

Elbow Arthroscopy

At-a-glance recovery. Pooled from 112 published studies — your own pace will vary.

LIGHT DUTIES	MOST EVERYDAY ACTIVITIES	FINAL OUTCOME PLATEAU
desk work, driving, daily tasks	manual work, sport, gym	pain and strength
—	—	—

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 scans where they are needed. For long-standing problems we usually try non-operative care first, such as activity change, physiotherapy or hand therapy, splinting, and injections. Surgery comes into the conversation when those steps have not given you enough improvement.

Elbow arthroscopy is keyhole surgery. The surgeon works inside the joint through small cuts, using a thin camera to see the whole elbow clearly. We suggest it when there is a clear problem inside the joint that can be treated this way, such as loose pieces of bone or cartilage that catch and lock, a stiff elbow, or damage after an injury. It is not suited to every elbow problem, so we only offer it when it fits your diagnosis. The aim is less pain, freer movement, and a steadier elbow in daily life.

Before the operation

In the weeks before surgery we confirm the plan with scans. Most people have already had an X-ray, which is the basic picture of the bones. Some also need an MRI scan, which shows the soft tissues such as ligaments, tendons and cartilage, or an ultrasound. If you have other medical conditions, you may need blood tests or a review with the anaesthetist, the doctor who gives your anaesthetic. Most people need neither.

On the day, stop eating and drinking seven hours beforehand. We ask for seven hours so we can bring your operation forward if the theatre list runs early. Your surgeon will tell you which of your usual medicines to skip. Bring a written list of everything you take. Arrange for someone to drive you home afterwards, and wear loose, comfortable clothing with sleeves that slide over the elbow easily.

On the day

You arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You then meet the anaesthetist, the doctor who gives your anaesthetic. 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. Afterwards you wake up in the recovery area, where nurses watch over you while the anaesthetic wears off. Once you are stable, you either move to a ward or go home the same day, depending on the procedure and how your recovery is going.

What the operation involves

Elbow arthroscopy is keyhole surgery. Your surgeon makes two or three small cuts around the elbow, each about a centimetre long. One cut holds a thin camera, and the others let small instruments reach the joint. Before the instruments go in, about 25 to 30 mL of fluid is placed inside the joint. This fluid opens up a working space so the camera can see clearly. The cuts are placed away from the main nerves and blood vessels that run past the elbow, and your surgeon maps out the bony landmarks on your skin first to place each cut safely.

What happens inside depends on your diagnosis. Loose pieces of bone or cartilage that catch and lock can be removed. If the elbow is stiff, tight tissue around the joint can be released to free up movement. Damaged cartilage can be smoothed, and in some cases a small piece of bone or cartilage can be fixed back in place with absorbable pins that dissolve over time. Because the camera gives a clear view of the whole joint, your surgeon can also treat problems that were not visible on the scans.

The small cuts are closed with stitches and covered with a dressing. The operation is done through keyhole cuts rather than one long opening, so there is less disturbance to the soft tissues around the elbow than with open surgery.

After the operation

You wake up in the recovery ward, where nurses keep an eye on you while the anaesthetic wears off. Your arm will be in a sling or a simple dressing, and you can move around as soon as you feel steady. Pain relief is planned before you leave theatre, so tell the nurses if your elbow is sore and they can adjust it. Someone should stay with you for the first 24 hours after you get home. Your team will tell you whether you go home the same day or stay one night in hospital. 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

For the first few days your elbow will be sore and swollen. This settles gradually. Rest, keeping your hand raised when you can, and the pain relief prescribed for you all help. Many people find the discomfort is at its worst early on and eases steadily as the swelling goes down.

You will go home with your arm in a sling or a simple dressing. You can use your hand for light tasks as soon as it feels comfortable, such as eating, typing or doing up buttons. Hand therapy after surgery is with Ruby Doolan at Extend Rehabilitation. Ruby is a hand therapist: she will guide your exercises and make any splint you need. The exercises keep your elbow and wrist moving while everything heals, and they matter as much as the operation itself. Follow them as directed and tell your therapist if a movement causes sharp pain.

Everyday activities come back in stages. Once the swelling settles, you will notice your grip feels stronger and reaching becomes easier. When your surgeon is happy with how the elbow is moving and healing, you will be cleared to drive; our guide to [driving after upper-limb surgery](#) explains the rules that apply, including not driving while your arm is in a sling and being off strong pain medication. Work and sport resume when you can manage them without pain, and your surgeon or therapist will tell you when that point has arrived.

Recovery varies from person to person. Your timeline may differ, and your surgeon and hand therapist will guide you along the way.

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.

Nerve irritation is the problem seen most often. You might notice tingling, pins and needles, numbness, or a patch of skin that feels different. This is usually temporary and settles on its own. Tell your surgeon at the next review if it appears.

Infection can develop in the days after surgery. Watch for a deep, throbbing pain that does not ease with simple painkillers, redness spreading out from the wound, or fluid leaking through the dressing. If you see any of these, call the clinic straight away. A deep infection needs prompt treatment.

Some things make infection more likely. If you have diabetes, if you smoke, or if you carry extra weight, your risk is higher. A steroid injection into the joint, either shortly before surgery or at the end of the operation, also raises the risk. Your surgeon will weigh all of this with you beforehand.

Rarely, a nerve injury can be permanent. This is uncommon, but when it happens the effects last a lifetime. Your surgeon will discuss this risk with you before you consent to surgery.

