

Elbow Arthroplasty

After an elbow replacement, therapy helps you regain movement. The new joint replaces the damaged joint surfaces.

Kieran Hirpara © ⓘ ⓘ 4.0



At-a-glance recovery. Pooled from 80 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
2-6 weeks Return to light activities and desk work typically occurs within 2 to 6 weeks, with early mobilization encouraged.	3-6 months Return to moderate-demand activities is common by 3 to 6 months, with significant functional improvement in range of motion.	12 months Maximum improvement in pain, strength, and range of motion is typically achieved by 12 months postoperatively.

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 elbow, and arrange imaging such as X-rays or scans if they are needed. For long-standing elbow problems we usually try non-operative care first: changing how you use your arm, hand therapy, splinting, and injections. Surgery is considered when those measures have not given you enough improvement.

Elbow replacement means the worn surfaces of your elbow joint are removed and replaced with artificial parts. It is usually offered when pain is felt through the whole movement of the elbow rather than only at the ends, or when the joint has become unstable or badly damaged by wear-and-tear arthritis, rheumatoid arthritis, or an old injury. The main goal is relief of pain, with better movement and use of your arm. We will discuss the benefits and the risks with you, and the decision to go ahead is one you make together with us.

Before the operation

Once your operation is booked, we will give you clear instructions to follow in the days before. You will need to stop eating and drinking seven hours before your operation, so we ask for a little longer than some hospitals in case your theatre time moves earlier. Bring a list of all your current medications, and we will tell you which ones to pause and when. Arrange for someone to drive you home afterwards, and wear loose, comfortable clothing with sleeves that slide over your elbow easily. Imaging such as X-rays or scans may be arranged beforehand to help plan the operation. If you have other medical conditions, you may also need blood tests or a review with the anaesthetist, the doctor who gives your anaesthetic. Most people need neither.

On the day

On the day of your operation, you come to the hospital's surgical admissions unit. There you are checked in and prepared for theatre. You will meet the anaesthetist, the doctor who gives your 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. When it is finished, you wake up in the recovery area. Nurses there 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

Dr Hirpara performs elbow replacement through a single cut at the back of your elbow. Through this opening, your surgeon removes the worn-out joint surfaces and prepares the bone to take the new parts. The replacement used here is the Nexel total elbow. One stemmed part is cemented into the upper arm bone and another into one of the forearm bones. The two parts are joined in the middle by a hinge, so they stay connected as your elbow bends and straightens. The moving surfaces are lined with a hard-wearing plastic bearing. Because the two halves are linked, the new elbow does not depend on your own ligaments to hold it steady.

If only one side of your joint is worn, the alternative is a humeral hemiarthroplasty. This replaces just the worn end of the upper arm bone and leaves the rest of your own joint in place. We will explain which option suits your elbow before you decide.

At the end of the operation, the tissues are closed in layers and the skin edges are brought together. A fine self-adhesive mesh is laid over the closed wound first, holding the skin edges together. A liquid skin adhesive is then painted over the mesh, where it sets to seal the whole thing. This forms one closure rather than glue with a separate dressing on top. It stays on for roughly one to two weeks and then lifts and peels away by itself, so there is nothing to be taken out.

You will wake up in the recovery area with a dressing over the elbow, which we ask you to keep on for about 10 days.

After the operation

Most patients stay one night in hospital after this operation, though some are able to go home the same day. You will wake up in the recovery area, then move to the ward. Nurses will check on you regularly and give you medicine to keep you comfortable. Your arm will rest in a simple sling for comfort, which comes off for exercises and washing. 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. You will be encouraged to move around and do your usual daily tasks within your limits. Please arrange for someone to stay with you for the first 24 hours.

Recovery

For the first few days your elbow will be swollen and tender, and this is normal. Rest, keeping your hand raised when you can, and the pain medicine we give you will ease it. The swelling settles gradually over the following weeks.

Your arm rests in a simple sling for comfort, which comes off for exercises and washing. You will be encouraged to do your usual daily tasks within your limits from early on. Hand therapy after surgery is with Ruby Doolan at Extend Rehabilitation. Ruby directs your exercises and makes any splint you need, including a night splint to keep your elbow straight while you sleep if that helps. You will not be able to lift heavy things for a while, and we will give you a weight limit to follow. If the tendon at the back of your elbow was moved during the operation, you will also need to avoid straightening your arm against resistance for a time.

