the same day. We aim to keep the operation safe and efficient, allowing you to start your recovery quickly.

After the operation

You will wake up in the recovery ward. We manage your pain with standard medication. Your arm will be dressed and may be supported in a soft sling or bandage. We advise that someone stays with you for the first 24 hours to help you. Your team will tell you whether you go home the same day or stay one night in hospital. You can usually move your fingers gently soon after surgery. This helps reduce swelling and stiffness. We will give you specific instructions on how to care for your wound and when to remove dressings. Please follow our advice closely to support your healing.

Recovery

You may notice swelling and stiffness in your forearm and hand for the first few weeks. This is a normal part of healing. We keep the area elevated when you are resting to help reduce swelling. You might feel some soreness, which usually eases with simple pain relief. Your surgeon will advise you on what is safe for you.

We use a minimally invasive approach to release the pressure on your nerves. This means less damage to the surrounding tissue compared to older, more invasive techniques. Because the surgery is gentle, many patients

start seeing improvements in thumb and finger movement very soon after the operation. You will begin gentle hand therapy to restore motion. Your hand therapist, Ruby Doolan at Extend Rehabilitation, will guide you through these exercises and make any splint you need.

As the swelling settles, you will gradually return to using your hand for daily tasks. You might start with light activities like holding a cup or turning a doorknob. Avoid heavy lifting or forceful gripping until your surgeon clears you. Once you can grip without pain and have full control of your hand, you can resume more demanding activities. Your timeline may differ; your surgeon and hand therapist will guide you based on how you heal.

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.

Sometimes the surgery does not fully relieve your symptoms. This usually happens if the nerve was not completely freed or if the original diagnosis was not quite right. You might notice that the tingling, numbness, or weakness in your hand and forearm does not improve, or it gets worse instead of better. If you feel that your symptoms are persisting or returning, please bring this up at your next review appointment so we can discuss what might be happening.

Most people in modern, well-selected series do well – roughly six to nine in ten report a good result. Satisfaction is noticeably lower when symptoms have been present for years before the release, because a nerve that has been compressed for a long time recovers less completely. If you feel the operation has not given you the relief you hoped for, talk to us openly – sometimes a second site of compression or another diagnosis needs to be considered.

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

When to call us

Call us if you notice increasing wound redness, discharge, or fever. Seek urgent care for sudden severe pain, calf swelling, or shortness of breath. Contact your surgeon immediately if you experience loss of sensation or inability to move your limb. These signs require prompt assessment to ensure your recovery stays on track.