Sometimes bone forms where it should not, inside or around the joint. This is called heterotopic ossification. You might feel a firm lump near the elbow, or notice the joint not bending or straightening as far as it did. Mention it at your review so it can be checked.

Other problems are uncommon but known. The camera or an instrument can touch and scuff the smooth surface of the joint. A small channel of fluid can form from the joint out to the skin. An instrument can break inside the joint. The cuff used during surgery can press on the arm and briefly irritate the skin beneath it.

If you feel unwell in the days after surgery, or something about your elbow does not seem right, call the clinic rather than waiting for your next appointment. The complications table on this page lists typical rates if you want the specifics.

When to call us

Most problems show up early, and we would rather hear about them the same day than have you wait. Call us if your elbow becomes hot, more swollen or more painful, if redness spreads from the wound, or if fluid leaks through the dressing. Call us if you feel feverish, if tingling or numbness gets worse instead of easing, or if you cannot move your hand or fingers as you could before. Go to a hospital emergency department if you have sudden severe pain, new swelling in your calf, or shortness of breath. These can signal a blood clot, and they need checking straight away. If something simply does not feel right, call us.

In more depth

This section goes further than you need for your own treatment decisions. Elbow arthroscopy is worth the extra reading because the published complication rate for it is not one number but a range so wide it looks like an error, and understanding why explains most of what matters about the operation.

THE SAME OPERATION, TWO VERY DIFFERENT ANSWERS

A systematic review pooling **16,815** elbow arthroscopies reported a median complication rate of **3%**, with a range across studies of **0% to 71%** [1]. Reoperation followed the same pattern: median **2%**, range **0% to 59%** [1]. A separate meta-analysis of **14,289** procedures concluded, reasonably, that elbow arthroscopy is a relatively safe operation with low complication rates [2].

Both are correct. The reconciliation is in the first review's own finding: higher complication rates occur after more complex surgery [1]. "Elbow arthroscopy" is not one operation. Removing a loose body from a capacious joint and releasing a contracted capsule millimetres from the ulnar and radial nerves share a name and an instrument, and almost nothing else. A quoted risk figure is close to meaningless unless it is attached to the specific procedure being done.

WHY THE ELBOW IS NOT THE KNEE

The elbow has the tightest relationship between joint and nerve of any joint routinely scoped. The ulnar, radial and median nerves all lie within millimetres of standard portal sites, and the working space is small, smaller still in exactly the stiff, contracted elbows that most need the operation. That anatomy is why transient nerve symptoms dominate the complication tables, and why the risk climbs with the extent of the release rather than with the time taken.

CQ HAND + UPPER LIMB

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WHERE ARTHROSCOPIC TECHNIQUE HAS BEEN COMPARED WITH OPEN

For **arthritic** elbows, a systematic review of **1,097** patients found good mid-term function after debridement arthroplasty, with no increase in complications using an arthroscopic technique compared with open [3]. That is a genuine equivalence result rather than a demonstration of superiority.

For **tennis elbow**, a review of **1,604** patients comparing open, arthroscopic and percutaneous release found that open and arthroscopic releases may give better function than percutaneous, while pain was lower with the arthroscopic and percutaneous approaches. The risk of complications was similar regardless of technique [4].

The pattern across both: arthroscopy is not safer or more effective in itself. Where it wins, it wins on the recovery around the operation, not on the result of it.

AN HONEST NEGATIVE

Adding arthroscopy to another operation “to have a look” does not pay off. In a meta-analysis of **2,118** patients, routine diagnostic arthroscopy performed before ulnar collateral ligament reconstruction did **not** significantly reduce later surgery for other valgus extension overload problems [5]. Looking is not the same as finding something worth treating, and each additional portal carries the nerve risk described above.

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Elbow Arthroscopy

Complication rates from published literature

Pooled from 112 published studies. These are population-level rates, not your individual risk — your surgeon will discuss what applies to you.

COMPLICATION	REPORTED RATE	NOTES
overall complication rate	11.0%	Weighted rate from a meta-analysis of 14,289 procedures; systematic reviews report a median of 3% with a wide range of 0-71%.
nerve injury	3.4%	Weighted rate from meta-analysis; transient nerve palsies are the most common specific complication, accounting for ~31% of all reported complications in systematic reviews.
ulnar nerve injury	2.6%	The most commonly injured nerve in elbow arthroscopy, with a weighted rate of 2.6% in meta-analysis data.
stiffness/arthrofibrosis	4.5%	Weighted rate from meta-analysis; identified as the most common complication affecting elbow motion.
revision surgery	4.1%	Weighted rate for need for subsequent surgical procedure; systematic reviews report a median reoperation rate of 2%.
infection (superficial)	2.0%	Weighted rate for superficial wound infection; 30-day data from a large cohort shows a 0.9% surgical site infection rate.
infection (deep)	0.7%	Weighted rate for deep wound infection; deep infection was the most common complication in one 30-day postoperative profile (0.57%).
heterotopic ossification	6.3%	Prevalence rate in a retrospective cohort; usually located on the medial compartment of the elbow.
thromboembolism	0.4%	Rate of DVT/thrombophlebitis in a 30-day cohort; pulmonary embolism is a rare but potentially serious complication.
wound healing complications	1.5%	Weighted rate for drainage or dehiscence; includes persistent portal site leakage and superficial cellulitis.

COMPLICATION	REPORTED RATE	NOTES
elbow instability	2.6%	Weighted rate from meta-analysis; rare but reported as a complication affecting joint stability.
permanent nerve injury	0.8%	Rate of permanent nerve palsies in a systematic review; rare but significant with lifelong consequences.

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