Once the wound has sealed, you start gentle bending and straightening movements. As movement returns, everyday tasks like eating and dressing become easier. Most people get back to desk work and light daily tasks in the ranges shown in the table above, and heavier work, sport and the gym take longer. Once your surgeon clears you, typically at the six-week review, you can drive again; see our page on [driving after upper-limb surgery](#).

Everyone heals at their own pace, so your timeline may differ. We will see you regularly to check your progress, and your surgeon and therapist will guide you at each step.

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 the complication we watch for most closely after an elbow replacement. It can show as a deep, throbbing pain that does not ease with simple painkillers, redness that spreads out from the wound, or fluid or pus leaking from it. You may also feel feverish. Call the clinic the same day if you notice any of these signs. Infection around a new elbow joint can be hard to clear, so acting early matters. Treatment may mean a course of antibiotics through a drip, a washout of the joint, or in some cases further surgery to replace the parts.

The artificial parts can also work loose from the bone over time, or the plastic bearing can wear. You might notice a new clicking or grinding feeling, pain that returns after a good stretch, or a sense that the elbow is less steady than it was. If this happens, bring it up at your next review. Imaging will show whether the parts need attention.

Sometimes the bone around the new joint can crack. This usually causes sudden pain and swelling in the arm after a stumble or knock. Call the clinic if this happens.

The nerves that run past the elbow can be irritated during surgery. You may feel tingling, numbness, or pins and needles in the little and ring fingers, or weakness in the hand. Numbness and weakness in the first 24 hours after a nerve block are expected. Once the block has worn off, call the clinic if you have numbness, or cannot move your arm, hand or fingers.

A wound can occasionally break down or heal slowly, and the tendon at the back of the elbow can become weak or stiff. If the elbow will not bend or straighten as expected during recovery, we will assess it at your review.

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

When to call us

Most problems after an elbow replacement are picked up early, and we would rather hear from you than have you worry at home.

Call the clinic the same day if you have a fever, spreading redness around the wound, or fluid or pus leaking from it. Call us the same day too if your pain keeps getting worse despite your pain medicines.

Go to the emergency department if you have swelling or pain in your calf, or shortness of breath or chest pain. These can be signs of a blood clot. Go also if your fingers or hand turn pale, cold, white, blue or dark, as this can mean a problem with blood flow.

Numbness and weakness in the first 24 hours after a nerve block are expected. Once the block has worn off, call the clinic if you have numbness, or cannot move your arm, hand or fingers.

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

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 [Elbow Osteoarthritis](#) page.

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Complication rates from published literature

Pooled from 80 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
revision surgery	13.1-14.6%	Revision rates are reported between 13.1% and 14.6% in long-term follow-up studies.
aseptic loosening	9.5-12.9%	Aseptic loosening is the most common indication for revision, particularly in the humeral component.
ulnar nerve symptoms	3.6-10.5%	Ulnar neuropathy or paresthesias are common, occurring in 3.6% to 10.5% of cases.
infection (deep)	3.3-7.0%	Deep infection rates range from 3.3% to 7%, with higher rates reported in some cohorts.
periprosthetic fracture	2.6-6.8%	Periprosthetic fractures occur in 2.6% to 6.8% of cases, often involving the humerus or ulna.
instability	2.3-9.0%	Instability or dislocation is more common in unlinked designs, ranging from 2.3% to 9%.
triceps insufficiency	2.3-5.7%	Triceps weakness or rupture occurs in 2.3% to 5.7% of cases, particularly with triceps-off approaches.
heterotopic ossification	2.1-10.0%	Heterotopic ossification occurs in 2.1% to 10% of cases, with symptomatic rates around 3%.
wound complications	1.3-14.5%	Wound healing issues range from 1.3% to 14.5%, with higher rates in obese patients.
stiffness	0.9-29.3%	Stiffness requiring intervention ranges from 0.9% to 29.3%, with higher rates in arthroscopic debridement comparisons.
thromboembolism	0.26-2.2%	Venous thromboembolism rates are low, ranging from 0.26% to 2.2%.

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